Preliminary Feasibility Study Technical Report
San Bartolomé Mine Bolivia

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Report Prepared for

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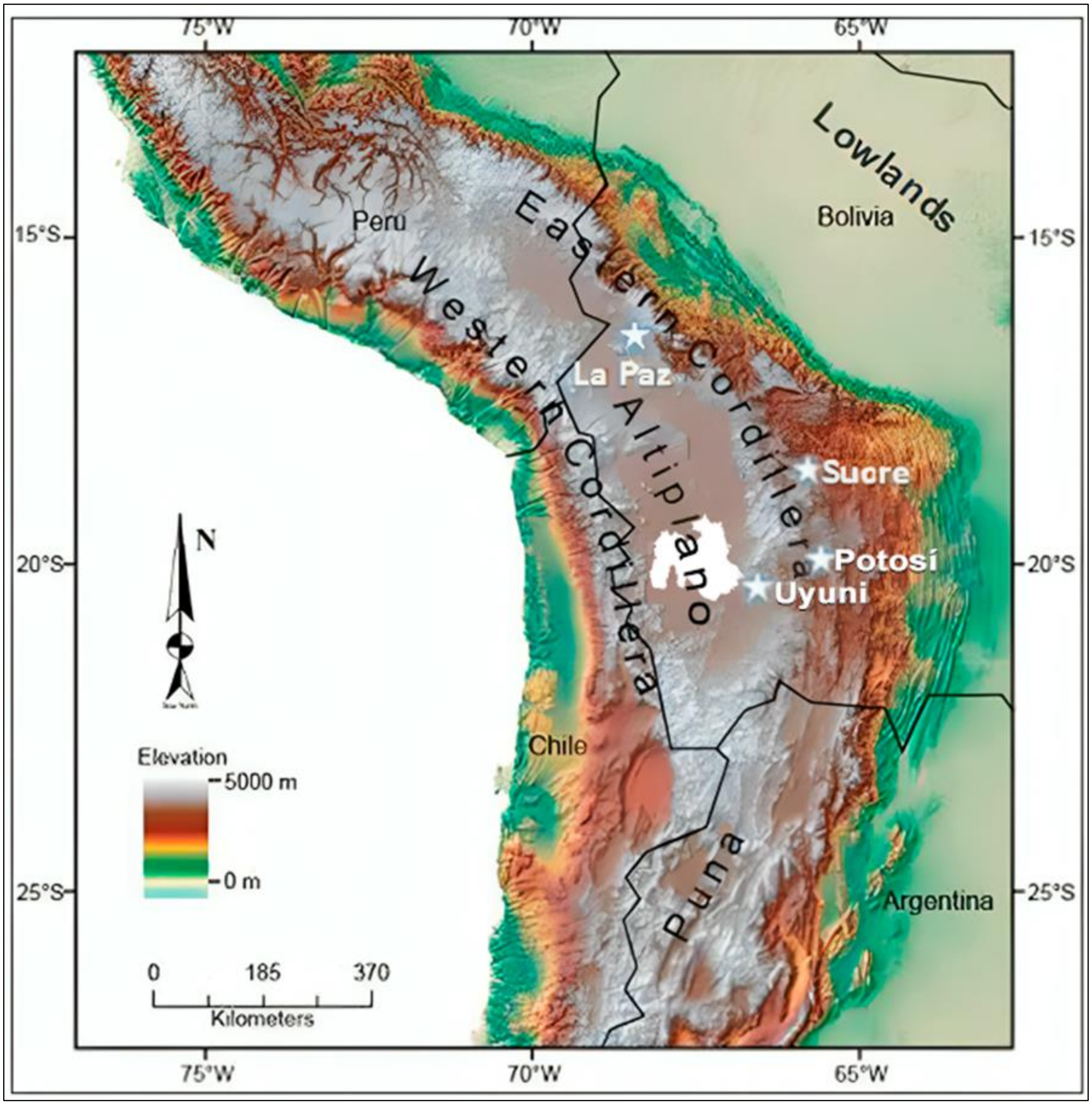
1 Summary

This report was prepared as a Canadian National Instrument 43-101 (NI 43-101) Technical Report (TR) on Mineral Resource and Reserve Estimates for Andean Precious Metals Corp. (Andean) by SRK Consulting (U.S.), Inc. (SRK) on the San Bartolomé Fines Disposal Facility (FDF) tailings and contracted material from near-by deposits. Andean's subsidiary, Empresa Minera Manquiri S.A. (EMMSA or Manquiri) operates the San Bartolomé Mine and oxide processing facility, the only oxide silver (Ag) processing facility in Bolivia.

1.1 Property Location, Description, and Ownership

Andean's Bolivian mining interests are in the Altiplano of south-southwest Bolivia in the Department of Potosí (Figure 1-1). The nearest major city is Potosí, the Capitol city of the Department. Access to Potosí is by road or air to Sucre from either La Paz or Santa Cruz de la Sierra, then by paved road.

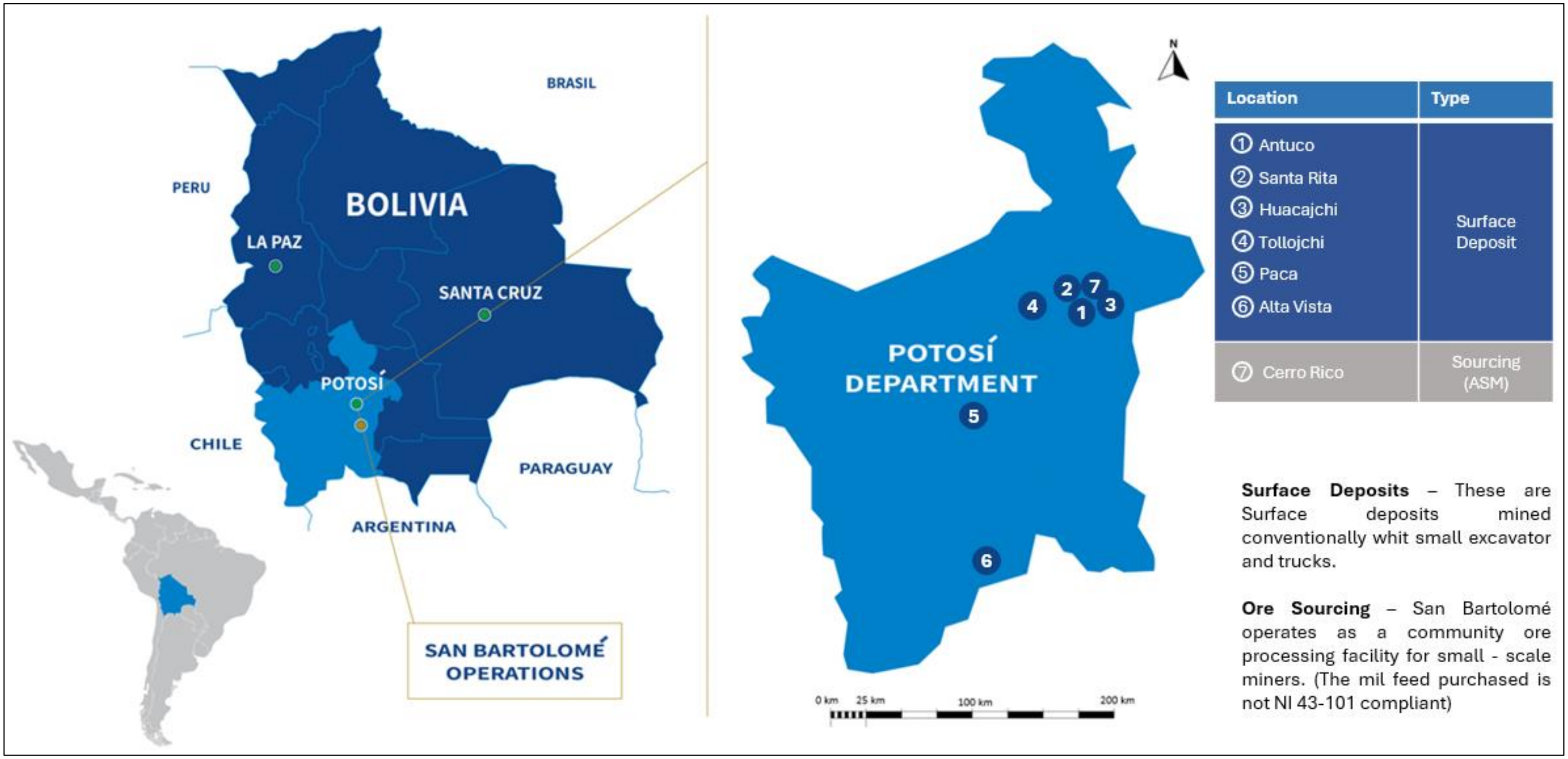


Source: APM, 2024

Figure 1-1: General Location Map of Bolivia

The San Bartolomé ore processing and tailings facilities are located to the south of the city of Potosí, Bolivia, flanking the historic mining areas at Cerro Rico. The San Bartolomé operation is a centralized processing facility for the re-processing of the FDF tailings and silver and tin-rich materials transported from a small number of sources as shown in Figure 1-2. There are no activities associated with the internal high sulfidation, pallaco-hosted mineralization of Cerro Rico.

All Manquiri's mining rights and mineral resources and mineral reserves, cited in this Technical Report, are controlled under current legal contracts as defined in Section 4.



Source: APM, 2024

Figure 1-2: Location of San Bartolomé (Potosí) and Contracted Material Sources

1.2 History

Manquiri, the Bolivian subsidiary of Andean Precious Metals, has a substantial history of silver exploration, development and production in Bolivia, commencing in 2008 at San Bartolomé and extending through the effective date of this technical report. Other than a short hiatus imposed by the novel coronavirus pandemic, production has been continuous since 2008. In years 2015 through 2017, Manquiri, under its prior corporate ownership, processed oxidized silver bearing material purchased from external mining sources as disclosed in Section 6. This purchased material amounted to the following totals from 2015 through 2017:

- Tonnes (t): 0.479 million tonnes (Mt)
- Average silver grade: 235 grams/tonne (g/t)
- Contained silver troy ounces (oz): 3.642 million (M)

Since the 2018 acquisition by Ag-Mining Investments AB (Ag-Mining), Manquiri has supplemented its production feed to the San Bartolomé mill from other purchased materials prior to the effective date of this technical report, some of which contained significant amounts of gold (Section 6).

Since acquisition by Ag-Mining of Manquiri, through the effective date of this technical report, San Bartolomé's production tonnage from purchased materials ranged from 17.2 percent (%) to 32.6% of annual, past production (Section 6, Table 6-6).

1.3 Geology and Mineralization

The silver-bearing mineral deposits discussed in this Technical Report are alluvial and colluvial, unconsolidated sediments (the pallacos flanking Cerro Rico), high sulfidation deposits (Tollojchi) and intermediate sulfidation deposits (Alta Vista and Paca). The pallacos also contain tin. Cerro Rico is a prominent +4,700 meter (m) elevation mountain, located due south of the city of Potosí.

1.3.1 San Bartolomé

The mineral deposits at Cerro Rico are the source of the San Bartolomé pallacos and were formed by erosion and downslope accumulation of the in situ high sulfidation, epithermal deposits at Cerro Rico, composed of veins, stockworks, hydrothermal breccias and irregular bodies, hosted in a very altered resurgent dome of dacitic- to rhyodacitic-composition porphyritic intrusion emplaced in Middle Miocene time (approx. 14 mya). These deposits consist of an unsorted mixture of cobbles and boulders in a sandy clay matrix, accumulated down slope by colluvial and alluvial processes, filling depressions, gullies and low-gradient areas. The deposits have been grouped into three areas named Antuco, Huacajchi and Santa Rita. As of the Effective Date of this Technical Report, the pallacos had been nearly depleted.

1.3.2 Alta Vista

Mineralization at Alta Vista is hosted in epithermal veins of intermediate sulfidation character. Alta Vista mineral resources and mineral reserves cited herein are located in oxidized portions of the deposit. Aside from variable amounts of manganese, the Alta Vista oxides are largely silver-bearing. Mineralization is controlled by multiple, epithermal veins with the main, Veta Rica vein, supplying all the material processed to date from Alta Vista transported to the San Bartolomé plant. Gangue mineralization at Alta Vista consists largely of quartz and Fe-Mn oxides with lesser amounts of alunite and other alteration minerals.

1.3.3 Tollojchi

Silver mineralization in Tollojchi is hosted in veins, breccias and disseminated zones and is strongly associated with the presence of several NE-SW trending lithocaps. Tollojchi mineralization is high sulfidation in character, with pyrophyllite and vuggy silica present, typical of this geologic environment (Sillitoe, 1998).

The main areas that provide oxidized material to San Bartolomé are Mantos, Rosario and Platera, which reach up to900 m of longitudinal continuity, and at least 200 m at depth and form the basis for the mineral resources and reserves cited in this technical report.

1.3.4 Paca

Paca mineralization is intermediate sulfidation in character, occurring as disseminations, and consists in oxidized and sulfidic material, hosted within igneous and sedimentary rocks. In conglomerate, mineralization is mainly in matrix, which was replaced by barite-tetrahedrite; in andesite, minerals observed are disseminated and cavity fillings. The contact between both units is the main control of mineralization. On surface, Ag contents are dominant, while base metals increase at depth.

1.4 Status of Exploration, Development, and Operations

1.4.1 Development and Operations

Manquiri has developed and produced from pallacos at San Bartolomé from commencement of commercial production in 2008 until September 2023. These silver-bearing gravels did not require pre-stripping or process capital to achieve the production profile presented herein.

The San Bartolomé area has been extensively explored since the late 1900's and more recently by ASARCO followed by Coeur Mining Inc. (Coeur) and Andean via Manquiri. As of September 2023, COMIBOL has and will not renew pallaco concessions due to decree by the Bolivian government to preserve the shape and form of the historic Cerro Potosí. During 2023, pallaco mineralization was largely depleted.

1.4.2 FDF

FDF is an impoundment of fine (-2.4-millimeter (mm), 8 mesh#) material that has been screened out of the pallacos at the plant crusher station and then stored since the operation started.

The material in the FDF has been explored primarily through barge-supported sonic drilling. Extensive drilling has been implemented to characterize the geochemical and geotechnical characteristics of the FDF. Deposition of fines to the FDF was finalized in 2023, and no additional material has been added after December 2023. No additional exploration activities are planned for the FDF in 2024.

1.4.3 Contracted Material (Tollojchi, Altavista and Paca)

Manquiri has made and sampled trenches and performed underground rock sampling at Alta Vista, Tollojchi and Pacca. In Altavista, this work included 595 rock samples from 8 trenches and 88 rock samples from underground workings. In Tollojchi, 439 rock samples from surface and 953 underground samples were collected. In Paca, Manquiri completed re-logging of the existing core, collecting 715 core samples as part of the validation process, 293 rock sampling from 4 trenches, and 125 samples from underground workings. New sampling and drilling programs are being designed by Manquiri for completion in 2024.

1.5 Mineral Ore Processing and Metallurgical Testing

Andean Precious Metals (APM) owns and operates the San Bartolomé oxide mill at Potosi, Bolivia at an elevation of about 4,100 meters above sea level (masl). APM's subsidiary, Empresa Minera Manquiri SA (Manquiri) operates the San Bartolomé mill. Prior to operations commencing in 2008, it was noted that the silver grade in the pallacos deposits could be upgraded by screening out the -8 mesh (-2.36 mm) material. This was accomplished with a separate crushing and wet scrubbing and screening circuit to remove the fine fraction and upgrade the feed to the cyanidation circuit. These fines are currently stored in the FDF which is estimated to contain about 10 Mt of fines at an average grade of about 50 g/t Ag. The material contained in the FDF is considered to be a potential economic resource which has been assessed by a barge-supported Sonic drilling campaign. APM has conducted metallurgical testwork at their onsite metallurgical laboratory, SGS Lakefield and Bradken Linings to assess the potential of processing material contained in the FDF through the current San Bartolomé cyanidation plant.

1.5.1 APM Amenability Cyanide Leach Tests on Unscreened Fines from the FDF

APM conducted amenability cyanide leach tests on representative unscreened samples from each of the 82 drillholes from the FDF, which had been ground to 100% -200 mesh (74 microns (µm)). The objective was to confirm the maximum silver extraction that could be obtained under very aggressive leach conditions that included grinding to 100% passing 74 µm and leaching at a cyanide concentration of 23,000 ppm NaCN. The drillholes sample silver grades ranged from 34.6 g/t to 66.7 g/t Ag, averaging 51.1 g/t Ag. Silver extractions ranged from 67.8 to 82.2% and averaged 76.0%. Cyanide consumption averaged 1.3 kg/t NaCN and lime consumption averaged 3.78 kg/t.

1.5.2 APM Cyanide Leach Tests on Screened + 140 mesh Fraction from the FDF

APM blended sub-samples from each of the 82 drillholes to prepare a test composite representative of the entire FDF. The composite was then screened at 140 mesh and the +140 mesh fraction was used to conduct a series of cyanide leach tests to evaluate silver extraction versus grind size. Grind sizes ranging from 66 - 84% passing 200 mesh (74 µm) were evaluated using the following test conditions with a portion of the cyanide being added during grinding:

- Slurry % solids: 40%
- Cyanide concentration: 2,200 ppm NaCN
- Grind sizes: 66, 76 and 84 % passing 200 mesh
- Oxygen injection: Dissolved oxygen maintained at 19 – 28 mg/L
- Retention time: 72 hours
- pH: 11.5 (with lime)

Silver extraction increased from 69.4 – 78.4% as the grind size became finer. Sodium cyanide consumption ranged from 1.38 to 1.58 kg/t and lime consumption was 3.2 g/t. Based on the results of the grind size test work, duplicate confirmatory cyanidation tests were conducted at a target grind of

80% passing 200 mesh (74 µm) using the previously established test conditions. The results of these duplicate tests are summarized in Table 1-1, where silver extraction of 77.6% was reported for Test A and 78.9% for Test B after 72 hours of leaching. Cyanide consumption was reported at 1.4 kg/t and lime consumption was reported at 3.8 kg/t. Oxygen consumption during each test was 0.45 kg/t.

Table 1-1: Summary of Duplicate Cyanidation Tests at P_{80} 74 µm Grind Size

Test	Grind %-200 mesh	Head Grade Ag, g/t	Tail Grade Ag, g/t	Ag Extr. %	Reagent Cons. (kg/t)		
					NaCN	Lime	Oxygen
A	81.8	57.62	12.92	77.6	1.43	3.8	0.45
B	80.6	57.27	12.11	78.9	1.41	3.9	0.45
Average	81.2	57.4	12.5	78.2	1.4	3.9	0.45

Source: APM, 2023

1.5.3 Bradken Linings Leach Test Work

Bradken Linings (Linings) conducted a series of cyanidation tests on a composite prepared from six separate FDF samples provided by APM. Cyanidation tests were conducted on the unscreened test composite as well as +140 mesh and -140 mesh screen fractions of the composite. The unscreened sample composite contained 49.2 g/t Ag, the +140 mesh fraction contained 57.7 g/t Ag and the -140 mesh fraction contained 48.1 g/t Ag.

Cyanidation tests were conducted on the unscreened test composite at grind sizes of 75%, 80% and 85% -200 mesh without oxygen injection under the following test conditions:

- Slurry density: 35% solids
- Grind size: P_{75}, P_{80} and P_{85} 200 mesh (74 µm)
- Cyanide Conc. (grinding): 1.5 g/L NaCN
- Cyanide Conc. (leaching): 2.0 g/L NaCN
- pH: 11 -12 (maintained with lime)
- Leach retention time: 72 hours

Silver extraction increased from 44.0% to 48.8% as the grind size became finer. Cyanide consumption ranged from 1.8 to 2.1 kg/t and lime consumption ranged from 4.2 to 4.6 kg/t. It is noted that dissolved oxygen was not monitored during this test series.

Cyanidation tests were conducted on the +140 mesh screen fraction at grind sizes of 75%, 80% and 85% -200 mesh under established test conditions, but with oxygen injection, which resulted in dissolved oxygen concentrations of 20 – 25 mg/L throughout each test. The results of these tests are summarized in Table 1-2, where it is shown that silver extractions increased from 69.8% to 75.6% as the grind size became finer. Cyanide consumption ranged from 1.8 to 2.1 kg/t as the grind became finer and lime consumption ranged from 4.2 to 4.6 kg/t.

Table 1-2: Summary of Leach Tests on the +140 mesh FDF Fraction

Grind (% - 74 µm)	Calc. Head (Ag, g/t)	Extr. % (Ag)	Diss O^2 (mg/L)	Reagent Cons. (kg/t)	
				NaCN	Lime
75	58.2	69.8	20-25	1.80	4.23
80	58.7	73.9	20-25	2.11	4.38
85	58.5	75.6	20-25	2.14	4.64

Source: Linings, 2023

1.5.4 SGS Cyanide Leach Test Work

Cyanide leach tests were conducted by SGS Lakefield (SGS) on five composites prepared from selected drillholes from the FDF. The cyanidation tests were conducted on unscreened test composites that had been ground to approximately P_{80} 110 µm. Each test was conducted with an initial cyanide concentration of 2 g/L, which was allowed to attenuate throughout the 48 hour test and with oxygen injection to maintain dissolved oxygen levels at 15 to 25 mg/L. Silver extractions ranging from 42.6% to 50.4%. Cyanide consumption ranged from 0.4 to 1.0 kg/t NaCN and lime consumption ranged from 4.2 to 5.5 kg/t. The leach extractions were significantly lower than reported by APM and Linings for leach tests conducted on the +140 mesh FDF fraction. Possible reasons for the lower silver extraction reported by SGS include:

- The leach tests were conducted on a coarser grind size (P80 ~110 µm versus P80 74 µm).
- Cyanide was not added during grinding as it had during tests conducted by both Linings and APM.
- Cyanide concentrate was allowed to attenuate throughout the test.
- Cyanide consumption was significantly lower than for tests conducted by Lining and APM.

1.5.5 SRK Comments

- The cyanide leach tests conducted by APM and Linings on the + 140 mesh composite size fraction are considered to be the most relevant, as these tests were conducted under conditions that replicate current plant practice, including oxygen injection. It is difficult to compare the reported results from Linings on the unscreened FDF composite and the -140-mesh composite fraction as their tests were not conducted with oxygen injection.
- It is recommended that additional test work be conducted on unscreened FDF samples and on FDF samples screened at -140 mesh with oxygen injection to confirm whether higher silver extractions can be obtained by maintaining higher dissolved oxygens levels in the slurry during leaching.
- The leach tests conducted by SGS showed lower silver extractions than APM or Linings on the +140-mesh size fraction. It is noted, however, that these tests were conducted at a much coarser grind (P_{80} 110 µm) and did not include cyanide addition during grinding and maintained oxygen injection only for the first 24 hours of each leach test.

1.6 Mineral Resource Estimate

1.6.1 Pallacos Area

The pallacos mineral resource estimate is not presented in this report as Manquiri completed the mining of these areas in 2023.

1.6.2 FDF

San Bartolomé mine processed the pallacos oxidized deposits formed from erosion of the worldclass Cerro Rico hydrothermal deposit (high sulfidation-type) since its commissioning in 2008. The San Bartolomé processing plant screened out fine-grained material of less than 2.5 mm in size (-8 mesh), effectively upgrading the silver content of material. This untreated material contained silver and was stockpiled in the FDF at San Bartolomé. The tails material was sampled for silver content before being stockpiled and based on that historical sampling data, the Company previously estimated the silver grade to be between 35 and 40 g/t.

The FDF has been drilled extensively utilizing Sonic core drilling methods from a barge-mounted platform. Personnel from Empresa Minera Manquiri SA (“Manquiri”), the wholly owned, Bolivian subsidiary of Andean, logged and sampled the drill core and submitted the samples to ALS Global’s (“ALS”) sample preparation and analytical facilities in Oruro, Bolivia and Lima, Peru, respectively. ALS is a certified commercial analytical services company.

SRK completed an analysis of the raw exploration data, analysis of outliers and defined capping levels where necessary and composited the samples to a 2 m, consistent vertical length. Variogram analysis was completed to define the block size, search strategy used in the estimation. Silver grade estimates were made from the composited data into the block model, with a dimension of 20 m x 20 m x 5 m using ordinary kriging, inverse distance, and nearest neighbor methods, as appropriate. A bulk density of 1.52 g/cm3 was assigned to the block material. FDF mineral resources were categorized by SRK in a manner consistent with CIM Guidelines and considered spacing of drilling, numbers of composites, and geostatistical indicators of estimation quality as well as other factors.

According to the testwork completed for the material of the FDF, the material passing the mesh #140 is discarded. The material coarser than Mesh #140 (+ mesh #140) continues to the process. The percentage of material + mesh #140 and the Ag grade of it were calculated for each block in the estimated model based on the results of the granulometric analysis completed by Manquiri.

1.6.3 Contracted Material

Since 2015, Manquiri has supplemented its plant feed from pallacos with material purchased from COMIBOL, the Bolivian state mining company, and from other, non-governmental sources.

Manquiri has performed drilling and rock sampling in the areas that are sources of contracted material.

Manquiri and SRK completed the geological model and the resource estimation for the oxidized material in the three areas of Tollojchi (Platera, Manto and Rosario), Altavista and Paca; and included the partially oxidized (transition) material in Paca. SRK completed an analysis of the raw exploration data for each project including the analysis of outliers in each zone of the projects, defining capping levels where necessary and composited the samples to a 2.5 m in Paca and no compositing was applied to samples in Tollojchi and Altavista. Variogram analysis was completed to define the block size, search strategy used in the estimation. Ag grade estimates were made from the composited data into the block model for each domain where necessary. Parent block dimensions used are: 20 m x 20 m x 10 m in Paca, 10 m x 10 m x 10 m in Manto, 5 m x 5 m x 5 m in Rosario and Platera, and 10 m x 10 m x 10 m in Altavista.The estimation methods included ordinary kriging, inverse distance, and nearest neighbor methods, as appropriate. The bulk density was assigned according to the geological domains in each area.

1.6.4 Compiled Mineral Resource Statement

Mineral resources have been compiled into the statement below (Table 1-3) from the various areas as noted above.

Table 1-3: Compiled Mineral Resources – San Bartolomé Mine

Material Source	Area	Category	Tonnes [1] (000's)	Ave. Silver Grade (g/t)	Contained Silver (Moz)
San Bartolomé Tailings	FDF [2]	Measured	-	-	-
		Indicated	3,813	56	6.90
		M+I	3,813	56	6.90
		Inferred	92	52	0.15
Tollojchi Area - Contracted	Manto [3]	Measured	-	-	-
		Indicated	773	127	3.15
		M+I	773	127	3.15
		Inferred	35	131	0.15
	Platera [3]	Measured	-	-	-
		Indicated	636	160	3.28
		M+I	636	160	3.28
		Inferred	445	145	2.07
	Rosario [3]	Measured	-	-	-
		Indicated	183	148	0.87
		M+I	183	148	0.87
		Inferred	115	136	0.50
Other Areas - Contracted	Alta Vista [4]	Measured	-	-	-
		Indicated	34	354	0.39
		M+I	34	354	0.39
		Inferred	55	371	0.66
	Paca [5]	Measured	-	-	-
		Indicated	666	223	4.78
		M+I	666	223	4.78
		Inferred	223	230	1.65
Owner + Contracted	Totals	Measured	-	-	-
		Indicated	6,105	98	19.37
		M+I	6,105	98	19.37
		Inferred	965	167	5.18

Source: SRK, 2023

[1] Mineral resources are effective as of December 1, 2023, and inclusive of mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. There is no certainty that all or any part of those mineral resources will be converted into mineral reserves estimate. Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, any apparent errors are insignificant. Silver assays were capped where appropriate. Given the historical production and knowledge of the projects, it is the Company's opinion that all the silver grades included in the calculations have a reasonable potential to be recovered and sold.

[2] The following assumptions are considered for the FDF mineral resources:

- Assumed silver price of US$25/oz and metallurgical recovery of 78%.
- Mineral resources are reported at an in-situ cut-off of 47 g/t Ag, grade of material above mesh #14. This cut-off considers, on a per tonne basis: mining cost: US$1.42/t; processing costs: US$17.89/t; general & administrative and indirect costs: US$6.1/t; capital: US$0.63/t; refining, shipping, and laboratory costs: US$0.65/t. Other costs considered are the COMIBOL (Corporación Minera de Bolivia) royalty of 4% and the silver Bolivian royalty of 6%.
- 100% mining recovery.

[3] The following assumptions are considered for the mineral resources deriving Manto, Platera and Rosario:

- The mineral resources are reported at an in-situ cut-off of 64.3 g/t Ag.
- Mineral resources are reported within a constraining pit shell. Assumed silver price of US$25/oz; assumed metallurgical silver recovery: 80%; mining and transport: US$6.49/t; process costs: US$22.98/t; G&A and other indirect costs: US$3.67/t; administrative costs: US$2.74/t; capital expenditures: US$2.65/t. Other costs are the COMIBOL (Corporación Minera de Bolivia) royalty of 4%, the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
- Material from Manto, Platera and Rosario transportation costs of US$18.50/t has been applied to the economic analysis. SRK is using an incremental cut-off to define if the material is considered as mineral resources.
- 100% mining recovery.

[4] The following assumptions are considered for the mineral resources deriving from Alta Vista:

- The mineral resources are reported at an in-situ cut-off of 247 g/t Ag, considering underground mining methods.
- Assumed silver price of US$25/oz; Assumed metallurgical silver recovery: 70%; transport: US$29.58/t; mining: US$63,8/t; process costs: US$24.69/t; G&A and other indirect costs: US$3.8/t; administrative costs: US$4.57/t; capital expenditures: US$0.41/t. Other costs are the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
- 100% mining recovery.

[5] The following assumptions are considered for the mineral resources deriving from Paca:

- The mineral resources are reported at an in-situ cut-off of 172 g/t Ag.
- Oxidized and transitional (partially oxidized) materials are reported.
- The mineral resources are reported within a constraining pit shell. Assumed silver price of US$25/oz; assumed metallurgical silver recovery: 80%; mining and haulage costs: US$30.86/t; transport: US$18.0/t; process costs: US$20.29/t; ore purchase costs: US$11.90/t. refining, shipping, and laboratory costs: US$0.45/oz Ag. Other costs are the COMIBOL (Corporación Minera de Bolivia) royalty of 4%, the silver Bolivian royalty of 6%.
- 100% mining recovery.

1.7 Mineral Reserve Estimation

SRK developed a life-of-mine (LoM) plan for the San Bartolome operation in support of mineral reserves, shown in Table 1-4. Conversion of measured and indicated mineral resources into reserves was based on US$26/oz silver price. Open pit reserves are based on detailed pit designs that were guided by pit optimization. Underground reserves are based on 10 m vertical mining blocks above cut-off grade. Appropriate modifying factors for each of the mineral deposits have been applied and are further discussed in the reserve table notes. The positive economics of the mineral reserves have been confirmed by LoM production scheduling and cash flow modeling as discussed in sections 16.4 and 22 of this report, respectively.

Table 1-4: Updated Mineral Reserves - San Bartolomé Mine as of December 1, 2023 [1]

Material Source	Area	Ag Cut-off (g/t)	Category	Ore (Mt)	Ag (g/t)	Contained Ag (Moz)	Recovered Ag (Moz)
San Bartolomé Tails	FDF [2]	50	Proven	-	-	-	-
			Probable	3.27	58	6.09	4.75
			P+P	3.27	58	6.09	4.75
Tollojchi Area Contracted	Manto [3]	70	Proven	-	-	-	-
			Probable	0.76	126	3.07	2.46
			P+P	0.76	126	3.07	2.46
	Platera [3]	70	Proven	-	-	-	-
			Probable	0.58	157	2.92	2.34
			P+P	0.58	157	2.92	2.34
	Rosario [3]	70	Proven	-	-	-	-
			Probable	0.18	143	0.81	0.65
			P+P	0.18	143	0.81	0.65
Other Areas Contracted	Alta Vista [4]	250	Proven	-	-	-	-
			Probable	0.03	357	0.39	0.27
			P+P	0.03	357	0.39	0.27
	Paca [5]	180	Proven	-	-	-	-
			Probable	0.26	228	1.91	1.53
			P+P	0.26	228	1.91	1.53
Owner + Contracted	**Totals**	**Variable**	**Proven**	**-**	**-**	**-**	**-**
			Probable	**5.08**	**93**	**15.19**	**11.95**
			P+P	**5.08**	**93**	**15.19**	**11.95**

Source: SRK, 2023
- The costs used in the cash flow have minor differences when compared to costs used in the cut-off grade calculation, however, these are not considered material.
- Waste tonnes within pit is 12.2 Mt at a strip ratio of 1.26:1 (waste to in situ RoM ore).
- Open pit reserves are diluted (further to dilution inherent in the resource model and assumes selective mining unit of 2.5 m x 2.5 m x 2.5 m).
- Open pit reserves assume complete mine recovery.
- Metallurgical recoveries are 80% except for FDF at 78% and Alta Vista at 70%.
- Mining type is all open pit except for FDF tailings reprocessing and Alta Vista underground.

[1] Mineral reserves are effective as of December 1, 2023, and inclusive of mineral reserves. Mineral reserves tonnage and contained metal have been rounded to reflect the accuracy of the estimate. Any apparent errors are insignificant. Given the historical production and knowledge of the projects, it is the company's opinion that all the silver grades included in the calculations have a reasonable potential to be recovered and sold.

[2] The following assumptions are considered for the FDF mineral reserves:
Assumed silver price of US$23/oz. Metallurgical recovery is estimated to be in the range of 76% to 78%. Assume metallurgical recovery of 78%.
Mineral reserves are reported at an in-situ cut-off of 50 g/t Ag, grade of material above mesh #14, has been used for reporting the mineral reserves at the FDF. This cut-off considers, on a per tonne basis, US$1.42 mining cost, US$17.89 processing costs, US$6.1 G&A and indirect costs, US$0.63 capital, US$0.65 refining, shipping, and laboratory costs. Other costs considered are the COMIBOL royalty of 4% and the silver Bolivian royalty of 6%.
100% mining recovery and dilution of approximately 5%.

[3] The following assumptions are considered for the mineral reserves deriving Manto, Platera, and Rosario:
The mineral reserves are reported at an in-situ cut-off of 70 g/t Ag.
The mineral reserves are reported within a constraining pit shell. Assumed silver price of US$23/oz; assumed metallurgical silver recovery: 80%; mining and transport: US$6.49/t; process costs: US$22.98/t; G&A and other indirect costs: US$3.67/t. Other costs considered included smelting; administrative costs: US$2.74; capital expenditures: US$2.65/t. Other costs are the COMIBOL royalty of 4%, the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
100% mining recovery and dilution of approximately 5%.

[4] The following assumptions are considered for the mineral reserves deriving from Alta Vista:
The mineral reserves are reported at an in-situ cut-off of 250 g/t Ag, considering underground mining methods.
Oxidized and transitional (partially oxidized) materials are reported.
Assumed silver price of US$23/oz; assumed metallurgical silver recovery: 70%; transport: US$29.58/t; mining: US$63,8/t; process costs: US$24.69/t; G&A and other indirect costs: US$3.80/t; administrative costs: US$4.57/t; capital expenditures: US$0.41/t. Other costs are the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
100% mining recovery and dilution of approximately 20%.

[5] The following assumptions are considered for the mineral reserves deriving from Paca:
The mineral reserves are reported at an in-situ cut-off of 180 g/t Ag.
Oxidized and transitional (partially oxidized) materials are reported.
Mineral reserves are reported within a constrained pit shell. Assumed silver price of US$23/oz; assumed metallurgical silver recovery: 80%; ore purchase, mining and haulage costs: US$60.80/t; process costs: US$20.29/t; refining, shipping, and laboratory costs: US$0.45/oz Ag. Other costs are the COMIBOL royalty of 4%, the silver Bolivian royalty of 6%.
100% mining recovery and dilution of approximately 5%.
Mining plan assumes use of Paca instead of other contracted material.

* The mineral reserve estimate for the project was calculated by Fernando P. Rodrigues, BSc, MBA MMSAQP #01405QP of SRK Consulting (U.S.) Inc. in accordance with the Canadian Securities Administrators NI 43-101 and generally accepted CIM Guidelines.

1.8 Mining Methods

San Bartolomé mined the pallaco alluvial deposits from the slopes of Cerro Rico and sent the untreated mineralized fines to the FDF tailings to raise the silver grade going into the plant.

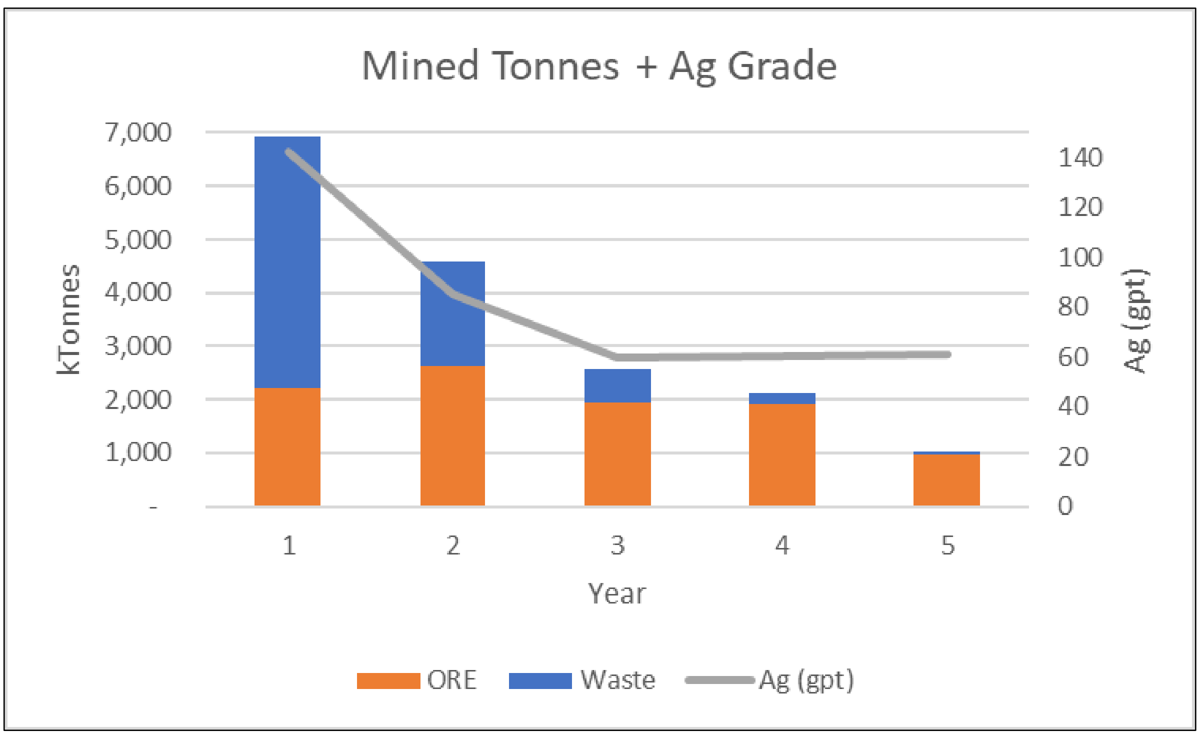
These tailings were found to be of economic grade and will be reprocessed hydraulically using submersible pumps on a dredging pontoon that will pump the mineralized portion back to the plant.

The dredging pontoon will have three submersible pumps (one on stand-by) that work at a depth of 1.8 m and create a slurry of up to 45% solids. The operation dredging will start on the north end of the FDF close to the classification/thickening infrastructure. The planned capacity of the two pumps on the pontoon is 6,600 tonnes per day (t/d), and the system is projected to have an availability of 85%. FDF material mined is screened before processing. This results in an average mass yield of 41.6%. Tonnes in the reserve statement reflect this yield.

San Bartolomé will also continue to add third-party contracted oxide ores from near-by mines into the plant, primarily from the Tollojchi, Paca, and Alta Vista deposits.

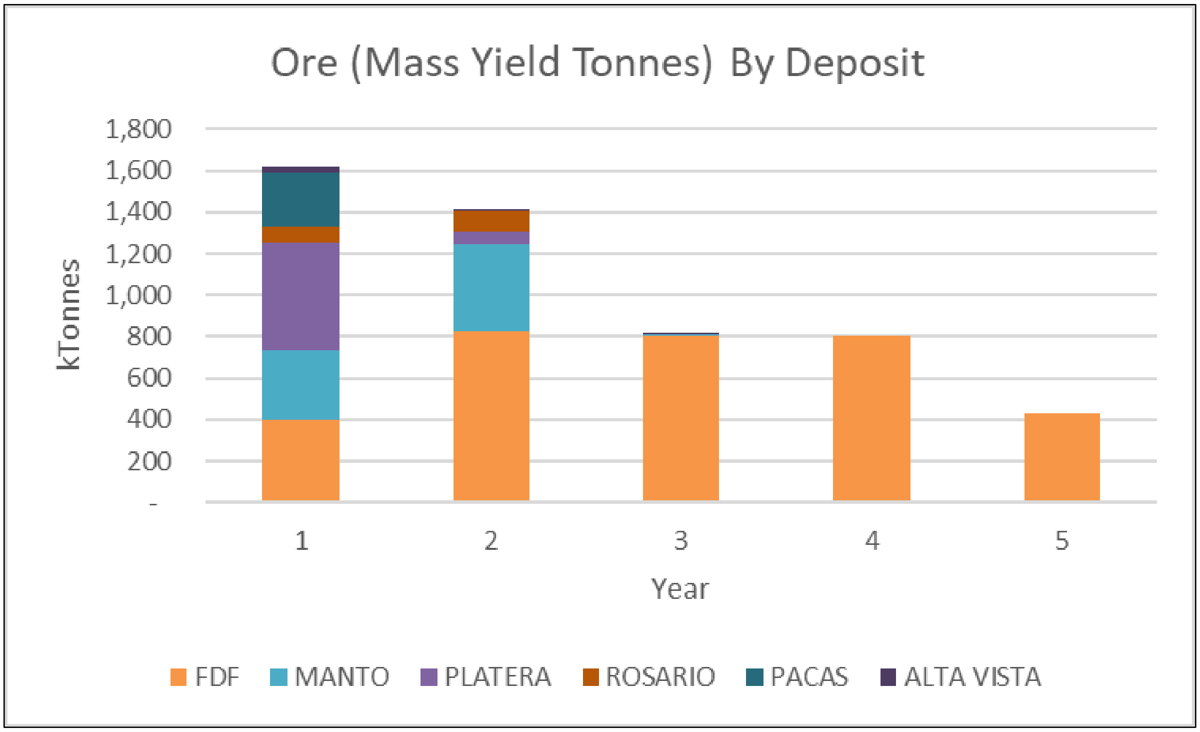
SRK ran pit optimizations to guide the pit design process for the contracted deposits. Given Alta Vista’s low tonnage and high grades, it was scheduled as an underground mine.

The ore delivery schedule by deposit is shown in Figure 1-3 (tonnes mined before screening) and Figure 1-4 (tonnes milled after screening). Mill feed is sourced from multiple contractors and FDF for two years before only processing FDF material.



Source: SRK, 2023

Figure 1-3: Mined Tonnes and Ore Ag Grade by Period



Source: SRK, 2023

Figure 1-4: Milled Tonnes by Deposit by Period

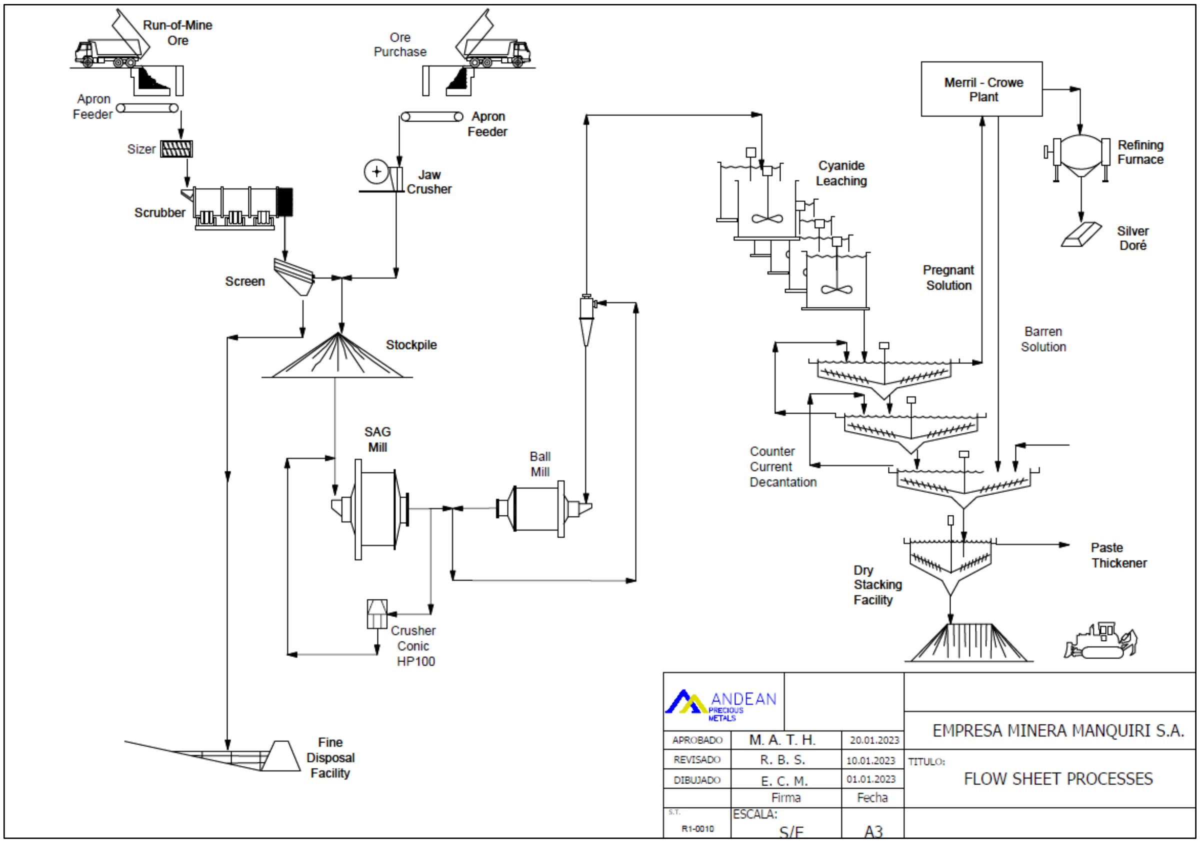
1.9 Recovery Methods

Silver is currently recovered from ore processed in the San Bartolomé process plant and potentially from silver recovered from the FDF.

1.9.1 San Bartolomé Process Plant

APM processes both run-of-mine (RoM) ore and purchased ore at its San Bartolomé process plant. RoM ore is crushed and screened at 8 mesh (2.36 mm). The + 8 mesh fraction is processed through a conventional Merrill Crowe cyanidation plant at about 4,800 t/d and the -8 mesh fraction is pumped to the FDF where the -8 mesh fraction has been stored since inception of operations in 2008. APM now plans to process the fine ore stored in the FDF.

The San Bartolomé process plant was originally constructed by Coeur and commenced operation in 2008. The process plant operates three 8 hour shifts per day, 24 hours per day and 365 days per year with about 92% operating availability. The process flowsheet is shown in Figure 1-55.



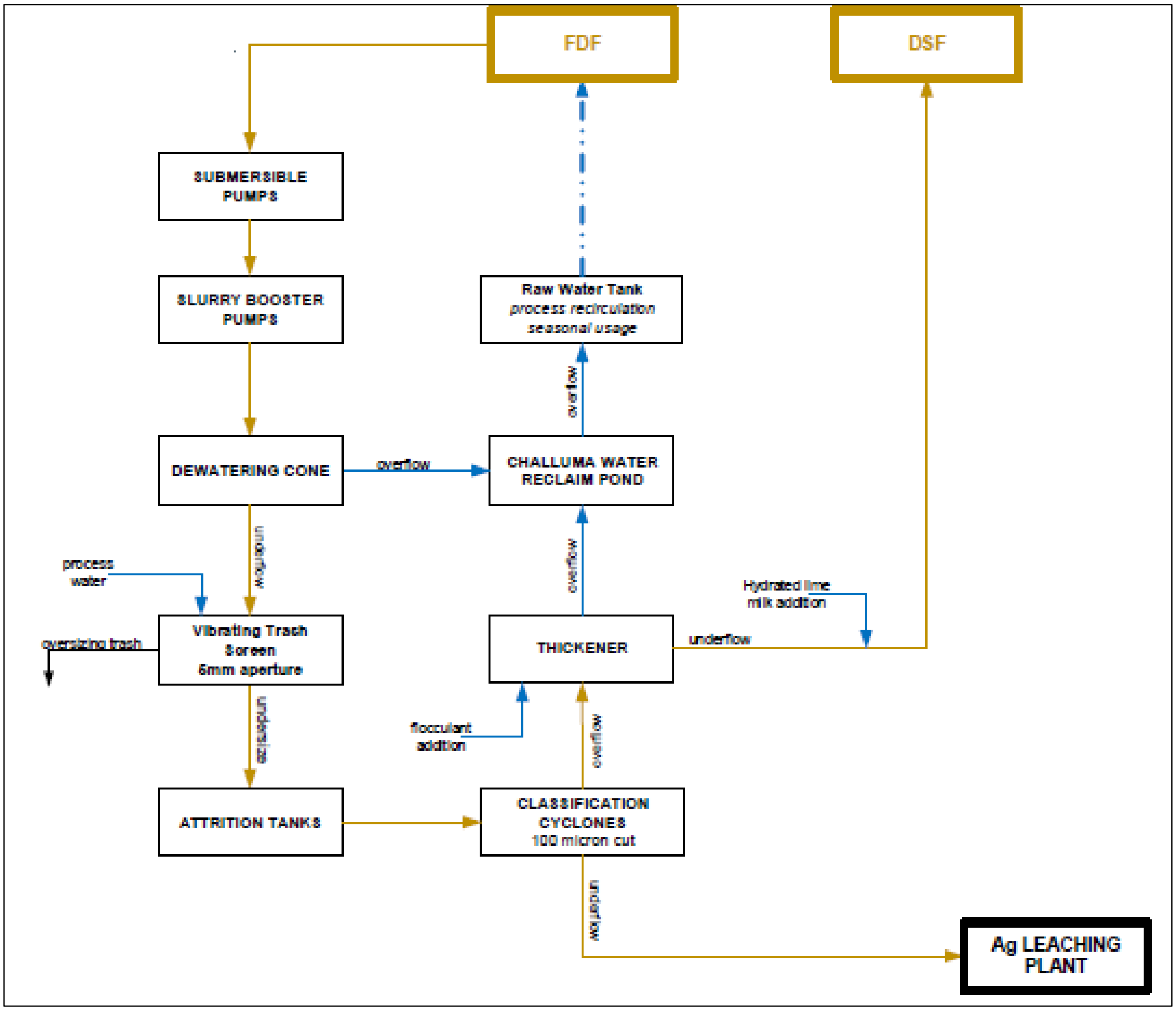
Source: APM 2023

Figure 1-5: San Bartolomé Process Plant Flowsheet

1.9.2 FDF Silver Recovery Project

When production operations began at the San Bartolomé oxide processing facility in 2008 it was found that the silver content of the lower grade pallacos deposits could be upgraded by screening out the -8 mesh fine material. The -8 mesh fines are currently stored in the FDF, which is estimated to contain approximately 10 Mt of screened fines at an average silver grade of about 52 g/t. Engineering designs to recover the fines from the FDF were conducted by EPCM Consultores (EPCMC) based on the flowsheet shown in Figure 1-6 and include:

- Hydraulic mining to remove 6,600 t/d from the FDF
- Scrubbing
- Classification and thickening of the +140 mesh particle size fraction
- Pumping 3,300 t/d of the thickened + 140 mesh fraction to the process plant
- Pumping about 3,300 t/d of -140 mesh fines to the dry stack facility (DSF)



Source: EPCMC, 2023

Figure 1-6: FDF Project Flowsheet

1.9.3 Recovery Estimate

RoM and Purchased Ore Recovery

Silver recovery from run of mine (RoM) and purchased ore is estimated at 80.5% and is based on the weighted average silver recovery reported for the San Bartolomé process plant over the period from 2021 – 2023 (Q1).

FDF Fines (+140 mesh Fraction)

Silver recovery from the deslimed and classified FDF fines (+140 mesh) is estimated at 76.0 and is based on duplicate confirmatory leach tests conducted by APM at their on-site laboratory using test conditions that simulate the process plant operating conditions at a target grind of P_{80} 75 µm. An average silver extraction of 78.2% was obtained during these confirmatory tests. SRK applies a 2% deduction to the reported silver extraction to account for inherent plant inefficiencies. This results in an average silver recovery from the FDF of 76.2%, which is rounded down to 76.0%.

1.10 Project Infrastructure

San Bartolomé Mill is located in southwest Bolivia, a few kilometers south of the city of Potosí. San Bartolomé has been in operation since 2008 and has a full range of facilities for ore processing, precious metal recovery, support services, and administrative offices.

Line power is backed up by two diesel generators. Water is provided locally, mainly from the Laguna Challuma.

The reprocessing of the FDF tailings material will include the addition of high-pressure water and slurry pumps, piping, and classification and thickening equipment. The estimated increase in power will be 3.72 megawatts (MW) to supply the new equipment and will be part of the current power supply contract. Raw water consumption is estimated at 70,416 cubic meters (m^3) per year.

Stockpile areas and scales are already in place for the delivery of contracted material.

A three-stage tailings impoundment, commissioned in 2008, serves to store both dry and wet tailings from the mill. The stages are the FDF, DSF, and water recovery operations, all located about 2 km southeast of the mill. The FDF tailings reprocessing involves hydraulically mining and pumping the 11 Mt of FDF non-leached tailings through a classifier and thickener. The finer ore (minus 140 mesh) will be removed and sent immediately to the DSF. Coarse tailings (greater than (>) 14 mesh) will be delivered to the ball mill and back into the processing circuit to extract the economic minerals. Barren waste (tailings) from the re-process circuit will be deposited in the DSF for permanent containment.

The total tailings storage requirement is 17.3 Mt based on the current mine plan (SRK, 2023b). The required DSF crest elevation to accommodate storage is 4,524.4 m, including the 3-m freeboard. The structural stability of the DSF with a crest elevation of 4,522 m has been demonstrated through engineering studies (Knight Piésold Consulting (KP), 2022c); however, further engineering design is required to demonstrate stability to at least a crest elevation of 4,524.4 m to accommodate the total tailings storage requirement (17.3 Mt) and to relocate the diversion ditch. Thus, an elevation of 4,522 m represents a limiting storage constraint (temporarily).

1.11 Environmental Studies and Permitting

Environmental baseline data for the San Bartolomé Project were originally collected and disclosed in the 2004 Auditoria Ambiental de Línea Base (ALBA) describing the pre-existing environmental conditions and liabilities in the project area. Supplemental hydrogeological and biological data were used to update the ALBA in 2021 and 2022, respectively. The 2004 San Bartolomé Estudio de Evaluación de Impacto Ambiental (EEIA, or Environmental Impact Study), describes the San Bartolomé Project and its impact on the area and local communities. On June 21, 2004, the Bolivian Government issued the Environmental License (Declaratoria de Impacto Ambiental (DIA) N° MSD-VRNMA-DGMA-UPCA-050101-02-DIA-N° 1675/04) and Hazardous Materials Permit (Registro y Licencia para Actividades con Sustancias Peligrosas Nº 050101-02-LASP-013-04) to Manquiri for the Project based on information contained in the ALBA and EEIA. The Environmental License and the associated Hazardous Materials Permit are the only environmental permits required for Project operations. Both authorizations were updated by the Bolivian Government on December 7, 2011.

Many historic environmental liabilities, as well as numerous active sources of environmental degradation, are evident in the Cerro Rico area, most of which pre-date San Bartolomé operations by centuries and caused by third parties. These areas, and the associated environmental impacts, were characterized in the ALBA and EEIA. Both applications documented that these conditions are legacy issues – prior to current activities, for which Manquiri is not responsible.

Annual reports are currently submitted by Manquiri which contain environmental monitoring tasks specified in the Environmental Management Plan (Plan de Aplicación y Seguimiento Ambiental, or PASA). The purpose of the reports is to provide results of environmental monitoring to demonstrate compliance with the Environmental Protection and Mitigation Program (Programa de Prevención y Mitigación, or PPM) for the operation of the plant, tailings facility, and mining operations.

The San Bartolomé Project EEIA contains socioeconomic aspects of both the City of Potosi and the Ayllu Jesus de Machaca, where Manquiri is located. The social aspects of the San Bartolomé Project are of great importance, and Manquiri manages them accordingly.

Asset Retirement Obligation (ARO) costs are provided for San Bartolomé for 2023. Cost basis inputs are included resulting in a 2023 ARO estimate of US$21,869,806. No financial surety for closure and rehabilitation is currently required in Bolivia. Scheduling of closure activities was based on a combination of dates for completion of mining, a reclamation period of approximately three years, and a post-closure period for monitoring of another three years.

The COMIBOL Bolivian government permit to mine the pallaco alluvial deposits expired in September 2023 and was not renewed because of a constitutional resolution that obligated COMIBOL to preserve the conical structure of Cerro Rico as a historical monument. The resolution has no effect on the processing of contracted material or the reprocessing of the FDF tailings.

The QPs have relied upon company and external, non-QP sources, to disclose the rights and obligations cited herein.

1.12 Capital and Operating Costs

Andean and ECM estimated the capital costs for the San Bartolomé project. The estimate is based on historic costs incurred at the site, existing contracts with service providers and engineering to prepare for the planned FDF expansion.

Andean provided SRK with the details supporting their capital estimates. Table 1-5 summarizes the capital cost estimate.

Table 1-5: LoM Capital Cost Summary

Sustaining Capex	Unit	Value
Hydraulic mining and pre-concentration	US$	6,700,000
Sustaining Capital	US$	11,200,000
Closure	US$	2,250,000
Total	**US$**	**20,150,000**

Source: Andean, 2023

Operating costs were developed by Andean and EPCM and are based on the production schedule and stated reserves. Cost estimation is based on requirements of equipment, operating labor, supervision, and administrative labor, mine, and process consumables, maintenance, etc.

Table 1-6 summarizes the operating costs of the San Bartolomé project.

Table 1-6: Operating Cost Summary

Description	Unit	Value
Mining/Purchase Cost		
FDF	US$/t-washed	2.00
Manto	US$/t-washed	22.90
Platera	US$/t-washed	22.90
Rosario	US$/t-washed	22.90
Pacas	US$/t-washed	60.80
Altavista	US$/t-washed	137.00
Processing Cost		
Pre-Concentration FDF	US$/t-washed	1.42
Processing FDF	US$/t-Milled	16.13
Processing Manto	US$/t-Milled	23.49
Processing Platera	US$/t-Milled	23.49
Processing Rosario	US$/t-Milled	23.49
Processing Pacas	US$/t-Milled	20.29
Processing Altavista	US$/t-Milled	24.69
TSF FDF	US$/t-Milled	1.76
TSF Manto	US$/t-Milled	1.76
TSF Platera	US$/t-Milled	1.76
TSF Rosario	US$/t-Milled	1.76
TSF Pacas	US$/t-Milled	1.76
TSF Altavista	US$/t-Milled	1.76
Other Cost		
G&A	US$/t-Milled	0.91
Indirect	US$/t-Milled	2.80
Administrative	US$/t-Milled	3.80

Source: Andean, 2023

Economic Analysis

The financial results are derived from monthly inputs prepared by SRK. Cash flows are reported on a yearly basis. All financial data is Q3 2023 U.S. dollars.

The cash flow evaluation of San Bartolomé project indicate that it has a positive after-tax present value. As the project is installed and currently operating, it requires mostly sustaining capital and the costs associated with the operation.

1.13 Conclusions and Recommendations

1.13.1 Geology and Resources

The mineral resource estimation for the FDF has been conducted in a manner consistent with industry standards and is a reasonable approximation of the contained Ag. The contained Indicated resource is stated as approximately 3.8 Mt at 56 g/t Ag. The contained Inferred resource is stated as approximately 0.09 Mt at 52 g/t Ag.

The risks of MRE at the FDF include local unexplained inaccuracies in the QA/QC and the local variability of the size fractions within the FDF, which may be difficult to characterize and understand the short-range grade variability. Given the proposed hydraulic mining method, SRK notes that high selectivity is probably not achievable in any case but may be material to a very detailed understanding of the grade distribution within the overall FDF. These risks are dealt with using the current mineral resource classification and are considered sufficiently addressed for the current disclosure.

The mineral resource estimation for the Contracted Material has been conducted in a manner consistent with industry standards. The contained Indicated resource of Manto is stated as approximately 0.77 Mt at 127 g/t Ag, for Platera 0.64 Mt at 160 g/t Ag, for Santa Rosario 0.18 Mt at 148 g/t Ag, for Altavista 0.03 Mt at 354 g/t Ag and for Pacca 0.67 Mt at 223 g/t Ag. The contained Inferred resource is stated as approximately 0.04 Mt at 131 g/t Ag, for Platera 0.44 Mt at 145 g/t Ag, for Santa Rosario 0.12 Mt at 136 g/t Ag, for Altavista 0.06 Mt at 371 g/t Ag and for Pacca 0.22 Mt at 230 g/t Ag.

The deposits of Tollojchi, Altavista and Paca remain open in some directions. Overall, the Qualified Persons consider there remains potential to increase Mineral Resources in these areas, which should be studied with additional work programs to increase confidence via infill drilling and underground rock sampling, and Andean should consider the following:

- The Qualified Persons recommend additional confirmation sampling thorough core drilling and rock sampling (underground sampling of mineralized faces) in the Contracted Material areas and following appropriate sampling and QA/QC protocols.
- Geological surface and underground mapping in the areas of Tollojchi and Altavista to delineate with precision the mineralization controls.
- Complete infill drilling to reduce the drilling grid and improve the classification of the mineral resources.
- Perform additional validation sampling in Paca, including twin drillholes and a re-analysis of additional core samples.

1.13.2 Mining and Reserves

Based on the data available and the analysis described in this report, in SRK's opinion, the San Bartolome operation has a valid mineral resource and mineral reserve, as stated herein.

The current mine production schedule shows a mine life of 5 years, with the bulk of the ore coming from the FDF. A combination of contracted ore and FDF material will feed the mill for the first two years. After that the FDF will be the sole source of ore for the mill.

SRK notes the following recommendations:

- Given the large milling capacity available after the first two years of operation, SRK recommends Andean expands the ore purchasing program so new deposits substitute ores from Tollojchi, Alta Vista and Paca as these are depleted.
- There are multiple sulfide ore deposits being exploited in the surrounding area. If Andean can source enough ore from these sulfide deposits, SRK recommends they further study the feasibility of modifying their mill to process sulfide ores.
- Current processing plan for the FDF uses a constant +140-mesh particle size cut-off for an average yield of 41.6% on all the ore tonnes mined. Given the available processing capacity once the contracted ores are depleted, Andean should consider modifying particle size cut-off so as to increase mass yield and recover additional Ag ounces.

1.13.3 Processing and Metallurgy

The following conclusions are made regarding metallurgical test work programs for processing FDF material through the process plant along with ROM and purchased ore:

- The cyanide leach tests conducted by APM and Linings on the + 140 mesh FDF composite size fraction are considered to be the most relevant, as these tests were conducted under conditions that replicate current plant practice, including oxygen injection.
- Silver recovery from RoM and purchased ore is estimated at 80.5% and is based on the weighted average silver recovery reported for the process plant over the period from 2021 to 2023 (Q1).
- Silver recovery from the deslimed and classified FDF fines (+140 mesh) is estimated at 76.0% and is based on duplicate confirmatory leach tests conducted by APM at their on-site laboratory using test conditions that simulate the process plant operating conditions at a target grind of P_{80} 75 µm.

1.13.4 Infrastructure

There are several recommendations to improve operations and dam safety, including the following:

- Develop a comprehensive tailings and water management plan for the life-of-mine (LoM).
- Verify the air-drying methodology for the planned tailings stream to produce DSF embankment fill materials at sufficient rates and appropriate moisture contents.
- Develop and implement a site investigation program to characterize the in situ properties of the DSF embankment and embankment to support liquefaction evaluations.
- Update the DSF embankment slope stability analyses using the results of the site investigations and liquefaction evaluation to assess undrained and post-liquefaction failure modes, as appropriate.
- Install additional geotechnical instrumentation within the DSF embankment and foundation.

The DSF operation utilizing air-dried tailings to construct centerline raises is operationally sensitive, requiring careful planning, diligent construction, and operational controls and monitoring. Based on current knowledge and information reviewed, it is unclear if the air-drying and tailings centerline construction methodology will continue to produce DSF embankment fill materials at sufficient rates and appropriate moisture contents, particularly when the FDF reject is deposited in the DSF. FDF reject is expected to be very fine-grained (silt-clay), which could potentially inhibit the air-drying method to produce embankment construction material. The engineering properties of the processed and reject FDF tailings have not been defined, including amenability to the planned processing methods to produce suitable embankment fill materials. As the DSF embankment is enlarged, the process area at the toe of the embankment will become smaller, which may limit the ability to sufficiently dry the tailings for use as structural fill. Several recommendations were given in the recent KP geotechnical report (KP, 2023), including the construction of the FDF and DSF embankment buttresses, performing additional shear strength laboratory testing on the tailings, performing liquefaction assessments, and installing additional piezometers for monitoring. These recommendations (as well as previous recommendations) should be prioritized to improve dam safety and follow industry best practices.

Potential embankment credible failure modes (overtopping, potential slip surfaces within the foundation and embankment, and potential liquefaction of the DSF embankment and foundation) were identified, but there is not sufficient information to confirm or refute these potential failure modes.

Therefore, a detailed dam safety Review (DSR) consistent with Canadian Dam Association (CDA) guidelines is warranted and should be completed by a qualified and experienced independent professional engineer and organization that are suitably experienced in tailings storage facilities' design, operation, and closure.

1.13.5 Environmental, Permitting, and Social

The Environmental License and the associated Hazardous Materials Permit are the only environmental permits required for Project operations. The Environmental License was updated by the Bolivian Government on December 7, 2011.

Many historic environmental liabilities, as well as numerous active sources of environmental degradation, are evident in the Cerro Rico area, most of which pre-date San Bartolomé operations by centuries and caused by third parties. These areas, and the associated environmental impacts, were characterized in the ALBA and EEIA and are not the responsibility of Manquiri.

Annual reports are currently submitted by Manquiri which contain environmental monitoring tasks specified in the Environmental Management Plan (Plan de Aplicación y Seguimiento Ambiental, or PASA).

The San Bartolomé Project EEIA contains socioeconomic aspects of both the City of Potosi and the Ayllu Jesus de Machaca, where Manquiri is located. The social aspects of the San Bartolomé Project are of great importance, and Manquiri manages them accordingly.

Asset Retirement Obligation (ARO) costs are provided for San Bartolomé for 2023. Cost basis inputs are included resulting in a 2023 ARO estimate of US$21,869,806. No financial surety for closure and rehabilitation is currently required in Bolivia.

SRK recommends a comprehensive review of the proposed closure approach and planning with respect to any recent Bolivian regulatory changes, as well as Good International Industry Practice (GIIP). Following this review, and any modifications to the current reclamation and closure plans, Manquiri is encouraged to prepare a detailed LoM closure cost estimate, which envisions the final configuration of all mine-related assets and facilities. This estimate could be greater or less than the current Asset Retirement Obligation (ARO) depending on the extent of concurrent reclamation that occurs during operations.

1.13.6 Cost Estimates

The objectives in Table 1-7 are recommendations to expand and enhance the confidence in the mineral resources in a single phase, total work program - without one objective being contingent upon another.

The Company has provided for more than US$3 million budget funding to cover future exploration and metallurgy work, sufficient to fund the recommended program. This leaves additional financial resources to expand the programs or conduct new exploration on new opportunities that may arise from the Company’s regional investigations – especially for additional, oxide dumps in the region.

The tailings dam construction occurs as operations and is therefore absorbed as an operating expense. Currently there is not a substantive capex investment with respect to tailings storage. Engineering and further studies will take a few years to be completed by APM’s selected engineering firm(s). A reasonable budget estimate for the engineering recommendations would be US$1 to US$2 million over the next 3 to 4 years.

Table 1-7: Summary of Estimated Costs for Recommended Work – FDF and Contracted Material Areas

Type of Work	Description	Cost US$	
Geology and Exploration			
Exploration Drilling	In-fill and validation drilling aimed to convert some of the Inferred Resources to Indicated within the Contracted Material Areas	**Paca**	293,000
		Altavista and Tollojchi	312,000
Exploration	Geological Mapping and Rock Sampling	Altavista and Tollojchi	50,000
Mineral Resource	Mineral Resource Estimate	All areas	150,000
Environmental, Permitting and Social			
Closure	Comprehensive review of the proposed closure approach and planning with respect to any recent Bolivian regulatory changes, as well as Good International Industry Practice (GIIP)..		150,000
Total			**955,000**

Source: APM, 2024

2 Introduction

2.1 Terms of Reference and Purpose of the Report

This report was prepared as a National Instrument 43-101 (NI 43-101) Technical Report (Technical Report) for Andean Precious Metals Corp ("Andean") by SRK Consulting (U.S.), Inc. (SRK) and the other QPs on the San Bartolomé, Bolivia project. This Technical Report was prepared to disclose the results of a Preliminary Feasibility Study ("PFS") on the current San Bartolomé operation which includes the maiden statement of mineral reserves contained within the existing FDF.

The quality of information, conclusions, and estimates contained herein is consistent with the level of effort involved in SRK's services, and those of the other QPs, 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 Andean subject to the terms and conditions of its contract with SRK and relevant securities legislation. The contract permits Andean to file this report as a Technical Report with Canadian securities regulatory authorities pursuant to NI 43-101, Standards of Disclosure for Mineral Projects. Except for the purposes legislated under provincial securities law, any other uses of this report by any third party is at that party's sole risk. The responsibility for this disclosure remains with Andean. The user of this document should ensure that this is the most recent Technical Report for the property as it is not valid if a new Technical Report has been issued.

This Technical Report provides mineral resource and mineral reserve estimates, and a classification prepared in accordance with the Canadian Institute of Mining, Metallurgy and Petroleum Standards on Mineral Resources and Reserves: Definitions and Guidelines, May 10, 2014 (CIM, 2014).

2.2 Qualifications of the QPs

The QPs who prepared this technical report are specialists in the fields of geology, exploration, Mineral Resource and Mineral Reserve estimation and classification, surface mining, geotechnical, environmental, permitting, metallurgical testing, mineral processing, processing design, capital and operating cost estimation, and mineral economics.

None of the QPs or any associates employed in the preparation of this report have any beneficial interest in Andean. The QPs are not insiders, associates, or affiliates of Andean. The results of this Technical Report are not dependent upon any prior agreements concerning the conclusions to be reached, nor are there any undisclosed understandings concerning any future business dealings between Andean and the QPs. The QPs are being paid a fee for their work in accordance with normal professional consulting practice.

The following individuals, by virtue of their education, experience, and professional association, are considered QPs as defined in the NI 43-101 standard, for this report, and are members in good standing of appropriate professional institutions. QP certificates of authors are provided in Appendix A.

The QP's are responsible for specific sections as follows:

- Patrick Daniels, SME-RM, (SRK Principal Consultant, Mining Engineer), is the QP responsible for Infrastructure Section 18, except for 18.8, and portions of sections 1, 2, 16, and 25 of this Technical Report.

- Matthew Fuller, P.Geo, LEG (Tierra Group, Geoscientist), is the QP responsible for Infrastructure / tailings, Section 18.8 and portions of sections 1, 25, and 26 of this Technical Report.
- Donald J. Birak, MSc, RM-SME (Birak Consulting, Independent Consulting Geologist) is the QP responsible for geological and exploration, all of Sections 3, 4, 5, 6, 7, 8, and 9, and portions of sections 1, 2, 10, 11, 12, 24, 23, 25, and 26 of this Technical Report
- Giovanny Ortiz, BSc Geology, FAusIMM, Fellow (SEG), (SRK Principal Consultant, Resource Geologist) is the QP responsible mineral resources, all of Section 14, and portions of sections 1,10, 11, 12, 23, 24, 25, and 26 of this Technical Report.
- Fernando Rodrigues, BS Mining, MBA, MMSAQP (SRK Practice Leader and Principal Consultant, Mining Engineer) is the QP responsible for mineral reserves, economics, all of sections 15, 19, 21, and 22, and portions of sections 1, 2, 16, 25, and 26 of this Technical Report.
- Eric Olin, MSc, MBA, RM-SME (SRK Principal Process Metallurgist) is the QP responsible for metallurgical and process, all of Sections 13, and 17, and portions of sections 1, 2, 25, and 26 of this Technical Report.
- Mark Allan Willow, MSc, CEM, SME-RM (SRK Practice Leader/Principal Environmental Scientist) is the QP responsible for environmental, permitting and social, all of Section 20 and portions of sections 1, 25, and 26 of this Technical Report.

2.3 Details of Inspection

Qualified Persons visited the Project site in 2022 and 2023. These field visit allowed independent observation of the property, geology, sampling procedures, mineral ore processing and metallurgical testing, recovery methods, mining methods, infrastructure, tailings, and geotechnical aspects of the Project (Table 2-1). Additionally, the QP site visits fulfilled NI 43-101 requirements for disclosure and the required level of validation outlined by CIM guidelines.

Table 2-1: Site Visit Participants

Personnel	Company	Expertise	Date(s) of Visit	Details of Inspection
Donald J. Birak	Independent Consultant – Birak Consulting LLC	Geology, Exploration, Mineral resources and reserves, Mining. Processing, Regulatory disclosure	March 29-April 3, 2023, September 11-13, 2023 Multiple visits previous since January 2020	Geology, exploration and mining, mill
Patrick Daniels	SRK	Mining	July 12-13, 2023	Site, water, and power infrastructure
Eric Olin	SRK	Metallurgy	July 12-13, 2023	Mill and tailings storage facilities
Fernando Rodrigues	SRK	Mining	July 12-13, 2023	Site, mining, and tailings storage facilities
Giovanny Ortiz	SRK	Geology, Exploration and Mineral Resources	May 31-June 3, 2022	Review sampling procedures, QA/QC, geological modeling. Visited the pallacos areas and FDF facility.
Matthew Fuller	Tierra Group	Geology	August 30, 2023	Tailings storage facility

2.4 Sources of Information

The sources of information include data and reports in the public domain or supplied by Andean personnel as well as documents cited throughout the report and referenced in Section 27.

2.5 Effective Date

The effective date of this report is December 1, 2023.

2.6 Units of Measure

The metric system has been used throughout this report. Tonnes are metric of 1,000 kg, or 2,204.6 lb. All currency is in U.S. dollars (US$) unless otherwise stated.

3 Reliance on Other Experts

The QPs' opinions contained herein are based on information provided by the staff of Andean's wholly owned Bolivian company, Manquiri, throughout the course of the investigations. Specifically, the Andean and Manquiri staff consulted were:

- Mr. Dante Rodríguez, Andean Chief Operating Officer
- Mr. Humberto Rada, President of Manquiri
- Mr. Miguel Angel Torres, General Manager
- Mr. Edwin Mancilla, Superintendent of Geology and Planning
- Mr. Alfredo Viilegas, Manager of Exploration

None of the persons listed above are QPs as defined under NI 43-101 and were not relied upon as such.

Mr. Fernando Aguirre, Independent Legal Counsel, provided an updated summary and opinion on Manquiri's rights to the properties discussed herein entitled, "Empresa Minera Manquiri Bolivia Legal Opinion," Bufete, Aquirre, Quintanilla, Soria. & Nishizawa, December 19, 2023.

4 Property Description and Location

The Bolivian properties of Andean, which are the subject of this Technical Report, are located within the department of Potosí, Bolivia (Figure 1-1 and Figure 5-1). All of the properties are managed by Manquiri, a wholly owned subsidiary of Andean.

4.1 Background

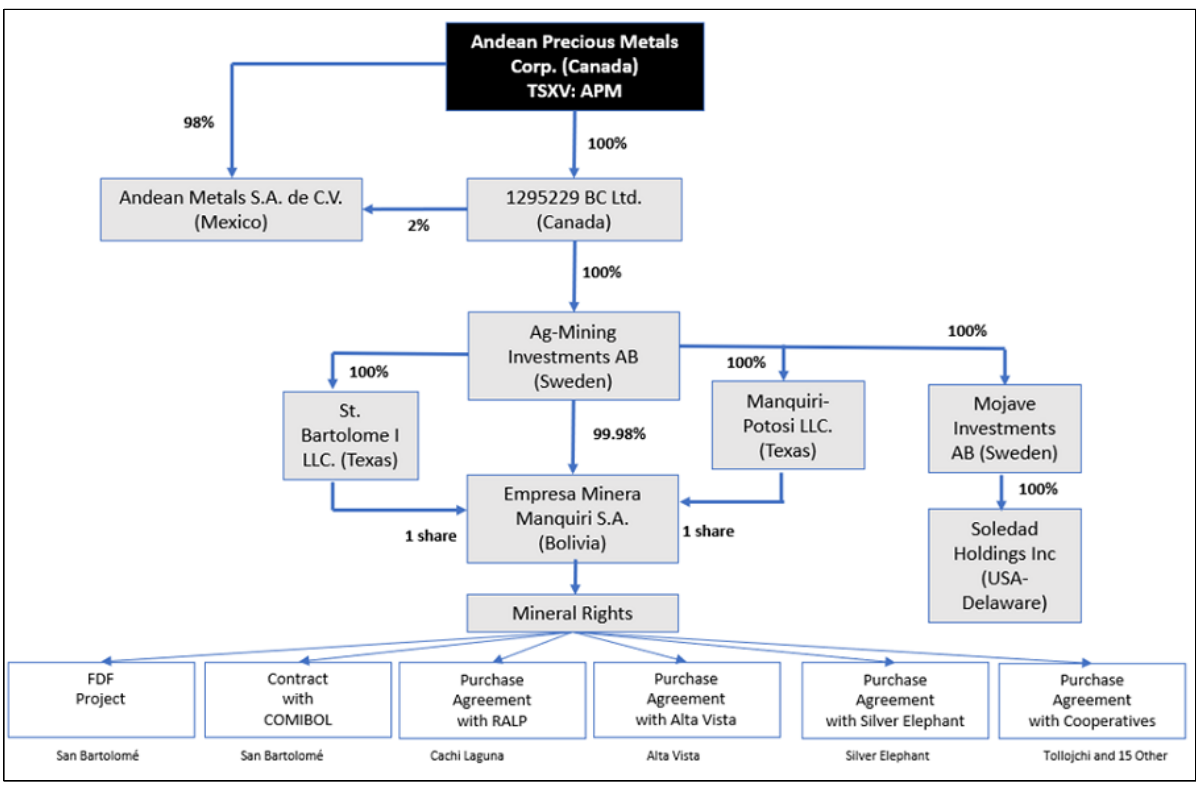
Ag-Mining acquired Manquiri, which controls the mining rights at San Bartolomé and is the owner of the San Bartolomé mining and ore processing facilities, by purchase from Coeur. Ag-Mining's acquisition was completed in February 2018 pursuant to the terms and conditions of a Share Purchase Agreement (the SPA) dated December 22, 2017, by means of which Ag-Mining acquired all of the issued and outstanding shares of Manquiri.

The SPA was amended in February 2018, September 2018, February 2019, December 2019, and January 2020 (Technical Report, Birak et al., 2020).

In September 2020, Ag-Mining was purchased by 1295229 BC Ltd. in an arrangement and exchange agreement whereby the shareholders of Ag-Mining became the shareholders of 1295229 BC Ltd.

In March 2021, Andean acquired Manquiri via an amalgamation with 1295229 BC Ltd., giving Andean 100% ownership of Manquiri and all its rights, properties, and infrastructure.

After the acquisition from Coeur, Andean, via Manquiri, has made other acquisitions in Bolivia. Figure 4-1 shows Andean's business structure and mining interests held in Bolivia.



Source: APM, 2023

Figure 4-1: Andean's Business Structure and Mining Rights

4.2 Bolivian Mining Laws

All minerals in Bolivia are the property of the Bolivian people and are managed by the state. Previously, a process to acquire or establish mineral concessions/claims was available to domestic and international entities, subject to payment of annual fees. In 2014, regulations governing exploration and mining activities were changed by Mining and Metallurgy Law 535 (Ley de Minería y Metalurgia). As a result, the former concession system was abandoned, requiring all concession holders to convert their concessions to contracts with the Mining Regulatory Authority (Autoridad Jurisdiccional Administrativa Minera (AJAM).

4.2.1 Law 535 Structure

The law has 246 articles divided in seven main titles and final provisions:

1. General Rules: purpose, principles, fundamental provisions, and mining entities
2. Structure of the State Mining Sector: institutions and companies, policies and control, mining regulatory authority, state companies, service, research, and other controlling entities, and promotion
3. Mining Rights and Extinction
4. Mining Contracts
5. Regulations for Change (substitution-migration) to New Regime (contracts)
6. Prior Consultation and Environmental Rules
7. Mining Royalties and Patents

4.2.2 General Features from Private Companies' Perspective

1. Existing concessionaires must apply for a substitute administrative contract to be signed with AJAM. Current mining rights continue in effect under Special Temporary Authorizations (ATE) until a substitute contract comes into effect.
2. New rights on free areas can be obtained by filing for a similar contract with AJAM. Restrictions for foreigners continue to apply when mining areas are within 50 km of the international borders (rights can be granted if approved by congress). Existing joint venture agreements between foreign companies and Bolivians who hold mining concessions will be recognized subject to compliance with formalities under the law.
3. Contracts do not grant title on unexploited reserves, only right to explore, exploit, industrialize, and sell. Information on reserves can only be used for stock market and financing purposes. Contractors acquire full title to production.
4. Land rights are separate from mining rights.
5. Contractual rights cannot be transferred or assigned, though contractors can execute association agreements (similar to joint venture agreements) with mining third parties.
6. Economic social function and interest is to be met.
7. Every mining contractor must count with and perform a development and investment plan. For substitute contracts, a description of current activities and the plan for the future are to be presented. Plans are flexible and subject to modification over time.
8. Rights to profits remittance abroad are under the law.
9. Guarantees of protection must be provided.
10. New administrative contracts (not those for substitution) are subject to prior consultation to indigenous peoples nations and peasant communities.

11. Specific exploitation contracts are subject to public consultation to affected population as part of filing and processing environmental licenses.
12. All private mining operators must be registered as mining companies with the commercial registry.
13. Producers of concentrates must first offer their production for sale to state refineries if existing. If state refineries do not exist, production must then be offered for sale to private refineries. If no private refineries exist, producers have the right to export. Local sales agreements must be under common market terms. If no agreement is reached, right to export exists.

4.2.3 Specific Rules on Administrative Mining Contracts

1. Substituting concessions and for new Administrative Mining Contracts (AMC), applications to obtain new free areas are as defined in the law.
2. The term is 30 years which, when justified, can be extended for another 30 years.
3. Congressional approval is only required for new contracts and is not necessary for current contracts.
4. Public deeds are executed before a notary public.
5. Compulsory registration with mining registry, real estate registry, and recording with commercial registry are not required.
6. The maximum area for new contracts is 250 quadrants (one quadrant is equal to 25 ha). Contracts by substitution of existing concessions are not covered by restriction.
7. Contracts can only be terminated by AJAM if economic social interest is not met. More specifically, this means a breach in initiating activities under the corresponding plan for more than 1 year or abandonment of the activity for more than 6 months, except in cases of force majeure (as widely defined in the law).
8. Contractors must comply with all other applicable laws and regulations (taxation, environment, industrial security, labor, social security, etc.). Sanctions for breach thereof are those defined in the laws and regulations governing such obligations and do not constitute a cause for termination of the AMC.

4.2.4 New Association Agreements

1. COMIBOL and other state mining companies can sign association agreements with private companies or cooperatives.
2. Cooperatives cannot sign association agreements with private companies.
3. Minimum participation of COMIBOL is 55% of profits for future contracts.
4. Public bidding or direct invitation procedures apply.
5. Provisions are similar to the existing joint venture agreements.
6. Private mining companies can sign association agreements between themselves or with mining cooperatives, similar to existing joint venture agreements. Terms are to be negotiated. The term depends on the project, considering the term of the main AMC.

4.2.5 Licenses and Other Substitutions

1. To conduct only exploration activities, any mining company or cooperative can apply for an exploration license before the regulatory authority. The maximum term is 5 years. The exploration company has a preferential right to apply for AMC.

2. Separate refining or smelting activities will require a license from the regulatory authority. Existing operations must file for a license.
3. All internal and external traders (including mining companies, for control and export purposes) require a license and/or registration with the Servicio Nacional de Registro y Control de Comercialización de Minerales y Metales (SENARECOM), the entity entrusted with the registration and control of trading and of payment of royalties.
4. The law provides a number of other rules dealing with obligations of adjustment (change) to AMCs of other special or specific cases of mining concessionaires.
5. The use of water will require approval by the competent authority.

Under the current mining laws, Manquiri's rights to the properties disclosed in this Technical Report are held by contracts and are applicable to the mineral resources and mineral reserves reported herein for San Bartolomé (pallacos and FDF), Alta Vista, Tollojchi, and Paca. Table 4-1 notes specific terms of Andean's contracts.

Table 4-1: General Terms of Manquiri's Contracts/Agreements

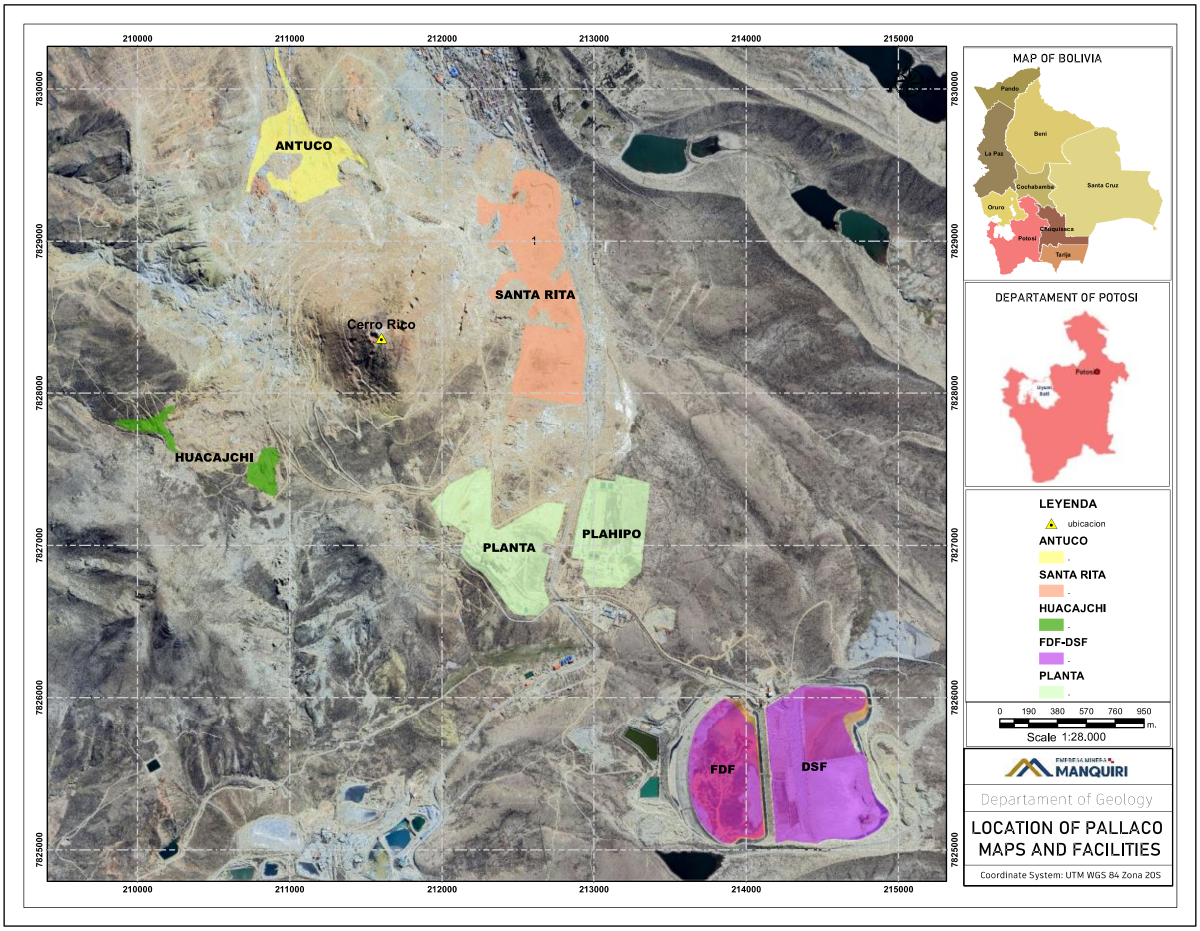
Document	Date of Document	Area	Term
Mining rights granted by AJAM	October 29, 1998, March 9, 2004, and October 28, 2004	Atlantida; Atlantida II and Atlantida III, Tomas Frias Province, Potosi	Indefinite, based on mining patents payments and the continuity of the mining operation
Mining rights granted by COMIBOL: Transitory Work Continuity Permit RES: GTOP-0012/2017	January 10, 2017	Pallacos: Huacajchi, Santa Rita, and Antuco	Indefinite until execution of mining production agreement according to Law 845
Contract for the purchase of minerals from Cooperativa Minera Tollojchi R.L. (Tollojchi Cooperative)	January 9, 2023	Tollojchi area mining rights, Tomás Frias Province, Potosi	10 years
Contract for the purchase of minerals from Bed Rock Company	June 30, 2023	Alta Vista area mining rights, Sud Lípez Province, Potosi	2 years, renewable
Contract for the purchase of minerals from Apogee Minerals Bolivia	September 11, 2023	Paca: Apuradita Mining Rights, Antonio Quijarro Province, Potosi	5 years
Contract for the purchase of minerals from ASC Bolivia LCD Bolivian Branch	September 11, 2023	Paca: Real del Monte and Temeridad Mining Rights under a mining production contract with COMIBOL, Antonio Quijarro Province, Potosi	5 years
Contract for the purchase of minerals from RALP S.A.	November 10, 2022	Cachi Laguna mining rights, Nor Lipez Province, Potosi	14 months, renewable

Source: APM, 2023

4.3 Properties and Interests

4.3.1 San Bartolomé

San Bartolomé is an operating surface mine and mill recovering silver from mineralized gravels (pallacos) that flanks Cerro Rico, a prominent, +4,700-m-elevation peak located just south of the city of Potosi, Tomás Frías Province, Department of Potosí, Bolivia (Figure 4-2). Access to San Bartolomé is by paved and well-travelled gravel roads leading from the city. The company's operations' offices are located in the Planta Hidrometalurgía de Potosí (Plahipo) area southeast of the mining and milling areas. Mining and milling operations and related facilities are contained within an area of 713 ha flanking Cerro Rico (Figure 4-2). The company's rights to the pallacos are held via contracts (Table 4-1). As of the effective date of this Technical Report, the pallac-hosted mineral resources and reserves had been nearly depleted and are reported herein.



Source: Andean, 2023
The crest of Cerro Rico is 19° 35' 24"S latitude and 65° 46' 09"W longitude.

Figure 4-2: Location of the San Bartolomé Pollacos, Plant, Plahipo, and the FDF/DSF

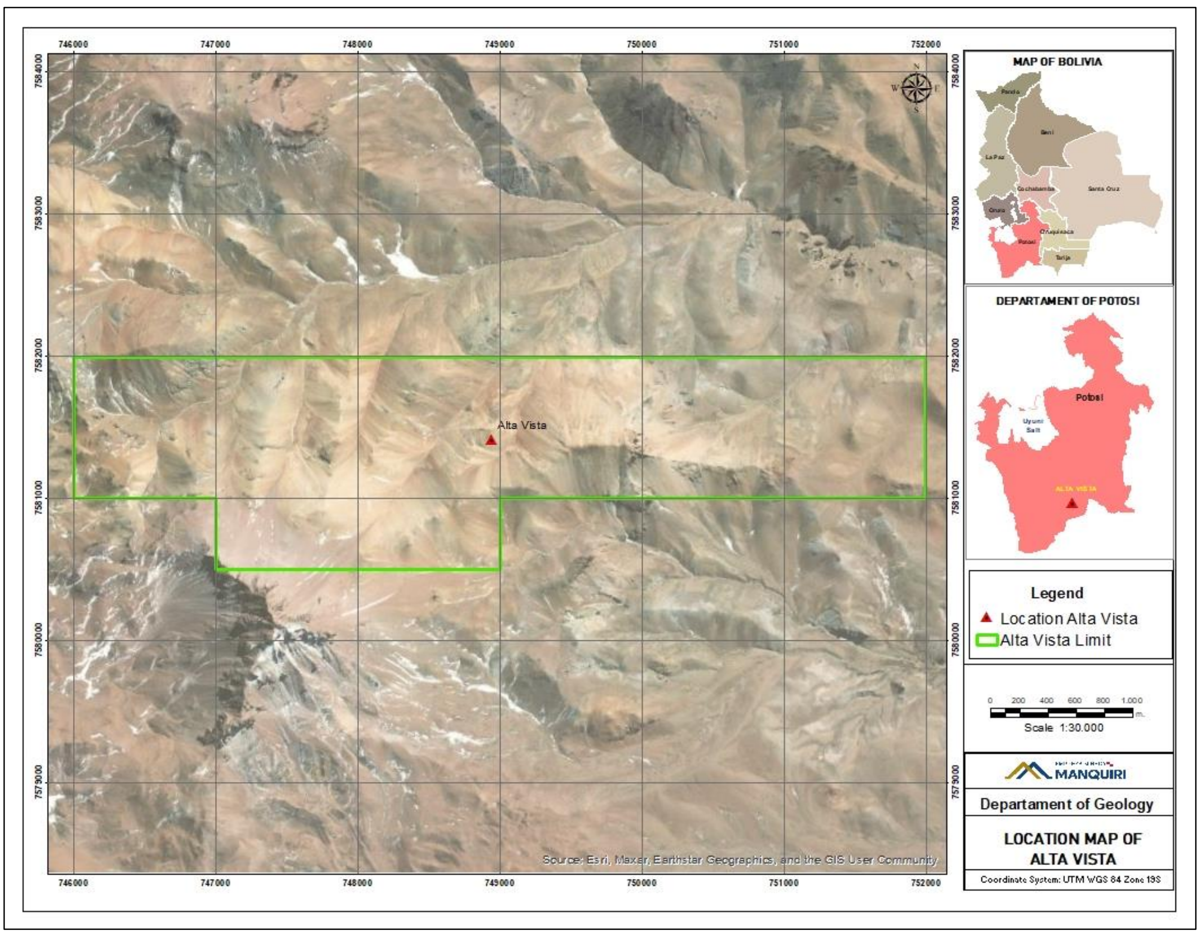
Pallacos (mineralized gravel) extend from the mountain peak northward nearly 3 km to the outskirts of Potosi, eastward 1.5 km to Highway 1, and up to 3 km southward and westward. Current mineral resources and mineral reserves reported herein do not include Huacajchi, Santa Rita, and Antuco (the latter formerly known as Diablo) (Section 14).

4.3.2 FDF

Tailings from Andean's processing facility are located to the southeast of the mine and east of the Pan American Highway (Figure 4-2). Two types of tailings material are placed in two separate parts of the facility: conventional tailings from milling and leaching ore through the plant that are placed in the upper DSF, and bypassed fines (minus 8 mesh) are stored in the lower FDF. Mineral resources and mineral reserves within the FDF are disclosed in this Technical Report.

4.3.3 Alta Vista

Alta Vista is a property in the San Antonio de Lípez District in the south-central part of the Department of Potosí (Figure 4-3). Mineralization at Alta Vista is described an epithermal, intermediate sulfidation vein in character, which is being exploited currently via underground methods. Access to the area is by 210 km of paved and 211 km of gravel roads. The Alta Vista property (700 ha in size) is held by Empresa Minera Bedrock S.R.L., a private Bolivian company, with whom Manquiri has a contract (Table 4-1).

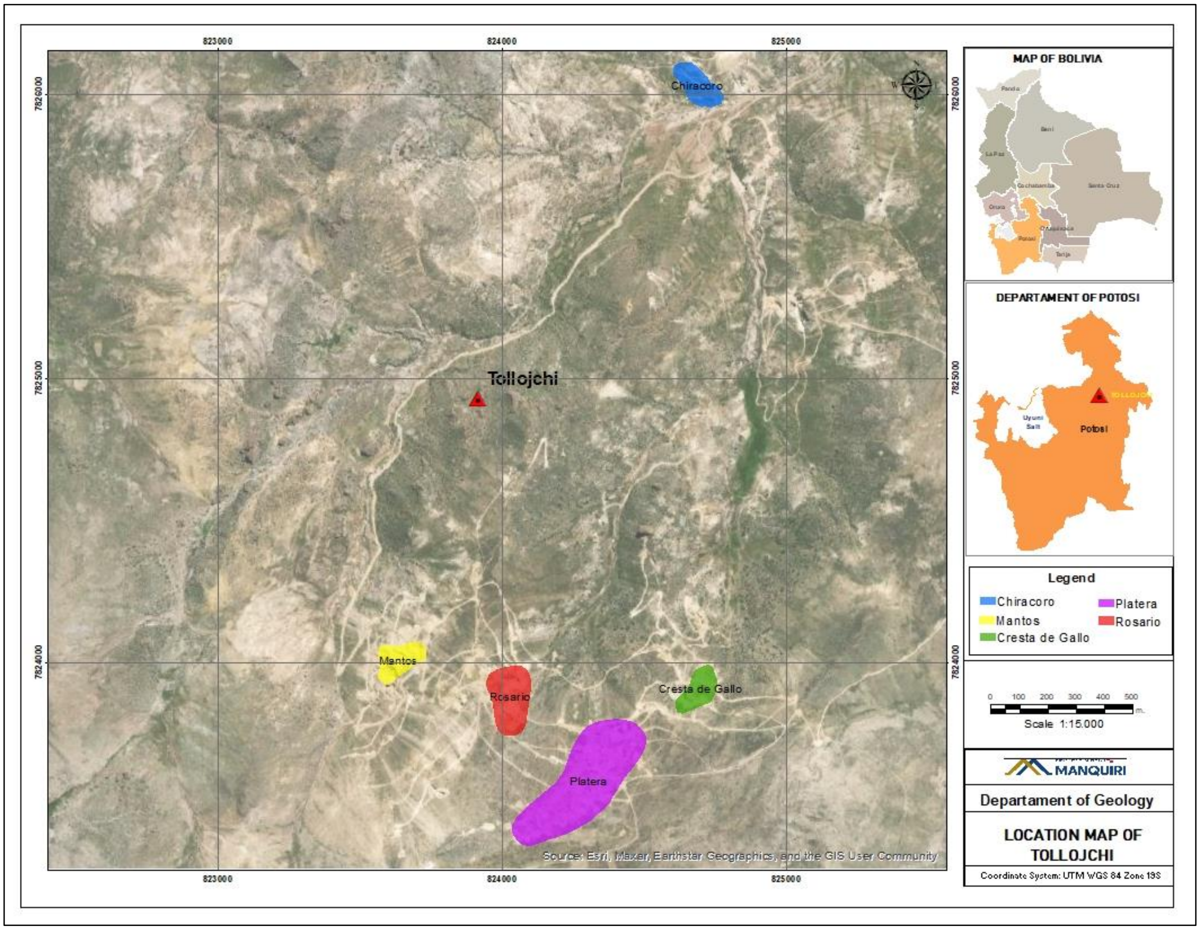


Source: Andean, 2023
Note: The center point of Alta Vista is approximately 21° 51' 17" S latitude and 66° 35' 26"W longitude.

Figure 4-3: Location of the Alta Vista Area

4.3.4 Tollojchi

Tollojchi mineral resources and mineral reserves reported herein are contained within three sectors: Mantos, Rosario, and Platera (Figure 4-4 and Section 14). The mineralization is covered by 325 ha of land held by the Tollojchi Cooperative. Mineralization in the Tollojchi District is described as epithermal, high sulfidation veins in character. The Tollojchi District is located 38 km west of the San Bartolomé facilities on paved Highway 5 (13 km) and dirt roads (25 km).



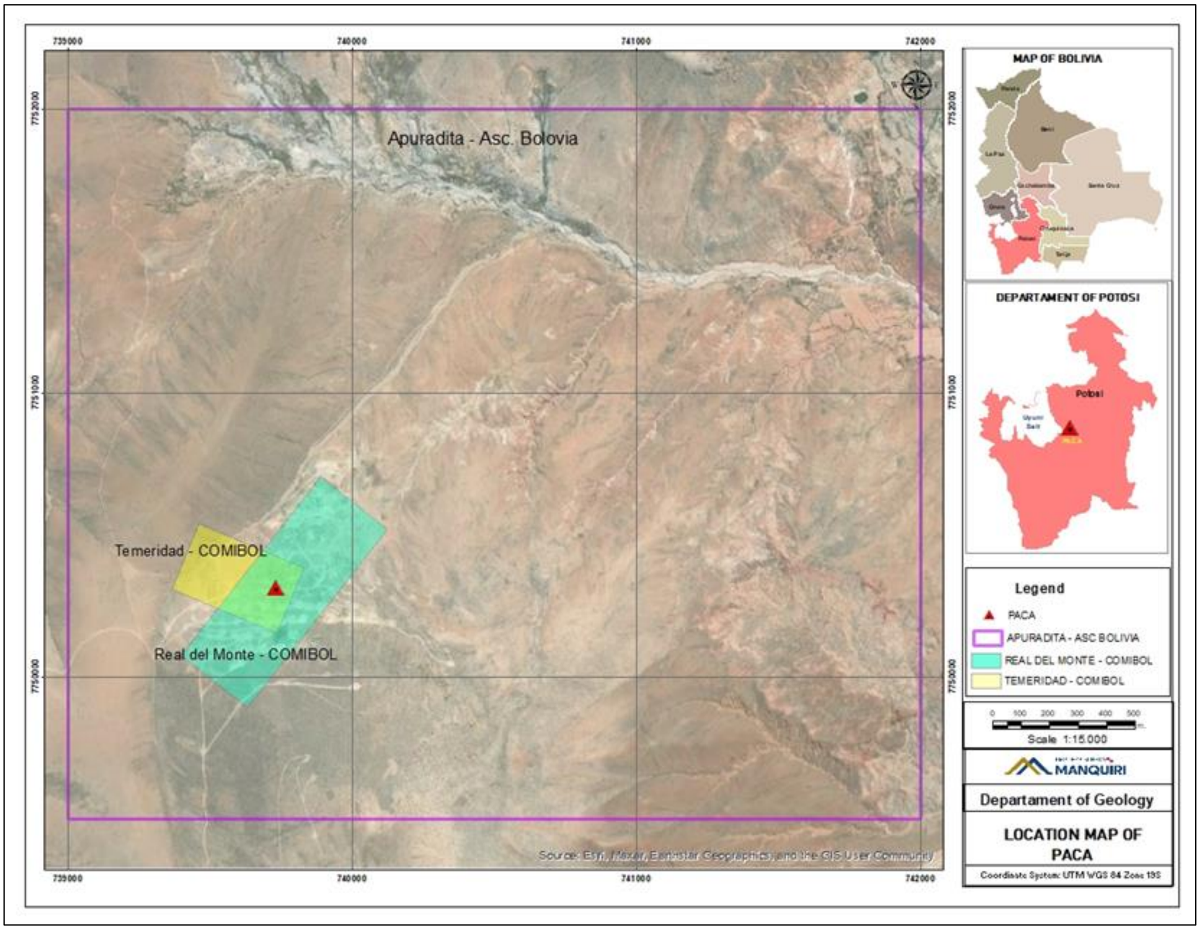
Source: Andean, 2023
Note: The center point of Alta Vista is approximately 19° 38' 50"S latitude and 65° 54' 22"W longitude.

Figure 4-4: Location of the Tollojchi Area

4.3.5 Paca

The Paca area is located in the northern part of the historic and large Pulacayo-Paca, epithermal silver and base metal mineral system (Figure 4-5). The project is easily accessed by about 18 km of paved Highway 5 from Uyuni (the closest full-service community) and 190 km from Potosí (also on Highway 5). From the Pulacayo property entrance on Highway 5, Paca is accessed by approximately 12 km of all-weather paved and gravel roads. The Paca area is approximately 784 ha in size (750 ha held by a private company and 34 ha held by COMIBOL), all controlled by contracts held by Manquiri. Rights to up to 800,000 t of mineralized material were acquired by Manquiri in September 2023 from

Silver Elephant Resources. The terms for the acquisition were disclosed by Andean in a press release (see news on www.andeanpm.com) and in Table 4-1.



Source: Andean, 2023
Note: The center point of Paca is approximately 20° 19’ 34” S latitude and 66° 41’ 47” W longitude.

Figure 4-5: Location of the Paca Area

4.4 Royalties and Taxes

In Bolivia, all corporate entities are required to pay a 25% tax on net profits, plus, in the case of mining companies, an additional special mining tax of 12.5%, thus totaling 37.5% on net profits on mining companies. This special mining tax is reduced to 7.5% for companies who produce metal or doré bars, as is the case for Manquiri. Therefore, Manquiri’s total corporate tax on net profits is 32.5%. Under Law 843, a surtax of 25% applies to mining company income after allowable deductions for accumulated investments in exploration, process facilities, and environmental costs. Using the allowable deductions, Manquiri has not been subject to the surtax.

Income or profit remitted abroad to a foreign beneficiary without domicile in Bolivia is subject to a 12.5% remittance tax. Income remittances from Manquiri to Andean are generally not taxable.

Royalties are paid to Servicios de Impuestos Nacionales (National Tax Services). which are distributed between the state (85%) and the municipality (15%). Royalties are calculated on the gross value of sales, which results from multiplying the weight of fine content or metal by the official quotation published twice a month by the Bolivian Mining Ministry (the first quotation is issued on the first labor day of each month and is valid for the first half of such month, and the second quotation is issued mid-month until the end of such month). These quotations are based on the average price of the previous 15 days issued by the London Bullion Market Association. Royalties are subject to payment upon exports, and the official percent to be applied fluctuates depending on the metal price, as follows:

- Ag price >US$8.00/oz: 6%
- Ag price greater than or equal to (≥) US$4.00 through US$8.00/oz: 0.75%*Ag price
- Ag price <US$4.00: 3%
- Au price >US$700/oz: 7%
- Au price ≥US$400 through US$700: 0.01%*Au price
- Au price <US$400: 4%

4.4.1 Other Royalties

Other than as disclosed in Section 4.3 of this technical report, the qualified persons are not aware of any other royalties associated with the mineral resources and reserves reported herein..

4.4.2 Fees to the Government

An annual fee is also payable as a requirement to continue holding rights. The fee amount depends on whether the right is for an exploration license or for an administrative contract for mining development. The fee is also calculated on the size of the area under license or contract and for each square (cuadrícula) of 25 ha (Table 4-2).

Table 4-2: Annual Fees (US$, per Law 535)

Activity	Unit Area	2018	2019	2020	2021	2022	2023?
Prospecting and exploration	Per square (25 ha each)	$52.44	$53.87	$55.02	$56.03	$56.61	$56.89
Aerial exploration	Per permit	$8,067.81	$8,290.08	$8,467.81	$8,624.55	$8,702.73	$8,763.07
Exploitation	1 to 30 squares	$64.51	$66.37	$67.67	$69.97	$69.68	$70.11
	31 to 40 squares	$80.74	$82.90	$84.62	$86.20	$87.06	$87.64
	≥40 squares	$96.83	$99.42	$101.58	$103.45	$104.45	$105.17

Source: Andean, 2023

Total, annual costs, and fees in Table 4-2 are paid annually. All fees have been paid as of the effective date of this Technical Report.

4.5 Environmental Liabilities

The QPs are not aware of any material environmental liabilities related to the properties other than those disclosed in Section 20.

4.6 Permits Required to Conduct Work

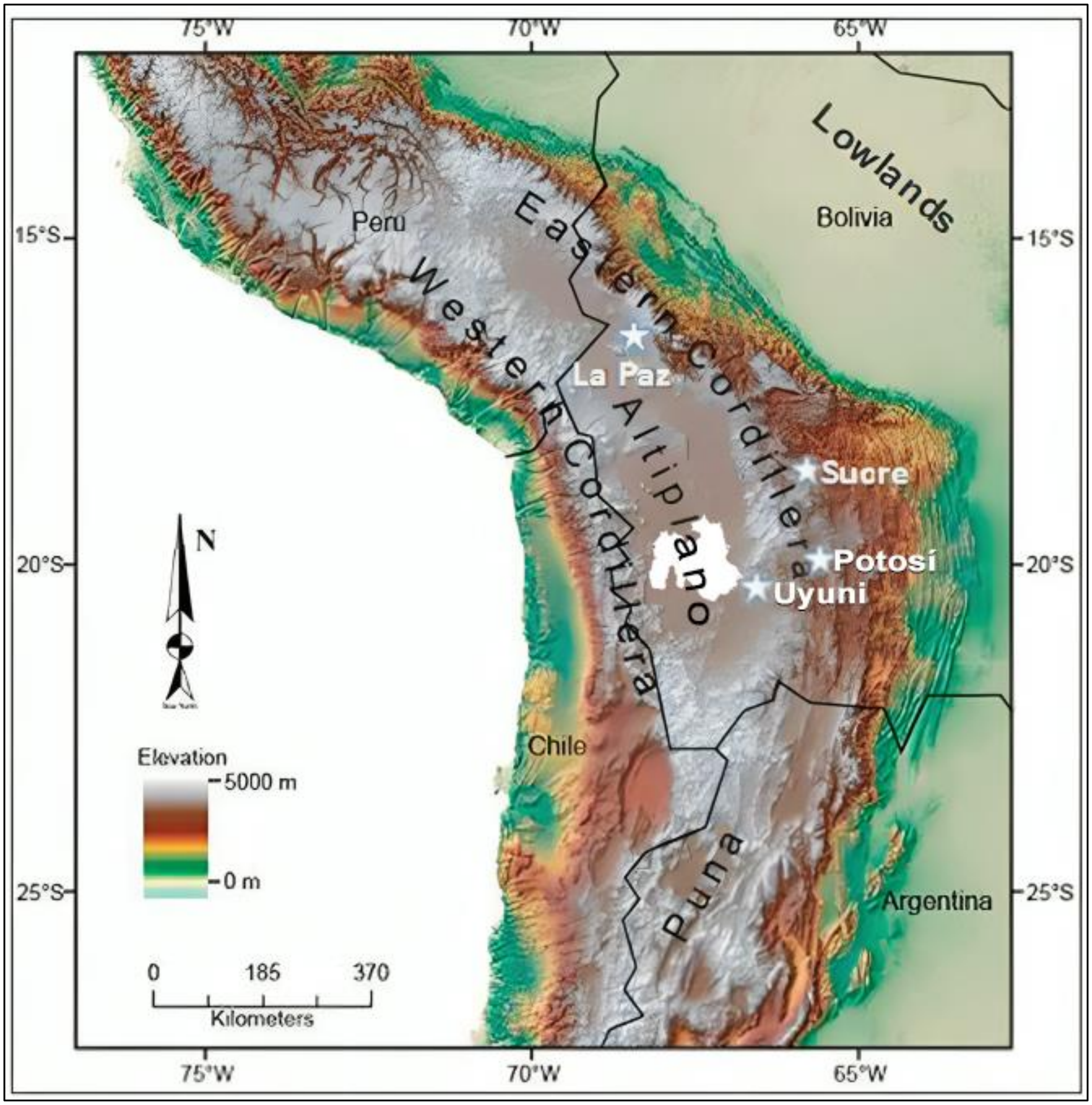
All minerals in Bolivia are property of the Bolivian people and are managed by the State. In 2014, regulations governing exploration and mining activities were amended to convert the former concession system to a contract system with AJAM. Manquiri has obtained the requisite authorizations to conduct its exploration and mining activities as described in this Technical Report.

4.7 QPs' Comments

Other than those disclosed in this section (Section 4), the QPs are not aware of any other significant factors or risks that may affect access, title, or the right or the ability of Manquiri to perform work on the properties. The QPs are not qualified to assess Manquiri's legal rights to mine and process materials from the properties and have relied upon public and private information provided by Manquiri to prepare the disclosure in this section (Section 4). Manquiri provided property title opinion from an independent, Bolivian counsel (Aguirre, 2023).

5 Accessibility, Climate, Local Resources, Infrastructure, and Physiography

Bolivia is one of two land-locked countries (along with Paraguay) in South America. Bolivia contains several distinct geographic regions, starting with the Cordillera Occidental (Western Cordillera) on the western margin of the country, the Altiplano (high plain), the Cordillera Oriental (Eastern Cordillera), and the Lowlands covering the eastern portion of the country (Figure 5-1).



Source: Birak et al., 2020

Figure 5-1: Major Geographic Regions of Bolivia

Topography, Elevation and Vegetation

The San Bartolomé mine and mill complex and the FDF are located within the Cordillera Oriental, which is a set of parallel mountain ranges emplaced on the eastern side of the Andes Mountain range. Elevations on the property range from 3,900 to 4,100 m with moderate to steep relief.

Vegetation in the region consists largely of grasses, shrubs, and low, clumpy herbaceous plants. Alpacas, llamas, vicuñas, and guanacos are common in the area and the property, and the local population herds both llamas and alpacas for food and wool. Rainfall in the area is sparse, with average annual temperatures from 8 to 11 degrees Celsius (°C) (https://en.wikipedia.org/wiki/Puna_grassland#Dry_Puna_.28Central_Andean_dry_puna.29).

Potosí is the nearest large city to the San Bartolomé operation, with over 14,000 residents (2023 estimated data, www.worldpopulationreview.com) with ready access to the property. Mining at Potosí began at Cerro Rico (the Rich Hill) in the mid 1500's, producing silver, tin, lead, and zinc from veins and replacement bodies in a volcanic dome complex, and continues to this day. As a result, many residents of Potosí are employed in mines and local material and service providers.

Accessibility and Transportation to the Property

Accessibility to Potosí is very good via air and paved roads from various major communities. Daily airline flights connect the cities of La Paz (the administrative capital of Bolivia) with Sucre (the constitutional capital) (Figure 5-1). From Sucre, the property can be reached by 129 km of paved Highway 5. Accessibility to the other projects (Paca, Alta Vista, and Tollojchi) is also very good along paved and all-weather gravel roads.

Weather

Potosí, Bolivia, experiences a highland climate characterized by cool temperatures and distinct wet and dry seasons.

Dry Season (May to October): During the dry season, temperatures in Potosí can range from chilly to mild. Daytime temperatures typically hover between 10°C to 20°C (50°F to 68°F), while nighttime temperatures can drop significantly, often reaching below freezing. This period is generally dry, with minimal rainfall. Humidity levels are lower.

Wet Season (November to April): Daytime temperatures may range from 15°C to 25°C (59°F to 77°F), and nights are generally less cold than during the dry season, with increased rainfall during. The region can receive a significant amount of precipitation during this time.

Sufficiency or Surface Rights

The Plant, FDF and Plant locations are in land owned by Manquiri. The sources of Contracted material, Tollojchi, Altavista and Paca are in terrains managed by the owners of those mining properties, who have agreements with locals or have the terrains ownership.

Infrastructure Availability and Sources

Mining, ore processing, and tailings operations can typically proceed throughout the year. Ore processing is conducted at Manquiri's facilities on the southeast side of Cerro Rico. Tailings are pumped to impoundment facilities southeast of the mill.

Power and water for ore processing activities are available at the property. Water has not been a concern for the property, though the greater Potosí area experienced a drought in 2016 and 2017. Water is sourced from local sources.

Overall, the geography, climate, and natural resources of the property and Potosí region do not pose any unusual challenges to Manquiri's current future activities. Manquiri provides on-site medical monitoring for signs of altitude sickness in its employees and visitors.

6 History

6.1 Prior Ownership and Ownership Changes

Prior to Andean, Manquiri was a wholly owned subsidiary of Coeur Mining, Inc.

Prior to the activities of Coeur and its location entity, Manquiri, there was little exploration or evaluation of the unconsolidated, gravel-like silver- and tin-bearing surficial materials (or pallacos) around the crest of Cerro Rico at San Bartolomé. The idea to recover silver from the unconsolidated materials was first proposed by Asarco in 1995 (Bartos, 2000). Coeur reported the following historic information (Tyler and Mondragon, 2015):

“Asarco began evaluating the gravel deposits in 1995 by channel sampling the steep faces that were created during hydraulic mining for tin. This work identified the Huacajchi deposit as a potentially high-grade silver deposit. Samples from this phase of the work were screened and various size fractions were assayed. This work demonstrated that the cobbles in the gravel contained significantly more silver than the finer matrix material. After negotiations, Asarco acquired the Huacajchi property, and in 1996 a reverse circulation drilling (RC) program of 35 holes totaling 1,400 m was completed. This drilling roughly defined the volume of the deposit and gave an early indication of the distribution of silver.”

“Given the relatively thin nature of the deposit, uncertainties about the reliability of the RC drilling and the availability of experienced miners in the area, it was decided to excavate hand-dug prospect shafts (pozos) as a means of obtaining bulk samples for grade determination and metallurgical testing. These workings were dug at the locations of 32 of the 35 RC drillholes as a test of the effectiveness of RC drilling for grade determination. The maximum depth of the shafts was 12 m, and a cubic meter of sample was collected per meter of depth. This work was completed in early 1997.”

“Nominal sample spacing of either RC holes or shafts was 150 m. Infill shaft sinking on 75 m centers followed. There were 54 shafts and 35 drillholes at 70 sites within the Huacajchi deposit. Extensive assaying and metallurgical test work were carried out on the samples from the shafts, including screen assay analyses, crushing, grinding, and settling tests and cyanide leach tests. In addition to the Huacajchi deposit, Asarco explored the Diablo and Santa Rita deposits in 1997 and early 1998. Asarco completed 14 shafts and nine channels in the Diablo Norte area. At Santa Rita, a total of 37 shafts and 25 channels were completed.”

During its tenure at San Bartolomé, Coeur conducted various types of exploration designed to find, define, and expand gravel-hosted silver mineralization (Tyler and Mondragon, 2015; Section 10, Table 10-1). Coeur utilized industry-standard methods, such as reverse circulation (RC) drilling (conventional without center-return percussion hammers), Barber drilling (dual rotary heads), hand-dug pits (pozos), track-mounted excavator trenches, and surface channels (Section 27).

Due to the highly unsorted nature of the pallacos, which consisted of a wide range of material sizes, hand-dug pozos and excavator cuts were the most effective means to obtain reliable bulk samples to evaluate and define the mineral potential of the pallacos at San Bartolomé. Techniques that used percussion, like RC drilling, would break down the larger, preferentially mineralized gravel fragments. It was recognized early in the project’s history that the preferentially mineralized, coarser-grained fragments could be separated from the less well-mineralized fine fragments, thus giving a more reliable sample for geochemical analyses. Barber techniques suffered poor penetration rates due to the presence of very hard, silicified fragments in the pallacos.

As reported by Tyler and Mondragon (2015), over 1,000 pits, trenches, and channels were cut into the pallacos and dumps at San Bartolomé. Manquiri has continued this type of exploration and sampling since its acquisition by Ag-Mining.

The historic work referenced herein formed the basis for the initial and subsequent historic mineral resource estimation at San Bartolomé. During its operations, Coeur made additional pozos and used similar methods to collect samples from new sites. The QP responsible for this section (Section 6) was responsible for exploration for the Coeur from 2004 through 2013, including those at San Bartolomé. Similar trenching and sampling activities are conducted to this day at San Bartolomé.

6.1.1 FDF

The FDF was constructed in 2008 and is a lined facility with engineered fill material comprising the dam. The FDF was designed to support the San Bartolomé mining and processing operations nearby. Deposition of fines from the washing of coarse ore fractions at the mine began in 2009 (Figure 4-2).

6.1.2 Contracted Material

Tollojchi and Altavista

The previous exploration works in Tollojchi were performed by the Bolivian company COMSUR (Compañía Minera del Sur S.A.), including geochemical sampling and drilling of some mineralized structures, looking for continuity of the mineralization at depth. The date of this work is not clear, and no documentation of the exploration results is available.

The exploration activities completed by the owner of the property in Altavista, the Bolivian company Empresa Minera Bedrock S.R.L., are not know and no documentation its activities is not available.

Paca

The Pulacayo area, where Paca is located, has a very long history of exploration and mining. Well documented exploration work carried out on the Paca deposit is restricted to the period beginning in 2001 when modern programs of assessment that include Induced Polarization surveying, geological mapping, reverse circulation drilling and core drilling were carried out. The history of work at Paca is more difficult to document prior to that period, but it is clear that COMIBOL investigated the core breccia zone area of the deposit through development of the Esmeralda adit and associated underground workings in 1956. Prior to that, records show that near surface workings focused on the outcropping Paca mineralized conglomerate unit had been developed at some time during the Hochschild Company ("Hochschild") period of operation at the nearby Pulacayo mine (1927 to 1952 period), (Mercator 2020).

In 2001, ASC initiated an exploration program in the district, signed agreements with the Cooperative and COMIBOL and completed programs of regional and detailed geological mapping, topographic surveying and sampling of historical workings. In part, these work programs included the Paca deposit, where 3,130 m of core drilling in 30 drillholes and 896 m of reverse circulation (RC) drilling in 5 holes were completed (Mercator 2020).

Between 2006 to 2015 Apogee completed a detailed topographic survey, detailed geological mapping and sampling of Paca surface exposures and the Esmeralda adit underground workings, induced polarization (IP) geophysical surveying and diamond drilling. Micon International Limited (Micon) also prepared for Apogee a new mineral resource estimate for the Paca deposit in accordance with NI 43-101 (Mercator 2020). Apogee subsequently completed 76 additional diamond drillholes (13,631.2 m) at Paca in three separate drilling campaigns during 2006 (Mercator 2020).

Silver Elephant completed various geological mapping and surface sampling programs over several areas of mineralization on the property during the 2015 through 2017 period. Geological mapping and chip sample program was completed in February 2020 for the Paca area and a San Leon Tunnel geological mapping and chip sample program completed in February-March of 2020 (Mercator 2020).

Details of the drilling programs noted above are presented in technical reports prepared previously in support of the previous Paca resource estimates and disclosed according to NI 43-101.

6.2 Historic Mineral Resource and Reserve Estimates

A QP has not done sufficient work to classify the historical estimate as a current resource estimate or mineral reserve, and the issuer is not treating the historical estimate as a current resource estimate.

6.2.1 San Bartolomé

Over the years of its operation, Coeur (the prior owner) reported annual updates to the mineral resources and mineral reserves of San Bartolomé. Coeur's most recent Technical Report (Tyler and Mondragon, 2015), as filed on www.sedarplus.com, was dated December 31, 2014 (the effective date), and disclosed the information shown in Table 6-1 through Table 6-4.

Table 6-1: Historic Mineral Resources and Mineral Reserves (2014)

Classification	Tonnage (thousand tonnes (kt))	Average Silver Grade (g/t)	Contained Silver (thousand ounces (koz))
Mineral Reserves			
Proven	1,094	93.5	3,287
Probable	12,099	109.8	42,724
Total	**13,193**	**108.5**	**46,011**
Mineral Resources (In Addition to Mineral Reserves)			
Measured	0	0	0
Indicated	6,380	65.5	13,445
Subtotal	**6,380**	**65.5**	**13.445**
Inferred	60	57.5	111

Source: Tyler and Mondragon, 2015 (Technical Report filed February 18, 2015)

- Mineral resources were reported as in addition to mineral reserves.
- Pit-constrained
- US$19/oz Ag price was used for mineral reserve estimation, and US$22/oz Ag price was used for mineral resources estimation.

Table 6-2: Historic Mineral Reserves and Mineralized Material (2017)

Classification	Tonnage (thousand short tons)	Average Silver Grade (oz/short ton)	Contained Silver (koz)
Mineral Reserves			
Proven	1,640	2.52	4,429
Probable	162	2.98	482
Total	**1,802**	**2.55**	**4,911**
Mineralized Material			
Not classified	4,106	3.41	14,001

Source: Coeur, 2017 (December 31, 2017, Coeur, US SEC Form 10-K, (imperial units))

- Mineralized material (US SEC term) is equal to the sum of additional Measured and Indicated mineral resources (Inferred was not permitted to be reported within mineralized material); this term has been recently replaced with the term mineral resources under the new US SEC regulation S-K 1300.
- Mineralized material figures cited were reported as exclusive of mineral reserves; contained silver ounces were not reported but were calculated by D.J. Birak herein (QP) as reported tons x reported grade.
- US$17.5/oz Ag was used in estimation of mineral resources.

Table 6-3: Historic Mineral Resources and Mineral Reserves (2020)

Classification	Tonnage (kt)	Average Silver Grade (g/t)	Contained Silver (koz)
Mineral Reserves			
Proven	2,176	128.5	8,982
Probable	1,436	126.2	5,825
Total	**3,612**	**127.6**	**14,817**
Mineral Resources (In Addition to Mineral Reserves)			
Measured and indicated	1,036	96.0	3,202
Inferred	1,333	110.9	4,755

Source: NCL Resources Ltd. and Birak, 2020 (Technical Report effective March 17, 2020)

- San Bartolomé only
- Estimated by NCL Resources Ltd.
- Mineral resources were reported as in addition to mineral reserves.
- Pit constrained.
- US$17/oz Ag price was used for mineral reserve estimation, and US$19/oz Ag was used for mineral resources estimation.

Table 6-4: Historic Mineral Resources (2022)

Classification	Tonnage (kt)	Average Silver Grade (g/t)	Contained Silver (koz)
Mineral Resources			
Measured and Indicated	3,063	87.5	8,620
Inferred	463	91.4	1,360

Source: SRK and Birak, 2022 (Technical Report effective December 31, 2021)

- San Bartolomé only
- Estimated by SRK
- Mineral reserves were not estimated.
- Mineral resources were reported as pit constrained.
- US$22/oz Ag price was used for mineral resources estimation.

6.2.2 Paca

Prior to Andean acquiring the rights for up to 800,000 t of oxidized mineral resources in September 2023 (news: www.andeanpm.com) from Silver Elephant Mining Corp., oxide mineral resources were reported by Silver Elephant Mining Corp. at the Paca deposit in 2020 (www.silverelef.com) (Table 6-5).

Table 6-5: Historic Mineral Resources at Paca (2020)

Classification	Tonnes (000's)	Average Silver Grade (g/t)	Contained Silver Ounces (000's)
Mineral Resources – Oxide Only			
Indicated	1,095	185	6,500
Inferred	345	135	1,500

Source: Silver Elephant Mining Corp., 2023 (website)

- Paca oxide only
- No mineral resources were reported. Mineral resources that are not mineral reserves have not demonstrated economic viability.
- Estimated by Mercator Geological Services (Mercator) and reported in an NI 43-101 Technical Report October 20, 2020.

Andean is not considering the mineral resources at Paca as current but engaged SRK to estimate mineral resources and mineral reserves at Paca, as disclosed in this Technical Report.

6.2.3 Other Areas

The are no known historical estimates of mineral resources or mineral reserves for the other areas reported in this Technical Report (Sections 14 and 16): Alta Vista and Tollojchi.

The historic mineral resources and mineral reserves disclosed in this section (Section 6) have been included in this Technical Report for completeness purposes only. Neither the QPs nor Andean are treating the historical estimates in this section as current mineral resources or mineral reserves. The QPs have not done sufficient work to validate the key assumptions, parameters, and methods used to prepare the historical estimates.

6.3 Historic Production

6.3.1 San Bartolomé

Coeur conducted mining and mineral processing at the property continuously from 2008 through 2017 and disclosed its results in its annual filings with the US SEC and in various NI 43-101 Technical Reports (Table 6-6).

Table 6-6: Historic San Bartolomé Mill Production

Yearly Data (000's of tonnes and 000's ounces)	2023	2022	2021	2020	2019	2018	2017 – 2008 (Coeur Data)
Total Material Processed							
Tonnes	1,371	1,613	1,715	1,484	1,512	1,375	13,604
Silver Grade	120	120	115	132	122	121	131
Silver Recovery	78	77	84	88	88	87	89
Silver Produced	4,108	4,767	5,324	5,509	5,246	4,642	57,168
Gold Grade	0.05	0.10	0.12	0.12	4.00	2.00	0.00
Gold Recovery	83	89	91	95	90	85	0
Gold Produced	1.736	2.560	6.075	5.247	3.537	2.922	0
San Bartolomé Pallacos Processed							
Tonnes	701	976	1,015	992	1,110	1,138	13,604
Silver Grade	64	62	69	88	75	80	131
Silver Recovery	81	82	97	92	91	90	89
Silver Produced	1,186	1,616	2,012	2,569	2,428	2,637	57,168
Other Materials Processed							
Tonnes	670	637	700	492	401	237	Not disclosed
Silver Grade	180	208	181	219	255	316	
Silver Recovery	76	74	77	84	86	83	
Silver Produced	2,922	3,172	3,346	2,904	2,818	2,005	
Gold Grade	0.08	0.10	0.30	0.40	4.20	1.75	
Gold Recovery	86	90	92	95	90	85	
Gold Produced	1.531	2.369	5.769	5.029	3.537	2.922	

Source: Andean, 2023, and Birak et al., 2020

- Tonnes and ounces are in thousands, and recovery is in percentage.
- The information presented is net of refinery losses and inventory adjustments.
- Annual information from 2008 through 2017 was taken from Coeur annual reports and the Tyler and Mondragon technical report (2015).
- Manquiri records indicate from 0.9 to 1.6 Moz Ag contained were produced annually from purchased materials during 2015 through 2017, with none in prior years. The 3-year total was 0.479 Mt grading 235 g/t Ag containing 3.642 Moz Ag.
- Imperial units reported by Coeur were converted to metric: 1 troy ounce/short ton (oz/t) = 34.286 g/t, 1 ton = 0.9072 tonnes.

Manquiri's production from other materials was achieved from purchased materials from third-party suppliers, some of which were materials from Cachi Laguna. Manquiri records indicate that 0.479 Mt of purchased material grading 235 g/t Ag and containing 3.642 Moz Ag was processed in the period 2015 through 2017. The QPs viewed the purchased material stockpiled at San Bartolomé crusher site during the first site visit.

6.3.2 Other Areas

The area has a history of mining in Tollojchi since colonial times, with abandoned sites and the remains of deep cuttings showing silver sulfides. Currently, the oxidized cover of the "mantos" and "salbandas" of the mineralized structures are being exploited.

The Altavista area has been exploited since last century and currently underground operations are in place in the main vein, but not known production records are available.

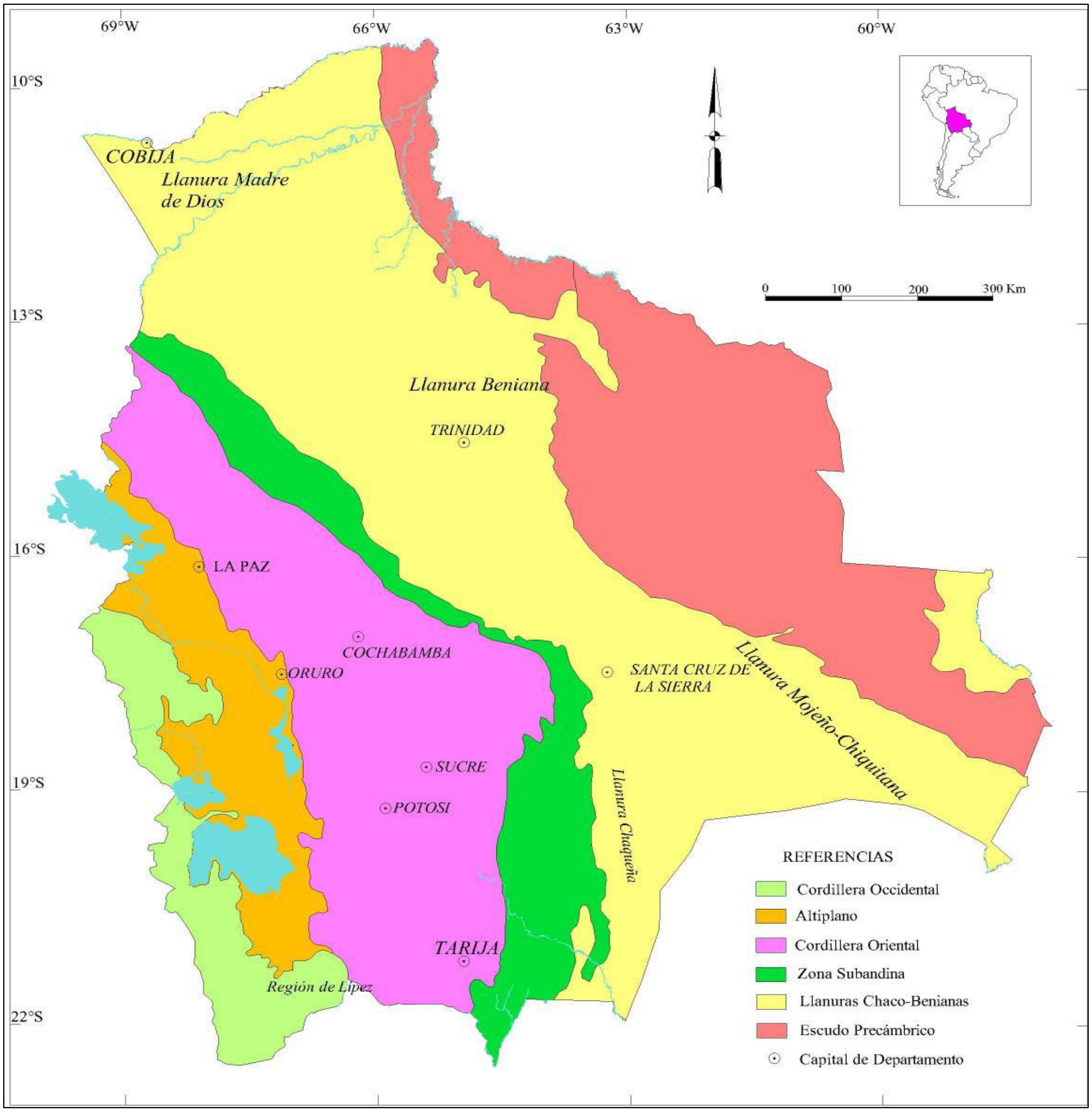
Mining of silver deposits at the Pulacayo Project (Pulacayo and Paca) area began in the Spanish Colonial Period (c.1545) but early production details do not exist. In 1891, reported annual silver production reached 5.7 million ounces (Moz) and mining operations at Pulacayo at that time were the second largest in Bolivia.

The total production from the Pulacayo mine was estimated by the National Geological and Mineral Service of Bolivia in 2002, to be 678 Moz of silver, 200,000 tons of zinc and 200,000 tons of lead. There is no known public data on recent production.

7 Geological Setting and Mineralization

7.1 Regional Geology

Bolivia consists of six distinct physiographic provinces; from west to east, they are the Cordillera Occidental (Western Cordillera), the Altiplano (High Plain), the Cordillera Oriental (Eastern Cordillera), the Subandean, the Chaco-Beni Plain province, and Precambrian province (Figure 7-1). Two prominent northwest-trending mountain ranges (the Cordillera Occidental and Cordillera Oriental, separated by the Altiplano (Figure 7-1)) trend northwesterly across the country; together, with the Subandean province, they form the Bolivian Andean Terrain (Figure 7-1), cover over 40% of the surface area of Bolivia, and are the source of most historic and current mineral production (Arce-Burgoa, 2007).



Source: Arce-Burgoa and Goldfarb, 2009

Figure 7-1: General Geology of Bolivia

The Cordillera Oriental province (in which the property is located) is underlain by a thick sequence of intensely folded, lower Paleozoic-aged, marine clastic sedimentary rocks overlain by Cretaceous to lower Tertiary, continental sedimentary rocks, un-deformed late Tertiary, unconsolidated, continental sediments, and upper Oligocene to Pliocene intrusive and volcanic rocks. The Paleozoic rocks were deformed by late-Paleozoic-aged compression to form a northwest-trending belt of tight folds and thrusts. The Mesozoic rocks were also folded like the underlying Paleozoic rocks, though into more gentle, open folds with shallow plunges, during a subsequent event in the late Mesozoic Andean event compression (Arce-Burgoa and Goldfarb, 2009).

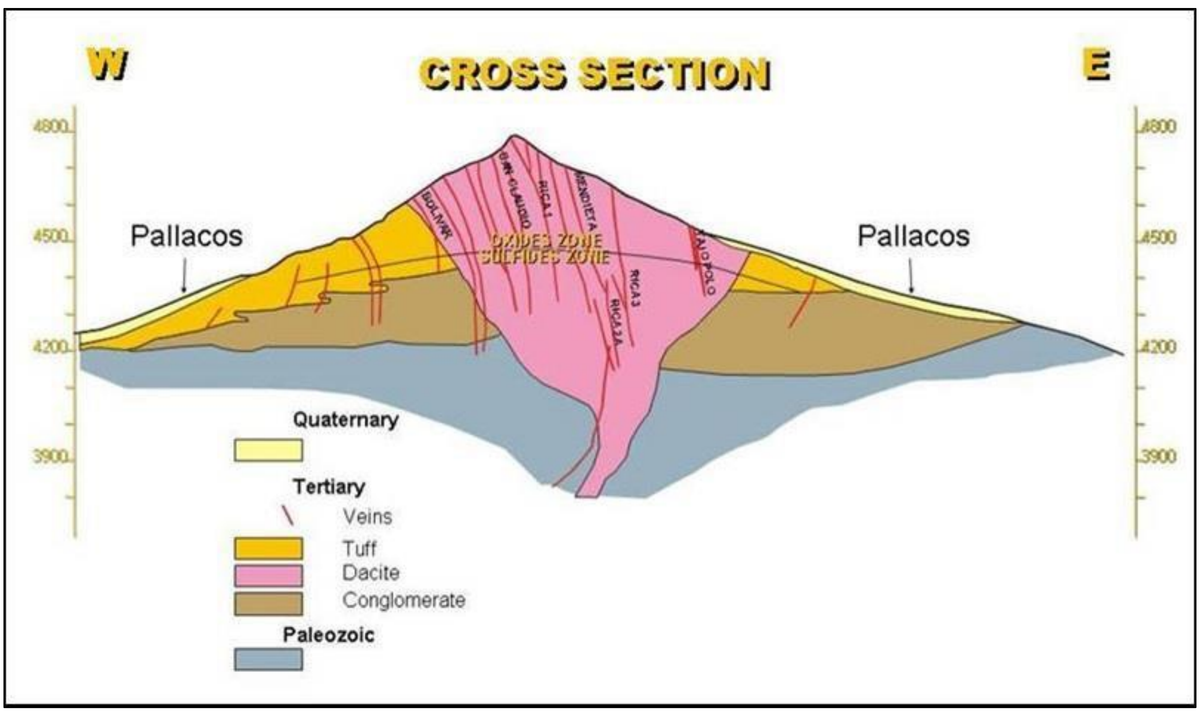
The Bolivian Andean Terrain hosts the major share of the metalliferous deposits of Bolivia, including Manquiri's mineral interests.

7.2 District and Property Geology

7.2.1 San Bartolomé

Cerro Rico hosts one of the world's largest silver occurrences and has been mined since the late 1500s for precious and base metals (for silver during the sixteenth century and for tin and zinc during the twentieth century (Tyler and Mondragon, 2015)). The mineralization is high-sulfidation epithermal in character occurring as disseminations, stockworks, breccias, and veins hosted by a dacitic dome and its underlying tuff ring and explosion breccia (Cunningham et al., 1996). Vuggy silica textures, derived from acid leaching of the host rock feldspar minerals, is evident in the larger fragments of the gravel and in exposures in the upper elevations of Cerro Rico. Erosion of the ore system, shown schematically in Figure 7-2 (Bartos, 2000, modified from Sillitoe et al., 1998), deposited ore as a thin mantle or covering around the mountain. Bartos (2000) further describes the Cerro Rico mineral system as follows:

"The district can be generalized as a shallow-level, one pulse, funnel-shaped, dacite porphyry stock intruding a >400-m-thick section of Miocene air-fall tuffs, volcanic breccias, and water lain sediments called the Cerro Rico Series. Cunningham et al. (1996) interpreted the basal portion of the Cerro Rico Series (Pailaviri Formation) as a phreatomagmatic explosion breccia; this is overlain by the Caracoles Formation, which they interpreted as a tuff ring with associated ephemeral lake deposits. The dacite porphyry stock, dated at 13.8 Ma by Cunningham et al. (1996), appears to have been intruded in the crater wall separating the two members of the Caracoles Formation."

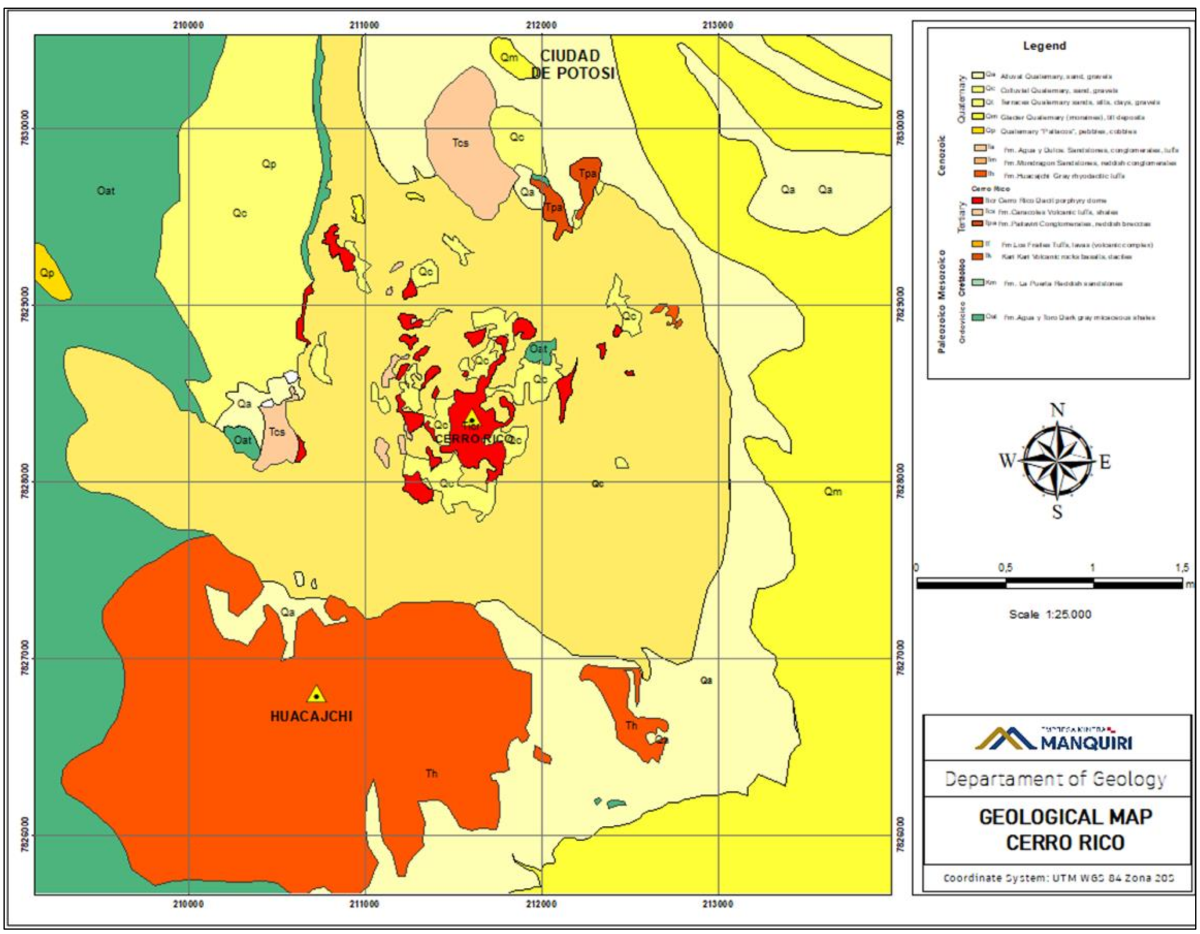


Source: Bartos, 2000, after Sillitoe et al., 1998

Figure 7-2: Cerro Rico Schematic Geologic Cross-Section

The hydrothermal ore system at Cerro Rico is zoned with a core of cassiterite (SnO_2), wolframite ($(Fe,Mn)WO_4$), bismuthinite (Bi_2S_3), and arsenopyrite (FeAsS) mantled by a zone of sphalerite ((Zn,Fe)S), galena (PbS), and lead and silver sulfosalt minerals. Central dacite dome and the overprinted ore system are believed to have been derived from a larger magmatic hydrothermal source at depth (Tyler and Mondragon, 2014). The dome was repeatedly fractured by a north-to-northwest-trending fault system. Mineralization and alteration occurred within about 0.3 mya of dome emplacement at 14 mya (Cunningham et al., 1991). As a result of this mineral assemblage, the pallacos at San Bartolomé contain tin in addition to silver, preferentially in the fine size fractions.

Surface geology of San Bartolomé mainly consists of unconsolidated, transported materials shed off Cerro Rico from erosion of the multiple, north-to-northwest-trending high sulfidation mineral deposits (termed pallacos; i.e., gravel). Thin, gray-colored ash layers occur sporadically within the pallacos and are unmineralized and volumetrically insignificant diluting materials. Scattered outcrops of the high sulfidation host rocks can be found flanking the pallacos and on the +4,700-m-tall mountain (Figure 7-2 and Figure 7-3).



Source: Andean, 2022

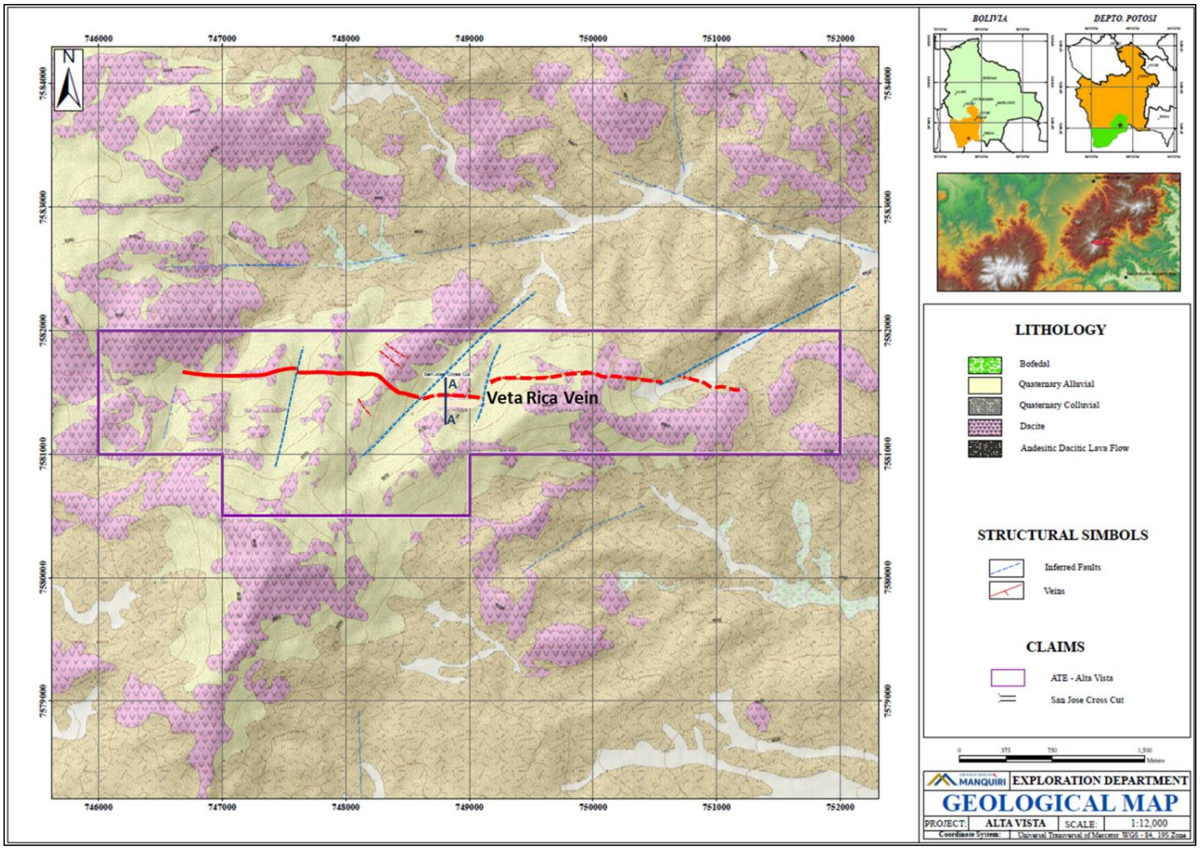
Figure 7-3: Cerro Rico Surface Geology

Pallacos are located in three main areas, with X, Y (plan), and Z (vertical) dimensions as follows: Huacajchi (1.2 km x 1.6 km x 0.02 km), Santa Rita (1.3 km x 1.3 km x 0.02 km), and Antuco (2 km x 0.6 km x 0.02 km).

7.2.2 Alta Vista

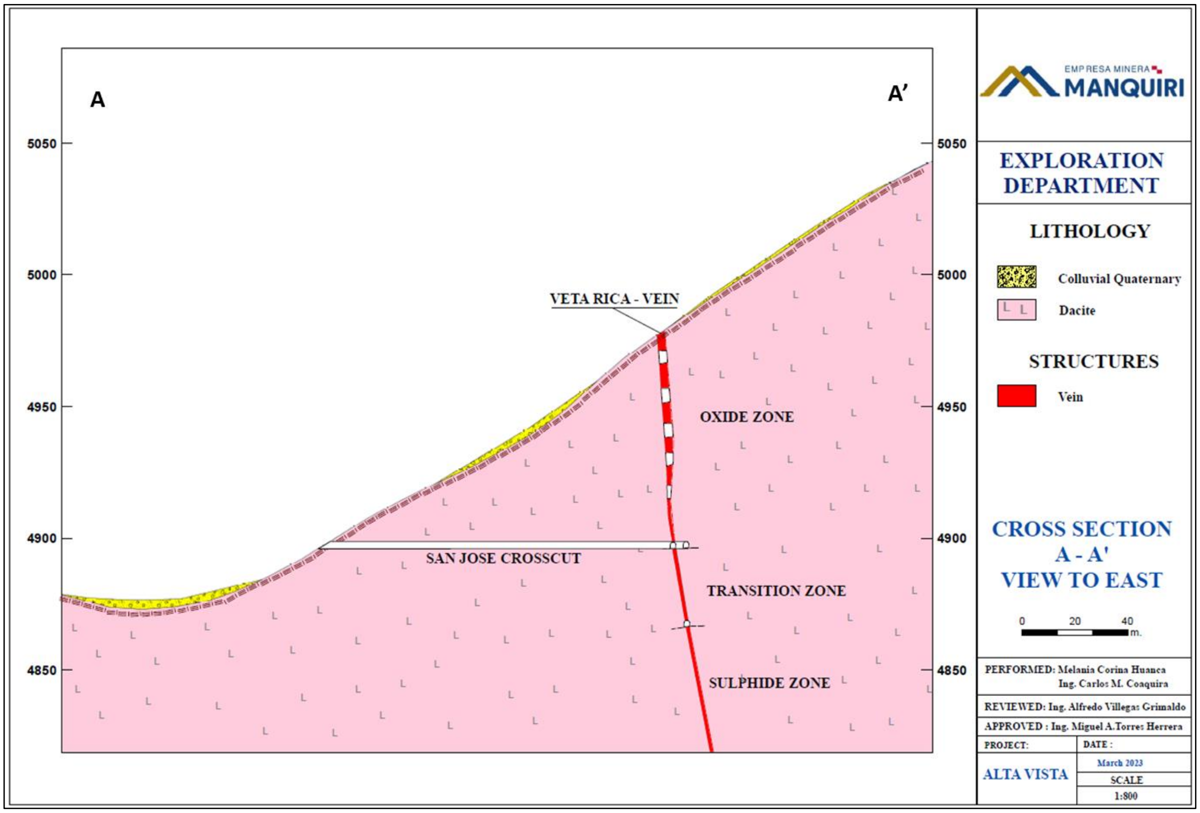
Regionally, mineralization at Alta Vista was formed in a volcanic environment of several stratovolcanoes, calderas, and domes. Locally, Alta Vista occurs in the San Antonio de Lípez District, where different volcanic complexes (such as Bonete, Santa Isabel, San Antonio de Lípez, Escala, Todos Santos, and Morokho) host gold-silver epithermal mineralization. The Alta Vista Project is located within a dacitic dome, which has plagioclases phenocrysts partially replaced by sericite, quartz, and biotite; mentioned minerals are supported by a fine silicified matrix. Most of area is covered by Quaternary material, and outcrops are rare.

Mineralization is controlled by multiple epithermal veins, with the main (Veta Rica Vein) supplying all the material processed to date from Alta Vista transported to the San Bartolomé plant. Gangue mineralization at Alta Vista consists largely of quartz and iron-manganese oxides. Veta Rica has an average width of 2.50 m, locally reaching 6.0 m. On strike, Veta Rica can be observed in sporadic, poorly exposed outcrops around 800 m in surface. Various, collapsed, or partially covered historic adits can be found along strike. Depth extension of Veta Rica is at least 130 m. Figure 7-4 shows the Alta Vista surface geology, and Figure 7-5 shows a north-to-south cross-section through Alta Vista within the Veta Rica plane.



Source: Andean, 2023

Figure 7-4: Alta Vista Surface Geology

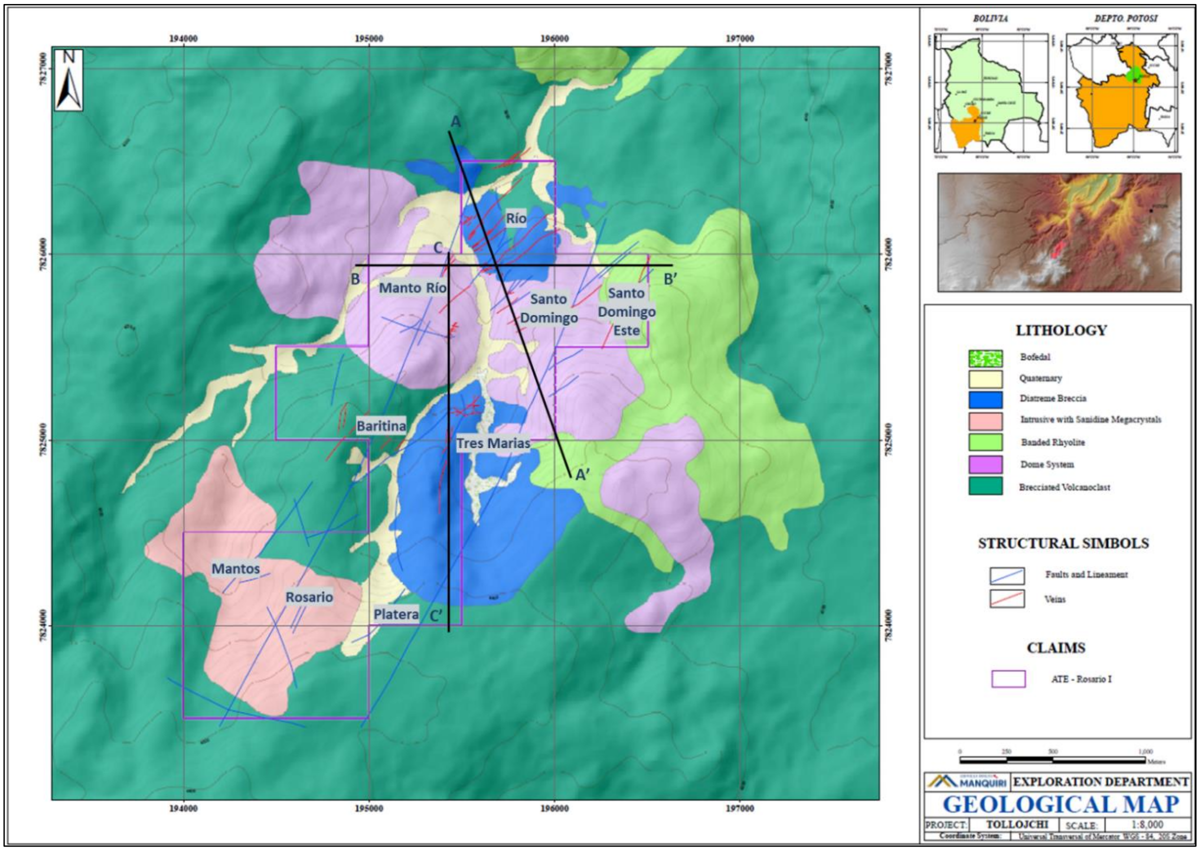


Source: Andean, 2023

Figure 7-5: North-to-South Cross-Section through Alta Vista within the Plane of the Veta Rica

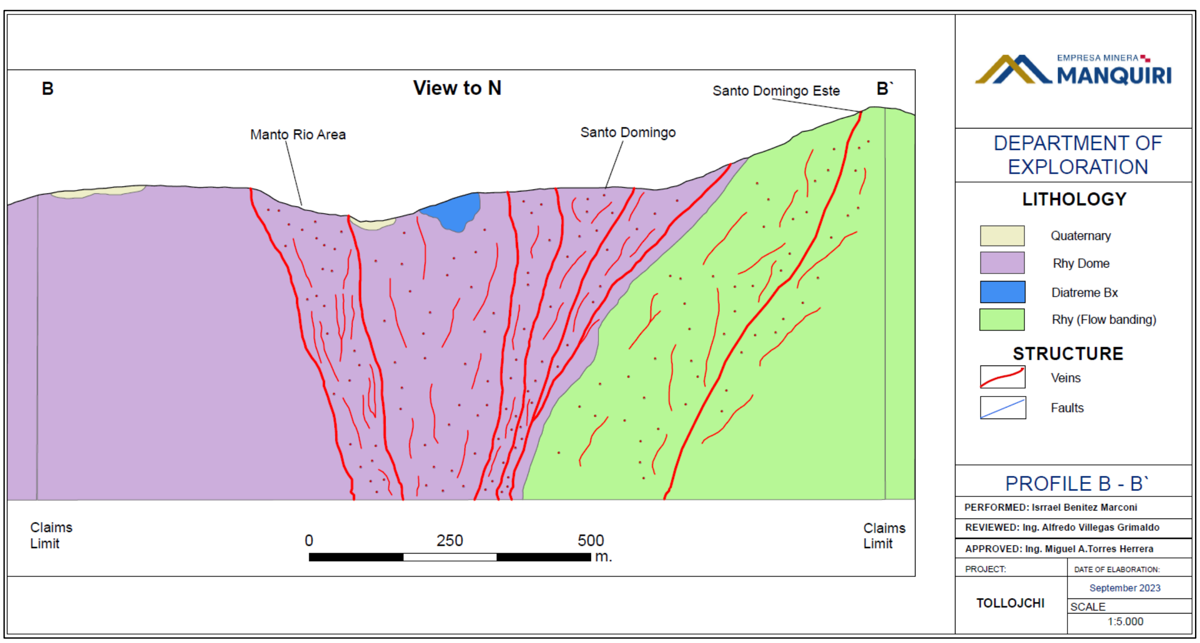
7.2.3 Tollojchi

The Tollojchi Deposit is linked to the Los Frailes Ignimbrite Plateau, a Miocene-aged volcanic sequence of tuffs and lava flows that vary from intermediate to felsic compositions. In turn, this volcanic complex lies in the Bolivian Eastern Cordillera. Locally, there are few outcrops of sedimentary basement which consist of Ordovician-aged phyllites discordantly below Cretaceous-aged sandstones. These basement rocks are intruded and covered by Tollojchi Formation, dated between 10.5 ± 0.3 mya and 11.5 ± 0.42 mya (Schneider, 1985). Tollojchi Formation is made up by several lava flows, ignimbrites, and tuffs with a composition that varies from andesitic to rhyolitic (Figure 7-6 and Figure 7-7).



Source: Andean, 2023

Figure 7-6: Tollojchi Surface Geology



Source: Andean, 2023

Figure 7-7: East-to-West Cross-Section (B-B')

Silver mineralization in Tollojchi is hosted in veins, breccias, and disseminated zones and is strongly associated with the presence of several northeast-to-southwest-trending lithocaps. Tollojchi mineralization is high sulfidation in character, with pyrophyllite and vuggy silica present, typical of this geologic environment (Sillitoe, 1998 et al.).

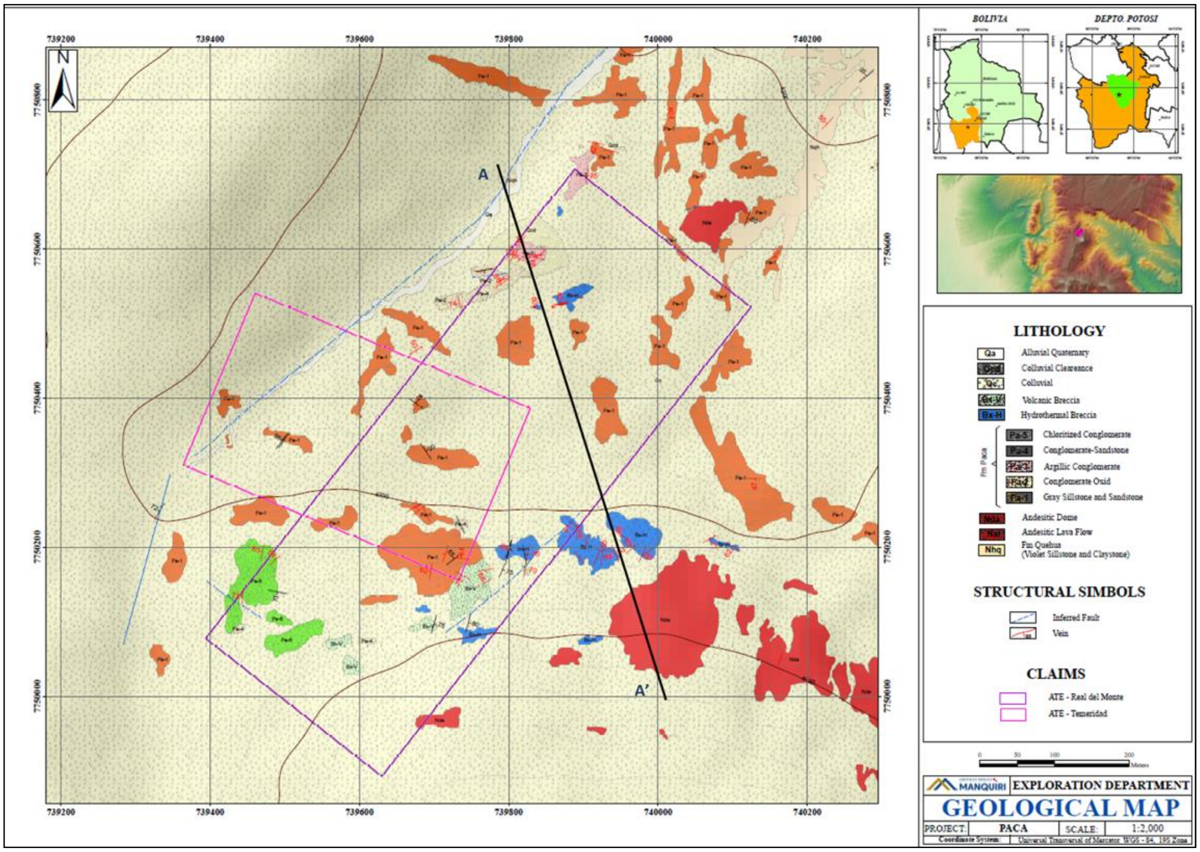
The main areas that provide oxidized material to San Bartolomé are Mantos, Rosario, and Platera, which reach until 900 m in longitudinal continuity, reach at least 200 m at depth, and form the basis for the mineral resources and reserves cited in this Technical Report.

7.2.4 Paca

Located in the west margin of the Bolivian Eastern Cordillera, the Paca Project is 6 km north in a straight line from the historic argentiferous Pulacayo Deposit. The Paca Project lies in a regional anticline that is formed by terrigenous and volcanoclastic sequences from Oligocene-Miocene. Miocene dacitic porphyries are intruding mentioned sequence, having as emplacement control the regional reverse fault Uyuni-Poopó.

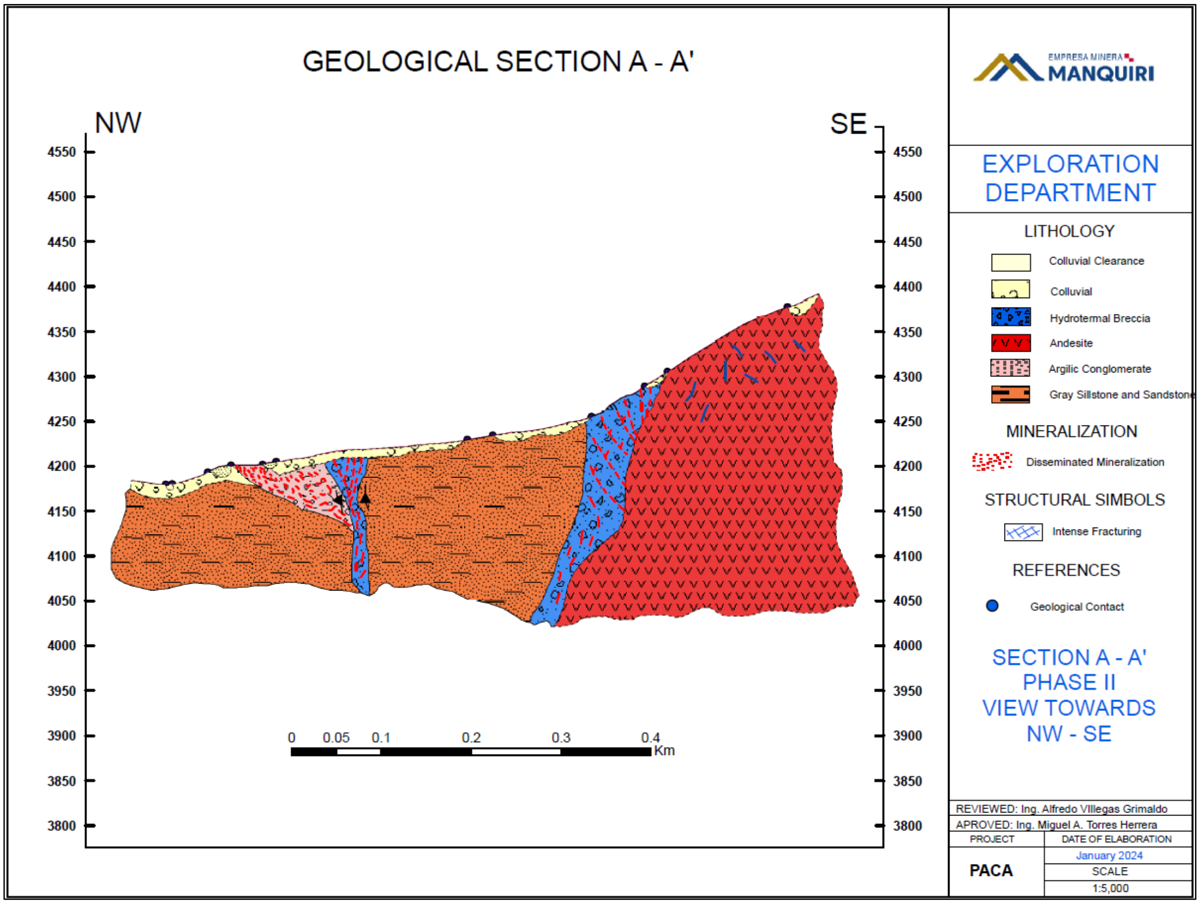
Locally, geology in the area is mainly represented by volcanoclastic and terrigenous sequences and some andesitic lava flows. At the bottom of the stratigraphy, there is an Eocene reddish sandstone-claystone-conglomerate interbedding, which belongs to Potoco Formation of Paleogene age. Overlying Potoco rocks is the San Vicente Formation, an Oligocene-aged red conglomerate, and red sandstone interbedded with volcanic units of the Miocene-aged Quehua Formation. At the top of the stratigraphy, there is an andesitic lava flow (locally called the Paca Dome) that has plagioclase and pyroxenes phenocrystals supported by an aphanitic matrix, which impart a porphyritic texture.

Paca mineralization is intermediate sulfidation in character occurring as disseminations and consists of oxidized and sulfidic material hosted within igneous and sedimentary rocks. In conglomerate, mineralization is mainly in matrix, which was replaced by barite-tetrahedrite; in andesite, mentioned minerals are disseminated and filling empty cavities. Contact between both units is the main control of mineralization. On the surface, silver contents are dominant, while base metals increase at depth. Figure 7-8 shows the Paca surface geology, and Figure 7-9 shows a Paca cross-section.



Source: Andean, 2023

Figure 7-8: Paca Surface Geology



Source: Andean, 2023

Figure 7-9: Cross-Section (A-A') through Paca

8 Deposit Types

Bolivia is a major source of silver production, ranking seventh in the world in 2022 with 8.7 Moz of silver production (The Silver Institute, 2023; World Silver Survey), including production from the San Bartolomé Mine at Potosí. Bolivia's silver production is from a variety of deposit types, notably epithermal deposits. Epithermal mineral deposits are a specific type of hydrothermal (hot water) deposit commonly formed within volcanic settings (John et. al., 2010). Three main types of epithermal mineral deposits (low, intermediate, and high sulfidation (Corbett, 2002)) are present in Bolivia.

The silver, tin, and base metal deposits at Cerro Rico are high sulfidation in character (Sillitoe et al., 1998). Cunningham et al. (2006) reported that the silver deposits at Cerro Rico were the largest in the world at the time of his publication. Mineralization at Cerro Rico was produced from numerous underground mines exploiting high sulfidation, epithermal veins, and disseminations. Initial mining commenced in the mid-sixteenth century and continues to this day, with both underground and on-surface mining. Mineralization from the other deposits referenced herein, Alta Vista, Tollojch, and Paca, is also epithermal in character.

8.1 Deposit Areas

8.1.1 San Bartolomé

The pallacos are Quaternary-aged, gravel deposits consisting of an unsorted mixture of cobbles and boulders in a sandy clay matrix, formed from erosion of the primary Cerro Rico outcrops, accumulated down slope by colluvial and alluvial processes, and filling depressions, gullies, and low-gradient areas around the mountain. As of the effective date of this Technical Report, the pallacos are nearly mined out.

The untreated FDF tailings at San Bartolomé consists of fine pallacos material that contains silver and tin and was screened to +8 mesh (+2.38 mm) to upgrade the material being fed to the plant. These materials have been accumulating in the FDF since initial construction and commissioning of the San Bartolomé processing facility in 2008. The DSF is adjacent to the FDF and holds tailings from the San Bartolomé mill.

8.1.2 Alta Vista

Mineral deposits at Alta Vista are considered intermediate sulfidation in character and are hosted in veins of variable width (up to 6-m true width) steep veins. Both sulfidic and oxidized mineralization have been and are being mined today at Alta Vista. The main structure being mined is a shear vein (called Veta Rica) that has a known strike extent (east to west) of +800 m and a depth extent of +130 m (from surface).

8.1.3 Tollojchi

Mineralization at Tollojchi is deemed high sulfidation in character (Sillitoe et al., 1998) hosted in undifferentiated volcanic rocks of Tertiary age (Arce-Burgoa, 2009). Both sulfidic and oxidized parts of the Tollojchi mineral deposits are being mined today by shallow pits in the exposed oxide to mixed oxide-sulfide portions of high sulfidation lithocaps and with underground methods on steeply dipping veins. The lithocaps at Tollojchi appear to occur as a cluster of multiple, inclined, and discrete alteration centers (with vuggy silica, pyrophyllite, and alunite) in contrast to the large lithocap that forms the top of Cerro Rico. In general, the exposed lithocaps at Tollojchi are about 4,500 square meters (m^2) in size. Mineralization extends more than 200 m below the lithocaps in the Rosario area (Villegas et al., 2022). This Technical Report presents mineral resources and reserves in three of the centers (Mantos, Platera, and Rosario).

8.1.4 Paca

Precious metal mineralization at Paca has been described as low to intermediate sulfidation, epithermal in character (Mercator, 2020). Precious metal mineralization at Paca occurs with zinc and lead in veins, veinlets, and breccias hosted in Tertiary-aged volcanic rocks of the lower Miocene rocks of the Quehua Formation. The inferred intrusive source for the Paca mineralization is believed to be the andesitic Paca Dome (Mercator, 2020).

8.2 Basis for Exploration

8.2.1 San Bartolomé

Exploration at San Bartolomé is conducted infrequently, using the model of pallaco formation defined by Manquiri to define material for mill feed. There has been no significant exploration for new pallacos at San Bartolomé since at least 2011 during the trenching at Puka Loma (mined out) located to the west of Antuco and the western extension of Huacajchi in 2022. When conducted, the methods employed have been similar to those disclosed in Sections 6 and 9.

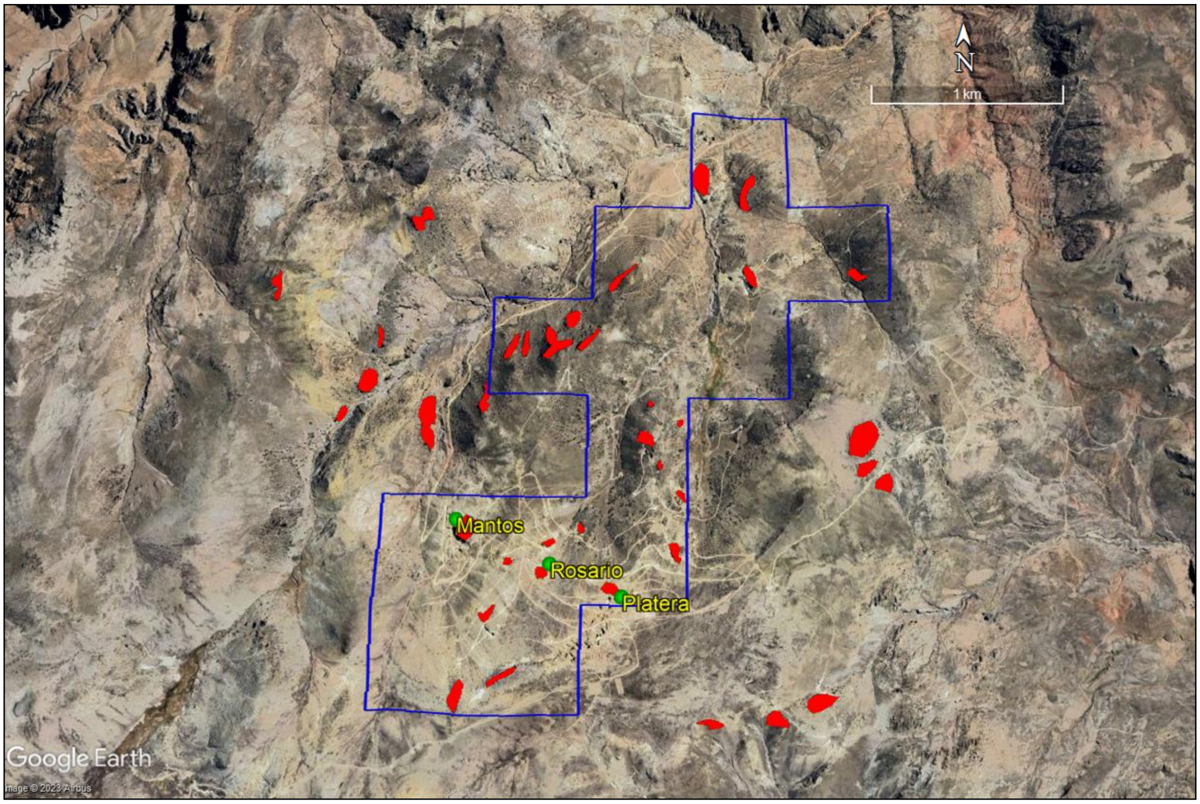
8.2.2 Alta Vista

Exploration work at Alta Vista by Manquiri is guided by an epithermal vein formation model and recognition of exposures in roadcuts and very limited outcrop. The amount of outcrop at Alta Vista is less than 40% due to an extensive amount of post-mineral scree cover. In early 2023, exploration works as geological mapping, trenches opening, and sampling were focused on the Alta Vista Project, aiming to get a new source of oxidized material to feed the San Bartolomé mill. Mapping and sampling included surface and underground areas.

Current exploration works are limited to sampling the known east-to-west-striking Kosan and San Miguel underground workings developed in Veta Rica, sampling of old dumps that are stockpiled nearby and trenching of other veins noted on surface. Though sulfidic mineralization has been noted, the focus of Manquiri's exploration has been on oxidized sections of Veta Rica.

8.2.3 Tollojchi

Since 2015, the Tollojchi area has been a source of oxidized material for the San Bartolomé mill. Since that time, Manquiri has been sampling for exploration and ore control purposes. In early 2022, Manquiri's exploration team utilized a model of high-sulfidation epithermal mineralization to guide its work to find and define new lithocap-hosted oxide sources within the Rosario I area. The discrete centers of oxidation (developed on zones of primary, hydrothermal mineralization) are readily evident on the greater Tollojchi property (Figure 8-1 and Figure 8-2).



Source: Manquiri, 2023

Figure 8-1: Oxidized and Silicified Centers (Red Shapes) at Tollojchi

Source: Manquiri, 2023

Figure 8-2: Typical Exposure of Tollojchi Oxidized Mineralization

8.2.4 Paca

Manquiri's exploration work commenced in the second half of 2023, following successful completion of acquisition of oxidized material from Paca. Though Paca is part of the large, and dominantly sulfidic, Pulacayo District, all Manquiri's exploration work has been conducted to validate and define the extent of known oxide deposits at Paca. During exploration, the following work has been carried out:

1. Core re-logging and resampling
2. Verification of surface mapping
3. Geologic and block model review
4. Topographic survey updating in production areas

9 Exploration

9.1 San Bartolomé, Manquiri Work

Coeur conducted exploration work during its tenure at San Bartolomé as reported by Tyler and Mondragon (2015) and described in Section 4. Since acquisition, Andean and Ag-Mining (via Manquiri) have conducted similar exploration practices, as reported in this section (Section 9), though mainly to define known pallacos-type deposits. The evaluation of the FDF materials technical aspects has been exclusively through Sonic-type drilling, as described in Section 10.

9.2 Tollojchi and Alta Vista, Manquiri Work

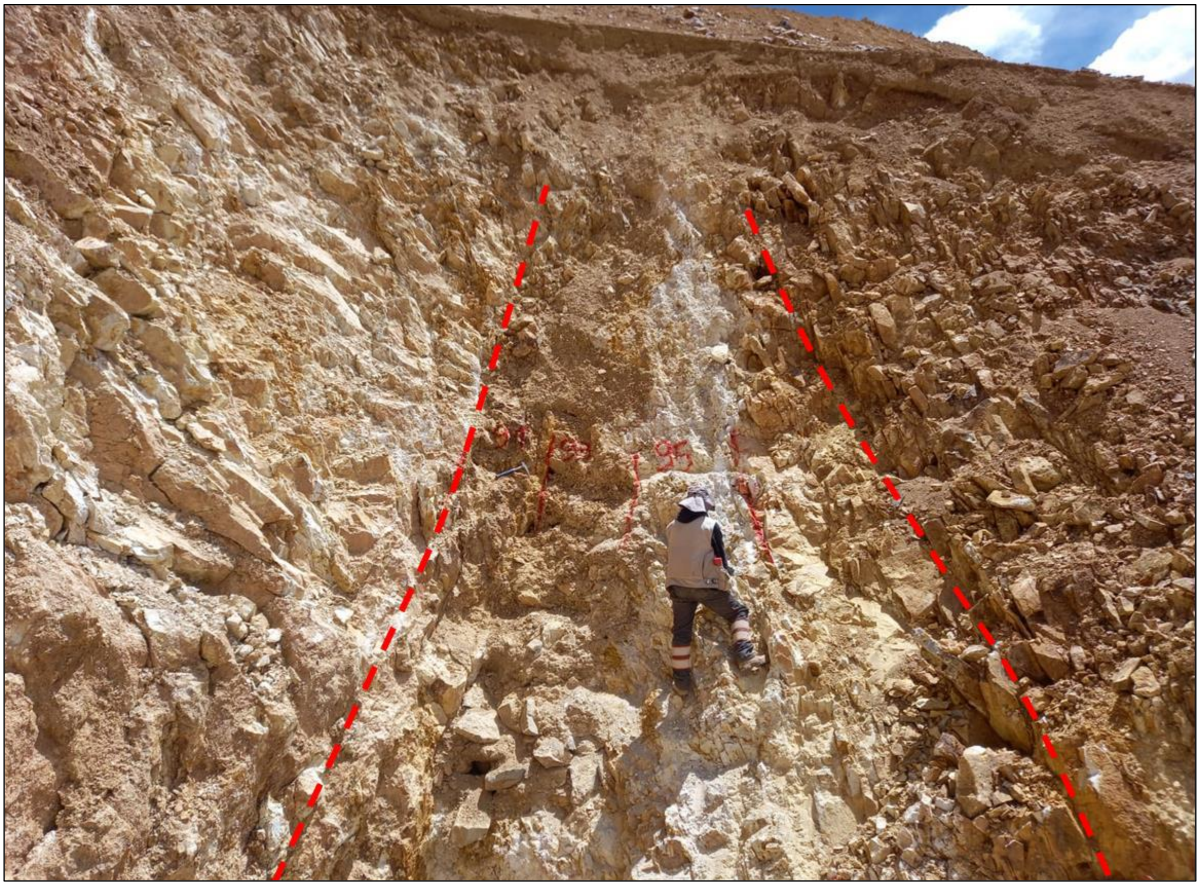
Since 2015, sampling in Tollojchi has been carried out to identify areas that may host silver mineralization of sufficient grade and metallurgical character to justify mining, transportation to, and processing in the San Bartolomé plant. In 2022, a program of reconnaissance sampling and mapping was made for the first time as a prospection program that included geological mapping and sampling. Manquiri conducted works mentioned in Table 9 1. Currently, sampling of underground developments and stockpiles continues for grade control and planning purposes.

At Tollojchi and Alta Vista, sampling has been largely focused on sampling of underground workings, trenches and roadcuts with reconnaissance chip and continuous, chip-channel sampling methods (Table 9-1). There has been no known systematic exploration at Alta Vista by the owner or prior operators.

Rock Sampling

The sampling of Trenches at surface and underground have been carried out with hammer and chisel, collecting rock ships from simulated channels, that are approximately perpendicular to the mineralization controls (Figure 9-1). The limits of the samples are defined by the geologist according to geological and mineralization changes. Sample weights are in the order of 1.5 to 3 kg, and most of them of 1 m length.

Underground and trenches channel samples are surveyed from base stations and repeaters using distances and azimuths from control points.



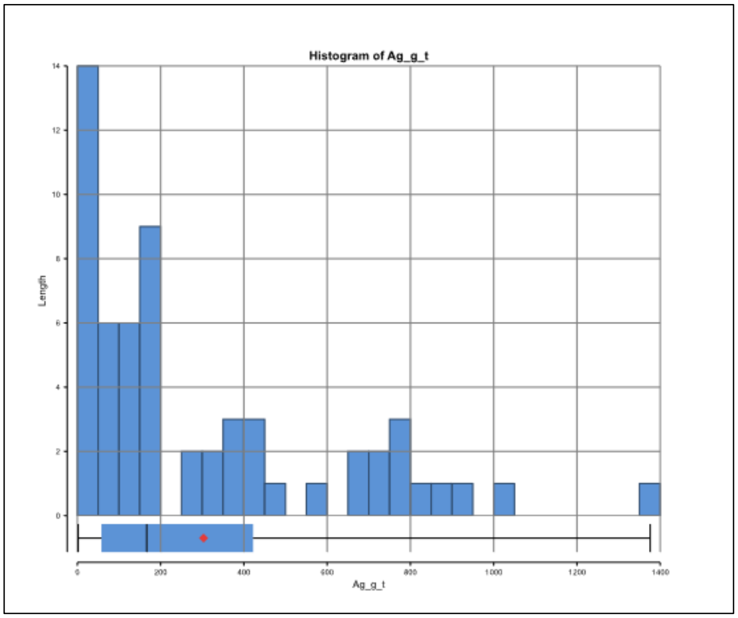
Source: Manquiri, 2023

Figure 9-1: Sampling of Alta Vista Vein

Location, description, and sample numbers are recorded in a field notebook. Geological staff then transfer this information to the database and into the mining software.

Manquiri inserted certified reference materials, blanks, and duplicate controls as part of the QA/QC protocol, as described in Section 12.

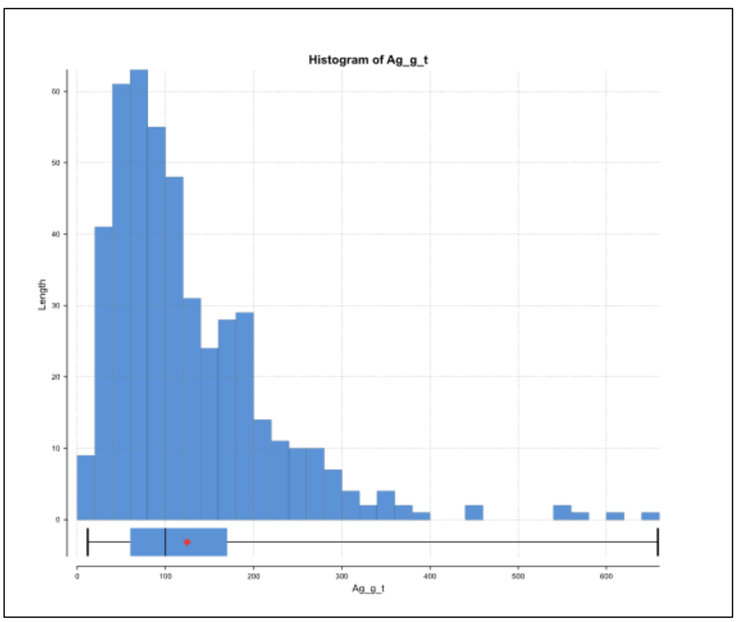
Figure 9-2, Figure 9-3, Figure 9-4, and Figure 9-5 present the histogram of the raw rock channel sampling of the three main areas of Tollojchi and Altavista. The results show the importance of silver mineralization in the areas and the characteristic silver grades in each area, including average grades 303 g/t Ag in the west Vein of Altavista and in the range from 124 to 170 g/t Ag in the main areas of Tollojchi.



	Weighted Value
Count	59
Length	59.0
Mean	303.198
SD	316.063
CV	1.04243
Variance	99,896.1
Minimum	1.982
Q1	57.827
Q2	166.601
Q3	421.9
Maximum	1,376

Source: Manquiri, 2023

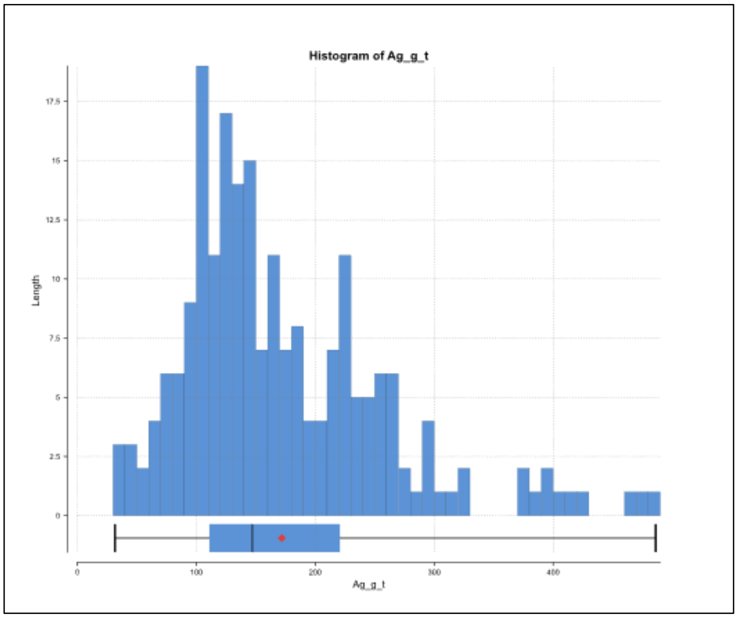
Figure 9-2: Results of Rock Sampling - Ag g/t Histogram - Altavista Vein West



	Weighted Value
Count	461
Length	461.0
Mean	124.512
SD	93.0987
CV	0.747707
Variance	8,667.36
Minimum	11.83
Q1	60.1475
Q2	100
Q3	169.93
Maximum	658.444

Source: Manquiri, 2023

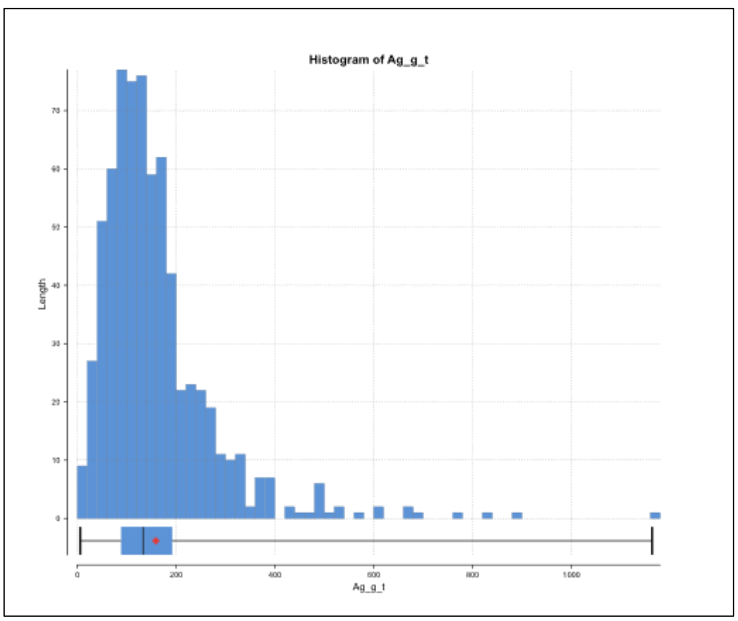
Figure 9-3: Results of Rock Sampling - Ag g/t Histogram - Manto, Tollojchi



	Weighted Value
Count	212
Length	212.0
Mean	171.845
SD	86.4963
CV	0.503339
Variance	7,481.61
Minimum	31.6143
Q1	110.981
Q2	147.088
Q3	220.646
Maximum	486.22

Source: Manquiri, 2023

Figure 9-4: Results of Rock Sampling - Ag g/t Histogram - Santa Rosario, Tollojchi



	Weighted Value
Count	695
Length	695.0
Mean	158.728
SD	117.519
CV	0.74038
Variance	13,810.7
Minimum	5.88005
Q1	88.3739
Q2	133.177
Q3	192
Maximum	1,163.71

Source: Manquiri, 2023

Figure 9-5: Results of Rock Sampling – Ag g/t Histogram - Platera, Tollojchi

The QP considers that the nature of the chip-channel sampling from trenches and underground workings involves a certain level of uncertainty, due to the difficulty of ensuring the representativeness of each sample. Additional measurements, including the use of diamond disc cutter to create the channels before the collection of the rock samples, can be implemented.

Part of the samples collected by Manquiri are not appropriately oriented perpendicular to the mineralization control trends. The QP recommends additional detailed mapping in Tollojchi and Altavista, to obtain more information about the mineralization controls and ensure that all the samples are perpendicular to them.

9.3 Paca, Historical Work

In 2016, Silver Elephant Mining Corp. explored the Paca area and the Paca dumps with grid of surface mapping and sampling with north-to-south-oriented lines. In addition, Silver Elephant Mining Corp. conducted sampling of the Esmeralda adit in 2016 with channel samples nominally 1 m in length.

In 2020, Silver Elephant Mining Corp. staff geologists conducted a program of surface mapping and sampling at Paca. Results are from a total of nine channel samples averaging 4.4 m in length and two grab samples from a dump (Mercator, 2020; page 84).

9.4 Paca, Manquiri Work

Manquiri's exploration at Paca has consisted of surface mapping and sampling and core re-logging and resampling to confirm geology and grades from prior operators' exploration (Table 9-1). Rock samples of Paca were not used for the resource estimation.

Table 9-1: Exploration conducted by Manquiri on Alta Vista, Tollojchi and Paca

Project Area	Surface Mapping and Sampling		Core Samples Collected	Number of Trenches	Underground Samples Collected	Model Confirmation and Metallurgical Sample Collection	Other Works
	Mapped Area (Ha)	Samples Collected					
Alta Vista	700	595	-	8	88	Yes	Petrography-mineralogy thin sections, x-ray diffraction (XRD)
Tollojchi	325	439	-	-	953	Yes	Petrography-mineralogy thin sections, XRD
Paca	120	293	715	4	125	Yes	Core re-logging and resampling; geologic and blocks models review

Source: Manquiri, 2023

9.5 QPs' Comments

The QPs believe that historical exploration data at San Bartolomé has been shown (by mining and milling results) to be reliable for use in mineral resource estimation. Similar methods have been employed by Manquiri since being acquired by Andean. Exploration methods employed by Manquiri has conducted exploration methods as part of their due diligence efforts; these methods mainly consist of rock chip-channel sampling from underground, trenches, and outcrops. Additionally, bulk samples were collected at Alta Vista and Tollojchi. The QPs believe that additional detailed mapping and identification of the minralization controls is required, and program additional sampling perpendicular to the observed trends. The rock sampling methodology require improvement, including a complete QA/QC protocol (2^{nd} laboratory checks), to reduce the uncertainty associated with this the type sampling used. The information is useful to define areas for mining and shipment to San Bartolomé, where additional samples are collected before mill processing.

10 Drilling

The following includes the description of the drilling completed in FDF by Andean and the drilling completed by the previous owner in Paca.

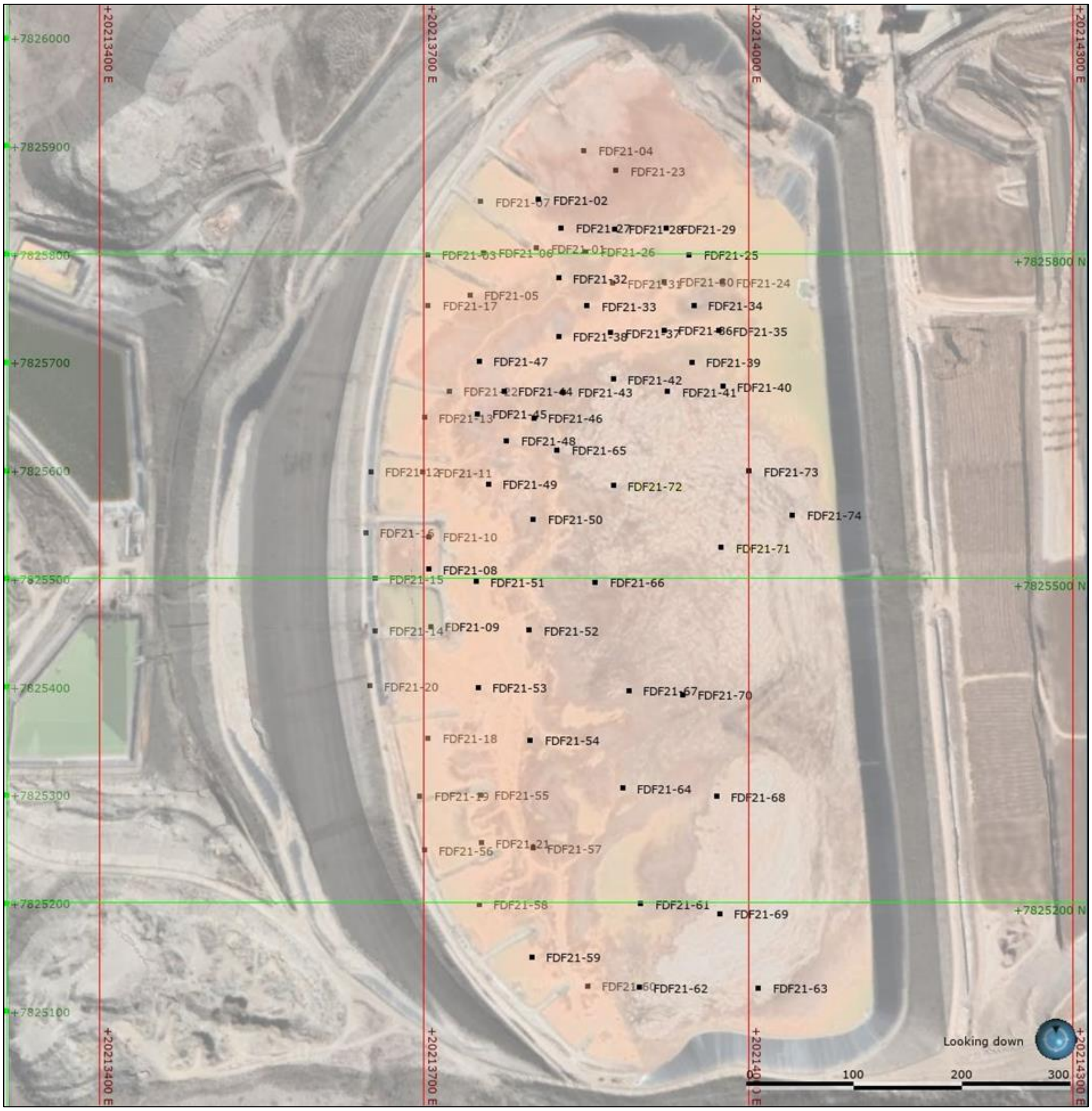
Andean did not carry out drilling in Tollojchi and Altavista. Some historical drilling performed in these areas by previous companies was used as a reference for geological modeling, but insufficient documentation was available, including a lack of sampling, chemical analysis, and QA/QC controls..

10.1 Manquiri FDF Drilling

The FDF was drilled in 2021 and 2022, the drilling contractor was "Maldonado Exploraciones" de Bolivia. Drilling began on August 11, 2021, and ended on February 13, 2022. A total of 82 holes have been drilled in 2 campaigns, the first one drilling 74 holes (FDF21-01 to FDF21-74) (as of November 3, 2021) and the second one drilling 12 holes (as of February 13, 2022) completing 82 holes out of the 76 holes planned.

The boreholes vary in length from 5.0 to 38.50 m, with one with an average length of 20.30 m and a total length of 1,664 m. All the boreholes are vertical. The collar altitude is approximately 4,440 m above sea level.

The drilling was initially carried out with a track-mounted Boart sonic drill rig with access to the surface of the FDF by causeways built of rock (Holes FDF21-01 to FDF21-23). However, it was found that the causeways often sank into the soft sediment overnight. Accordingly, the FDF was flooded to form a lake with a depth of about 0.5 m to drill from a floating pontoon (Hole FDF21-24 and onwards). The rig was specially built using a small motor from an underground drill rig and a tripod to form a drill mast. Drilling is by a combination of percussion and rotary action. The rig is moved to the drillhole sites by moving the pontoon with ropes from the shore, and the ropes anchor it in position. A small boat is used to move the drill crew from the shore to the rig. Figure 10-1 shows the collar positions for the FDF at the time of this Technical Report. The distribution and orientation of the different types of sampling completed in San Bartolomé have produced adequate and appropriate information of the pallacos deposits in the three zones to delineate their limits and to define the distribution of the mineralization. In some zones, the sampling does not cover all of the width of the deposit, and additional sampling is required to define the contact with the bedrock.



Source: SRK, 2022

Figure 10-1: Plan View of Drilling Collar Positions within the FDF

Downhole directional surveys were made of the sonic drillholes with a Reflex tool but were not done for the holes drilled from the pontoon (Figure 10-2). The recovery is 84% to 100% per hole, with a weighted average of 94.9% for all holes to date. A Manquiri geologist supervises the coring operation. The drill rod diameter is HQ. The soft sediment is sampled in a core barrel that is retrieved by wireline. The core is placed in wooden core boxes lined with plastic from sample bags to prevent loss of fines (Figure 10-3). The boxes are accumulated on the shore close to the rig and taken to the core shack at the end of each shift.

Source: Manquiri, 2021

Figure 10-2: Sonic Drilling within the FDF

Source: Birak, 2022

Figure 10-3: Typical Sonic Core Samples

The QPs note that the drillholes used to collect samples for FDF mineral resource estimation were designed to stop 2 to 3 m short of the base of the facility to ensure the integrity of the FDF liner was not compromised. Any new sampling conducted (as recommended in Section 26) must be conducted in a similar manner.

10.2 Manquiri Paca Sampling

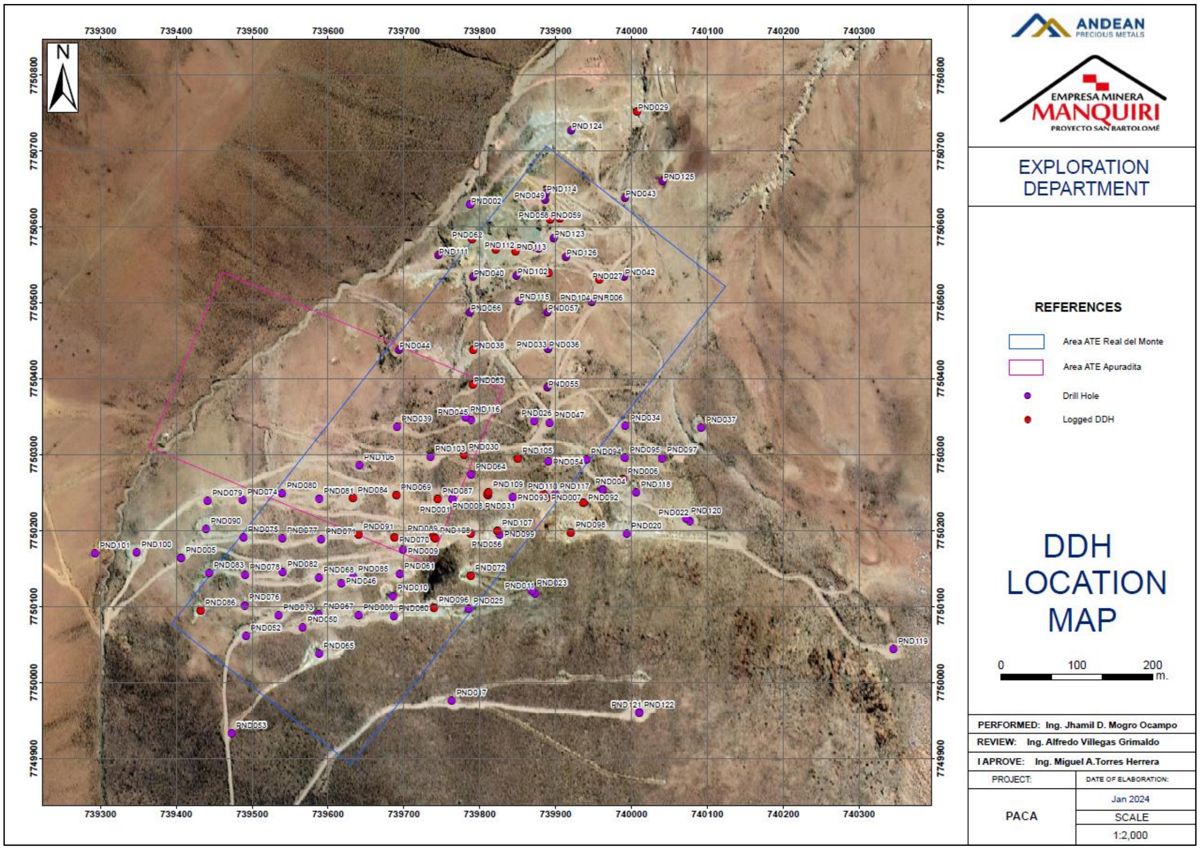
Manquiri developed a re-logging and resampling plan with historical Paca cores, with the goal of assessing the reliability of the geology model and grades reported by prior operators. These works also included review of the diamond drillhole collar locations. Although they were not considered 100% of the diamond drillholes, the reviewed cores included all the explored areas in Paca and the recently reevaluated oxides and transition zones (Table 10-1).

Table 10-1: Historical Drilling at the Paca Project

Company	Period	Drilling Contractor	Type	Holes	Length (m)
ASC Bolivia LDC (ASC)[1]	2002 to 2005	Leduc Drilling S.R.L.	HQ Core	30	3,130.00
ASC	2002	Leduc Drilling S.R.L.	RC	5	896.00
Apogee	2006	Leduc Drilling S.R.L.	HQ Core	76	13,631.20
Silver Elephant Mining Corp.	2019	Fujita Drilling Company	HQ Core	7	860.00
Total				**118**	**18,517.20**

[1]Bolivian subsidiary of Apogee

During September and October in 2023, Manquiri geologists made verification logs of 27 of the 118 core holes shown in Table 10-1. A total of 2,739.0 m was re-logged according to Manquiri's standard protocols. Figure 10-4 shows the historic diamond drillholes at Paca, and Figure 10-5 shows photographs of the Paca core re-logging.



Source: Manquiri, 2024

Figure 10-4: Historic Diamond Drillholes at Paca

Source: Manquiri, 2023

Figure 10-5: Paca Core Relogging

Previous Drilling - Paca

The drillholes completed by Apogee, ASC Silver Elephant at the Paca Prospect were HQ/NQ diamond drillholes. All holes were surveyed and then capped and marked in the field with the drillhole number Figure 10-6. Drillhole coordinates were established from base maps and surface drillhole collars were then located on the ground by field geologists using hand-held GPS equipment. Hole azimuths and inclinations were established using a compass and clinometer. Down hole deviation was determined at various down hole intervals, with 30 m (Silver Elephant) and 50 m (ASC and Apogee) separation being common, using either Tropari or Reflex down hole survey tools. (Mercator, 2020).

Overall core recovery reported by ASC, Apogee, and Silver Elephant exceeds 90% in most cases, regardless of the type of rock being recovered. However, review of database records and drill log entries, plus observations made during the site visit drill core inspection programs by Mercator, showed that individual drillholes having intervals of problematic low core recovery are present, typically associated to Quaternary deposits, near surface. (Mercator, 2020)

Drill core was collected by geologists from the drill site and transported by truck to the core logging locations. Hole and box numbers were marked on each core box by the drillers prior to transportation. Wooden markers were placed in the core boxes after each run (nominally 3.0 m), Upon arrival at the coreyard, company technicians aligned and pieced the core together and marked individual meter marks on the core and core box walls. Core recovery was measured between core blocks and noted on a data entry sheet.

Source: Micon, 2007

Figure 10-6: Example of Drill Collar Cap

The core was then geologically logged and sample intervals were determined by the geologist. Generally, the entire drillhole was sampled on a 1-m basis, however, occasionally in the few holes with very bad recoveries, composite 2 to 5 m samples were taken. Sample numbers were assigned to each sample interval; the sample interval was marked on the core and the sample number written on the core box wall. Relative density measurements were taken every 25 m, or less if the geologist deemed it necessary due to lithological change or strong hydrothermal alteration.

Figure 10-7 and Figure 10-8 present the relevant drilling intercepts of the exploration campaigns completed by Apogee and Silver Elephant.

Hole N°	Coordinates		Depth	Azimuth	Dip	From	To	Width	Ag	Pb	Zn
	E	N	(m)	(°)	(°)	(m)	(m)	(m)	(g/t)	(%)	(%)
PND-035	739890	7750238	350.0	170°	-45						
						15.00	23.00	8.00	75.00	0.96	0.33
Incl						18.00	23.00	5.00	83.00	0.97	0.26
incl						18.00	20.00	2.00	74.50	1.23	0.56
						28.00	31.00	3.00	97.67	0.90	0.07
						53.00	105.00	52.00	87.88	1.17	1.07
Incl						53.00	72.00	19.00	95.16	1.14	1.37
Incl						64.00	66.00	2.00	144.00	1.52	1.51
Incl						68.00	70.00	2.00	105.00	1.83	3.20
Incl						82.00	91.00	9.00	161.67	2.02	0.86
						128.00	151.00	23.00	88.09	0.49	0.95
Incl						128.00	132.00	4.00	166.00	0.75	1.07
Incl						142.00	144.00	2.00	124.00	0.81	1.16
						156.00	158.00	2.00	482.50	0.24	0.71
						176.00	180.00	4.00	27.00	1.01	1.67
						329.00	331.00	2.00	46.00	3.28	0.17
PND-036	739890	7750437	51.0	180°	-45	No Significant Results					
PND-037	740090	7750337	150.0	180°	-45						
						106.00	108.00	2.00	101.00	0.22	0.06
						110.00	114.00	4.00	153.00	0.27	0.04
incl						112.00	114.00	2.00	262.50	0.16	0.05
PND-038	739790	7750437	53.0	180°	-45						
						21.00	25.00	4.00	115.00	0.86	0.24

Hole N°	Coordinates		Depth	Azimuth	Dip	From	To	Width	Ag	Pb	Zn
	E	N	(m)	(°)	(°)	(m)	(m)	(m)	(g/t)	(%)	(%)
						32.00	38.00	6.00	109.00	0.50	0.27
incl						32.00	35.00	3.00	165.00	0.70	0.33
PND-039	739695	7750333	181.0	180°	-45	No Significant Results					
PND-040	739790	7750537	41.0	180°	-45						
						18.00	21.00	3.00	8.33	1.02	0.30
PND-041	739834	7750552	51.0	0°	-90						
						0.00	19.00	19.00	179.63	0.52	0.05
Incl						8.00	10.00	2.00	367.00	0.18	0.02
Incl						14.00	19.00	5.00	237.00	0.16	0.02
PND-042	739990	7750537	50.0	0°	-90	No Significant Results					
PND-043	739995	7750640	35.0	0°	-90						
						9.00	14.00	5.00	16.00	1.13	2.32
incl						9.00	11.00	2.00	17.00	1.19	3.44
PND-044	739698	7750445	53.0	0°	-90	No Significant Results					
PND-045	739789	7750349	45.0	0°	-90	No Significant Results					
PND-046	739605	7750130	186.0	150°	-45						
						41.00	97.00	56.00	65.00	1.27	1.65
Incl						46.00	50.00	4.00	65.25	1.54	1.74
Incl						57.00	71.00	14.00	145.21	1.51	1.70
Incl						57.00	64.00	7.00	227.14	1.87	1.57
Incl						73.00	87.00	14.00	60.14	2.18	1.90
						101.00	141.00	40.00	20.33	0.49	1.44
Incl						116.00	120.00	4.00	34.75	0.79	1.95

Source: Micon, 2007
Reported depths are core downhole distances and no true widths.

Figure 10-7: Table showing Significant Drilling Intercepts – Apogee

Hole Id	From (m)	To (m)	*Core Length (m)	Ag (g/t)	Zn %	Pb %
PND107						
	55	109	54	151	1.01	1.17
incl …	87	109	22	240	1.23	1.65
PND108						
	15	65	50	135	0.4	1.42
inclu …	33	43	10	257	0.41	1.49
	94	96	2	160	0.94	0.52
PND109						
	15	43	28	242	0.27	0.69
incl …	24	26	2	1223	0.42	3.2
	75	173	98	15	2.47	1.28
incl …	93	94	1	167	3.64	1.24
PND110						
	9	182	173	95	1.63	1.4
incl…	16	28	12	1085	0.04	0.71
and…	61	65	4	1248	1.93	2.88
PND111						
	0	2.4	2.4	110	0.16	0.58
PND112						
	12	28	16	154	0.08	0.39
incl…	21	22	1	890	0.05	0.31
	33	36	3	120	0.07	2.4
	43	44.6	1.6	100	0.23	1.58
PND113						
	3	28	25	196	0.04	0.29
incl…	21	28	7	310	0.04	0.19

Source: Mercator, 2020
Reported depths are core downhole distances and no true widths.

Figure 10-8: Table showing Significant Drilling Intercepts – Silver Elephant 2019-2020

Is the QPs opinion that the previous drilling campaigns completed by Apogee, ASC and Silver Elephant were performed following the industry standards and the results are adequate for use in the mineral resource estimation presented in this report. New drilling campaigns are required in Tollojchi, Altavista and Paca to reduce the sampling grid, confirm mineralization continuity at depth and horizontally and improve the resource classification.

11 Sample Preparation, Analysis and Security

11.1 The Prior Owner's Methods

The sample preparation procedures employed followed standard guidelines used in the mineral exploration industry (Tyler and Mondragon, 2015, Birak and Blair, 2012 and Birak et al., 2020) using Manquiri's owned and operated lab.

11.2 Manquiri's Methods

Drilling and sampling methods of the FDF is described in section 10. All samples from FDF and rock samples from the sources of Contracted material (Tollojchi, Altavista and Paca) were prepared and analysed in the Manquiri's laboratory.

The rock sample execution and preparation procedures employed Manquiri are like those of the prior owner and are summarized as follows:

- Design of the sampling mesh, given by the orientation and length of the sampling lines and by the distance between them and the fixed length of the individual samples. Normally, the fixed length of the samples was 2 m, but this varied depending on the presence of specific geological features, such as the occurrence of veins, areas of veinlets adjacent to the veins or well delimited bodies.
- The type of sampling and approximate weight of each of the samples obtained were determined based on the road infrastructure of the area of interest. In sampling areas with access roads, was no problem implementing channel sampling and obtaining samples of around 8 kg. In sampling areas that do not have access, a sampling in channels can be planned, but the weight of the channel should not exceed 5 kg, which should be achieved through careful quartering.
- Once the type of sampling and the approximate weight of the sample to be obtained have been determined, a cleaning plan must be drawn up for the areas to be sampled. This can be done either with heavy equipment depending on the sector to be cut, whether they are roads or inaccessible sectors to heavy equipment, otherwise cleaning will be done manually with a pick and shovel.
- Before marking the samples, the superficial part of the area to be sampled was cleaned, removing all the part that is possibly percolated from the fresh rock.

Section 9 contains additional description of the methodology of rock sampling from underground workings, trenches, and outcrops. The samples are packed and marked in plastic, properly sealed bags by the geologists and sent to the Manquiri laboratory for chemical analysis, including the quality control samples inserted during the sampling process.

11.3 ASC, Apogee, and Elephant Silver Methods

<u>Sample Preparation – ASC</u>

The procedures of ASC were generally similar to those employed by Apogee with respect to core logging, sampling, transport of samples and security. All ASC drill core samples were processed at the Oruro, Bolivia laboratory of ALS Chemex, with those from the first phase of drilling being analyzed at ALS Chemex (formerly Bondar-Clegg) facilities in Vancouver, BC, Canada. In both instances, standard core preparation methods were used prior to elemental analysis. (Mercator, 2020).

Sample Preparation – Apogee

Apogee staff were responsible for transport of core boxes by pick-up truck from drill sites to the company's locked and secure core storage and logging facility located in the town of Pulacayo). At the facility the core was initially examined by core technicians and all measurements were confirmed. Core was aligned and repositioned in the core box where possible and individual depth marks were recorded at one meter intervals on the core box walls. Core technicians photographed all core, measured core recovery between core meterage blocks, completed magnetic susceptibility readings and specific gravity measurements, and recorded information on hard copy data record sheets. This information was entered into digital spreadsheets and then incorporated in the project digital database. (Mercator, 2020).

Drill site geologists initially completed a written quick log of drillhole lithologies along with a graphical strip log illustrating lithologies at the drill site. At the core facility they subsequently completed a detailed written description of lithologies, alteration styles and intensities, structural features, mineralization features such as occurrences and orientations of quartz veins, and the style, amount and distribution of sulfide minerals. Drillhole sections were drawn on paper cross sections when logging was completed and lithologies were graphically correlated from drillhole to drillhole. (Mercator, 2020).

Mineralized intervals were marked for sampling by the logging geologist using colored grease pencils and intervals plus associated sample numbers were recorded on a hardcopy sample record sheet. All paper copy information for each drillhole, including quick logs, detailed logs, graphical logs, sample record sheets, down hole surveys and assay certificates were secured together in a drillhole file folder to provide an archival record for each drillhole. After logging and processing, down hole lithocoded intervals, sample intervals and drillhole collar and survey information were entered into digital spreadsheets and then incorporated in the project digital database. (Mercator, 2020).

Sample intervals are marked by the logging geologist on the core and core technicians then cut the corresponding core in half using a diamond saw. The friable core was cut in half with a knife. Each half core sample was assigned a unique sample tag and number and placed in a correspondingly numbered 6 mil plastic sample bag. A duplicate tag showing the same number was secured to the core box at the indicated sample interval. As noted earlier, all sample intervals and corresponding numbers were recorded on a hardcopy sample data sheet and subsequently entered a digital spreadsheet for later incorporation in the project database. The secured plastic sample bags were grouped in batches of 6-10 samples and secured in a larger plastic mesh bag in preparation for shipment to the ALS preparation laboratory located in Oruro, Bolivia. All bagged samples remained in a locked storage facility until shipment to the laboratory. Samples were transported from the core storage area to the ALS facility by either Apogee personnel or a reputable commercial carrier. Sample shipment forms were used to list all samples in each shipment and laboratory personnel cross-checked samples received against this list and reported any irregularities by fax or email to Apogee. Apogee advised Mercator that it has not encountered any substantial issues with respect to sample processing, delivery or security during the Paca or Pulacayo programs. (Mercator, 2020).

Sample Preparation – Silver Elephant

Silver Elephant staff was responsible for transport of core boxes by pickup truck from the drill sites to the same locked and secure core storage and logging facility used by Apogee located in the town of Pulacayo. Drill logging and marking procedures are similar to the protocols established by Apogee, with focus on digital logging formats rather than paper copy records. Core technicians photographed all core and measured core recovery between core meterage blocks. Site geologists initially completed a written quick log of drillhole lithologies. Project geologists subsequently completed a detailed description of lithologies, alteration styles and intensities, structural features, mineralization features such as occurrences and orientations of quartz veins, and the style, amount and distribution of sulfide minerals at the core facility. (Mercator, 2020).

All activities pertaining to data collection, including sampling, insertion of control samples, packaging and transportation are conducted under the supervision of project geologists. Sample intervals are marked by the logging geologist on the core and core technicians then cut the corresponding core in half using a diamond saw. Each half core sample is assigned a unique sample tag and number and placed in a correspondingly numbered 6 mil plastic sample bag. A duplicate tag showing the same number is secured to the core box at the indicated sample interval. Samples are placed in sequence into rice bags which are labelled with a company code and the sample series enclosed in the bag. Requisition forms are compiled using the sample reference sheets generated since the previous shipment. When a shipment is ready, the sealed rice bags are dispatched to the ALS (Oruro, Bolivia) laboratory via commercial courier. Laboratory personnel check to ensure that no seal has been tampered with and acknowledge receipt of samples in good order via e-mail correspondence with the laboratory staff. (Mercator, 2020)

Drill Core Analysis – ASC

Samples from the ASC Paca drilling programs carried out in 2002 were also prepared and analyzed by ALS. However, after preparation at the facility in Oruro, Bolivia under generally the same protocols as noted above for Apogee, analytical work was carried out at the ALS laboratory in Vancouver, BC, Canada. This facility was independent and fully accredited at the time as described earlier and analytical protocols were the same as those described above for Apogee. (Mercator, 2020).

Drill Core Analysis – Apogee

Apogee staff logged and sampled drill core and carried out immersion method bulk density determinations but did not carry out any form of direct sample preparation or analytical work on project samples. Project analytical work was completed by ALS at its analytical facility in Lima, Peru after completion of sample preparation procedures at the ALS facility located in Oruro, Bolivia. ALS is an internationally accredited laboratory services firm with National Association of Testing Authorities (NATA) certification and that is certified to ISO Standards. The laboratory utilized industry standard analytical methodology and practiced rigorous internal Quality Assurance and Quality Control (QA/QC) procedures for self-testing at the time of sample processing. (Mercator, 2020).

All samples were weighed upon receipt at the ALS lab and were prepared using ALS preparation procedure PREP-31B that consists of crushing the entire sample to >70% -2 mm, then splitting off 1 kg and pulverizing it to better than 85% passing 75 microns. The coarse reject materials from this processing were returned to Apogee for storage on site at Pulacayo. (Mercator, 2020).

Silver, lead and zinc concentrations for Apogee programs were analyzed by ALS using an Aqua Regia digestion and Atomic Absorption Spectroscopy (AAS) following ALS methods AA46 and AA62. Samples returning assay values greater than 300 g/t Ag were further analyzed using quantitative method Ag-GRAV22, which uses a Fire Assay pre-concentration and Gravimetric Finish on a 50 g sample aliquot. Gold values were determined using the Au-AA26 analytical method provided by ALS that employs a Fire Assay pre-concentration followed by Atomic Absorption finish on a 50 g sample aliquot. A multi-element analysis was also completed on samples using method code ME-MS41 which uses Aqua Regia digestion and ICP-AES analysis. (Mercator, 2020).

Drill Core analysis – Silver Elephant

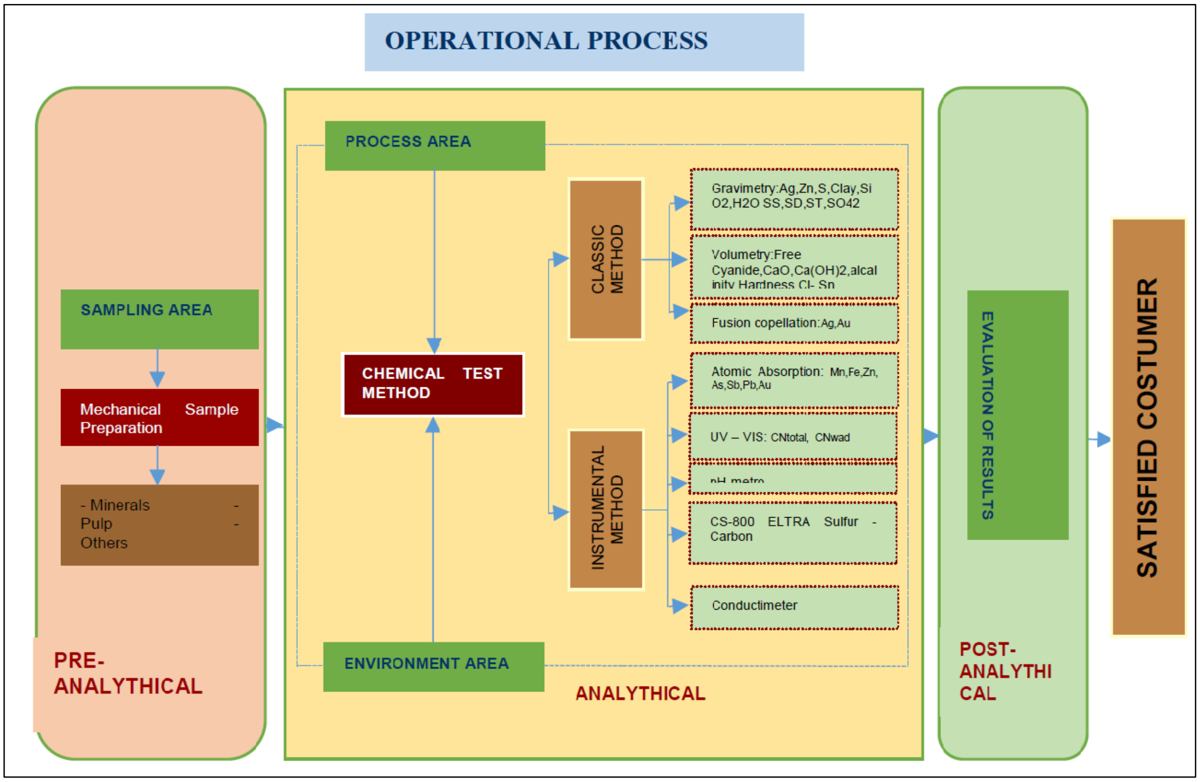
No aspect of the sample preparation for analysis is conducted by an employee, officer, director or associate of the issuer. Silver Elephant uses the ALS (Oruro, Bolivia) facility as their sample preparation laboratory. All samples were weighed upon receipt at the ALS lab and prepared using ALS preparation procedure PREP-31B that consists of crushing the entire sample to >70% passing 2 mm, then splitting off 1 kg and pulverizing it to better than 85% passing 75 microns. The coarse reject materials from this processing were returned to Silver Elephant for storage on site at Pulacayo. (Mercator, 2020).

Following preparation, the sample pulps are sent to ALS in Lima, Peru, for analysis. The analysing laboratory (ALS Lima, Peru) is ISO/IEC 42 17025:2005 accredited and both branches (ALS Oruro and Lima) are independent of Silver Elephant. The laboratory utilized industry standard analytical methodology and practiced rigorous internal QA/QC procedures for self-testing at the time of sample processing. (Mercator, 2020).

Silver, lead and zinc concentrations for Silver Elephant programs were analyzed by ALS by multi-element analysis method, ALS code ME-ICP61a, using optical emission spectrometry and the inductively coupled plasma spectrometer (ME-ICPORE). Samples returning assay values greater than 200 g/t Ag were further analyzed using quantitative method Ag-GRAV21, which uses a Fire Assay pre-concentration and Gravimetric Finish on a 30 g sample aliquot, and using Aqua Regia digestion and Atomic Absorption Spectroscopy (AAS) method Ag-OG62. (Mercator, 2020).

11.4 Manquiri Laboratory

All samples collected during exploration, including the samples from Tollojchi and Altavista, evaluation, and grade control on the FDF at San Bartolomé, have been prepared and analyzed at Manquiri' facilities at Plahipo and the mill laboratory (Figure 11-1). The laboratory is not independent and requires additional QA/QC control, including periodical second laboratory checks, using a certified commercial laboratory, as suggested in Section 12.3.



Source: APM and Birak et al., 2020

Figure 11-1: Manquiri Sample Flow

The following types of analysis are carried out in the Manquiri chemical laboratory (Table 11-1).

Table 11-1: Tests by Manquiri's Laboratory

N	Assay Method	Reference Method	Matrix	Measurement Range	Number of Samples	Results Delivery Time	Sample Quantity and Presentation
1	Silver in Dore Method – Gravimetric Method (Fire Assay)	LQM-PRO-18N (Based on AS50062-2002 with validated modifications)	Doré	98,92% - 99,90%	3/day	12 hours	Quantity >10 g in pin shape or chips in coded envelope
2	Gold determination in Dore – Gravimetric Method (Fire Assay)	LQM-PRO-24 (Based on ISO 11426-2014 with validated modifications)	Doré	10,4% - 44,1%	3/day	13 hours	Quantity >10 g in chips in coded envelope
3	Determination of free cyanide in waters – Method titulación (titration)	Volumetry	Waters	20 mg/L – 5,000 mg/L	50/day	12 hours	500 ml in closed bottle
4	Silver determination in ore	Atomic Absorption	Minerals	1 g/t – 800 g/t	40/day	24 hours	200 g pulverized at 140 – 170 mesh
5	Sulfur determination in ore	Gravitrometry-ELTRA Instrumentation	Minerals	0,05% - 15%	60/day	12 hours	50 g pulverized at 140 – 170 mesh
6	Tin determination in Ore	Volumetry	Minerals	0,05% - 20%	30/day	24 hours	50 g pulverized at 140 – 170 mesh
7	Determination of lime (CaO) using Volumetric Method)	Chemical Analysis ISBN-980-06-2968-8	Limestones	5% - 90%	20/day	10 hours	100 g pulverized at 140 – 170 mesh
8	Determination of clays/fines in pulp	Sedimentation	Pulps-Minerals	1% - 50%	8/day	12 hours	300 g pulverized at 140 – 170 mesh
9	Sample Humidity determination	Gravimetry	Minerals-Precipitate	1% - 99%	10/day 40/day	24 hours	300 g 5,000 g
10	Silver and Gold in Ore determination	Fire Assay	Minerals	0,1% - 99% 0,0001% - 0,5%	15/day 15/day	24 hours	200 g pulverized at 140 – 170 mesh
11	Total Silver in Cyanized samples determination	Atomic Absorption Spectroscopy	Cyanized Solutions	0,01 mg/L – 6 mg/L	40/day	24 hours	500 ml in sealed bottle
13	Zn, Pb, Fe, Cu Determination Zn, Pb, Fe, Cu, in ore samples	Atomic Absorption Spectroscopy	Minerals	0,01 mg/L – 8 mg/L	40/day	12 hours	200 g pulverized at 140 – 170 mesh

N	Assay Method	Reference Method	Matrix	Measurement Range	Number of Samples	Results Delivery Time	Sample Quantity and Presentation
14	pH Determination, electrometric method	Potenciometría (Potentiometry)	Waters	1,0 – 14,0	40/day	5 hours	200 ml in sealed bottle
15	Conductivity	Standard methods	Waters	50µS/cm – 20 mS/cm	30/day	5 hours	1,000 ml in sealed bottle
16	Determination of metal weights in water (Cu, Fe, Pb, Zn)	Standard methods	Waters	0,01 mg/L – 5,0 mg/L	30/day	24 hours	1,000 ml in sealed bottle
17	Soluble Silver in Ore Determination, cyanide leaching	Atomic Absorption Spectroscopy	Minerals	0,01 mg/L – 6 mg/L	15/day	24 hours	200 g. pulverized at 140 – 170 mesh

Source: Birak et al., 2020

The laboratory facilities and equipment include the sampling room, crushers and ovens, tray trolleys and FLSMIDTH vibrating pulverizer (2 units), Donaldson dust collector (1 unit) and sample delivery room.

In the instrumental area, there are two atomic absorption spectrophotometer (“AA”) analytical units, which offer a coordinated method of providing services, consumables and software that significantly improve the efficiency and productivity of the laboratory.

Two AA machines, with eight hollow cathode lamps, were purchased allowing different analyzes to work in parallel (Figure 11-2).

Source: Birak et al., 2020

Figure 11-2: Atkin Absorption Systems, Perkin Elmer PinAAcle and AAnalyst 900

There are two Morgan Materials furnaces in the melting area. This equipment is manufactured with the purpose of melting the sample achieving Ag - Pb alloys, later evaporating the lead leaving only the silver – gold. These furnaces are connected to the lead collector.

Source: Birak et al., 2020

Figure 11-3: Donaldson Lead Collector

The laboratory has a micro balance, which can weigh samples with up to 7-digit accuracy. The test capacity is 100 samples of gold in minerals per shift (8 hours).

The Manquiri laboratory has an accreditation in “Silver Determination in Dore Method”, which is accredited by IBMETRO (Bolivian Metrology Institute) for the measurement range of 98.92% - 99.90%. "Gold Determination in Dore - Gravimetric Method", which is accredited by IBMETRO for the measurement range of 10.4 g / t - 44.1 g/t.

The Manquiri laboratory also has accreditation, by IBMETRO in "Determination of Silver in Minerals Method (Atomic Absorption Spectroscopy)" in the ranges of 0.5 to 1000 g/ t.

11.4.1 Sample Preparation and Chemical Analysis, ALS Laboratory

The core samples collected in Paca were sent to the ALS Laboratory (SGS) in Oruro. ALS is independent of Manquiri and holds accreditation under the Standards Council of Canada, which indicates the laboratory is accredited under the general requirements for the competence of testing and calibration laboratories.

The sample preparation procedures at ALS comprised of drying the sample, crushing to 70% less than 2 mm, riffle split off 250 g, pulverize split to better than 85% passing 75 microns. Chemical analysis is completed in ALS Lima and includes four acid digestion followed by ICP-MS measurement for 48 elements. Overlimit values for Ag, Pb and Zn were analyzed by four-acid digestion followed by inductively coupled plasma-atomic emission spectrometry. For Ag, fire assay and gravimetric finish was used.

11.4.2 Sample Security

Once Manquiri's operations began under the ownership of Ag-Mining, the sample preparation facility was relocated to Manquiri's Plahipo administrative-office complex. This is a secure, fenced compound guarded at all times by Manquiri security personnel. Sample collection and preparation, today and since 2009, has been done by Manquiri personnel exclusively, following normal industry standard procedures.

11.5 FDF Sampling

Although the FDF samples are analyzed at the Manquiri laboratory for Manquiri's internal use, the FDF sampling and analytical process supporting the MRE is separate from the other samples collected at San Bartolomé. The core shack for the FDF samples is a large warehouse adjacent to the Manquiri offices. The site is secure and only authorized personnel can enter. There is a written protocol for core logging and sampling protocol, insertion of QA/QC samples, and storage. Drill cores taken from the FDF are soft unconsolidated sediment. Wooden boxes contain the plastic-lined core samples as they emerge from the drill and are logged on tables subsequent to splitting. Plastic remains to line the sample boxes to prevent the material from escaping or running out of boxes. The entire sample process and chain of custody until shipping of samples to the laboratory has been observed by Dr. Redwood as a part of his visit to the site. Cores are sampled at a nominal 1.00 m interval spacing, and cut in half for sample splits using a spatula. Samples are placed in plastic bags, numbered with a sample tag, and sealed by a stapler (Redwood, 2021).

The samples are prepared for shipping in nylon sacks. They are taken by company vehicle and driver to the ALS Laboratory in Oruro (300km) where sample custody is handed over. Sample preparation consists of registering the sample, measuring the wet weight, drying, measuring the dry weight, crushing to 70% passing -2 mm (2,000 µm or 10 mesh). The delivered material is screened to -8 mesh but crushed again at ALS to ensure size uniformity, along with any clays dried in solid lumps larger than 10 mesh), split to 250 g portions, and then pulverized to 85% passing -85 µm (approx. 170 mesh; ALS preparation method PREP-31). Sample pulps are shipped to the ALS analytical facility in El Callao, Lima, Peru where they are analyzed for Ag and multi-elements by four acid digestion and ICP-AES finish (ALS method ME- ICP61). Samples with Ag values over 100 ppm are reprocessed with a four acid digestion and by ICP finish (ALS method Ag-OG62). Sulfur is assayed by induction furnace / infra-red (ALS method IR08), and Sn by lithium borate fusion and XRF finish (method ME-XRF15b).

11.5.1 QPs Comments - FDF

In the opinion of the QPs, Company's personnel or their contractors have used appropriate care in the collection and management of the FDF field sampling and assaying. The QPs inspected the Company's FDF sampling and reviewed analytical processes and found them to be consistent with industry best practices. All laboratories utilized for the FDF sampling are independent of the issuer and are ISO accredited to ensure high standards of QA/QC.

12 Data Verification

12.1 Manquiri Verification

Manquiri exploration and production tasks are carried out under documented procedures and its respective verification and validation of data, prior to consideration for geological modelling and mineral resource estimation. During sampling, experienced geologists implemented industry standard measures designed to ensure the consistency and reliability of the data. QA/QC failures are routinely investigated, and appropriate actions are taken when necessary, including requesting re-assaying of certain batches of samples.

12.2 QPs' Verification

In accordance with National Instrument 43-101, Donald J. Birak, one of the QPs visited the properties in March-April 2023, accompanied by Manquiri personnel. During the visits, all aspects that could affect materially the integrity of the samples and sampling databases (core logging, sampling, and database management) were reviewed with Ag-Mining staff. The QPs were able to interview staff to ascertain exploration procedures and protocols.

The QPs toured the San Bartolomé area and observed the mill, the refinery, samples, and field locations status of the demarcations, and examined logs from a number of sampling sites, finding that the logging information accurately reflects actual models. The lithology and grade contacts checked by the QPs match the information reported in the core logs and database.

12.3 QA/QC

12.3.1 FDF QA/QC

A program of blind QA/QC sample insertion has been implemented for the FDF samples for all the drilling, that was finalized in 2021. Manquiri has a well-documented process which supports this program and monitors it as sampling comes in from the independent laboratory. CRM's, blank samples, and duplicates are submitted in the sample stream at a rate of approximately 10%, exceeded during the FDF drilling as shown in Table 12-1. Other criteria for these samples are noted as follows.

- Any Work Order with fewer than 30 samples must include at least 1 CRM, 1 blank, and 1 duplicate.
- Any Work Order greater than 30 samples must include at least 10% control samples. As an example, a work order of 63 samples must include at least 6 control samples, which will be a combination of CRM, blanks, and duplicates.
- Any hole, regardless of the number of samples it contains, must include at least two CRM of different grades, a blank and a duplicate. It is generally recommended that at least one blank be inserted immediately after a standard high-grade sample to detect any contamination in the laboratory.

Table 12-1: FDF QA/QC Insertion

Period	Project	QA/QC	Regular Samples	Control Samples	Total Samples	Control
2021	FDF	ALS	1,657	211	1,446	14.59%
	Total		**22,976**	**8,052**	**31,028**	**26.00%**

Source: APM, 2022

The QPs note that the documentation of this program is generally consistent with industry standards, but the final implementation was not consistent with Manquiri's documentation in all aspects. For example, Manquiri documentation notes that at least two CRM's must be used in quality control programs, but only one is noted to have been used for the FDF drilling in the documentation. In the data supporting the QA/QC, there are four CRM's noted to have been used, however.

The following analysis of the QA/QC therefore is primarily focused on the data rather than the documentation, and the QPs advise reconciliation of the documentation to the actual implemented process.

Certified Reference Materials (CRMs)

CRM come from a series of sources including site-specific materials which have been certified via round robin analysis by Smee and Associates Consulting Ltd. Certificates were provided to SRK by Andean, with seven commercial laboratories participating in the round robin. CRMS are certified for Ag, Cu, Pb, and Zn. In total, 53 samples were submitted as CRM for the duration of the FDF program. CRM generally show relatively few errors evaluated on a +/- 3SD criteria from the expected value of the CRM, globally <5% (Table 12-2). The PLSUL22 and 23 CRM show comparably much worse performance, as well as a significant bias. This should be evaluated by Andean to determine if these CRM are appropriate or if there are issues related to laboratory accuracy.

Table 12-2: CRM Performance Summary - Ag

CRM Type	CRM Assays	Errors (+/- 3SD from Expected Value)		Expected Value (g/t Ag)	Average Value (g/t Ag)	Bias
		#	%			
MQR-03	7	0	0.00%	215	234.00	8.84%
PLSUL22	17	2	11.76%	83	95.20	14.70%
PLSUL33	17	1	5.88%	51	62.90	23.09%
ST170003	12	0	0.00%	198	206.00	4.15%

Source: APM, 2023

Blanks

Blank samples are derived from a local rock type (Huacajchi tuff) that Manquiri believed to be devoid of mineralization of "very low grade". SRK reviewed the blank values for Ag for this series of samples and noted significant contamination of the blank material. Reviewing blank performance for two different criteria for Ag, SRK compared the blanks using a 5X LLOD and 10X LLOD failure limit (Table 12-3). The limit of detection for Ag in the analyses is 0.5 g/t Ag. In both cases, the failure rates were above acceptable limits, with some failures noted to be as high as 30 g/t Ag.

In SRK's opinion, this likely does not indicate a systemic failure of the laboratory as much as inherent blank sample contamination. The failures also do not correspond to other control samples such as CRM's so it is likely that the blank material is simply not appropriate. Since the source of these failures is still not well-understood, this should be investigated by Andean prior to additional analysis or implementation of this blank material in the QA/QC process.

Table 12-3: Blank Performance Summary - Ag

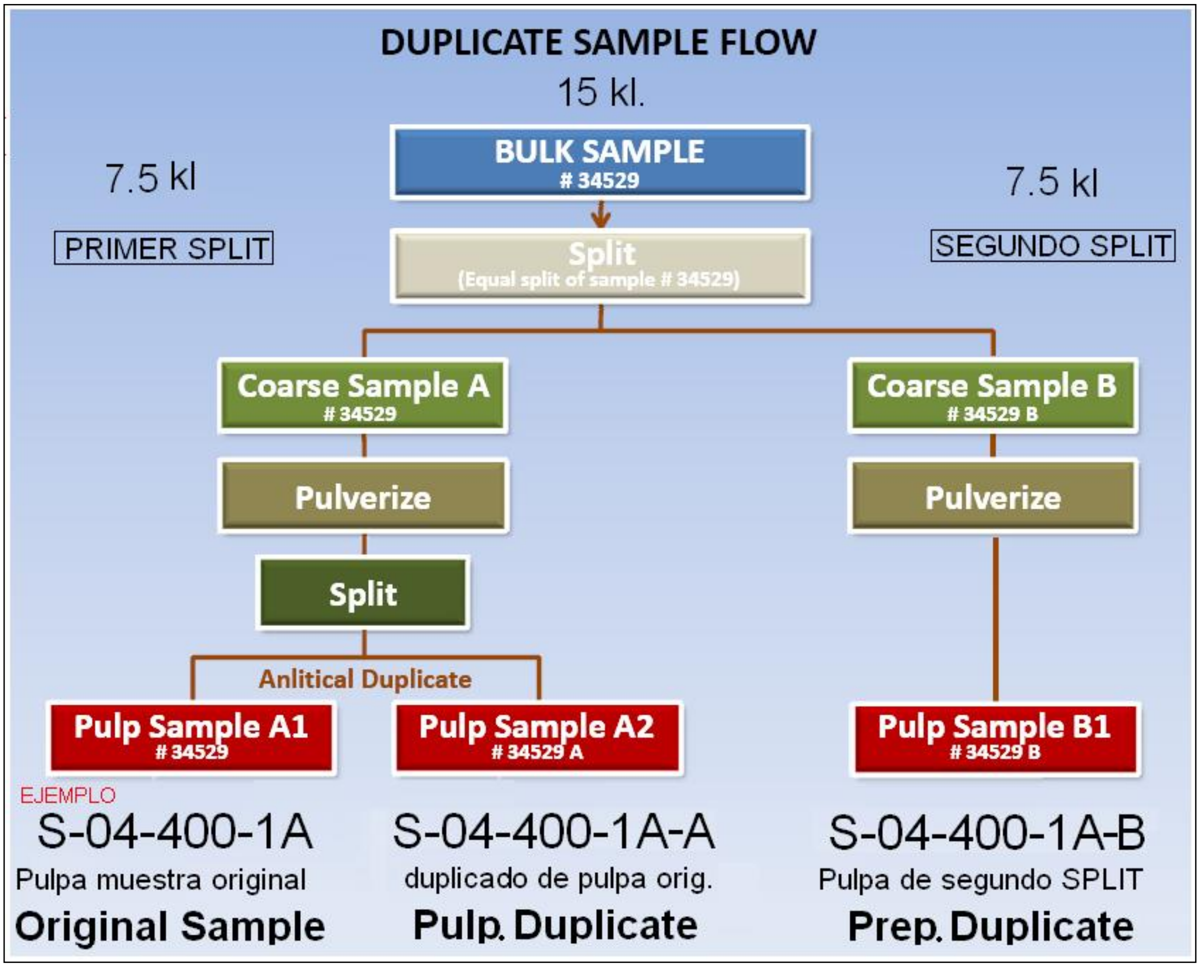
Blank Assays	5X LLOD Outliers		10X LLOD Outliers	
	#	%	#	%
51	19	37.25%	8	15.69%

Source: APM, 2023

Duplicates

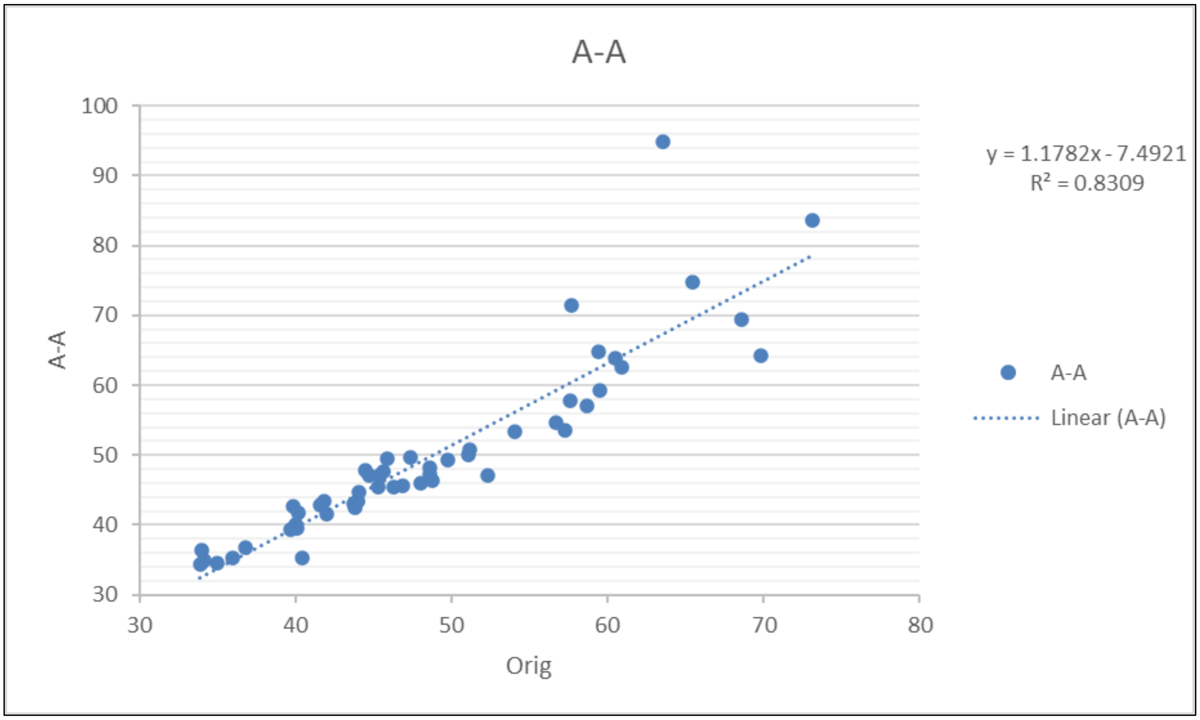
Given the nature of the FDF material, duplicate analysis is not conducted on a field (split solid core), coarse reject (i.e., ~1/4" fraction), but effectively is conducted on the split samples from the fine tailings being collected. The material is already effectively crushed and screened by its nature, so duplicate analysis is done on the other half of a split (1/4 sample) of the 1 m samples collected via sonic drilling. Two duplicate types are utilized, referred to as A-A and A-B. Both are splits of the original sample interval and analyzed in sequence with the originals. The A-A split is from the same pulp as the original sample, whereas A-B is taken from the other half of the split half core sample (Figure 12-1). Results show reasonable comparisons of the duplicates to the originals overall. Both A-A and A-B duplicates show similar spreads of values and have correlations above 80% (Figure 12-2 and Figure 12-3).

Failures are identified based on the absolute relative difference between the original and duplicated sample, with a nominal +/-10% utilized for the A-A samples and +/-20% utilized for the A-B samples. Overall failures are only 3.8% for the A-A series of duplicates, and 1.9% for the A-B series, considered acceptable for the performance of the duplicate samples (Table 12-4).



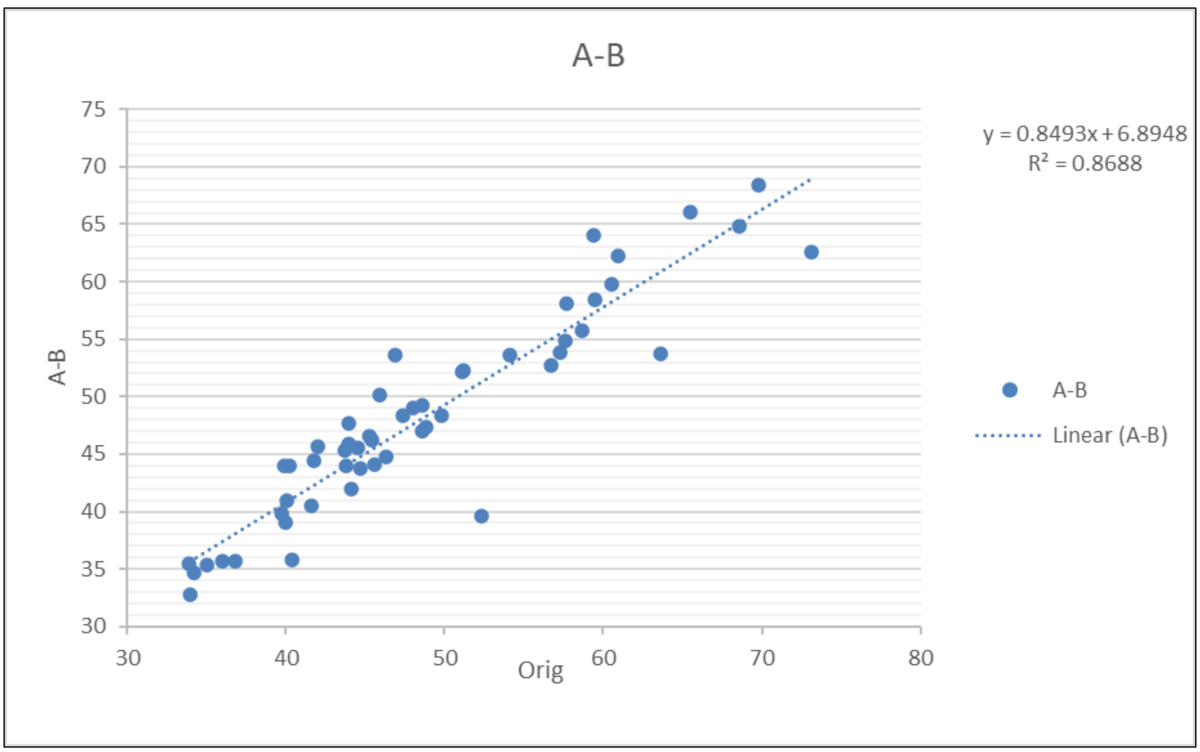
Source: APM, 2022

Figure 12-1: Duplicate Sample Methodology - FDF



Source: APM, 2023

Figure 12-2: Duplicate Comparison A-A Samples



Source: APM, 2023

Figure 12-3 Duplicate Comparison A-B Samples

Table 12-4: Duplicate Performance Summary - Ag

Duplicate Type	Duplicate Pairs	Avg Value g/t Ag		Average Bias	Failed Pairs	
		Orig.	Dup.		#	%
A-B	52	48.63	49.85	-2.49%	1	1.9
A-A	53	48.68	48.19	1.01%	2	3.8

Source: APM, 2023

12.3.2 Contracted Material QA/QC

Manquiri implemented a QA/QC protocol for the sampling carried out in the Contracted Material areas of Tollojchi and Altavista. Table 12-5 shows the QA/QC controls insertion for Tollojchi (Manto, Platera and Santa Rosario) and Altavista.

Table 12-5: Tollojchi and Altavista QA/QC Insertion

Period	Project	QA/QC	Regular Samples	Control Samples	Total Samples	Control
2023	Tollojchi	ALS	1,369	151	1,504	10%
	Altavista		59	46	105	44%

Source: APM, 2023

CRMs were used only in Tollojchi, including 43 controls of this type. Manquiri did not use the second laboratory check controls.

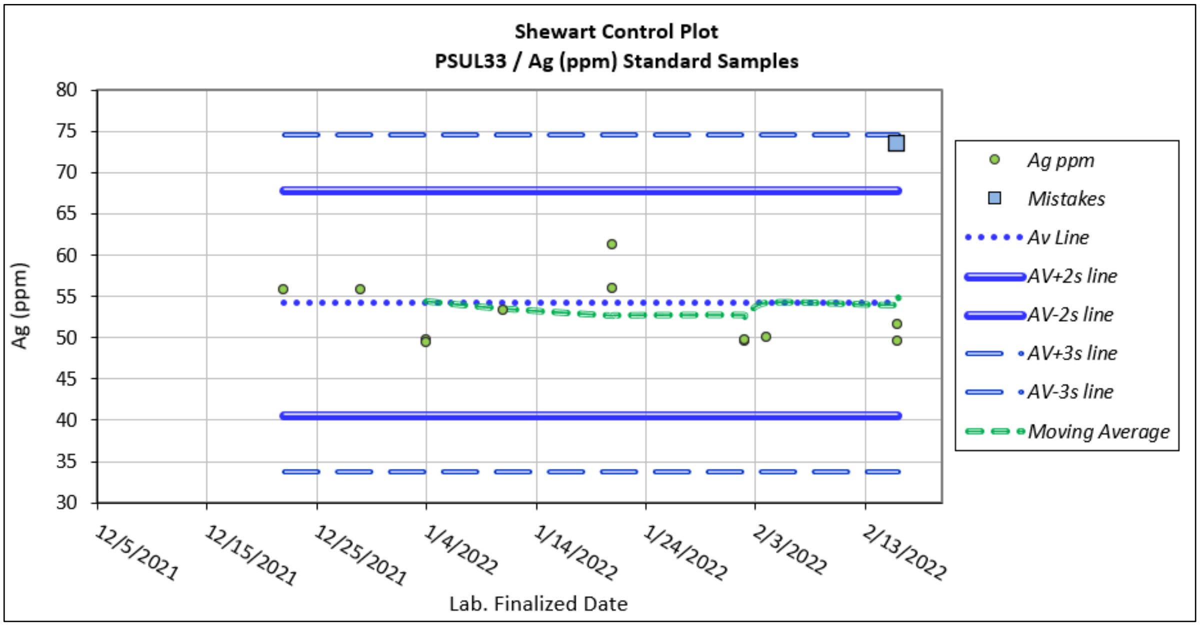
Certified Reference Materials (CRMs)

Table 12-6 presents the performance of the CRMs, which shows acceptable results. Figure 12-4 shows an example of the CRM result analysis for the PSUL33 control, showing that all the samples were inside the +/- 3D from expected value.

Table 12-6: CRM Performance Summary - Ag

CRM Type	CRM Assays	Errors (+/- 3SD from Expected Value)		Expected Value (g/t Ag)	Average Value (g/t Ag)	Bias
		#	%			
MQR-03	27	0	0.00%	215	211.65	-1.6%
PSUL31	2	0	0.00%	93	97.63	5.0%
PSUL33	14	0	0.00%	51	53.867	5.4%
PSUL35	2	0	0.00%	61.8	64.63	4.6%

Source: APM, 2023



Source: APM, 2023

Figure 12-4 Results of PSUL33 CRM Control - Tollojchi

Blanks

Blank samples are derived from a local rock type (Huacajchi tuff) that Manquiri believed to be devoid of mineralization of "very low grade". Table 12-7 compares the blanks using a 5X LLOD and 10X LLOD failure limit. Limit of detection for Ag in the analyses is 0.5 g/t Ag. Using 10X LLOD the failures are reasonable, but using 5X the rates are above acceptable limits, with some failures noted to be as high as 10 g/t Ag.

As noted before, it is likely that the blank material is not appropriate.

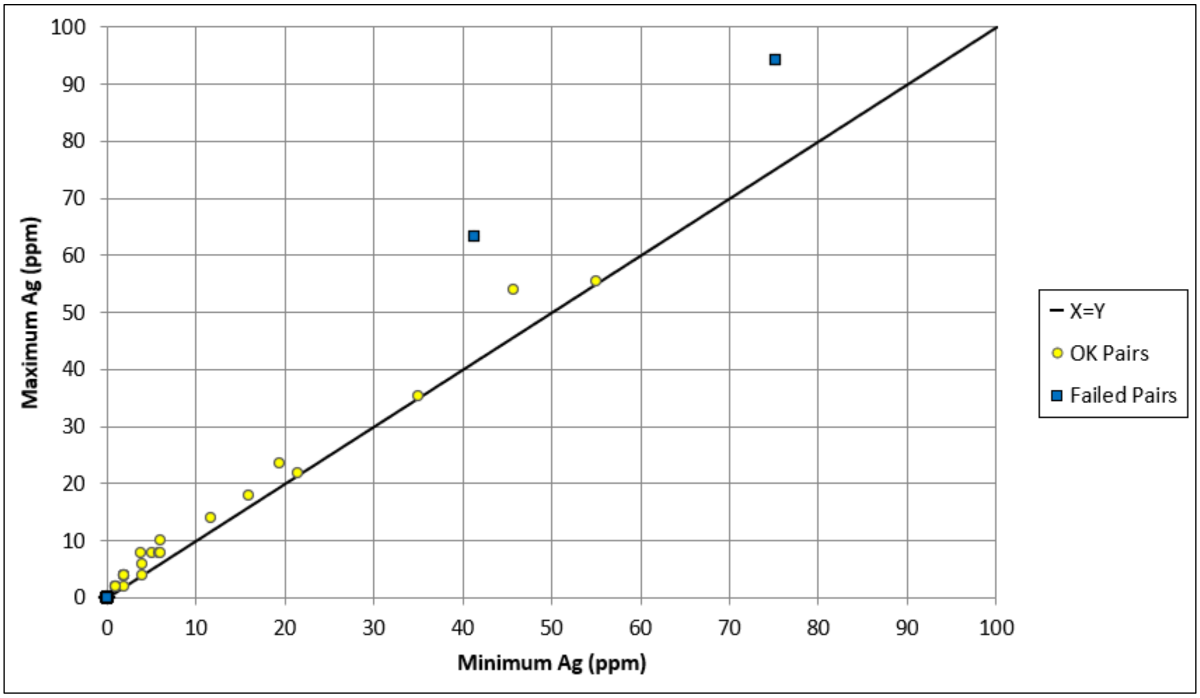
Table 12-7: Blank Performance Summary - Ag

Blank Assays	5X LLOD Outliers		10X LLOD Outliers	
	#	%	#	%
Tollojchi				
45	2	4.4%	1	2.2%
Altavista				
19	12	63.2%	1	5.3%

Source: APM, 2023

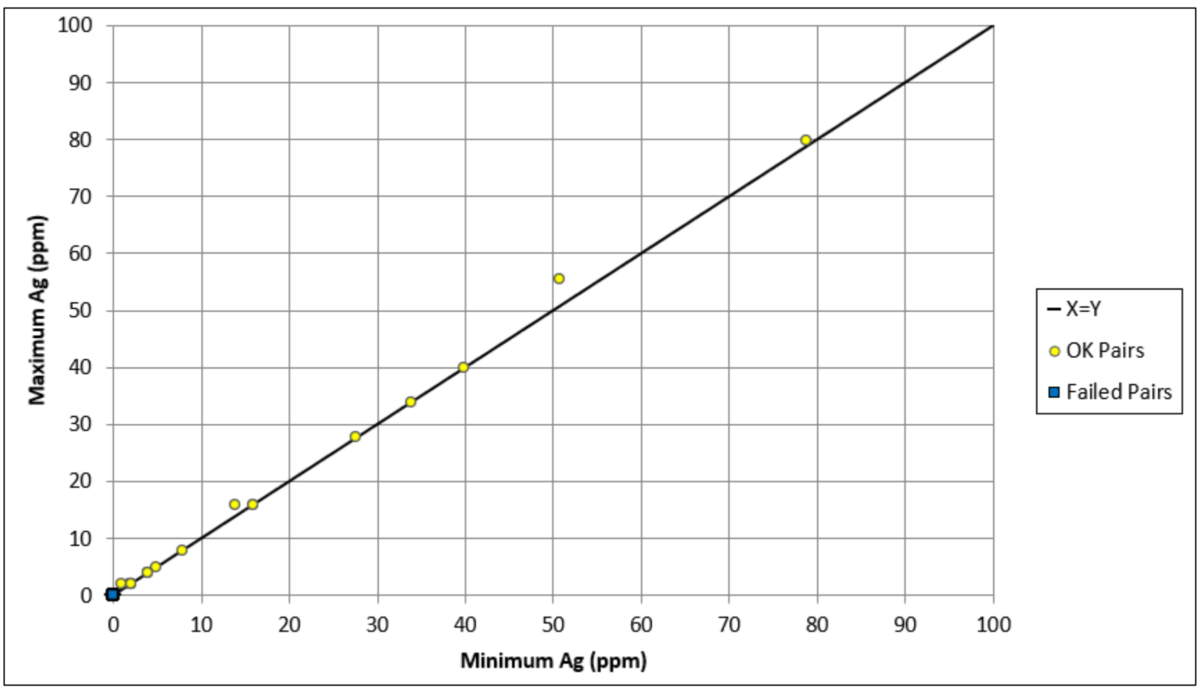
Duplicates

Figure 12-5 and Figure 12-6 show examples of scater plots prepared to analyze the results of coarse and fine duplicates for Tollojchi, showing reasonable results. Table 12-8 shows the summary of the results for Tollojchi and Altavista. The results of Altavista show a high Bias for the coarse duplicates (Figure 12-7), which Manquiri investigated, but there is not documentation of the correction measurements implemented with the laboratory.



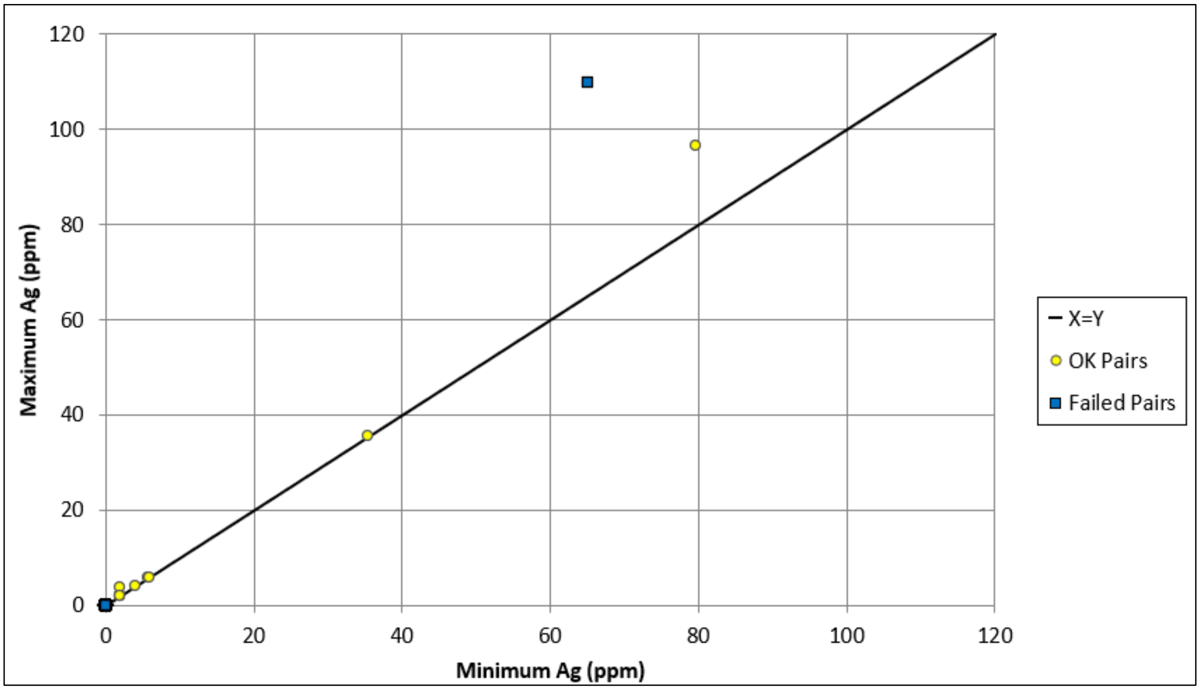
Source: APM, 2023

Figure 12-5: Coarse Duplicates Scatter Plot - Tollojchi



Source: APM, 2023

Figure 12-6 Fine duplicates scatter plot – Tollojchi



Source: APM, 2023

Figure 12-7 Coarse duplicates scatter plot – Altavista

Table 12-8: Duplicate Performance Summary – Ag - Tollojchi

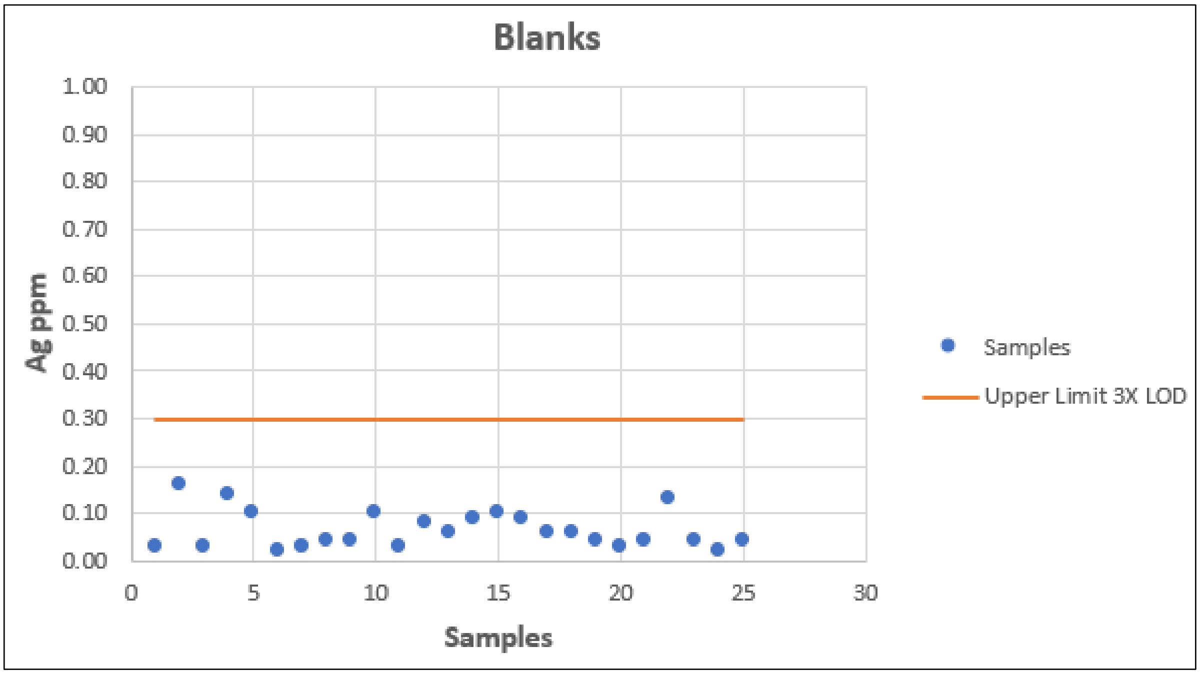
Duplicate Type	Duplicate Pairs	Avg Value g/t Ag		Average Bias	Failed Pairs	
		Orig.	Dup.		#	%
Tollojchi						
Coarse	35	26.094	26.308	-0.8%	3	8.6%
Fine	28	60.465	58.783	-2.8%	0	0%
Altavista						
Coarse	16	19.38	27.56	42.2%	1	10.1%
Fine	11	6.56	6.80	3.7%	0	0%

Source: APM, 2023

12.3.3 PACA QA/QC

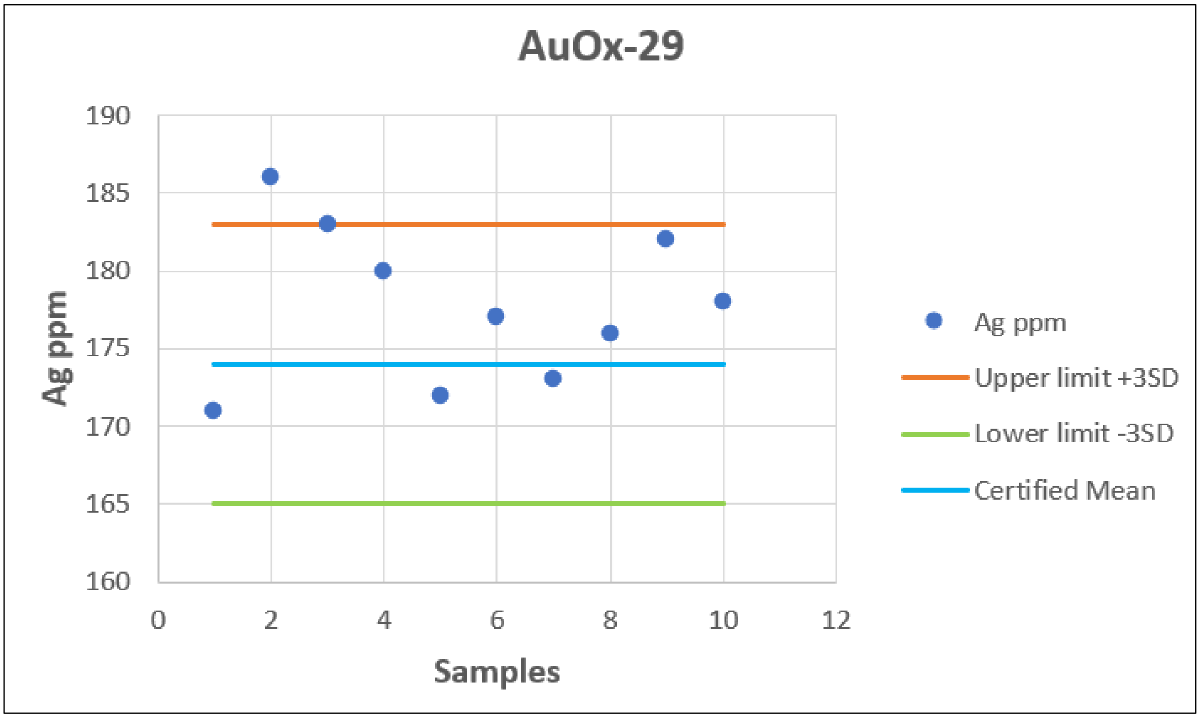
The drilling at Paca was completed by previous owners, including ASC between 2002-2005, Apogee between 2006-2011 and Silver Elephant between 2019 and 2020. In 2020, Mercator reviewed all the available QA/QC data for Apogee and ASC drilling programs at Paca that supported the mineral resource estimates of 2020. Apogee carried out systematic monitoring of QA/QC issues through use of certified reference materials, blank samples, duplicate pulp split samples, independent check samples and third-party check sample analysis. No certified reference materials were used for the 2006 program. Mercator also reviewed QA/QC program results for the 2019-2020 Silver Elephant core drilling program that included insertion of certified reference materials, blank samples, and analysis of duplicate pulp splits (Mercator, 2020).

In 2023, Manquiri collected samples from existing core and rock samples from trenches and underground workings. The controls were inserted in the core sampling and included 25 coarse blank samples, 11 AuOx-28, 10 AuOx-29, and 10 Epit-11 CRMs, and 29 core duplicates. The insertion rate for this campaign was 11%. Figure 12-8, Figure 12-9, and Figure 12-10 present the results of the controls. In general, the results are acceptable for these controls. It is recommended to include coarse and fine duplicates and second laboratory controls and improve the results analysis and clearly define the acceptability criteria and document the failures and correction measurements implemented.



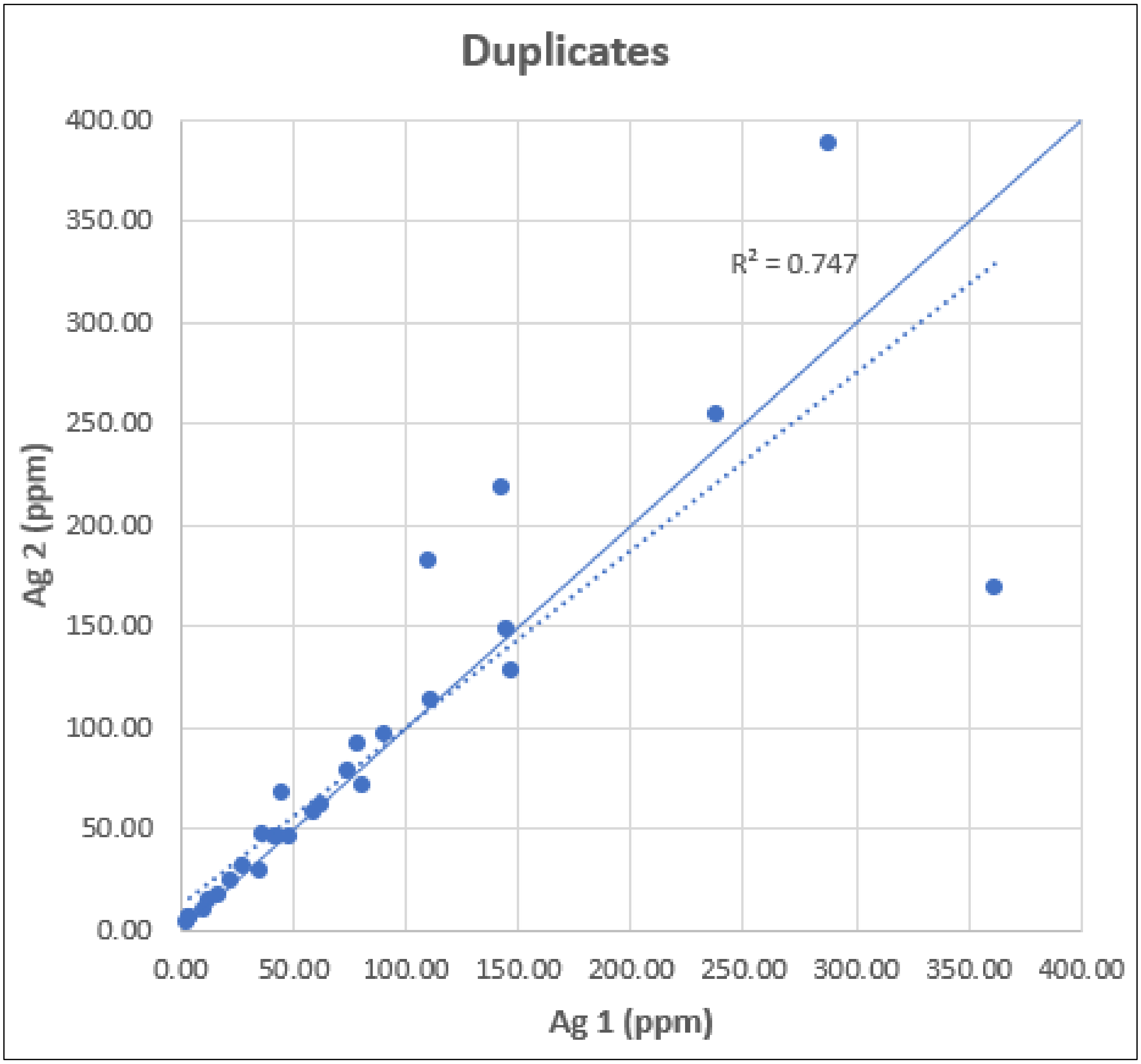
Source: APM, 2023

Figure 12-8: Blank Controls Results – Manquiri - Paca



Source: APM, 2023

Figure 12-9: AuOx-29 CRM Results – Manquiri - Paca



Source: APM, 2023

Figure 12-10: Core Duplicate Results – Manquiri – Paca

12.4 QPs' Comments and Recommendations

12.4.1 Comments on Adequacy – FDF

The FDF QA/QC program as documented is of industry standard and reasonable to support a quality database and mineral resource estimation. However, the implementation and monitoring of the program leaves gaps in the understanding of analytical precision and accuracy. Significant failures in the CRM and blanks potentially demonstrate some local minor inaccuracies in the preparation or analytical methods employed. Given the uncertainty and lack of understanding in the nature of the QA/QC failures, SRK finds this to be a potential issue in the overall MRE process, but not one that likely would or should preclude statement of mineral resources. It does reduce confidence in the MRE and has been considered in the classification as a limitation to report Measured resources.

QPs recommend implementing second laboratory check controls on a monthly or quarterly basis.

12.4.2 Comments on Adequacy – Contracted Material Areas

In general, the QA/QC protocol results for Tollojchi and Altavista are reasonable for the CRMs and Duplicates. Manquiri should review the quality of the blank used because, in some cases, as mentioned previously, there is contamination that apparently is due to the blank and not to the laboratory.

Documentation of the measurements taken related to these issues needs to be clarified, and it is an aspect that needs improvement. Management of failures and correction measurements should be appropriately recorded as part of a complete protocol.

Qualified persons recommend implementing second laboratory check controls on a monthly or quarterly basis and evaluating the use of fine blanks and field and core duplicates as part of the QA/QC protocol.

In the opinion of the QP, the methods employed for sampling preparation, security, analytical procedures, and QA/QC protocols are in line with the industry's best practices and are satisfactory for the mineral resource estimations of Tollojchi and Altavista.

12.4.3 Comments on Adequacy – Paca

Manquiri did not drill at Paca and the drilling campaigns completed by previous owners support the mineral resource estimates. Mercator, 2020, describes in detail the drilling campaigns completed by ASC, Apogee and Silver Elephant between 2006 and 2020 and the results of their QA/QC protocols. Mercator concluded that the sample preparation, analysis and security methodologies for their drilling programs were sufficient and acceptable to support the mineral resource estimates of 2020.

The QA/QC controls inserted during the validation core sampling performed by Manquiri in 2023, showed acceptable results. The QPs recommend including fine and coarse duplicates and second laboratory controls on a monthly or quarterly basis and reviewing the documentation of the acceptability criteria and the failures management and correction measurements implemented.

The Qualified persons consider that the results of the Manquiri and the previous owners' campaigns and the QA/QC protocols are sufficient and adequate to support the mineral resource estimations.

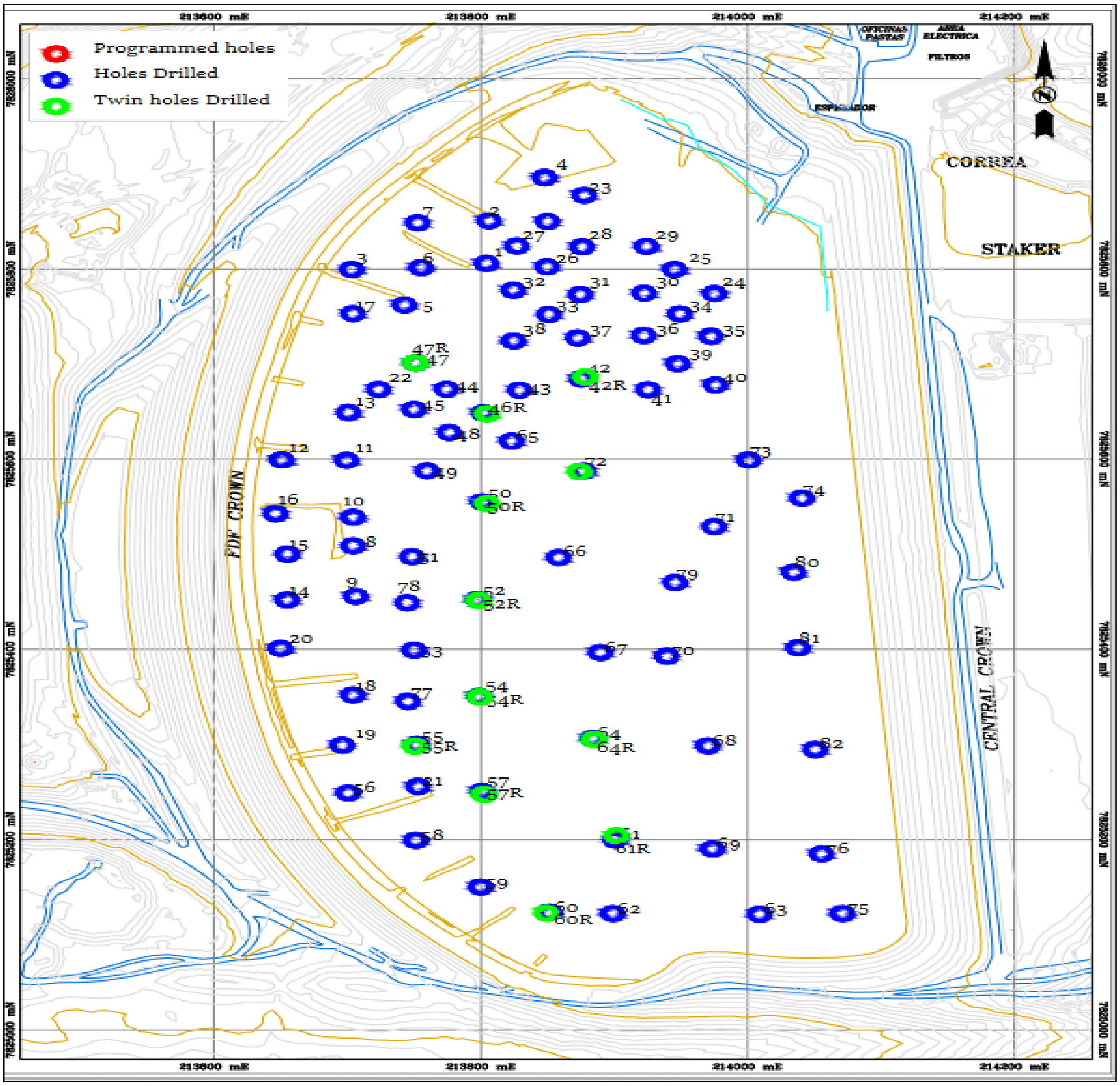
13 Mineral Processing and Metallurgical Testing

Andean Precious Metals owns and operates the San Bartolomé silver mine, Potosi, Bolivia, at an elevation of about 4,100 m. APM's Manquiri operates the San Bartolomé process plant. When operations started in 2009, it was noted that the silver grade in the pallacos deposits could be upgraded by screening out the -8 mesh (-2.36 mm) material. This was accomplished with a separate crushing and wet scrubbing and screening circuit to remove the fine fraction and upgrade the feed to the cyanidation circuit. These fines are currently stored in the FDF which is estimated to contain about 10 Mt of fines at an average grade of about 50 g/t Ag. The material contained in the FDF is considered to be a potential economic resource which has been assessed by a barge-supported sonic drilling campaign. APM has conducted metallurgical testwork at their onsite metallurgical laboratory, SGS Lakefield and Bradken Linings to assess the potential of processing material contained in the FDF through the current San Bartolomé cyanidation plant. Figure 13-1 shows the location of the 82 sonic drillholes that have been drilled to define the resource. APM has divided the FDF into North, Central and South sections as shown in Figure 13-2 to Figure 13-4. The indicated resource in the FDF is shown in Table 13-1 and is estimated at 9.93 Mt at an average silver grade of 49.5 g/t.

Table 13-1: Summary of Measured & Indicated Silver Resource in the FDF

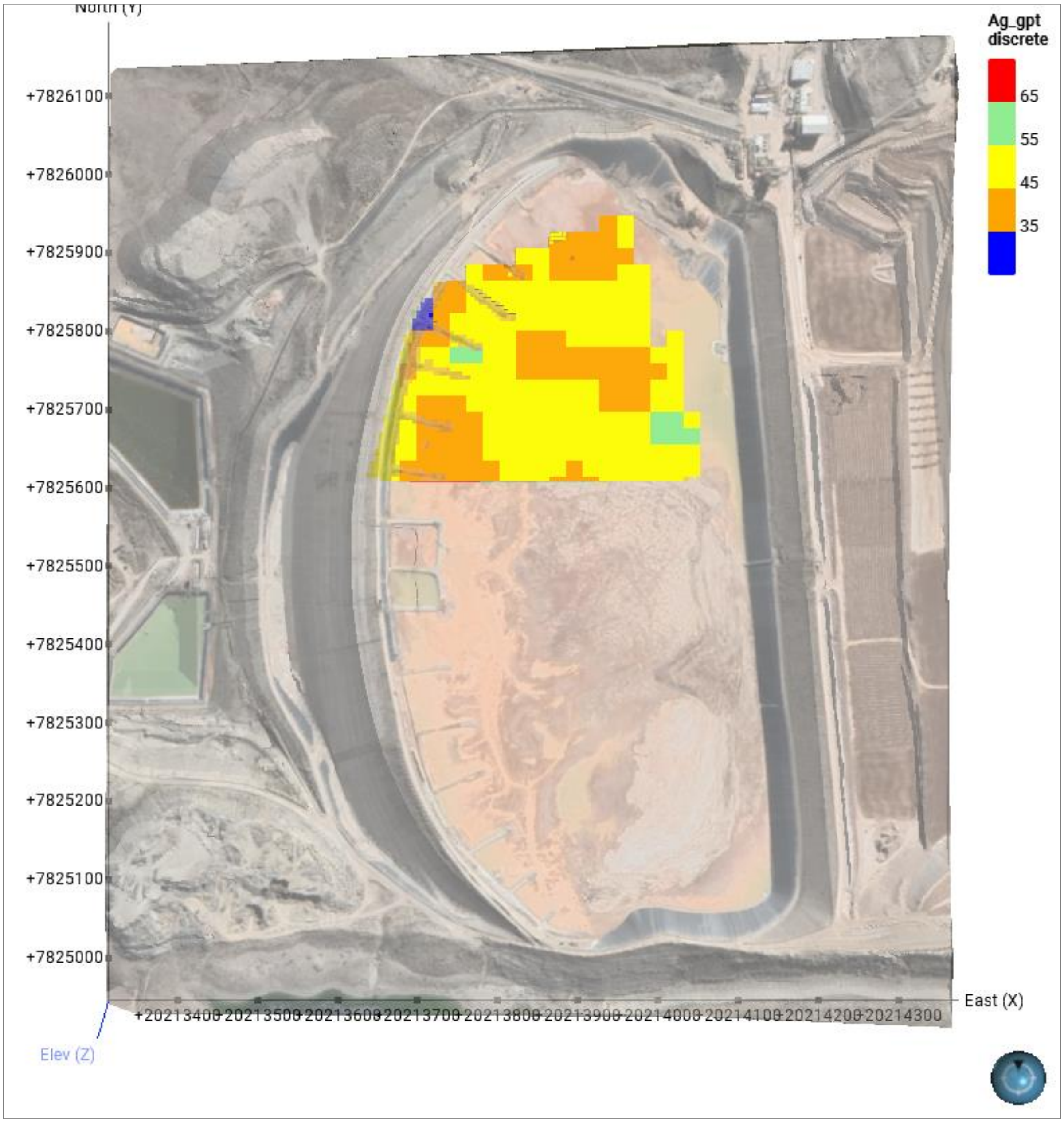
Area	Tonnage (Mt)	Ag, g/t	Ag Oz, million
North	2.58	51.36	4.30
Central	4.52	49.56	7.20
South	2.83	47.75	4.35
Total	**9.93**	**49.51**	**15.85**

Source: APM, 2023



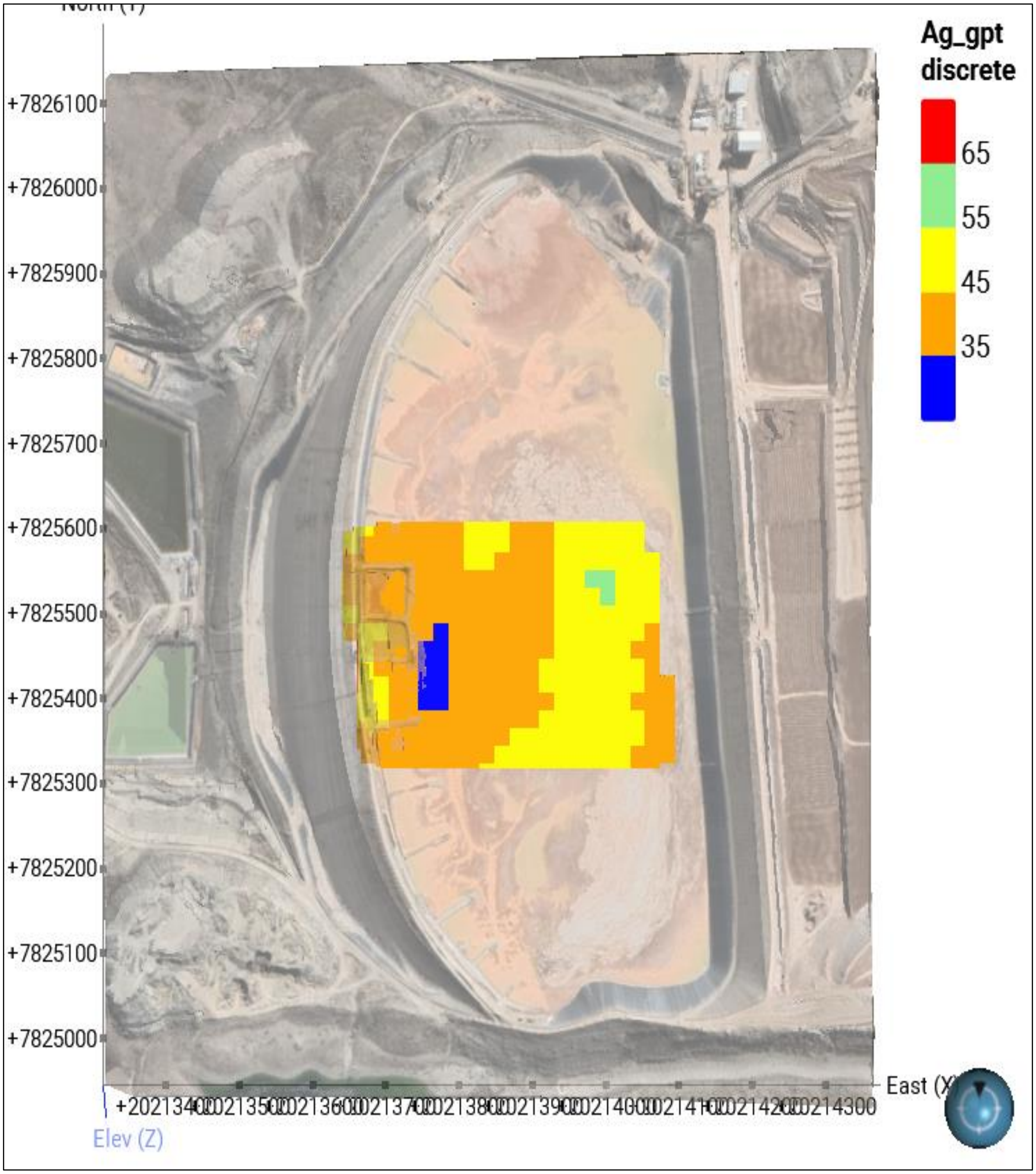
Source: APM, 2023

Figure 13-1: Location of Sonic Drillholes in the FDF



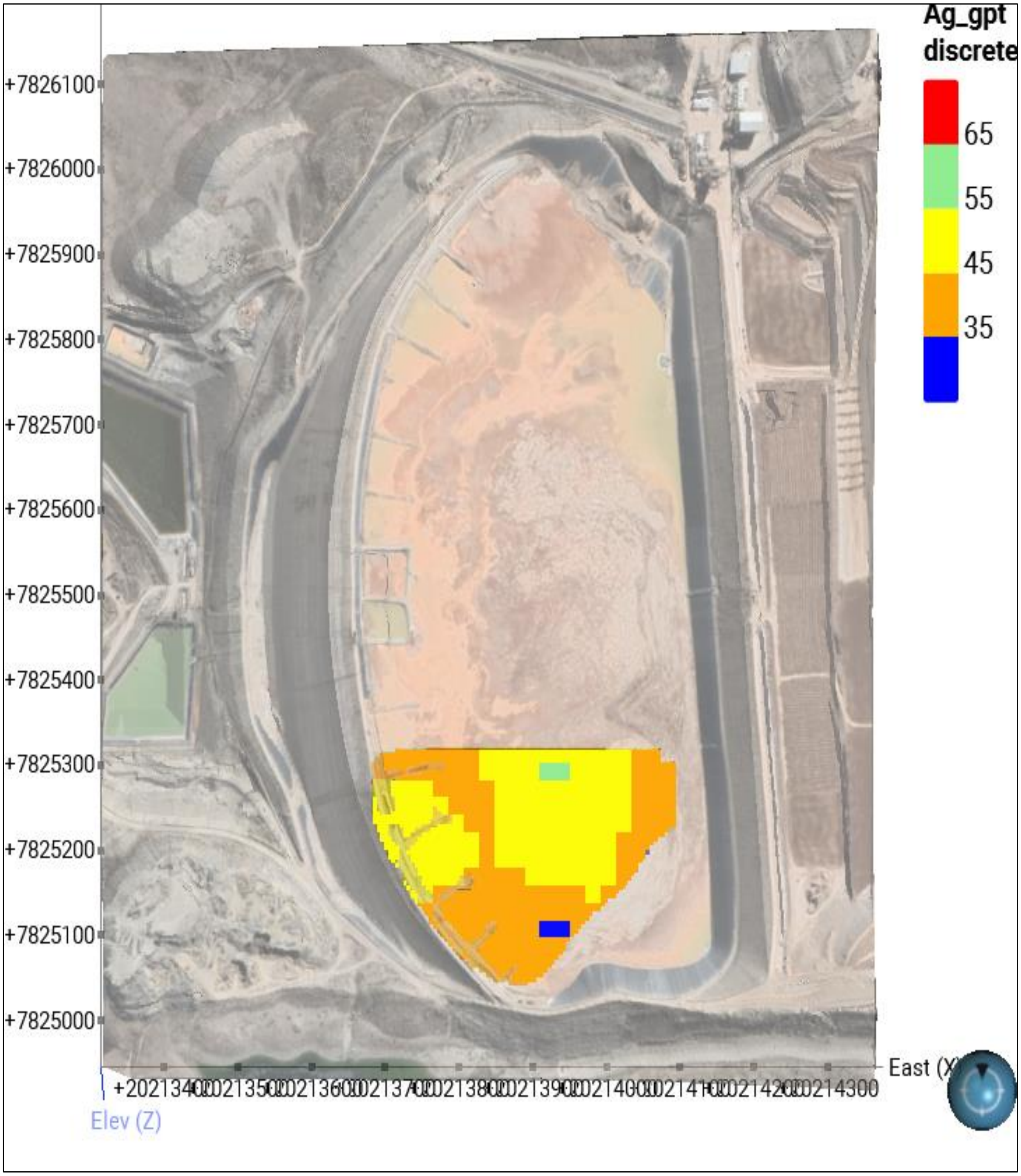
Source: APM 2023

Figure 13-2: North Section of the FDF



Source: APM 2023

Figure 13-3: Central Section of the FDF



Source: APM 2023

Figure 13-4: South Section of the FDF

13.1 Comminution

The San Bartolomé comminution circuit was originally designed on the basis of Bond rod mill work indices (RWI) that ranged from 12.9 – 15.6 kWh/t and Bond ball mill work indices (BWI) that ranged from 12.4 to 18.6 kWh/t. The hardest RWI determination (15.6 kWh/t) and the hardest BWI determination (18.6 kWh/t) were used as the design basis for the San Batolome comminution circuit. No additional BWI determinations were made to assess comminution characteristics of the FDF material, but it can be reasonably assumed that the BWI for the FDF material will be in a similar range to the original design criteria. EPCM Consultores (EPCMC) evaluated grinding circuit capacity for FDF material at assumed BWI's of 14 and 16 kWh/t and confirmed comminution circuit throughput capacities over this range.

13.2 Metallurgical Test Programs

Metallurgical test work has been conducted by APM at their on-site metallurgical laboratory and by and Bradken Linings and SGS Lakefield. The test work conducted by APM is the most extensive and relevant to the project. The results of the metallurgical test programs are summarized in this section.

13.2.1 APM Metallurgical Test Work

Cyanide Leach Tests on Unscreened Fines from the FDF

APM conducted initial batch cyanide leach tests on representative unscreened samples from each of the 82 drillholes which had been ground to 100% -200 mesh (74 µm). The objective was to confirm the maximum silver extraction that could be obtained under very aggressive leach conditions that included grinding to 100% passing 74 µm and leaching at a cyanide concentration of 23,000 ppm NaCN. The results of each test are summarized in Figure 13-5. The drillholes sample silver grades ranged from 34.6 to 66.7 g/t Ag and averaged 51.1 g/t Ag. Silver extractions ranged from 67.8% to 82.2% and averaged 76.0%. Cyanide consumption averaged 1.3 kg/t NaCN and lime consumption averaged 3.78 kg/t.

RESUMEN GENERAL DE LAS PRUEBAS FLASH DE CIANURACION DE LOS POZOS FDF												
	RESULTADO DE PRUEBAS DE CIANURACION											
N°	N° POZO	METROS	P.E. g/cc	pH Incial	pH Lix.	% Paso - 200 #	Solidos %	Ley Muestra		Consumo		Extracción %
								Plata (g/t)	Azufre (%)	Cal Kg/t	CNNa Kg/t	
1	FDF - 01	12	2,65	4,53	11,88	100	17	59,74	0,47	3,50	1,32	72,11
2	FDF - 02	9	2,70	4,27	11,79	100	17	54,52	0,64	3,20	1,07	77,92
3	FDF - 03	11	2,70	4,44	12,13	100	17	58,50	0,39	1,50	1,71	76,02
4	FDF - 04	7	2,66	4,24	12,07	100	17	52,06	0,53	3,50	1,36	79,70
5	FDF - 05	20	2,65	4,09	12,07	100	17	52,69	0,44	3,60	1,15	78,42
6	FDF - 06	15	2,63	4,08	12,03	100	17	53,98	0,37	4,20	0,95	77,25
7	FDF - 07	10	2,65	4,17	12,11	100	17	50,17	0,41	3,30	1,56	80,33
8	FDF - 08	35	2,66	4,39	12,10	100	17	53,15	0,53	3,60	1,74	75,71
9	FDF - 09	34	2,64	4,93	12,03	100	17	55,38	0,39	3,50	1,52	74,74
10	FDF - 10	33	2,56	4,96	12,14	100	17	56,44	0,45	3,00	1,24	76,15
11	FDF - 11	31	2,62	4,87	12,08	100	17	57,44	0,44	3,80	1,80	77,44
12	FDF - 12	12	2,67	4,82	12,08	100	17	65,78	0,52	4,40	1,78	76,45
13	FDF - 13	28	2,59	5,06	12,10	100	17	59,80	0,56	3,90	1,26	74,73
14	FDF - 14	13	2,63	4,70	11,94	100	17	66,73	0,42	4,50	1,37	74,90
15	FDF - 15	13	2,57	4,58	11,94	100	17	52,36	0,49	4,50	1,78	76,24
16	FDF - 16	14	2,62	4,98	11,92	100	17	63,20	0,41	3,50	1,41	77,23
17	FDF - 17	20	2,59	4,60	12,06	100	17	59,78	0,52	3,80	1,15	70,00
18	FDF - 18	26	2,61	4,43	12,03	100	17	51,93	0,52	4,00	1,37	75,27
19	FDF - 19	22	2,68	4,64	12,03	100	17	61,49	0,56	4,20	0,92	75,36
20	FDF - 20	10	2,67	4,53	12,07	100	17	53,32	0,43	3,50	1,66	75,30
21	FDF - 21	32	2,64	4,65	11,96	100	17	54,67	0,42	3,50	1,27	76,95
22	FDF - 22	27	2,59	5,04	12,00	100	17	50,82	0,52	4,00	1,83	74,73
23	FDF - 23	5	2,56	5,46	12,02	100	17	44,64	0,41	2,50	1,40	79,95
24	FDF - 24	6	2,54	5,12	12,03	100	17	56,30	0,39	3,00	1,27	77,38
25	FDF - 25	6	2,58	4,44	11,96	100	17	52,93	0,37	3,50	1,52	79,24
26	FDF - 26	10	2,56	5,69	11,99	100	17	50,28	0,43	3,50	1,79	80,33
27	FDF - 27	10	2,55	5,67	11,99	100	17	52,92	0,42	4,20	1,62	77,38
28	FDF - 28	8	2,55	5,46	11,87	100	17	49,97	0,38	2,80	1,24	82,23
29	FDF - 29	6	2,55	5,37	11,88	100	17	51,32	0,40	3,30	0,94	80,57
30	FDF - 30	9	2,57	5,40	11,85	100	17	46,60	0,47	4,40	1,44	78,65
31	FDF - 31	11	2,58	5,82	12,00	100	17	61,27	0,41	4,00	1,34	78,95
32	FDF - 32	13	2,54	5,25	12,01	100	17	53,24	0,40	4,00	1,13	79,43
33	FDF - 33	14	2,56	5,33	12,02	100	17	57,44	0,37	4,20	1,29	77,44
34	FDF - 34	9	2,54	5,41	11,97	100	17	52,60	0,36	4,00	1,17	75,11
35	FDF - 35	9	2,54	4,96	11,87	100	17	49,60	0,40	3,80	0,96	70,02
36	FDF - 36	11	2,70	5,08	11,83	100	17	49,28	0,41	3,80	1,33	81,94
37	FDF - 37	15	2,54	5,08	11,83	100	17	56,30	0,44	3,80	0,92	78,97
38	FDF - 38	18	2,58	5,24	11,78	100	17	58,20	0,37	3,80	1,67	78,04
39	FDF - 39	11	2,54	5,21	11,91	100	17	44,93	0,39	3,80	1,33	75,78
40	FDF - 40	11	2,59	5,43	11,96	100	17	52,23	0,44	3,70	1,56	76,18
41	FDF - 41	15	2,63	5,36	12,00	100	17	52,88	0,40	4,10	1,07	75,66
42	FDF - 42	18	2,71	5,52	11,98	100	17	52,54	0,45	4,00	1,29	73,75
43	FDF - 43	24	2,57	5,53	11,85	100	17	52,88	0,36	4,40	1,39	75,61
44	FDF - 44	28	2,59	5,53	11,76	100	17	54,30	0,42	3,80	1,56	73,24
45	FDF - 45	28	2,62	5,50	11,75	100	17	51,90	0,43	3,50	1,12	77,15
46	FDF - 46	27	2,56	5,38	11,75	100	17	52,67	0,37	3,50	1,50	72,06
47	FDF - 47	25	2,55	5,20	12,06	100	17	50,82	0,42	3,50	0,94	76,86
48	FDF - 48	28	2,62	5,86	12,02	100	17	47,62	0,35	3,80	1,01	67,77
49	FDF - 49	30	2,60	5,71	12,01	100	17	46,57	0,34	3,70	1,27	**72,15**
50	FDF - 50	29	2,61	5,76	12,01	100	17	52,52	0,37	4,00	1,31	72,37
51	FDF - 51	34	2,62	5,68	12,11	100	17	42,67	0,40	3,80	0,97	**74,50**
52	FDF - 52	34	2,56	5,63	12,11	100	17	48,84	0,58	3,70	1,15	**75,53**
53	FDF - 53	35	2,61	5,67	12,04	100	17	35,78	0,40	3,40	1,25	74,51
54	FDF - 54	34	2,58	5,65	12,11	100	17	51,28	0,38	4,00	1,27	**76,31**
55	FDF - 55	35	2,59	5,69	12,13	100	17	53,51	0,47	4,00	1,18	76,38
56	FDF - 56	14	2,62	5,88	12,07	100	17	60,36	0,66	4,00	1,50	**74,27**
57	FDF - 57	32	2,62	5,95	11,96	100	17	47,92	0,41	4,00	1,16	**75,48**
58	FDF - 58	23	2,63	6,01	11,92	100	17	49,76	0,37	4,00	1,17	**75,23**
59	FDF - 59	24	2,61	5,79	11,93	100	17	45,97	0,41	4,00	1,05	78,83
60	FDF - 60	26	2,63	6,08	11,96	100	17	41,82	0,38	4,00	1,15	**78,22**
61	FDF - 61	27	2,62	5,70	11,96	100	17	43,76	0,33	3,70	1,25	**73,33**
62	FDF - 62	18	2,55	6,13	11,96	100	17	36,69	0,20	3,70	0,94	**78,96**
63	FDF - 63	12	2,60	6,09	12,04	100	17	34,60	0,33	3,70	1,07	73,84
64	FDF - 64	29	2,61	5,98	12,06	100	17	49,94	0,38	3,70	1,18	**80,06**
65	FDF - 65	27	2,58	5,90	11,94	100	17	49,52	0,31	4,00	1,19	**76,25**
66	FDF - 66	30	2,55	5,86	12,01	100	17	47,94	0,37	4,00	0,96	**77,85**
67	FDF - 67	30	2,55	6,01	11,90	100	17	52,58	0,30	4,00	1,13	71,67
68	FDF - 68	26	2,54	6,04	12,01	100	17	55,65	0,37	4,00	1,23	**76,10**
69	FDF - 69	20	2,61	5,86	11,96	100	17	47,89	0,38	3,90	1,14	**77,51**
70	FDF - 70	28	2,68	5,93	11,99	100	17	53,97	0,41	3,80	1,47	**75,75**
71	FDF - 71	21	2,58	5,85	11,83	100	17	45,88	0,32	3,90	1,17	71,72
72	FDF - 72	26	2,55	6,02	11,84	100	17	43,70	0,30	4,00	1,04	**72,61**
73	FDF - 73	13	2,57	5,92	11,87	100	17	42,79	0,34	4,10	1,24	**70,09**
74	FDF - 74	12	2,67	5,97	11,90	100	17	52,40	0,36	4,20	1,32	**72,38**
75	FDF - 75	7	2,61	5,60	12,21	100	17	40,71	0,32	4,20	1,35	**73,45**
76	FDF - 76	13	2,64	5,32	11,90	100	17	38,30	0,34	4,00	1,23	**76,71**
77	FDF - 77	39	2,65	5,97	11,54	100	17	48,88	0,30	4,00	1,30	**77,71**
78	FDF - 78	39	2,58	6,32	11,90	100	17	47,13	0,36	4,00	1,40	**75,23**
79	FDF - 79	30	2,56	5,93	11,88	100	17	44,58	0,40	3,50	1,49	**77,09**
80	FDF - 80	22	2,58	6,61	12,12	100	17	43,77	0,45	3,75	1,36	**73,28**
81	FDF - 81	21	2,55	6,23	12,32	100	17	48,20	0,32	3,75	1,39	**77,56**
82	FDF - 82	19	2,57	6,56	11,23	100	17	40,96	0,40	4,50	1,49	**77,34**
	PROMEDIOS		2,60	5,39	11,97	100	17	51,05	0,41	3,78	1,30	76,01

Source: APM 2023

Figure 13-5: Summary of Cyanidation Tests on FDF Drillhole Samples

Silver Distribution in the +140 mesh FDF Size Fraction

APM determined that by screening the FDF fines at 140 mesh (105 µm) that they could upgrade the FDF fines from an average silver grade of 51.1 to 55.5 g/t Ag with 40 wt% reporting to the +140 mesh fraction. If the South section of the FDF was eliminated the +140 mesh fraction could be upgraded to an average grade of 56.7 g/t Ag with 43.5 wt% reporting to the +140 mesh fraction. The results of screening test work on samples from each of the FDF drillholes are shown in Table 13-2.

Table 13-2: Summary of Silver Distribution in the + 140 mesh FDF Size Fraction

Drillhole	Cum. % +140 Mesh	Cum. Ag g/t	Drillhole	Cum. % +140 Mesh	Cum. Ag g/t
1	70.1	54.5	42	28.5	54.1
2	64.5	60.1	43	39.3	57.1
3	73.8	64.0	44	51.5	60.0
4	61.2	64.2	45	43.4	59.5
5	61.8	56.9	46	39.5	58.0
6	59.2	75.3	47	41.7	55.9
7	64.4	68.5	48	30.6	53.0
8	63.0	58.6	49	47.0	57.2
9	70.5	65.6	50	48.6	57.7
10	61.4	71.7	51	48.3	54.6
11	52.8	63.9	52	38.4	57.6
12	61.4	65.9	53	45.3	66.9
13	57.9	58.0	54	43.8	57.7
14	64.3	62.9	55	49.8	62.4
15	63.9	57.8	56	65.5	58.2
16	65.4	66.3	57	45.7	58.2
17	63.5	62.2	58	54.5	58.2
18	56.1	62.7	59	63.7	63.7
19	64.8	62.7	60	55.9	56.2
20	70.3	58.4	61	40.9	57.7
21	59.1	60.3	62	15.8	43.5
22	54.7	61.2	63	11.3	49.1
23	32.5	48.1	64	30.2	50.1
24	28.6	50.5	64	34.0	59.0
25	25.5	49.6	66	39.7	58.4
26	33.5	51.3	67	28.4	47.8
27	30.2	55.6	68	21.7	49.0
28	27.9	47.5	69	21.0	43.4
29	24.9	44.6	70	24.0	43.2
30	25.1	53.5	71	22.8	48.6
31	29.3	52.2	72	28.7	46.0
32	19.1	53.4	73	12.2	42.1
33	27.8	51.8	74	10.4	41.0
34	24.6	55.3	75	10.3	47.3
35	21.6	56.8	76	13.6	53.2
36	19.0	50.5	77	44.4	52.9
37	19.8	62.7	78	46.4	53.7
38	29.1	52.6	79	34.9	52.2
39	14.2	48.4	80	10.2	52.4
40	23.0	43.1	81	11.3	45.2
41	33.0	53.0	82	12.0	45.6
Average Entire FDF				40.0	55.5
Average W/O South Section of FDF				43.5	56.7

Source: APM 2023

Cyanide Leach Tests on Screened Fines from the FDF

APM blended sub-samples from each of the 82 drillholes to prepare a test composite representative of the entire FDF. The composite was then screened at 140 mesh and the +140 mesh fraction was used to conduct a series of cyanide leach tests to evaluate silver extraction versus grind size. Grind sizes ranging from 66% to 84% passing 200 mesh (74 µm) were evaluated using the following test conditions with a portion of the cyanide being added during grinding:

- Slurry % solids: 40%
- Cyanide conc: 2,200 ppm NaCN
- Grind sizes: 66, 76 and 84% passing 200 mesh
- Oxygen injection: Dissolved oxygen maintained at 19 – 28 mg/L
- Retention time: 72 hours
- pH: 11.5 (with lime)

The results of these tests are summarized in Table 13-3, where it is shown that silver extraction increased from 69.45 to 78.4% as the grind size became finer. Sodium cyanide consumption ranged from 1.38 to 1.58 kg/t and lime consumption was 3.2 g/t.

Table 13-3: Cyanidation vs. Grind Size on +140 m FDF Composite

Grind	Head Grade	Tail Grade	Ag Extr.	Reagent Cons. (kg/t)	
%-200 mesh	Ag, g/t	Ag, g/t	%	NaCN	Lime
66.3	57.14	17.48	69.4	1.38	3.2
76.0	57.14	14.64	74.4	1.45	3.2
84.2	57.14	12.34	78.4	1.58	3.2

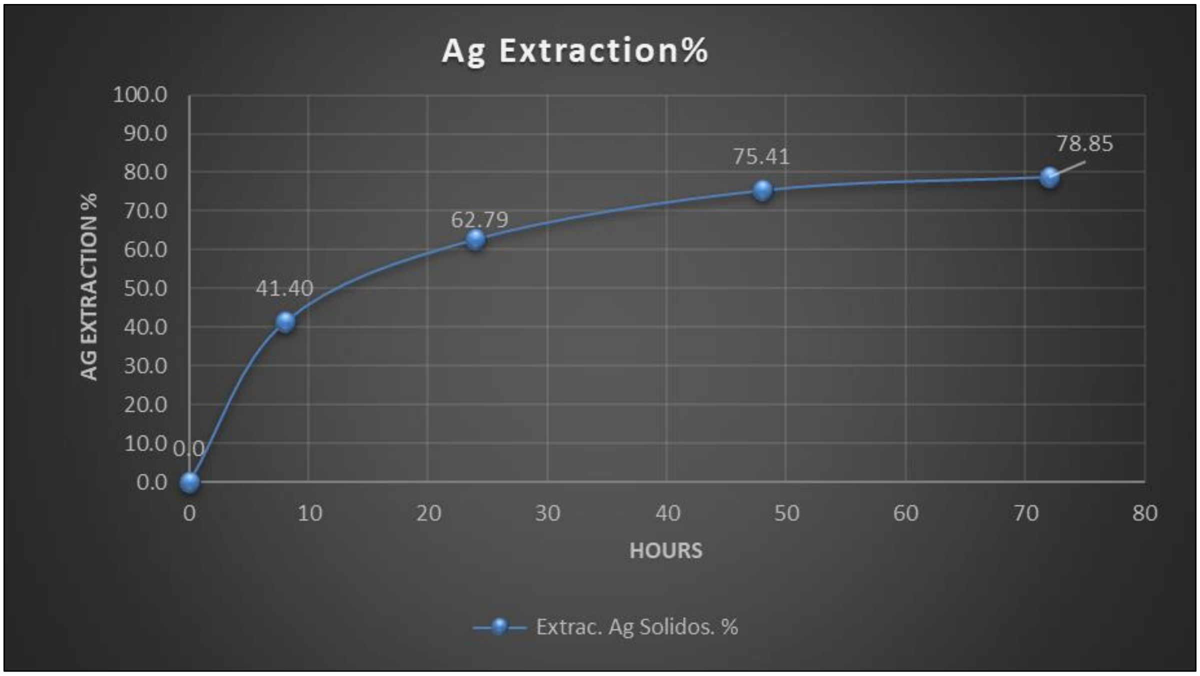
Source: APM, 2023

Based on the results of the grind size test work, duplicate confirmatory cyanidation tests were conducted at a target grind of 80% passing 200 mesh (74 µm) using the previously established test conditions. The results of these duplicate tests are summarized in Table 13-4, where silver extraction of 77.6% was reported for Test A and 78.9% for Test B after 72 hours of leaching. Cyanide consumption was reported at 1.4 kg/t and lime consumption was reported at 3.8 kg/t. Oxygen consumption during each test was 0.45 kg/t. Silver extraction versus leach retention time is presented in Figure 13-6, where it is shown that silver leaching is essentially complete after 72 hours.

Table 13-4: Summary of Duplicate Cyanidation Tests at P_{80} 74 µm Grind Size

Test	Grind	Head Grade	Tail Grade	Ag Extr.	Reagent Cons. (kg/t)		
	%-200 mesh	Ag, g/t	Ag, g/t	%	NaCN	Lime	Oxygen
A	81.8	57.62	12.92	77.6	1.43	3.8	0.45
B	80.6	57.27	12.11	78.9	1.41	3.9	0.45
Average	81.2	57.4	12.5	78.2	1.42	3.9	0.45

Source: APM, 2023



Source: APM 2023

Figure 13-6: Silver Extraction vs. Retention Time (P_{80} 74 µm Grind Size)

13.2.2 Bradken Linings Metallurgical Test Work

Bradken Linings (Linings) conducted a series of cyanidation tests on a composite prepared from six separate FDF samples provided by APM, and the results of test program are presented in their report "Estudio Metallurgico de Mineral de Plata", June 2023. A sub-sample of the FDF composite was screened at 140 mesh and cyanidation test work was conducted on the unscreened FDF sample as well as on the +140 mesh and -140 mesh screen fractions. The head analyses on each of the test samples is shown in Table 13-5. The unscreened sample composite contained 49.2 g/t Ag, the +140 mesh fraction contained 57.7 g/t Ag and the -140 mesh fraction contained 48.1 g/t Ag.

Table 13-5: Test Composite Head Analyses

Composite	Ag (g/t)	Pb (%)	Sn (%)
Unscreened	49.2	0.19	0.13
+140 mesh	57.7	0.31	0.21
-140 mesh	48.1	0.18	0.09

Source: Bradken Linings, 2023

Cyanidation Test Work on the Unscreened Test Composite

Cyanidation tests were conducted on the unscreened test composite at grind sizes of 75%, 80% and 85% -200 mesh without oxygen injection under the following test conditions:

- Slurry density: 35% solids
- Grind size: P_{75}, P_{80} and P_{85} 200 mesh (74 µm)
- Cyanide Conc. (grinding): 1.5 g/L NaCN

- Cyanide Conc. (leaching): 2.0 g/L NaCN
- pH: 11 -12 (maintained with lime)
- Leach retention time: 72 hours

The results of these leach tests are shown in Table 13-6. Silver extraction increased from 44.0% to 48.8% as the grind size became finer. Cyanide consumption ranged from 1.8 to 2.1 kg/t and lime consumption ranged from 4.2 to 4.6 kg/t. It is noted that dissolved oxygen was not monitored during this test series.

Table 13-6: Summary of Cyanidation Tests Conducted on Unscreened FDF Sample

Grind % - 74 µm	Calc. Head Ag, g/t	Extr. % Ag	Diss O2 mg/L	Reagent Cons. (kg/t)	
				NaCN	Lime
75	50.5	44.0	N/A	1.80	4.23
80	48.2	45.6	N/A	2.11	4.38
85	51.2	48.8	N/A	2.14	4.64

Source: Bradken Linings, 2023

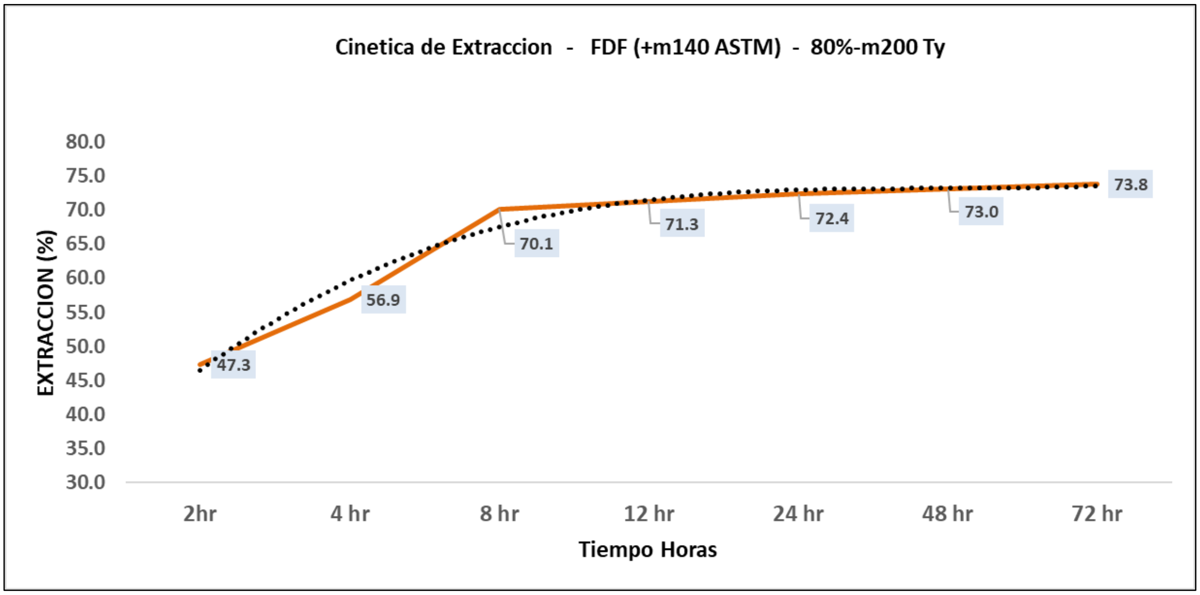
<u>Cyanidation Test Work on the + 140 Mesh Size Fraction</u>

Cyanidation tests were conducted on the +140 mesh screen fraction at grind sizes of 75%, 80% and 85% -200 mesh under established test conditions, but with oxygen injection, which resulted in dissolved oxygen concentrations of 20 to 25 mg/L throughout each test. The results of these tests are summarized in Table 13-7, where it is shown that silver extractions increased from 69.8% to 75.6% as the grind size became finer. Silver extraction versus leach retention time at the P_{80} 75 µm grind size is shown in Figure 13-7, where silver extraction appears to be nearly complete after 48 hours. Cyanide consumption ranged from 1.8 to 2.1 kg/t as the grind became finer and lime consumption ranged from 4.2 to 4.6 kg/t.

Table 13-7: Summary of Leach Tests on the +140 mesh FDF Fraction

Grind % - 74 µm	Calc. Head Ag, g/t	Extr. % Ag	Diss O2 mg/L	Reagent Cons. (kg/t)	
				NaCN	Lime
75	58.2	69.8	20-25	1.80	4.23
80	58.7	73.9	20-25	2.11	4.38
85	58.5	75.6	20-25	2.14	4.64

Source: Bradken Linings, 2023



Source: Bradken Linings, 2023

Figure 13-7: Silver Extraction vs. Leach Retention Time (P80 75 µm grind)

Cyanidation Test Work on the -140 Mesh Size Fraction

A single cyanidation test was conducted on the -140 mesh size fraction at a grind size of 100% passing 200 mesh. This test was conducted according to the established procedure, except that there was no oxygen injection and dissolved oxygen was monitored at 7 to 8 mg/L throughout the test. Dissolved oxygen at this concentration is typical for leach slurries that are not injected with oxygen. The results of this test are shown in Table 13-8 where a silver extraction of 52.2% was reported after 72 hours of leaching. Cyanide consumption was 2.17 kg/t and lime consumption was 4.09 kg/t.

Table 13-8: Summary of Cyanidation Test Conducted on the -140 mesh FDF Fraction

Grind % - 74 µm	Calc. Head Ag, g/t	Extr. % Ag	Diss O2 mg/L	Reagent Cons. (kg/t)	
				NaCN	Lime
100	49	52.2	7 to 8	2.17	4.09

Source: Bradken Linings, 2023

13.2.3 SGS Test Work

Cyanide leach tests were conducted by SGS on five composites prepared from selected drillholes from the FDF and the results are documented in their report, “Sample Preparation and Mineralogical Characterization of Variability samples from a Tailings Storage Facility in Bolivia”, February 2023. The head analyses of the five test composites are shown in Table 13-9, where head grades ranged from 32.0 to 57.0 g/t Ag. The cyanidation tests were conducted on the unscreened test composites that had been ground to approximately P_{80} 110 µm. The leach test conditions are summarized in Table 13-10. Each test was conducted with an initial cyanide concentration of 2 g/L, which was allowed to attenuate throughout the 48-hour test and with oxygen injection to maintain dissolved oxygen levels at 15 to 25 mg/L. The results of each test are summarized in Table 13-11, which shows silver extractions ranging from 42.6% to 50.4%. Cyanide consumption ranged from 0.4 to 1.0 kg/t NaCN and lime consumption ranged from 4.2 to 5.5 kg/t. The leach extractions were significantly lower than reported by APM and Linings for leach tests conducted on the +140 mesh FDF fraction. Possible reasons for the lower silver extraction reported by SGS include:

- The leach tests were conducted a coarser grind size (P_{80} ~110 µm versus P_{80} 74 µm).
- Cyanide was not added during grinding as it had during tests conducted by both Lining and APM.
- Cyanide concentrate was allowed to attenuate throughout the test.
- Cyanide consumption was significantly lower than for tests conducted by Lining and APM.

Table 13-9: Head Analyses on FDF Test Composites

Stream	Assay (%, g/t)			
	Ag	Sn	Fe	S
FDF Comp B	33.5	0.11	5.01	0.35
FDF Comp D	49.0	0.10	5.44	0.45
FDF Comp G	43.0	0.09	5.08	0.37
FDF Comp J	57.0	0.11	4.78	0.40
FDF Comp L	32.0	0.06	4.26	0.34

Source: SGS 2023

Table 13-10: Summary of Cyanide Leach Conditions

Condition	Composite Samples
Grind Size (P_{80})	-110µm
Pulp Density (%)	40
Pre-Aeration (min)	N/A
Dissolved Oxygen (mg/L)	15 – 25
Cyanide Concentrate (g/L)	2
Pulp pH	~11.25
Retention Time (hr)	48

Source: SGS 2023

Table 13-11: Summary of Cyanide Leach Tests on Unscreened FDF Composites

Stream	CN Test No.	Ag Extraction %					Ag Residue, g/t	Ag, Head, g/t		SN Head %
		2 h	4 h	8 h	24 h	48 h		Calc.	Direct	
FDF Comp B	1	43.4	44.4	44.9	47.4	**48.5**	16.6	32.2	34	0.11
FDF Comp D	2	47.6	47.3	49.6	51.7	**50.4**	20.3	40.9	49	0.10
FDF Comp G	3	46.3	47.2	49.7	51.0	**48.1**	19.1	36.8	43	0.09
FDF Comp J	4	39.3	42.2	45.5	46.8	**47.4**	22.4	42.6	57	0.11
FDF Comp L	5	42.7	41.6	44.7	44.6	**42.6**	17.5	30.5	32	0.06

Source: SGS 2023

13.3 SRK Comments

- The cyanide leach tests conducted by APM and Linings on the + 140 mesh composite size fraction are considered to be the most relevant, as these tests were conducted under conditions that replicate current plant practice, including oxygen injection. It is difficult to compare the reported results from Linings on the unscreened FDF composite and the -140 mesh composite fraction as there tests were not conducted with oxygen injection.
- It is recommended that additional testwork be conducted on unscreened FDF samples and on FDF samples screened at -140 mesh with oxygen injection to confirm whether higher silver extractions can be obtained by maintaining higher dissolved oxygens levels in the slurry during leaching.

- The leach tests conducted by SGS showed lower silver extractions than APM or Linings on the +140 mesh size fraction. It is noted, however, that these tests were conducted at a much coarser grind (P_{80} 110 µm) and did not include cyanide addition during grinding and maintained oxygen injection only for the first 24 hours of each leach test.

14 Mineral Resource Estimate

Several block models were prepared as part of the mineral resource estimation for the San Bartolomé Project. This section describes the process followed.

No exploitation and no new sampling have occurred at Tatasi-Portugalete since the 2020 and the previous mineral resource estimation (Birak et al., 2020) has not changed and, as a result, this Technical Report does not disclose updated mineral resources for Tatasi-Portugalete.

San Bartolomé Area:

- The volumetric model and resource estimation of Ag for the Fines Deposit Facility or FDF was completed by SRK Consulting (U.S.).
- Due to the reasons discussed previously. The Pallacos deposits are not included in this report and no mineral resources are reported.

The areas that are sources of material that Manquiri buys to feed the plant have been geologically evaluated and geological models and resource estimates were completed for this. These areas include:

- Tollojchi:
    - Platera
    - Manto
    - Santa Rosario
- Altavista
- Paca

14.1 FDF

Mineral resource for the FDF were updated by Giovanny Ortiz, FAusIMM, a Principal Consultant with SRK Consulting (U.S.) Inc. Resources were modeled and estimated in Leapfrog Geo and EDGE, version 2023.1.1.

14.1.1 Drilling Database

The drilling database features 82 sonic drillholes totaling 1,665 m. The average spacing is approximately 80 m, although it ranges between about 40 m to over 150 m. 98% of the drilling total length was logged and sampled, except the first 0.5 m to 0.8 m of some holes where not enough material was collected. The database was provided to SRK by Manquiri personnel in CSV format format, including collars, surveys, assays, and lithology. The QP imported to Leapfrog Geo and various validations were completed and no errors were found.

14.1.2 Exploratory Data Analysis

Exploratory data analysis of the FDF was conducted on the samples to discern potential need of internal domaining or features within the FDF. Ag is the primary economic driver. Logging of material types (clay, silt, sand) was the primary logging component, and the expectation was that there was some discernable relationship to size fraction and grade. SRK reviewed the distributions and statistics for Ag and Sn within the logged groupings of material types and noted slight differences between the

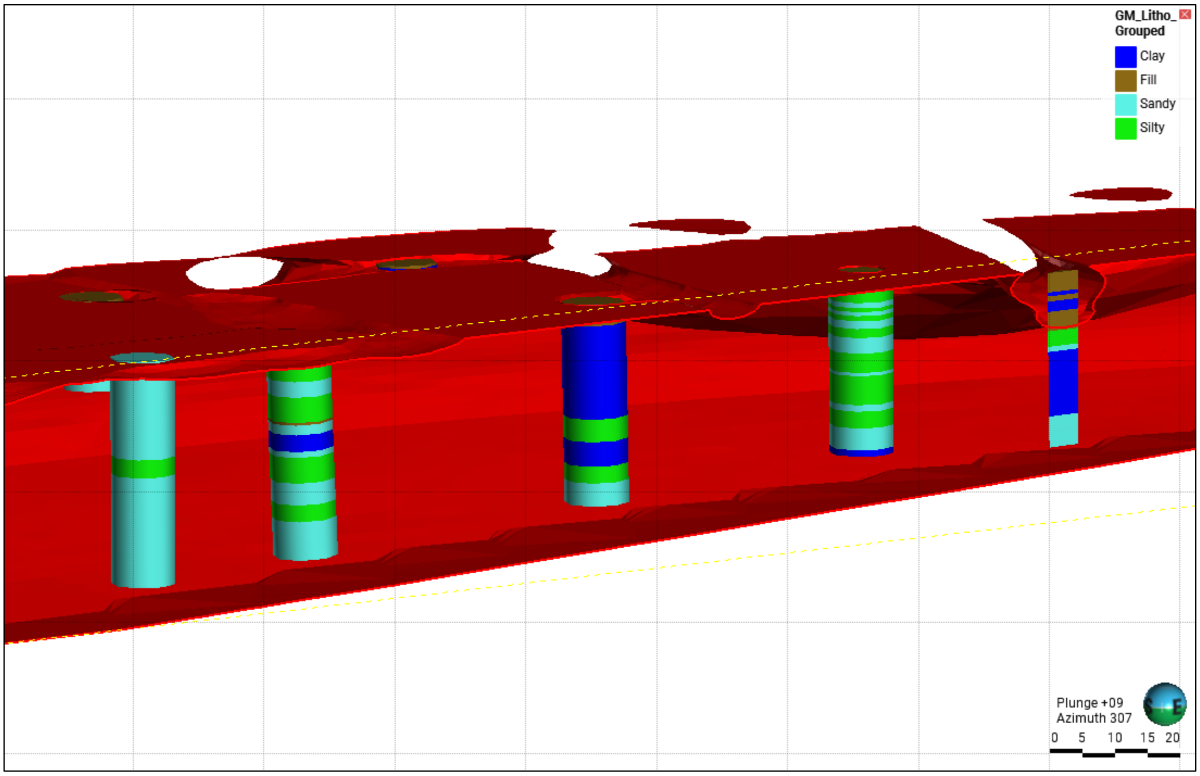
Ag and Sn distribution. Statistics for the drilling intervals within the FDF (coded by material type grouping) are summarized in Table 14-1.

SRK attempted to separately model the sandy fraction relative to the other two but noted extreme variability in the logging of these material types as shown in Figure 14-1. The process of attempting internal domaining of the FDF volume was abandoned on the assumption that either the material types are sorted poorly enough to defy modeling, or that the logging is simply inconsistent enough to preclude accurate use in modeling. Manquiri keeps approximately ¼ of all the sample material of all the holes in the operation, which can be used if relogging and tests are required. In either case, this remains a risk to the overall mineral resource estimation without a mechanism to characterize this short-range variability.

Table 14-1: Sample Statistics for FDF – by Material Type Groupings

Name	Description	Count	Length (m)	Mean	Standard Deviation	Coefficient of Variation	Variance	Min	Max
Clay	Drilled m	575	525.4						
Clay	Ag_gpt	575	525.4	45.5	9.5	0.2	90.2	19.7	45.1
Clay	Sn_pct	575	525.4	0.08	0.03	0.43	0.00	0.02	0.07
Sandy	Drilled m	677	640.4						
Sandy	Ag_gpt	676	640.2	51.3	11.8	0.2	139.4	24.7	50.5
Sandy	Sn_pct	676	640.2	0.16	0.13	0.82	0.02	0.04	0.12
Silty	Drilled m	459	431.9						
Silty	Ag_gpt	457	429.7	49.3	8.3	0.2	68.2	23.0	49.2
Silty	Sn_pct	457	429.7	0.11	0.04	0.33	0.00	0.05	0.10

Source: SRK 2023

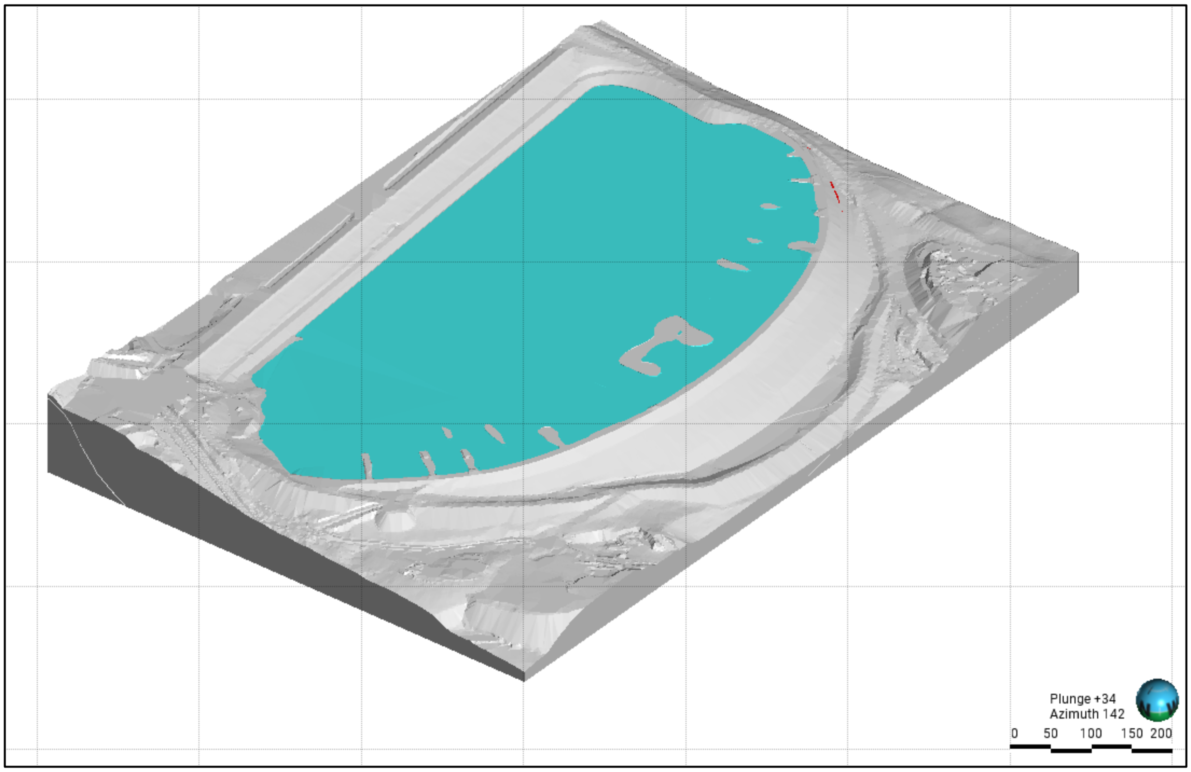


Source: SRK 2023
Inherent variability in logged material types even at very close spacings precludes accurate modeling of these as depositional features or controlling domains for MRE purposes.

Figure 14-1: Distribution of Logged Material Types Within FDF

14.1.3 Volumetric Model

As the FDF is not a geological deposit, there is no geological model for it. As noted above, material type groupings within the FDF were thought to be relevant to the distribution of grade but were not consistent enough to allow for modeling of these features. The volumetric model of the FDF is based on pre-deposition topography and engineering drawings provided by Manquiri, as well as surface topography as of May 5, 2023. The volume between these two surfaces is considered the FDF for the purposes of modeling, except for a very small quantity of engineered fill material utilized for the purposes of drilling and excised from the FDF volume. An orthographic perspective view of the FDF volume is shown in Figure 14-2. The overall volume of the FDF is estimated from this process to be 7.6 million m^3.

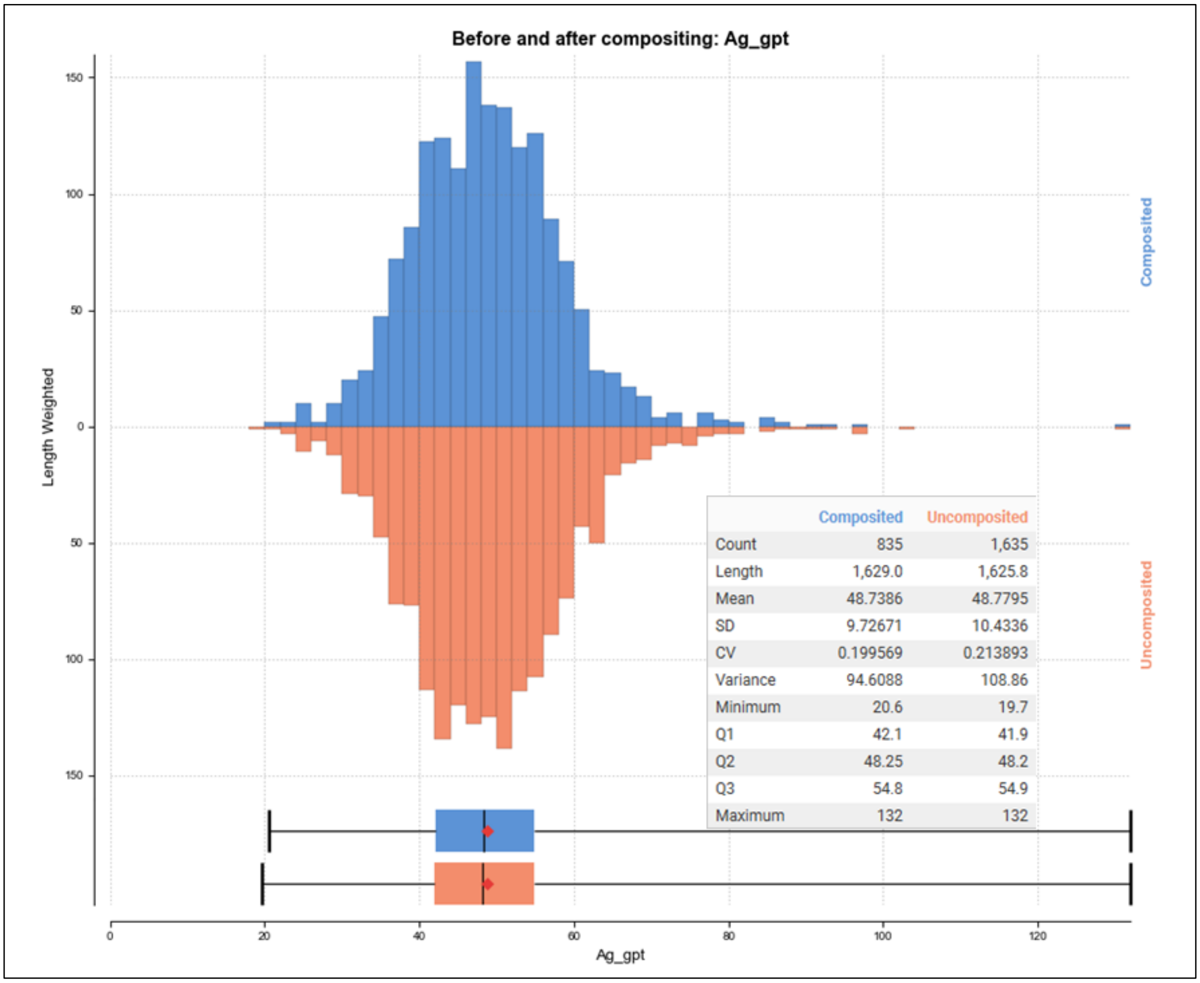


Source: SRK 2023

Figure 14-2: Perspective View of FDF Volume Model

14.1.4 Compositing

Samples were collected from the drilling on a nominal 1 m basis for the entire hole in all cases, with selected short samples in the database due to drilling conditions, material type contacts (i.e., fill to FDF materials) or bottoms of holes. Sample lengths featuring geochemistry average 1 m. These were composited to standard 2 m lengths to scale the sampling up to a larger volume to provide a better basis for estimation of mining volumes and to minimize the inherent variability for variography and interpolation. Due to standardized sample lengths, no relationship exists between the length and grade of samples, nor to the overall thickness of the FDF. Impact of the compositing on the overall histogram distribution of the samples and the simple statistics for Ag is shown in Figure 14-3.



Source: SRK 2023

Figure 14-3: Ag Compositing vs. Original Sample Comparison

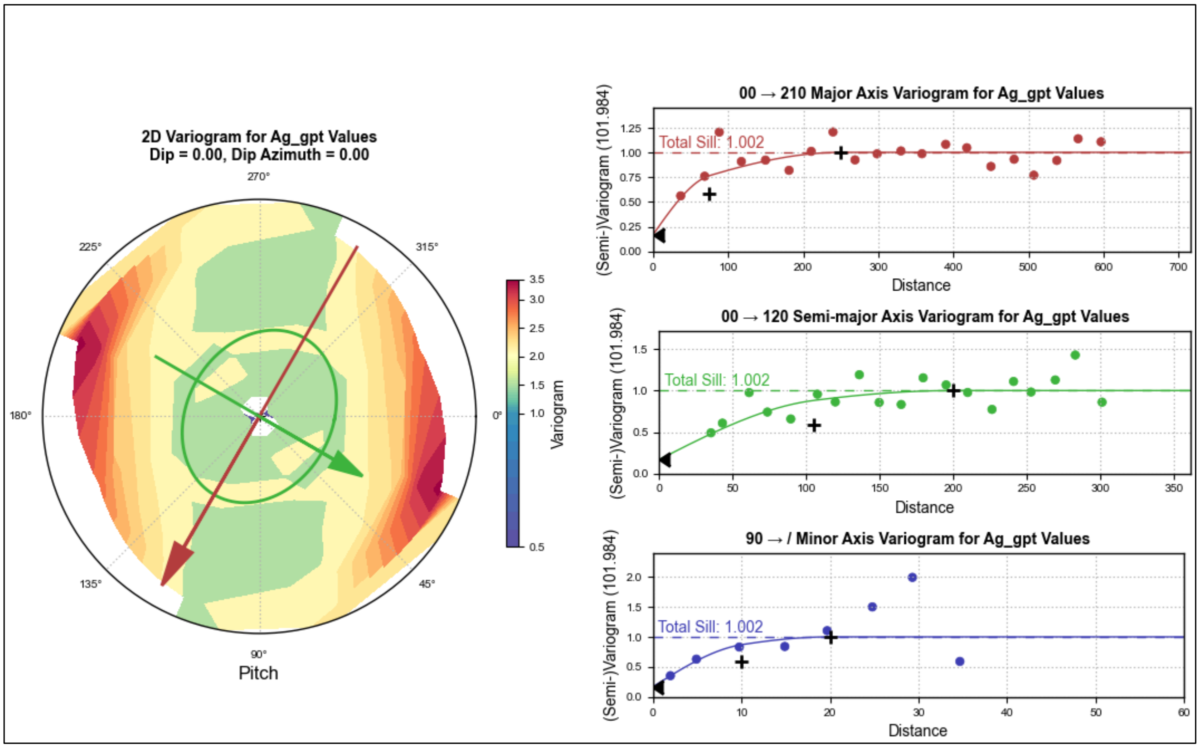
14.1.5 Outliers

Due to the homogenous and well mixed nature of the FDF, outlier analysis showed that there was no material outlier population to be addressed for Ag. Higher grade samples tend to be related to material closer to the liner of the FDF, and their distribution is well understood from the Manquiri process engineers due to concentration at the bottom of the FDF due to higher specific gravity (SG) or deposition from earlier and higher-grade mining. Even with these higher-grade populations, no extreme outliers such as the multiple orders of magnitude types of outliers common in Ag deposits are noted here, with the highest grades only being approximately double the mean of the FDF.

In addition, the constrained and well-drilled FDF prevents material extrapolation or undue influence of outliers on larger volumes of material, and the impact of outliers on the estimation methodology is considered a very low risk.

14.1.6 Variography

Spatial continuity of grade was modeled using conventional variogram analysis (semi-variograms) from the composited dataset within the FDF. As shown in Figure 14-4, variograms are modeled based on horizontal continuity maps showing the best continuity from "heat maps" of best continuity in variograms for each orientation. Directional variograms were modeled in the major, semi-major, and minor directions. Variography generally shows ranges of 250 to 200 m with nuggets of 15% to 20% of the total sill. An example variogram for Ag is shown in Figure 14-4. The modeled variogram for Ag is shown in Table 14-2.



Source: SRK 2023

Figure 14-4: Example Ag Variograms for FDF

Table 14-2: Variogram Parameters

General	Direction			Variogram				Structure 1						Structure 2					
Variogram Name	**Dip**	**Dip Azimuth**	**Pitch**	**Model Space**	**Variance**	**Nugget**	**Normalized Nugget**	**Sill**	**Normalized Sill**	**Structure**	**Major**	**Semi-major**	**Minor**	**Sill**	**Normalized Sill**	**Structure**	**Major**	**Semi- major**	**Minor**
Ag_gpt: Variogram Model	0	0	120	Data	101.98	17.48	0.17	42	0.41	Spherical	75	105	10	42.6	0.42	Spherical	250	200	20

Source: SRK 2023

14.1.7 Density

FDF density measurements were supplied by Manquiri and are based on the standard soils bulk density equation as follows:

FDF sample density calculation procedure is summarized below:

1. Obtain the representative sample in the drill core.
2. The sample is dried in an oven.
3. The P_{dry} sample is weighed.
4. A pycnometer is prepared and filled with water up to a volume mark.
5. The sample is placed in the pycnometer and the displaced volume V is noted.
6. Density calculation with the formula:

$$\text{Relative density } (g/cm^3) = \text{mass of dry soil / total volume of soil plus air}$$

A total of 213 samples were obtained for determination of the overall relative density shown in Table 14-3 for their various size fractions recorded by geologists during drilling. The variability between material types is minimal and the average is 1.52 g/cm3 for the FDF material volume.

The overall density determinations from the site personnel are shown in Table 14-3 for the various size fractions logged by geologists during drilling. Variability between the material types is minimal, and the average of 1.52 g/cm^3 is utilized for the FDF volume of material.

Table 14-3: Bulk Densities

Material	Density (g/cm^3)
Clay	1.49
Clay - sand	1.55
Clay - silt	1.56
Sandy	1.52
Sandy clay	1.48
Sandy silt	1.53
Silty	1.52
Silty clay	1.53
Silty sand	1.53
Average	1.52

Source: Andean, 2021

14.1.8 Estimation Methodology

Estimation was conducted in Leapfrog Geo’s EDGE module (v. 2023.1.1). Grade has only been estimated for Ag and is interpolated from composited data within the FDF volume using conventional ordinary kriging (OK) and inverse distance squared (ID2) as summarized in Table 14-5. Table 14-4 presents the block model prototype characteristics that was constructed using the FDF material solid. The inputs for the kriging are derived from the variogram modeled as shown above. The OK method is the primary interpolation method, used during the first estimation search that utilizes ranges defined by variography. The ID2 estimation was utilized in the second search to fill blocks that were not estimated during first search and that are in the margins of the FDF or in areas which are comparably sparsely drilled, which in the QP’s opinion provide better estimates based on visual validation. SRK applied minimum numbers of samples (3) for the OK estimate that force estimations to come from at least 2 holes, and quadrant restrictions that force estimates to come from multiple quadrants in well-informed areas. The maximum number of samples was selected based on visual review of the relative smoothing of the model on section and in plan view.

Table 14-4: Block Model Characteristics - FDF

	Easting (X) m	Northing (Y) m	Elevation (Z) m
FDF			
Base Point	20,213,450	7,824,990	4,480
Extension	780	1,120	90
Parent Block Dimensions	20	20	5
Sub-Cell Size	1.25	1.25	0.1

Source: SRK, 2023

Orientations for estimations are horizontal, with a slight anisotropy based on the variograms. No variable orientation methodology was utilized, as deposition is effectively planar and horizontal.

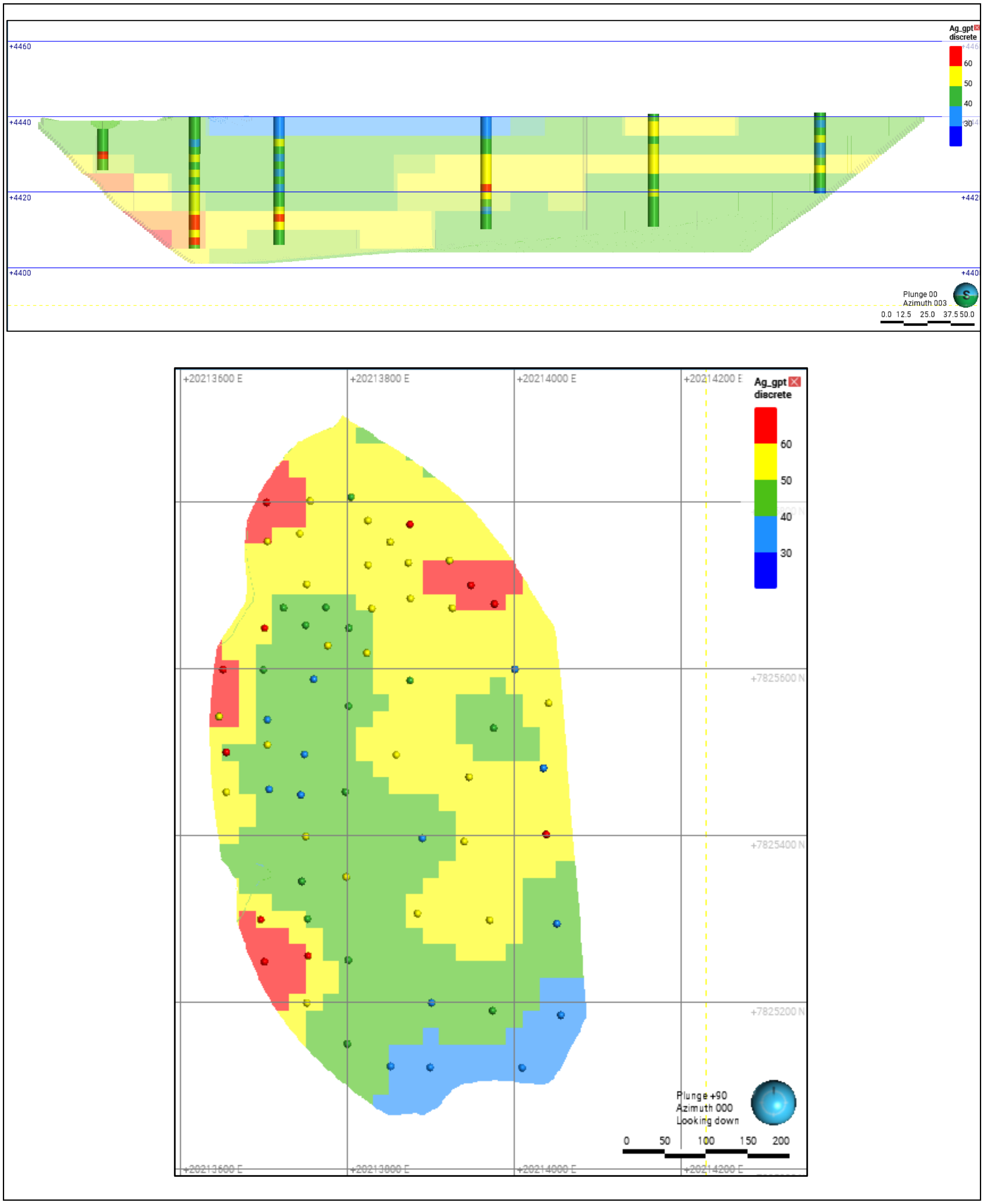
Table 14-5: FDF Estimation Parameters

General	Ellipsoid Ranges			Ellipsoid Directions			Number of Samples		Sector Search			Drillhole Limit
Interpolant Name	Maximum	Intermediate	Minimum	Dip	Dip Azimuth	Pitch	Minimum	Maximum	Method	Max Samples	Max Empty Sectors	Max Samples per Hole
Kr, Ag_gpt	250	200	20	0	0	0	3	15	Quadrant	5	1	2
ID, Ag_gpt	600	600	50	0	0	0	1	15	None			2

Source: SRK, 2023

14.1.1 Estimation Validation

Estimates are validated using visual and statistical methods, as no production has been realized to date for reconciliation. Visual comparisons show excellent comparison of composites to blocks both in section and plan view (Figure 14-5).

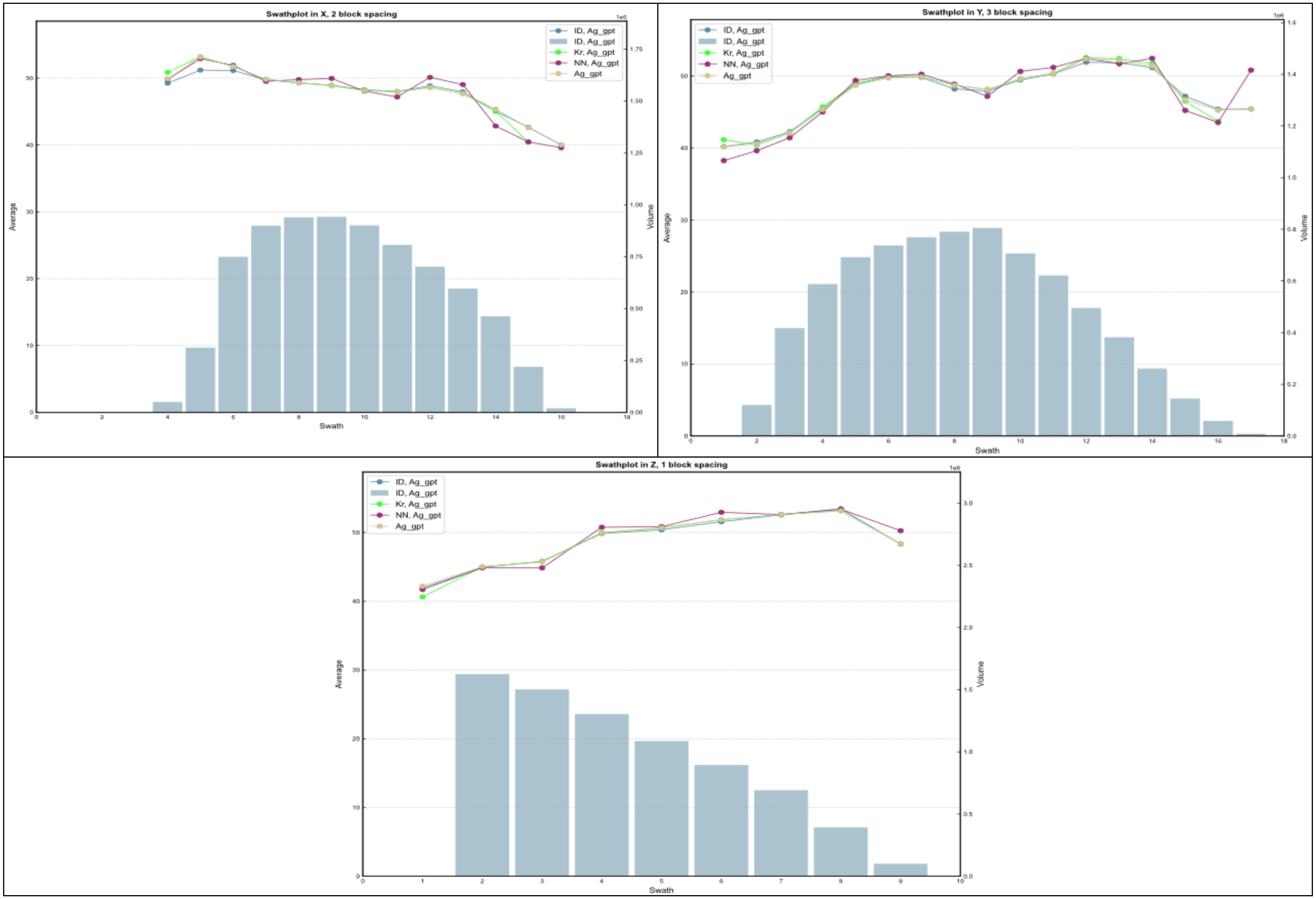


Source: SRK, 2023

Figure 14-5: Visual Comparison of Block to Composite Grade – Ag – (Top: Vertical Section looking north - 40 m window; Bottom: Plan View)

For validation purposes in addition to the OK and ID2 estimates SRK has completed a Nearest Neighbor (NN) model for the deposit. Statistical review of the estimated blocks to the input composites and the NN estimate shows very close comparisons of the means of the composites vs. the final Ag estimate of 1.1% difference, and the comparison between the NN Ag estimated grade vs. the Final Ag estimated block of 0.23% difference.

Swath plots generated for oriented “slices” within the model along X, Y, and Z show that the model and other estimation methods generally result in similar duplication of grades. In general, estimated grades track very closely to the input grades with acceptable degrees of smoothing due to the interpolation. Swath plots is shown in Figure 14-6 for Ag.



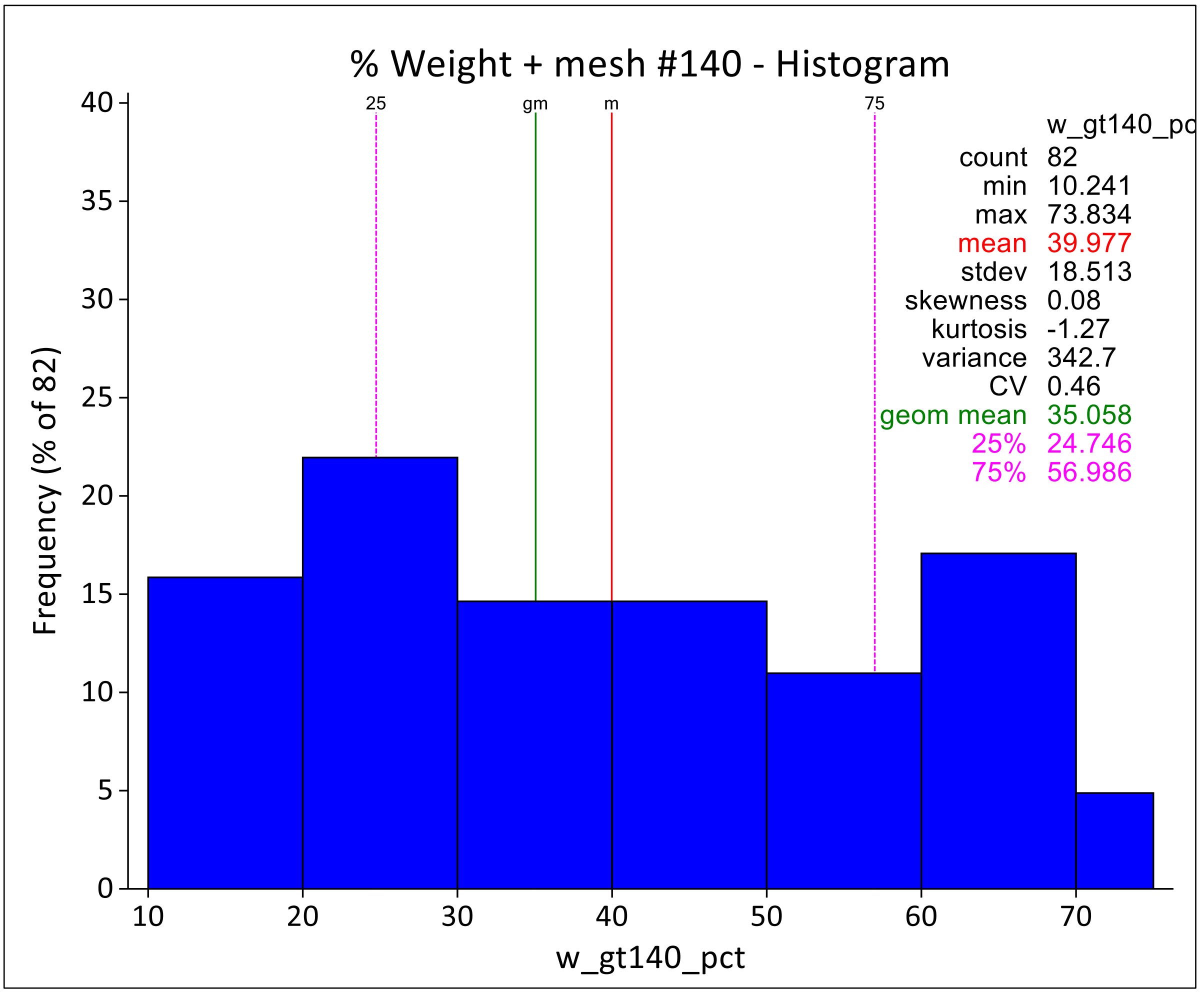
Source: SRK, 2023

Figure 14-6: Swath Plots - Ag

14.1.2 Grain Size Classification (Mesh #140)

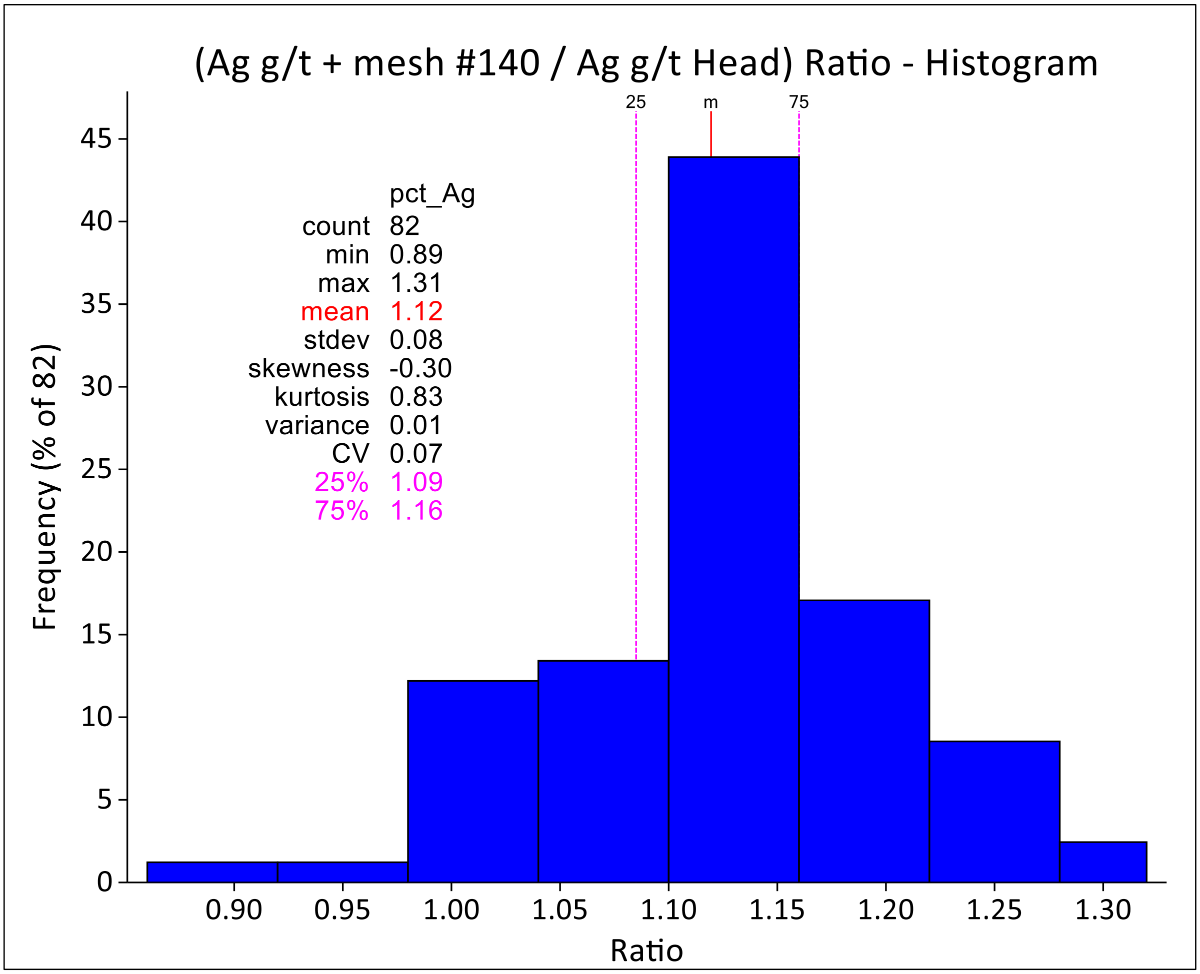
According to the testwork completed for the material of the FDF, material passing the mesh #140 is discarded during processing. The material coarser than Mesh #140 (+ mesh #140) continues to the process. The percentage of material + mesh #140 and the Ag grade were calculated for each block in the estimated model based on the results of the granulometric analysis completed by Manquiri.

Manquiri completed the granulometric testwork on the 82 drillholes. For this purpose, one composite per drillhole was prepared and analyzed. The composite preparation included the combination of approximately ¼ of each sample for every complete drillhole. Figure 14-7 and Figure 14-8 present the histograms of the % of weight + mesh #140 and the ratio (Ag g/t + mesh #140 / Ag g/t Head) respectively.



Source: SRK 2023

Figure 14-7: Histogram of Percentage of Material + mesh #140



Source: SRK 2023

Figure 14-8: Histogram of Ratio (Ag g/t + mesh #140 / Ag g/t Head)

These two variables were interpolated into the block model using a single spherical search of 250 m, based on the drilling spacing, with 5 m composites and Inverse Distance (Power 3) algorithm (minimum 1, maximum 3 composites and maximum 1 composite per drillhole). The size of the composite was selected based on the parent block size, that is in line with the minimum mining width.

The interpolated values into the block model are:

W_GT140%: Weight + mesh #140 in Percentage
AG_GT140RAT: Ratio (Ag g/t + mesh #140 / Ag g/t Head)

The final + mesh #140 tonnages and grades are calculated in each block as follows:

AG_GT140 (g/t) = AG_GT140RAT * AG (g/t)
W_GT140 (t) = BLOCK VOLUME * DENSITY * W_GT140 (%)

14.1.3 Mineral Resource Classification

The classification of mineral resources is a subjective concept, and the industry best practices suggest that the classification should consider the confidence in the geological continuity of the mineralization, the quality and quantity of the exploration data supporting the estimates, and the geostatistical confidence in tonnage and grade estimates. The classification criteria should aim to incorporate these concepts to outline continuous and regular areas at similar resource classification.

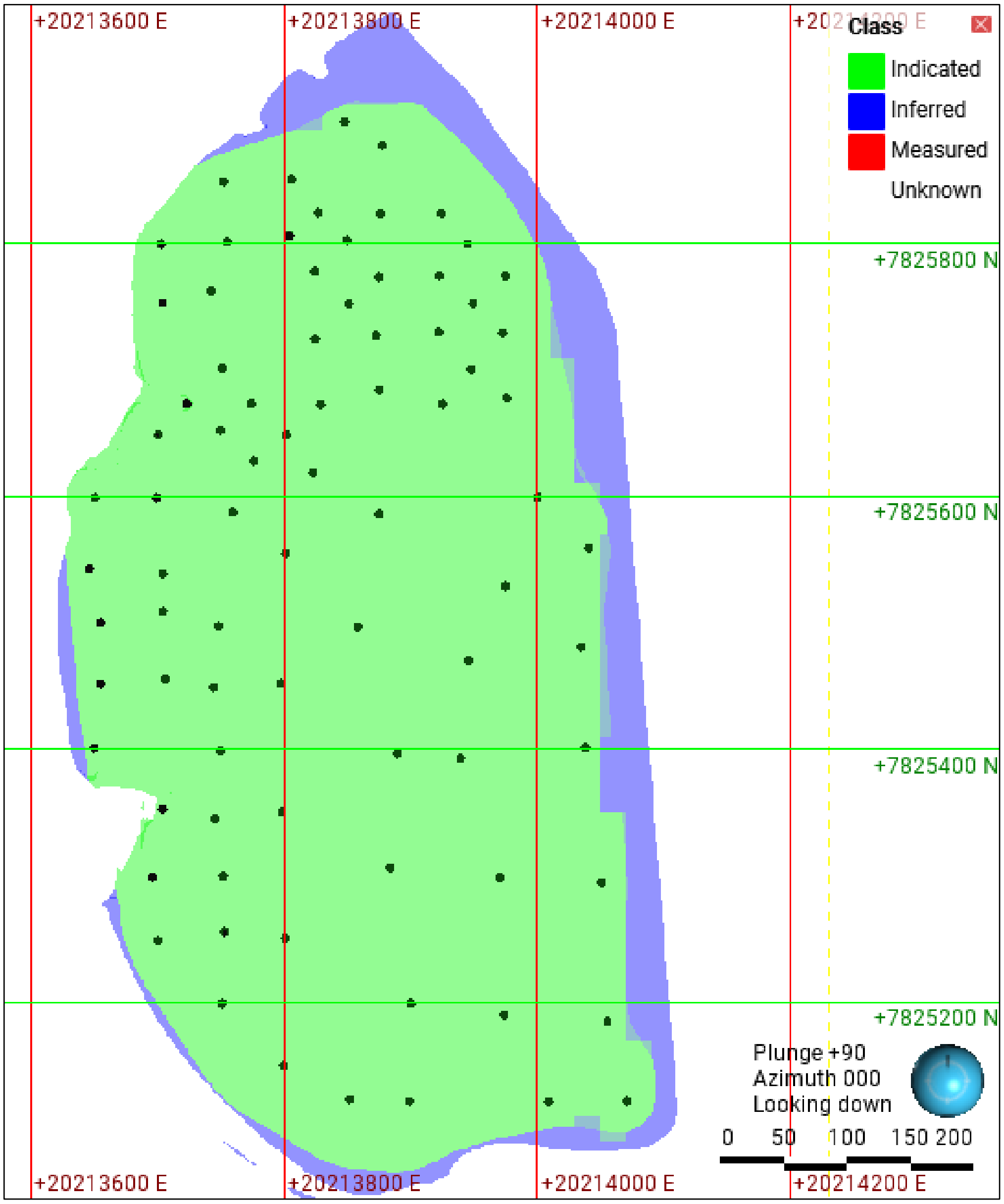
Given the mixed nature of the FDF, the lack of mechanism for internal domaining, and the non-geological nature of its deposition, the QPs have elected to apply a simple geometric classification scheme which accounts for the observed variability in grade over the ranges of the variogram.

No measured resources have been defined for the FDF to date, in part due to the performance of the QA/QC as mentioned in Section 12, and in part due to the variability of the size fractions within the FDF. A simple script was generated in Leapfrog to flag blocks in the model with the following parameters, after which a series of polylines were utilized to further refine the script-based approach and eliminate undesirable artifacts or edge effects. The QPs are of the opinion that the classification scheme is reasonable and a good approximation of the relative confidence in the estimation. A graphical view of this classification is shown in Figure 14-9.

Indicated Mineral Resources: The following criteria were used to flag the indicated blocks, which reflects the confidence in the grade estimates:

- Blocks estimated with information from at least two drillholes within a range of <50 m (60% of Ag variogram range)
- Kriging variance <0.5

Inferred Mineral Resources: The Inferred resources are the remaining areas within the FDF not categorized as Indicated.



Source: SRK, 2023

Figure 14-9: Mineral Resource Classification

14.1.4 Mineral Resource Statement

Reasonable Potential for Eventual Economic Extraction (RPEEE)

Resources within the FDF are constrained by the existing engineered structure and are proposed to be mined via hydraulic methods. All updated material within FDF is considered reasonable for mining and no pit shell limit was used. Andean selected hydraulic mining due to advantages around cost, efficiency of mining, and intent to retain integrity of the liner of the FDF. The FDF re-mining will feature a system of hydraulic pumps and water jets to generate a slurry of the contained material. The process is described in Section 13.

SRK is of the opinion that the proposed mining method is reasonable and supported by an appropriate level of study and documentation to support the definition of RPEEE.

Cut-off Grade Determination

The cut-off grade is expressed in Ag g/t for the material coarser than 140 mesh (+ mesh #140) and its calculation is based on the assumptions shown below:

- Assumed silver (Ag) price of US$25.00/oz.
- Metallurgical recovery of 78% for Ag.
- Mining cost: US$ 1.42.
- Processing cost: US$ 17.89.
- General & Administrative and Indirect Costs: US$ 6.1.
- Capital cost: US$ 0.63.
- Refining, shipping and laboratory cost: US$ 0.65.
- COMIBOL royalty: 4%
- Silver Bolivian Royalty: 6%

A nominal cut-off of 47 g/t Ag (Grade of material above mesh #140) has been used for reporting the mineral resources at the FDF.

Mineral Resources

The FDF mineral resources have been modeled, estimated, and are reported in a manner consistent with industry best practices and CIM guidelines (https://mrmr.cim.org/media/1129/cim-mrmr-bp-guidelines_2019.pdf). Mineral resources are reported inclusive of mineral reserves as the effective date of this report are shown in Table 14-6.

Table 14-6: Mineral Resource[1,4] Statement for San Bartolomé Mine – FDF as of May 31, 2023

Class	Mass (+ mesh #140) (kt)	Average Value Ag (+ mesh #140) (g/t)	Material Content Ag (million Troy oz)
Measured	0	0	0
Indicated	3,813	56	6.90
Measured + Indicated	3,813	56	6.90
Inferred	92	52	0.15

Source: SRK, 2023

- Mineral Resources are not Mineral Reserves and do not have demonstrated economic viability. There is no certainty that all or any part of the Mineral Resources estimated will be converted into Mineral Reserves estimate.
- Mineral Resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, any apparent errors are insignificant.
- The Ag (g/t) Cut-off is based on pricing, metallurgical recovery and smelting/refining recovery assumptions.
  - Assumed silver (Ag) price of US$25/oz
  - Metallurgical recovery of 78%
- A nominal cut-off of 47 g/t Ag (Grade of material above mesh #140) has been used for reporting the mineral resources at the FDF. This cut-off considers, on a per tonne basis, US$US 1.42 mining cost, US$US 17.89 processing costs, US$6.1 general & administrative and indirect costs, US$0.63 capital, US$US 0.65 refining, shipping and Laboratory costs. Other costs considered are the COMIBOL royalty of 4% and the Silver Bolivian Royalty of 6%.

14.1.5 Mineral Resource Sensitivity

The mineral resource contained within the FDF is sensitive to a variety of factors, most of which are economic or operational. SRK has provided Table 14-7 to demonstrate this sensitivity of the tonnage of the FDF where the base case is highlighted in blue.

Table 14-7: Ag (g/t) Cut-off vs. Tonnage – indicated Resource FDF

Cut-off Ag (g/t)	Tonnes ≥ Cut-Off (millions)	Average Ag g/t ≥ cut-off
5	4.3	54
10	4.3	54
15	4.3	54
20	4.3	54
25	4.3	54
30	4.3	54
35	4.3	54
40	4.3	55
47	3.8	56
50	3.3	58
55	2.0	62
60	1.1	66
65	0.6	70
70	0.2	77

Source: SRK, 2023
Note: Blue highlighting, Resource base case

14.2 Tollojchi

14.2.1 Drillhole Database

Table 14-8 presents the summary of the rock sampling used in this resource estimate for the different areas of Tollojchi, including Platera, Manto and Santa Rosario.

Table 14-8: Summary of Rock Samples - Tollojchi

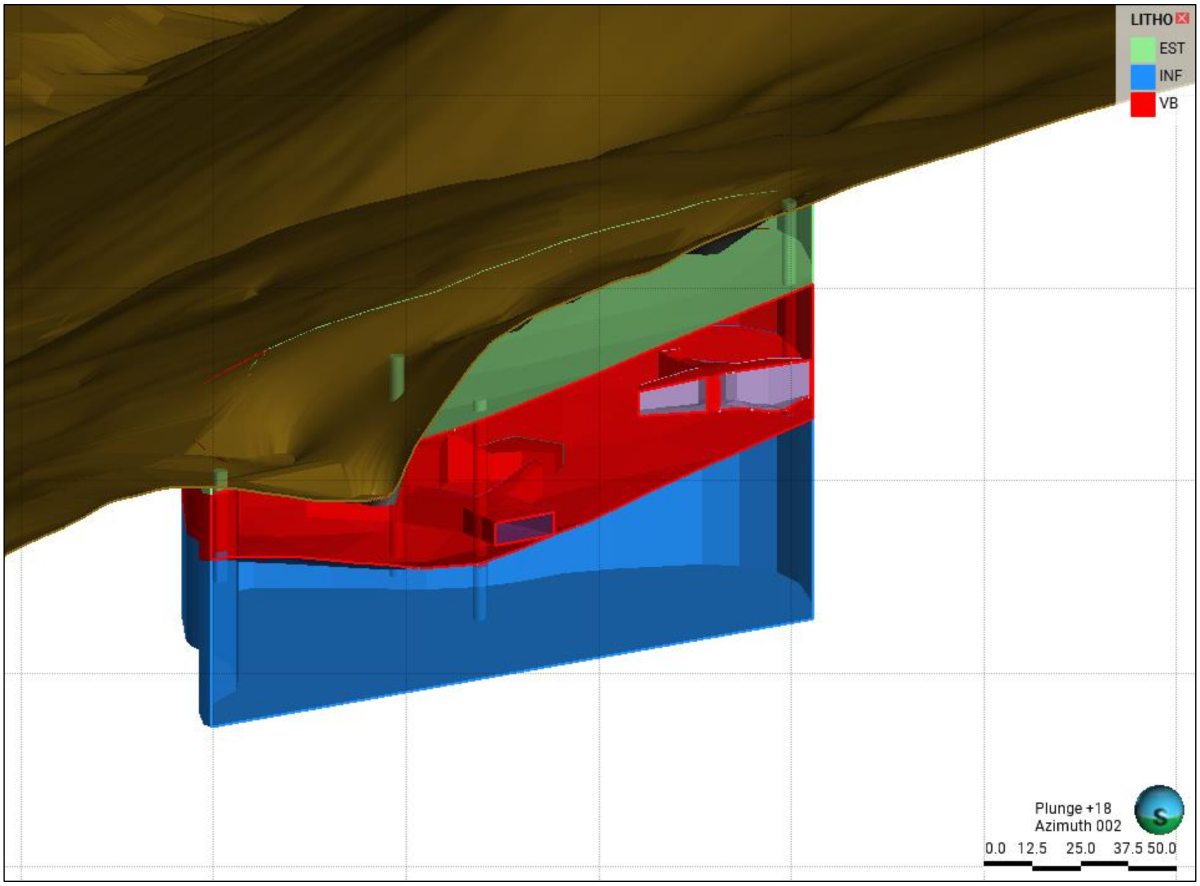
Zone	Rock Samples	
	Count	Length (m)
Platera	696	696
Manto	461	461
Rosario	212	212
Total	**1, 369**	**1,369**

Source: SRK, 2023

Historical drilling was completed by the owner some years ago, but the core is not available and limited information exists. The lithology information of the drillholes was used as reference for the geological modeling in combination with the surface and underground mapping. Drilling included 7 drillholes for a total of 158 m, in Rosario; 8 drillholes in Manto for a total of 340 m; and 15 drillholes, for a total of 305 m in Platera, but Information of sampling and assaying is not available. Manquiri plans to drill the areas of Tollojchi as part of the exploration program for 2024-2025.

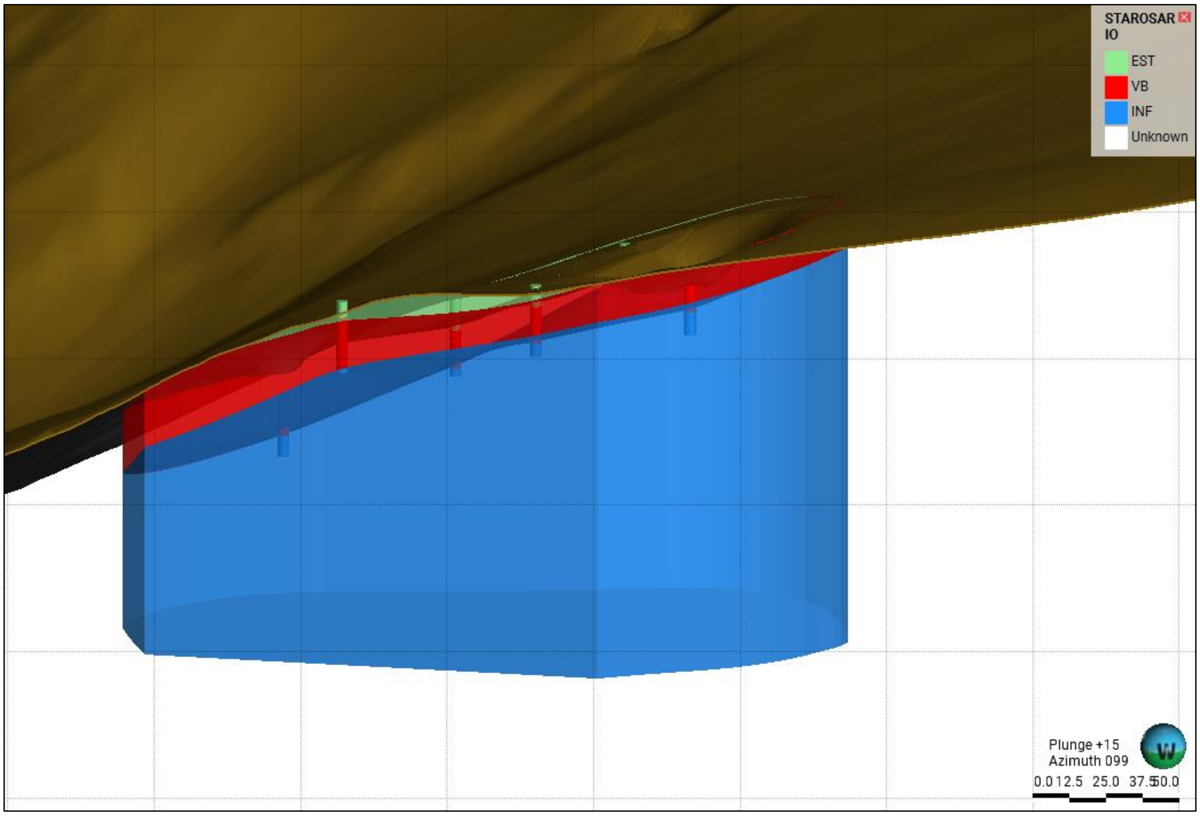
14.2.2 Geologic Model

Manquiri and SRK constructed the geological model using Leapfrog Geo (Version 2023.1.1). The mineralization in Tollojchi corresponds to an epithermal high sulfidation deposit, characterized by vuggy silica. Geologists of Manquiri completed some drilling and sampling campaigns and prepared a geological model for the three areas, differentiating an upper area of tuff that is considered sterile, the underlying oxidized and mineralized material in the dyke, which is limited at depth by the transitional or partially oxidized dyke. Figure 14-10, Figure 14-11, Figure 14-12 present the Geological model prepared by Manquiri.



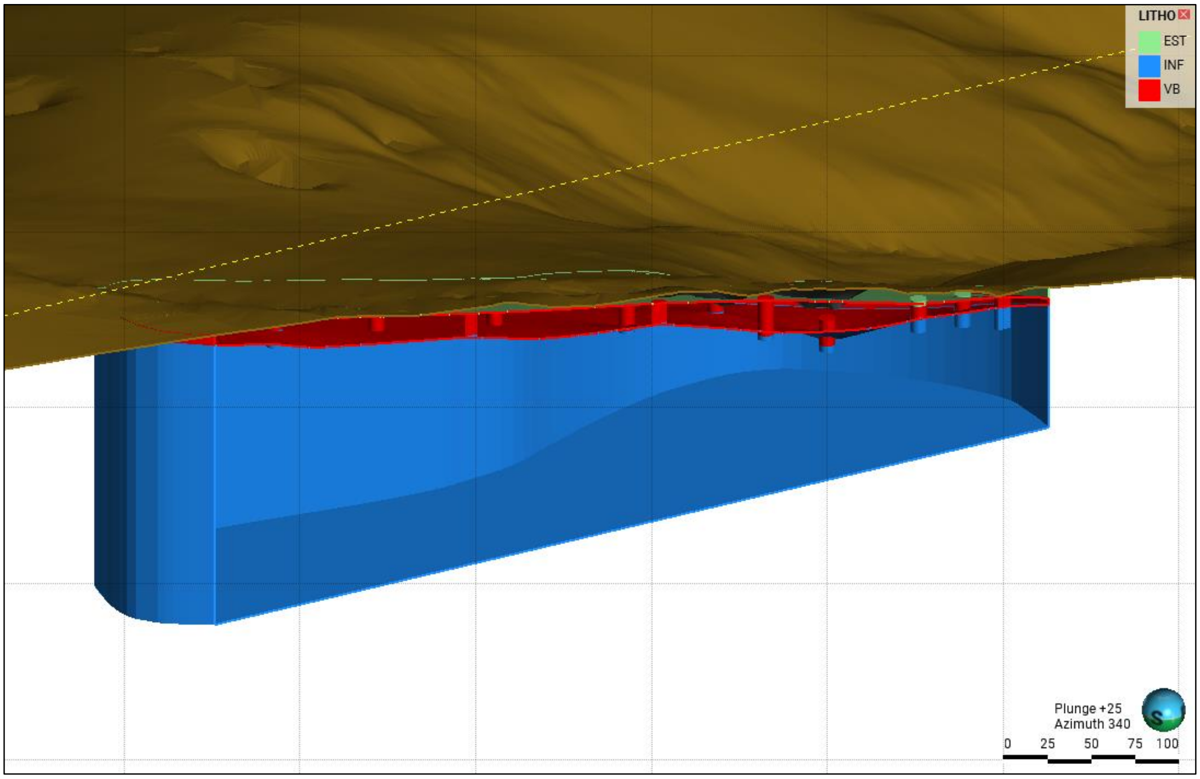
Source: Manquiri, 2023

Figure 14-10: Geological Model of Manto Zone (Green: Tuff; Red: Oxidized Dyke; Blue: Transition and fresh Dyke)



Source: SRK, 2023

Figure 14-11: Geological Model of Rosario Zone (Green: Tuff; Red: Oxidized Dyke; Blue: Transition and fresh Dyke)



Source: SRK, 2023

Figure 14-12: Geological Model of Platera Zone (Green: Tuff; Red: Oxidized Dyke; Blue: Transition and fresh Dyke)

14.2.3 Estimation Domain Analysis

The model has focused on the silver mineralization in the Oxidized dyke as a hard boundary. The statistical analysis for silver is presented in Table 14-9. The population's silver was used as the reference for estimation accuracy.

Table 14-9: Summary Ag Statistics of Raw Sampling

Name	Count	Length (m)	Mean (g/t)	Standard Deviation	Coefficient of Variation	Variance	Minimum (g/t)	Maximum (g/t)
Manto	461	461.0	124.5	93.1	0.74	8,667.4	11.83	658.4
Rosario	212	212.0	171.8	86.5	0.50	7,481.6	31.61	486.2
Platera	696	696.0	158.7	117.5	0.74	13,810.7	5.88	1,163.7

Source: SRK, 2023

14.2.4 Estimation Methodology

The MRE process was completed by SRK using the initial geological models provided by Manquiri geological staff and reviewed by SRK.

The resource estimation methodology for the three areas included:

- Database compilation and verification
- Review of the geological model provided by Manquiri
- Construction of wireframe models and definition of domains

- Data conditioning (compositing and capping) for statistical analysis, geostatistical analysis
- Variography
- Block modeling and grade interpolation
- Resource classification and validation
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades (CoG)
- Preparation of the Mineral Resource Statement

14.2.5 Assay Caping and Compositing

14.2.6 Outliers

The analysis of outliers of silver values was performed using a review of probability plots, histograms, and the revision of the spatial distribution of raw values in the model (to identify trends or potential high-grade clusters).Table 14-10, Table 14-11, and Table 14-12 present sensitivity in silver statistics using various capping values for Manto, Rosario and Platera deposits. SRK completed the analysis and concluded to use 350 g/t Ag capping value for Platera and 300 g/t Ag for Manto and Rosario.

Table 14-10: Comparative Statistics of Raw Data vs. Capping Values – Manto

Cap Value Ag g/t	# Capped Values	Percentile (%)	Capped %	Mean Lost Total %	Count	Min Ag g/t	Max Ag g/t	Mean Ag g/t	CV
Raw					461	11.83	658.4	124.5	0.75
616	1	99.78	0.20	0.07	461	11.83	616	124.4	0.74
574	2	99.57	0.40	0.20	461	11.83	574	124.2	0.74
455	5	98.91	1.10	1.10	461	11.83	455	123.1	0.7
300	20	98.48	4.30	4	461	11.83	300	119.6	0.64

Source: SRK, 2023

Table 14-11: Comparative Statistics of Raw Data vs. Capping Values – Rosario

Cap Value Ag g/t	# Capped Values	Percentile (%)	Capped %	Mean Lost Total %	Count	Min Ag g/t	Max Ag g/t	Mean Ag g/t	CV
Raw					212	31.61	486.2	172	0.50
423	3	98.58	1.40	0.40	212	31.61	423.0	171	0.49
327	11	94.81	5.20	2.70	212	31.61	327.0	167	0.44
300	15	93.39	7.10	3.70	212	31.61	300.0	165	0.43
241	37	82.54	17.50	7.70	212	31.61	241.2	159	0.38

Source: SRK, 2023

Table 14-12: Comparative Statistics of Raw Data vs. Capping Values – Platera

Cap Value Ag g/t	# Capped Values	Percentile (%)	Capped %	Mean Lost Total %	Count (%)	Min Ag g/t	Max Ag g/t	Mean Ag g/t	CV
Raw					696	5.88	1,164	159	0.74
900	2	99.85	0.30	0.20	696	5.88	899.6	158	0.73
766	3	99.57	0.40	0.50	696	5.88	765.7	158	0.71
572	9	98.71	1.30	1.60	696	5.88	571.8	156	0.67
350	37	98.56	5.30	5.50	696	5.88	350.0	150	0.57

Source: SRK, 2023

Compositing

In order to homogenize the size of the samples for the estimation process, typically during the estimation process sample composites are generated, however, Manquiri has collected all the samples with 1 m length, SRK has elected not to use sample composites for the purpose of estimation for the current model. The composites used for estimation of the mineralized domain are included inside the solid and those in zones already exploited were used for the estimation.

14.2.7 Variogram Analysis and Modeling

The size of the 3 zones is small, in general, areas smaller than 250 m, and the variography analysis did not yield good results also due to the low availability of samples. SRK chose to use ID2/ID3 as the estimation methodology along with nearest neighbor for validation purposes.

14.2.8 Block Model

The block models were built using Leapfrog Edge software, using wireframes to differentiate domains. The sampling distribution and the characteristics of the mineralization provide the basis to define the block sizes to use. Table 14-13 presents the characteristics of the block models.

Table 14-13: Block Model Characteristics

	Easting (X) m	Northing (Y) m	Elevation (Z) m
Manto			
Base Point	194,170	7,824,000	4,480
Extension	370	560	390
Parent Block Dimensions	10	10	10
Sub-Cell Size	1.25	1.25	1.25
Rosario			
Base Point	194,600	7,823,970	4,410
Extension	400	400	195
Parent Block Dimensions	5	5	5
Sub-Cell Size	2.5	2.5	2.5
Platera			
Base Point	194,790	7,823,640	4,540
Extension	535	530	295
Parent Block Dimensions	5	5	5
Sub-Cell Size	2.5	2.5	2.5

Source: SRK, 2023

14.2.9 Grade Estimation

Silver interpolation was done on the parental cells using ID2 methodology, using two searches and octant restrictions to manage the impact of clustering. The search parameters for each area are shown in Table 14-14. No maximum number of samples per hole was used because all holes (drillhole identifier) contains only one sample. The use of the octant's method was implemented to control the number and distribution of samples involved in the block estimation.

Table 14-14: Search Parameters by Area

Search	Ellipsoid Ranges			Number of Samples		Octants Restriction	Drillhole Limit
	Maximum (m)	Intermediate (m)	Minimum (m)	Minimum	Maximum	Max Samples per Octant	Max Samples per Hole
Manto							
Search 1	40	40	10	20	30	5	not applied
Search 2	100	100	20	10	25	5	not applied
Rosario							
Search 1	30	30	5	10	20	5	not applied
Search 2	60	60	10	5	20		not applied
Platera							
Search 1	30	30	10	20	30	5	not applied
Search 2	60	60	20	10	30	5	not applied

Source: SRK, 2023

14.2.10 Density

Manquiri has collected density samples of the different types of material to characterize the ore and waste in each of the Tollojchi zones. The samples were collected from different locations of each area and are considered representative. Table 14-15 presents the densities used in each domain in the three areas.

Table 14-15: Density Measurements

# Sample	Zone	East (m)	North (m)	Elevation (m)	Density	Type	Average Density g/cm^3
20	Platera	194971.17	7823,758,79	4460.15	2.04	Dyke	2.02
21		194978.58	7823813.32	4441.64	2.10		
22		195083.17	7823861.2	4436.35	1.93		
23		195085.11	7823950.32	4412.46	2.26		
24		195135.14	7824039.99	4377.58	1.86		
25		195172.67	7824062.61	4368.22	1.81		
26		195183.34	7824058.17	4365.15	2.14		
27		195279.52	7824097.56	4381.18	1.84	Tuff	1.77
28		195179.57	7824033.99	4394.38	1.84		
29		195153.89	7823959.69	4419.82	1.67		
30		195039.67	7823875.93	4441.21	1.87		
31		194943.69	7823748.77	4469.38	1.65		
32	Manto	194361.94	7824290.47	4252.43	2.11	Dike	2.09
33		194376.54	7824290.69	4250.14	2.34		
34		194388.56	7824330.47	4235.45	2.07		
35		194435.01	7824308.68	4234.42	1.93		
36		194430.18	7824330.44	4235.87	1.99		
37		194422.14	7824386.34	4286.23	1.41	Tuff	1.69
38		194402.54	7824356.41	4278.13	1.75		
39		194323.39	7824336.01	4246.75	1.64		
40		194378.01	7824243.38	4259.25	1.83		
41		194402.26	7824289.47	4255.01	1.68		
42		194352.09	7824232.36	4279.16	1.83		
43	Rosario	194833.12	7824120.93	4350.99	1.86	Dyke	2.00
44		194824.12	7824114.43	4353.53	1.77		
45		194806.37	7824114.93	4360.35	2.49		
46		194810.57	7824136.84	4360.55	2.38		
47		194790.16	7824119.07	4362.21	1.74		
48		194785.28	7824135.18	4364.27	1.76		
49		194789.15	7824275.66	4353.58	2.03		
50		194799.12	7824274.51	4353.36	2.22		
51		194841.19	7824286.07	4320.98	2.40		
52		194830.73	7824271.85	4319.59	1.52		
53		194834.18	7824258.54	4318.35	1.82		
54		194846.56	7824263.07	4318.74	1.69		
55		194851.63	7824271.18	4321.66	2.14		
56		194827.25	7824263.86	4319.69	2.22		
57		194866.12	7824121.96	4369.54	1.73	Tuff	1.60
58		194846.76	7824155.07	4364.28	1.65		
59		194831.72	7824161.18	4366.62	1.56		
60		194790.12	7824172.09	4371.65	1.64		
61		194781.15	7824174.46	4372.32	1.57		
62		194772.87	7824252.25	4363.32	1.31		
63		194785.09	7824258.61	4363.83	1.68		
64		194803.12	7824251.67	4363.08	1.70		

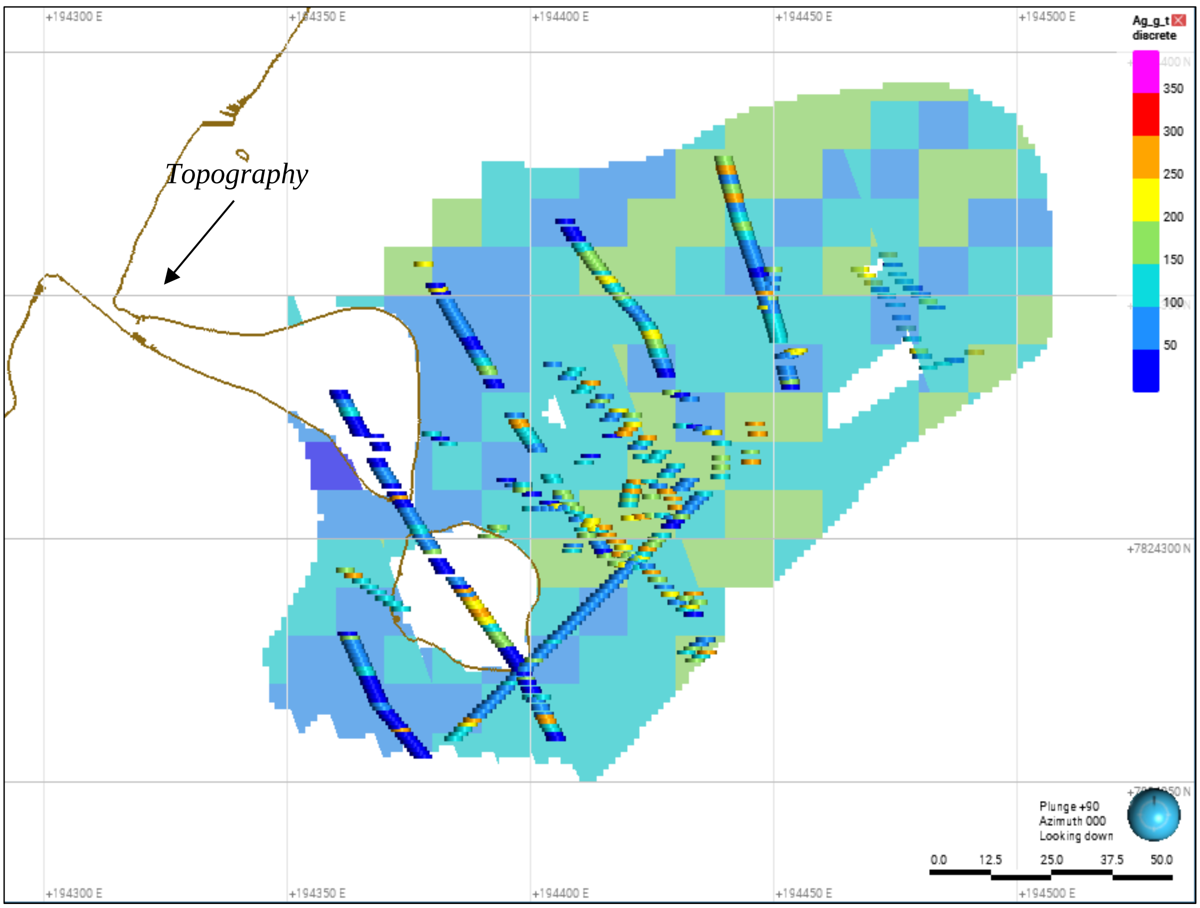
Source: SRK, 2023

14.2.11 Model Validation

Visual Validation

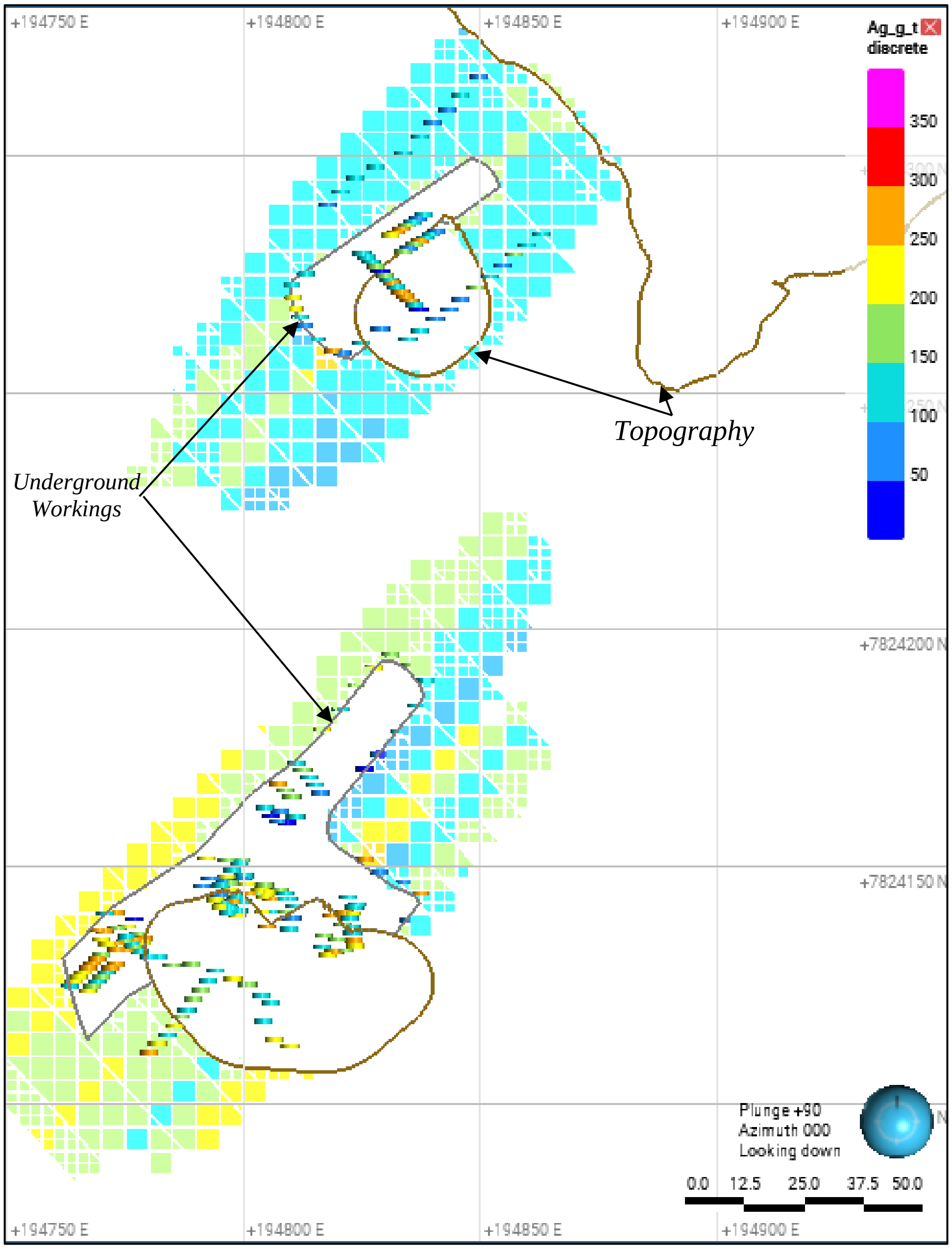
The assessment involved comparing revised estimated values with composites through the analysis of plan and vertical sections. Figure 14-13 Figure 14-14 and Figure 14-15 exemplifies the visual validation conducted for the 3 areas of Tollojchi, showing a strong correlation between grades in composites and blocks.

The sampling orientation observed in Platera and Santa Rosario is not appropriately oriented perpendicular to the structural mineralization control observed in these areas. The QP recommends performing detailed mapping of the geology and mineralization controls and construct continuous channel sampling perpendicular to the mineralization orientation.



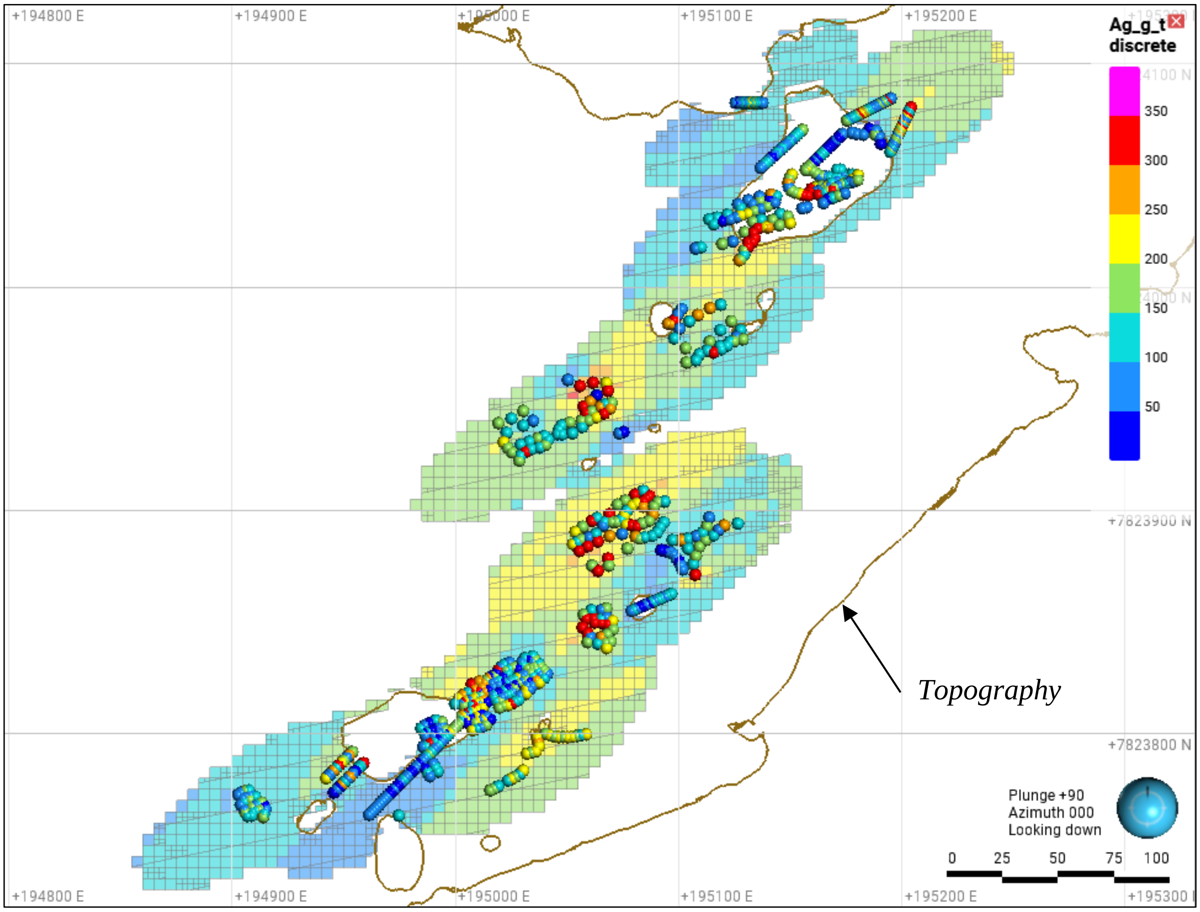
Source: SRK, 2023

Figure 14-13: Plan view – Blocks vs. Samples (Channel sample from underground and trenches) Visual Validation Example in Manto



Source: SRK, 2023

Figure 14-14: Plan View – Blocks vs. Samples (Channel sample from underground and trenches) Visual Validation Example in Santa Rosario



Source: SRK, 2023

Figure 14-15: Plan View – Blocks vs. Samples (Channel sample from underground and trenches) Visual Validation Example in Platera

14.2.12 Comparative Statistics

Table **14-16** presents the comparative statistics of near neighbor and ID2 estimates for Manto, Santa Rosario and Platera. The grades are reasonably close.

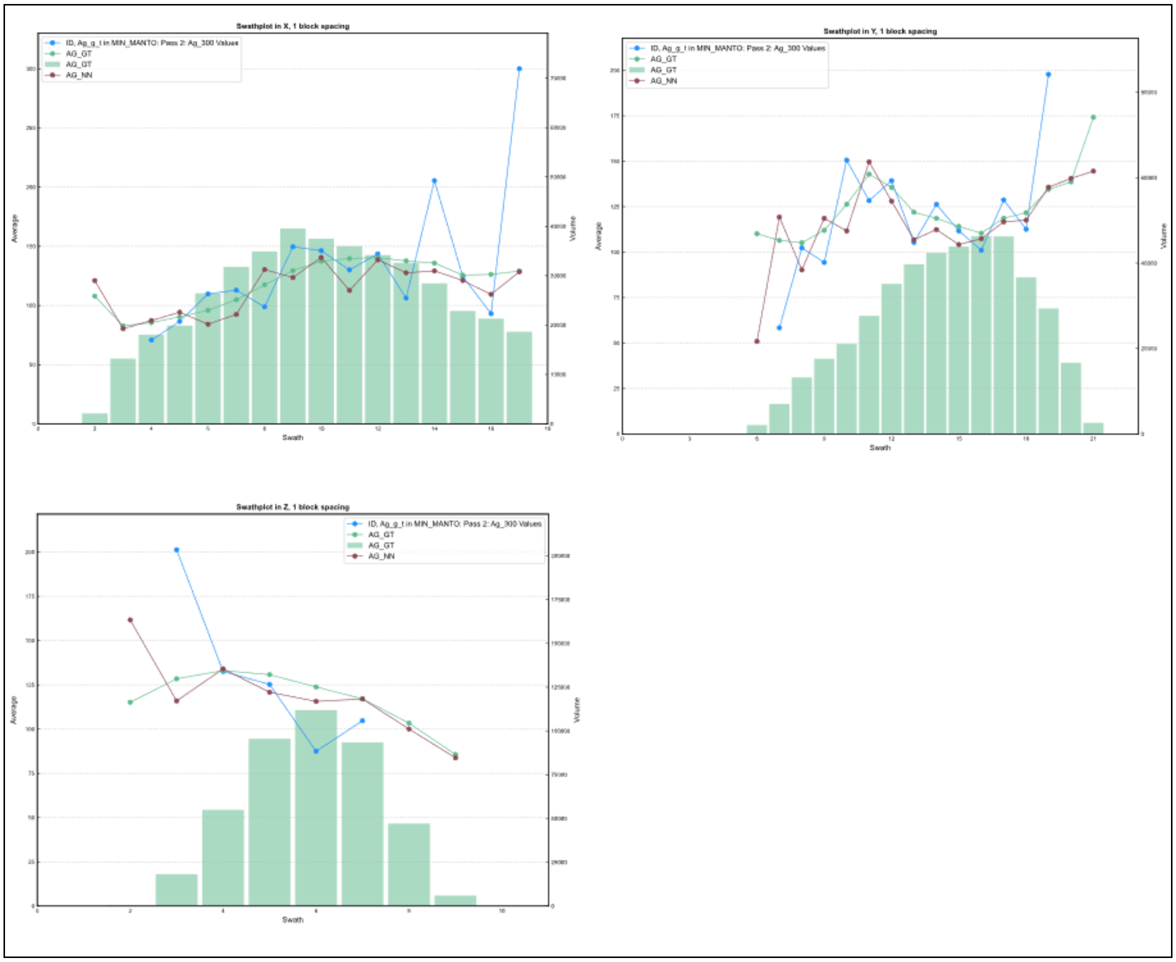
Table 14-16: Comparative Silver Statistics NN vs.ID2 Estimates

Block Value	Volume (m3)	Mean Ag g/t	Standard Deviation	Coefficient of Variation	Variance	Minimum Ag g/t	Maximum Ag g/t
Manto							
AG_GT	427,703	122	35.9	0.29	1,291	35.4	248.8
AG_NN	427,703	117	64.2	0.55	4,123	11.8	200.0
Santa Rosario							
AG_GT	164,938	144	39.0	0.27	1,523	44.6	284.0
AG_NN	164,938	142	61.8	0.44	3,818	31.6	300.0
Platera							
AG_GT	585,766	153	44.0	0.29	1,940	32.9	348.7
AG_NN	585,766	151	80.8	0.53	6,527	5.9	350.0

Source: SRK, 2023

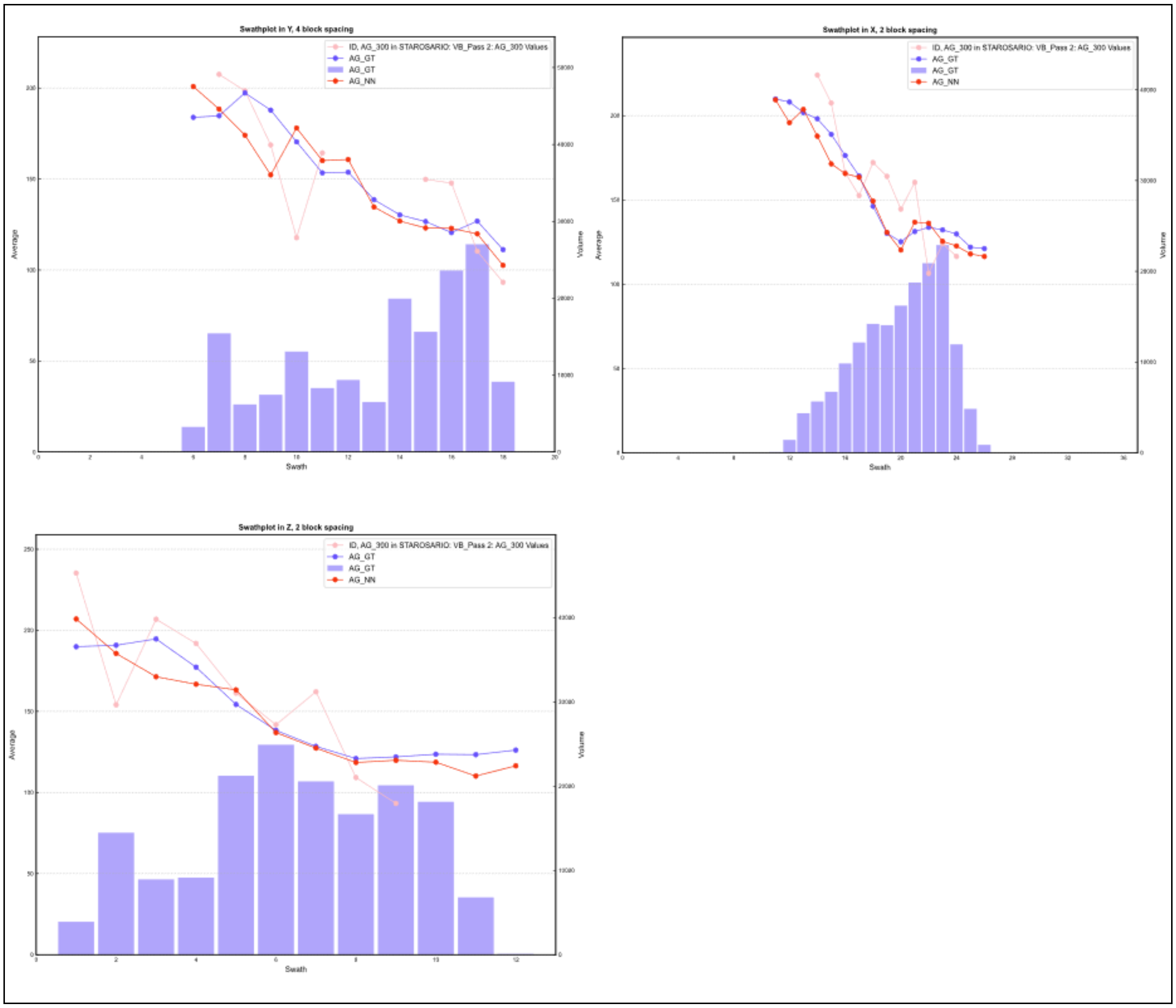
14.2.13 Swath Plots

Figure 14-16, Figure 14-17 and Figure 14-18 present the Ag swath plots for Manto, Santa Rosario and Platera comparing NN and ID2 estimates and the declustered composites in the X, Y and Z dimensions. The curves show good correlation, and some spread is observed in areas with low quantity of data.



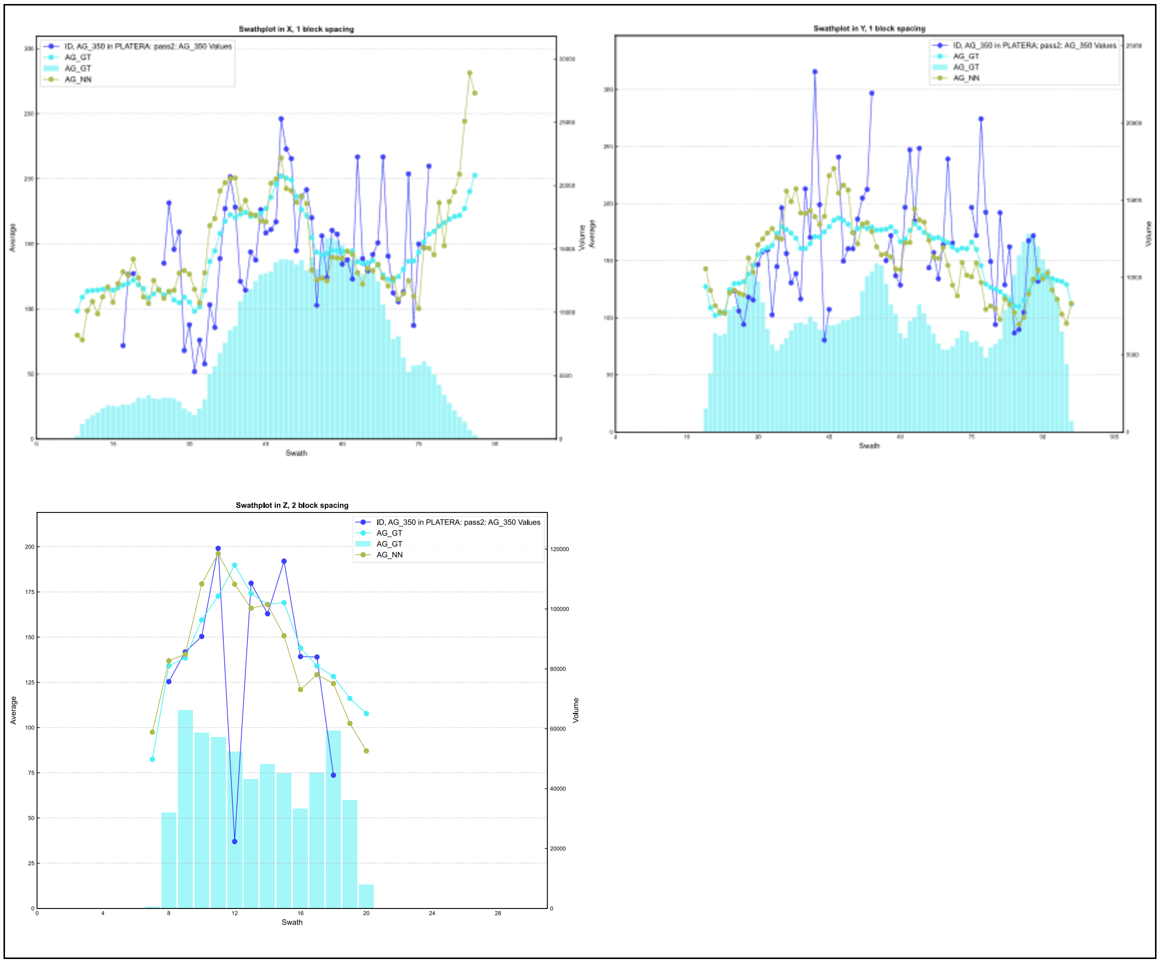
Source: SRK, 2023

Figure 14-16: Ag Swath Plots for Manto



Source: SRK, 2023

Figure 14-17: Ag Swath Plots for Santa Rosario



Source: SRK, 2023

Figure 14-18: Ag Swath Plots for Platera

14.2.14 Resource Classification

The grade estimates and the block model quantities for the Tollojchi areas were classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

SRK considers that geological modeling honors the current geological information and knowledge. The available samples are sufficiently reliable to support resource estimation. Additional geological and mineralization mapping is required to define appropriately the controls and the sampling should be performed collecting continuous samples perpendicular to the mineralization control trends.

The classification of the mineral resources for San Bartolomé are based on the number of composites used to estimate Ag and the distances of the blocks to the composites. The following are the criteria defined for each classification category.

Measured Mineral Resources: No mineral resources were classified in Tollojchi due to the nature of the rock samples that support the estimates. Additional geological mapping and a more robust database will reduce the uncertainty required to classify the blocks as measured.

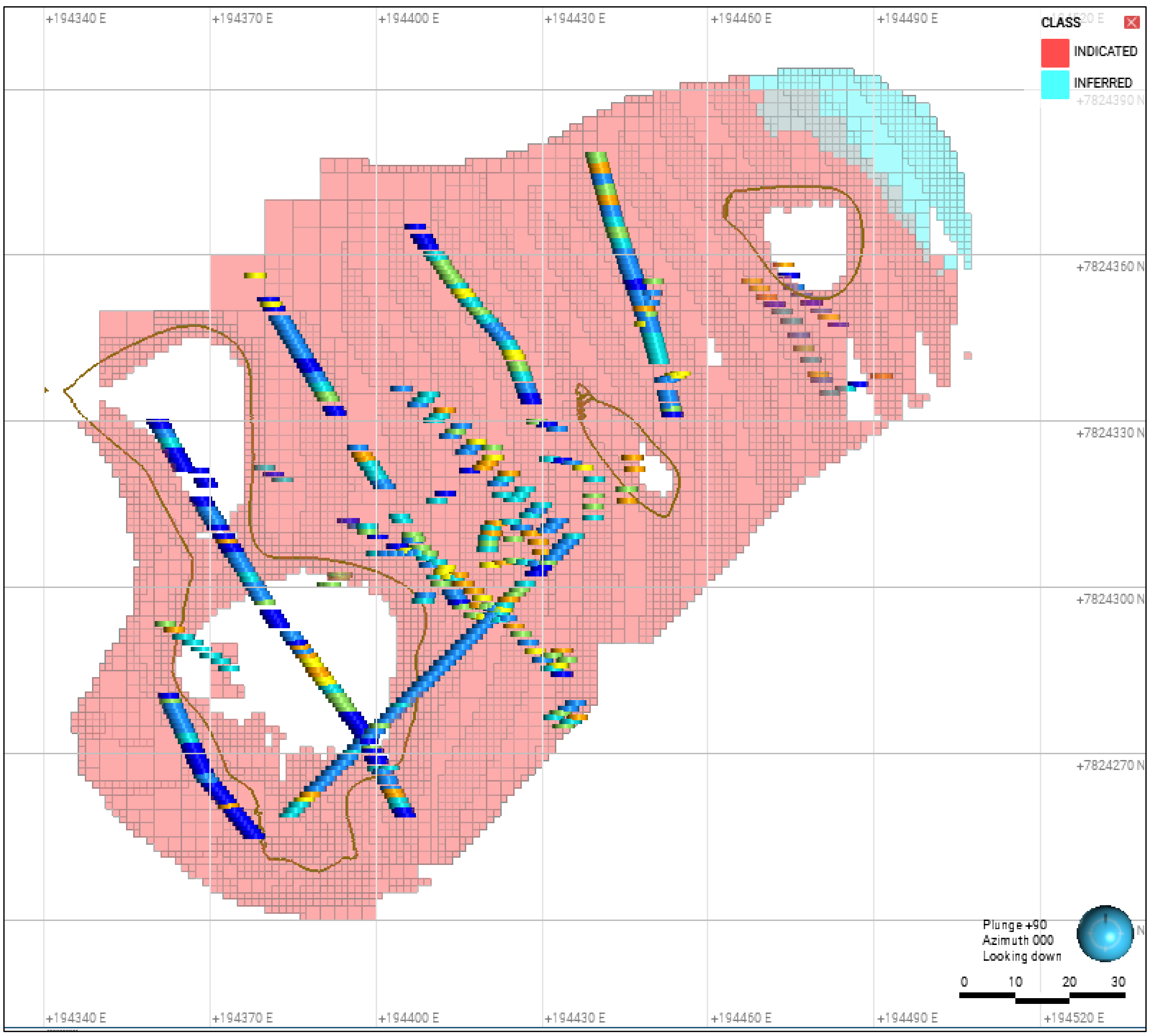
Indicated Mineral Resources: The following criteria were used to flag the indicated blocks, which reflects the confidence in the grade estimates:

- Blocks estimated with information from at least two 3 rock samples (channel sampling)
- Distance to composites used for estimation less than 30 m.

Inferred Mineral Resources: The inferred resources are limited to areas of reasonable grade estimate quality and satisfactory geological confidence and are extended to areas with low density of data:

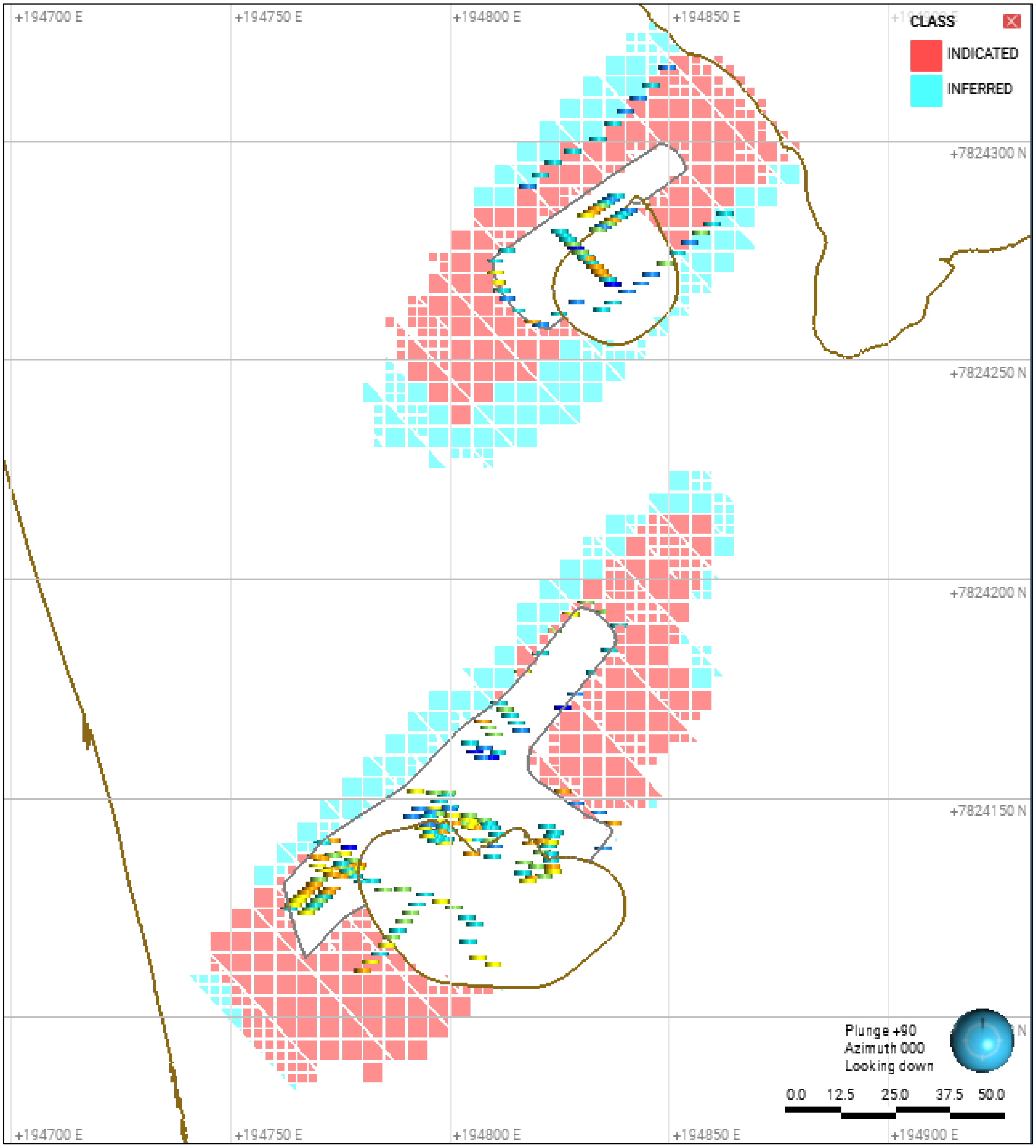
- The remanent estimated blocks and limited to the Manto, Santa Rosario and Platera wireframes.

Figure 14-19, Figure 14-20, Figure 14-21 present the plan views of the Manto, Santa Rosario and Platera block model classification and the composites.



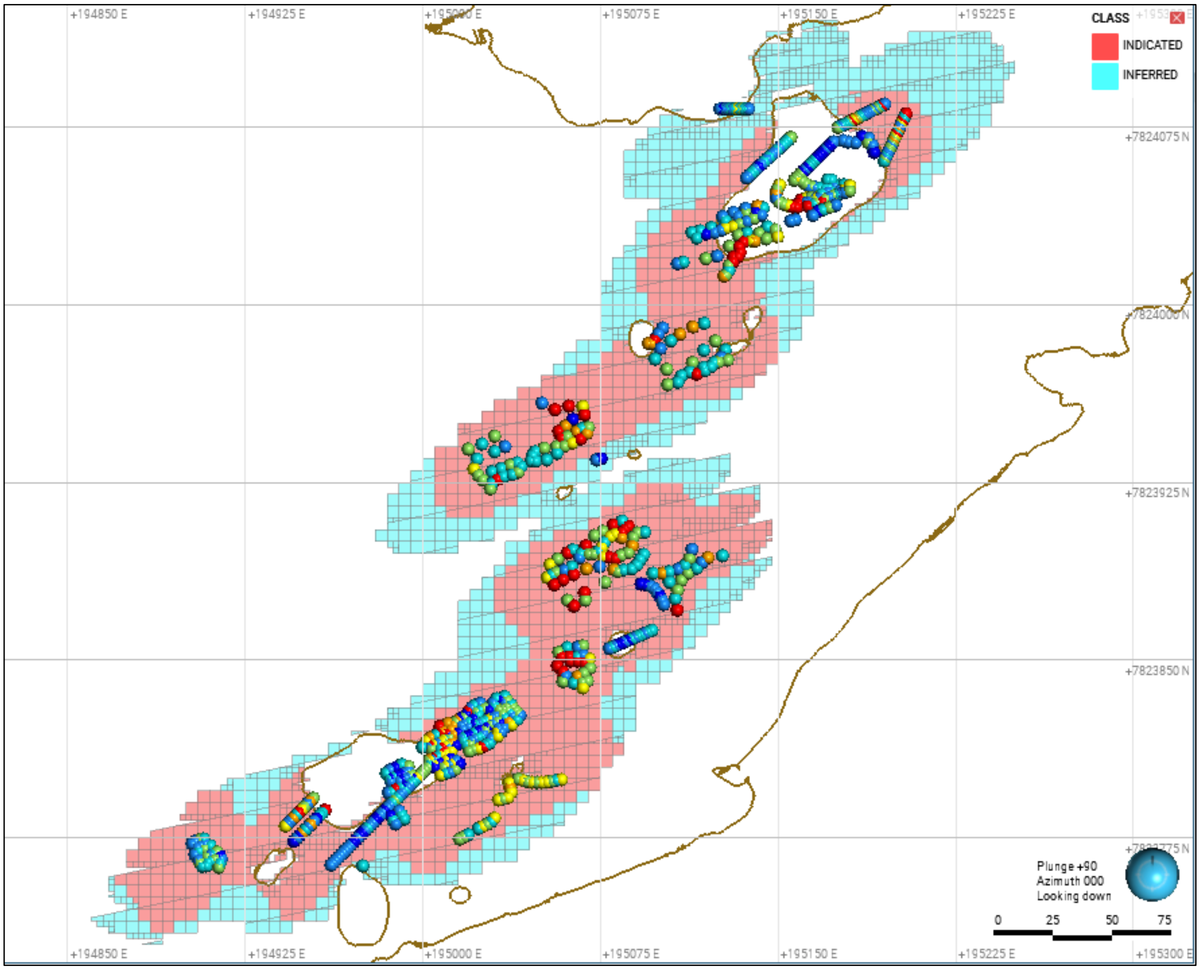
Source: SRK, 2023

Figure 14-19: Plan View, Block Classification – Manto



Source: SRK, 2023

Figure 14-20: Plan View, Block Classification – Santa Rosario

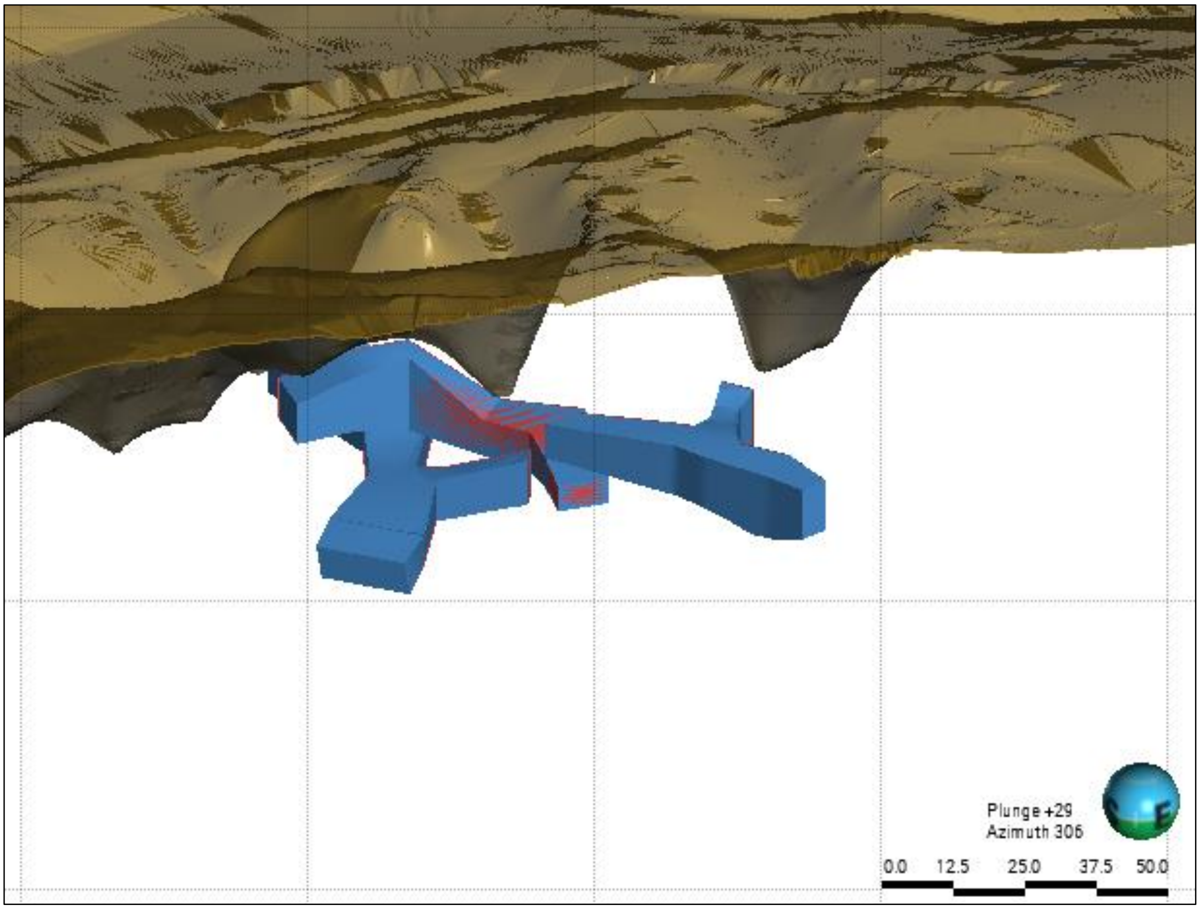


Source: SRK, 2023

Figure 14-21: Plan View, Block Classification – Platera

Depletion

Andean surveyed the underground (UG) and surface workings and constructed the UG solids and digital terrain models (DTMs) to deplete the block models of Tollojchi. Overall, SRK considers that the depletion model information is accurate. Figure 14-22 presents the example of the topography DTM and UG solids used to deplete the block model of Manto.



Source: SRK, 2023

Figure 14-22: 3D View of Topography DTM and Underground Workings Solids – Manto

14.2.15 Mineral Resource Statement

The Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Resource as:

(A) concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics, and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

The "reasonable prospects for eventual economic extraction" requirement generally imply that the quantity and grade estimates meet defined economic thresholds and that the Mineral Resources are reported at an appropriate Cut-off grade (CoG), that consider a technical-economic scenario assumed for the project. The mineral resource is limited within economic pitshells which construction used the economic parameters shown in Table 14-17.

Table 14-17 presents the key assumptions for the costing and the resulting cut of grades defined for Manto, Santa Rosario and Platera in Tollojchi, which considers the transportation of the mineral from Tollojchi to the Manquiri plant. The parameters used are based on the ongoing operation of Manquiri and are considered appropriate for the mineral resource definition.

Table 14-17: Summary of CoG Assumptions at Tollojchi Based on Assumed Costs

Ag Ounce Price (US$/Oz)	25.00
Ag Recovery	80.0%
Cost Per Dry Tonne	
Mining and transport	6.49
Process	22.98
G&A and other indirect	3.67
Administrative expenses	2.74
Refining, shipping, and laboratory	0.66
Capital expenditures	2.65
COMIBOL	4.0%
Bolivian Royalty Silver 6%	6.0%
Cut-off Ag g/t	64.3

Source: Andean, 2023

To define the mineral resource (open pit constrained) the depleted block model was used to optimize the pits in the three deposits using the parameters presented in Table 14-17. Based on information provided by Manquiri, the suggested pit wall angle used was 45º.

The mineral resource was calculated for each deposit using the resulting open pit envelopes. Table 14-18 presents the Mineral Resource Statement for the three areas of Tollojchi, with an effective date of December 1st, 2023.

Table 14-18: Tollojchi Area (Contracted) Mineral Resource Statement with Effective Date of December 1, 2023

Material Source	Area	Category	Tonnes (000's)	Average Silver Grade (g/t)	Contained Silver (Moz)
Tollojchi Area - Contracted	Manto	Measured	-	-	-
		Indicated	773	127	3.15
		M+I	773	127	3.15
		Inferred	35	131	0.15
	Platera	Measured	-	-	-
		Indicated	636	160	3.28
		M+I	636	160	3.28
		Inferred	445	145	2.07
	Rosario	Measured	-	-	-
		Indicated	183	148	0.87
		M+I	183	148	0.87
		Inferred	115	136	0.50

Source: SRK, 2024

- Mineral resources are effective as of December 1, 2023, and inclusive of mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. There is no certainty that all or any part of those mineral resources will be converted into mineral reserves estimate. Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, any apparent errors are insignificant. Silver assays were capped where appropriate. Given the historical production and knowledge of the projects, it is the Company's opinion that all the silver grades included in the calculations have a reasonable potential to be recovered and sold.
- The following assumptions are considered for the mineral resources deriving Manto, Platera and Rosario:
  a) The mineral resources are reported at an in-situ cut-off of 64.3 g/t Ag.
  b) Mineral resources are reported within a constraining pit shell. Assumed silver price of US$25/oz; assumed metallurgical silver recovery: 80%; mining and transport: US$6.49/t; process costs: US$22.98/t; G&A and other indirect costs: US$3.67/t; administrative costs: US$2.74/t; capital expenditures: US$2.65/t. Other costs are the COMIBOL (Corporación Minera de Bolivia) royalty of 4%, the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
  c) 100% mining recovery.

14.2.16 Mineral Resource Sensitivity

Table 14-19, Table 14-20, Table 14-21 present the sensitivity of the block model estimates to the selection of cut-off grade (Ag g/t) using the same pit shells described above.

Table 14-19: Sensitivity of the Mineral Resource to Changes in Cut-off Grade - Manto

Cut-off Ag g/t	Measured		Indicated		Measured + Indicated		Inferred	
	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)
40	-	-	799	124	799	124	35	131
50	-	-	796	125	796	125	35	131
60	-	-	784	126	784	126	35	131
64.3	-	-	773	127	773	127	35	131
70	-	-	749	129	749	129	35	131
80	-	-	718	131	718	131	34	132
90	-	-	669	134	669	134	31	138

Source: SRK, 2023
Base case is highlighted in blue

Table 14-20: Sensitivity of the Mineral Resource to Changes in Cut-off Grade – Santa Rosario

Cut-off Ag g/t	Measured		Indicated		Measured + indicated		Inferred	
	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)
40	-	-	183	148	183	148	115	136
50	-	-	183	148	183	148	115	136
60	-	-	183	148	183	148	115	136
64.3	-	-	183	148	183	148	115	136
70	-	-	183	148	183	148	115	136
80	-	-	182	149	182	149	115	136
90	-	-	181	149	181	149	113	137

Source: SRK, 2023
Base case is highlighted in blue

Table 14-21: Sensitivity of the Mineral Resource to Changes in Cut-off Grade – Platera

Cut-off Ag g/t	Measured		Indicated		Measured + indicated		Inferred	
	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)
40	-	-	637	160	637	160	446	144
50	-	-	637	160	637	160	446	144
60	-	-	637	160	637	160	445	145
64.3	-	-	636	160	636	160	445	145
70	-	-	634	161	634	161	444	145
80	-	-	618	163	618	163	439	146
90	-	-	606	164	606	164	428	147

Source: SRK, 2023
Base case is highlighted in blue

14.3 Altavista

14.3.1 Drillhole Database

Table 14-22 presents the summary of the channel rock sampling collected from underground workings, from outcrops and trenches. These samples are the base for the resource estimate in Altavista.

Table 14-22: Summary of Rock Samples - Altavista

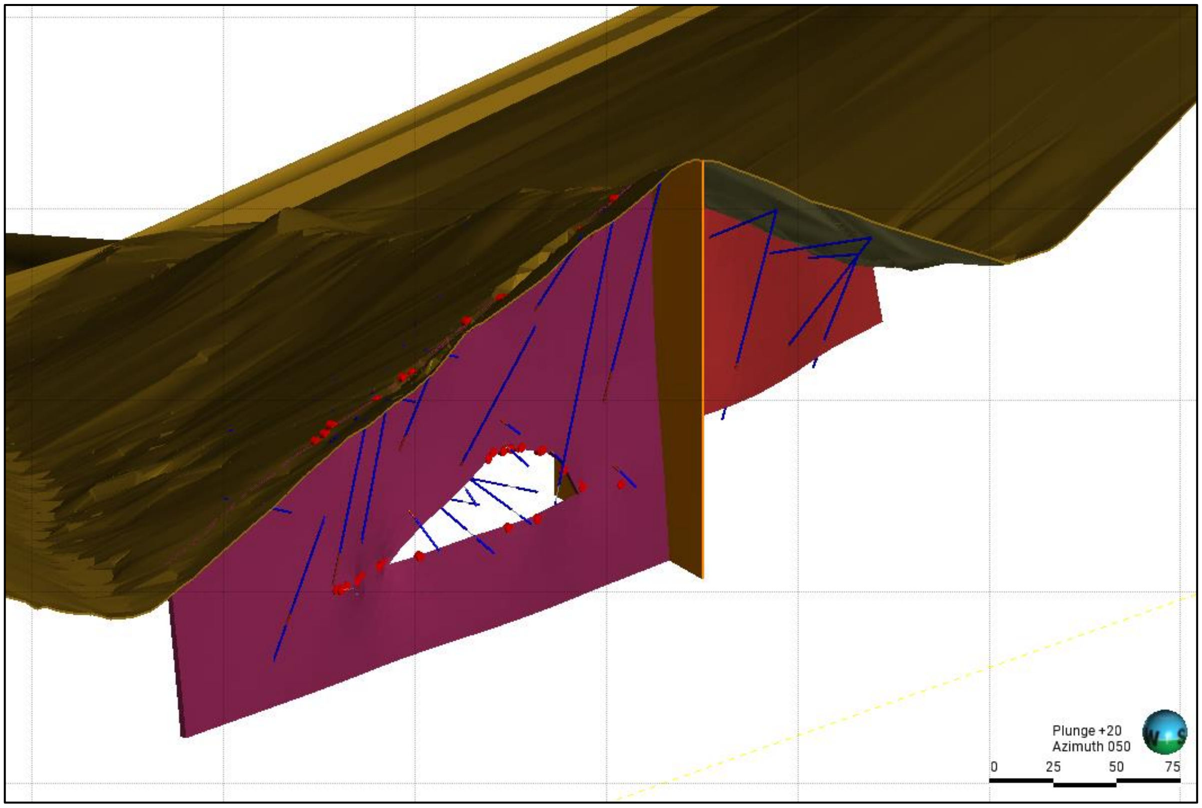
Zone	Rock Samples	
	Count	Length (m)
Altavista	59	78.8
Total	**59**	**78.8**

Source: SRK, 2023

Historical drilling was completed some years ago by the owner, but the core is not available and limited documentation exists (33 drillholes, 2,345 m). Some core lithology documentation of the drillholes was used as reference, but the vein model was constructed based merely on the mapping of the trenches and the underground workings.

14.3.2 Geologic Model

Manquiri and SRK constructed the geological model using Leapfrog Geo (Version 2023.1.1). The mineralization in the main vein is structurally controlled and hosted in a porphyritic dacite that has been sampled at surface through trenches and in underground workings. Figure 14-23 presents the Geological model prepared by Manquiri. The eastern part of the vein was modeled but not enough assays were obtained by Manquiri and no estimation was completed. The western part of the vein was modeled and estimated with Ag.



Source: SRK, 2023

Figure 14-23: Geological Model of Altavista

14.3.3 Estimation Domain Analysis

The model has focused on the silver mineralization in the vein as a hard boundary. The statistical analysis for silver is presented in Table 14-23. The population of silver was used as the reference for estimation accuracy.

Table 14-23: Summary Ag statistics of Raw Sampling

Name	Count	Length (m)	Mean (g/t)	Standard Deviation	Coefficient of Variation	Variance	Minimum (g/t)	Maximum (g/t)
vein	59	78.8	292.6	293.2	1.00	85,942.1	1.98	1,376.0

Source: SRK, 2023

14.3.4 Estimation Methodology

The MRE process was completed by SRK using the initial geological models provided by Manquiri geological staff and reviewed by SRK.

The resource estimation methodology for Altavista included:

- Database compilation and verification
- Construction and review of wireframe models and definition of domains

- Data conditioning (compositing and capping) for statistical analysis, geostatistical analysis
- Variography
- Block modeling and grade interpolation
- Resource classification and validation
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades (CoG)
- Preparation of the Mineral Resource Statement

14.3.5 Assay Caping and Compositing

Outliers

Capping is considered an adequate technique for dealing with the high-grade outlier values. The capping was applied to the raw data of silver. The capping analysis and definition of the appropriate levels are based on the analysis of the grade distributions using log probability plots and raw and log histograms to evaluate graphically the grades. A capping of 430 g/t Ag has been applied during the estimation process before compositing. Table 14-24 shows a comparison of the raw to capped grades, the impact of capping in the statistics using two additional capping levels.

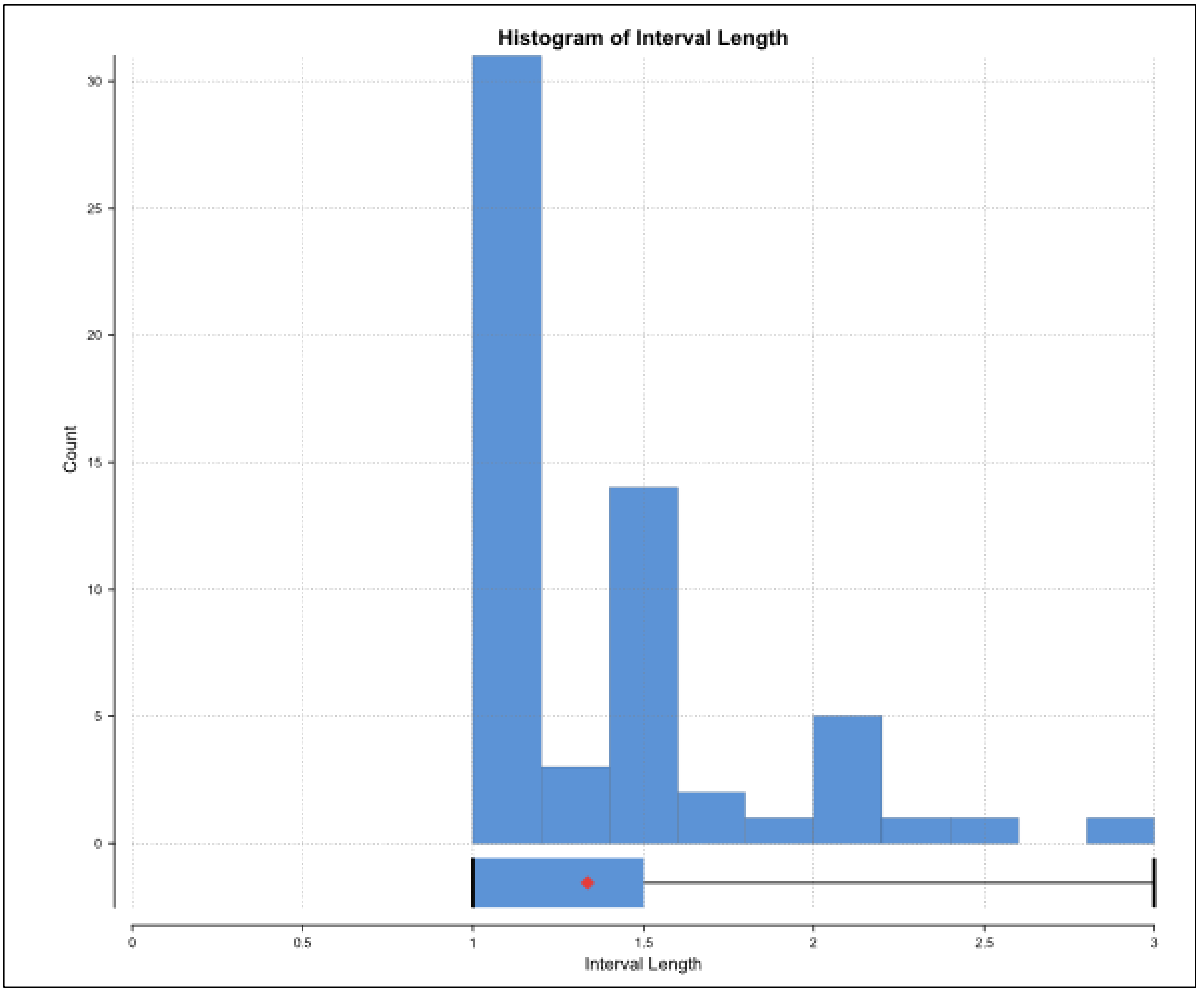
Table 14-24: Ag Raw vs. Capped Assay Statistics - Sensitivity

Cap Ag g/t	Capped	Percentile (%)	Capped %	Mean Difference (%)	Count	Min	Ag (g/t) Max	Ag (g/t) Mean	Variance	CV
Raw Assays					59	1.982	1,376	292.6	85,942	1.00
1,001.97	1	98.47	1.70	1.90	59	1.982	1,002	286.9	75,501	0.96
566.04	12	83.50	20.30	16	59	1.982	566	247.2	39,365	0.80
430.00	14	80.58	23.70	25	59	1.982	430	219.4	24,516	0.71

Source: SRK, 2023

Compositing

Compositing of raw data is used to homogenize the size of the samples for estimation. Due to the sampling procedures used by Manquiri, and how the samples are presented, which don’t establish appropriately the location of continuous channel samples. Most of the raw samples represent the vein width, which is an aspect considered during the process and the search strategy definition considered this factor. The QP considers that the methodology implemented using 1 m samples is reasonable for the resource estimation. Figure 14-24 presents the length histogram of the raw data.



Source: SRK, 2023

Figure 14-24: Sample Length Histogram

14.3.6 Variogram Analysis and Modeling

Given the low sample populations, the analysis resulted in poor variograms with limited structure. SRK has elected to use Inverse Distance (ID) as the primary estimation methodology for the Alta Vista estimates.

14.3.7 Block Model

SRK has constructed the block model using Leapfrog Edge using wireframe model of the vein. The block model was estimated to be 10 m cubed parent blocks. Minimum sub-blocked sizes of 0.625 m, 0.312 m and 1.25 were used in X, Y and Z dimensions respectively. SRK used sub-blocking to accurately reflect wireframes. Model extents are listed in Table 14-25.

Table 14-25: Block Model Origin, Extents, and Block Sizes

	Easting (X) m	Northing (Y) m	Elevation (Z) m
Base Point	748,640	7,581,390	5,060
Extension	370	190	230
Parent Block Dimensions	10	10	10
Minimum Sub-Cell Size	0.625	0.3125	1.25

Source: SRK, 2023

14.3.8 Grade Estimation

Silver interpolation was done on the parental cells using ID3 methodology. Three exponents were used for ID, considering that the data in this type of veins can be locally erratic and it was intended to give higher weight to the closest samples. Two ellipsoid searches and octant restrictions were used to manage the impact of clustering. The search parameters for each area are shown in Table 14-26.

The information of the vein width from the solid constructed in Leapfrog Geo was used, and it was interpolated into the block model using the near neighbor methodology. Vein width is considered during the RPEEE process to define the mineral resource.

Table 14-26: Search Parameters

Search	Ellipsoid Ranges			Number of Samples		Quadrant Restriction	Drillhole Limit
	Maximum (m)	Intermediate (m)	Minimum (m)	Minimum	Maximum	Max Samples per Quadrant	Max Samples per Hole
Search 1	30	30	20	2	8	2	-
Search 2	60	60	20	1	8	2	-

Source: SRK, 2023

14.3.9 Density

Manquiri collected samples to characterize the vein and wall rock density in Altavista. The density measurement method is based on the Archimedes principle and consists of measuring the weight of the rock sample P in air and subsequently the weight of the sample in water Pwater. We can determine the specific weight using the formula: SG = P / (P - Pwater). Table 14-27 presents the density tests used for the vein and wall rock domains. 2.84 g/cm3 used for Vein and 2.65 for wall rock. The methodology used is considered adequate and the samples are considered representative of the vein and host rock material for this small area in Altavista.

Table 14-27: Specific gravity tests

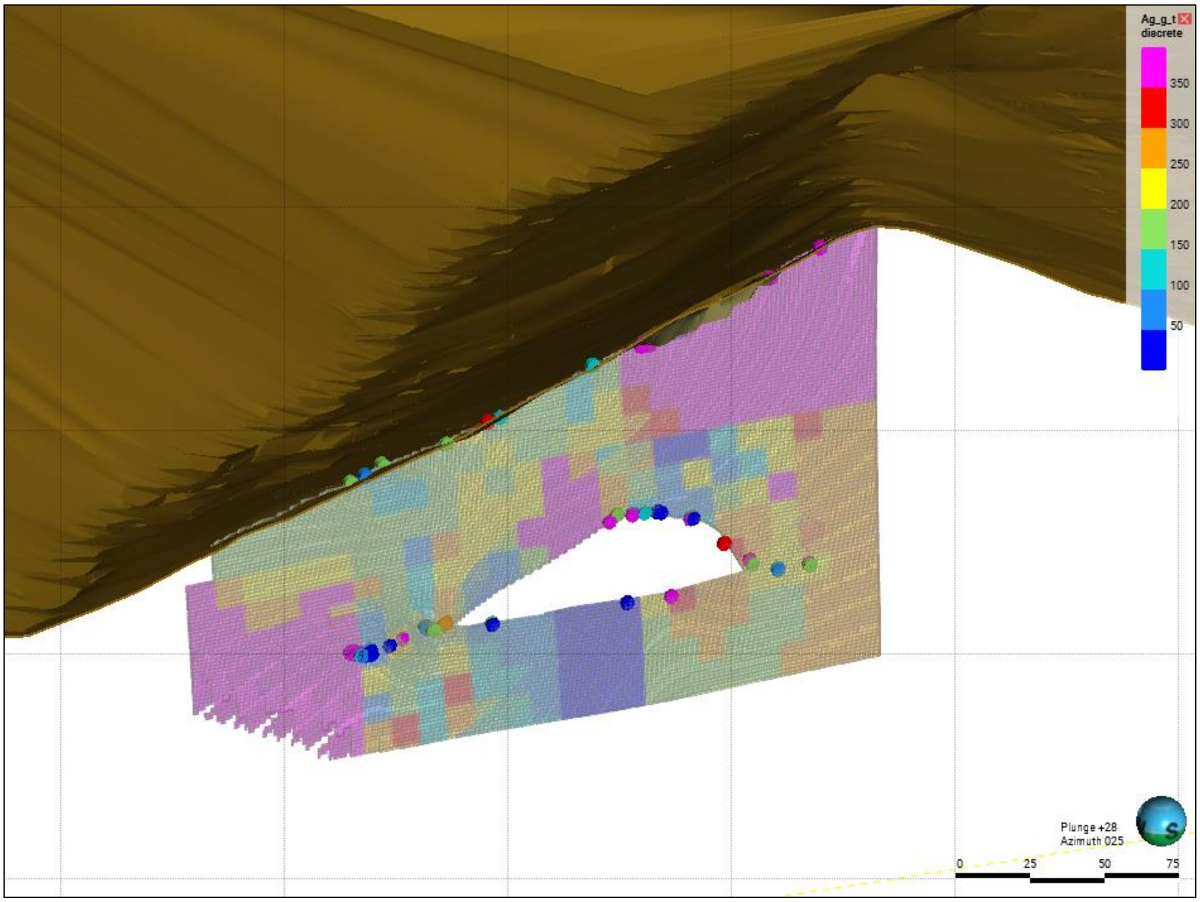
Type	Specific Gravity (g/cm^3)	Rock Description
Vein	2.73	Veta Rica Vein. Drusy Quartz, Fe oxides
Vein	2.81	Veta Rica Vein. Dacite fragments, Qz-Fe Oxides veinlets.
Vein	2.90	Veta Rica Vein. Drusy Quartz, Abundant Mn oxides, low Fe oxides
Wall Rock	2.68	Foot Wall. Silicified dacite, Quartz-Fe Oxides veinlets
Wall Rock	2.61	Hanging wall. Silicified dacite, moderate pervasive oxidation.
Vein	2.97	Veta Rica Vein. Quartz, Fe oxides, Py traces.
Vein	2.81	Veta Rica Vein. Drusy Quartz, moderate Fe-Mn oxides
Vein	2.83	Veta Rica Vein. Quartz-Fe Oxides Veinlets, Py? Traces
Wall Rock	2.70	Foot Wall. Silicified dacite, Quartz-Fe Oxides veinlets
Wall Rock	2.56	Hanging wall. Silicified dacite, box work texture. moderate pervasive oxidation.
Wall Rock	2.63	Silicified dacite, box work texture. moderate pervasive oxidation.
Wall Rock	2.72	Silicified dacite.

Source: SRK, 2023

14.3.10 Model Validation

Visual Validation

The visual validation included the comparison between the estimated values and the composites through the analysis of plan and vertical sections. Figure 14-25 shows an example of a 3D view of blocks and composites colored by Ag g/t grades, which shows a strong correlation between grades in composites and blocks. High grades at the edges were considered carefully during the manual delineation of the resource classification with the distance from blocks to the samples limited to 15 to 25 m to define indicated resource.



Source: SRK, 2023

Figure 14-25: 3D View – Blocks vs. Composites Visual Validation Example in Altavista

Comparative Statistics

Table 14-28 presents the comparative statistics of near neighbor and ID3 estimates for Altavista. The grades are equal.

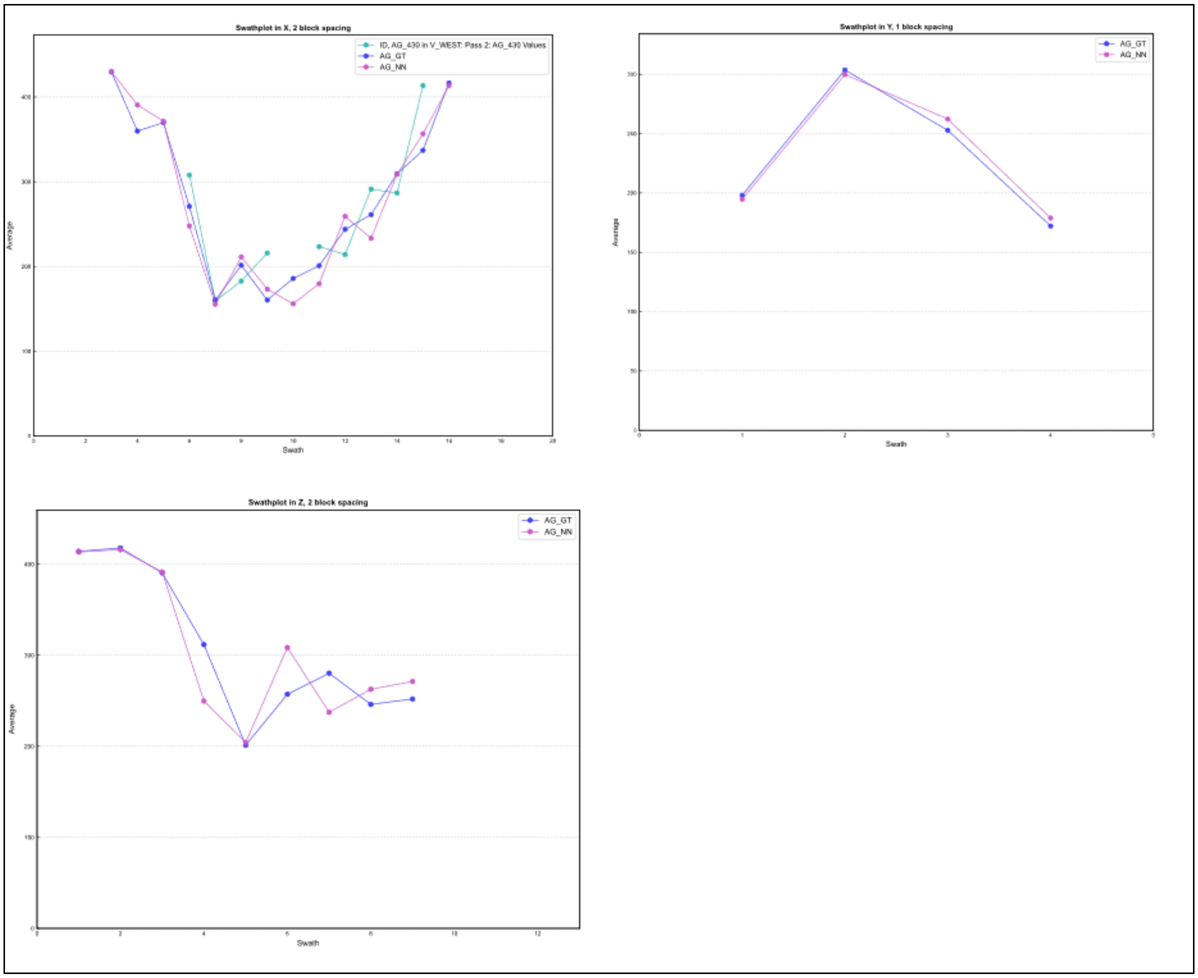
Table 14-28: Comparative Silver Statistics NN vs.ID3 Estimates

Block Value	Volume (m^3)	Mean Ag g/t	Standard Deviation	Coefficient of Variation	Variance	Minimum Ag g/t	Maximum Ag g/t
AG_GT	57,104	270	124.8	0.46	15,583	1.99	430
AG_NN	57,104	270	150.7	0.56	22,706	2.00	430

Source: SRK, 2023

Swath Plots

Figure 14-26 presents the Ag swath plots for Altavista comparing NN and ID3 estimates and the declustered composites in the X, Y and Z dimensions. The curves show good correlation.



Source: SRK, 2023

Figure 14-26: Ag Swath Plots for Altavista

14.3.11 Resource Classification

The grade estimates and the block model quantities for Altavista was classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

SRK considers that geological modeling honors the current geological information and knowledge. The available samples are sufficiently reliable to support resource estimation.

The classification of the mineral resources is based on the number of composites used to estimate AG and the distances of the blocks to the composites. The following are the criteria defined for each classification category.

Measured Mineral Resources: No mineral resources were classified in Altavista due to the nature of the rock samples that support the estimates. Additional geological mapping and a more robust database will reduce the uncertainty required to classify the blocks as measured.

Indicated Mineral Resources: The following criteria were used to flag the indicated blocks, which reflects the confidence in the grade estimates:

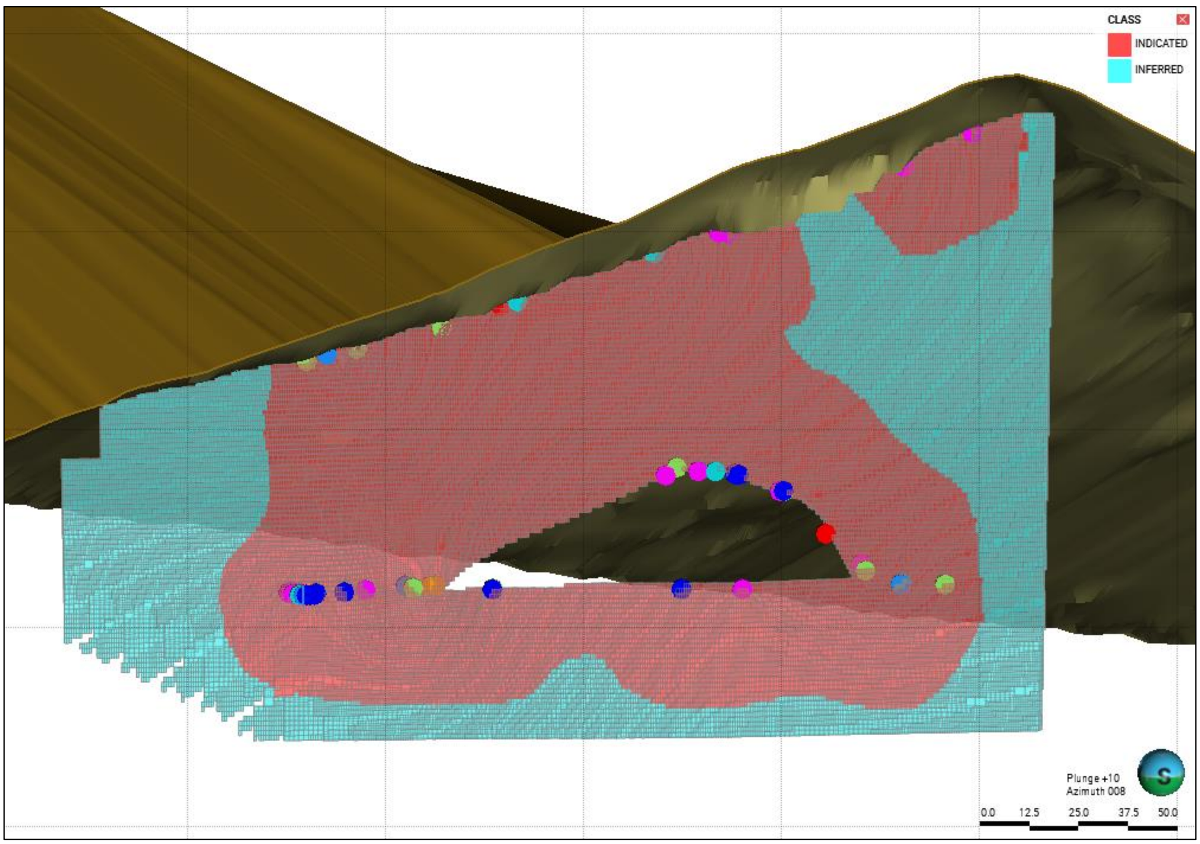
- Blocks estimated with information from at least two 2 composites (channel sampling)
- Distance to composites used for estimation is less than 30 m.
- Manual delineation of final classification considering zones of high grade that could represent risk.

The continuity of the mineralization is considered reasonable based on the surface and underground geological mapping complete by Manquiri, which in opinion of QP is adequate for the indicated resource.

Inferred Mineral Resources: The inferred resources are limited to areas of reasonable grade estimate quality and satisfactory geological:

- The remanent estimated blocks and limited to the Altavista vein wireframe.

Figure 14-27 present the plan views of the Altavista block model classification and the composites.



Source: SRK, 2023

Figure 14-27: 3D View, Block Classification – Altavista

Depletion

Andean surveyed the underground (UG) constructed the geological model of the vein, discounting the UG workings with solids constructed by the geology team. Overall, SRK considers that the depletion model information is accurate. In Figure 14-27 the depleted part of the vein is observed.

14.3.12 Mineral Resource Statement

The Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Resource as:

(A) concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics, and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

The "reasonable prospects for eventual economic extraction" requirement generally imply that the quantity and grade estimates meet defined economic thresholds and that the Mineral Resources are reported at an appropriate Cut-off grade (CoG), that consider a technical-economic scenario assumed for the project.

Table 14-29 presents the key assumptions for the costing and the resulting cut of grades defined for Altavista. The parameters used are based on the ongoing operation of Manquiri and are considered appropriate for the mineral resource definition. The costs of transportation are high due to the additional costs of the contracted material, including the transportation of the mineral from Altavista to the Manquiri plant.

Table 14-29: Summary of CoG Assumptions at Altavista Based on Assumed Costs

Ag Ounce Price (US$/Oz)	25.00
Ag Recovery	70.0%
Cost Per Dry Tonne	
Mining	63.80
Transport	29.58
Process	24.69
G&A and other indirect	3.80
Administrative expenses	4.57
Refining, shipping, and laboratory	0.66
Capital expenditures	0.41
Bolivian Royalty Silver 6%	6.0%
Cut-off Ag g/t	247.0

Source: Andean, 2023

SRK is reporting the resource on a CoG of 247 g/t Ag over a (minimum mining) width of 1 m and considering continuous zones that are reasonably exploitable with the actual small mining methods used at Altavista.

Table 14-30 presents the Mineral Resource Statement for Altavista, with an effective date of December 1st, 2023.

Table 14-30: Altavista (Contracted) Mineral Resource Statement with Effective Date of December 1, 2023

Material Source	Category	Tonnes (000's)	Ave. Silver Grade (g/t)	Contained Silver (Moz)
Altavista - Contracted	Measured	-	-	-
	Indicated	34	354	0.39
	M+I	34	354	0.39
	Inferred	55	371	0.66

Source: SRK, 2024

- Mineral resources are effective as of December 1, 2023, and inclusive of mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. There is no certainty that all or any part of those mineral resources will be converted into mineral reserves estimate. Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, any apparent errors are insignificant. Silver assays were capped where appropriate. Given the historical production and knowledge of the projects, it is the Company's opinion that all the silver grades included in the calculations have a reasonable potential to be recovered and sold.
- The following assumptions are considered for the mineral resources deriving from Alta Vista:
  - The mineral resources are reported at an in-situ cut-off of 247 g/t Ag, considering underground mining methods.
  - Assumed silver price of US$25/oz; Assumed metallurgical silver recovery: 70%; transport: US$29.58/t; mining: US$63,8/t; process costs: US$24.69/t; G&A and other indirect costs: US$3.8/t; administrative costs: US$4.57/t; capital expenditures: US$0.41/t. Other costs are the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
  - 100% mining recovery.

14.3.13 Mineral Resource Sensitivity

Table 14-31 presents the sensitivity of the block model estimates to the selection of cut-off grade (Ag g/t).

Table 14-31: Sensitivity of the Mineral Resource to Changes in Cut-off Grade - Altavista

Cut-off Ag g/t	Measured		Indicated		Measured + Indicated		Inferred	
	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)
200	-	-	48	316	48	316	59	362
220	-	-	42	331	42	331	59	363
240	-	-	36	350	36	350	56	370
247	-	-	34	354	34	354	55	371
260	-	-	32	363	32	363	53	376
280	-	-	27	380	27	380	50	384
300	-	-	22	401	22	401	37	416

Source: SRK, 2023
Note: base case is highlighted in blue

14.4 Paca

14.4.1 Drillhole Database

Table 14-32 presents the summary of the diamond core drilling completed in Paca, used for the resource estimate.

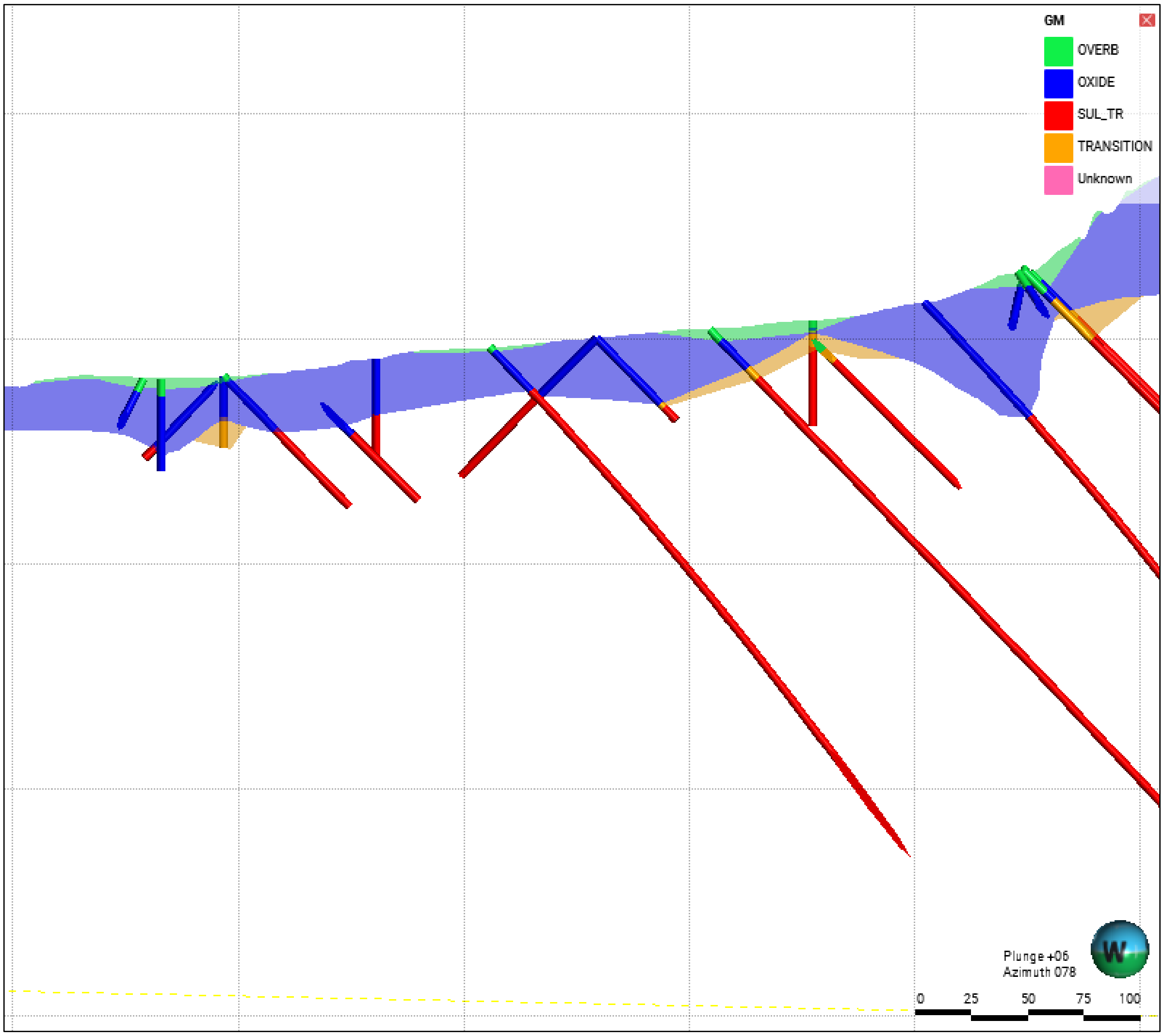
Table 14-32: Summary of Rock Samples - Paca

Zone	Drilling	
	# Drillholes	Length (m)
Paca	118	21,094
Total	**118**	**21,094**

Source: SRK, 2023

14.4.2 Geologic Model

Manquiri and SRK constructed the geological model using Leapfrog Geo (Version 2023.1.1). Oxidized and partially oxidized material (Transition) were modeled using historical drilling data. Other geological/lithological consideration were evaluated but were not considered for the definition of the domains, because these aspects doesn't show significant features differences to define additional domains. Manquiri is purchasing only these types of materials. Figure 14-28 presents the Geological model prepared by Manquiri. The solids were used as soft boundaries for estimation purposes.



Source: Manquiri, 2023

Figure 14-28: Geological Model of Paca

14.4.3 Estimation Domain Analysis

The model has focused on the silver mineralization and oxidation and transition horizons as soft boundaries. The statistical analysis for each is presented in Table 14-33. The populations of silver were used as the reference for estimation accuracy.

Table 14-33: Summary Ag Statistics of Raw Sampling per Domain

Name	Count	Length (m)	Mean (g/t)	Standard Deviation	Coefficient of Variation	Variance	Minimum (g/t)	Maximum (g/t)
Oxide	2,031	3,640.7	25.9	108.4	4.18	11,741.4	0.01	3,080
Transition	521	613.2	52.3	140.8	2.69	19,825.1	0.01	1,029

Source: SRK, 2023

14.4.4 Estimation Methodology

The MRE process was completed by SRK using the initial geological models constructed by Manquiri and SRK.

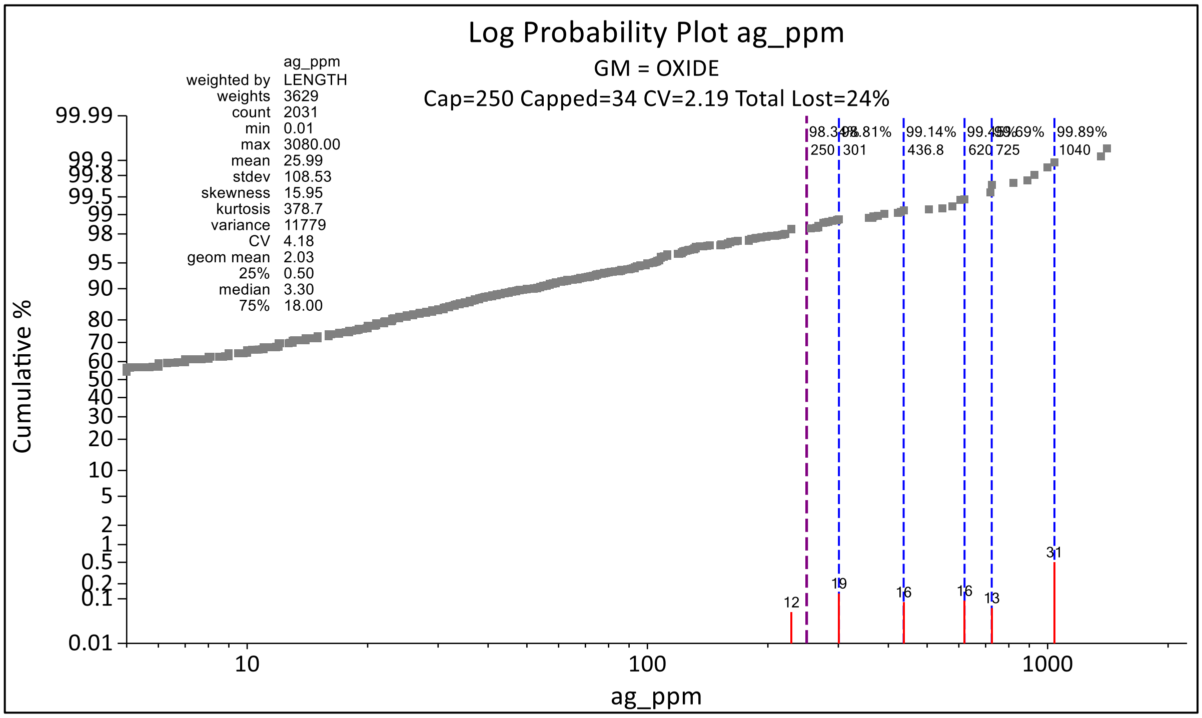
The resource estimation methodology of Paca areas included:

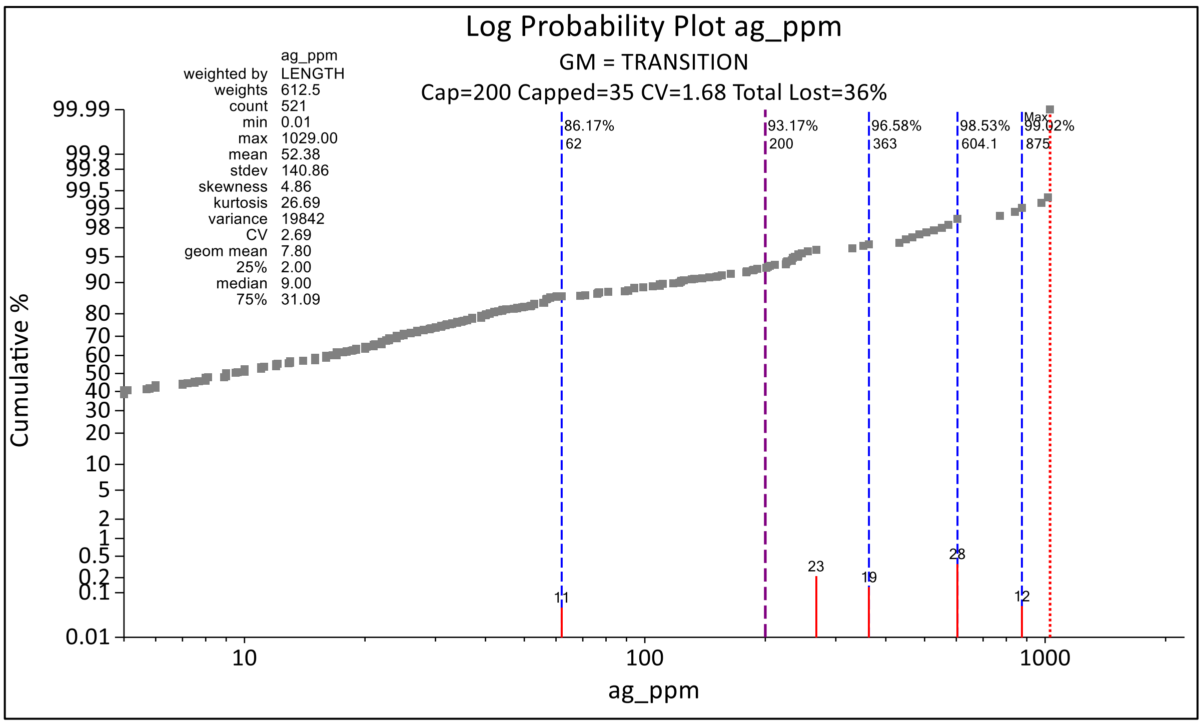
- Database compilation and verification
- Construction and review of wireframe models and definition of domains
- Data conditioning (compositing and capping) for statistical analysis, geostatistical analysis
- Variography
- Block modeling and grade interpolation
- Resource classification and validation
- Assessment of “reasonable prospects for economic extraction” and selection of appropriate reporting cut-off grades (CoG)
- Preparation of the Mineral Resource Statement

14.4.5 Assay Caping and Compositing

Outliers

The outlier analysis for silver was performed using probability plots, histograms, and the revision of the distribution of raw values in space. SRK used sliding capping, 600 g/t Ag and 250 g/t Ag for first and second estimation search respectively for Oxides domain, and 350 g/t Ag and 200 g/t Ag for first and second estimation search respectively for Transition domain. Figure 14-29 presents the log probability plots used for the outlier analysis and Table 14-34 shows the comparative statistics between the raw data and the data capped to different levels, for Oxide and Transition domains.





Source: SRK, 2023

Figure 14-29: Log Probability Plots for Ag (g/t) for Oxide and Transition Domains

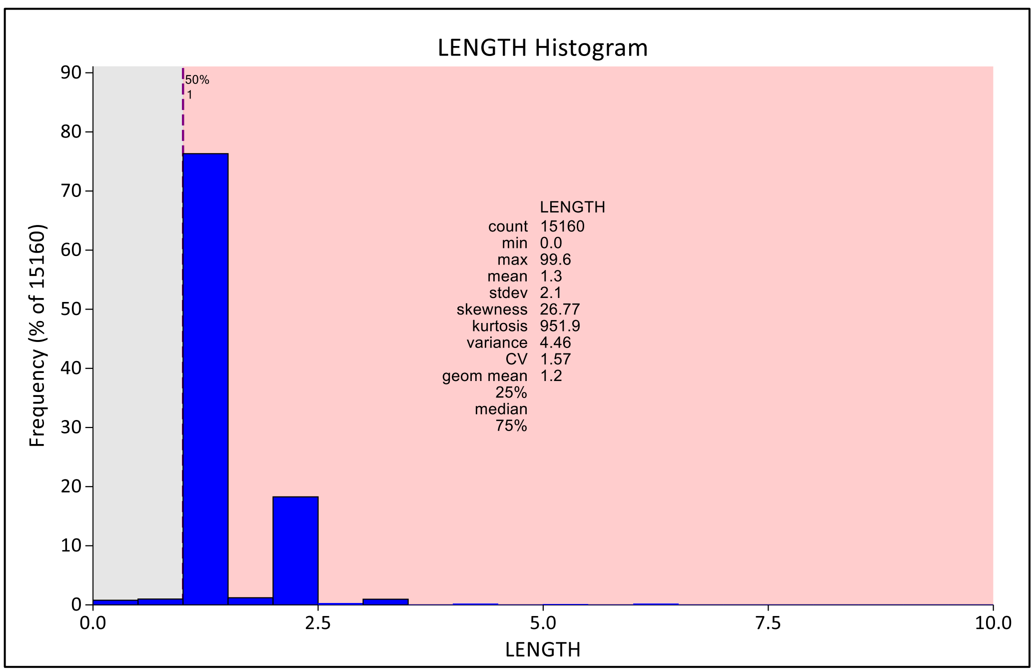
Table 14-34: Comparative Statistics of Raw Data vs. Capping Values – Oxide and Transition Domains - Paca

Cap Value Ag g/t	# Capped Values	Percentile (%)	Capped %	Mean Lost Total %	Count	Min Ag g/t	Max Ag g/t	Mean Ag g/t	CV
Oxides									
Raw					2031	0.01	3,080.0	26.0	4.18
1,040	3	99.89%	0.10	5	2031	0.01	1,040.0	24.7	3.33
725	8	99.69%	0.40	8	2031	0.01	725.0	23.9	3.09
620	10	99.45%	0.50	10	2031	0.01	620.0	23.3	2.94
250	34	98.05%	1.70	24	2031	0.01	250.0	19.7	2.19
Transition									
Raw					521	0.01	1,029.0	52.4	2.69
875	3	99.02%	0.60	2.7	521	0.01	875.0	51.0	2.58
604	6	98.53%	1.20	9.8	521	0.01	604.1	47.2	2.34
363	15	96.58%	2.90	22	521	0.01	363.0	40.8	2
200	35	95.92%	6.70	36	521	0.01	200.0	33.3	1.68

Source: 2023

Compositing

The compositing length of the samples for the estimation process, were defined based on the analysis of the raw core samples length. Figure 14-30 shows the sample length histogram. Based on the review SRK has selected to use a 2.5 m composite length was selected to perform variography analysis and grade estimation.

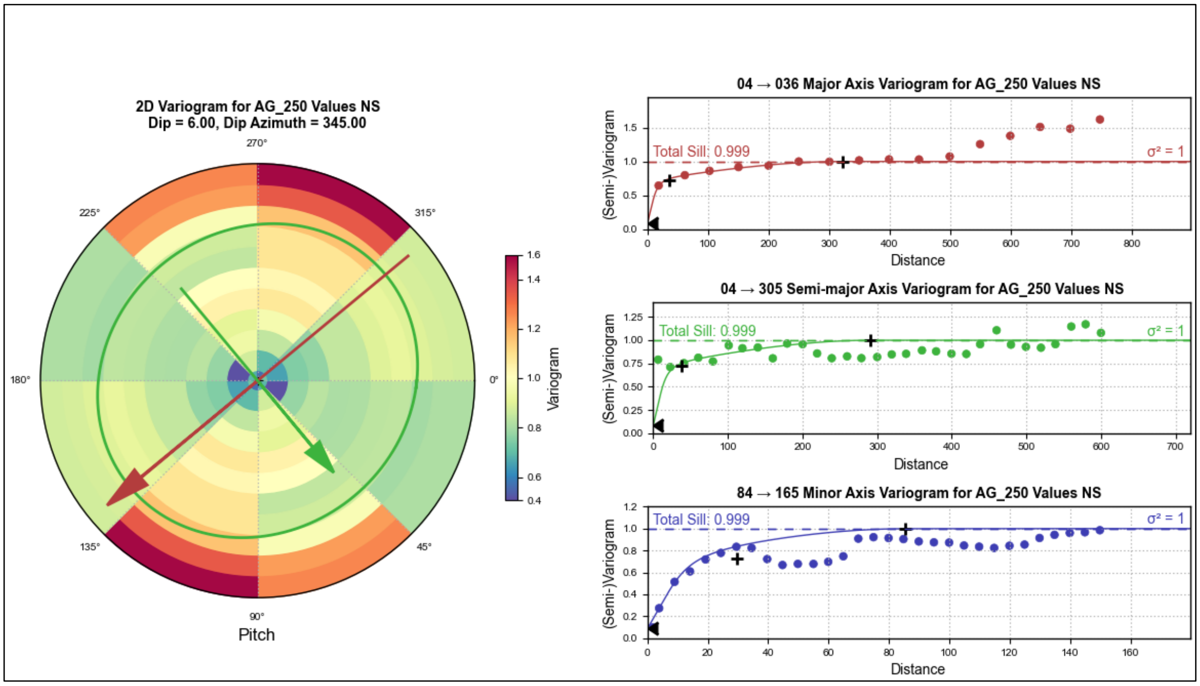


Source: SRK, 2023

Figure 14-30: Histogram of Raw Samples Length

14.4.6 Variogram Analysis and Modeling

Spatial continuity of grade was modeled using conventional variogram analysis (semi-variograms) for the composited samples of Paca. As shown in Figure 14-31, directional variograms were modeled in the major, semi-major, and minor directions. Variography generally shows ranges of 150 to 200 m with nugget of 16% of the total sill. The variogram model parameters for Ag (Back transformed) is shown in Table 14-35.



Source: SRK 2023

Figure 14-31: Ag g/t (Normal Score) Variograms for Paca

Table 14-35: Back Transformed Variogram Model

General	Direction			Variogram				Structure 1						Structure 2					
Variogram Name	Dip	Dip Azimuth	Pitch	Model space	Variance	Nugget	Normalized Nugget	Sill	Normalized sill	Structure	Major	Semi-major	Minor	Sill	Normalized sill	Structure	Major	Semi-major	Minor
Ag_g/t: Variogram Model	5.8	345	140	Data	1,351	215.1	0.16	950	0.70	Spherical	36	38	29.6	185.2	0.14	Spherical	321.4	291.2	85.3

Source: SRK 2023

14.4.7 Block Model

SRK has constructed the block model using Leapfrog Edge using the geological model wireframes. The block model used 20 m x 20 m x 10 m parent blocks. Minimum sub-block sizes of 1.25 in X, Y and Z dimensions. SRK used sub-blocking to accurately reflect wireframes. Model extents are listed in Table 14-36.

Table 14-36: Block Model Origin, Extents, and Block Sizes

	Easting (X) m	Northing (Y) m	Elevation (Z) m
Base Point	738,810	7,749,300	4,610
Extension	1,960	1,680	740
Parent Block Dimensions	20	20	10
Minimum Sub-Cell Size	1.25	1.25	1.25

Source: SRK, 2023

14.4.8 Grade Estimation

Silver interpolation was completed on the parental cells using OK and ID3 methodologies for first and second searches respectively. The search parameters for all domains are shown in Table 14-37.

Table 14-37: Search Parameters

Search	Ellipsoid Ranges			Number of Samples		Search Rotation	Drillhole Limit
	Maximum (m)	Intermediate (m)	Minimum (m)	Minimum	Maximum	Dip, Dip Azi., Pitch	Max Samples per Hole
Search 1	150	100	50	8	14	6,345,140	4
Search 2	300	200	100	1	14	6,345,140	4

Source: SRK, 2023

14.4.9 Density

Density measurements were supplied by Manquiri and are based on the standard test (Arquimedes Principle) on core.

The overall density determinations from the site personnel are shown in Table 14-38 for the domains logged by geologists. Density values were assigned to the domains coded blocks.

Table 14-38: Bulk Densities

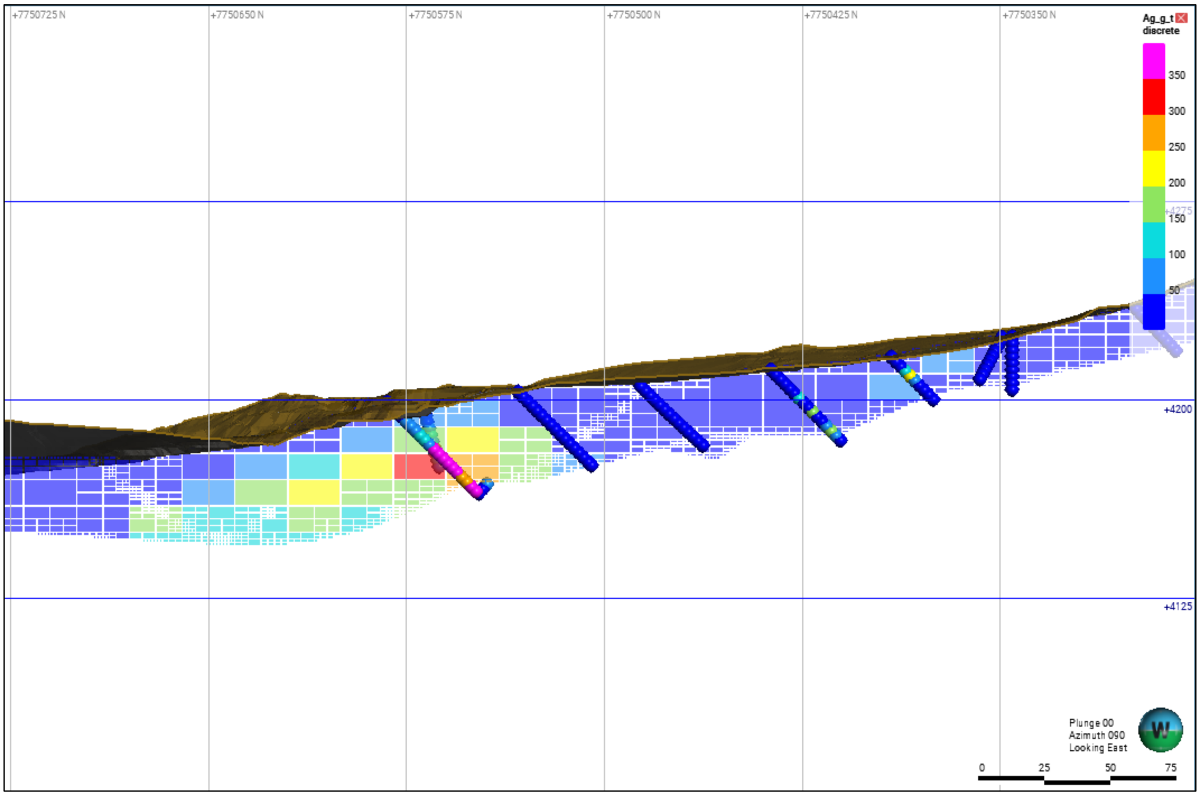
Domain	Count	Min	Max	Mean
Overb	9	2.0	2.80	2.23
Oxide	140	1.73	2.85	2.22
Transition	36	1.92	2.79	2.19
Sulfides	599	1.54	3.00	2.27

Source: Andean, 2023

14.4.10 Model Validation

Visual Validation

The visual validation included the comparison between the estimated values and the composites through the observation of plan and vertical sections. Figure 14-32 shows a vertical section of the Paca blocks and composites colored by Ag g/t grades, showing the good correlation between composites and block estimates.



Source: SRK, 2023

Figure 14-32: Vertical Section – Blocks vs. Composites Visual Validation Example in Paca

__Comparative Statistics__

Table 14-39 presents the comparative statistics of near neighbor and ID3 estimates for Paca. The differences are considered acceptable.

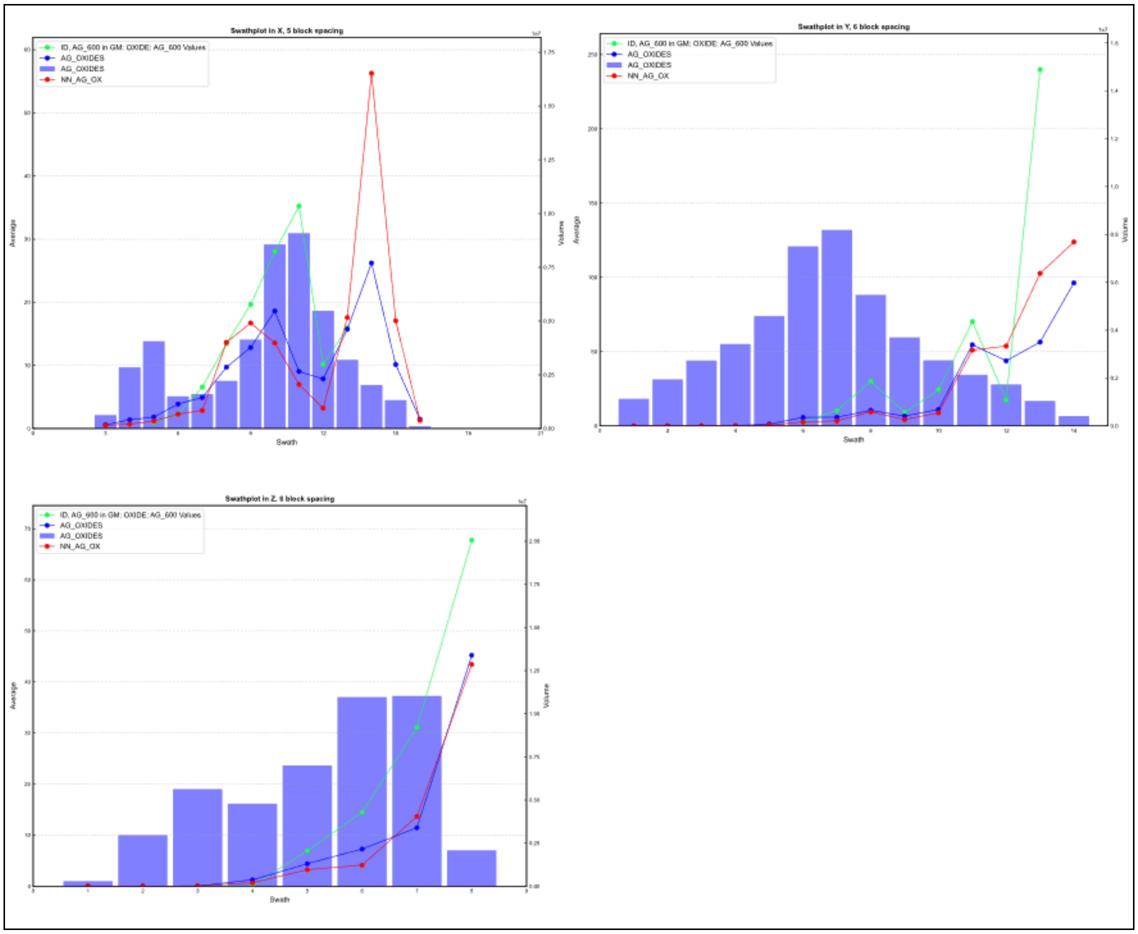
Table 14-39: Comparative Silver Statistics NN vs.OK/ID3 Estimates

Block Value	Volume (m3)	Mean Ag g/t	Standard deviation	Coefficient of Variation	Variance	Minimum Ag g/t	Maximum Ag g/t
Oxides							
AG_GT	46,791	11	43.82	4.06	1,920	0.01	600.0
AG_NN	46,791	11	25.75	2.40	663	0.01	334.3
Transition							
AG_GT	1,154	21	48.38	2.28	2,341	0.01	350.0
AG_NN	1,154	24	28.00	1.17	784	0.02	180.9

Source: SRK, 2023

14.4.11 Swath Plots

Figure 14-33 presents the Ag swath plots for Paca comparing NN and OK/ID3 estimates and the declustered composites in the X, Y and Z dimensions. The curves show satisfactory correlation in general. More variability is observed in zones of low quantity of data supporting the estimation.



Source: SRK, 2023

Figure 14-33: Ag g/t Swath Plots for Paca

14.4.12 Resource Classification

The grade estimates and the block model quantities for Paca was classified according to the CIM Definition Standards for Mineral Resources and Mineral Reserves (May 2014).

SRK considers that geological modeling reflects satisfactorily the current geological information and knowledge. The available core samples are sufficiently reliable to support resource estimation.

The classification of the mineral resources is based on the number of drillholes used to estimate Ag and the distances of the blocks to the composites. The following are the criteria defined for each classification category.

Measured Mineral Resources: No mineral resources were classified in Paca due to lack of a validation program of Andean to confirm the data previously collected by other property owners.

Indicated Mineral Resources: The following criteria were used to flag the indicated blocks, which reflects the confidence in the grade estimates:

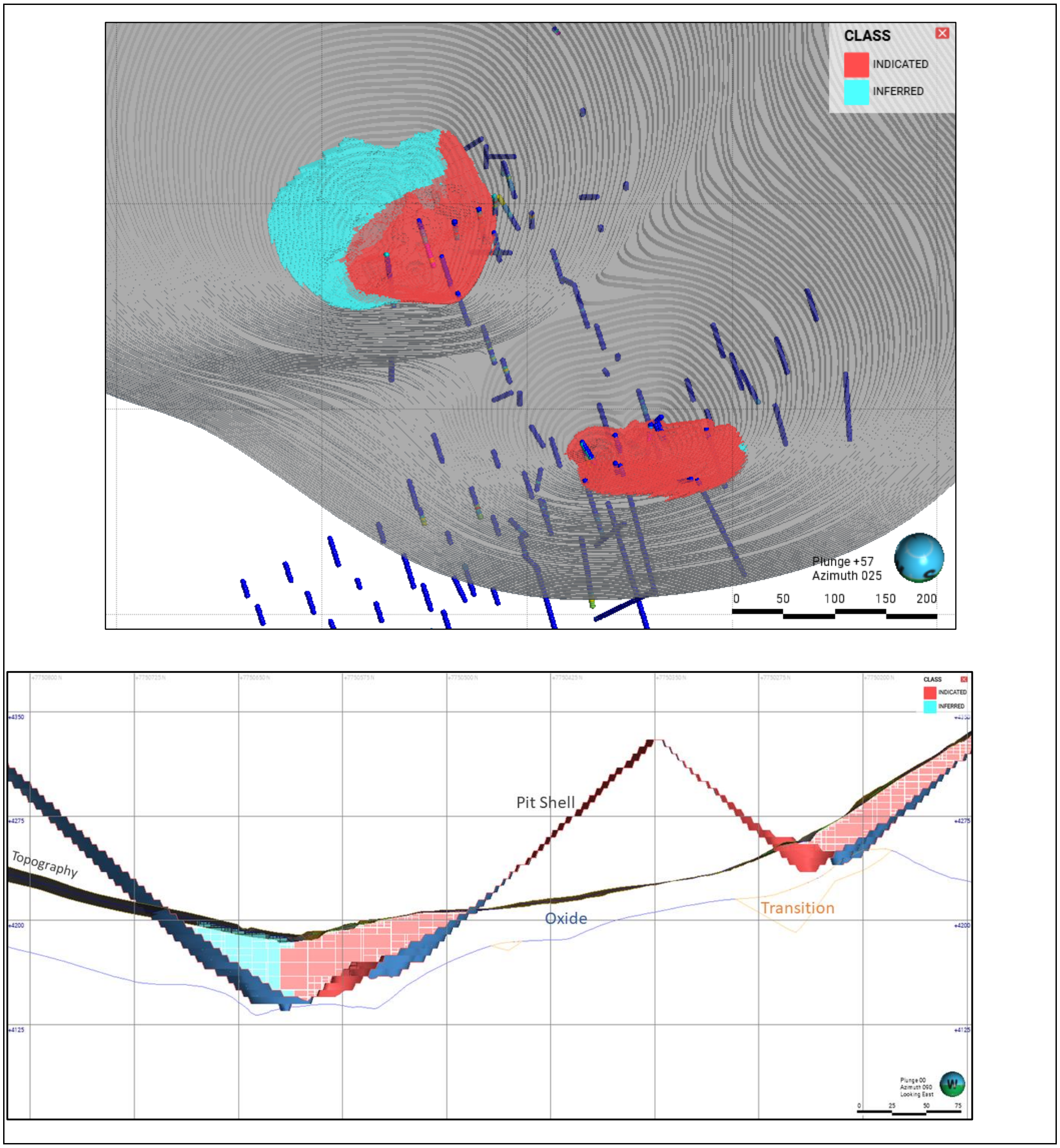
- Blocks estimated with information from at least two drillholes.
- Distance between drillholes of maximum 60 m

Inferred Mineral Resources: The inferred resources are limited to areas of reasonable grade estimate quality and satisfactory geological:

- Blocks estimated with information from at least one drillhole.
- Maximum distance of the block to the drillholes of 120 m

To define the mineral resource (open pit constrained) the depleted block model was used to optimize the pits in Paca.

Figure 14-34 shows the plan views of the Paca block model classification, the drilling and the optimized pit



Source: SRK, 2023

Figure 14-34: Block Classification, and Optimized Pit Shell – Paca (Top:3D View, Bottom: Vertical Section looking to North)

Depletion

Andean surveyed the area of Paca and constructed an updated surface DTM that was used to deplete the block model. SRK considers that the depletion model information is accurate.

14.4.13 Mineral Resource Statement

The Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Resource as:

(A) concentration or occurrence of diamonds, natural solid inorganic material, or natural solid fossilized organic material including base and precious metals, coal, and industrial minerals in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics, and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge.

The "reasonable prospects for eventual economic extraction" requirement generally imply that the quantity and grade estimates meet defined economic thresholds and that the Mineral Resources are reported at an appropriate Cut-off grade (CoG), that consider a technical-economic scenario assumed for the project. The mineral resources limited to within an economic pitshell that considered the economic parameters shown in Table 14-40.

Table 14-40 presents the key assumptions for the costing and the resulting cut of grades defined for Paca. The parameters used are based on the ongoing operation of Manquiri and are considered appropriate for the mineral resource definition. The costs of mining, haulage, and transport are high due to the additional costs of the contracted material, including the transportation of the mineral from Paca to the Manquiri plant.

Table 14-40: Summary of CoG Assumptions at Paca Based on Assumed Costs

Ag Ounce Price (US$/Oz)	25.00
Ag Recovery	80.0%
Cost Per Dry Tonne	
Mining and Haulage	30.86
Transport	18.0
Process	20.29
Purchase Costs	11.9
Refining, shipping, and laboratory	0.45
Bolivian Royalty Silver 6%	6.0%
CONMIBOL	4%
Cut-off Ag g/t	172.0

Source: Andean, 2023

Table 14-41 presents the Mineral Resource Statement for Paca, with an effective date of December 1, 2023.

Table 14-41: Paca (Contracted) Mineral Resource Statement with Effective Date of December 1, 2023

Material Source	Category	Tonnes (000's)	Ave. Silver Grade (g/t)	Contained Silver (Moz)
Paca - Contracted	Measured	-	-	-
	Indicated	666	223	4.78
	M+I	666	223	4.78
	Inferred	223	230	1.65

Source: SRK, 2023

- Mineral resources are effective as of December 1, 2023, and inclusive of mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. There is no certainty that all or any part of those mineral resources will be converted into mineral reserves estimate. Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, any apparent errors are insignificant. Silver assays were capped where appropriate. Given the historical production and knowledge of the projects, it is the Company's opinion that all the silver grades included in the calculations have a reasonable potential to be recovered and sold.
- The following assumptions are considered for the mineral resources deriving from Paca:
  - The mineral resources are reported at an in-situ cut-off of 172 g/t Ag.
  - Oxidized and transitional (partially oxidized) materials are reported.
  - The mineral resources are reported within a constraining pit shell. Assumed silver price of US$25/oz; assumed metallurgical silver recovery: 80%; mining and haulage costs: US$30.86/t; transport: US$18.0/t; process costs: US$20.29/t; ore purchase costs: US$11.90/t. refining, shipping, and laboratory costs: US$0.45/oz Ag. Other costs are the COMIBOL (Corporación Minera de Bolivia) royalty of 4%, the silver Bolivian royalty of 6%.
  - 100% mining recovery.

14.4.14 Mineral Resource Sensitivity

Table 14-42 presents the sensitivity of the block model estimates to the selection of cut-off grade (Ag g/t).

Table 14-42: Sensitivity of the Mineral Resource to Changes in Cut-off Grade - Paca

Cut-off Ag g/t	Measured		Indicated		Measured + Indicated		Inferred	
	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)	Tonnes (kt)	AG (g/t)
140	-	-	925	205	925	205	307	210
150	-	-	872	209	872	209	307	210
160	-	-	812	213	812	213	247	224
172	-	-	666	223	666	223	223	230
180	-	-	600	228	600	228	223	230
190	-	-	487	238	487	238	218	231
200	-	-	357	254	357	254	175	239

Source: SRK, 2023
Base case is highlighted in blue

14.5 Compiled Mineral Resource Statement

Mineral resources have been compiled into the statement below (Table 14-43) from the various areas as noted above.

Table 14-43: Compiled Mineral Resources – San Bartolomé Mine

Material Source	Area	Category	Tonnes [1] (000's)	Ave. Silver Grade (g/t)	Contained Silver (Moz)
San Bartolomé Tailings	FDF [2]	Measured	-	-	-
		Indicated	3,813	56	6.90
		M+I	3,813	56	6.90
		Inferred	92	52	0.15
Tollojchi Area - Contracted	Manto [3]	Measured	-	-	-
		Indicated	773	127	3.15
		M+I	773	127	3.15
		Inferred	35	131	0.15
	Platera [3]	Measured	-	-	-
		Indicated	636	160	3.28
		M+I	636	160	3.28
		Inferred	445	145	2.07
	Rosario [3]	Measured	-	-	-
		Indicated	183	148	0.87
		M+I	183	148	0.87
		Inferred	115	136	0.50
Other Areas - Contracted	Alta Vista [4]	Measured	-	-	-
		Indicated	34	354	0.39
		M+I	34	354	0.39
		Inferred	55	371	0.66
	Paca [5]	Measured	-	-	-
		Indicated	666	223	4.78
		M+I	666	223	4.78
		Inferred	223	230	1.65
Owner + Contracted	Totals	Measured	-	-	-
		Indicated	6,105	98	19.37
		M+I	6,105	98	19.37
		Inferred	965	167	5.18

Source: SRK, 2023

[1] Mineral resources are effective as of December 1, 2023, and inclusive of mineral reserves. Mineral resources that are not mineral reserves have not demonstrated economic viability. There is no certainty that all or any part of those mineral resources will be converted into mineral reserves estimate. Mineral resource tonnage and contained metal have been rounded to reflect the accuracy of the estimate, any apparent errors are insignificant. Silver assays were capped where appropriate. Given the historical production and knowledge of the projects, it is the Company's opinion that all the silver grades included in the calculations have a reasonable potential to be recovered and sold.

[2] The following assumptions are considered for the FDF mineral resources:

- Assumed silver price of US$25/oz and metallurgical recovery of 78%.
- Mineral resources are reported at an in-situ cut-off of 47 g/t Ag, grade of material above mesh #14. This cut-off considers, on a per tonne basis: mining cost: US$1.42/t; processing costs: US$17.89/t; general & administrative and indirect costs: US$6.1/t; capital: US$0.63/t; refining, shipping, and laboratory costs: US$0.65/t. Other costs considered are the COMIBOL (Corporación Minera de Bolivia) royalty of 4% and the silver Bolivian royalty of 6%.
- 100% mining recovery.

[3] The following assumptions are considered for the mineral resources deriving Manto, Platera and Rosario:

- The mineral resources are reported at an in-situ cut-off of 64.3 g/t Ag.
- Mineral resources are reported within a constraining pit shell. Assumed silver price of US$25/oz; assumed metallurgical silver recovery: 80%; mining and transport: US$6.49/t; process costs: US$22.98/t; G&A and other indirect costs: US$3.67/t; administrative costs: US$2.74/t; capital expenditures: US$2.65/t. Other costs are the COMIBOL (Corporación Minera de Bolivia) royalty of 4%, the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
- Material from Manto, Platera and Rosario transportation costs of US$18.50/t has been applied to the economic analysis. SRK is using an incremental cut-off to define if the material is considered as mineral resources.
- 100% mining recovery.

[4] The following assumptions are considered for the mineral resources deriving from Alta Vista:

- The mineral resources are reported at an in-situ cut-off of 247 g/t Ag, considering underground mining methods.
- Assumed silver price of US$25/oz; Assumed metallurgical silver recovery: 70%; transport: US$29.58/t; mining: US$63,8/t; process costs: US$24.69/t; G&A and other indirect costs: US$3.8/t; administrative costs: US$4.57/t; capital expenditures: US$0.41/t. Other costs are the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
- 100% mining recovery.

[5] The following assumptions are considered for the mineral resources deriving from Paca:

- The mineral resources are reported at an in-situ cut-off of 172 g/t Ag.
- Oxidized and transitional (partially oxidized) materials are reported.
- The mineral resources are reported within a constraining pit shell. Assumed silver price of US$25/oz; assumed metallurgical silver recovery: 80%; mining and haulage costs: US$30.86/t; transport: US$18.0/t; process costs: US$20.29/t; ore purchase costs: US$11.90/t. refining, shipping, and laboratory costs: US$0.45/oz Ag. Other costs are the COMIBOL (Corporación Minera de Bolivia) royalty of 4%, the silver Bolivian royalty of 6%.
- 100% mining recovery.

14.6 Relevant Factors

Apart from the conditions identified in this report, and according to the available information, the QPs are not aware of other environmental, permitting, legal title, taxation, socio-economic or political factors that could affect materially the mineral resource estimate.

15 Mineral Reserve Estimate

SRK developed a LoM plan for the San Bartolome Mine that includes ores from the FDF and third-party deposits. Pit optimizations and designs were done for the contracted pits using Maptek's Vulcan software. The Alta Vista deposit was scheduled as an underground mine and the FDF tails were scheduled in their entirety. Table 15-1 shows the updated reserves table for the San Bartolomé mine.

15.1 Reserve Classification

Given the lack of Measured resources, no Proven reserves have been identified. Indicated resources were evaluated applying cutoff grades, mine design, production scheduling and financial analysis. Those resources deemed profitable were converted to Probably reserves.

15.2 Mineral Reserve Statement

The Canadian Institute of Mining, Metallurgy and Petroleum's (CIM) Definition Standards for Mineral Resources and Mineral Reserves (May 2014) defines a Mineral Reserve as:

A Mineral Reserve is the economically mineable part of a measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at pre-feasibility or feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

15.3 Relevant Factors

Apart from the conditions identified in this report, and according to the available information, the QPs are not aware of other environmental, permitting, legal title, taxation, socio-economic or political factors that could affect materially the mineral reserve estimate.

Table 15-1: Updated Mineral Reserves - San Bartolomé Mine as of December 1, 2023

Material Source	Area	Ag Cut-off (g/t)	Category	Ore (Mt)	Ag (g/t)	Contained Ag (Moz)	Recovered Ag (Moz)
San Bartolomé Tails	FDF (2)	50	Proven	-	-	-	-
			Probable	3.27	58	6.09	4.75
			P+P	3.27	58	6.09	4.75
Tollojchi Area Contracted	Manto (3)	70	Proven	-	-	-	-
			Probable	0.76	126	3.07	2.46
			P+P	0.76	126	3.07	2.46
	Platera (3)	70	Proven	-	-	-	-
			Probable	0.58	157	2.92	2.34
			P+P	0.58	157	2.92	2.34
	Rosario (3)	70	Proven	-	-	-	-
			Probable	0.18	143	0.81	0.65
			P+P	0.18	143	0.81	0.65
Other Areas Contracted	Alta Vista (4)	250	Proven	-	-	-	-
			Probable	0.03	357	0.39	0.27
			P+P	0.03	357	0.39	0.27
	Paca (5)	180	Proven	-	-	-	-
			Probable	0.26	228	1.91	1.53
			P+P	0.26	228	1.91	1.53
Owner + Contracted	Totals	Variable	Proven	-	-	-	-
			Probable	5.08	93	15.19	11.95
			P+P	5.08	93	15.19	11.95

Source: SRK, 2023.

- The costs used in the cash flow have minor differences when compared to costs used in the cut-off grade calculation, however, these are not considered material.
- Waste tonnes within pit is 12.2 Mt at a strip ratio of 1.26:1 (waste to in situ RoM ore).
- Open pit reserves are diluted (further to dilution inherent in the resource model and assumes selective mining unit of 2.5 m x 2.5 m x 2.5 m).
- Open pit reserves assume complete mine recovery.
- Metallurgical recoveries are 80% except for FDF at 78% and Alta Vista at 70%.
- Mining type is all open pit except for FDF tailings reprocessing and Alta Vista underground.
- Mineral reserves are effective as of December 1, 2023, and inclusive of mineral reserves. Mineral reserves tonnage and contained metal have been rounded to reflect the accuracy of the estimate. Any apparent errors are insignificant. Given the historical production and knowledge of the projects, it is the company's opinion that all the silver grades included in the calculations have a reasonable potential to be recovered and sold.
- The following assumptions are considered for the FDF mineral reserves:
  - Assumed silver price of US$23/oz. Metallurgical recovery is estimated to be in the range of 76% to 78%. Assume metallurgical recovery of 78%.
  - Mineral reserves are reported at an in-situ cut-off of 50 g/t Ag, grade of material above mesh #14, has been used for reporting the mineral reserves at the FDF. This cut-off considers, on a per tonne basis, US$1.42 mining cost, US$17.89 processing costs, US$6.1 G&A and indirect costs, US$0.63 capital, US$0.65 refining, shipping, and laboratory costs. Other costs considered are the COMIBOL royalty of 4% and the silver Bolivian royalty of 6%.
  - 100% mining recovery and dilution of approximately 5%.
- The following assumptions are considered for the mineral reserves deriving Manto, Platera, and Rosario:
  - The mineral reserves are reported at an in-situ cut-off of 70 g/t Ag.
  - The mineral reserves are reported within a constraining pit shell. Assumed silver price of US$23/oz; assumed metallurgical silver recovery: 80%; mining and transport: US$6.49/t; process costs: US$22.98/t; G&A and other indirect costs: US$3.67/t. Other costs considered included smelting; administrative costs: US$2.74; capital expenditures: US$2.65/t. Other costs are the COMIBOL royalty of 4%, the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
  - 100% mining recovery and dilution of approximately 5%.
- The following assumptions are considered for the mineral reserves deriving from Alta Vista:
  - The mineral reserves are reported at an in-situ cut-off of 250 g/t Ag, considering underground mining methods.
  - Oxidized and transitional (partially oxidized) materials are reported.
  - Assumed silver price of US$23/oz; assumed metallurgical silver recovery: 70%; transport: US$29.58/t; mining: US$63,8/t; process costs: US$24.69/t; G&A and other indirect costs: US$3.8/t; administrative costs: US$4.57/t; capital expenditures: US$0.41/t. Other costs are the silver Bolivian royalty of 6%, and refining and shipping and laboratory costs of US$0.66/t.
  - 100% mining recovery and dilution of approximately 20%.
- The following assumptions are considered for the mineral reserves deriving from Paca:
  - The mineral reserves are reported at an in-situ cut-off of 180 g/t Ag.
  - Oxidized and transitional (partially oxidized) materials are reported.
  - Mineral reserves are reported within a constrained pit shell. Assumed silver price of US$23/oz; assumed metallurgical silver recovery: 80%; ore purchase, mining and haulage costs: US$60.80/t; process costs: US$20.29/t; refining, shipping, and laboratory costs: US$0.45/oz Ag. Other costs are the COMIBOL royalty of 4%, the silver Bolivian royalty of 6%.
  - 100% mining recovery and dilution of approximately 5%.
- Mining plan assumes use of Paca instead of other contracted material.
- The mineral reserve estimate for the project was calculated by Fernando P. Rodrigues, BSc, MBA MMSAQP #01405QP of SRK Consulting (U.S.) Inc. in accordance with the Canadian Securities Administrators NI 43-101 and generally accepted CIM Guidelines.

16 Mining Methods

16.1 Introduction

San Bartolomé originally mined the pallaco alluvial deposits from the slopes of Cerro Rico with the plant adding third-party oxide ores from near-by mines into the mix. With cessation of pallaco mining, the operation will continue by hydraulicly mining the unleached FDF tailings created by the undersized pallaco fines with the continued addition of contracted material from other mines.

16.2 FDF Hydraulic Mining

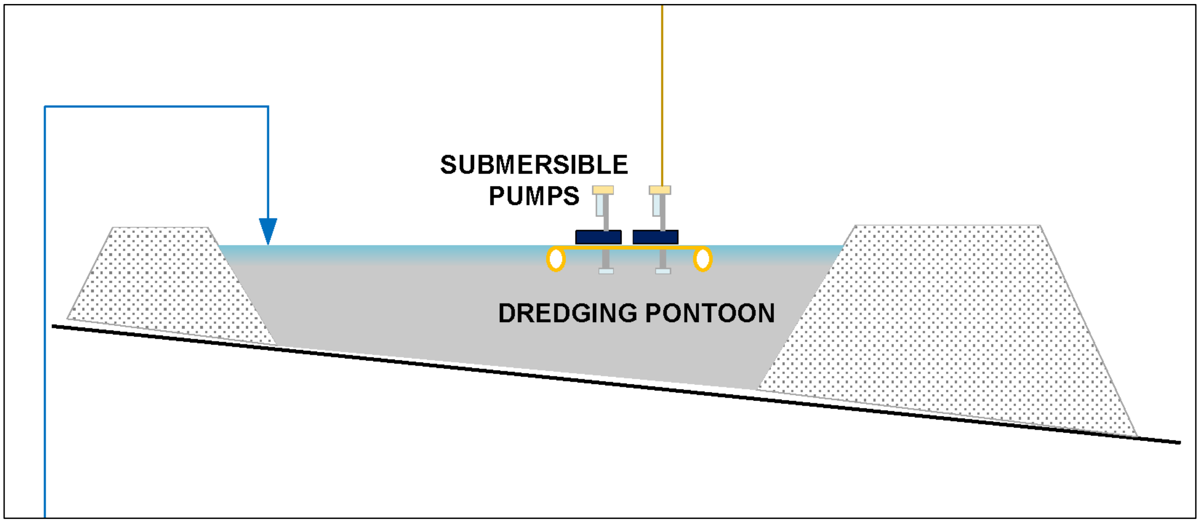
16.2.1 Description

The FDF tailings are made up of approximately 11 Mt of mineralized and unleached fines of the pallaco ores, as shown on Figure 16-1. These fines were created when the alluvial pallaco ore was washed in a separate crushing and wet scrubbing circuit with a trommel scrubber to remove the fine fraction to increase the silver grade of the ore going into the plant. These fines (minus 8 mesh/-2.38 mm) were slurried out to the FDF, which is surrounded by an earth embankment that is up to 50 m high, forming a basin that is lined with a 1.5-mm high-density polyethylene (HDPE) geomembrane.

Source: SRK, 2023

Figure 16-1: FDF

Hydraulic mining using submersible slurry pumps on a floating dredge pontoon was selected as the best method that considered both design criteria and cost to remine the tailings. Figure 16-2 shows a general layout.



Source: EPCM, 2023

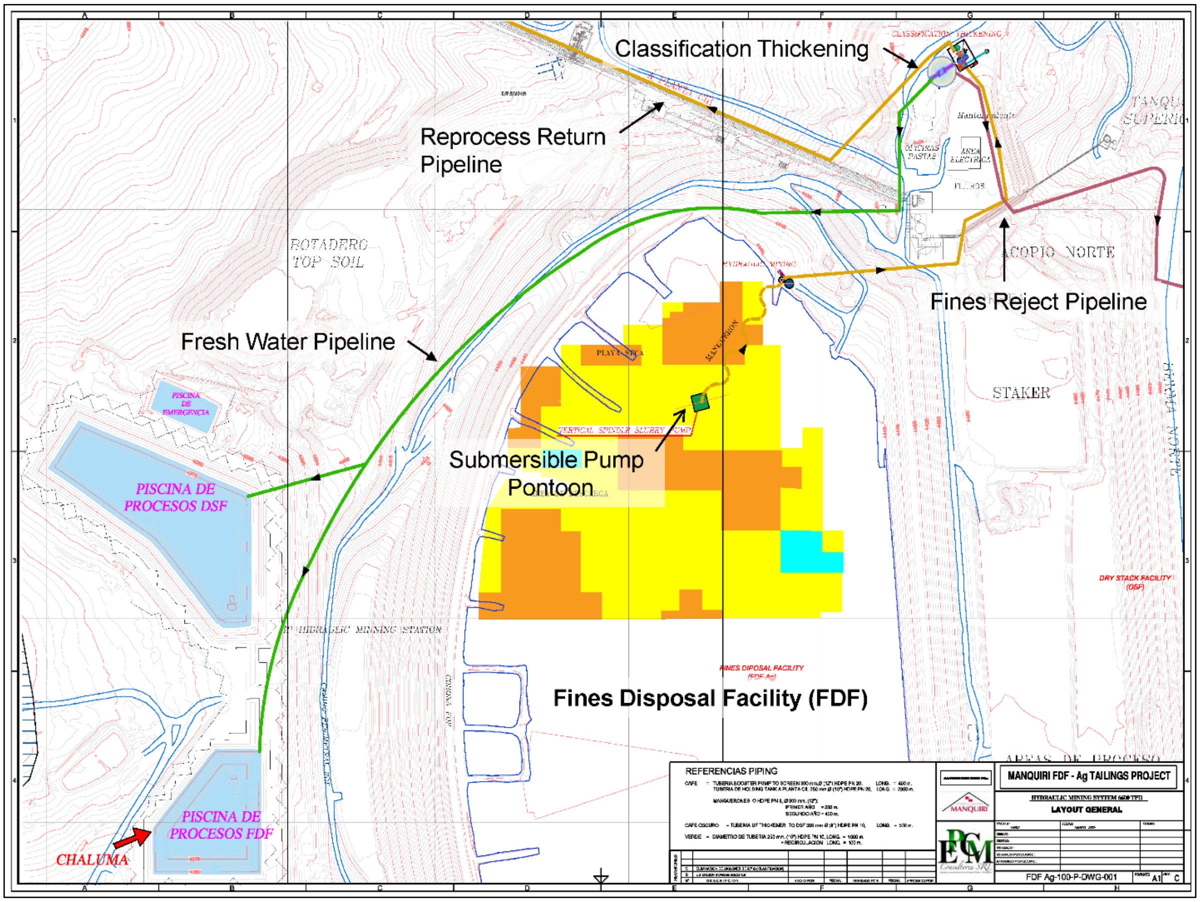
Figure 16-2: Submersible Pump Layout

The dredging pontoon will have three submersible pumps (one on stand-by) that work at a depth of 1.8 m and create a slurry of up to 45% solids. Figure 16-3 shows an example of the operation. This slurry is pumped to classification and thickening, with the coarse sized sent to the plant for reprocessing and the fines pumped into the DSF tailings. A monitor will be used as needed to break up material opposite of the pump pontoon. The monitor will have a capacity of 200 m^3/h and a pressure of 150 psi with water intakes along the length of the FDF.

Source: EPCM, 2023

Figure 16-3: Dredging Pontoon with Submersible Pumps

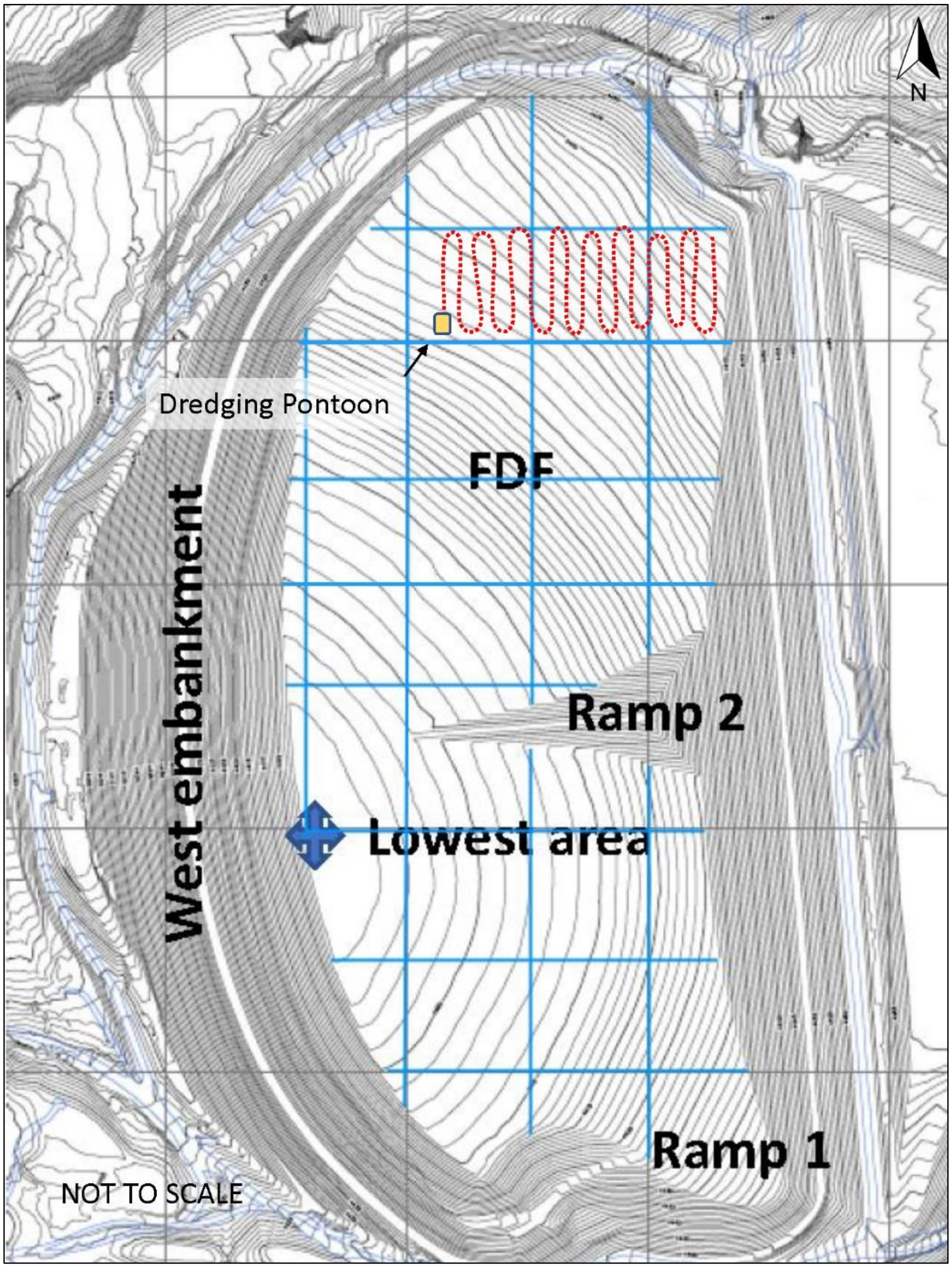
The dredging pontoon will start in the north end of the FDF close to the classification/thickening infrastructure, as shown on Figure 16-4. The planned capacity of the two pumps on the pontoon is 6,600 t/d, and the system is projected to have an availability of 85%.



Source: EPCM, 2023

Figure 16-4: General Hydraulic Mining Layout

Ore control is managed with the dredge pontoon following a tight curve pattern represented by the red dotted line through a modeled grid, as shown on Figure 16-5. The submersible pumps take a relatively thin (approximately 2 m) horizontal slice with each pass across the entire FDF area and repeat the process as the material is removed.



Source: Golder, 2022

Figure 16-5: As-Built FDF with Ore Control

The mining rate and FDF material characteristics were pulled from a variety of sources, as shown in Table 16-1.

Table 16-1: Target Production Rates and Tailings Characteristics

Item	Quantity	Unit	Source
Planned mining rate	6,600	t/d	EPCM
Operation availability	85%		SRK
Days operating	310	d/y	SRK
Mining rate	2,047,650	t/y	EPCM
Average mining rate	5,610	t/d	SRK
Tailings dry density in situ	1.425		Golder
Tailings SG	2.7		Golder
Void ratio	0.89		Golder
Moisture content in situ (saturated)	33%		Golder

Sources: EPCM, SRK, Golder

16.2.2 FDF Mining Equipment

Table 16-2 list hydraulic mining equipment except for piping and related equipment (such as hoses, bends, T-pieces, valves, and cabling).

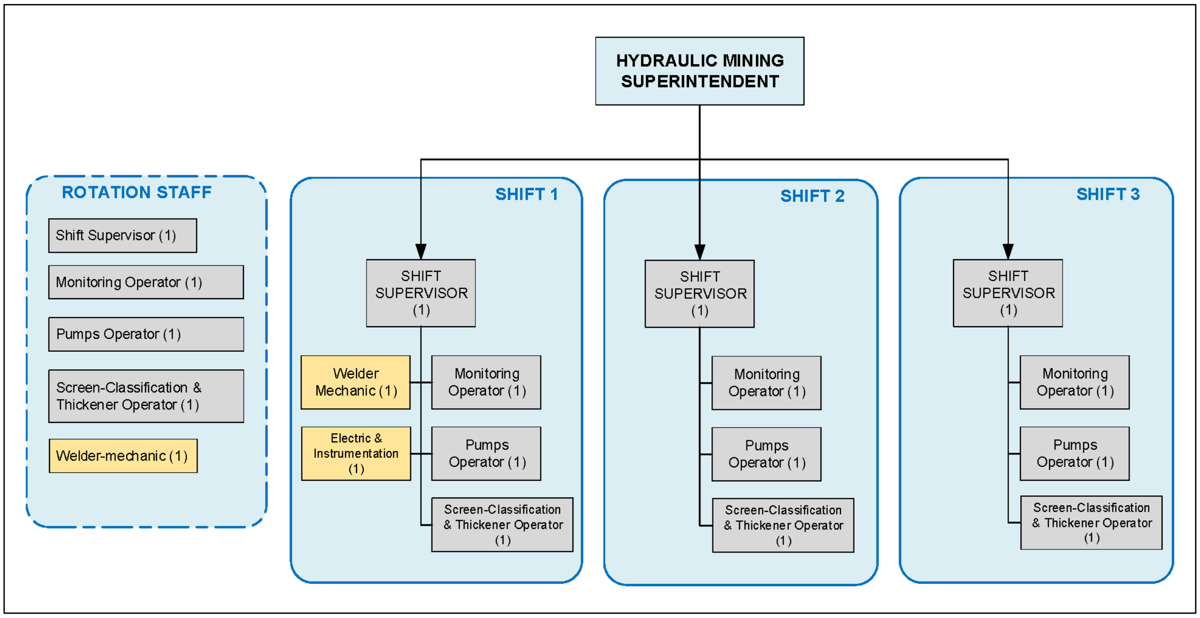
Table 16-2: FDF Mining Equipment List

Units	Description	Specs
3	Submersible pump	200-mm outlet 40% solids by weight
1	RC dredging pontoon	MCC for power and control and hoist
3	Slurry booster pump	SRC 8 inches x 8 inches, 1,100 rpm
1	Dewatering/desliming cone	6 m Ø x 7 m H
1	Water reclaim tank	500 m^3, 9 m Ø x 9 m H
1	Water recycling pump	Goulds 3196 2 inches x 3 inches-13, 2,695 rpm
1	Pump station lights	40-W wall lamps, 150-W outside lights, single-phase outlets, three-phase outlets

Source: EPCM, 2023

16.2.3 Labor

The labor estimate for mining the FDF will increase headcount by 20, including the superintendent; Figure 16-6 shows the labor chart.



Source: EPCM, 2023

Figure 16-6: Labor Chart

16.3 Contracted Ore

The San Bartolomé plant is supplemented by the purchase of third-party surface and underground high-grade oxide ore, primarily from the Tollojchi, Paca, and Alta Vista deposits, as shown on Figure 16-7. Approximately 110 trucks per day with an average weight of 20 t are delivered into the stockpile areas. The transportation of the contracted ore is done by contractors and paid for by the source supplier.

Source: Google, 2023

Figure 16-7: Contracted Ore Locations

16.3.1 Pit Optimization

SRK carried out pit optimizations for the deposits in Tollojchi and Paca. Pit optimization parameters are described in Table 16-3 and Table 16-4.

Table 16-3: Tollojchi Pit Optimization Parameters

Item	Unit	Value
Silver Price	US$/oz	23
Silver Recovery	%	85
Mining Cost	US$/tonne	2
Processing Cost	US$/ore-tonne	10
Overall Slope Angle (OSA)	degrees	45

Source: SRK, 2023

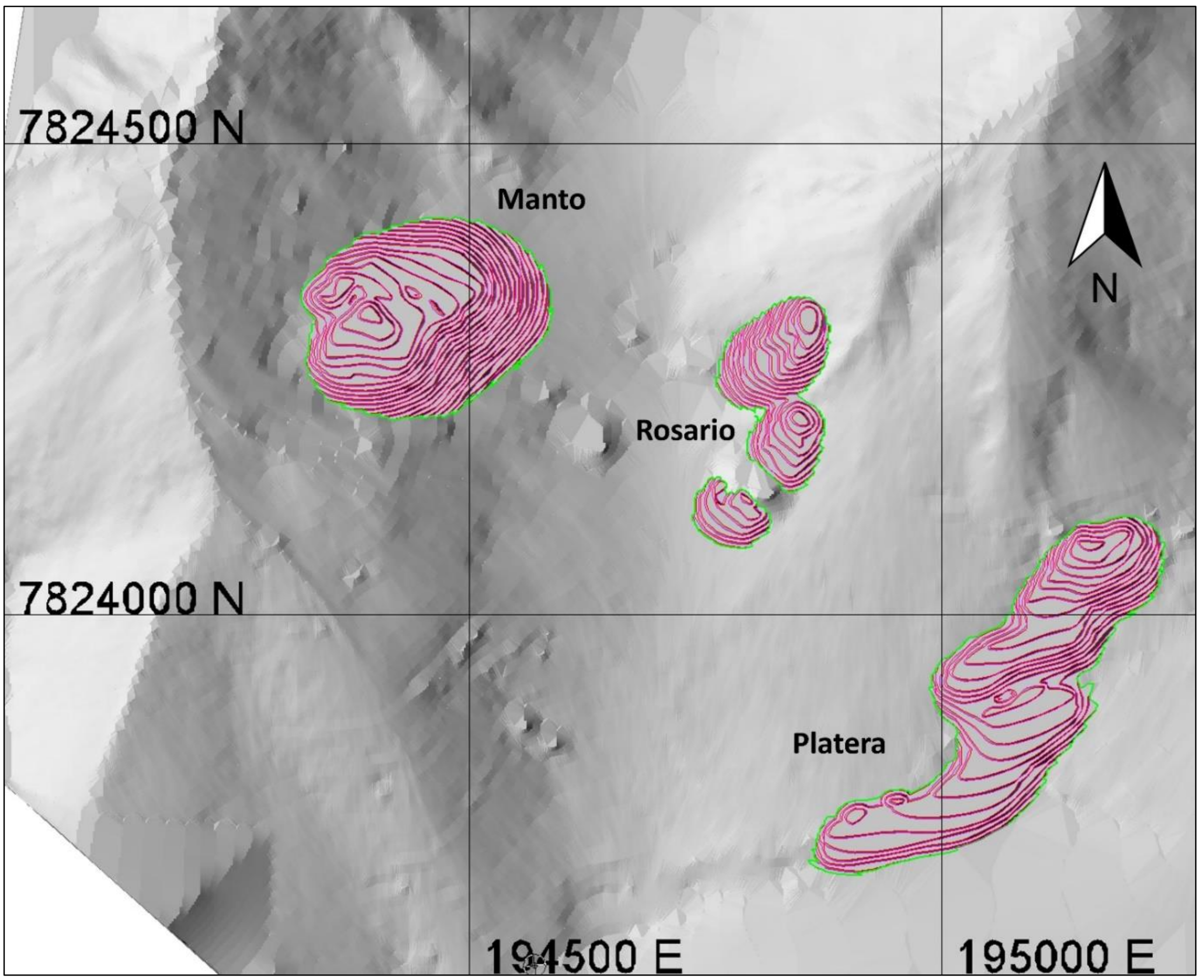
Table 16-4: Pacas Pit Optimization Parameters

Item	Unit	Value
Silver Price	US$/oz	23
Silver Recovery	%	85
Mining Cost	US$/tonne	2.09
Processing Cost	US$/ore-tonne	37
Selling Cost	US$/oz	2.96
Overall Slope Angle (OSA)	degrees	42

Source: SRK, 2023

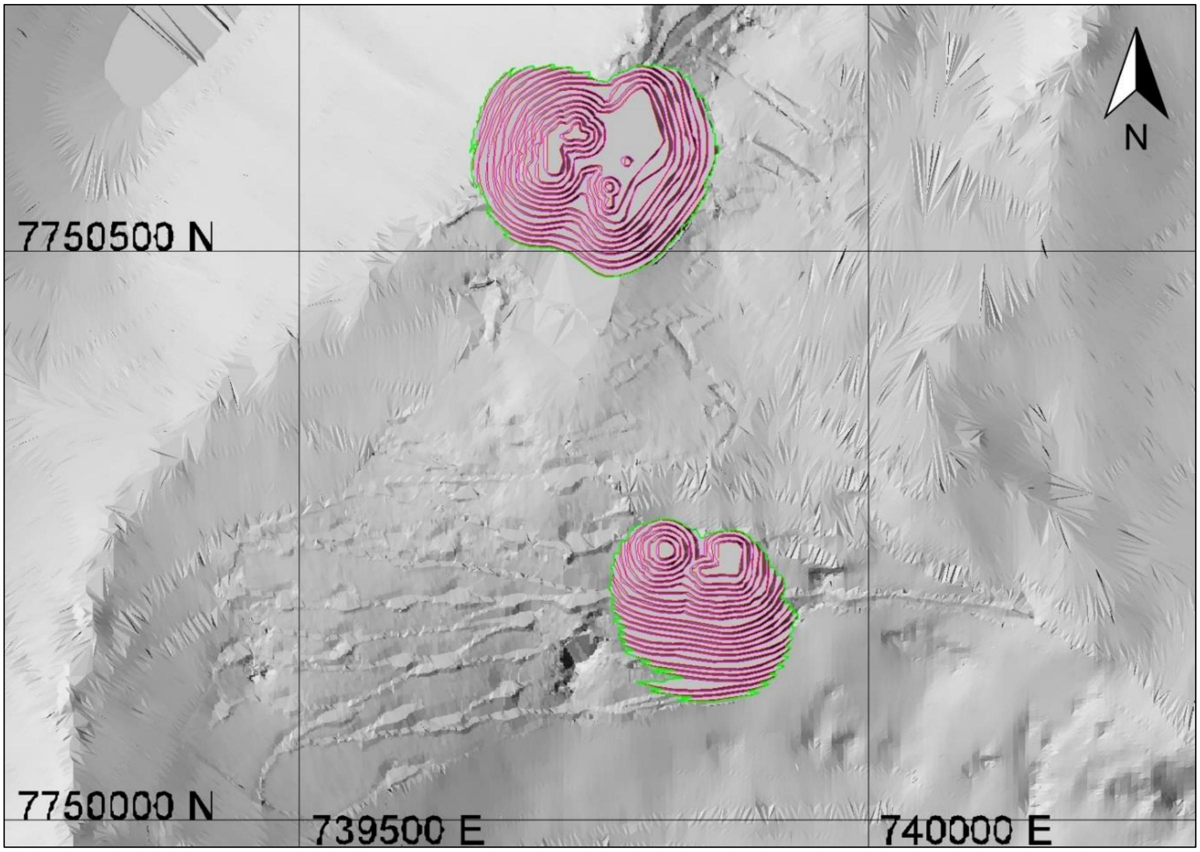
16.3.2 Pit Design

Based on pit optimization results, pits were designed for Tollojchi and Paca deposits. Pit design slope criteria is further discussed in section 16.4.3 The resulting pit designs are shown in Figure 16-8 and Figure 16-9.



Source: SRK, 2024

Figure 16-8: Tollojchi Designed Pits

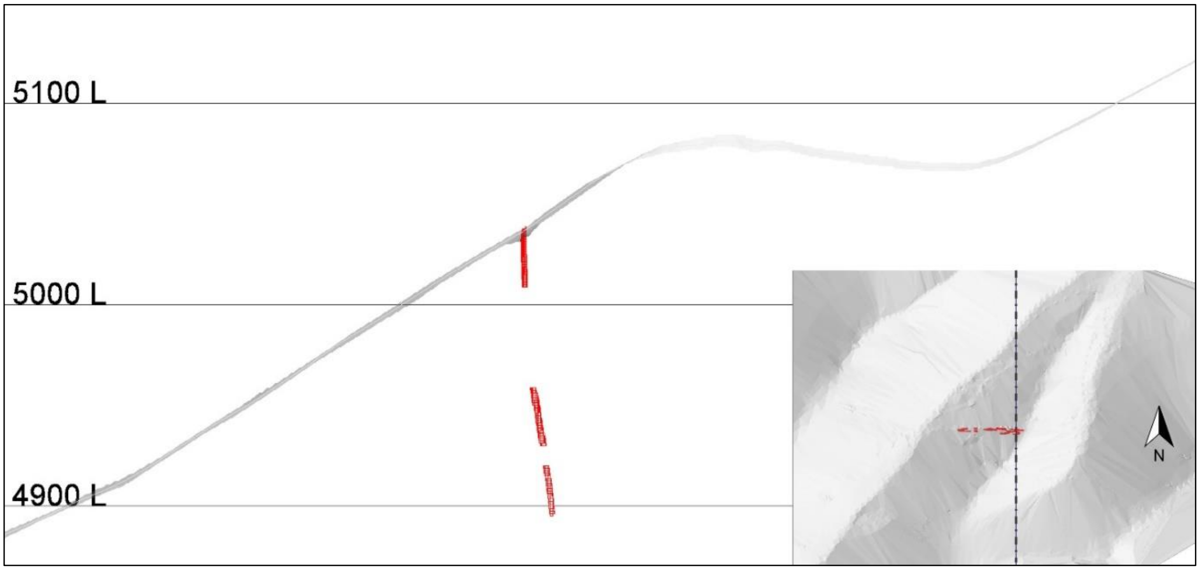


Source: SRK, 2024

Figure 16-9: Paca Designed Pits

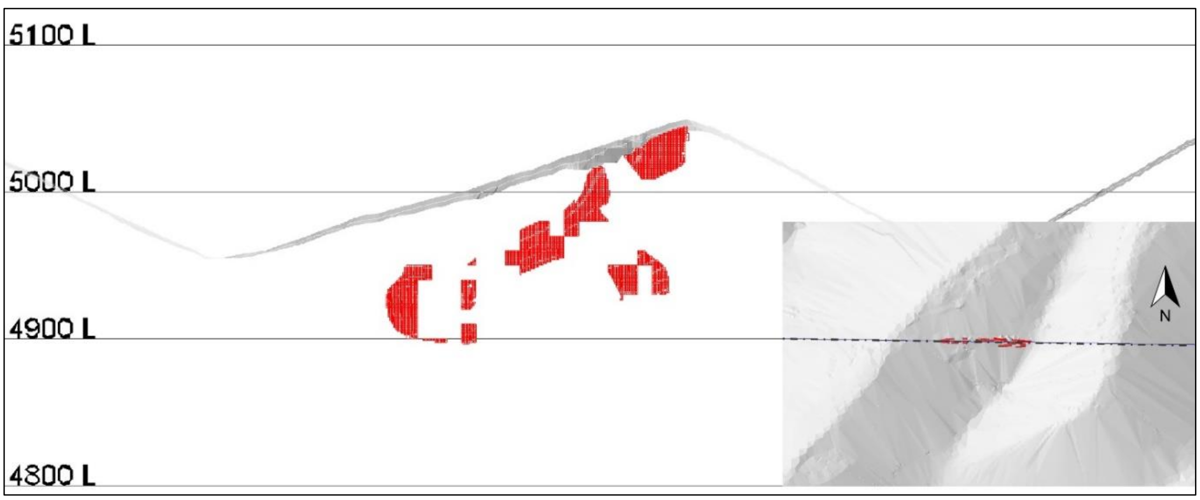
16.3.3 Alta Vista UG

Given the low tonnage and extremely high grades encountered in Alta Vista, this deposit was modeled as an underground operation. Figure 16-10 and Figure 16-11 illustrate long and cross-sections through the ore blocks in the Alta Vista deposit. Ore blocks were sliced into 10 m tall solids and included in the schedule of contract ore to be delivered to the processing plant.



Source: SRK, 2023

Figure 16-10: Alta Vista Deposit Cross-Section



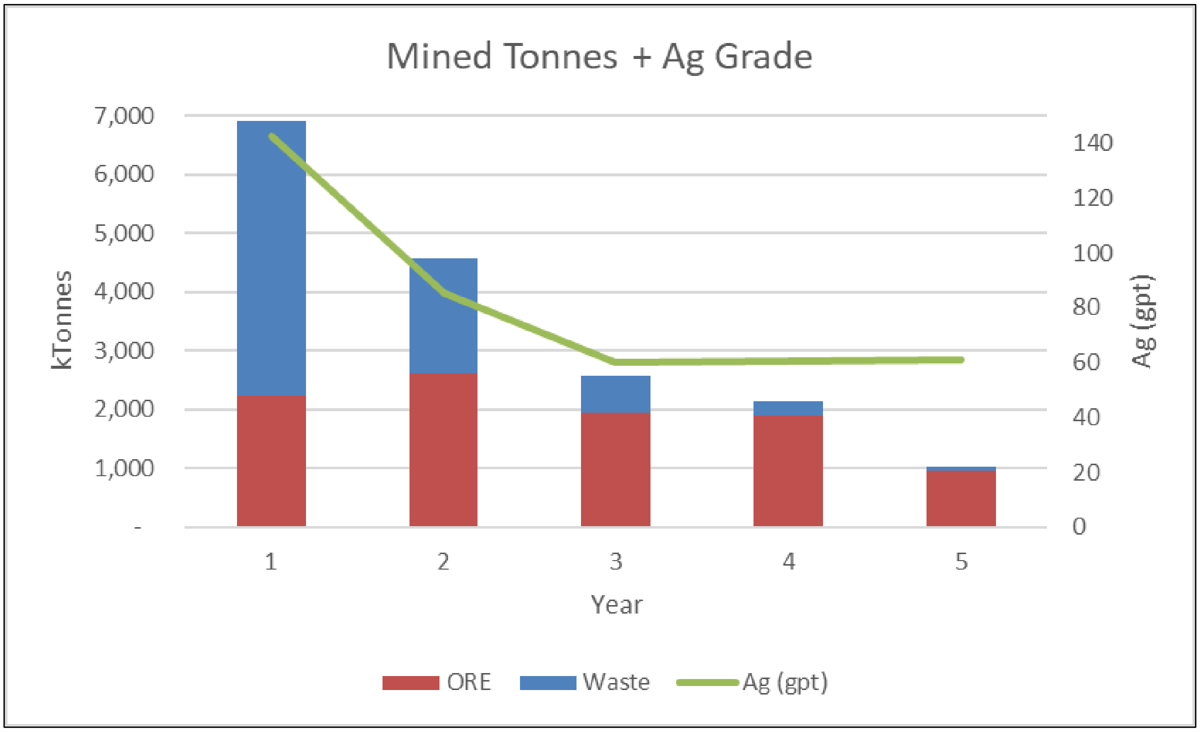
Source: SRK, 2023

Figure 16-11: Alta Vista Deposit Long-Section

16.4 Mine Production Schedule

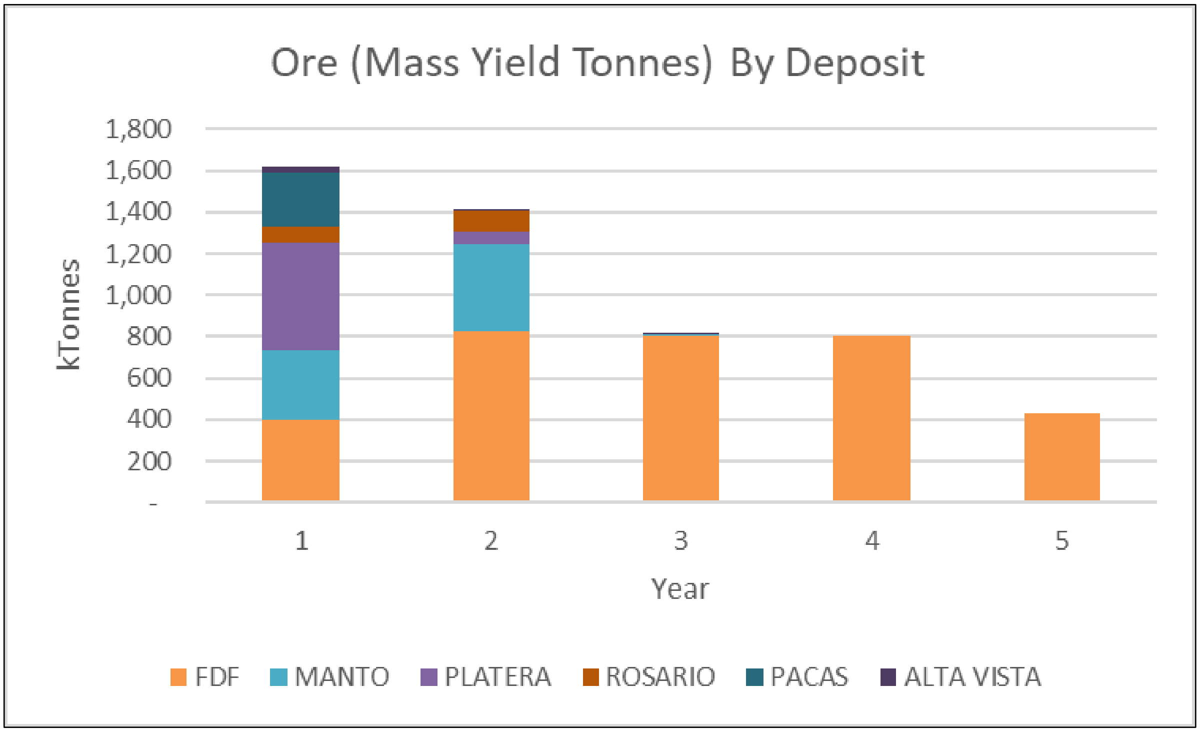
The mine plan for San Bartolome focuses on delivering the highest-grade ore to the plant in order to maximize the project's NPV. FDF material will be screened before being sent to the mill for processing, which is expected to result in 41.7% of all mined tonnes being processed (mass yield). No stockpiling is being considered in the mining schedule and all sinking rates have been adjusted to be appropriate for each deposit. Figure 16-12 and Figure 16-13 show the scheduled mined tonnes and milled tonnes (after mass yield is applied) for the project. Table 16-5 tabulates the production schedule results annually and Table 16-6 shows the production schedule for each deposit.

The processing plant annual capacity has been capped at 1.620 million tonnes per year (Mt/y) and the schedule only reaches this limit in the first year. Milled tonnes decrease as contracted ore deposits deplete and only FDF ore remains.



Source: SRK, 2023

Figure 16-12: Mined Tonnes and Ore Ag grade by Period



Source: SRK, 2023

Figure 16-13: Milled Tonnes by Deposit by Period

Table 16-5: Annual Mine Plan Summary

Units	Name	Total	Y01	Y02	Y03	Y04	Y05
Mt	Ore Mined	9.7	2.2	2.6	1.9	1.9	1.0
Mt	Waste Mined	7.6	4.7	1.9	0.6	0.2	0.1
Mt	**Total Mined**	**17.2**	**6.9**	**4.6**	**2.6**	**2.1**	**1.0**
	ROM						
%	Mass Yield	52.6	72.8	53.6	41.7	42.2	45.3
Mt	Mass Yield Tonnes	5.08	1.62	1.41	0.81	0.80	0.43
g/t	Ag Grade	93	143	85	60	60	61
Moz	Contained Ag	15.19	7.39	3.85	1.55	1.56	0.84
Moz	Recovered Ag	11.95	5.91	3.03	1.18	1.19	0.64
%	Recovery	78.7	79.9	78.7	76.3	76.3	76.3

Source: SRK, 2023

Table 16-6: Annual Mine Plan by Deposit

Units	Name	Total	Y01	Y02	Y03	Y04	Y05
FDF							
Mt	Ore Mined	7.85	1.00	2.05	1.94	1.9	1.0
Mt	Waste Mined	3.70	1.11	1.65	0.64	0.2	0.1
Mt	Total Mined	11.55	2.11	3.70	2.58	2.1	1.0
%	Mass Yield	41.6	39.7	40.4	41.6	42.2	45.3
Mt	Mass Yield Tonnes	3.27	0.40	0.83	0.81	0.80	0.43
g/t	Ag Grade	58	54	56	59	60	60
Moz	Contained Ag	6.09	0.69	1.49	1.53	1.55	0.84
Moz	Recovered Ag	4.75	0.53	1.16	1.19	1.21	0.66
%	Recovery	78.0	78.0	78.0	78.0	78.0	78.0
Manto							
Mt	Ore Mined	0.76	0.34	0.42	0.00		
Mt	Waste Mined	1.26	1.12	0.14	0.00		
Mt	Total Mined	2.02	1.45	0.56	0.00		
%	Mass Yield	100.0	100.0	100.0	100.0		
Mt	Mass Yield Tonnes	0.76	0.34	0.42	0.00		
g/t	Ag Grade	126	130	123	79		
Moz	Contained Ag	3.07	1.40	1.66	0.01		
Moz	Recovered Ag	2.46	1.12	1.33	0.01		
%	Recovery	80.0	80.0	80.0	80.0		
Platera							
Mt	Ore Mined	0.58	0.52	0.06			
Mt	Waste Mined	0.35	0.33	0.02			
Mt	Total Mined	0.93	0.85	0.08			
%	Mass Yield	100.0	100.0	100.0			
Mt	Mass Yield Tonnes	0.58	0.52	0.06			
g/t	Ag Grade	157	161	121			
Moz	Contained Ag	2.92	2.71	0.22			
Moz	Recovered Ag	2.34	2.16	0.17			
%	Recovery	80.0	80.0	80.0			
Rosario							
Mt	Ore Mined	0.18	0.08	0.10			
Mt	Waste Mined	0.32	0.19	0.13			
Mt	Total Mined	0.50	0.27	0.23			
%	Mass Yield	100.0	100.0	100.0			
Mt	Mass Yield Tonnes	0.18	0.08	0.10			
g/t	Ag Grade	143	163	127			
Moz	Contained Ag	0.81	0.40	0.41			
Moz	Recovered Ag	0.65	0.32	0.33			
%	Recovery	80.0	80.0	80.0			
Paca							
Mt	Ore Mined	0.26	0.26				
Mt	Waste Mined	1.88	1.88				
Mt	Total Mined	2.14	2.14				
%	Mass Yield	100.0	100.0				
Mt	Mass Yield Tonnes	0.26	0.26				
g/t	Ag Grade	228	228				
Moz	Contained Ag	1.91	1.91				
Moz	Recovered Ag	1.53	1.53				
%	Recovery	80.0	80.0				

Units	Name	Total	Y01	Y02	Y03	Y04	Y05
Alta Vista							
Mt	Ore Mined	0.03	0.03	0.01	0.00		
Mt	Waste Mined	0.05	0.05	0.00			
Mt	Total Mined	0.09	0.08	0.01	0.00		
%	Mass Yield	100.0	100.0	100.0	100.0		
Mt	Mass Yield Tonnes	0.03	0.03	0.01	0.00		
g/t	Ag Grade	357	343	421			
Moz	Contained Ag	0.39	0.31	0.08	0.00		
Moz	Recovered Ag	0.27	0.22	0.05	0.00		
%	Recovery	70.0	70.0	70.0	70.0		

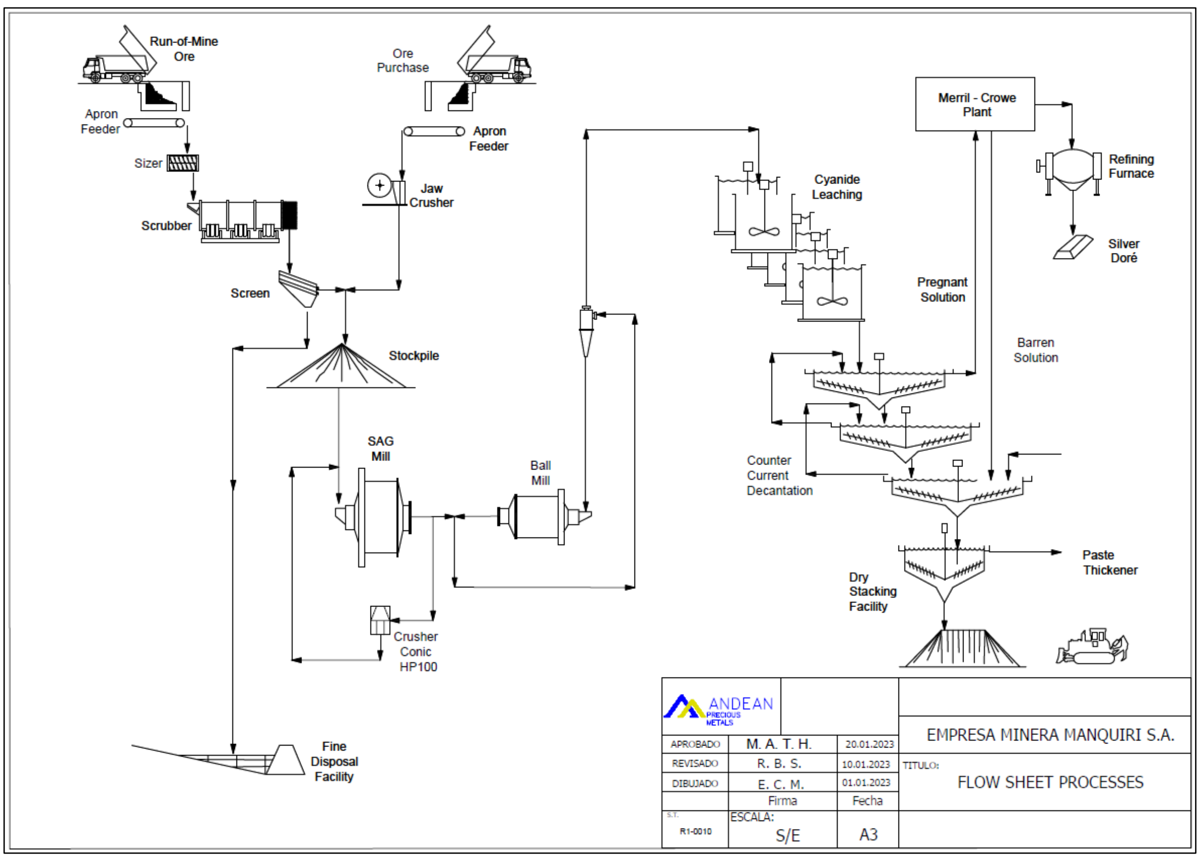
Source: SRK, 2023

17 Recovery Methods

APM processes both RoM and purchased ore at its San Bartolomé process plant. RoM ore is crushed and screened at 8 mesh (2.38 mm). The +8-mesh fraction is processed through a conventional Merrill Crowe cyanidation plant at about 4,800 t/d, and the -8-mesh fraction is pumped to the FDF, where the minus 8-mesh fraction has been stored since inception of operations in 2008. APM now plans to process the fine ore stored in the FDF. This section provides a description of the current process plant and the planned method for processing the fine ore reclaimed from the FDF.

17.1 San Bartolomé Process Plant

APM's process plant has was originally constructed by Coeur and commenced operation in 2008. Figure 17-1 shows the process flowsheet, Table 17-1 shows a major equipment list, and Table 17-2 shows key process design criteria. Figure 17-2 shows photographs of the San Bartolomé process plant. The process plant operates three 8-hour shifts per day, 24 hours per day and 365 days per year, with about 92% operating availability.



Source: APM, 2023

Figure 17-1: San Bartolomé Process Plant Flowsheet

Table 17-1: Process Plant Major Equipment List

Equipment	Quantity	Size	Kilowatt (kW)	Manufacturer
Crushing				
Jaw crusher Rotary scrubber Fines screen (double deck)	1 1 1	C125 3.5 m x 10 m 6.1 m x 3.1 m	160 300 75	Nordberg
Grinding				
Semi-autogenous grinding (SAG) mill	1	5 m x 6.8 m	2,350	Outokumpu
Ball mill	1	5 m x 8 m	3,350	Outokumpu
Cyclone	9	Gmax 15 -3117		Krebs
Leaching				
Leach tanks	7	17.5 m x 18.5 m		
Agitators	7	6.3 m x 11.9 m	110	
Counter-current decantation (CCD)				
Thickeners	3	23-m diameter	12.5	
Merrill Crowe				
Precoat filters	3	187 m^2		
Deaeration tower	1	6.1 m x 8.4 m (750 m^3/h)		
Pregnant leach solution (PLS) tank	1	17.5 m x 3.5 m (750 m^3)		
Barren tank	1	17.5 m x 3.5 m (750 m^3)		

Source: APM, 2023

Table 17-2: Major Process Design Criteria

Parameter	Units	Criteria
Ore grade		
Huacajchi	Ag g/t	206
Sant Rita	Ag g/t	186
Diablo	Ag g/t	174
RoM ore		
Top size	mm	600
+8 mesh	%	60
Comminution indices		
CW_I	kWh/t	13.8
RW_I	kWh/t	15.6
BW_I	kWh/t	18.6
SAG mill		
Feed size (F_{80})	mm	150
Product size (P_{80})	µm	750 to 1,550
Ball size	inches	5
Charge	%	30
Ball mill		
Feed size (F_{80})	µm	750 to 1,550
Product size (P_{80})	µm	75
Ball size	inches	3
Leaching		
Slurry density	%	40
Retention time	hours	60
NaCN concentration	g/L	2
Oxygen injection	$m^3N/h.m^3$	0.15
NaCN consumption	kg/t	0.33 to 0.71
Lime consumptions	kg/t	3.7
CCD		
Thickener type		High rate
Feed density (diluted)	%	10
Underflow density	%	58
Unit area	m^2/t/day	0.068
Merrill Crowe		
Capacity	m^3	750
PLS grade	Ag g/m^3	38 to 52
Zinc addition (avg.)	g(Zn)/g(Ag)	2
O_2 concentration	mg/L	<1
Filter press	$m^3/h/m^2$	2.15
Refinery		
Furnace type		Reverb (diesel)
Flux	% of precipitate	40

Source: APM, 2023

Source: APM, 2023

Figure 17-2: San Bartolomé Process Plant

17.1.1 Process Description

Purchased Ore Sampling

Purchased ore is hauled in 20-t trucks to the ore sampling pad located near the process plant. Each truck load is weighed and dumped at the sampling pad, and a backhoe is used to take a 2-t sample of the ore from multiple sampling points. The 2-t sample is then transported to the sampling tower where it is crushed to -3/4 inches and then sub-sampled to split out a 15-kg sample, which is taken to the on-site laboratory. The 15-kg sample is crushed to -16 mm and then riffle-split to obtain an approximately 4-kg sub-sample. The 4-kg sample is then pulverized, and three separate 150-g samples are taken for analyses.

Crushing, Scrubbing, and Screening

RoM ore and purchased ore are crushed and processed through separate circuits. RoM ore is crushed in a mineral sizer to -10 cm, scrubbed in a rotary scrubber, and then screened at 8 mesh on a vibrating screen. The screen undersize is pumped to the FDF, and the screen oversize is conveyed to the crushed ore stockpile. Purchased ore is crushed in a jaw crusher to -76 mm and conveyed to the crushed ore stockpile. The crushed RoM ore and purchased ore are kept in separate stockpiles and blended as needed to maintain the target feed grade to the process plant.

Grinding

Crushed ore is fed with a front-end loader to an ore feed bin that discharges to a conveying system. The conveyor feeds the crushed ore to a 6-m-diameter x 6.8-m-long SAG mill driven with a 2,350-kW motor and ground to a transfer size of 80% passing (P_{80}) 750 to 1,550 µm. The SAG mill discharges across a trommel screen, and the trommel screen oversize is crushed in a pebble crusher (in batches) and recirculated back to the SAG mill. The trommel undersize is discharged to a cyclone feed pump box and pumped to a cluster of Krebs gMax 15 cyclones. The cyclone overflow is screened to remove any trash and then advanced to the cyanide leach circuit at a grind size of P_{80} 75 µm. The cyclone underflow is circulated back to a 5-m x 8-m ball mill (3,350 kW), which is operated in closed circuit with the cyclones. Cyanide and lime are added in the grinding circuit. Lime serves to maintain the pH at 11.0 to 11.5, and the cyanide serves to initiate silver leaching during grinding.

Cyanide Leach and CCD

The ground ore is leached in a circuit that consists of seven agitated leach tanks operated in series to provide a total retention time of 72 hours. The leach slurry is maintained at 42% solids, and the pH is maintained at 11.0 to 11.5 with lime. The cyanide concentration in the first leach tank is maintained at 2,000 ppm NaCN, which is allowed to attenuate to about 600 ppm NaCN as the slurry flows through the circuit. Oxygen is sparged into the leach tanks to maintain the dissolved oxygen concentration in the slurry at about 15 to 20 mg/L. The leached slurry flows by gravity to the CCD circuit for separation of leach solids and the silver-containing PLS. The leached slurry is progressively washed in the CCD circuit as the underflow from each thickening tank is pumped to the next thickener, while the solution overflowing each thickener is pumped counter-currently to the next thickener. The PLS from the CCD circuit is advanced to the Merrill Crowe circuit for silver recovery, and the washed thickener underflow discharging from the third thickener in the CCD circuit is pumped to the paste thickener for further dewatering. The thickened leach residue from the paste thickener is pumped to the DSF.

Merrill Crowe Circuit and Smelting

PLS from the CCD circuit is pumped to the PLS storage tank and is then pumped to the PLS clarifier filters, where it is filtered to remove any remaining suspended solids and achieve a turbidity of <100 Nephelometric Turbidity Units (NTU). The clarified PLS is then pumped to the upper portion of the deaeration tower, which is maintained at a negative pressure with a vacuum pump. As the air is withdrawn, dissolved oxygen contained in the PLS vaporizes and is reduced to <1 mg/L. The oxygen-free pregnant solution discharges from the bottom of the deaeration tower, where zinc dust is added to the suction side of the precipitate filter feed pump; this results in the precipitation of metallic silver, while the zinc goes into solution as a zinc cyanide complex. The silver-bearing precipitate is pumped to the precipitate plate and frame pressure filters where it is allowed to accumulate. The filtrate from the precipitate filters is barren solution and recycled back to the CCD circuit.

At the end of the filtration cycle, the precipitate filter is opened, and the semi-dry precipitate is manually removed and loaded into a dryer oven to evaporate the remaining water. The precipitate is then mixed with a combination of fluxes used to form a slag containing all the impurities extracted during the smelting process. The flux-precipitate mixture is placed in a smelting furnace and heated to approximately 1,250°C to form a molten mixture. The slag forms on the top of the molten mixture, and the silver forms a molten mass at the bottom. The slag is poured off into metal pots, while the silver is poured into bar molds to form the final doré product. The doré bars are cooled, cleaned, weighed, sampled, stamped for identification, and placed in the vault awaiting shipment. The silver grade of each bar is analyzed to determine the grade before shipping.

17.1.2 Process Plant Performance

Table 17-3 summarizes process plant performance for the period of 2021 to 2023 (January to March). During 2021, the plant processed 1.71 Mt of ore at an average grade of 114.6 g/t Ag and recovered 84.3% of the contained silver. During 2022, 1.61 Mt of ore were processed at an average grade of 119.6 g/t Ag and recovered 76.9% of the contained silver. During Q1 2023, 375,328 t of ore were processed at a grade of 106.4 g/t Ag with an average silver recovery of 79.2%.

Table 17-3: Summary of Process Plant Production: 2021 to 2023 (January to March)

	2021	2022	2023 (January to March)
Ore milled (t)	1,714,713	1,612,684	375,328
Utilization (%)	95.0	93.7	93.5
Average (t/d)	4,945	4,715	4,462
Ag ore grade (g/t)	114.6	119.6	106.4
Ag in feed (oz)	6,315,710	6,200,993	1,283,486
Ag in feed (kg)	196,438	192,877	39,920
Ag shipped (kg)	141,739	120,969	22,599
Ag to inventory (kg)	24,913	27,951	7,835
Ag change in inventory (kg)	(1,069)	(635)	1,163
Ag recovery (%)	84.3	76.9	79.2

Source: APM, 2023

17.1.3 Plant Sampling and Metallurgical Accounting

Plant Sampling

Process plant metallurgical samples are taken with automatic samplers every 20 minutes from the plant feed, leach circuit tailings, final tailings, and -8-mm fines. The plant samples accumulated during each 8-hour shift typically fill one-quarter of a 5-gallon bucket. When the samples are received at the laboratory, they are stirred with a stick, and a sub-sample is manually taken from the stirred bucket. The sub-sample is then filtered and dried, and an analytical sample is scooped from the dried sub-sample.

SRK is of the opinion that the laboratory sub-sampling procedure is inadequate, could result in mineral segregation generation during sampling, and could result in a non-representative sub-sample. SRK recommends that the entire shift sample be filtered in pressure filters specifically designated for each plant sample and that the entire filter cake be dried, rolled, and sub-sampled with a riffle splitter to produce the required analytical sample.

Analytical Laboratory

The analytical laboratory is ISO 17025 certified. SRK reviewed the analytical QA/QC procedures and is of the opinion the laboratory's methods and procedures are consistent with other similar well-run laboratories.

Metallurgical Accounting

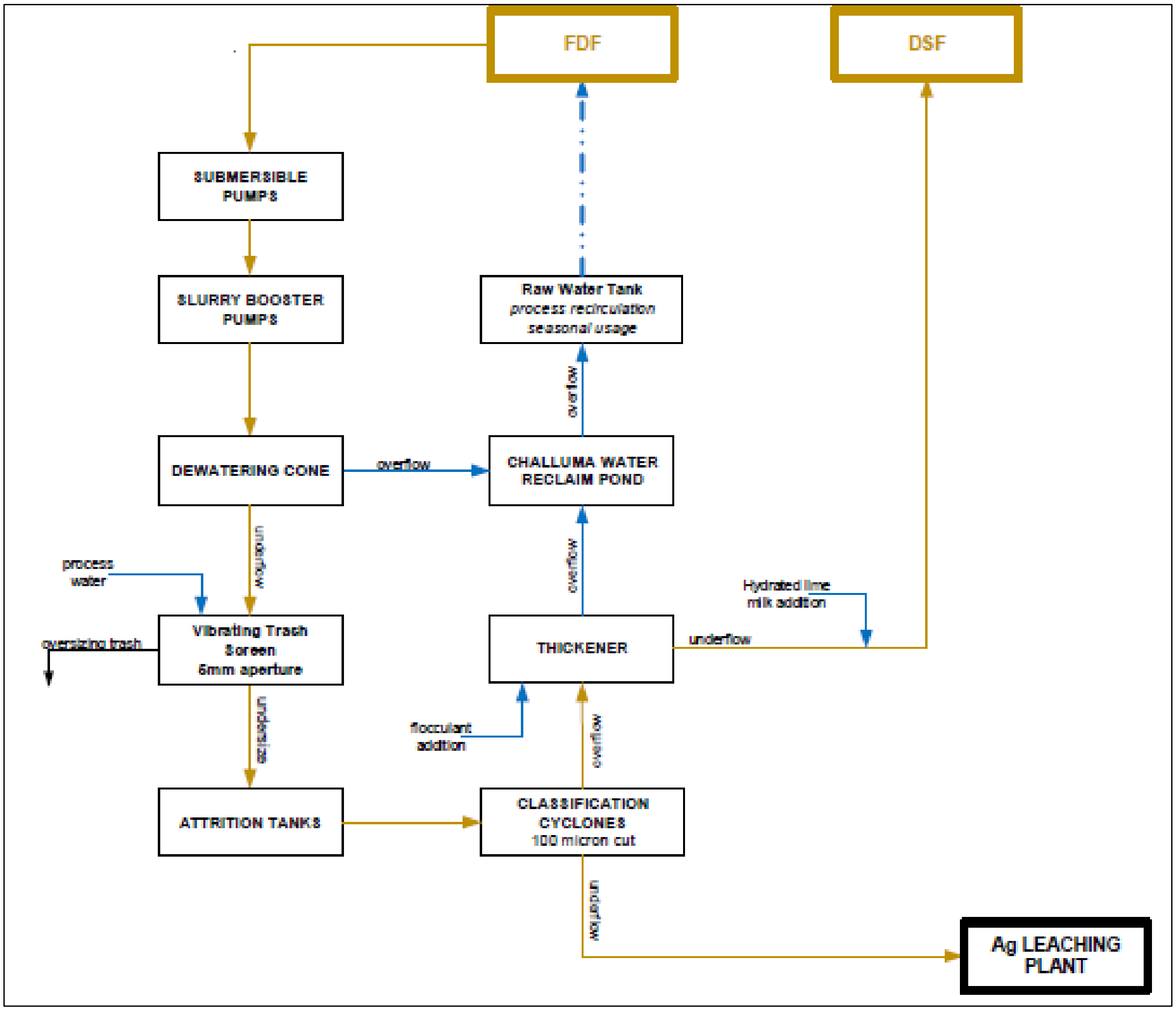
The daily metallurgical samples are used to calculate a daily metallurgical report and silver recovery based on the assay head and final tailing samples. Reported actual silver recoveries are based on actual silver ounces shipped, change in silver inventory, and a calculated silver head analysis for the period.

17.2 FDF Silver Recovery Project

When production operations began at the San Bartolomé oxide processing facility in 2008, it was found that the silver content of the lower-grade pallacos deposits could be upgraded by screening out the minus 8-mesh fine material. A separate crushing and wet scrubbing circuit was installed using a trommel scrubber to remove the minus 8-mesh fine fraction and process only the higher-grade +8-mesh size fraction. The minus 8-mesh fines are currently stored in the FDF, which is estimated to contain approximately 10 Mt of screened fines at an average silver grade of about 52 g/t. EPCMC conducted engineering designs to recover the fines from the FDF, which is documented in their report, "San Bartolomé FDF Ag Circuit – 6,600 t/d", March 2023. The FDF silver recovery project is described in this section and includes:

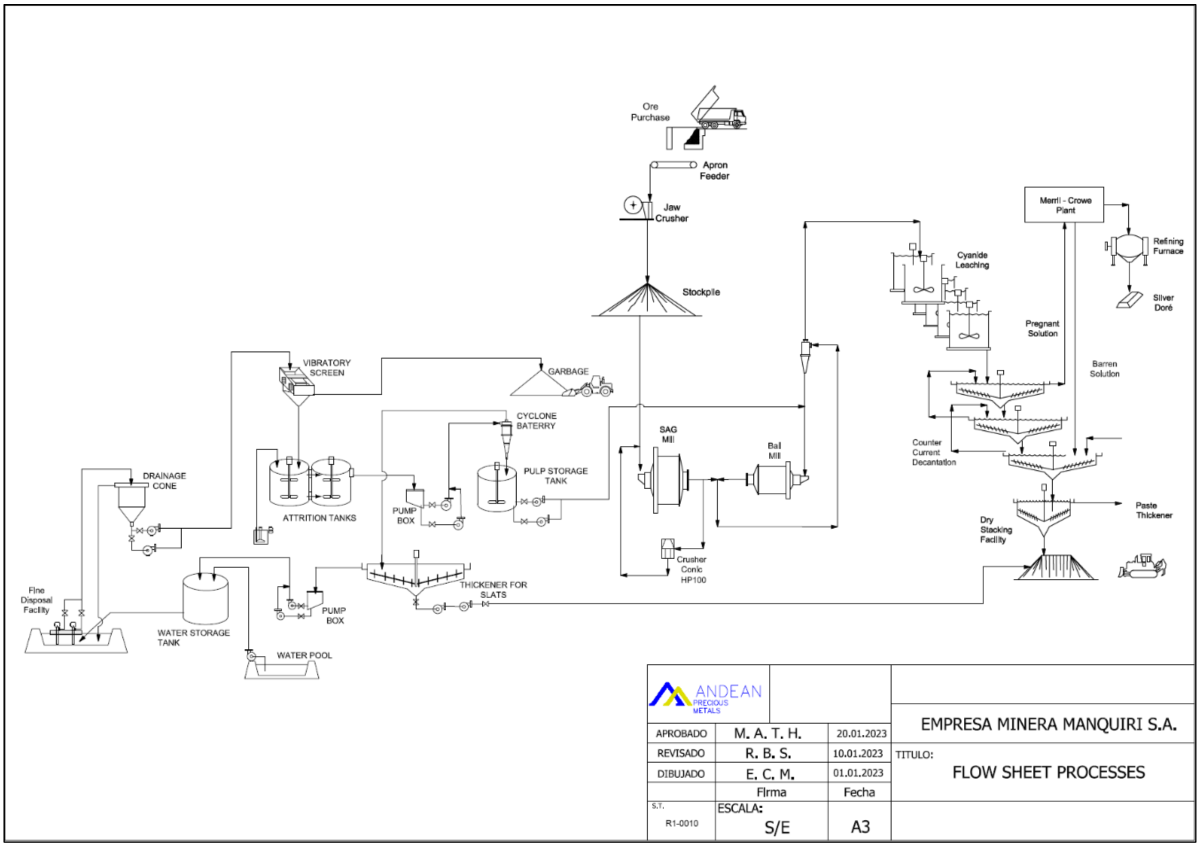
- Hydraulic mining to remove 6,600 t/d from the FDF
- Scrubbing
- Classification and thickening of the +140-mesh particle size fraction
- Pumping 3,300 t/d of the thickened +140-mesh fraction to the process plant
- Pumping about 3,300 t/d of -140-mesh fines to the DSF

Figure 17-3 shows the FDF project flowsheet, Figure 17-4 shows the integrated FDF + cyanidation plant flowsheet, and Table 17-4 shows the major equipment list.



Source: EPCMC, 2023

Figure 17-3: FDF Project Flowsheet



Source: APM 2023

Figure 17-4: Integrated FDF + Cyanidation Plant Flowsheet

Table 17-4: FDF Project Major Equipment List

Equipment	Quantity	Size	Hp	Manufacture
Hydraulic Mining				
Submersible pump	2	200HNZB	125	Goodwin
Dredging pontoon	1	remote controlled w/ hoist	2	Goodwin
Dewatering cone	1	6 m diam. X 7 m high		
Slurry booster pump	2	8" x 8"	175	SRC
Water reclaim tank	1	9 m diam. x 9 m high		
Water recycling pump	8	2" x 3"-13	40	Goulds
Classification -Thickening				
Trash screen	1	7 ft x 16 ft (8 mm aperture)	30	
Attrition scrubber	2	100 m3	20	
Cyclone feed pump	2	8" x 8"	100	SRC
Pump box	1	2 m diam. x 2.7 m high		
Cyclone Cluster (4 cyclones)	1	15" diam.		
High rate thickener	1	100 ft diam. x 15 ft high	30	
Thickener U'flow pump	2	8" x 8"	150	SRC
Agitated holding tank	1	5 m diam. x 5 m high	20	
Slurry transfer pump	2	6" x 6"	40	SRC
Sump pump	6	4" x 48"	30	
Total Power			1,393	

Source: EPCMC, 2023

17.2.1 Process Description

FDF Particle Size Distribution

Metallurgical test work conducted by APM concluded that only the +140-mesh (106-µm) size fraction of the material stored in the FDF should be processed at the San Bartolomé process plant. Therefore, the fine material reclaimed from the FDF would be washed and classified at 140 mesh, and only the +140-mesh fraction would be sent to the process plant. As shown in Table 17-5, about 50% of the fine material stored in the FDF is in the +140-mesh size fraction. Therefore, mining the FDF at the rate of 6,600 t/d will result in processing about 3,300 t/d of +140-mesh material reclaimed from the FDF.

Table 17-5: Particle Size Distribution of Fines in the FDF

Tyler Mesh	Opening (µm)		Sample: -8 mesh				D80 (µm)
			Weight		Accumulation (%)		
	Mesh	Average	g	%	Passing	Retained	
10	1,700	2,007	103.4	8.1	91.9	8.1	0.0
20	850	1,202	126.5	9.9	82.0	18.0	1,054.4
45	345	542	150.1	11.7	70.3	29.7	0.0
60	250	294	109.0	8.5	61.8	38.2	0.0
100	149	193	82.8	6.5	55.4	44.6	0.0
140	105	125	60.3	4.7	50.7	49.3	0.0
200	74	88	78.3	6.1	44.5	55.5	0.0
400	37	52	90.4	7.1	37.5	62.55	0.0
400	30	33	480.0	37.5	0.00	100.0	0.0
Total				**100.0**			**1,054.4**

Source: EPCMC, 2023
Green shading denotes the weight % at 140 mesh

Hydraulic Mining

Submersible pumps will be installed on a barge for hydraulic mining of the FDF at a rate of 6,600 t/d. The remined tailings slurry will be pumped and discharged into a dewatering cone to provide a consistent feed to the classification stage. The hydraulic mining protocol has been developed to retain the integrity of the FDF's HDPE liner.

Classification and Thickening

The hydraulically mined FDF slurry will be pumped to a dewatering cone, and the dewatered underflow will be pumped to a vibrating screen fitted with a 6-mm cloth to remove trash and debris. The screened slurry will then be pumped to an agitated scrubber designed to clean the mineral surfaces and disperse slime materials. The attritioned slurry will then be pumped to the cyclone classification circuit, where the cyclone overflow (-100 µm) will be transferred to a high-rate thickener. The thickener underflow will be pumped to the DSF, and the thickener overflow will be recycled back to the hydraulic mining operation.

17.3 Recovery Estimate

This section provides silver recovery estimates for RoM and purchased ore and reprocessed FDF fines.

17.3.1 RoM and Purchased Ore Recovery

Silver recovery from RoM and purchased ore is estimated at 80.5% and is based on the weighted average silver recovery reported for the process plant over the period from 2021 to 2023 (Q1), as shown in Table 17-6.

Table 17-6: Process Plant Ag Recovery

Year	Ore (t)	Ag (g/t)	Ag Recovery (%)
2021	1,714,713	114.6	84.3
2022	1,612,684	119.6	76.9
2023	375,328	106.4	79.1
Average	**3,702,725**	**115.9**	**80.5**

Source: APM, 2023

17.3.2 FDF Fines (+140-Mesh Fraction)

Silver recovery from the deslimed and classified FDF fines (+140 mesh) is estimated at 76.0% and is based on duplicate confirmatory leach tests conducted by APM at their on-site laboratory using test conditions that simulate the process plant operating conditions at a target grind of P_{80} 75 µm. An average silver extraction of 78.2% was obtained during these confirmatory tests. As summarized in Table 17-7, SRK applies a 2% deduction to the reported silver extraction to account for inherent plant inefficiencies; this results in an average silver recovery from the FDF of 76.2%, which is rounded down to 76.0%.

Table 17-7: Estimated Recovery from FDF +140-Mesh Size Fraction

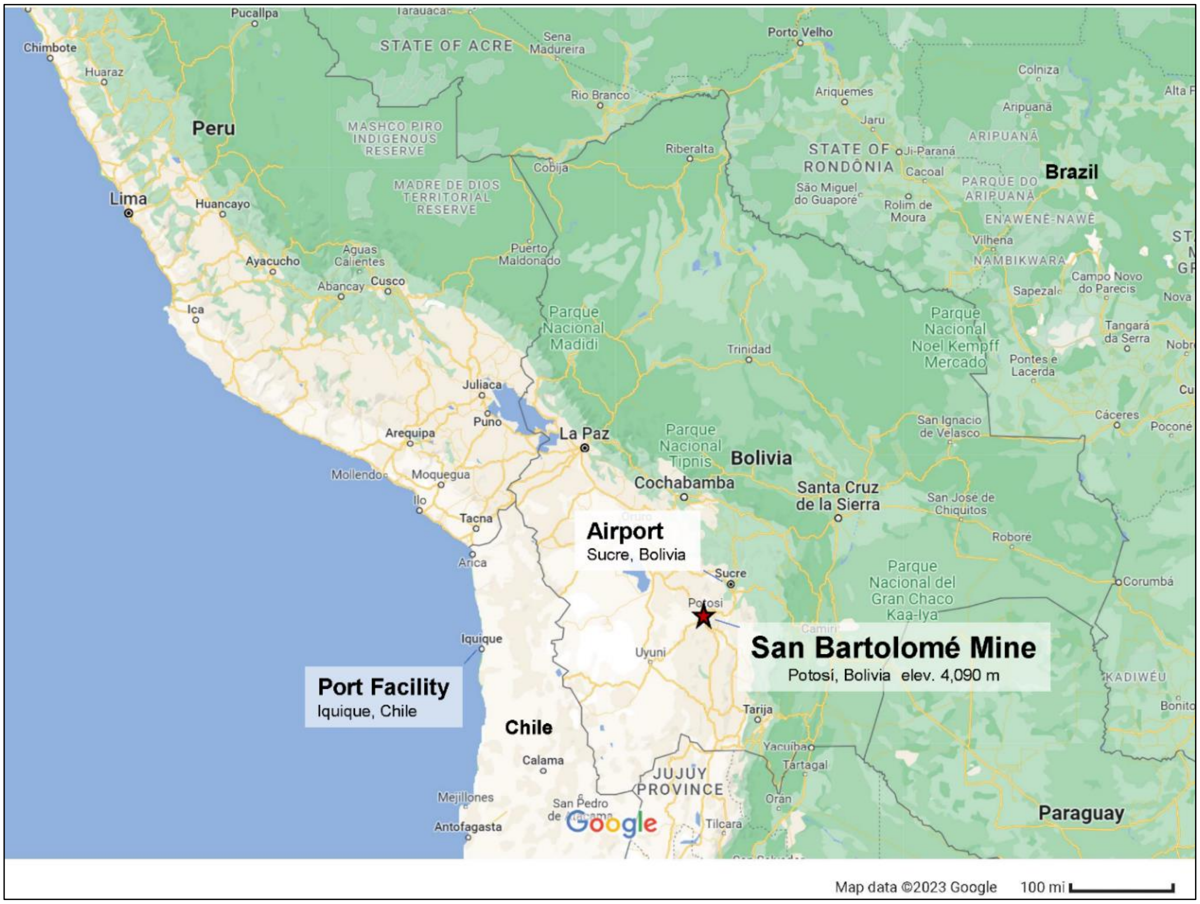
Test	Grind (% -200 mesh)	Ag Head Grade (g/t)	Ag Tail Grade (g/t)	Ag Extraction (%)	Deduction (%)	Ag Recovery (%)
A	81.8	57.62	12.92	77.6	2	75.6
B	80.6	57.27	12.11	78.9	2	76.9
Average	81.2	57.45	12.52	78.2	2	76.2

Source: APM and SRK, 2023

18 Project Infrastructure

18.1 Access and Logistics

The San Bartolomé Mine is in southwest Bolivia, a few kilometers south of the city of Potosí on Bolivia Highway 1, a paved two-lane spur of the Pan American Highway that passes along the eastern toe of Cerro Rico from Potosi southward towards Tarija. Figure 18-1 shows the general access and mine location.



Source: Google Earth, 2023

Figure 18-1: Access and Logistics

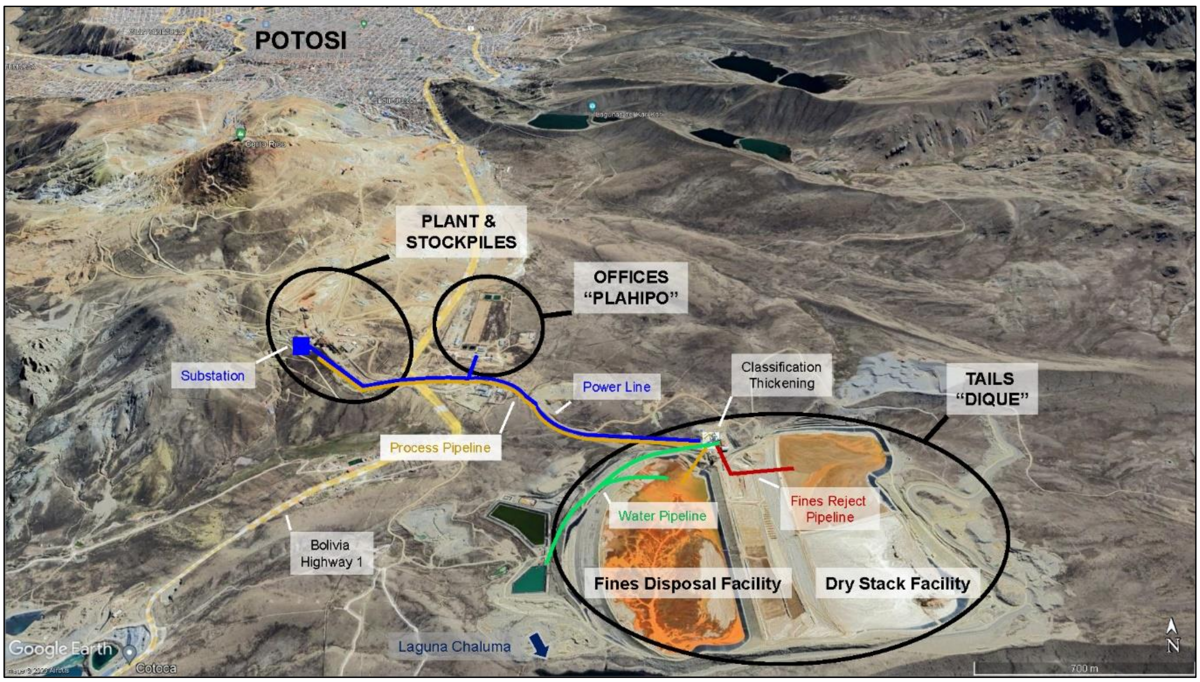
Potosí is connected to the capital city of La Paz by way of the Pan American highway and to the Chilean port cities of Arica and Iquique by all-weather roads. Potosi (POI, Captain Nicolas Rojas) has a high-elevation airport, but there are currently no commercial flights. The closest alternative airport is in the city of Sucre (SRE, Juana Azurduy de Padilla Intl.), 157 km to the northeast. Rail services were reported between Potosi and Rio Mulatos but are not used by San Bartolomé.

Potosí is the eighth largest city in Bolivia, with a population of 160,648. The city has been a mining center since it was founded in 1545 and provides all the infrastructure of a mid-sized city, including a good source of skilled labor, healthcare, housing, and other services.

Mine supplies (including consumables like cyanide) are shipped from the port in Arica, Chile, and then overland to the site. Metal shipments are the responsibility of the buyer, and delivery originates at the San Bartolomé plant site.

18.2 General Site Layout

San Bartolomé has been in operation since 2008 and has a full range of facilities for ore processing, precious metal recovery, support services, and administrative offices. Figure 18-2 shows the general layout of the site. Manquiri's San Bartolomé plant and offices are on the southeast side of Cerro Rico, south of Potosí. The three main areas are the plant and stockpiles, the Plahipo offices, and the Dique tails areas. The process pipelines dump the fines and the tails into the Dique tails area. Return pipelines will be installed to pump the mineralized slurry back to the mill for reprocessing of the FDF material.



Source: Google Earth, 2023

Figure 18-2: General Site Layout

18.3 Power

The San Bartolomé substation (shown on Figure 18-3) is built in the vicinity of the processing plant and receives energy from the Potosí substation (ENDE) by a simple overhead transmission line that is 6.5 km long at 69 kilovolts (kV). The largest loads are the ball mill (3,350 kW) and the SAG mill (2,350 kW). Backup power is supplied by two diesel generators: Caterpillar (1.2 megavolt-amperes (MVA)) and Triton (1.0 MVA). Figure 18-3 shows the San Bartolomé substation.

Source: SRK, 2023

Figure 18-3: San Bartolomé Substation

18.4 Water

The annual consumption of water for San Bartolomé in 2022 was 769,662 m^3. The plant recycles around 65% of the water. With the reprocessing of the FDF, the water usage is expected to increase by 8% to 10%.

Manquiri obtains water from local sources, the rights for which are held and granted from Administración Autónoma para Obras Sanitarias Potosí (AAPOS), the local water administrative service department. Manquiri purchases the water from AAPOS for US$1.22/1 m^3 (US$1.22/ 1,000 liters (L)). During the dry season of August through October in 2017, Manquiri obtained water from local suppliers to supplement the AAPOS feed.

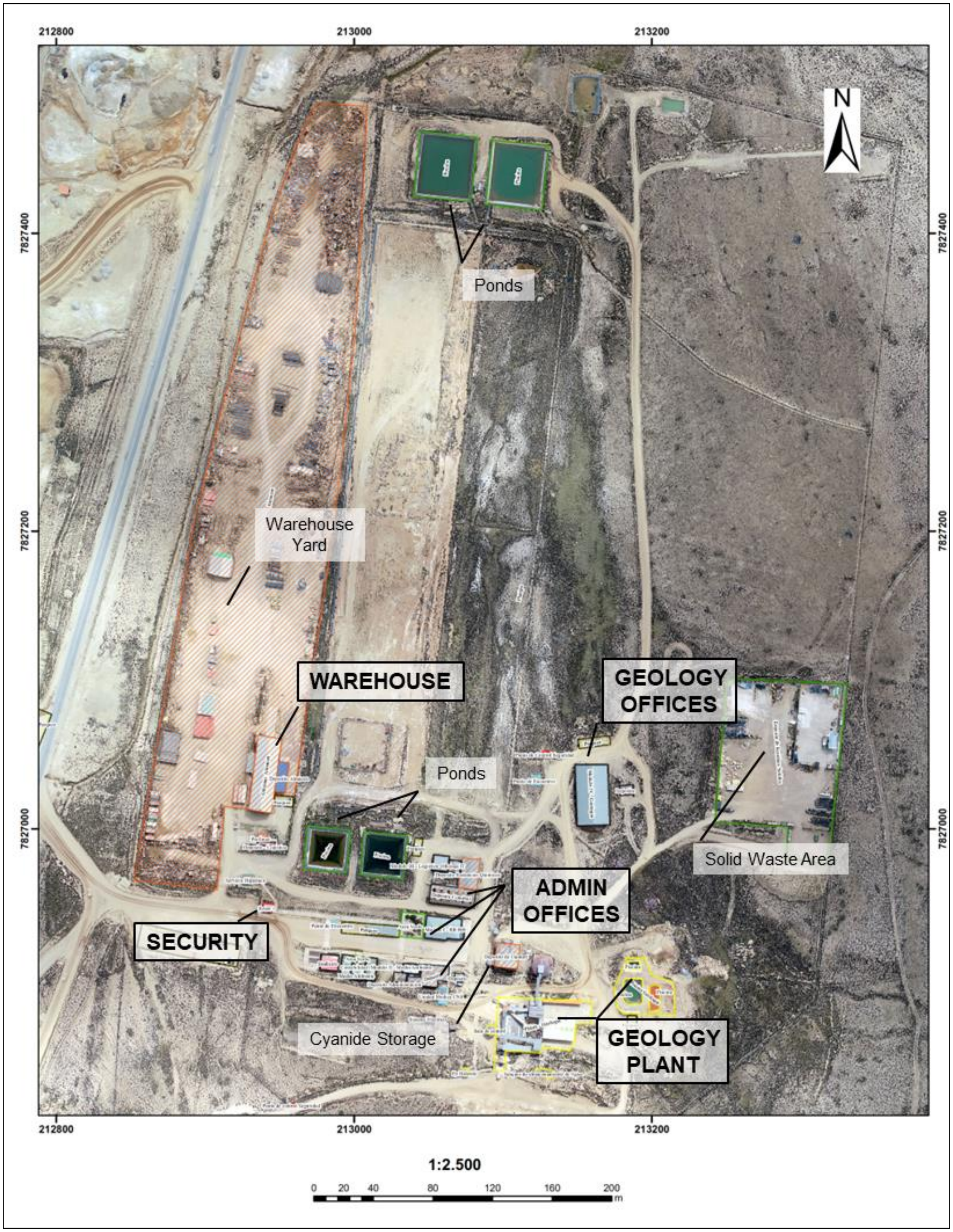
The main external supply source is the Laguna Challuma located to the southeast of the operation. Challuma water is not considered fit for human consumption, and Manquiri is the exclusive user of this supply. The laguna is connected to the site by a 12.2-km pipeline constructed by the company with a nominal capacity of 50 liters per second. Storm water is also collected in the two lined tailing facilities, and the operation utilizes a closed circuit by which water recovered from both the leaching process and the screening circuit is stored and recycled.

18.5 Access Roads

The FDF material is transported by pipeline from the tailings area northwest to the plant. There are access roads all along the route. The third-party surface and underground high-grade oxide ore, primarily from the Tollojchi, Paca, and Alta Vista deposits are hauled in with 20 t trucks by private contractors over the Bolivian highway system. The contracted ore enters the scale area to the east of the stockpile area. On both sides of the highway, the Bartolomé facilities are gated, fenced, and guarded.

18.6 Ancillary Facilities

Manquiri has offices to serve its staff located on the east side of the paved Bolivia Highway 1 in an area referred to as Plahipo in facilities COMIBOL previously operated to support a small heap leaching facility nearby. In addition to the offices currently occupied by Manquiri staff, there is a dining room (comedor) and preparation equipment to process exploration and grade control samples collected at the mine (geology plant). Figure 18-4 shows the Plahipo office area.

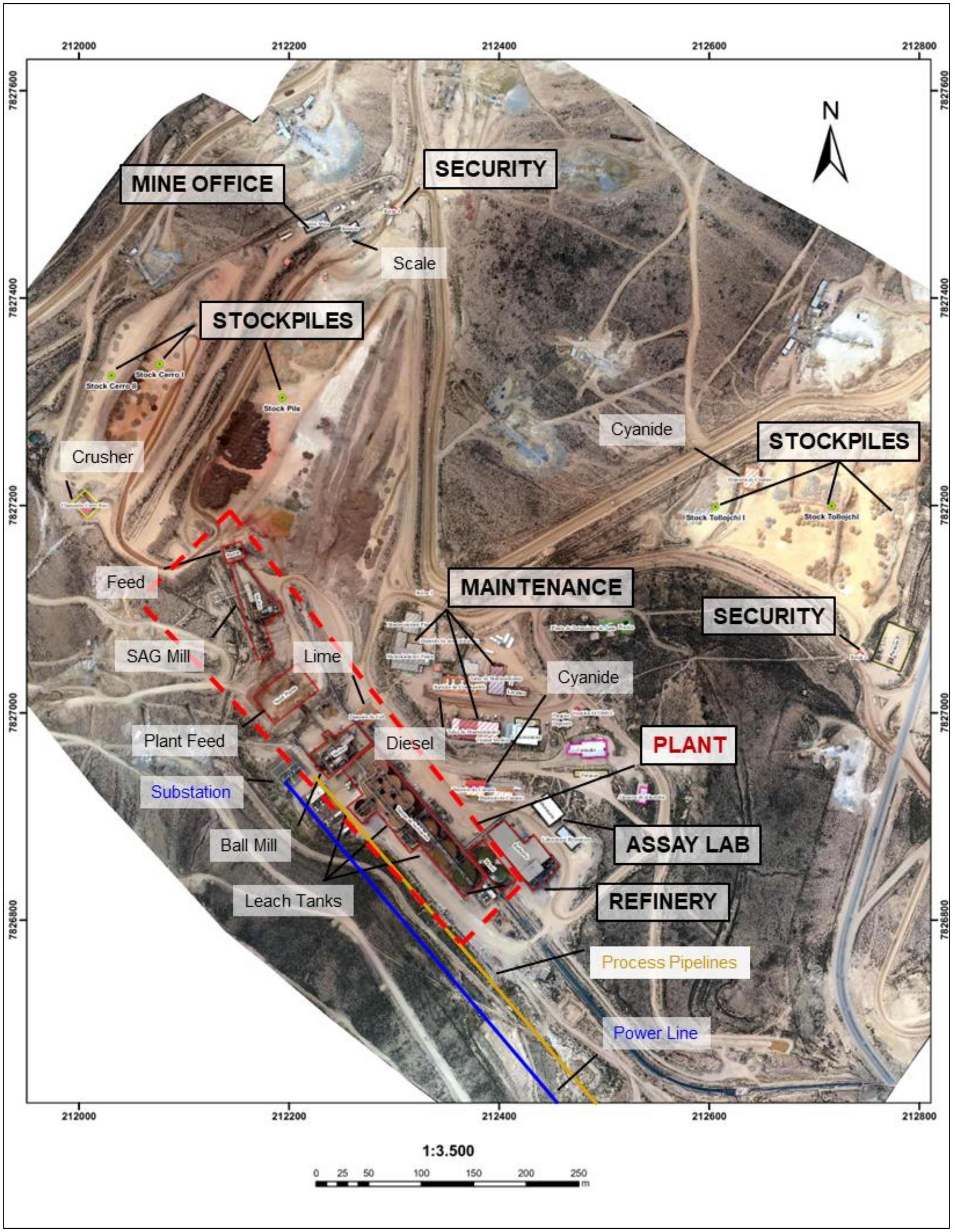


Source: Manquiri, 2023

Figure 18-4: Plahipo Office Area

18.7 Process Plant and Stockpiles

The San Bartolomé plant and stockpiles for long-term contracted toll ore are located opposite of the Manquiri offices on the west side of Bolivia Highway 1. Except for minor changes, the San Bartolomé 4,800 t/d plant is essentially the same as commissioned in 2008. The area is fenced and has two guarded entries in the north and the south. Trucks delivering toll ore enter from the north pass over a scale before heading to the stockpiles. The substation is located just southwest of the ball mill. Besides the processing plant and stockpiles, this area also contains the assay laboratory, refinery, maintenance shops, and storage for lime, cyanide, and diesel. Figure 18-5 shows the plant and stockpiles area.

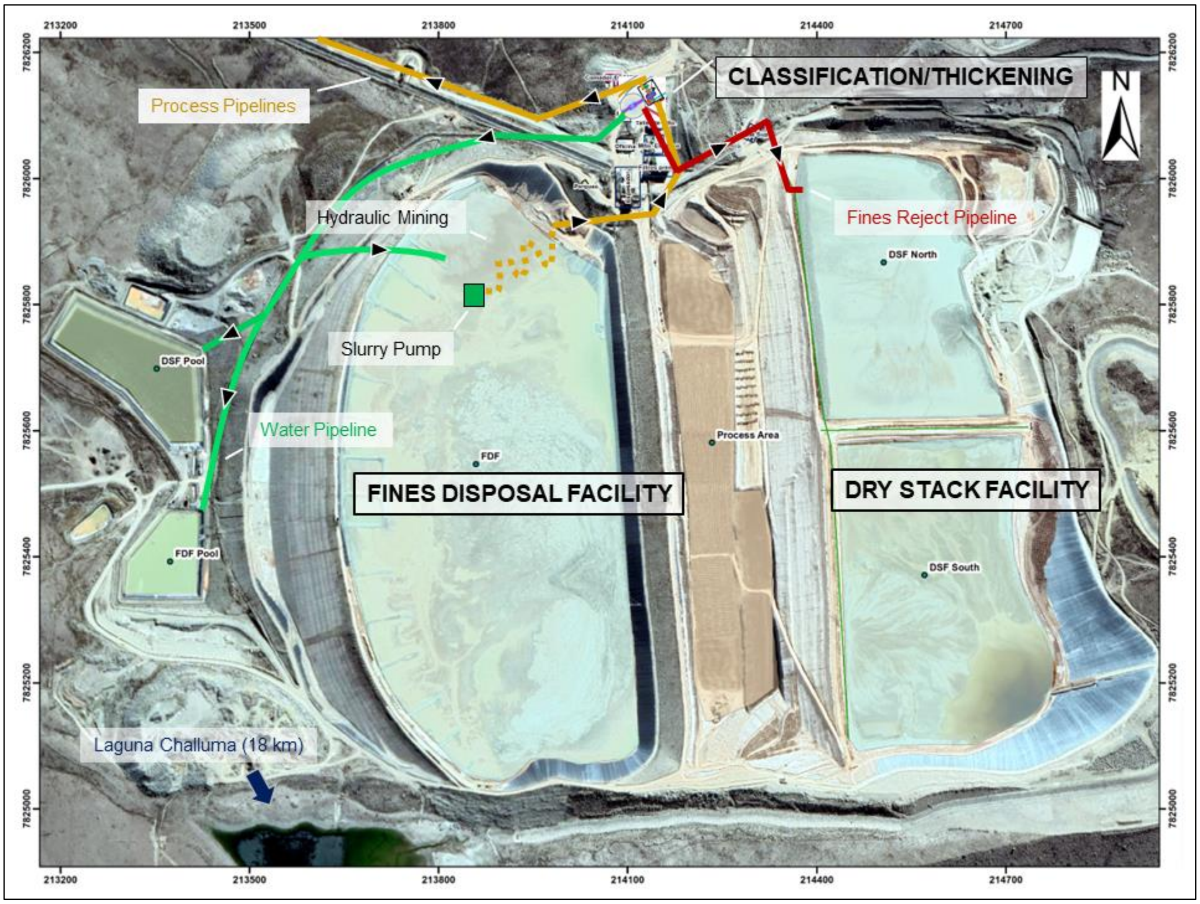


Source: Manquiri, 2023

Figure 18-5: Plant and Stockpile Areas

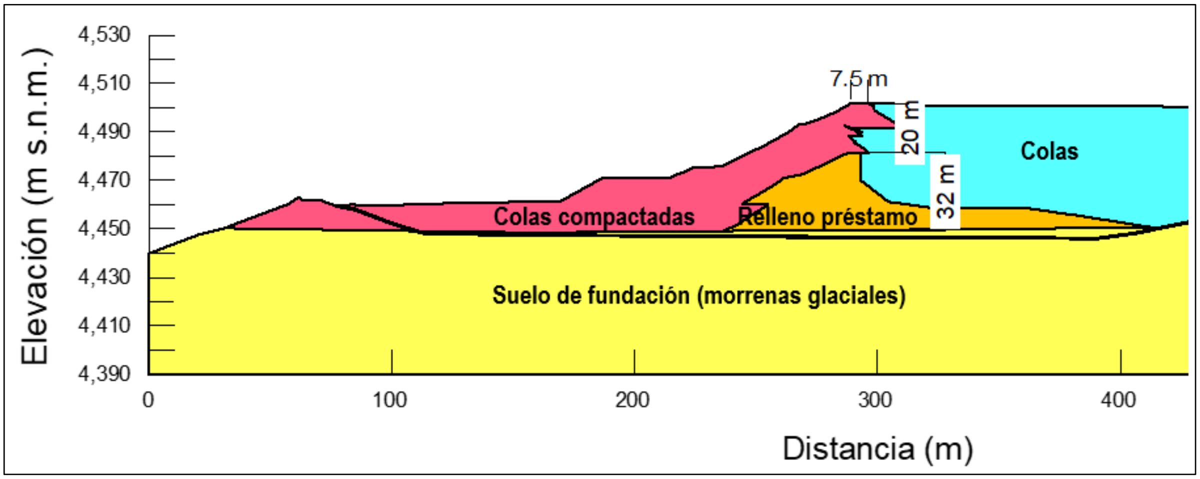
18.8 Tailings Management

A three-stage tailings impoundment, commissioned in 2008, serves to store both dry and wet tailings from the mill. The stages are the FDF, DSF, and water recovery operations, all located about 2 km southeast of the mill. Figure 18-6 shows the tailings DSF and FDF, and Figure 18-7 presents the DSF cross-section.



Source: Manquiri, 2023

Figure 18-6: Tailings/DSF and FDF



Source: KP, 2022a

Figure 18-7: DSF North Cell Dam Cross-Section

18.8.1 FDF Description and Key Components

The FDF retains slurry from mill feed that has been crushed and screened but not leached to remove 8-mesh (2.38-mm or 2,380-µm) material. This undersized material contains most of the tin, some silver, and gangue. The FDF is a fully lined and zero-discharge facility that is also designed to hold stormwater, which is conveyed to a separate water impoundment to supply the mill as needed. The FDF's design capacity is 15 Mt, of which 11.13 Mt have been used as of December 2022. APM plans to re-mine the FDF tailings for processing. Reprocessed FDF tailings (economic and uneconomic) will be deposited in the DSF. The reprocessing plan includes the addition of high-pressure water and slurry pumps, piping, and classification and thickening equipment.

18.8.2 FDF Tailings Reprocessing

The FDF tailings reprocessing involves hydraulically mining and pumping the 11 Mt of FDF non-leached tailings through a classifier and thickener. The finer ore (minus 140 mesh) will be removed and sent immediately to the DSF. Coarse tailings (>140 mesh) will be delivered to the ball mill and back into the processing circuit to extract the economic minerals. Barren waste (tailings) from the re-process circuit will be deposited in the DSF for permanent containment.

The estimated annual increase in power will be an additional 3.72 MW and will be part of the current power supply contract. Raw water consumption is estimated at 70,416 m^3 per year. The water will be purchased from AAPOS and can be supplied at 5,000 m^3/day from Laguna Challuma, which is 18 km away and already piped.

18.8.3 DSF Description Key Components

The DSF is used to store tailings (in slurry form) from the CCD leach processing of ore crushed and screened to plus 8 mesh (oversized material). The DSF is also fully lined. Before entering the DSF, the slurry is thickened and then pumped to the DSF. The DSF design capacity is 27.2 Mt.

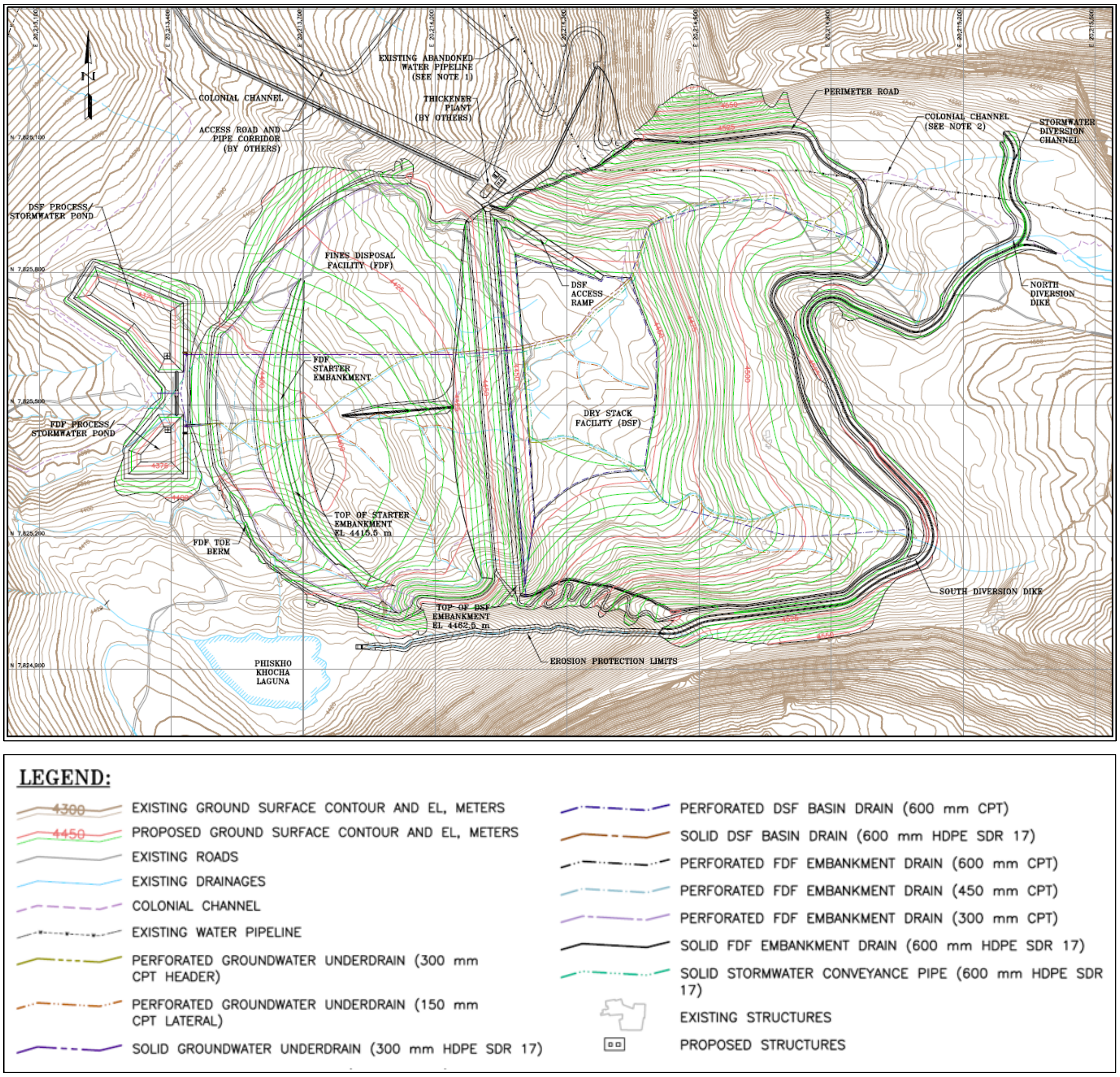
The DSF's original design intent was to serve as a true dry tailings storage facility, receiving low-moisture (less than 20% moisture content) filter-pressed tailings. Filter press operations proved to be inefficient in delivering acceptable low-moisture tailings at a rate consistent with mine production. Ultimately, the filter press was taken out of the circuit, and the DSF morphed into a modified centerline dam impounding above optimum moisture content (wet) tailings. Operations found that through careful removal and mechanical drying procedures, the wet tailings could be dried to a near-optimum moisture content and used for centerline dam raise construction and continued tailings impounding (Figure 18-7). The facility has been operated in this manner for most of its life.

18.8.4 Water Management

The FDF and DSF water management is described in the design report (Smith Williams Consultants, Inc. (SWC), 2004) and the final report (KP, 2022a) and is summarized below:

- Runoff generated in the FDF and DSF upstream basins is collected and conveyed by the stormwater diversion channel to Phiskho Khocha lagoon, which discharges into the natural drainage downstream of the FDF. Channel design information was not found.
- Runoff generated in the basin below the stormwater diversion channel and above the DSF is transported by stormwater conveyance pipe (600-mm solid pipe) to the natural drainage located downstream of the DSF and FDF process/stormwater ponds.
- Groundwater is intercepted and collected by subdrainage systems (150- and 300-mm perforated and solid pipes) located under the FDF and DSF liner. These systems operate independently and discharge into the DSF process/stormwater pond, respectively.
- The DSF is equipped with a drainage system (600-mm perforated and solid pipe) located atop the DSF liner; this system discharges into the DSF process/stormwater pond.
- The FDF embankment has a drainage system (300-, 450-, and 600-mm perforated and solid pipes) installed in the dam's foundation; this system discharges into the FDF process/stormwater pond.
- The FDF and DSF process/stormwater ponds were designed to store flow collected from the drainage and subdrainage systems plus the 100-year, 24-hour storm event.

Figure 18-8 shows the water management system described above.



Source: SWC, 2004

Figure 18-8: DSF and FDF Water Management

18.8.5 Hydrology

The hydrology update report (KP, 2021a) presents the climatologically updated parameters, including precipitation, evaporation, temperature, relative humidity, and wind. The Los Pinos and Plahipo Stations were used as a basis for the period between 1976 to 2020.

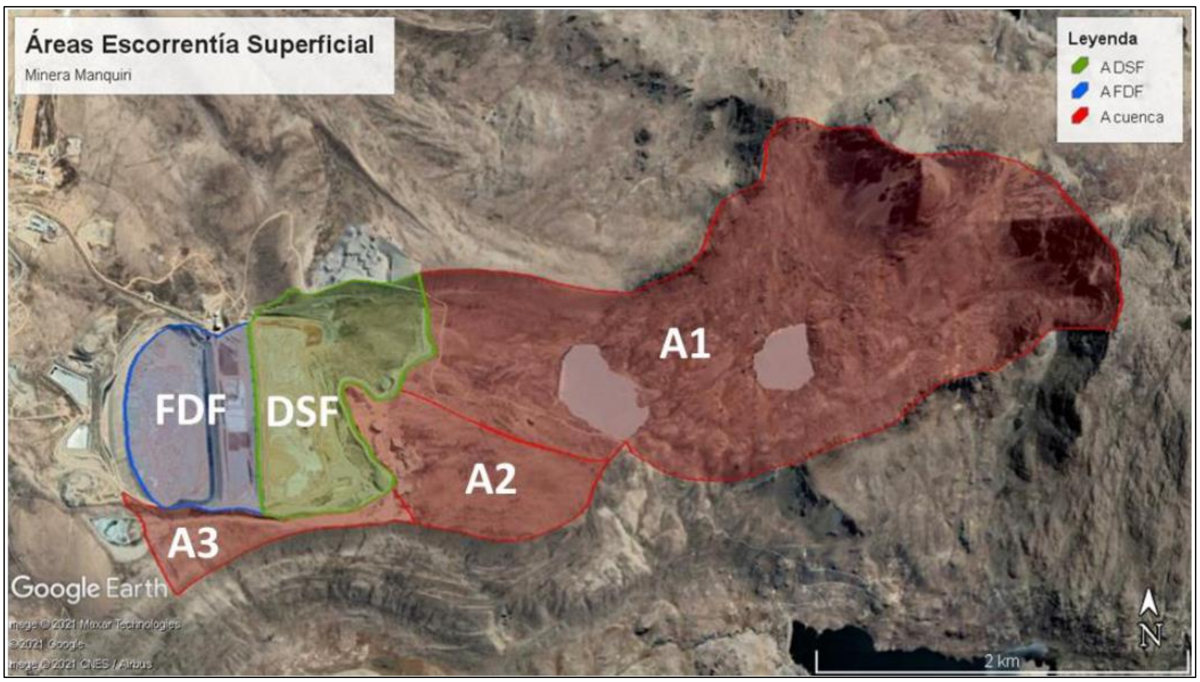
The hydrologic update report results (KP, 2021a) are similar to the original report (SWC, 2005). In general, both reports show reasonable values of the climatological parameters. Table 18-1 summarizes the updated hydrologic parameters.

Table 18-1: Hydrologic Update Parameters

Design Criteria	SWC	KP
Annual rainfall (mm)	515	401.5
Wettest year (1984) (mm)	855.2	656
Driest year (1983) (mm)	238	186.4
Annual evaporation (mm)	726	1,226.1
100 year, 24 hour (mm)	52.3	53.0
100 year, 72 hour (mm)	--	77.4
24-hour probable maximum precipitation (PMP) (mm)	187.8	172
72-hour PMP (mm)	--	248

Source: SWC, 2005; KP, 2021a

The project basins' flood volumes (Figure 18-9) were also updated using the updated maximum rainfall results. Table 18-2 shows the estimated flood volumes by basin for the design storm (72-hour PMP) (KP, 2021a)).



Source: KP, 2021b

Figure 18-9: Basin Flood Volumes

Table 18-2: Flood Volume by Basin

Time Return Period (year)	Volume (m^3)				
	A1	A2	A3	A FDF	A DSF
72-hour PMP	846,000	142,000	66,500	163,800	222,900

Source: KP, 2021b

18.8.6 Water Balance

The FDF's water balance (KP, 2021c) considered the following evaluation criteria:

- Supernatant operational pond volume (107,287 m^3)
- FDF's flood volume associated with the 72-hour PMP event (163,800 m^3)
- Wave height (0.6 m)
- Settlements and dam deformations of up to 0.4 m

Other modeling parameters (such as runoff and evaporation coefficients used in the water balance model) were standard values used by the industry in this type of project. Table 18-3 summarizes the parameters used in the water balance.

Table 18-3: Water Balance Parameters

Design Criteria	SWC	KP
Wet tailings runoff coefficient	1.0	0.9
Dry tailings runoff coefficient	0.5	0.65
Natural ground runoff coefficient	0.5	--
Pond evaporation coefficient	0.75	0.75

Source: SWC, 2005; KP, 2021c

The water balance analysis (KP, 2021c) did not consider the contribution of the DSF, A1, A2, and A3 basins; this assumes that the stormwater diversion channel is operational and diverts runoff from these basins. Therefore, it is important to confirm whether the channel was designed/constructed for the 72-hour PMP. A DSF water balance report was not found for its current or future condition.

18.8.7 Dam Breach Analysis and Consequence Classification

The dam break analysis report (KP, 2022b) was mostly developed following CDA guidelines (CDA, 2021). However, some areas for improvement include:

- The digital terrain information used for modeling (with a cell size of 12.5 m) could be enhanced by considering a detailed topographic survey.
- Modeled scenarios for both sunny and rainy days should consider base flows in natural drainages before the dam breach event, as per CDA (2021).
- The methodology used for generating hydrographs should incorporate sensitivity analyses of the parameters most influential in hydrograph generation.
- The report did not include a dam hazard classification; this could be incorporated by considering the results of affected structures and estimating loss of life.

Additionally, one of the key findings in the report (KP, 2022b) is that the FDF and DSF do not have sufficient capacity to contain the design storm (72-hour PMP). The DSF should be operated consistent with the facility water balance (KP, 2021c) with sufficient freeboard to store runoff from the design storm event (72-hr PMP), assuming the upstream diversions have failed during the PMP event.

The design criteria report (KP, 2021a) classified the dam as having an extreme risk level, considering a hypothetical failure's impact on nearby mining facilities (mining works) and populated areas located within 5 km downstream of the FDF and DSF. This classification is conservative as it is not based on an analysis of identifying affected facilities and the potential for loss of life.

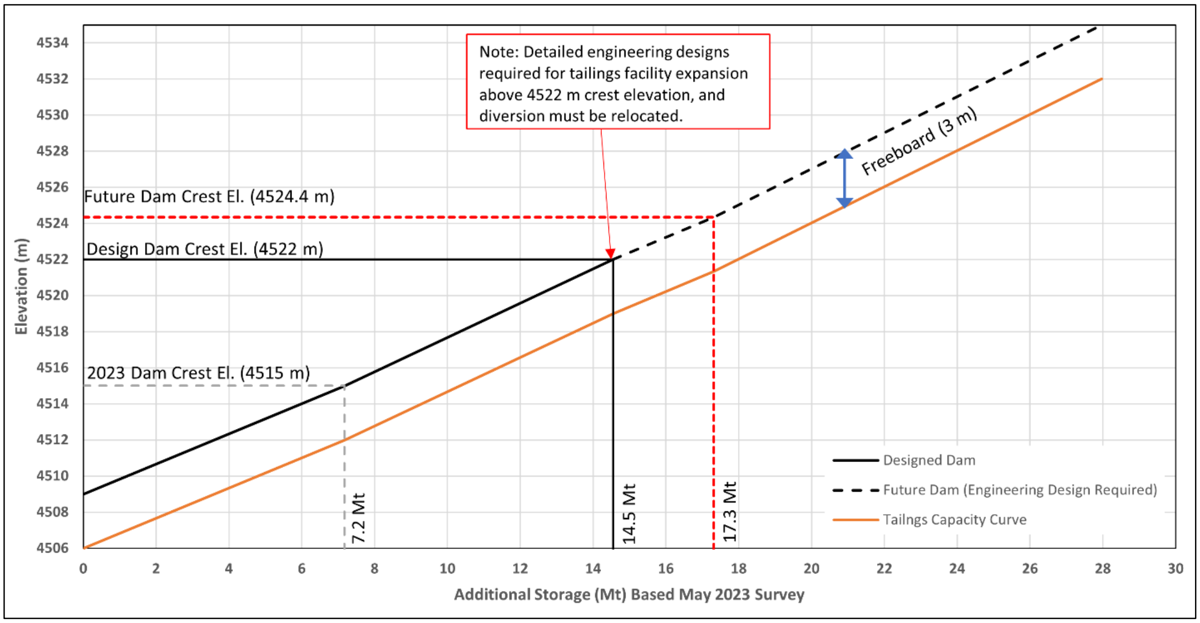
18.8.8 Operational Data and Tailings Storage Capacity

Selected key mine operational data are summarized below and were provided by SRK (2023b). DSF storage capacity estimates were developed using digital terrain modeling based on a comparison of a May 2023 ground survey supplied by APM and generated surfaces to represent possible future DSF expansion. Modeling utilized dam configurations as required by geotechnical studies (KP, 2022c) and assumed flat tailings impoundment surfaces plus 2 m below the dam crest to account for freeboard:

- Process plant:
    - Annual mill throughput: 1.64 Mt
    - Average daily mill throughput: 4,500 t
- Tailings generation:
    - Percent tailings to surface disposal in DSF: 100%
    - Contracted ore: 5.68 Mt
    - FDF re-mined ore: 11.55 Mt
    - FDF re-mined and processed ore: 4.85 Mt
    - FDF reject material: 6.70 Mt
    - Total tailings from processed ore: 10.53 Mt
    - Total tailings, including FDF reject material: 17.23 Mt
    - FDF re-mining rate: 6,400 t/dt
    - FDF reject rate: 3,712 t/d
    - Total tailings generation rate (including FDF reject): 8,212 t/d
    - FDF re-mining duration: 4.9 years
    - Total life of resource: 6.4 years
- Tailings storage capacity in DSF (dam crest elevation of 4,522 m):
    - Tailings annual production (million cubic meters (Mm^3)): 1.152
    - FDF estimated remaining capacity at an embankment crest elevation of 4,522 m: 8.86 Mm^3
    - Estimated storage capacity for impounded tailings: 6.6 Mm^3
    - Estimated storage capacity for tailings used as dam raise fill: 2.6 Mm^3
    - Tailings average dry density for impounded tailings: 1.53 t/m^3 (KP, 2019)
    - Tailings average dry density for compacted dam fill: 1.72 t/m^3 (KP, 2022b)
    - Total capacity of DSF at an embankment crest elevation of 4,522 m: 14.5 Mt
    - Remaining DSF life: 5 years (assumes a 3-m freeboard, which should be verified with a facility-specific water balance)

APM has developed an engineering design to raise the DSF embankment crest to 4,522 m (KP, 2022c). An elevation of 4,522 m corresponds with the crest elevation of the circumferential diversion ditch above the impoundment. Raising the dam above an elevation of 4,522 m will require redesigning and relocating the diversion ditch. Therefore, an elevation of 4,522 m represents a limiting storage constraint (temporarily). Raising the embankment to an elevation of 4,522 m will provide an additional 14.5 Mt of tailings storage, equating to nominally 5 years of operating life.

Figure 18-10 presents the DSF stage-storage relationship. Based on the total tailings storage requirement of 17.3 Mt, the required crest elevation is 4,524.4 m, including a 3-m freeboard. The structural stability of the DSF with a crest elevation of 4,522 m has been demonstrated through engineering studies (KP, 2022c); however, further engineering design is required to demonstrate stability to at least a crest elevation of 4,524.4 m to accommodate the total tailings storage requirement (17.3 Mt) and to relocate the diversion ditch.



Source: Tierra Group, 2023

Figure 18-10: DSF Stage-Storage Relationship

APM is contemplating an additional DSF expansion to the embankment crest elevation of 4,532 m and has commissioned an engineering firm to study the facility expansion, including structural stability and relocating the diversion channel upstream of the DSF. Assuming the expansion to embankment crest elevation of 4,532 m proves feasible, the DSF capacity could accommodate an additional 13 Mt of tailings (based on estimates from digital terrain modeling).

18.8.9 Potential Failure Modes

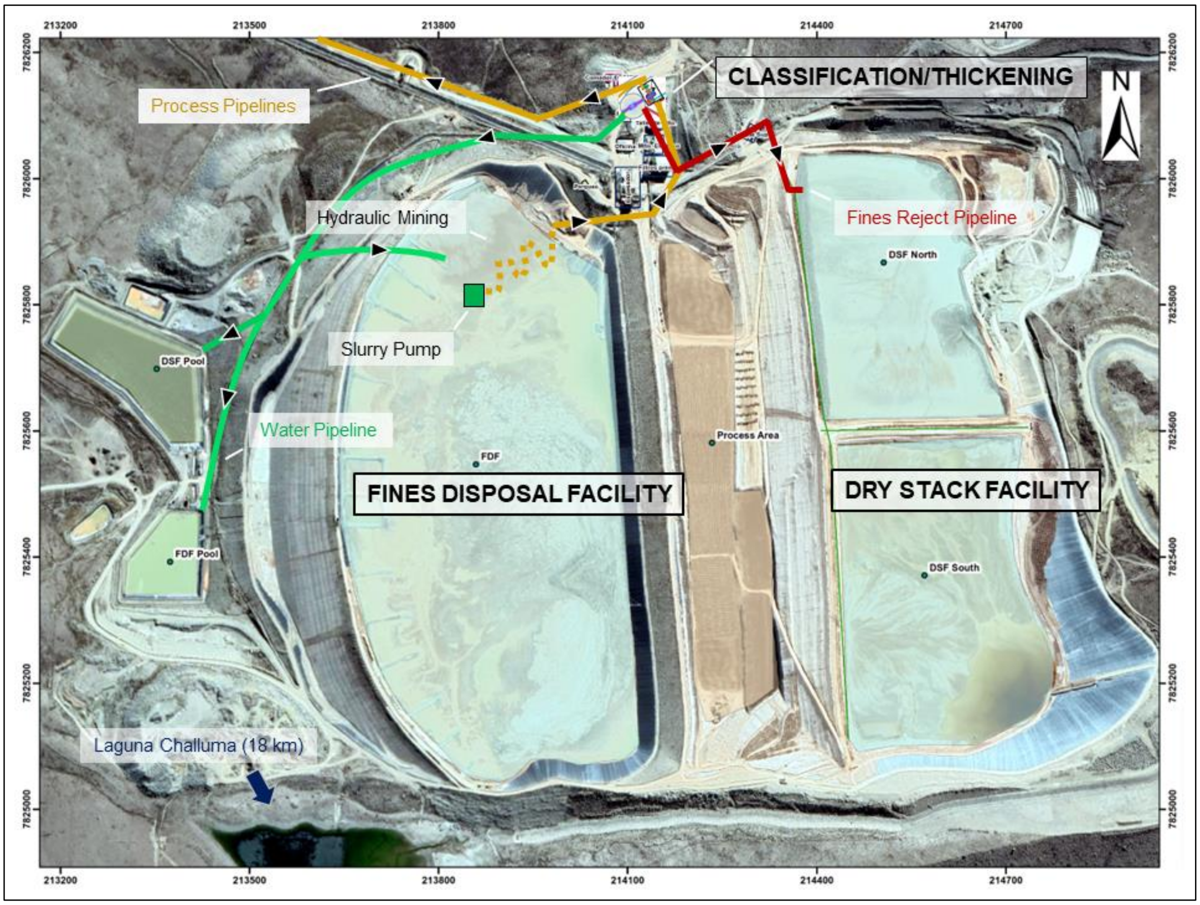
An FDF and DSF preliminary identification of potential failure mode (PFM) candidates was performed. This work only identifies the possible causes and does not represent a comprehensive risk assessment. The identification, risk estimation (probability of occurrence or likelihood), and severity of consequences are not included. Identified PFMs are discussed below. This list of PFMs is preliminary, based on current knowledge and the information reviewed:

- Embankment overtopping: A water balance for the DSF was not provided; therefore, confirmation of sufficient stormwater storage could not be confirmed.
- Potential slip surfaces within the foundations and the embankments: APM should prioritize the construction of the required buttresses (KP, 2022c) and demonstrate that the DSF embankment has a suitable foundation (evaluate the undrained failure of foundation and embankment fill materials), verify pore pressure conditions within the embankments are low (install geotechnical instrumentation to monitor pore pressure and stresses), and embankment materials to have sufficiently high shear strength properties (by field and laboratory testing program and interpretation).

- Foundation or embankment fills liquefaction: APM should perform periodic (at least annual) field and laboratory testing of the DSF embankment fill materials to verify unsaturated conditions, evaluate potential liquefaction of materials with over 80% saturation levels, and analyze post-liquefaction stability of the embankment.

18.9 FDF Reprocessing

The expansion will include the addition of high-pressure water and slurry pumps, piping, and classification and thickening equipment. The estimated annual increase in power will be an additional 3.72 MW and will be part of the current power supply contract. Raw water consumption is estimated at 70,416 m^3 per year. The water will be purchased from AAPOS and can be supplied at 5,000 m^3/day from Laguna Challuma, which is 18 km away and already piped. Figure 18-11 shows the tailings DSF and FDF.



Source: Manquiri, 2023

Figure 18-11: Tailings/DSF and FDF

19 Market Studies and Contracts

19.1 Market Studies

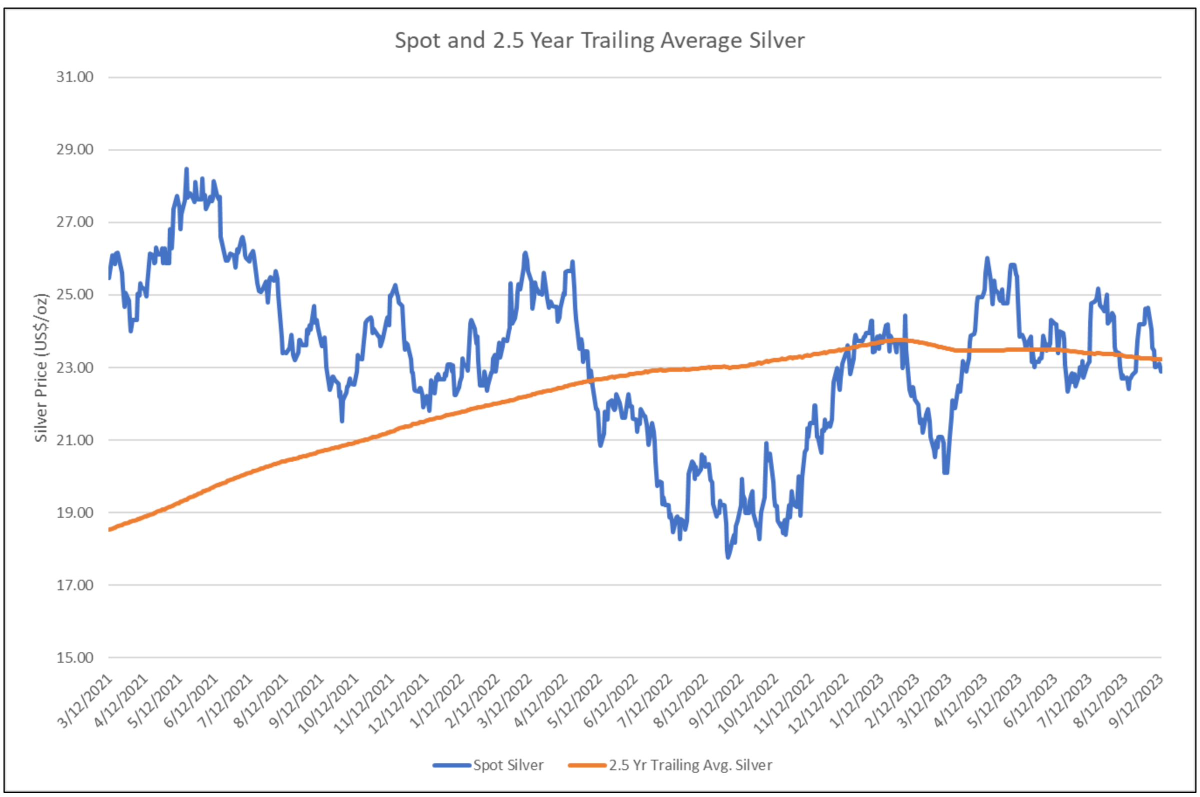
The silver-gold (gold approximately less than 1% in each bar) doré produced by the San Bartolomé Mine is sold to an international refinery under a non-exclusive long-term contract FOB mine site and shipped to Canada.

Metal prices for the economic analysis for gold and silver and are shown in Table 19-1. These prices are based on the 30-month rolling average for silver and the 30-month rolling average for gold as shown in Figure 19-1 and Figure 19-2.

Table 19-1: Economic Analysis Metals Prices

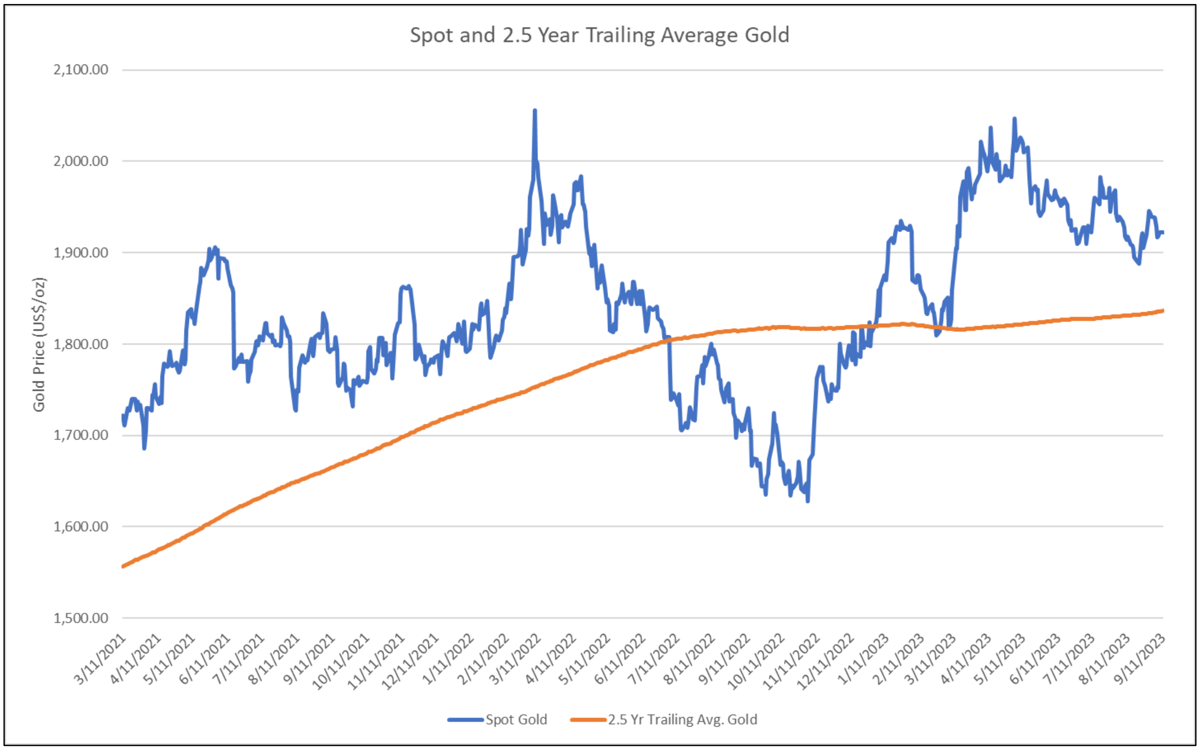
Metal	Value	Unit
Silver	23.00	US$/oz
Gold	1,800.00	US$/oz

Source: SRK 2023



Source: S&P Global, 2023

Figure 19-1: Spot and 2.5 Year Trailing Average Silver



Source: S&P Global, 2023

Figure 19-2: Spot and 2.5 Year Trailing Average Gold

19.2 Contracts

The major contracts in place for supplies and services include:

- Power supply from Servicios Electricos Potosi S.A. (Sepsa) at a negotiated contract for the life of the mine.
- Water Supply from Administración Autónoma para Obras Sanitarias Potosí (AAPOS), the local water administrative service department. Manquiri purchases the water from AAPOS for contract is renewed annually.
- Cyanide from Hebei Ltd. under an annual contract.
- Diesel supply from ENEX S.A. weekly at market price at time of purchase.
- Security from GT Protection Security renewed annually.

Manquiri contracted Ind. Met. Carlos Caballero S.A. for turn-key engineering, procurement, construction, and management contractor for the construction of the FDF classification/thickening infrastructure.

20 Environmental Studies, Permitting, and Social or Community Impact

20.1 Environmental Studies

The San Bartolomé project is located approximately 3 km south of the City of Potosí, Bolivia. Site access is provided either via Sucre or Oruro cities along paved roads. The mine site lies in the skirts of Cerro Rico Mountain, at an elevation of roughly 4,250 m above mean sea level (approximately 14,000 feet above mean sea level).

Environmental baseline data for the San Bartolomé project were originally collected and disclosed in the 2004 ALBA describing the pre-existing environmental conditions and liabilities in the project area. Descriptions of the general characteristics of the area included location and access, climate, physiography and geomorphology, hydrology (surface waters), and hydrogeology (groundwater). Updates of the hydrological study of the tailings dam sector (Actualización Estudio Hidrológico Sector Diques de Colas (KP, 2021)), as well as 2022 flora and fauna monitoring data, have been included to supplement the 2004 information. The ALBA and supplemental information were prepared in compliance with Bolivian environmental regulations to obtain an environmental license for the San Bartolomé project. At San Bartolomé, the effect of over 450 years of mining activity has severely impacted the existing environment. Under Bolivian law, the operator is not responsible for pre-existing environmental liabilities identified in the ALBA.

20.1.1 Environmental Impact Analyses

The San Bartolomé Estudio de Evaluación de Impacto Ambiental (EEIA, or Environmental Impact Study) describes the San Bartolomé project and its impact on the area and local communities. The EEIA describes the project in detail, including operating parameters, flows, equipment, tailings facilities, mine plans, reclamation plans, chemicals, chemical spill plans, and other parameters as defined in 2004. An environmental protection plan and a reclamation plan for the operation were also included. All of the assumptions and assertions are supported by engineering analyses that are part of the EEIA document. Additional baseline information was also developed for the EEIA including, but not limited to, geology, mineralization, geochemical characterization, water quality (surface water and groundwater), air quality, noise, and socioeconomics. The EEIA also includes analyses of potential project-related risks and contingencies.

On June 21, 2004, the Bolivian Ministerio de Desarrollo Sostenible – Viceministerio de Recursos Naturales y Medio Ambiente (Ministry of Sustainable Development – Viceministry of Natural Resources and Environment) issued the Declaratoria de Impacto Ambiental (DIA, or Environmental License) (N° MSD-VRNMA-DGMA-UPCA-050101-02-DIA-N° 1675/04) and Registro y Licencia para Actividades con Sustancias Peligrosas (Hazardous Materials Permit) (Nº 050101-02-LASP-013-04) to Manquiri for the project based on information contained in the ALBA and EEIA. The Environmental License and the associated Hazardous Materials Permit are the only environmental permits required for project operations. The Bolivian Government updated the Environmental License on December 7, 2011.

20.1.2 Environmental Liabilities

Many historic environmental liabilities, as well as numerous active sources of environmental degradation, are evident in the Cerro Rico area, most of which pre-date San Bartolomé operations by centuries and were caused by third parties. Pre-existing environmental liabilities are characterized by the contamination and/or elimination of soils and vegetation around Cerro Rico as a result of more than 450 years of mining activity. The environment around Cerro Rico is one of arid, high elevation, with a thin soil cover that supports only sparse vegetation. The extent, number, and impact of historic mine portals, dumps, surface workings, treatment facility locations, and access roads are shown. These areas, and the associated environmental impacts, were characterized in the ALBA and EEIA. Both applications documented that these conditions are legacy issues (prior to current activities). Nonetheless, sampling and reporting of impacts to the San Bartolomé operation continue to be reported.

20.2 Environmental Management and Monitoring

Manquiri currently submits annual reports, which contain environmental monitoring tasks specified in the Plan de Aplicación y Seguimiento Ambiental (PASA, or Environmental Management Plan). The purpose of the reports is to provide results of environmental monitoring to demonstrate compliance with the Programa de Prevención y Mitigación (PPM, or Environmental Protection and Mitigation Program) for the operation of the plant, tailings facility, and mining operations. Management and monitoring plans in the PASA include, but are not limited to:

- MA-PL-100_Plan de manejo de residuos (Management of Wastes)
- MA-PL-101_Plan de manejo de efluentes (Management of Effluents)
- MA-PL-11_Plan de respuesta a emergencias Presas de Colas (Tailings Dam Emergency Response Plan)
- MA-PRO-04_Gestion de Emergencias Ambientales (Environmental Emergency Management)
- MA-PRO-24_Proteccion de la biodiversidad (Biodiversity Protection)
- MA-PRO-54_Monitoreo de Agua y Suelos (Monitoring of Water and Soils)
- MA-PRO-61_Lectura y medicion de Piezometros de Tubo Abierto (Reading and Measurement of Open Tube Piezometers)
- MA-PRO-84_Cierre y Reh. act. de exploracion, remocion y explotacion (Closure and Rehabilitation on exploration, removal and exploitation)
- Procedimiento Operativo Presas de Colas (Tailings Dam Operating Procedure)

20.2.1 Waste Management

Manquiri is committed to a waste management philosophy of reduce, reuse, and recycle. Wastes are segregated into several categories for proper handling: common (domestic or solid) wastes, biological (infectious) wastes, hospital wastes, hazardous wastes, and industrial wastes (including tailings). All employees are trained to properly dispose of waste according to its classification.

Manquiri utilizes tailing dams for the storage of metallurgical waste (tailings and fines) generated in the beneficiation process (DSF and FDF). Both dams are in a natural depression engineered and conditioned for the storage of tailings/fines.

The DSF was initially constructed using downstream techniques; in subsequent stages, construction employed centerline techniques, while the final stages, both upstream and centerline construction techniques were adopted. The FDF was initially constructed using downstream techniques; subsequent stages employed both centerline and upstream construction methods.

The DSF receives tailings from the Merrill-Crowe process, which contain residual cyanide). The FDF receives tailings from the wet screening process (i.e., no residual cyanide). Both of the tailings storage facilities are lined with 1.5-mm HDPE geomembrane to reduce seepage to the subsurface.

DSF tailings are initially thickened near the process plant and pumped to either the northeast or the southeast reservoir (whichever is currently active) for drying. Water collected in the reservoirs is recirculated back to the Merrill-Crowe facility. Once the target moisture content is achieved, the tailings are mechanically relocated to the lower area for stacking and compaction, as well as being used in embankment construction. The FDF receives traditional tailings slurry for point discharge and settlement. Collected supernatant is recirculated to the process plant. In addition to the controls and measures indicated in the Environmental Impact Assessment of Tailings Dam MA-REG-03.01, Manquiri conducts periodic checks to assess the condition of all embankments and has installed piezometers to monitor the embankments and conditions beneath each impoundment.

20.3 Project Permitting Requirements

20.3.1 Status of Permits

As noted above, on June 21, 2004, the Bolivian government issued the Environmental License (N°MSD-VRNMA-DGMA-UPCA-050101-02-DIA-N°1675/04) and Hazardous Materials Permit (Nº050101-02-LASP-013-04) for the San Bartolomé project based on information contained in the original ALBA and EEIA. The Environmental License and the associated Hazardous Materials Permit are the only environmental licenses required for project operations. The Environmental License was reviewed by the primary Bolivian government environmental agencies and updated on December 7, 2011, through issuance of N° MMAyA-VMA-DGMACC-EEIA 050101-02-DIA-1675/11. Both authorizations have indefinite durations (i.e., no expiration).

The COMIBOL Bolivian government permit to mine the pallaco alluvial deposits expired in September 2023 and was not renewed because of a constitutional resolution that obligated COMIBOL to preserve the conical structure of Cerro Rico as a historical monument. The resolution has no effect on the processing of contracted material or the reprocessing of the FDF tailings.

20.3.2 Performance of Reclamation Bonding

No financial surety for closure and rehabilitation is currently required in Bolivia.

20.4 Social, Community, Plans, and Agreements

The San Bartolomé project EEIA contains socioeconomic aspects of both the City of Potosi and the Ayllu Jesus de Machaca, where Manquiri is located. The mining history of Potosí dates back to the exploitation of Cerro Rico in the mid-sixteenth century. In 1993, the United Nations Educational, Scientific and Cultural Organization (UNESCO) declared Cerro Rico a national monument. The designation of Cerro Rico as a world heritage site included other historical monuments, such as the colonial lagoons, the gorges and mills of the Rio de la Ribera, and others. The social aspects of the San Bartolomé project are of great importance, and Manquiri manages them accordingly.

20.4.1 Jesus de Machaca Ayllu Indigenous Community

An Ayllu is an original government structure (i.e., it is a family, social, economic, and cultural grouping, with a territorial base that persists from before the Inca Empire). The Ayllu Jesús de Machaca is a one-of-a-kind traditional community that spans the Andes region and exemplifies the surrounding community for the San Bartolomé operation; its members usually recognize the language, identity, and ancestral uses and customs and strive to preserve cultural heritage. The Ayllu Jesús de Machaca's government structure is made up of a Cacique, Curaca, and Corregidor.

In 2004, Manquiri acquired the surface rights of the area where the processing plant and tailings facilities have been constructed from the Ayllu Jesús de Machaca. Under Bolivian law, land belonging to indigenous communities cannot be sold or transferred but can be expropriated for purposes of national interest, such as mining projects. Consequently, Manquiri negotiated the expropriation of certain surface rights belonging to the community of Jesús de Machaca.

First, a general agreement was reached with the community (which at that time consisted of some 142 families), which made it possible to establish individual agreements that were negotiated with the families directly affected by the project. In addition to monetary compensation, employment opportunities were provided, and a community company made up of community members was established (called ECOMUL) who provide services in the tailings dam sector, thus establishing an inclusive business model, since this company of community is part of the value chain of Manquiri.

20.4.2 Indigenous Development Plan

Once production began in 2008, Manquiri carried out an investigation on the socioeconomic situation of the Ayllu Jesús de Machaca as a baseline. This resulted in the preparation of a Plan de Desarrollo Originario (PDO, or Indigenous Development Plan), and later, the signing of a financing agreement for said plan.

A management committee was established for the implementation of the PDO, where regulations for the use and destination of economic resources are approved. In this committee, Manquiri appointed two representatives and five more authorities for the Ayllu Jesús de Machaca, representing leaders of each community. The management committee is a space for discussion and reflection on the development possibilities of the Ayllu based on its possibilities and its available resources. Another instrument for the good execution of the PDO was the Ayllu population census, which is periodically updated.

The strategic guidelines of the PDO have three pillars: the productive, social, and cultural components. In terms of production, tourism projects, a fish farm, horticultural production under temperate climates, a clothing factory, a water bottling plant, car washes, electronic scales for dump trucks, etc. have been implemented. In the social component, there are several projects in education, health, construction and implementation of a sanitary post, access to safe water, sewerage, construction of wet latrines, and others.

In 2021, an evaluation of the results and impact of the PDO was completed, detailing the relevance, effectiveness, efficiency, sustainability, and impact of the program. The report's key findings indicate that the well-being of residents has been significantly improved through the development of the local economy; families have strengthened their culture while living in a healthier environment and with greater access to education.

The main occupations of residents in the Ayllu have diversified significantly away from work and mining towards new occupations (e.g., greenhouse farmers, fish farmers, merchants, business owners, tourism, transporters, etc.) during the impact period of the PDO.

20.4.3 Support for Potosí

Potosí, with a population of just over 160,000, is Bolivia's eighth largest city and the capital of the department of Potosí. The city was one of the most historically important silver mining regions in the world; silver has been mined at Cerro Rico since 1545 and produced an estimated 60% of the world's silver during the second half of the sixteenth century.

Through its close proximity to the city of Potosí, Manquiri maximizes the economic impacts to the city, as employees and its suppliers both live and work in the area, and spending is generally concentrated within a small region. In 2021, Manquiri commissioned the Tomás Frías University and Oxford Economics to undertake a study of its socio-economic impact in Potosí and Bolivia as a whole and map out the benefits derived from the existence and operation of the San Bartolomé plant and its silver recovery activities. As a result, a multiplier effect of spending of 3.05 was identified, which means that for every peso that Manquiri injects into the Potosi economy, it is multiplied by three through the contracting of services and expenses in general in the city.

Manquiri contributes heavily to local governments through export royalties, 100% of which are allocated for investment in local development initiatives: 85% through the local government, and 15% through the municipality.

20.4.4 Colonial Restoration Project

In accordance with the EEIA, Manquiri has assumed the commitment to implement the colonial portals restoration program and promote the industrialization of metallic silver through an agreement with the Potosí City Mayor's Office.

In the sixteenth century, there were approximately 500 mines, and many mining galleries were developed. Manquiri has inventoried 580 mining portals classified in:

- Colonial
- Republican
- Modern

A total of 139 mining portals have been included in the colonial portal restoration program with their original architectural details. 67 portals have stone arches. The program requires the approval of the Ministry of Cultures. To date, 19 portals have been restored. The program also includes the construction of a tourist circuit along the portals.

These programs are part of the Environmental License and constitute a unique program for the rescue of historical and archaeological treasures. Local mining workers were hired, with experience in the construction of potting (gateways lined with stones), pircas (stone walls), and mining galleries.

20.5 Mine Closure Planning

20.5.1 Reclamation Measures during Operations and Project Closure

In 2017, Manquiri updated its environmental closure plan for the San Bartolomé site. The plan was prepared for Manquiri by MINCO, an independent mining and engineering consultant group based in La Paz, Bolivia (www.minco.com.bo). The updated plan, Actualización del Plan de Cierre y Rehabilitación del Área (PCRA), was based on a 2011 Plan Conceptual de Cierre y Rehabilitacion (PCCR) and included the following objectives:

- Identify and characterize the actual components of the San Bartolomé mining operation.
- Identify and describe the final closure and restoration activities for the various parts of the San Bartolomé operation at the end of mine life, taking into account closure of each component or area and assumed commitments in the Environmental License and environmental risks of each site.
- Identify and describe activities completed during operations and those that will be completed before the end of the useful mine life.
- Develop and formulate final completion criteria and describe the criteria to facilitate that will allow execution of the closure state (that involves the closure and post-closure of the San Bartolomé project in full compliance with Bolivian legislation and internal company policies).
- Identify the destinations of the different components or part of them in the environmental legal framework, taking into account commitments in the area of corporate social responsibility.
- Produce a closure budget for the San Bartolomé mining operation based on the closing and post-closing activities of the PCRA.

Closure planning was again updated in 2021 with completion of the Cierre y Rehabilitacion Actividades de Exploracion, Remocion y Explotación.

Most of the reclamation at San Bartolomé will be completed during the active mine life. The process plant and the two tailings disposal facilities will be reclaimed and revegetated after the life of the mine. Both during active processing and closure, reports will be submitted to the appropriate environmental authorities; this activity will continue until the company receives authorization to abandon the mine site or successfully negotiates the transfer of the site to another company.

20.5.2 Reclamation and Closure Cost Estimate

ARO costs are provided for San Bartolomé for 2023. Cost basis inputs are included, resulting in a 2023 ARO estimate of US$21,869,806, broken down as shown in Table 20-1. SRK recommends that Manquiri conduct a comprehensive closure review of the entire operation and prepare a detailed LoM closure cost estimate considering each facility at full buildout. LoM estimates may, or may not, be higher than AROs depending on the extent of concurrent reclamation that occurs during operations.

Table 20-1: San Bartolomé 2023 Closure Cost Summary

Closure Component/Program	Cost (US$)
Mine/plant area reclamation and closure, surface areas	2,480,743
Storm/sediment channels and ponds, tailings facilities, and dams	10,562,502
Mill and plant facility, yards, and sitewide demolition/stabilization	2,010,190
Other direct costs (studies, permits, contract profit, mobilization/demobilization, etc.)	3,963,787
Indirect costs (15% contingency)	2,852,583
Total	**$21,869,806**

Source: Manquiri, 2023 (San Bartolomé Project Potosí – Bolivia 2023 Closure Summary, August)

Scheduling of closure activities was based on a combination of dates for completion of mining, a reclamation period of approximately 3 years, and a post-closure period for monitoring of another 3 years. Ultimately, the final closure effort is influenced by concurrent reclamation conducted during mining, affecting the ultimate reclamation and closure budget. Reclamation during mining is influenced by manpower and equipment availability for concurrent reclamation. The expiration of the COMIBOL pallaco mining permit has no effect on the ARO.

21 Capital and Operating Costs

The audited San Bartolome project is an ongoing operation. The project is planning to install an expansion related to the reclaiming and re-processing of their existing FDF tailings. The capital costs estimated for the projected life of mine of the operation is related to the following major cost centers:

- Installation of a hydraulic mining operation and pre-concentration circuit to reclaim and reprocess the FDF ore
- Sustaining of the existing operation and the expanded FDF mining and processing
- Project closure

The capital cost estimates developed for this study comprise the costs associated with the engineering, procurement, construction, and commissioning required for all items. The cost estimate related to the installation of the FDF expansion is based on engineering and an estimate prepared by EPCM. The sustaining cost estimate is based on site specific historic data provided to SRK. The closure cost estimate was prepared by the project.

Operating costs associated with the projects are subdivided into the following categories:

- The mining operating expenditure, including:
  - Owner operated mining areas
  - Third-party ore acquisitions
  - FDF hydraulic mining
- The processing operating expenditure, including:
  - Pre-concentration
  - Mineral processing
  - Tailings deposition
- G&A operating expenditure, including:
  - G&A related activities
  - Indirect costs
  - Administrative costs

All operating costs include supervision staff, operations labor, maintenance labor, consumables, electricity, fuels, lubricants, maintenance parts, and any other operating expenditure identified by contributing engineers.

All financial data is third quarter 2023, and currency is in U.S. dollars (US$), unless otherwise stated. The exchange rate in Table 21-1 has been considered throughout the estimates.

Table 21-1: Exchange Rate

Exchange Rate	Value	Unit
Boliviano/US Dollars	$6.90	BOB/USD

Source: Banco de Bolivia, 2023

21.1 Capital Costs

Andean and ECM estimated the capital costs for the San Bartolomé project. The estimate is based on historic costs incurred at the site, existing contracts with service providers and engineering prepared for the planned FDF expansion.

Andean provided SRK with the details supporting their capital estimates. Table 21-2 summarizes the capital cost estimate.

Table 21-2: LoM Capital Cost Summary

Sustaining Capex	Unit	Value
Hydraulic mining and pre-concentration	US$	6,700,000
Sustaining Capital	US$	11,200,000
Closure	US$	2,250,000
Total	**US$**	**20,150,000**

Source: Andean, 2023

21.2 Operating Costs

Operating costs were developed by Andean and EPCM and are based on the production schedule and stated reserves. Cost estimation is based on requirements of equipment, operating labor, supervision, and administrative labor, mine, and process consumables, maintenance, etc. The estimates above were calculated including the estimation of the following types:

- Purchase of third-party ore
- Fuel
- Power
- Equipment operation
- Equipment maintenance
- Explosives
- Services
- Labor

Table 21-3 summarizes the operating costs of the San Bartolomé project.

Table 21-3: Operating Cost Summary

Description	Unit	Value
Mining/Purchase Cost		
FDF	US$/t-washed	2.00
Manto	US$/t-washed	22.90
Platera	US$/t-washed	22.90
Rosario	US$/t-washed	22.90
Pacas	US$/t-washed	60.80
Altavista	US$/t-washed	137.00
Processing Cost		
Pre-Concentration FDF	US$/t-washed	1.42
Processing FDF	US$/t-Milled	16.13
Processing Manto	US$/t-Milled	23.49
Processing Platera	US$/t-Milled	23.49
Processing Rosario	US$/t-Milled	23.49
Processing Pacas	US$/t-Milled	20.29
Processing Altavista	US$/t-Milled	24.69
TSF FDF	US$/t-Milled	1.76
TSF Manto	US$/t-Milled	1.76
TSF Platera	US$/t-Milled	1.76
TSF Rosario	US$/t-Milled	1.76
TSF Pacas	US$/t-Milled	1.76
TSF Altavista	US$/t-Milled	1.76
Other Cost		
G&A	US$/t-Milled	0.91
Indirect	US$/t-Milled	2.80
Administrative	US$/t-Milled	3.80

Source: Andean, 2023

22 Economic Analysis

22.1 Introduction

The financial results are derived from monthly inputs prepared by SRK. Cash flows are reported on a yearly basis. All financial data is Q3 2023 U.S. dollars.

Andean currently holds contracts for the sale of its product. This study was prepared under the assumption that the project will sell the following products:

- Doré bars containing silver.

Assumed prices are based on historic and spot prices. Table 22-1 presents the prices used in the cash flow model, which were also used for reserves calculations.

Table 22-1: Price Assumptions

Description	Value	Unit
Silver	23.00	US$/oz

Source: Andean, 2023

Existing contracts define logistics and net smelter return terms for the doré product; Table 22-2 summarizes and presents these terms.

Table 22-2: Logistics and Net Smelter Return Assumptions

Description	Value	Units
Doré		
Payable silver	99.25%	%
Silver refining charge	0.25	US$/oz-Ag
Shipping and assaying	0.20	US$/oz-Ag

Source: Andean, 2023

22.2 Main Assumptions

Common prices for consumables, labor, fuel, lubricants, and explosives were used by all engineering disciplines to derive capital and operating costs. Included in the labor costs are shift differentials, vacation rotations, all taxes, and the payroll burdens.

All currency is in U.S. dollars (US$) unless otherwise stated. A pre-production period has not been considered, as the site is already in production. Mine production is based on an average LoM mine material movement of 3,029 t/d ore (365 days/year basis). Mine production declines over time from a maximum of 4,821 t/d ore. The mine schedule does not include stockpiling as all blending of RoM is done in the mine. Table 22-3 presents the LoM mine assumptions.

Table 22-3: Logistics and Net Smelter Return Assumptions

LOM Operations	Unit	Value
FDF Ore Mined	tonnes	3,268,491
Manto Ore Mined	tonnes	758,426
Platera Ore Mined	tonnes	578,708
Rosario Ore Mined	tonnes	176,081
Pacas Ore Mined	tonnes	260,491
Altavista Ore Mined	tonnes	33,690
Total Ore Mined	**tonnes**	**5,075,888**
FDF Waste Mined	tonnes	8,282,775
Manto Waste Mined	tonnes	1,262,568
Platera Waste Mined	tonnes	351,848
Rosario Waste Mined	tonnes	323,368
Pacas Waste Mined	tonnes	1,883,854
Altavista Waste Mined	tonnes	52,943
Total Waste Mined	**tonnes**	**12,157,356**
Total Material Mined	**tonnes**	**17,233,244**
FDF Ore Silver	g/t	58.49
Manto Ore Silver	g/t	126.50
Platera Ore Silver	g/t	157.06
Rosario Ore Silver	g/t	143.23
Pacas Ore Silver	g/t	227.80
Altavista Ore Silver	g/t	356.67
Average Mined Silver	g/t	93.50
FDF Ore Silver	ounces	6,146,417
Manto Ore Silver	ounces	3,084,527
Platera Ore Silver	ounces	2,922,285
Rosario Ore Silver	ounces	810,832
Pacas Ore Silver	ounces	1,907,819
Altavista Ore Silver	ounces	386,338
Contained Silver Mined	ounces	15,258,217

Source: Andean, 2023

The average mill feed is 3,029 t/d over the LoM. The mill feed has an average head grade of 93.50 g/t. The processing circuit is designed to recover silver bearing doré bars. Table 22-4 presents the projected LoM plant production.

Table 22-4: Logistics and Net Smelter Return Assumptions

LOM Operations	Unit	Value
FDF Ore Mined	tonnes	3,268,491
Manto Ore Mined	tonnes	758,426
Platera Ore Mined	tonnes	578,708
Rosario Ore Mined	tonnes	176,081
Pacas Ore Mined	tonnes	260,491
Altavista Ore Mined	tonnes	33,690
Total Ore Mined	**tonnes**	**5,075,888**
FDF Ore Silver	g/t	58.49
Manto Ore Silver	g/t	126.50
Platera Ore Silver	g/t	157.06
Rosario Ore Silver	g/t	143.23
Pacas Ore Silver	g/t	227.80
Altavista Ore Silver	g/t	356.67
Average Mined Gold	g/t	93.50
FDF Ore Silver	ounces	6,146,417
Manto Ore Silver	ounces	3,084,527
Platera Ore Silver	ounces	2,922,285
Rosario Ore Silver	ounces	810,832
Pacas Ore Silver	ounces	1,907,819
Altavista Ore Silver	ounces	386,338
Contained Silver Processed	ounces	15,258,217
FDF Ore Silver	%	76.0%
Manto Ore Silver	%	80.0%
Platera Ore Silver	%	80.0%
Rosario Ore Silver	%	80.0%
Pacas Ore Silver	%	80.0%
Altavista Ore Silver	%	80.0%
Contained Silver Mined	%	78.4%
FDF Silver Recovery to Doré	ounces	4,671,277
Manto Silver Recovery to Doré	ounces	2,467,621
Platerra Silver Recovery to Doré	ounces	2,337,828
Rosario Silver Recovery to Doré	ounces	648,665
Pacas Silver Recovery to Doré	ounces	1,526,255
Altavista Silver Recovery to Doré	ounces	309,071
Silver Recovered to Doré	ounces	11,960,717

Source: Andean, 2023

22.3 Taxes, Depreciation, and Royalties

Due tax is calculated as a corporate income tax at 32.5%. A 10-year fixed straight-line depreciation method with was assumed. Only the sustaining capital included in the cash flow was used for depreciation, as Andean did not provide a balance of undepreciated assets.

Project includes payment of two types of royalties as follows:

- Governmental royalty: 6% of revenue from silver sales, net of the following:
  - Refining charges
  - Assay and transportation costs
- Private royalty: 4% of revenue from silver sales, net of the following:
  - Refining charges
  - Assay and transportation costs

22.4 Results

The cash flow evaluation of San Bartolomé project indicate that it has a positive after-tax present value. As the project is installed and currently operating, it requires mostly sustaining capital and the costs associated with the operation.

23 Adjacent Properties

The QPs state that no information from any adjacent property was used in the preparation of the estimation of mineral resources and mineral reserves disclosed herein.

24 Other Relevant Data and Information

Other than as disclosed herein, there are no other relevant data and information.

25 Interpretation and Conclusions

25.1 Geology and Resources

In the opinion of the Qualified Persons, the geological logging, core and rock sampling, sampling preparation, and analytical procedures used by Andean in the FDF and the Contractor Material areas are consistent with generally accepted industry best practices and are, therefore, adequate.

There are additional improvements to be implemented by Andean, which include additional geological mapping in Tollojchi, Altavista, and Paca, the design of appropriate drilling programs to define the continuity of the orebodies at depth and enhancing the rock sampling methodologies and complement the QA/QC protocol including more external checks. This will improve the confidence required to upgrade the mineral resource classification.

The risks of MRE at the FDF include local unexplained inaccuracies in the QA/QC and the local variability of the size fractions within the FDF, which may make it difficult to characterize and understand the short-range grade variability. Given the proposed hydraulic mining method, SRK notes that high selectivity is probably not achievable in any case but may be material to a detailed understanding of the grade distribution within the overall FDF. These risks are dealt with using the current mineral resource classification and are considered sufficiently addressed for the present disclosure.

The deposits of Tollojchi, Altavista and Paca that are part of the Contracted Material areas remain open in some directions. Overall, the Qualified Persons consider there remains potential to increase Mineral Resources in these areas.

It is the opinion of the Qualified Persons responsible for the preparation of this Technical Report that the data used to support the conclusions presented here are adequate for defining the current geological model and associated mineral resource estimates.

25.2 Mining and Reserves

SRK converted mineral resource inventories to reserves by conducting pit optimizations, calculating appropriate cut off grades, designing viable mining pits and scheduling production from the various deposits.

Andean put together a comprehensive plan to mine the FDF tailings. This plan includes appropriate mining rates, operating costs and required capital costs. SRK reviewed Andean's FDF mining plan and is satisfied with the level of engineering. FDF tails were added into San Bartolome's mine production schedule at an appropriate production rate.

The Alta Vista deposit was treated as an underground operation given its physical dimensions and higher grades.

Current mine production schedule shows a mine life of 5 years, with the bulk of the ore coming from the FDF. A combination of contracted ore and FDF material will feed the mill for the first two years. After that the FDF will be the sole source of ore for the mill.

Probable reserves of 5.08 Mt at an average grade of 93 g/t Ag containing 15.19 Moz Ag were identified as a result of this study. Reserves are described in more detail in the Reserves Table 15-1.

25.3 Processing and Metallurgy

The cyanide leach tests conducted by APM and Linings on the + 140 mesh FDF composite size fraction are considered to be the most relevant, as these tests were conducted under conditions that replicate current plant practice, including oxygen injection.

Silver recovery from RoM and purchased ore is estimated at 80.5% and is based on the weighted average silver recovery reported for the process plant over the period from 2021 to 2023 (Q1).

Silver recovery from the deslimed and classified FDF fines (+140 mesh) is estimated at 76.0% and is based on duplicate confirmatory leach tests conducted by APM at their on-site laboratory using test conditions that simulate the process plant operating conditions at a target grind of P_{80} 75 µm.

25.4 Project Infrastructure

San Bartolomé is located a few kilometers south of the city of Potosí (pop. 160,648) and provides all the infrastructure of a mid-sized city, including a good source of skilled labor, healthcare, housing, and other services. The mine has been in operation since 2008 and has a full range of facilities for ore processing, precious metal recovery, support services, and administrative offices. There is sufficient water and power for reprocessing FDF tailings along with the other operations.

Based on the total tailings storage requirement of 17.3 Mt, the required crest elevation is 4,524.4 m, including a 3-m freeboard. The structural stability of the DSF with a crest elevation of 4,522 m has been demonstrated through engineering studies (KP, 2022c); however, further engineering design is required to demonstrate embankment stability to at least a crest elevation of 4,524.4 m to accommodate the total tailings storage requirement (17.3 Mt) and to relocate the diversion ditch.

The DSF operation utilizing air-dried tailings to construct centerline raises is operationally sensitive, requiring careful planning, diligent construction, and operational controls and monitoring. Based on current knowledge and information reviewed, it is unclear if the air-drying and tailings centerline construction methodology will continue to produce DSF embankment fill materials at sufficient rates and appropriate moisture contents to continue raising the embankment ahead of the impounded tailings rate of rise, particularly when the FDF reject is deposited in the DSF. FDF reject is expected to be very fine-grained (silt-clay), which could potentially inhibit the air-drying method to produce the necessary embankment construction material. The engineering properties of the processed and reject FDF tailings have not been defined, including amenability to the planned processing methods to produce suitable embankment fill materials. Furthermore, as the DSF embankment is enlarged, the process area at the toe of the embankment will become smaller, which may limit the ability to sufficiently dry the tailings for use as structural fill.

Several recommendations were made in the recent KP geotechnical report (2023), including constructing FDF and DSF embankment buttresses, performing additional shear strength laboratory testing on the tailings, performing liquefaction assessments, and installing additional piezometers for monitoring. These recommendations (as well as recommendations in Section 26.2) should be prioritized to improve dam safety and follow industry best practices.

Potential embankment credible failure modes (overtopping, potential slip surfaces within the foundation and embankment, and potential liquefaction of the DSF embankment and foundation) were identified, but there is not sufficient information to confirm or refute these potential failure modes. Therefore, a detailed DSR consistent with CDA guidelines are warranted and should be completed by a qualified and experienced independent professional engineer and organization that are suitably experienced in tailings storage facilities' design, operation, and closure.

25.5 Environmental, Permitting, and Social

Environmental baseline data for the San Bartolomé Project were originally collected and disclosed in the 2004 Auditoria Ambiental de Línea Base (ALBA) and analyzed in the 2004 San Bartolomé Estudio de Evaluación de Impacto Ambiental (EEIA, or Environmental Impact Study), garnering the issuance by the Bolivan Government of the requisite Environmental License (Declaratoria de Impacto Ambiental) and Hazardous Materials Permit (Registro y Licencia para Actividades con Sustancias Peligrosas) to Manquiri. The Environmental License and the associated Hazardous Materials Permit are the only environmental permits required for Project operations. The Environmental License was updated by the Bolivian Government on December 7, 2011.

Many historic environmental liabilities, as well as numerous active sources of environmental degradation, are evident in the Cerro Rico area, most of which pre-date San Bartolomé operations by centuries and caused by third parties. These areas, and the associated environmental impacts, were characterized in the ALBA and EEIA and are not the responsibility of Manquiri.

Annual reports are currently submitted by Manquiri which contain environmental monitoring tasks specified in the Environmental Management Plan (Plan de Aplicación y Seguimiento Ambiental, or PASA). The purpose of the reports is to provide results of environmental monitoring to demonstrate compliance with the Environmental Protection and Mitigation Program (Programa de Prevención y Mitigación, or PPM) for the operation of the plant, tailings facility, and mining operations.

The San Bartolomé Project EEIA contains socioeconomic aspects of both the City of Potosi and the Ayllu Jesus de Machaca, where Manquiri is located. The social aspects of the San Bartolomé Project are of great importance, and Manquiri manages them accordingly.

Asset Retirement Obligation (ARO) costs are provided for San Bartolomé for 2023. Cost basis inputs are included resulting in a 2023 ARO estimate of US$21,869,806. No financial surety for closure and rehabilitation is currently required in Bolivia. SRK recommends that a comprehensive review of the closure planning be undertaken and that a LoM closure cost estimate be prepared.

25.6 Economics

The cash flow evaluation of San Bartolomé project indicate that it has a positive after-tax present value. As the project is installed and currently operating, it requires mostly sustaining capital and the costs associated with the operation.

26 Recommendations

26.1 Geology and Resources

The Qualified Persons consider there remains potential to increase Mineral Resources in these areas, which should be studied with additional work programs to increase confidence via infill drilling and underground rock sampling, and Andean should consider the following:

- The Qualified Persons recommend additional confirmation sampling thorough core drilling and rock sampling (underground sampling of mineralized faces) in the Contracted Material areas and following appropriate sampling and QA/QC protocols.
- Implement a complete QA/QC protocol using reasonable insertion rates, that includes more external checks using a commercial laboratory as umpire laboratory.
- An appropriately planned drilling program is required in Tollojchi and Altavista, which should focus on defining the limits and continuity of the orebodies and be oriented perpendicular to the mineralization controls.
- Geological surface and underground mapping in the areas of Tollojchi and Altavista to delineate with precision the mineralization controls and collect rock samples perpendicular to the main structural mineralization control, following improved quality industry standard methods.
- Complete a drilling program using the industry standard methods in Altavista to improve the knowledge of the vein continuity and provide less reliance on channel and trench samplings at Alta Vista.
- Complete infill drilling to reduce the drilling grid and improve the classification of the mineral resources.

26.2 Project Infrastructure

Based on the current understanding of the project goals and the tailings facilities' condition, the following general recommendations are provided:

- Implement the governance of tailings management for the tailings facilities. Governance of tailings management comprises organizational structures, processes, procedures, and communication channels established to maximize effective management, oversight, and accountability for tailings (Global Industry Standard on Tailings Management, 2020).
- Prepare and regularly update an emergency action plan that meets the current standard of care and practice.
- Prepare a trigger action response plan(s), which applies key performance indicators that are quantifiable, measurable, and actionable.
- Establish an engineer of record, including clearly defining responsibility and succession planning.
- Establish a responsible tailings facility engineer, including clearly defining responsibility and succession planning.
- Perform a DSR. Potential credible failure modes have been identified, but there is not sufficient information to confirm or refute these potential failure modes. A detailed and robust investigation is warranted and should be completed by an independent, qualified, and

experienced professional engineer and organization that are suitably experienced in tailings storage facilities' design, operation, and closure.

- Identify and implement an independent tailings review board or an individual reviewer to assess the different aspects of the tailings facility safety: governance, design, construction, operation, closure, and post-closure (CDA, 2016).

Site-specific recommendations are as follows:

- Develop a comprehensive tailings and water management plan for the LoM.
- Prioritize construction of the required buttresses for the FDF and DSF embankments as recommended by KP (2022c) and follow the other recommendations, including the installation of piezometers.
- Verify the air-drying methodology for the planned tailings stream to produce DSF embankment fill materials at sufficient rates and appropriate moisture contents. The target moisture content should be <+1% optimum and at least 95% maximum dry density based on the American Society of Testing and Materials D698 standard proctor to provide a stable fill and limit risk of liquefiable material (generally accepted as <80% in-place saturation level).
- Develop and implement a site investigation program to characterize the in situ properties of the DSF embankment and embankment foundation (above the liner), including piezocone penetration test, borehole drilling, collection of undisturbed samples, and laboratory testing.
- Perform a liquefaction evaluation of the DSF embankment and foundation based on the results of the site investigations.
- Update the DSF embankment slope stability analyses using the results of the site investigations and liquefaction evaluation to assess undrained and post-liquefaction failure modes, as appropriate. Stability numerical models should also include the model calibration based on field geotechnical instrumentation data.
- Perform periodic (at least annual) field and laboratory testing of the DSF embankment fill materials to verify unsaturated conditions and evaluate potential liquefaction of materials with over 80% saturation levels and analyze post-liquefaction stability of the embankment.
- Install proper geotechnical instrumentation within the DSF embankment and foundation.
- Audit the existing seismic hazard study and update, as appropriate, to verify site-specific probabilistic and deterministic seismic hazard assessments.
- Revisit the hazard classification based on an analysis of identifying affected facilities and the potential for loss of life.
- Confirm whether the upland diversion channel was designed for the 72-hour PMP.
- Prepare a detailed DSF water balance model and confirm sufficient and appropriate stormwater storage and freeboard exist and are maintained.

26.3 Mining and Reserves

After reviewing all available information, visiting site, and conducting thorough mine planning and scheduling, SRK's recommendations are as follows:

- Given the large milling capacity available after the first two years of operation, SRK recommends Andean expands the ore purchasing program so new deposits substitute ores from Tollojchi, Alta Vista and Paca as these are depleted.

- There are multiple sulfide ore deposits being exploited in the surrounding area. If Andean can source enough ore from these sulfide deposits, SRK recommends they further study the feasibility of modifying their mill to process sulfide ores.
- Current processing plan for the FDF uses a constant +140-mesh particle size cut-off for an average yield of 41.6% on all the ore tonnes mined. Given the available processing capacity once the contracted ores are depleted, Andean should consider modifying particle size cutoff so as to increase mass yield and recover additional Ag ounces.

26.4 Processing and Metallurgy

It is recommended that additional test work be conducted on unscreened FDF samples and on FDF samples screened at -140 mesh with oxygen injection to confirm whether higher silver extractions can be obtained by maintaining higher dissolved oxygens levels in the slurry during leaching. This could potentially increase the FDF tonnes that could be reprocessed.

26.5 Environmental, Permitting, and Social

SRK recommends a comprehensive review of the proposed closure approach and planning with respect to any recent Bolivian regulatory changes, as well as Good International Industry Practice (GIIP). Following this review, and any modifications to the current reclamation and closure plans, Manquiri is encouraged to prepare a detailed LoM closure cost estimate, which envisions the final configuration of all mine-related assets and facilities. This estimate could be greater or less than the current Asset Retirement Obligation (ARO) depending on the extent of concurrent reclamation that occurs during operations.

26.6 Costs

SRK and the QP's for this report have estimated costs for the aforementioned work programs for San Bartolomé.

The objectives in

Table 26-1 are recommendations to expand and enhance the confidence in the mineral resources in a single phase, total work program - without one objective being contingent upon another.

The Company has provided for more than US$3 million budget funding to cover future exploration and metallurgy work, sufficient to fund the recommended program. This leaves additional financial resources to expand the programs or conduct new exploration on new opportunities that may arise from the Company's regional investigations – especially for additional, oxide dumps in the region.

The tailings dam construction occurs as operations and is therefore absorbed as an operating expense. Currently there is not a substantive capex investment with respect to tailings storage. Engineering and further studies will take a few years to be completed by APM's selected engineering firm(s). A reasonable budget estimate for the engineering recommendations would be US$1 to US$2 million over the next 3 to 4 years.

Table 26-1: Summary of Estimated Costs for Recommended Work – FDF and Contracted Material Areas

Type of Work	Description		Cost US$
Geology and Exploration			
Exploration Drilling	In-fill and validation drilling aimed to convert some of the Inferred Resources to Indicated within the Contracted Material Areas	**Paca**	293,000
		Altavista and Tollojchi	312,000
Exploration	Geological Mapping and Rock Sampling	Altavista and Tollojchi	300,000
Environmental, Permitting and Social			
Closure	Comprehensive review of the proposed closure approach and planning with respect to any recent Bolivian regulatory changes, as well as Good International Industry Practice (GIIP)..		150,000
Total			**1,055,000**

Source: APM, 2024

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28 Glossary

The Mineral Resources and Mineral Reserves have been classified according to CIM (CIM, 2014). Accordingly, the Resources have been classified as Measured, Indicated or Inferred, the Reserves have been classified as Proven, and Probable based on the Measured and Indicated Resources as defined below.

28.1 Mineral Resources

A **Mineral Resource** is a concentration or occurrence of solid material of economic interest in or on the Earth's crust in such form, grade or quality and quantity that there are reasonable prospects for eventual economic extraction. The location, quantity, grade or quality, continuity and other geological characteristics of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge, including sampling.

An **Inferred Mineral Resource** is that part of a Mineral Resource for which quantity and grade or quality are estimated on the basis of limited geological evidence and sampling. Geological evidence is sufficient to imply but not verify geological and grade or quality continuity. An Inferred Mineral Resource has a lower level of confidence than that applying to an Indicated Mineral Resource and must not be converted to a Mineral Reserve. It is reasonably expected that the majority of Inferred Mineral Resources could be upgraded to Indicated Mineral Resources with continued exploration.

An **Indicated Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape and physical characteristics are estimated with sufficient confidence to allow the application of Modifying Factors in sufficient detail to support mine planning and evaluation of the economic viability of the deposit. Geological evidence is derived from adequately detailed and reliable exploration, sampling and testing and is sufficient to assume geological and grade or quality continuity between points of observation. An Indicated Mineral Resource has a lower level of confidence than that applying to a Measured Mineral Resource and may only be converted to a Probable Mineral Reserve.

A **Measured Mineral Resource** is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, and physical characteristics are estimated with confidence sufficient to allow the application of Modifying Factors to support detailed mine planning and final evaluation of the economic viability of the deposit. Geological evidence is derived from detailed and reliable exploration, sampling and testing and is sufficient to confirm geological and grade or quality continuity between points of observation. A Measured Mineral Resource has a higher level of confidence than that applying to either an Indicated Mineral Resource or an Inferred Mineral Resource. It may be converted to a Proven Mineral Reserve or to a Probable Mineral Reserve.

28.2 Mineral Reserves

A **Mineral Reserve** is the economically mineable part of a Measured and/or Indicated Mineral Resource. It includes diluting materials and allowances for losses, which may occur when the material is mined or extracted and is defined by studies at Pre-Feasibility or Feasibility level as appropriate that include application of Modifying Factors. Such studies demonstrate that, at the time of reporting, extraction could reasonably be justified.

The reference point at which Mineral Reserves are defined, usually the point where the ore is delivered to the processing plant, must be stated. It is important that, in all situations where the reference point is different, such as for a saleable product, a clarifying statement is included to ensure that the reader is fully informed as to what is being reported. The public disclosure of a Mineral Reserve must be demonstrated by a Pre-Feasibility Study or Feasibility Study.

A **Probable Mineral Reserve** is the economically mineable part of an Indicated, and in some circumstances, a Measured Mineral Resource. The confidence in the Modifying Factors applying to a Probable Mineral Reserve is lower than that applying to a Proven Mineral Reserve.

A **Proven Mineral Reserve** is the economically mineable part of a Measured Mineral Resource. A Proven Mineral Reserve implies a high degree of confidence in the Modifying Factors.

28.3 Definition of Terms

The following general mining terms may be used in this report.

Table 28-1: Definition of Terms

Term	Definition
Assay	The chemical analysis of mineral samples to determine the metal content.
Capital Expenditure	All other expenditures not classified as operating costs.
Composite	Combining more than one sample result to give an average result over a larger distance.
Concentrate	A metal-rich product resulting from a mineral enrichment process such as gravity concentration or flotation, in which most of the desired mineral has been separated from the waste material in the ore.
Crushing	Initial process of reducing ore particle size to render it more amenable for further processing.
Cut-off Grade (CoG)	The grade of mineralized rock, which determines as to whether or not it is economic to recover its gold content by further concentration.
Dilution	Waste, which is unavoidably mined with ore.
Dip	Angle of inclination of a geological feature/rock from the horizontal.
Fault	The surface of a fracture along which movement has occurred.
Footwall	The underlying side of an orebody or stope.
Gangue	Non-valuable components of the ore.
Grade	The measure of concentration of gold within mineralized rock.
Hangingwall	The overlying side of an orebody or slope.
Haulage	A horizontal underground excavation which is used to transport mined ore.
Hydrocyclone	A process whereby material is graded according to size by exploiting centrifugal forces of particulate materials.
Igneous	Primary crystalline rock formed by the solidification of magma.
Kriging	An interpolation method of assigning values from samples to blocks that minimizes the estimation error.
Level	Horizontal tunnel the primary purpose is the transportation of personnel and materials.
Lithological	Geological description pertaining to different rock types.
LoM Plans	Life-of-Mine plans.
LRP	Long Range Plan.
Material Properties	Mine properties.
Milling	A general term used to describe the process in which the ore is crushed and ground and subjected to physical or chemical treatment to extract the valuable metals to a concentrate or finished product.
Mineral/Mining Lease	A lease area for which mineral rights are held.
Mining Assets	The Material Properties and Significant Exploration Properties.
Ongoing Capital	Capital estimates of a routine nature, which is necessary for sustaining operations.
Ore Reserve	See Mineral Reserve.

Term	Definition
Pillar	Rock left behind to help support the excavations in an underground mine.
RoM	Run-of-Mine.
Sedimentary	Pertaining to rocks formed by the accumulation of sediments, formed by the erosion of other rocks.
Shaft	An opening cut downwards from the surface for transporting personnel, equipment, supplies, ore and waste.
Sill	A thin, tabular, horizontal to sub-horizontal body of igneous rock formed by the injection of magma into planar zones of weakness.
Smelting	A high temperature pyrometallurgical operation conducted in a furnace, in which the valuable metal is collected to a molten matte or doré phase and separated from the gangue components that accumulate in a less dense molten slag phase.
Stope	Underground void created by mining.
Stratigraphy	The study of stratified rocks in terms of time and space.
Strike	Direction of line formed by the intersection of strata surfaces with the horizontal plane, always perpendicular to the dip direction.
Sulfide	A sulfur bearing mineral.
Tailings	Finely ground waste rock from which valuable minerals or metals have been extracted.
Thickening	The process of concentrating solid particles in suspension.
Total Expenditure	All expenditures including those of an operating and capital nature.
Variogram	A statistical representation of the characteristics (usually grade).

28.4 Abbreviations

The following abbreviations may be used in this report.

Table 28-2: Abbreviations

Abbreviation	Unit or Term
A	ampere
AA	atomic absorption
AAPOS	Administración Autónoma para Obras Sanitarias Potosí
A/m^2	amperes per square meter
AJAM	Autoridad Jurisdiccional Administrativa Minera (Mining Regulatory Authority)
ALBA	Auditoria Ambiental de Línea Base
AMC	Administrative Mining Contract
ANFO	ammonium nitrate fuel oil
Ag	silver
Ag-Mining	Ag-Mining Investments AB
arsenopyrite	FeAsS
ASC	ASC Bolivia LDC
ATE	Special Temporary Authorization
Au	gold
AuEq	gold equivalent grade
bismuthinite	Bi_2S_3
°C	degrees Celsius
cassiterite	SnO_2
CCD	counter-current decantation
CDA	Canadian Dam Association
CIL	carbon-in-leach
CoG	cut-off grade
cm	centimeter
cm^2	square centimeter
cm^3	cubic centimeter
cfm	cubic feet per minute
Coeur	Coeur Mining, Inc.
COMIBOL	Corporación Minera de Bolivia

Abbreviation	Unit or Term
COMSUR	Compañia Minera de Sur
ConfC	confidence code
CRec	core recovery
CSS	closed-side setting
CTW	calculated true width
°	degree (degrees)
df	???
dia.	diameter
DIA	Declaratoria de Impacto Ambiental
DSF	dry stack facility
DSR	dam safety review
EEIA	Estudio de Evaluación de Impacto Amiental
EIS	Environmental Impact Statement
EMMSA	Empresa Minera Manquiri S.A.
EMP	Environmental Management Plan
ENDE	Potosí substation
Environmental Impact Study	Estudio de Evaluación de Impacto Amiental
Environmental License	Declaratoria de Impacto Ambiental
Environmental Management Plan	Plan de Aplicación y Seguimiento Ambiental
Environmental Protection and Mitigation Program	Programa de Prevención y Mitigación
FA	fire assay
FDF	Fines Disposal Facility
ft	foot (feet)
ft^2	square foot (feet)
ft^3	cubic foot (feet)
g	gram
g/cm^3	grams per cubic centimeter
gal	gallon
galena	PbS
g/L	gram per liter
g-mol	gram-mole
gpm	gallons per minute
g/t	grams per tonne
ha	hectare
Hazardous Materials Permit	Registro y Licencia para Actividades con Sustancias Peligrosas
HDPE	Height Density Polyethylene
hp	horsepower
HTW	horizontal true width
ICP	induced couple plasma
ID2	inverse-distance squared
ID3	inverse-distance cubed
IFC	International Finance Corporation
ILS	Intermediate Leach Solution
Indigenous Development Plan	Plan de Desarrollo Originario
kA	kiloamperes
kg	kilograms
km	kilometer
km^2	square kilometer
koz	thousand troy ounce
KP	Knight Piésold Consulting
kt	thousand tonnes
kt/d	thousand tonnes per day
kt/y	thousand tonnes per year
kV	kilovolt
kW	kilowatt
kWh	kilowatt-hour
kWh/t	kilowatt-hour per metric tonne
L	liter

Abbreviation	Unit or Term
L/sec	liters per second
L/sec/m	liters per second per meter
lb	pound
LHD	Long-Haul Old muck truck
LLDDP	Linear Low Density Polyethylene Plastic
LOI	Loss On Ignition
LoM	life-of-mine
m	meter
M	million
m^2	square meter
m^3	cubic meter
Manquiri	Empresa Minera Manquiri S.A.
masl	meters above sea level
MARN	Ministry of the Environment and Natural Resources
MDA	Mine Development Associates
mg/L	milligrams/liter
Ministry of Sustainable Development – Viceministry of Natural Resources and Environment	Ministerio de Desarrollo Sostenible – Viceministerio de Recursos Naturales y Medio Ambiente
mm	millimeter
mm^2	square millimeter
mm^3	cubic millimeter
Mm^3	million cubic meters
MME	Mine & Mill Engineering
Moz	million troy ounces
MRE	mineral resource estimation
Mt	million tonnes
Mt/y	Million tonnes per year
MTW	measured true width
MVA	megavolt-ampere
MW	megawatt
m.y.	million years
mya	million years ago
National Tax Services	Servicios de Impuestos Nacionales
NGO	non-governmental organization
NI 43-101	Canadian National Instrument 43-101
OSC	Ontario Securities Commission
oz	troy ounce
%	percent
PASA	Plan de Aplicación y Seguimiento Ambiental
PCCR	Plan Conceptual de Cierre y Rehabilitacion
PCRA	Actualización del Plan de Cierre y Rehabilitación del Área
PDO	Plan de Desarrollo Originario
PFM	potential failure mode
Plahipo	Planta Hidrometalurgía de Potosí
PLC	Programmable Logic Controller
PLS	pregnant leach solution
PMP	probable maximum precipitation
PMF	probable maximum flood
ppb	parts per billion
ppm	parts per million
PPM	Programa de Prevención y Mitigación
QA/QC	quality assurance/quality control
QP	Qualified Person
RC	reverse circulation
RoM	Run-of-Mine
RQD	Rock Quality Description
SEC	U.S. Securities & Exchange Commission

Abbreviation	Unit or Term
sec	second
SENARECOM	Servicio Nacional de Registro y Control de Comercialización de Minerales y Metales
SG	specific gravity
Sn	tin
SPA	Share Purchase Agreement
sphalerite	Zn,FeS
SPT	standard penetration testing
st	short ton (2,000 pounds)
SWC	Smith Williams Consultants, Inc.
t	tonne (metric ton) (2,204.6 pounds)
t/h	tonnes per hour
t/d	tonnes per day
t/y	tonnes per year
Tollojchi Cooperative	Cooperativa Minera Tollojchi R.L.
Tr	???
TSF	tailings storage facility
TSP	total suspended particulates
µm	micron
UNESCO	United Nations Educational, Scientific and Cultural Organization
V	volts
VFD	variable frequency drive
W	watt
wolframite	$Fe,MnWO_4$
XRD	x-ray diffraction
y	year
SAG	semi-autogenous grinding
SGS	SGS Lakefield
EPCMC	EPCM Consultores
DSF	dry stack facility
RoM	Run of mine ore (RoM)
BWI	Bond ball mill work indices
Linings	Bradken Linings

Appendices

Appendix A: Certificates of Qualified Persons

SRK Consulting (U.S.), Inc.
Suite 400
999 Seventeenth Street
Denver, CO 80202

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denver@srk.com
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CERTIFICATE OF QUALIFIED PERSON

I, Patrick Daniels, BEng Mining, SME-RM do hereby certify that:

1. I am Principal Consultant (Mining Engineer) of SRK Consulting (U.S.), Inc., 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled “Preliminary Feasibility Study Technical Report, San Bartolomé Mine, Bolivia” with an Effective Date of December 1, 2023 (the “Technical Report”).
3. I graduated with a degree in Bachelor of Science Mining Engineering degree from Colorado School of Mines in 1986. In addition, I am a Qualified Professional (QP) Member of the Society for Mining, Metallurgy, and Exploration. I have worked as a Mining Engineer for a total of 37 years since my graduation from university. My relevant experience includes responsibilities in operations, maintenance, engineering, management, and construction activities.
4. I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
5. I visited the San Bartolomé property on July 12, 2023 for 2 days.
6. I am responsible for Infrastructure Section 18, except for 18.8, and portions of sections 1, 2, 16, and 25 summarized therefrom, of this Technical Report.
7. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 8th Day of February, 2024.

“Signed” *“Stamped”*

Patrick Daniels, BSc Mining Engineering, SME-RM [728800]

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CERTIFICATE OF QUALIFIED PERSON

I, Eric Olin, MSc, MBA, RM-SME do hereby certify that:

1. I am a Principal Process Metallurgist of SRK Consulting (U.S.), Inc., 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled “Preliminary Feasibility Study Technical Report, San Bartolomé Mine, Bolivia”, with an Effective Date of December 1, 2023 (the “Technical Report”).
3. I graduated with a Master of Science degree in Metallurgical Engineering from the Colorado School of Mines in 1976. I am a Registered Member of The Society for Mining, Metallurgy and Exploration, Inc. I have worked as a Metallurgist for a total of 40 years since my graduation from the Colorado School of Mines. My relevant experience includes extensive consulting, plant operations, process development, project management and research & development experience with base metals, precious metals, ferrous metals and industrial minerals. I have served as the plant superintendent for several gold and base metal mining operations. Additionally, I have been involved with numerous third-party due diligence audits, and preparation of project conceptual, pre-feasibility and full-feasibility studies.
4. I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
5. I visited the San Bartolomé property on July 12, 2023 for 2 days.
6. I am responsible for metallurgical and process, Sections 13, and 17, and portions of sections 1, 2, 25, and 26 summarized therefrom, of this Technical Report.
7. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 8th Day of February, 2024.

“Signed” *“Stamped”*

____

Eric Olin, MSc, MBA, RM-SME

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CERTIFICATE OF QUALIFIED PERSON

I, Giovanny Ortiz, BS Geology, FAusIMM do hereby certify that:

1. I am Principal Resource Geologist of SRK Consulting (U.S.), Inc., 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled “Preliminary Feasibility Study Technical Report, San Bartolomé Mine, Bolivia” with an Effective Date of December 1, 2023 (the “Technical Report”).
3. I graduated with a degree in Geology from Universidad Industrial de Santander (Santander, Colombia) in 1994. In addition, I have obtained a Specialization in Energy Resources Management, 2007, Universidad Autónoma de Bucarmanga (Santander, Colombia). I am a registered Geologist with the Colombian Council of Geology, Bogotá, Colombia, and a fellow (FAusIMM) in good standing of the Australasian Institute of Mining and Metallurgy (AusIMM 304612). I have worked as Geologist for a total of 29 years since my graduation from university. My relevant experience includes over 26 years of working in mineral exploration and resource estimation in projects in Colombia, Panamá, Perú, Venezuela, Argentina, Mexico, Chile, United States and Nicaragua, occupying progressively responsible positions within the exploration industry.
4. I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
5. I visited the San Bartolomé property on May 31, 2022 for 4 days.
6. I am responsible for mineral resources, Sections 14, and portions of sections 1,10, 11, 12, 23, 24, 25, and 26 summarized therefrom, of this Technical Report.
7. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 8th Day of February, 2024.

“Signed” *“Stamped”*

Giovanny Ortiz, BS Geology, FAusIMM

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CERTIFICATE OF QUALIFIED PERSON

I, Mark Allan Willow, MSc, CEM, SME-RM do hereby certify that:

1. I am Practice Leader/Principal Environmental Scientist of SRK Consulting (U.S.), Inc., 5250 Neil Road, Reno, Nevada 89502.
2. This certificate applies to the technical report titled "Preliminary Feasibility Study Technical Report, San Bartolomé Mine, Bolivia" with an Effective Date of December 1, 2023 (the "Technical Report").
3. I graduated with Bachelor's degree in Fisheries and Wildlife Management from the University of Missouri in 1987 and a Master's degree in Environmental Science and Engineering from the Colorado School of Mines in 1995. I have worked as Biologist/Environmental Scientist for over 28 years since my graduation from university. My relevant experience includes environmental due diligence/competent persons evaluations of developmental phase and operational phase mines through the world, including small gold mining projects in Panama, Senegal, Peru, Ecuador, Philippines, and Colombia; open pit and underground coal mines in Russia; large copper and iron mines and processing facilities in Mexico and Brazil; bauxite operations in Jamaica; and a coal mine/coking operation in the People's Republic of China. My Project Manager experience includes several site characterization and mine closure projects. I work closely with the U.S. Forest Service and U.S. Bureau of Land Management on permitting and mine closure projects to develop uniquely successful and cost-effective closure alternatives for the abandoned mining operations. Finally, I draw upon this diverse background for knowledge and experience as a human health and ecological risk assessor with respect to potential environmental impacts associated with operating and closing mining properties and have experience in the development of Preliminary Remediation Goals and hazard/risk calculations for site remedial action plans under Superfund activities according to current U.S. EPA risk assessment guidance.
4. I am a Certified Environmental Manager (CEM) in the State of Nevada (#1832) in accordance with Nevada Administrative Code 459.970 through 459.9729. Before any person consults for a fee in matters concerning: the management of hazardous waste; the investigation of a release or potential release of a hazardous substance; the sampling of any media to determine the release of a hazardous substance; the response to a release or cleanup of a hazardous substance; or the remediation soil or water contaminated with a hazardous substance, they must be certified by the Nevada Division of Environmental Protection, Bureau of Corrective Action;
5. I am a Registered Member (No. 4104492) of the Society for Mining, Metallurgy & Exploration Inc. (SME).
6. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
7. I have not visited the San Bartolomé property.
8. I am responsible for environmental, permitting and social, Section 20 and portions of sections 1, 25, and 26 summarized therefrom, of this Technical Report.
9. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
10. I have not had prior involvement with the property that is the subject of the Technical Report.
11. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.

12. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 8th Day of February, 2024.

"Signed" *"Stamped"*

____

Mark Allan Willow, MSc, CEM, SME-RM [4104492]

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CERTIFICATE OF QUALIFIED PERSON

I, Fernando Rodrigues, BS Mining, MBA, MMSAQP do hereby certify that:

1. I am Practice Leader and Principal Consultant (Mining Engineer) of SRK Consulting (U.S.), Inc., 999 Seventeenth Street, Suite 400, Denver, CO, USA, 80202.
2. This certificate applies to the technical report titled “Preliminary Feasibility Study Technical Report, San Bartolomé Mine, Bolivia” with an Effective Date of December 1, 2023 (the “Technical Report”).
3. I graduated with a Bachelors of Science degree in Mining Engineering from South Dakota School of Mines and Technology in 1999. I am a QP member of the MMSA. I have worked as a Mining Engineer for a total of 18 years since my graduation from South Dakota School of Mines and Technology in 1999. My relevant experience includes mine design and implementation, short term mine design, dump design, haulage studies, blast design, ore control, grade estimation, database management.
4. I have read the definition of “qualified person” set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a “qualified person” for the purposes of NI 43-101.
5. I visited the San Bartolomé property on July 12, 2023 for 2 days.
6. I am responsible for mineral reserves and economic, Sections 15, 19, 21, and 22, and portions of Sections 1, 2, 16, 25, and 26 summarized therefrom, of this Technical Report.
7. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 8th Day of February, 2024.

“Signed” *“Stamped”*

Fernando Rodrigues, BS Mining, MBA, MMSAQP [01405QP]

CERTIFICATE OF QUALIFIED PERSON

I, Donald J. Birak, MSc, RM-SME do hereby certify that:

1. I am an Independent Consulting Geologist, dba Birak Consulting LLC, at 2142 E. Sundown Drive, Coeur d'Alene, Idaho, 83815, USA.
2. This certificate applies to the technical report titled "Preliminary Feasibility Study Technical Report, San Bartolomé Mine, Bolivia" with an Effective Date of December 1, 2023 (the "Technical Report").
3. I graduated with a Master of Science degree in Geology from Bowling Green State University in 1978. I am a Registered Member of the Society for Mining, Metallurgy and Exploration (SME) and a Fellow of the Australasian Institute for Mining and Metallurgy (AusIMM). I have worked as a professional Geologist for a total of 45 years since my graduation from university. My relevant experience includes employment in precious and base metal exploration and mining for public companies based in the Unites States pf America, Canada, the United Kingdom, and South Africa. Prior to my consultancy career, I served as an officer responsible for exploration from 1995 through 2013.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I have visited the San Bartolomé, Bolivia and other properties of Andean Precious Metals Corp. (the "Issuer") multiple times commencing in 2020. My most recent visits occurred March 29, 2023 for 6 days and September 11, 2023 for 3 days.
6. I am responsible for geological and exploration, Sections 3, 4, 5, 6, 7, 8, and 9, and portions of sections 1, 2, 10, 11, 12, 23, 24, 25, and 26 summarized therefrom, of this Technical Report.
7. I am independent of the Issuer applying all of the tests in section 1.5 of NI 43-101.
8. I have had prior involvement with the properties that are the subject of the technical report. From February of 2004 through September of 2013, I was Senior Vice President of Exploration for Coeur Mining, Inc, the prior owner, and from March of 2020 to the present as Independent Consulting Geologist and Qualified Person for the Issuer.
9. I have read NI 43-101 and Form 43-101F1 and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information and belief, the sections of the Technical Report I am responsible for contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 8th Day of February, 2024.

"Signed" *"Stamped"*

Donald J. Birak, MSc, RM-SME

CERTIFICATE OF QUALIFIED PERSON

I, Matthew Fuller, P.Geo., LEG, do hereby certify that:

1. I am a Professional Geoscientist with Tierra Group International, Ltd., (U.S.), Inc., 1746 Cole Blvd, Suite 130, Lakewood, CO, USA, 80401.
2. This certificate applies to the technical report titled "Preliminary Feasibility Study Technical Report, San Bartolomé Mine, Bolivia" with an Effective Date of December 1, 2023 (the "Technical Report").
3. I graduated with a degree in Bachelor of Science in Geology from Colorado State University in 1982. In addition, I am a Registered Member of the Society for Mining, Metallurgy, and Exploration. I have worked as an Engineering Geologist for 35 years since my graduation from university. My relevant experience includes tailings facility siting, investigations, design, construction, and closure.
4. I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
5. I visited the Mining Project property on August 30, 2023 for 1 day.
6. I am responsible for Infrastructure / tailings, Section 18.8 and portions of sections 1, 25, and 26 summarized therefrom, of this Technical Report.
7. I am independent of the issuer applying all of the tests in section 1.5 of NI 43-101.
8. I have not had prior involvement with the property that is the subject of the Technical Report.
9. I have read NI 43-101 and Form 43-101F1, and the sections of the Technical Report I am responsible for have been prepared in compliance with that instrument and form.
10. As of the aforementioned Effective Date, to the best of my knowledge, information, and belief, the sections of the Technical Report I am responsible for contain all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 8th Day of February, 2024.

"Signed" *"Stamped"*

Matthew L Fuller