AMERICAS SILVER CORPORATION TECHNICAL REPORT ON THE SAN RAFAEL MINE AND THE EC120 PRELIMINARY FEASIBILITY STUDY, SINALOA, MEXICO

NI 43-101 Report

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1 SUMMARY

1.1 Executive Summary

Americas Silver Corporation ("Americas Silver" or the "Company") prepared this Technical Report on the San Rafael underground zinc-silver-lead mine ("San Rafael") and Preliminary Feasibility Study ("PFS") on the El Cajón and Zone 120 silver-copper deposits ("EC120", "EC120 Project", "Project"), located in the Cosalá district of Sinaloa, Mexico. San Rafael, EC120 and associated facilities are collectively referred to as the Cosalá Operation. The purpose of this report is to disclose the results of the PFS for the EC120 Project, as at April 3, 2019 and provide a technical update on the San Rafael mine. This report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101").

Americas Silver is a TSX and NYSE-listed Canadian company involved in the production and exploration of silver, gold, copper, lead and zinc, with its corporate office in Toronto. It has two producing mines, the Galena Complex in the United States and the San Rafael mine in Mexico. Additionally, through its recent acquisition of Pershing Gold Corporation on April 3, 2019, the Company owns the Relief Canyon project, a past producing gold-silver open pit heap leach operation in the United States.

Americas Silver operates the Cosalá Operation through its wholly owned subsidiaries, Platte River Gold Inc. ("PRG"), Minera Platte River Gold S. de R.L. de C.V. ("MPRG") and Minera Cosalá S.A. de R.L. de C.V. ("MCO").

All costs in this Technical Report are in United States dollars ("US$" or "$") unless otherwise indicated.

1.1.1 Conclusions

San Rafael is a successful producing mine with a demonstrated operating history since 2016. There are no remarkable or exceptional technical challenges.

EC120 is a viable project ready for development. A production decision has not yet been made, however, permits are in place. Processing of material from EC120 is expected to start after the cessation of production from San Rafael. The existing Los Braceros plant can be easily reconfigured to suit the needs of EC120. The proposed initial capital costs for EC120 are $16.8 million as the Project benefits from synergies with the current Cosalá Operation. The economic analysis for EC120 shows a positive after-tax net present value ("NPV") at a 5% discount rate of $32.9 million and an internal rate of return ("IRR") of 47%.

The current level of understanding is sufficient to make a development decision for EC120.

1.1.2 Recommendations

The EC120 PFS represents a complete technical report and produces a positive pre- and after-tax cash flow at both the consensus long-term metal prices used in the economic analysis and reserve metal prices. In order to complete a Feasibility Study, additional work on certain aspects of the PFS is recommended. This work is expected to cost approximately $1.35 million and should include the following:

- Additional infill drilling to improve the definition of the mineralization.
- Completion of a hydrological model.
- Detailed plans for mine infrastructure.
- Additional geotechnical evaluation.
- Locked cycle flotation testing for Zone 120.
- Detailed closure plan.

1.1.3 Economic Analysis

This section is not required for the San Rafael mine, as Americas Silver is a producing issuer, the property is currently in production and there is no material expansion of current production.

The following sections describe the results of the economic analysis for the EC120 Project which is based on Probable Mineral Reserves.

A base case cash flow projection has been generated from the proposed life of mine (“LOM”) production schedule, capital and operating cost estimates and is summarized in Table 1-1. A summary of the key criteria is provided below.

1.1.4 Economic Criteria

Physicals

- LOM production plan as summarized in Table 1-1.
- Mine life: 5 years.
- Pre-production development period of 18 months.
- Mill recovery average of 86.1% for silver and 87.1% for copper over the LOM.
- Silver and copper production averages approximately 2.5 million ounces and 4.5 million pounds respectively per year over the LOM.

Revenue

- Silver and copper are 95% net payable in the copper concentrate.
- Metal price assumptions of $17.50 per ounce silver and $3.00 per pound copper.
- Net smelter return (“NSR”) includes concentrate treatment, refining, penalties and transport costs.
- Revenue is recognized at the time of production.

Costs

- LOM capital costs total $26.9 million.
- Operating unit costs average $42.74 per tonne over the LOM.
- LOM Cash Operating Costs average $9.61 per ounce silver and All-in Sustaining Costs (AISC) average $10.81 per ounce Ag.

1.1.5 Taxation and Royalties

Americas Silver operates through its wholly owned subsidiary PRG and is obligated to file Mexican federal and Sinaloa state income tax returns on an annual basis. Tax rates are calculated on an annual basis and are within industry norms in Mexico. As part of standard Mexican mining taxation regulations, there is a “special mining duty” of 7.5% that is paid to the tax authority. The special mining duty tax is applied to the net revenue less the operating costs for the Project. Additionally, there is an environmental royalty of 0.5% that is applied to the gross revenue from silver. Taxes amount to approximately $20.2 million over the life of the EC120 Project.

TABLE 1-1 EC120 CASH FLOW SUMMARY
Americas Silver Corporation – San Rafael Mine and EC120 Project

EC120 Project	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Mining								
UG Ore Mined	k tonnes	120	526	612	636	630	353	2,877
UG Waste Mined	k tonnes	329	229	172	126	182	97	1,137
Primary Development	m	4,460	1,998	1,479	672	293	88	8,991
Secondary Development	m	245	1,957	1,474	1,555	2,949	1,649	9,830
Vertical Raises	m	634	136	301	53	-	-	1,124
Processing								
Mill Feed	k tonnes	40	604	604	604	604	420	2,877
Ag Grade	g/t	173	158	159	167	157	138	157
Cu Grade	%	0.46	0.40	0.42	0.46	0.41	0.38	0.42
Contained Ag	koz	221	3,066	3,099	3,255	3,046	1,863	14,549
Contained Cu	klbs	400	5,358	5,609	6,122	5,441	3,565	26,494
Concentrate Production								
Total Metal Recovery to Cu Concentrate	% Cu	86.9	86.7	87.0	87.2	87.4	87.0	87.1
	% Ag	85.9	85.8	86.0	86.3	86.4	85.9	86.1
Cu Concentrate Grade	% Cu	23.8	23.8	23.8	23.8	23.8	23.8	23.8
	g/t Ag	8,896	9,240	8,914	8,584	9,029	8,424	8,861
Cu Concentrate Tonnage	t	663	8,849	9,302	10,173	9,064	5,912	43,962
Recovered Ag	koz	190	2,629	2,666	2,807	2,631	1,601	12,524
Recovered Cu	klbs	348	4,643	4,881	5,338	4,756	3,102	23,067
Revenue								
Payable Metal - Ag	koz	182	2,524	2,559	2,695	2,526	1,537	12,023
Payable Metal - Cu	klbs	304	4,058	4,266	4,665	4,156	2,711	20,159
Payable Equivelant - Ag	koz	234	3,219	3,290	3,495	3,239	2,002	15,479
Gross Revenue - Ag	k USD	$ 3,185	$ 44,164	$ 44,786	$ 47,164	$ 44,206	$ 26,897	$ 210,403
Gross Revenue - Cu	k USD	$ 912	$ 12,173	$ 12,797	$ 13,995	$ 12,469	$ 8,132	$ 60,478
Total Gross Revenue	k USD	$ 4,097	$ 56,337	$ 57,583	$ 61,159	$ 56,675	$ 35,030	$ 270,881
Net Smelter Return								
Refining Cost Ag	k USD	$ 240	$ 3,263	$ 3,370	$ 3,618	$ 3,305	$ 2,083	$ 15,879
Treatment and Transport Costs - Cu Con	k USD	$ 550	$ 7,344	$ 7,721	$ 8,443	$ 7,523	$ 4,907	$ 36,489
Total TCRC Costs	k USD	$ 790	$ 10,608	$ 11,091	$ 12,061	$ 10,828	$ 6,990	$ 52,367
Net Smelter Return	**k USD**	**$ 3,307**	**$ 45,729**	**$ 46,492**	**$ 49,098**	**$ 45,848**	**$ 28,040**	**$ 218,513**
Royalty - NSR Environmental (0.5%)	k USD	$ 16	$ 221	$ 224	$ 236	$ 221	$ 134	$ 1,052
Net Revenue	**k USD**	**$ 3,291**	**$ 45,508**	**$ 46,268**	**$ 48,862**	**$ 45,627**	**$ 27,905**	**$ 217,461**

Operating Costs	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
UG Mine Operations	k USD	$ 2,044	$ 8,939	$ 11,111	$ 11,548	$ 11,476	$ 7,040	$ 52,158
Mine Development - Expensed	k USD	$ 137	$ 1,245	$ 1,070	$ 975	$ 1,885	$ 920	$ 6,232
Plant Operations	k USD	$ 500	$ 7,600	$ 7,604	$ 7,604	$ 7,604	$ 5,286	$ 36,198
Technical Services	k USD	$ 573	$ 1,536	$ 1,531	$ 1,531	$ 1,531	$ 1,410	$ 8,112
Safety & Environment	k USD	$ 325	$ 870	$ 868	$ 868	$ 868	$ 799	$ 4,597
Administration	k USD	$ 1,108	$ 2,971	$ 2,963	$ 2,963	$ 2,963	$ 2,727	$ 15,693
Total Operating Costs	**k USD**	**$ 4,686**	**$ 23,160**	**$ 25,147**	**$ 25,489**	**$ 26,326**	**$ 18,182**	**$ 122,990**
Capital Costs								
Mine Development	k USD	$ 9,237	$ 3,161	$ 3,163	$ 1,053	$ 457	$ 137	$ 17,209
UG Mining Capital	k USD	$ 5,375	$ 1,600	$ 1,304	$ 730	$ 659	$ -	$ 9,668
Process Capital	k USD	$ 602	$ 602	$ 300	$ 602	$ 510	$ -	$ 2,617
Other	k USD	$ 458	$ 50	$ 50	$ 50	$ 50	$ 300	$ 958
Contingency 15%	k USD	$ 1,009	$ -	$ -	$ -	$ -	$ -	$ 1,009
Working Capital	k USD	$ 5,342	$ -	$ -	$ -	$ -	$ (5,342)	$ -
Total Capital	**k USD**	**$ 22,023**	**$ 5,414**	**$ 4,817**	**$ 2,436**	**$ 1,676**	**$ (4,905)**	**$ 31,460**
Other Costs								
Special Mining Duty Tax (7.5%)	**k USD**	**$ 148**	**$ 1,676**	**$ 1,584**	**$ 1,753**	**$ 1,448**	**$ 761**	**$ 7,370**
Total Costs								
Total Cost	**k USD**	**$ 26,856**	**$ 30,250**	**$ 31,548**	**$ 29,678**	**$ 29,449**	**$ 14,039**	**$ 161,820**
Pre-Tax Cash Flow								
Net Operating Cash Flow	k USD	$ (1,395)	$ 22,348	$ 21,121	$ 23,373	$ 19,301	$ 9,723	$ 94,471
Total Pre-Tax Cash Flow	k USD	$ (23,565)	$ 15,258	$ 14,720	$ 19,184	$ 16,178	$ 13,866	$ 55,641
Cumulative Pre-Tax Cash Flow	kUSD	$ (23,565)	$ (8,307)	$ 6,413	$ 25,598	$ 41,775	$ 55,641	
After-Tax Cash Flow								
Cumulative Depreciable Capital	k USD	$ 18,075	$ 23,215	$ 23,065	$ 19,155	$ 13,194	$ 5,445	
Depreciation Taken	k USD	$ 274	$ 4,967	$ 6,346	$ 7,637	$ 8,186	$ 5,445	$ 32,581
Taxable Income	k USD		$ 17,381	$ 14,775	$ 15,737	$ 11,115	$ 4,278	$ 63,285
Tax Paid at 30%	k USD	$ -	$ 3,538	$ 2,849	$ 2,968	$ 1,887	$ 522	$ 11,763
Net Cash Flow After-Tax	k USD	$ (23,565)	$ 11,720	$ 11,872	$ 16,216	$ 14,291	$ 13,345	$ 43,878
Cumulative Cash Flow After-Tax	kUSD	$ (23,565)	$ (11,845)	$ 27	$ 16,243	$ 30,534	$ 43,878	
Cash and All-in Sustaining Costs								
Cash Cost	$/oz Ag		$ 8.94	$ 9.47	$ 9.10	$ 10.02	$ 11.20	$ 9.61
All-in Sustaining Cost	$/oz Ag		$ 11.00	$ 11.28	$ 9.97	$ 10.65	$ 11.48	$ 10.81

Pre-Tax Project Economics		
IRR	%	61%
NPV at 5%	k USD	$42,918
NPV at 7.5%	k USD	$37,750
NPV at 10%	k USD	$33,222
Payback Period	Years	1.6
After-Tax Project Economics		
IRR	%	47%
NPV at 5%	k USD	$32,939
NPV at 7.5%	k USD	$28,521
NPV at 10%	k USD	$24,664
Payback Period	Years	2.0

1.1.6 Cash Flow Analysis

Considering the EC120 Project on a stand-alone basis, the undiscounted pre-tax cash flow totals $55.6 million over the mine life.

The undiscounted after-tax cash flow totals $43.9 million. The IRR is 47% and payback on the Project is achieved in 2.0 years. NPV at various discount rates is:

- NPV@5% = $32.9 million

- NPV@7.5% = $28.5 million
- NPV@10% = $24.6 million

1.1.7 Sensitivity Analysis

Base case metal price and exchange rate inputs are based on industry consensus forecasts. At reserve metal prices of $16.00 per ounce silver, $2.50 per pound copper and an exchange rate of MX$18.0=US$1.00, cash flow results remain positive:

- After-tax NPV@5% = $16.4 million
- IRR = 27%

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on the following items:

- Metal price
- Operating costs
- Capital costs

NPV and IRR sensitivity has been calculated for -20% to +20% variations from the base case metal prices, operating cost and capital cost. The sensitivities are shown in Figure 1-1 and Table 1-2.

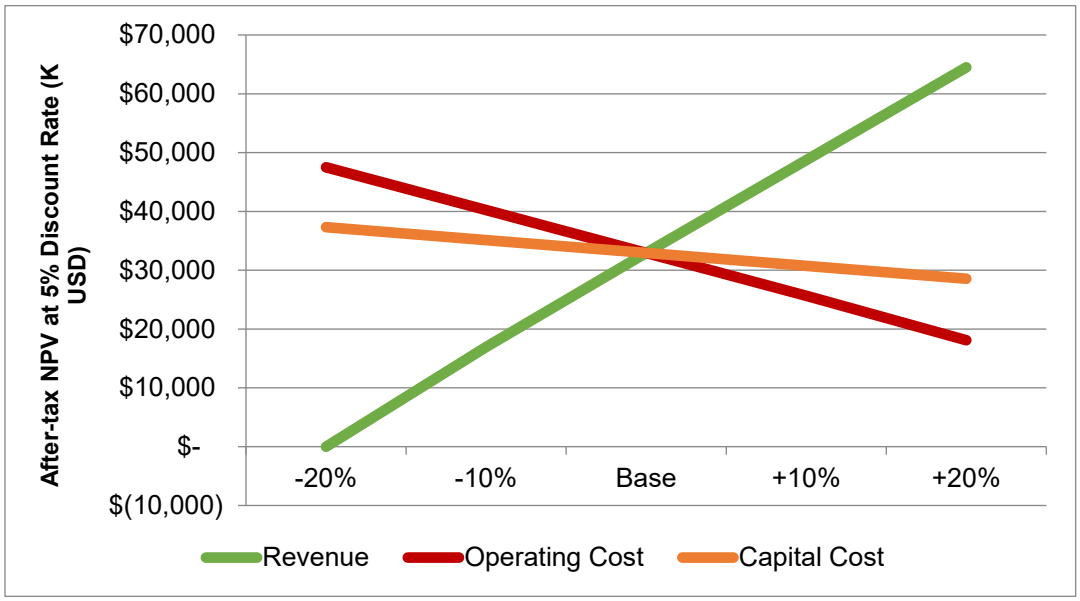

FIGURE 1-1 EC120 SENSITIVITY ANALYSIS

TABLE 1-2 EC120 SENSITIVITY ANALYSIS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Sensitivity	Metal Price ($/oz Ag/$/lb Cu)	NPV ($k) at 5%	IRR
-20%	14.00/2.40	(13)	5%
-10%	15.75/2.70	16,937	27%
0% (Base)	17.50/3.00	32,939	47%
+10%	19.25/3.30	48,718	66%
+20%	21.00/3.60	64,498	86%

Sensitivity	Operating Cost ($k)	NPV ($k) at 5%	IRR
-20%	98,392	47,508	69%
-10%	110,691	40,223	58%
0% (Base)	122,990	32,939	47%
+10%	135,289	25,654	37%
+20%	147,588	18,099	27%

Sensitivity	Capital Cost ($k)	NPV ($k) at 5%	IRR
-20%	25,168	37,320	63%
-10%	28,314	35,129	54%
0% (Base)	31,460	32,939	47%
+10%	34,606	30,748	41%
+20%	37,752	28,558	36%

1.2 Technical Summary

1.2.1 Property Description and Location

The San Rafael mine, EC120 Project and Los Braceros plant are located in the east-central portion of Sinaloa, Mexico near the town of Cosalá. The town of Cosalá is approximately 180km north of Mazatlán. Mazatlán is serviced by an international airport with daily flights connecting it to Mexico City and several major centres in the United States. Access to site from Mazatlán is via Mexico Highway 15N, a major north-south trucking route, and then SIN Highway 1. Driving time is about 2.5 hours. Access to San Rafael and EC120 from Cosalá is via rural paved and dirt roads approximately 15km in length. These roads can accommodate standard highway vehicles. The entire project area is easily accessible year-round with two-wheel-drive vehicles.

The property consists of 67 mining concessions covering a total area of 19,390.7ha. These concessions and fractional concessions are 100% owned by Americas Silver's subsidiaries

MPRG and MCO. The Company is current with respect to all applicable concession lease payments and work commitments. Americas Silver also holds certain surface rights for portions of the property.

1.2.2 Site Infrastructure

The San Rafael and EC120 sites include the following:

- The surface mine site and associated facilities, including offices, shops, compressors, fuel storage, electrical substations, standby generators, stockpile facilities, portals, ventilation fans, run-of-mine ("ROM") ore storage, ROM waste storage and dry facilities.
- Facilities providing basic infrastructure to the mine, including access roads and electric power distribution.
- Underground infrastructure, including ramps, raises, ventilation/service raises, explosives magazines, dewatering pumps and underground mobile equipment fleet.
- Excellent access to the Los Braceros plant by paved highway and dirt roads.
- Grid electric power supply to both sites.

The Los Braceros plant site includes the following:

- The surface mill site and associated facilities including offices, shops, compressors, fuel storage, electric substations, ROM ore stockpile facilities, crushing, grinding, flotation, filtering circuits, concentrate storage facilities and assay laboratory.
- Facilities providing basic infrastructure to the mill, including access roads, electric power distribution and process water supply.
- A tailings storage facility.
- Grid electric power supply to the site.

The town office site in Cosalá includes the following:

- The surface office site and associated facilities including offices, shops, fuel storage and diamond drill core logging and storage facilities.
- Grid electric power supply to the site.

1.2.3 History

The Cosalá district was discovered and locally worked by the Spanish approximately 400 years ago with production of enriched silver ore from the upper levels of the Nuestra Señora mine.

However, no records of any kind remain from their activities. At the turn of the 19th century, French engineers through Negociación Minera La República reportedly developed and worked the Nuestra Señora mine with a 10-stamp mill that produced 800 to 1,000kg of silver per month. Activities in the area may have been halted after the 1910 Mexican Revolution.

Over the years, there have been numerous companies that have owned, operated and explored the property. Americas Silver acquired the property through its merger with Scorpio Mining Corporation ("Scorpio") on December 23, 2014. During this time, the Nuestra Señora mine was in operation and processing ore at its Los Braceros plant. The Company released results of the PFS study for the San Rafael project in March 2016 and started construction of the mine in September 2016.

In early April 2016, unusual ground movement was observed at the Nuestra Señora mine. The disturbance was located in the upper levels of the mine near old workings which predate the Company's involvement with the project. An analysis of the situation showed there was a risk to the structural integrity of the mine portal. A new portal and approximately 120m of development were completed to re-establish safe access to the mine and operations resumed in late June 2016. During the suspension of ore production from Nuestra Señora, mill feed consisted of stockpiled material as well as historic dumps and near surface mineralization at the past-producing La Estrella mine at the north end of the Company's land holdings.

Primary ramp development at San Rafael advanced with approximately 25% complete by year-end in 2016. The project received initial deliveries of new mobile equipment, and transfer of workers and equipment from the Nuestra Señora mine began. Ongoing review of development plans and savings from the relocation and reuse of existing equipment allowed the initial capital cost estimate to be reduced to $18 million from the original cost of $22 million presented in the San Rafael PFS.

Development at the El Cajón project recommenced in Q4 2016. Plans were put in place to have mill feed supplemented by El Cajón production as the Nuestra Señora mine wound down. A small stockpile had been established by year-end 2016.

In early 2017, production from the Nuestra Señora mine began to slow as preparations were made to transition the Cosalá Operation to other ore sources. Activities continued at the previously-idle El Cajón mine to bring it into limited production beginning in Q1 2017. A total of approximately 110,000 tonnes were processed between January and September 2017. The El Cajón mine is currently on care and maintenance.

Successful development of the San Rafael mine was the Company's top priority during 2017 and commercial production was declared as of December 2017. Ramp development was slowed during the year by difficult ground conditions at the contact between the overlying volcanic rock and the limestone beneath. However, improvements were found in other areas of the mine design and the Company began stockpiling ore in late August. Construction of the mill modifications was completed, and the plant switched to San Rafael ore as the sole feed source in November. The Los Braceros mill averaged approximately 1,400 tonnes per day ("tpd") through the pre-production period with silver, zinc and lead recoveries within 5% of Company expectations consistent with the March 2016 San Rafael PFS. Construction was completed for approximately $16 million, 32% below the pre-feasibility study estimate.

Exploration drilling resumed in 2017 at the Cosalá Operation for the first time since 2014. An initial 4,000m diamond drill program at the silver-copper Zone 120 deposit adjacent to the San Rafael mine commenced in April, focusing on upgrading the existing resource as well as expanding the footprint of mineralization to the southeast. Following up on the success of step-out drilling, the Company drilled 3,260m in seven holes to further test continuity and expand the mineralized footprint.

Production from the Nuestra Señora mine stopped in early 2018 and the mine is currently on care and maintenance. The San Rafael mine continued advancing underground development into the Main Zone during 2018 in order to prepare the mine for 2019 production with targeted silver grades of approximately 60g/t with further increases expected in the silver grade in 2020 and beyond.

1.2.4 Geology

The Cosalá mining district lies along the western edge of the Sierra Madre Occidental, an extensive volcanic province covering approximately 800,000km^2. The pre-volcanic basement consists of a variety of tectonic/stratigraphic terranes of Precambrian, Paleozoic and Mesozoic rocks. Within the western Sierra Madre Occidental, the Mesozoic rocks have been altered to recrystallized limestone and skarn in many locations. An extensional, basin and range-type phase of faulting overprinted the western portion of the Sierra Madre Occidental during formation of the Gulf of California in Miocene time. In the Cosalá region, this late-Tertiary faulting produced an extensive, northwest-trending graben and related, parallel fault system, along with later northeast-trending dextral faults.

Mineralization within the Cosalá mining district is related to granodioritic or granitic intrusions of the Sinaloa Batholith, a composite gabbroic to granodioritic complex that induced strong contact metamorphism in adjacent sedimentary and volcano-sedimentary units.

1.2.5 Exploration

As of June 30, 2018, a total of 600 exploration drill holes for 104,443m had been completed for the EC120 (El Cajón and Zone 120) and the San Rafael Main and Upper zones. This total includes 282 drill holes completed by PRG between 2004 and 2008 and 318 drill holes completed by Scorpio and Americas Silver between 2010 and June 2018. The drilling consists of 174 exploration drill holes for 32,903m in El Cajón, 78 drill holes for 26,760m in Zone 120 and 348 drill holes for 44,780m in the Main and Upper Zones at San Rafael.

Quantec Geoscience Ltd. completed a 48 line km Titan-24 direct current/induced polarization ("DC/IP") geophysical survey centered over the San Rafael area in 2010. The survey was initiated in June 2010 and covered a 3km x 3km area, using 100m dipole spacing with a 200m line spacing.

Apart from the DC/IP survey and exploration drilling summarized above, Americas Silver has conducted road building and surface mapping.

1.2.6 Mineral Resources

The Mineral Resource estimate, exclusive of the Mineral Reserve estimate, for San Rafael has an effective date of June 30, 2018 (Table 1-3). The Mineral Resource estimate, exclusive of the Mineral Reserve estimate, for EC120 has an effective date of April 3, 2019 (Table 1-4). The resource block models were prepared by an independent consultant but have been reviewed and adopted by Niel de Bruin, P.Geo., an employee of Americas Silver, who is a Qualified Person for the purpose of NI 43-101.

TABLE 1-3 SUMMARY OF SAN RAFAEL MINERAL RESOURCES – JUNE 30, 2018
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades			Contained Metal		
Category	(000)	Ag (g/t)	Pb (%)	Zn (%)	Ag oz (000)	Pb lbs (M)	Zn lbs (M)
Measured	1,310	100	0.98	2.30	4,207	28.4	66.3
Indicated	1,774	82	0.91	2.12	4,692	35.7	83.0
Total M+I	3,084	90	0.94	2.20	8,899	64.1	149.3
Total Inferred	452	167	2.23	0.39	2,421	22.2	3.8

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Resources.
2. Mineral Resources are estimated at a net smelter return ("NSR") cut-off value of US$34 per tonne.
3. Mineral Resources are estimated using a silver price of US$18.00 per ounce, lead price of $1.05 per pound and zinc price of $1.05 per pound.
4. Mineral Resources are reported exclusive of Mineral Reserves and as such these Mineral Resources do not have demonstrated economic viability.
5. Numbers may not add or multiply accurately due to rounding.

TABLE 1-4 SUMMARY OF EC120 MINERAL RESOURCES – APRIL 3, 2019
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades		Contained Metal	
Category	(000)	Ag (g/t)	Cu (%)	Ag oz (000)	Cu lbs (M)
Indicated El Cajón	226	150	0.46	1,089	2.3
Indicated Zone 120	1,129	126	0.32	4,568	8.0
Total Indicated	1,355	130	0.34	5,657	10.3
Inferred El Cajón	164	117	0.20	618	0.7
Inferred Zone 120	214	125	0.32	864	1.5
Total Inferred	494	122	0.27	1,482	2.2

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Resources.
2. Mineral Resources are estimated at a net smelter return ("NSR") cut-off value of US$40 per tonne.
3. Mineral Resources are estimated using a silver price of US$18.00 per ounce and a copper price of US$3.00 per pound.
4. Mineral Resources are reported exclusive of Mineral Reserves and as such these Mineral Resources do not have demonstrated economic viability.
5. Numbers may not add or multiply accurately due to rounding.

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

1.2.7 Mineral Reserves

The Mineral Reserve estimate at the San Rafael mine is reported as of June 30, 2018 (Table 1-5). The Mineral Reserve estimate at the San Rafael mine is updated annually mid-year to reflect production depletion, changes in cut-off grade, changes in modifying factors such as mining

recovery and mining dilution and conversion of Mineral Resources to Mineral Reserves. The Mineral Reserve estimate at the EC120 Project is reported as of April 3, 2019 (Table 1-6).

TABLE 1-5 SAN RAFAEL SUMMARY OF MINERAL RESERVES – JUNE 30, 2018
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades			Contained Metal		
Category	**(000)**	**Ag (g/t)**	**Pb (%)**	**Zn (%)**	**Ag oz (000)**	**Pb lbs (M)**	**Zn lbs (M)**
Proven	1,155	127	1.80	3.97	4,722	45.9	101.1
Probable	1,757	98	1.59	3.99	5,563	61.8	154.7
Proven and Probable	2,912	110	1.68	3.98	10,285	107.7	255.7

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Reserves.
2. Mineral Reserves are estimated at a net smelter return ("NSR") cut-off value of US$50 per tonne.
3. Mineral Reserves are estimated using a silver price of US$16.00 per ounce, lead price of US$0.90 per pound and a zinc price of US$0.90 per pound.
4. A mining recovery of 80% and dilution factor of 5% at zero grade were used for estimating Mineral Reserves to reflect the mining method (post-pillar cut and fill) used at the operation.
5. Numbers may not add or multiply accurately due to rounding.

TABLE 1-6 EC120 SUMMARY OF MINERAL RESERVES – APRIL 3, 2019
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades		Contained Metal	
Category	**(000)**	**Ag (g/t)**	**Cu (%)**	**Ag oz (000)**	**Cu lbs (M)**
Probable El Cajón	831	147	0.46	3,939	8.4
Probable Zone 120	2,047	161	0.40	10,610	18.1
Total Probable	2,877	157	0.42	14,549	26.5

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Reserves.
2. Mineral Reserves are estimated at a net smelter return ("NSR") cut-off value of US$40 per tonne.
3. Mineral Reserves are estimated using a silver price of US$16.00 per ounce and copper price of US$2.50 per pound.
4. A minimum mining width of 4.0m and 15% dilution factor at zero grade, were used for estimating Mineral Reserves at El Cajón and Zone 120. Mining recoveries vary between 80% and 95% depending on the width of the ore zone to reflect the proposed mining methods (post-pillar cut and fill and overhand cut and fill) for the Project.
5. Numbers may not add or multiply accurately due to rounding.

Americas Silver is not aware of any mining, metallurgical, infrastructure, permitting, or other relevant factors that could materially affect the Mineral Resource or Mineral Reserve estimates.

1.2.8 Mining Methods

Construction started at San Rafael in September 2016 and achieved commercial production in December 2017. The Mineral Reserves support a mine life of five years. The underground mine is accessed by a decline that portals at surface near the southern portion of the deposit where the surface infrastructure is located. A series of ramp systems from the main decline provides access to the various stoping areas of the mine.

The main decline has reached the bottom of the defined Mineral Reserves in the Main Zone and ramp development to access the Upper Zone has commenced. Due to the depth, shallow-dipping angle and variable thickness of the mineralization, the mining method used at San Rafael is post-pillar cut and fill. Stopes are accessed from a primary stope access driven at a -15% decline. After mining of each successive 5m high cut of ore, the stope is backfilled and the access "backslashed" to allow for mining of the next cut. This sequence is repeated up to five times until the stope access reaches an incline of +15%. Access to the next cut is then provided by a -15% stope access driven from a higher elevation.

The LOM plan anticipates that the cut and fill stopes will be backfilled with unconsolidated development waste and waste generated from a waste quarry. Given the use of unconsolidated backfill, the mining sequence is typically from the bottom up.

Primary mine ventilation is provided via two vertical bored raises and the main decline. A main exhaust fan is located underground at the northern end of the deposit and fresh air is pulled through a central intake bored raise and the main decline. Fresh air is provided to the working development faces and stoping areas by use of secondary fans and ducting.

Due to the depth, variable dip angle (shallow to near vertical) and variable thickness of the mineralization, the mining method proposed at EC120 is a combination of post-pillar cut and fill and overhand cut and fill. This mining method is very selective and adaptable to changes in the mineralization in terms of shape, dip, thickness and lateral extent. The designed widths for the stoping areas at EC120 range from a minimum of 4m to a maximum of approximately 60m.

Stopes are accessed from a primary stope access driven at a -15% decline. After mining of each successive 5m high cut of ore, the stope is backfilled and the access backslashed to allow for mining of the next cut. This sequence is repeated up to five times until the stope access reaches an incline of +15%. Access to the next cut is then provided by a -15% stope access driven from a higher elevation. The nominal level spacing between main accesses is planned to be 25m.

The LOM plan assumes that the stopes will be backfilled with unconsolidated development waste and waste generated from a waste quarry. Given the use of unconsolidated backfill, the mining sequence is generally from the bottom up.

Ore will be mucked from the stopes to muck bays located on the main level access using load-haul-dump equipment ("LHD"). LHDs will load trucks equipped for both underground and surface use at the truck loadout area. Ore will be hauled directly from the underground to the processing plant to avoid re-handling. On their return trip from the plant, trucks will be loaded with waste fill and travel directly or adjacent to the stopes requiring backfill. Final placement of the waste fill in stopes will be done using LHDs.

1.2.9 Mineral Processing

San Rafael ore has been the exclusive feed for the Los Braceros plant since November 2017. The Los Braceros process plant is a conventional polymetallic concentrator currently configured to produce zinc and lead concentrates. Throughput has recently been approximately 1,750 tonnes per operating day.

Processing of material from EC120 is expected to start after the cessation of production from San Rafael. The existing Los Braceros plant can be easily reconfigured to suit the needs of EC120. No unit operations will be added and no new equipment will be installed.

All tailing generated from the processing of San Rafael and EC120 ore can be deposited in the existing tailings storage facility ("TSF"). A 5m high lift of the tailings dam was completed as planned during Q1 2019. Over the remaining life of the San Rafael mine and the EC120 Project, it is anticipated that four more 5m high lifts will be completed. The tailings dam is currently planned to reach a level of 600m above sea level.

1.2.10 Market Studies

Americas Silver has been producing and selling concentrates from the past-producing Nuestra Señora mine since 2008 and the current producing San Rafael mine since 2017. The duration of a typical concentrate sales contract is six to twelve months. Contracts are negotiated between the Company and metal concentrate trading firms based on standard industry terms that are adjusted for current market conditions in accordance with the characteristics of each product.

The San Rafael mine currently produces two concentrate products, a lead-silver concentrate and a zinc-silver concentrate. Both concentrates are classified as relatively clean, based on metallurgical testing and actual production quality, with minor penalties associated with impurities.

There is a wide market available for these concentrates. The EC120 Project will be producing a copper-silver concentrate. Based on metallurgical testing, the copper-silver concentrate produced from EC120 will contain elevated levels of arsenic and antimony. This will limit the market for this concentrate but the existence of several potential buyers has been verified.

1.2.11 Environmental, Permitting and Social Considerations

Americas Silver's environmental management systems for the Cosalá Operation are under continual development. As part of the permitting process, the Company has completed archaeological surveys in operational and project areas, including the San Rafael-El Cajón area.

Most mining and processing activities are carried out under the terms of Authorization of Environmental Impact ("AIE") and Change of Land Use permits ("Cambio de Uso de Suelo" or "CUS"), issued by the Mexican Secretaria de Medio Ambiente y Recursos Naturale (The Secretariat of Environment and Natural Resources, or "SEMARNAT"). An AIE permit was issued in 2007 to allow for the construction of a process plant and TSF on site and another AIE permit was issued in 2014 to allow for the construction of the El Cajón mine. A bond was not required. To maintain these permits in good standing, Americas Silver must report on activities on an annual basis, particularly any changes such as an increase in production. The permit for the Los Braceros plant area expires in February 2022 and the permit for the Cosalá Norte area expires in September 2020, both of which can be renewed. Americas Silver did obtain CUS permits for areas around the plant, San Rafael and El Cajón, which have since expired. The surface work required under the CUS has been completed in these areas and there is no current need to obtain new CUS permits.

Americas Silver holds two explosives permits issued by the Secretaria de la Defensa Nacional ("The Secretariat of National Defence"). These permits are valid until December 2019 and are renewed on an annual basis.

Exploration activities, particularly drilling, are also governed by SEMARNAT regulations. Various CUS permits are held by Americas Silver. The approval of affected surface rights holders is required as part of the permitting and drilling process.

Americas Silver reports full support of its workers, the local communities, and all levels of Mexican government and states that it is in full compliance with all of its commitments and all Mexican laws.

1.2.12 Capital and Operating Cost Estimates

This section summarizes the estimated capital and operating costs in the LOM plan for San Rafael and EC120. Cost estimates for San Rafael are based on recent operating data. Those for EC120 are based on a combination of recent operating data at San Rafael and the Los Braceros plant, in conjunction with calculations from first principles. All costs are in US dollars and use an exchange rate of 18.0 Mexican pesos per 1.0 US dollar where components of the costs were priced in Mexican pesos.

For the San Rafael mine, sustaining capital costs are expected to total approximately $23.1 million over the remaining reserve life of four years. Table 1-7 provides a detailed breakdown of the anticipated capital expenditures associated with development, processing, tailings storage, exploration and fixed assets.

TABLE 1-7 SAN RAFAEL ESTIMATED LOM CAPITAL EXPENDITURE
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Centre	LOM Total ($M)
Development/Mine	14.3
Process/Tailings	2.3
Exploration	2.0
Other	4.5
Total Capital Expenditure	**23.1**

For the EC120 Project, the total estimated initial and sustaining capital costs are based on the major capital items required for mining and processing ore from EC120 over the proposed 5 year mine life based on the current reserve estimate. Table 1-8 provides a breakdown of the initial and sustaining capital costs over the life of the Project.

TABLE 1-8 EC120 ESTIMATED PROJECT CAPITAL COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Centre	Initial ($k)	Sustaining ($k)	Total ($k)
Mine Development	9,237	7,972	17,209
UG Mining Capital	5,375	4,293	9,668
Process Capital	602	2,015	2,617
Other	458	500	958
Contingency 15%	1,009	-	1,009
Total Capital Expenditure	**16,780**	**14,780**	**31,460**

The initial and sustaining capital cost are exclusive of pre-production operating costs net of revenue and working capital which are approximately $1.4 million and $5.3 million respectively.

For San Rafael, LOM operating costs are approximately $25 million per year. The unit operating cost estimates for the LOM plan are shown in Table 1-9.

TABLE 1-9 SAN RAFAEL UNIT OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Item	Units	LOM Average
Mining	$/t milled	19.64
Processing	$/t milled	15.38
G&A	$/t milled	8.65
Total	**$/t milled**	**43.68**

The LOM plan annual operating costs for the EC120 Project are shown in Table 1-10. The associated annual unit operating costs are shown in Table 1-11. The operating cost estimates were prepared using the same procedures and methodology utilized to prepare the operating budget for San Rafael. Additionally, the development dimensions and mining method to be used at EC120 are the same as those used at San Rafael, so there is a high level of confidence that the operating cost estimates used for EC120 are reasonable and achievable.

TABLE 1-10 EC120 OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Pre-Prod ($k)	Year 1 ($k)	Year 2 ($k)	Year 3 ($k)	Year 4 ($k)	Year 5 ($k)	Total ($k)
UG Mine Operations	2,044	8,939	11,111	11,548	11,476	7,040	52,158
Mine Development	137	1,245	1,070	975	1,885	920	6,232
Processing	500	7,600	7,604	7,604	7,604	5,286	36,198
G&A	2,005	5,376	5,362	5,362	5,362	4,936	28,402
Total Operating Cost	**4,686**	**23,160**	**25,147**	**25,489**	**26,326**	**18,182**	**122,990**

TABLE 1-11 EC120 UNIT OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Units	Pre-Prod	Year 1	Year 2	Year 3	Year 4	Year 5	Total
UG Mine Operations	($/t mined)	17.00	17.00	18.15	18.16	18.20	19.96	18.13
Mine Development	($/m)	556	636	726	627	639	558	634
Processing	($/t milled)	12.58	12.58	12.58	12.58	12.58	12.58	12.58
G&A	($/t milled)	50.45	8.90	8.87	8.87	8.87	11.75	9.87
Total Operating Cost	($/t milled)	117.91	38.34	41.60	42.17	43.55	43.27	42.74

The unit costs for the pre-production period and year 1 in Table 1-11 differ from the average for the Project as there is a stockpile generated during the pre-production period to provide a more consistent plant feed during the first year of production.

2 INTRODUCTION

Americas Silver Corporation ("Americas Silver" or the "Company") prepared this Technical Report on the San Rafael underground zinc-silver-lead mine ("San Rafael") and Preliminary Feasibility Study ("PFS") on the El Cajón and Zone 120 silver-copper deposits ("EC120", "EC120 Project", "Project"), located in the Cosalá district of Sinaloa, Mexico. San Rafael, EC120 and associated facilities are collectively referred to as the Cosalá Operation. The purpose of this report is to disclose the results of the PFS for the EC120 Project, as at April 3, 2019, and provide a technical update on the San Rafael mine. This report conforms to National Instrument 43-101 Standards of Disclosure for Mineral Projects ("NI 43-101").

Americas Silver is a TSX and NYSE-listed Canadian company involved in the production and exploration of silver, gold, copper, lead and zinc, with its corporate office in Toronto. It has two producing mines, the Galena Complex in the United States and the San Rafael mine in Mexico. Additionally, through its recent acquisition of Pershing Gold Corporation on April 3, 2019, the Company owns the Relief Canyon project, a past producing gold-silver open pit heap leach operation in the United States.

Americas Silver operates the Cosalá Operation through its wholly owned subsidiaries, Platte River Gold Inc. ("PRG"), Minera Platte River Gold S. de R.L. de C.V. ("MPRG"), and Minera Cosalá S.A. de R.L. de C.V. ("MCO").

The San Rafael mine and EC120 Project are located in the Cosalá district of Sinaloa, Mexico. The Cosalá Operation consists of the San Rafael mine, including a portal and surface facilities, the El Cajón mine, including a portal and surface facilities, the Los Braceros plant and surface facilities, a tailings storage facility and an office complex. The San Rafael mine declared commercial production on December 19, 2017. The mine produces approximately 1,750 ore tonnes per day. The Los Braceros plant located 6km east of the town of Cosalá processes the ore feed from the San Rafael mine. The plant is configured to handle 1,800 tonnes per operating day and produces both silver-zinc and silver-lead concentrates from the San Rafael ore feed. Total production in 2018 was 448,150 ounces of silver, 12,865,832 pounds of lead and 34,219,472 pounds of zinc. The EC120 Project plans to process ore from the combined underground operations at El Cajón and Zone 120 at the Los Braceros plant. The plant will only require minor modifications to piping and the reagent scheme in order to process this ore and will produce a silver-copper concentrate.

2.1 Qualified Persons and Site Visits

The Technical Report was completed by Daren Dell, P.Eng., Americas Silver Chief Operating Officer, Shawn Wilson, P.Eng., Americas Silver Vice President, Technical Services, Niel de Bruin, P.Geo., Americas Silver Director of Geology, and James Stonehouse, SME (RM), Americas Silver Vice President of Exploration. Messrs. Dell, Wilson, De Bruin and Stonehouse are Qualified Persons (QP) in accordance with the requirements of NI 43-101.

Over the past two years, numerous site visits have been carried out on a routine basis by Americas Silver QPs Dell, Wilson, De Bruin and Stonehouse. Mr. Dell most recently visited site during March 2019. Mr. Wilson most recently visited site during October 2018. Mr. De Bruin most recently visited site during May 2019. Mr. Stonehouse most recently visited site during April 2019. Mr. Dell was responsible for reviewing and preparing the metallurgical and environmental aspects, and prepared Sections 13, 17 and 20 of the Technical Report. Mr. Wilson was responsible for reviewing and preparing Sections 4, 5, 15, 16, 18, 19, 21, 22, 23 and 30. Mr. De Bruin was responsible for reviewing and preparing the Mineral Resource models for the mines and prepared Sections 9 through 12, and Section 14 of the Technical Report. Mr. Stonehouse was responsible for reviewing and preparing Sections 6 through 8 of the Technical Report. All authors share responsibility for Sections 1, 2, 3 and Sections 24 through 29 of the Technical Report.

2.2 Sources of Information

Information in this report is derived from discussions held with and data provided by the following Company personnel and consultants:

- Peter McRae, Senior Vice President, Corporate Affairs and Chief Legal Officer, Americas Silver
- Gaspar Mendez, General Manager, Cosalá Operations
- Gabriel Soto, Plant Manager, Cosalá Operations
- Jose Cruz, Senior Mine Planner, Cosalá Operations
- Natlley Colmenares, Environmental Superintendent, Cosalá Operations
- Greg Duncan, Surface Operations Manager, Cosalá Operations
- Will Pitman, Principal Geotechnical Engineer at Adiuvare Geology and Engineering (“Adiuvare G.E.”) Ltd.
- John Bowling, Senior Consultant, Mine Ventilation Services of SRK Consulting (“SRK”)
- Dan Lang, Consulting Metallurgist, Grade Recovery Strategies
- Paul Tietz, Principal Geologist, Mine Development Associates (“MDA”)

The documentation reviewed, and other sources of information, are listed in Section 27 References.

2.3 List of Abbreviations

Units of measurement used in this report conform to the metric system. All currency in this report is US dollars (US$) unless otherwise noted.

a	annum
A	ampere
°C	degree Celsius
C$	Canadian dollars
cfm	cubic feet per minute
cm	centimetre
cm^2	square centimetre
d	day
dia	diameter
ft	foot
ft^3	cubic foot
g	gram
G	giga (billion)
gal	Imperial gallon
g/L	gram per litre
g/t	gram per tonne
ha	hectare
hr	hour
in.	inch
in^2	square inch
J	joule
k	kilo (thousand)
kg	kilogram
km	kilometre
km^2	square kilometre
km/h	kilometre per hour
kW	kilowatt
kWh	kilowatt-hour
L	litre
lb	pound
m	metre
M	mega (million); molar
m^2	square metre
m^3	cubic metre
µ	micron
MASL	metres above sea level
m^3/h	cubic metres per hour
min	minute
µm	micrometre
mm	millimetre
msec	millisecond
MW	megawatt
MWh	megawatt-hour
MX$, MXN	Mexican peso
ohm-m	ohm-metre
oz	Troy ounce (31.1035g)
ppm	part per million
RL	reference level
s	second
t	metric tonne
tpa	metric tonne per year
tpd	metric tonne per day
t/m^3	tonnes per cubic metre
US$, USD	United States dollar
V	volt
W	watt
wt%	weight percent
yd^3	cubic yard
yr	year

3 RELIANCE ON OTHER EXPERTS

In the preparation of the Technical Report, the QPs relied on information provided by internal Americas Silver counsel for the discussion of legal matters in Sections 4 and 20.

Except for the purpose legislated under provincial securities law, any other use of this report by any third parties is at that party's sole risk.

4 PROPERTY DESCRIPTION AND LOCATION

The San Rafael mine and EC120 Project are located in the Cosalá district, east-central Sinaloa, Mexico, near 24º 29'N latitude and 106º 40'W longitude. Some of the concessions that form the property extend into adjacent Durango. Cosalá is approximately 180km by road from the city of Mazatlán. The San Rafael mine and EC120 Project are 12km north-northeast of the town of Cosalá. The Los Braceros plant is located approximately 6km east of the town of Cosalá and the past-producing Nuestra Señora mine another 4km southeast of the plant as shown in Figure 4-1. The property consists of 67 mining concessions covering a total area of 19,390.7ha detailed in Appendix 1, Table 30-1, and Figure 4-2. These concessions and fractional concessions are 100% owned by Americas Silver's subsidiaries MPRG and MCO. The company is current with respect to all applicable concession lease payments and work commitments.

4.1 Mineral Rights

The mining concessions are held under two separate entities at Cosalá. MPRG holds 51 mineral concessions totalling 6,718.9 ha. MCO holds 16 mining concessions totalling 12,671.8 ha. In total, Americas Silver holds 67 mining concessions covering a total area of 19,390.7ha.

All concessions remain valid for 50 years from the date of title as long as the semi-annual mining duties are paid and minimum annual work requirements are met. The mining duties are based on the number of years for which the concession has been held and the area of the concession. Total, current, semi-annual mining duties for the 67 concessions owned by Americas Silver are approximately MXN3.3 million, payable to the Secretaría de Economía, Coordinación General de Minería, Dirección General de Minas. Americas Silver reports that those payments are up to date. The current total minimum annual work commitment, including exploration and mining, for all the concessions is approximately MXN56.9 million. The Americas Silver owned concessions are grouped administratively so that the cost of work performed anywhere on the property can be credited towards these work commitments.

On March 16, 2011, Scorpio Mining Corporation ("Scorpio"), predecessor to Americas Silver, acquired five mineral concessions in the Cosalá district, immediately adjacent to its existing concessions, from Grupo Industrial Minera Mexico S.A. de C.V. ("IMMSA"), a subsidiary of Grupo Mexico. These concessions (El Cajón, El Cajón 2, El Magistral, La Escondida and Simon) covering 1,387ha are subject to a 1.25% net smelter return ("NSR") royalty payable to IMMSA on future production. Additionally, Cosalá 2 concession covering 307ha is subject to a 1.5% NSR payable to two private individuals on future production. The planned San Rafael and EC120 production does not extend onto any of these six concessions.

4.2 Surface Rights

Figure 4-3 illustrates the surface rights owned or leased by Americas Silver around San Rafael and EC120, and the Los Braceros plant. There are three local ejidos, the San Jose de Las Bocas Ejido, the Santiaguillo Ejido and the Higuera Larga Ejido with which Americas Silver has surface agreements in place. Americas Silver also has a surface agreement in place with the Universidad Autónoma de Sinaloa ("UAS") reserve.

4.3 Environmental Liabilities and Work Permits

Americas Silver is not aware of any environmental liabilities on the property. Americas Silver has all the required permits to conduct the proposed work on the property. Americas Silver is not aware of any other significant factors and risks that may affect access, title, or the right or ability to perform the proposed work program on the property.

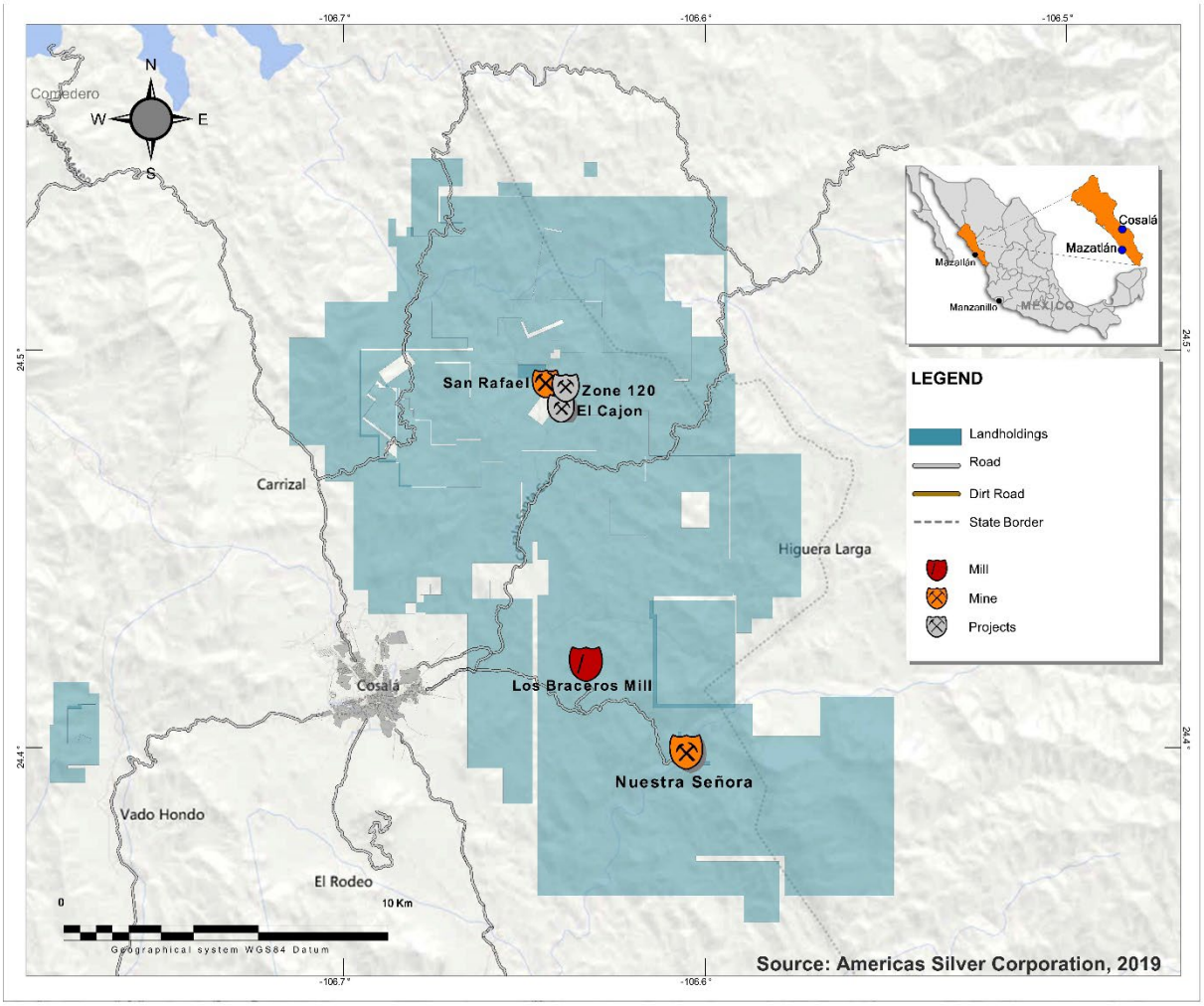

FIGURE 4-1 LOCATION MAP

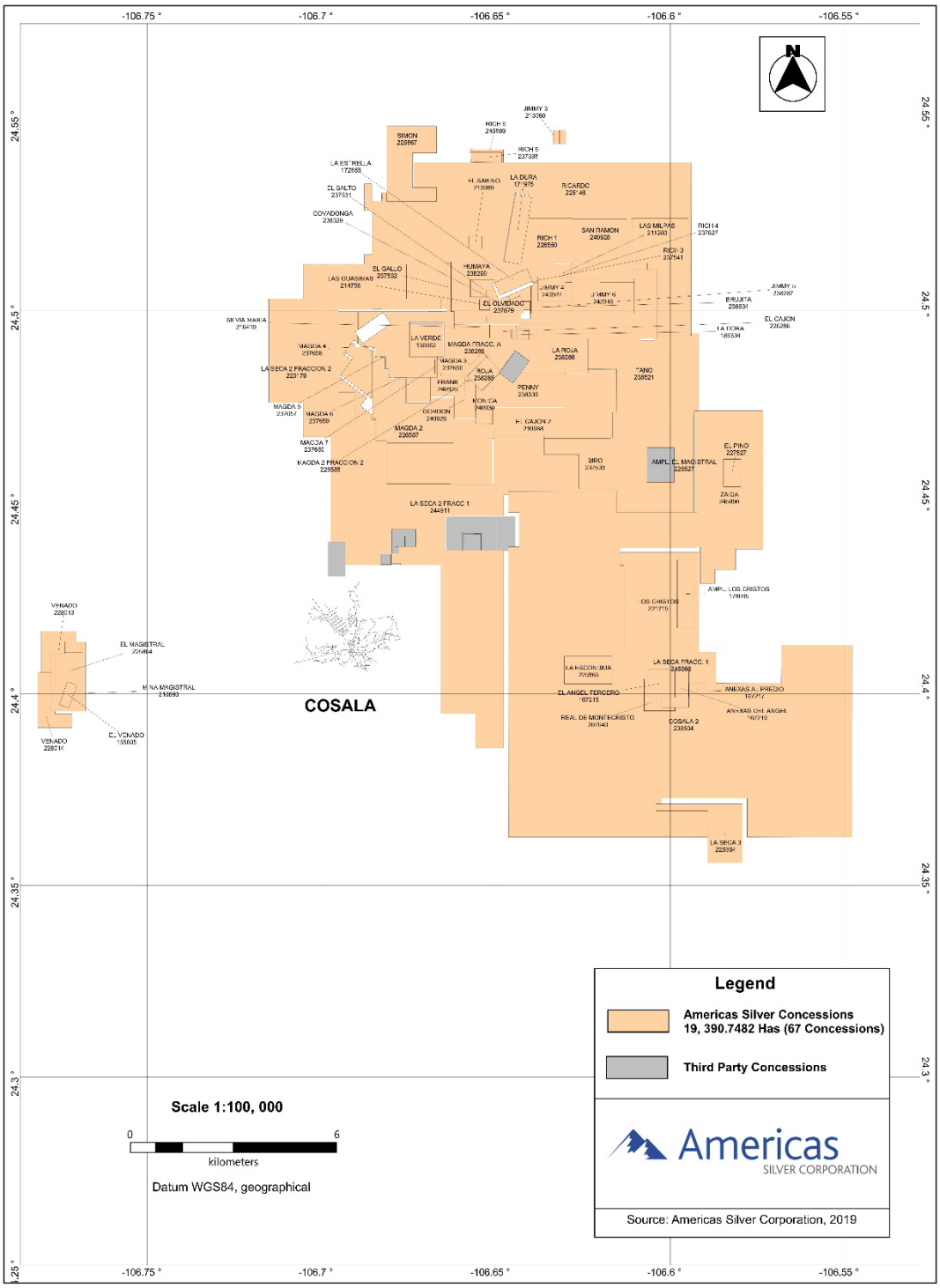

FIGURE 4-2 MINING CONCESSIONS

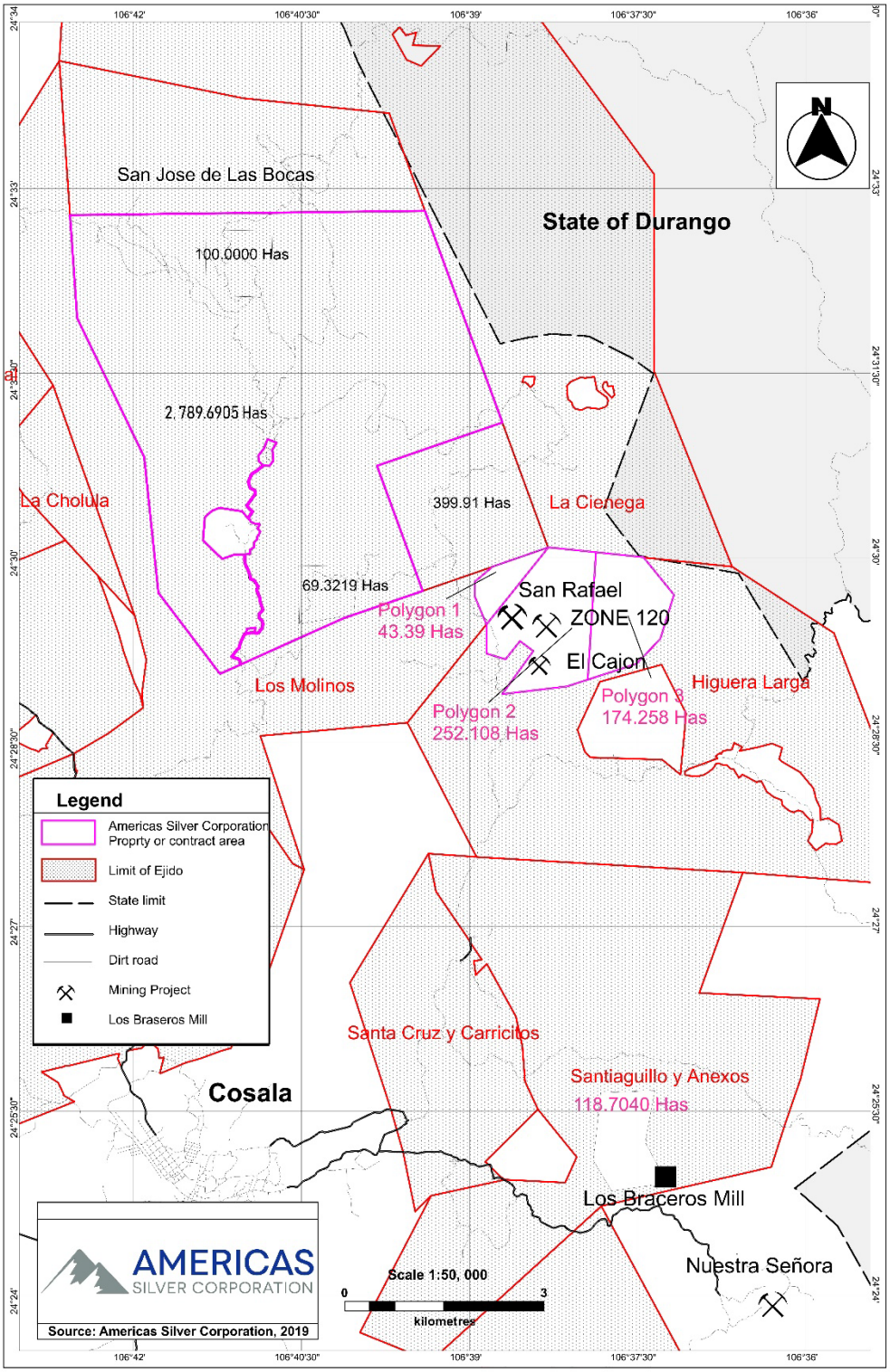

FIGURE 4-3 SURFACE RIGHTS MAP

5 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

5.1 Accessibility

The San Rafael mine, EC120 Project and Los Braceros plant are located in the east-central portion of Sinaloa, Mexico near the town of Cosalá. The town of Cosalá is approximately 180km north of Mazatlán. Mazatlán is serviced by an international airport with daily flights connecting it to Mexico City and several major centres in the United States. Access to site from Mazatlán is via Mexico Highway 15N, a major north-south trucking route, and then SIN Highway 1. Driving time is about 2.5 hours. Access to San Rafael and EC120 from Cosalá is via rural paved and dirt roads approximately 15km in length. These roads can accommodate standard highway vehicles. The entire project area is easily accessible year-round with two-wheel-drive vehicles.

5.2 Climate

The climate of the region is classified as tropical wet and dry and the lush vegetation comprises many native species. The mean annual temperature in the area is 24.1°C and the monthly means range from 16.2°C to 31.6°C. Generally, the seasons are classified as dry and rainy. The rainy season is typically from July to October and rainfall is usually in the form of short intense thunderstorms. The average annual rainfall measured at Cosalá is approximately 560 mm. Mine production and mineral exploration, including drilling, can be carried out 12 months a year.

5.3 Local Resources

The town of Cosalá (population 6,500) is 15km southwest of San Rafael and EC120 and serves as a source for basic services, supplies and labour. Americas Silver rents several residences in Cosalá for the use of employees who live in distant centres. Mazatlán is one of the major supply centres in the region. The ports in Mazatlán, 180km south, and Los Mochis, 300km to the northwest, are both capable of handling bulk materials as well as containers. Americas Silver currently transports zinc and lead concentrates from the Los Braceros plant by road to Manzanillo for shipment by sea freight to the receiving smelters.

5.4 Infrastructure

The Cosalá Operation site and mine facilities include the following:

- Two surface mine sites and associated facilities, including offices, shops, compressors, fuel storage, electric substations, portals, ventilation fans, run-of-mine (“ROM”) storage and a dry facility.

- Underground infrastructure, including ramps, ventilation/service raises, explosive magazines, dewatering pumps and underground mobile equipment fleet.
- Main town office, including shop, diamond drill core logging and storage facilities, and meeting room.
- Excellent access by rural paved and dirt roads to the Los Braceros plant and tailings storage facility.
- Grid electric power supply to the San Rafael mine, EC120 Project and Los Braceros plant.

5.5 Physiography

The San Rafael and EC120 area lies within the western foothills of the Sierra Madre Occidental, and the project area topography is rugged and steep. The project elevation ranges from 350 to 1,000 MASL with approximately 350m of relief within the immediate San Rafael area. The town of Cosalá lies at an elevation of about 325 MASL. Incised perennial drainages cut through the property, and stream flows are highly variable depending on time of year. Drainage channels are often used for local access, although during the rainy season, many drainages become impassable due to high water flow. The slopes are brush and tree covered making cross-country travel difficult, particularly during the rainy season.

6 HISTORY

The description of the history of the San Rafael mine area is summarized from the Technical Report by Dyer et al., 2016.

The Cosalá district was discovered and locally worked by the Spanish approximately 400 years ago with production of enriched silver ore from the upper levels of the Nuestra Señora mine. However, no records of any kind remain from their activities. At the turn of the 19th century, French engineers through Negociación Minera La República reportedly developed and worked the Nuestra Señora mine with a 10-stamp mill that produced 800 to 1,000kg of silver per month. Activities in the area may have been halted after the 1910 Mexican Revolution.

In 1949, Asarco Mexicana ("Asarco") purchased the Nuestra Señora mine and property and carried out exploration and development, putting the property into production in 1954. Ore was mined from four nearby deposits (Nuestra Señora, Santo Domingo, Candelaria and Santa Teresa), with most of the production coming from the Nuestra Señora mine down to the 8th level. The Ag-Zn-Pb-Cu-Au ore was processed in a 450tpd flotation plant. Asarco also mined similar material from the La Estrella mine north of San Rafael. In addition, Asarco conducted some work at El Cajón, sending the material to the mill at La Estrella.

In or about February 1965, Asarco ceased production from Nuestra Señora, presumably because of anticipated Mexican government policies (Spring and Breede, 2008), and subsequently removed all of the mining equipment. Asarco let its concessions lapse in 1980.

6.1 San Rafael Area Prior to 2004

As mentioned above, Asarco operated the La Estrella mine north of San Rafael and carried out some work at El Cajón during its tenure on the property from 1949 to 1965. In 1965, the Gaitán family worked the La Estrella mine and developed a small open-pit operation around the area previously mined by Asarco. The mined material was trucked to a plant owned by Minera Reyna del Cobre (the Gaitán family) and located 100km from Cosalá at La Minita. The silver-lead and zinc concentrates were trucked to the Industrias Peñoles, S.A. de C.V ("Peñoles") smelter in Torreon, Coahuila.

At about the same time, the small El Mamut and La Verde mines (both Ag-Cu-Au) were operated by Sres. Vicente Cortez, Alonzo Cortez and Jaime Garriaga, using some of the Asarco infrastructure. The El Mamut mine, located in what is now the El Cajón mineralized area, had also apparently been tested by Asarco with three diamond drill core holes. The data on these

core holes are not available to Americas Silver. The Cortez and Garriaga families produced approximately 10 to 15tpd from the mines and shipped the ore to the Gaitán mill at La Minita.

In the late 1970s and early 1980s, a subsidiary of Peñoles explored the area around the La Estrella mine and El Cajón area and completed some drilling around La Estrella. It subsequently abandoned its interest in the area. At the same time, Sr. Enrique Gaitán constructed a 100tpd plant near the La Estrella mine to process material from that deposit, as well as from La Profesora, a small mine approximately 0.5km to the southeast. In the early 1980s, Mr. Gaitán moved the plant to the town of Cosalá, supposedly due to his relationship with the ejido that owned the surface in the area and also to procure a more consistent water source.

In 1985, Sr. Jaime Guinea Gonzalez acquired the rights to the La Verde mine concession, from which he processed 50 to 80tpd of dump material and also signed an option agreement to purchase the Gaitán plant in Cosalá. Sr. Guinea developed two new cross cuts to intercept the La Verde zone and increased production to approximately 190tpd.

Minerales para la Industria, S.A. de C.V. signed an exploration agreement in 1987 with Sr. Guinea and Minera Humaya S.A. de C.V. (“Humaya”), a company controlled by him, and completed mapping and sampling in the area around the La Verde mine and the El Cajón and La Estrella areas. The results of their work were not sufficient to continue exploration in the district. Sr. Guinea subsequently completed 12 reverse circulation (“RC”) drill holes along the La Verde zone, and production over the ensuing years was increased to approximately 200tpd. He also acquired substantial additional concessions in the area at this time.

In mid-1995, Minas de Oro Hemlo, S.A de C.V. (“Hemlo”), subsidiary of Hemlo Gold Mines Inc., the first company to show interest in the San Rafael-Los Manueles areas located northwest of San Rafael, signed an exploration agreement with Sr. Guinea and Humaya. After six months of mapping and sampling in those zones, Hemlo decided to build a new road to explore a stockwork zone of Au-Ag mineralization hosted in the rhyolite that overlies the San Rafael base-metal mineralization. On the basis of encouraging rock-sample geochemistry, Hemlo drilled 15 RC holes in 1997 in the San Rafael area and encountered local Au-Ag mineralization in the rhyolite. Hemlo’s drilling targeted the high-level gold and silver mineralization that overlies the massive-sulphide base-metal mineralization, though a number of holes were drilled deep enough to encounter the base-metal zone. Nine holes contained sample intervals assaying greater than 1% Pb and Zn, while three of these holes had 10m or greater drill intervals that assayed greater than 40g/t Ag and over 1% Pb and Zn. The base-metal assay technique employed by Hemlo had an upper limit of 1%, and further analyses were not conducted on the samples whose results exceeded the upper limits. All the Hemlo holes which encountered sulphide mineralization were

later twinned by PRG. A few of the holes were drilled deep enough to discover the buried massive-sulphide base-metal mineralization that has been the focus of Americas Silver's drilling. However, because Hemlo was primarily interested in gold and silver, and had unrelated legal issues, it did not continue work in the area.

Early in 1997, Sr. Guinea and Humaya signed an option agreement for the property in the San Rafael-El Cajón-La Verde area with Golden Panther Resources Ltd. ("Golden Panther"), a Canadian junior company. This agreement included all of the claims staked by Humaya (approximately 11,000ha), as well as the plant and the offices and houses located in Cosalá. Golden Panther carried out an induced polarization ("IP")-resistivity geophysical program over the La Verde mineralization and completed three core holes, two of which attempted to intercept the mineralization beneath the deepest workings of the La Verde mine. A cross cut was developed to intercept another mineralized structure but was stopped short of the area of interest. Along with the exploration program, Golden Panther increased the capacity of the plant in Cosalá to 450tpd. Golden Panther abandoned the project the following year.

In 1999, Peñoles signed a letter of intent with Sr. Guinea for the San Rafael-El Cajón-La Verde area. Peñoles conducted fieldwork on the project but did not continue with additional work.

In early 2000, IMMSA expressed interest in the San Rafael-El Cajón-La Verde property and made a verbal agreement with Minera Real de Cosalá S.A de C.V. ("MRC"), a new company controlled by Sr. Guinea's wife and daughters. During this time, IMMSA staked three claims within the main claim block that had been allowed to lapse by MRC. After several months, IMMSA declined to pursue its interest in the area, but kept its concessions. One of IMMSA's concessions is located immediately northwest of the San Rafael mineralized area.

Noranda Exploraciones Mexico, S.A. de C.V. ("Noranda") started negotiations and later signed two option agreements at the end of 2000 with Sr. Guinea and MRC. One agreement was for the La Verde mine area, and the second was for the La Estrella-San Rafael-El Cajón area. Three IP-resistivity lines were completed over the San Rafael zone in the area of the previous Hemlo drilling. A significant IP anomaly was identified that coincided with the base-metal mineralization encountered in several of the Hemlo holes. Noranda subsequently drilled seven vertical core holes totalling 1,348m in 2001. Americas Silver has digital assay, collar and summary geology data but no hard-copy data. The Noranda drilling targeted the base-metal mineralization encountered in the deeper Hemlo drill holes. The results of Noranda's drilling confirmed the presence of the massive-sulphide mineralization, but the potential size was believed to be small, and Noranda abandoned its interest in the property in 2001.

6.2 San Rafael – El Cajón Area 2004 - 2010

PRG became interested in the San Rafael-El Cajón-La Verde property in early 2004. On June 1, 2004, PRG, through its Mexican subsidiary, signed a four-year option agreement for 100% of the exploration and mining concessions owned by MRC, along with all of the infrastructure and mining equipment used at the La Verde mine and project area, but excluding the processing plant in Cosalá. PRG completed payments and acquired the property in 2008. PRG acquired an additional three concessions from MRC in 2006 and also filed an additional 19 concessions between 2005 and 2008. PRG's exploration is described in Section 9.1. The previous work by Noranda and Hemlo guided PRG's drill program, and many of the previously drilled mineralized holes were twinned by PRG.

6.3 Drilling by Platte River Gold

PRG initiated exploration in the vicinity of San Rafael and El Cajón in 2004 and conducted four phases of drilling through August 2008. Total PRG drilling included 65,706m in 371 drill holes, which corresponds to the totals found in the database used by MDA to estimate the 2009 resource. Four additional drill holes (EC5a for 25.9m, EC11a for 15.2m, SR139 for 124.97m and VE9 for 7.5m) were not entered into the database since they were abandoned or lost, not logged, and re-drilled with a new hole. No additional drilling was conducted by PRG prior to being acquired by Scorpio in August 2010.

The first phase drill program began on November 20, 2004 and concluded in June 2005. The Phase I drilling, which consisted of 56 RC holes for a total of 8,423m, tested 12 different targets throughout the San Rafael-El Cajón area that had been identified by surface mapping and sampling. The most significant results of this drilling were indications of continuity of massive-sulphide (silver-lead-zinc) mineralization that had been tested by Hemlo and Noranda at San Rafael. The drilling also discovered significant silver-copper mineralization peripheral to the mineralization exposed in old mine workings at El Cajón.

The second drill phase began on October 17, 2005 and ended on July 6, 2006. Phase II, which consisted of 91 RC and 37 core holes totalling 18,610m, focused on defining the limits of the San Rafael mineralization and also expanding and defining the El Cajón mineralization. Due to the rugged topography and difficulty in setting up drill pads, both vertical and angle holes were used to test the mineralized zones.

The third phase began in January 2007 and ended in August 2007. Phase III, which consisted of 80 RC and 51 core holes totalling 26,508m, focused on infilling and defining the limits of the El Cajón mineralization in preparation for a maiden, publicly reported resource estimate, and also

infilling the San Rafael deposit for the purposes of resource classification upgrading. Zone 120 was recognized while drilling hole SR120 at the San Rafael deposit during Phase III.

The fourth phase of drilling began in March 2008 and ended in August 2008. Phase IV, which consisted of 56 core holes totalling 12,165m, focused on upgrading and further expanding Zone 120, defining the limited extents of the oxide mineralization, as well as minor step-out drilling at El Cajón.

At the conclusion of all phases of PRG's exploration program through 2009, there were 194 drill holes and 14 surface trenches in the San Rafael deposit area, and 95 drill holes in the El Cajón deposit area.

6.4 Geophysical Surveys by Platte River Gold

Geophysical work by PRG, which is summarized by Ellis (2007), was completed in 2005 and 2006 by Quantec Geoscience Inc. of Reno, Nevada (USA). IP, resistivity and ground magnetics data were collected. The IP and resistivity data were collected to map the distribution of pyrite and chalcopyrite, while the ground magnetics data were collected as a test to determine whether the skarn mineralization and intrusive rocks could be identified by their magnetic properties.

A total of 27.4 line km of IP and resistivity lines were completed at El Habal (located west-southwest of El Cajón), and 12 lines covering the San Rafael-El Cajón area. IP anomalies correlated with mineralization in all areas. Low-amplitude IP anomalies (<5.0msec) seem to correspond to the El Habal mineralization, while high-amplitude IP anomalies (reaching 20msec or higher) correlated well with mineralization at San Rafael and El Cajón. This amplitude can indicate disseminated sulphide in the range of 3% to 5%. However, the percentage of sulphide can be much higher if the habit of the mineralization is more massive or if it consists of a lower IP-responding sulphide such as chalcopyrite (Ellis, 2007). Resistivity was not a good indicator of mineralization. Resistivity values varied between 100ohm·m and 500ohm·m. Lateral variations in resistivity probably reflect structure, lithology, or the overprint of alteration.

Ground magnetics data were acquired along two IP lines at El Cajón during the 2006 survey. A GEM system (GSM-19) proton precession magnetometer was used for the survey, and a total of 2.5 line km of data were acquired and plotted in profile format. The results of the magnetic survey were inconclusive. No clear correlation of magnetic anomalies with mineralization was identified. However, the value of ground magnetics is often in its ability to map lithology, structure and sometimes alteration and is difficult to assess with limited coverage (Ellis, 2007).

6.5 Other Exploration and Production History

In addition to drilling and geophysical surveys, PRG conducted geologic mapping and chip-channel sampling of outcrops and road cuts. The database used in the current resource estimate contains geochemical data from 14 trenches located on the eastern edge of the San Rafael deposit.

Subsequent to August 2008, PRG conducted regional mapping and sampling outside of the resource areas.

A three-year option agreement with MRC was signed by PRG on July 1, 2008, through its Mexican subsidiary, to purchase MRC's processing plant in Cosalá and associated infrastructure. That option was fully paid in May 2011.

On January 1, 2009, PRG signed a three-year option agreement with Contratista de Obras Mineras, S.A. de C.V. ("COMSA"), a Mexican contract-mining company, to sell the Cosalá processing plant. COMSA completed its option payments in June 2011.

As of 2006, the La Verde mine had produced approximately 1.5 million tonnes of ore, and for the 18 months through January 2006, the average grade had been 152g/t Ag and 0.53% Cu (Armbrust and Chlumsky, 2006). In January 2009, the operation of the La Verde mine was leased to COMSA. That lease agreement allowed COMSA to extract ore from the La Verde mine and process it at the processing plant in Cosalá. A royalty was paid to PRG on the concentrate sales. The La Verde mine operating lease was terminated in February 2011, by which time COMSA had excavated and processed 281,000 tonnes with grades of approximately 114g/t Ag, 0.46% Cu and 0.10g/t Au. The La Verde portion of the Americas Silver property is not part of the resources described in Section 14 of this Technical Report.

Scorpio acquired all of the outstanding shares of PRG effective April 1, 2010, thereby acquiring the San Rafael-El Cajón-La Verde area concessions. Scorpio changed its name on May 19, 2015 to Americas Silver Corporation.

In March 2016, the Company released the results of the PFS for the San Rafael project. The study described an underground mine with an average annual production of 1.0 million ounces of silver, 50 million pounds of zinc and 20 million pounds of lead over a six-year mine life. Construction of the new mine officially started in September 2016 following approval by the Company's Board.

In early April, unusual ground movement was observed at the Nuestra Señora mine. The disturbance was located in the upper levels of the mine near old workings which predate the Company's involvement with the project. An analysis of the situation showed there was a risk to the structural integrity of the mine portal. A new portal and approximately 120m of development were completed to re-establish safe access to the mine and operations resumed in late June. During the suspension of ore production from Nuestra Señora, mill feed consisted of stockpiled material as well as historic dumps and near surface mineralization at the past-producing La Estrella mine at the north end of the Company's land holdings.

Primary ramp development at San Rafael advanced with approximately 25% complete by year-end in 2016. The project received initial deliveries of new mobile equipment and transfer of workers and equipment from the Nuestra Señora mine began. Ongoing review of development plans and savings from the relocation and reuse of existing equipment allowed the initial capital cost estimate to be reduced to $18 million from the original cost of $22 million presented in the PFS.

Development at the El Cajón project recommenced in Q4 2016. Plans were put in place to have mill feed supplemented by El Cajón production as the Nuestra Señora mine wound down. A small stockpile had been established by year end 2016.

In early 2017, production from the Nuestra Señora mine began to slow as preparations were made to transition the Cosalá Operation to other ore sources. Activities continued at the previously-idle El Cajón mine to bring it into limited production beginning in Q1 2017. A total of approximately 110,000 tonnes were processed between January and September 2017. The El Cajón mine is currently on care and maintenance.

Successful development of the San Rafael mine was the Company's top priority during 2017 and commercial production was declared as of December 2017. Ramp development was slowed during the year by difficult ground conditions at the contact between the overlying volcanic rock and the limestone beneath. However, improvements were found in other areas of the mine design and the Company began stockpiling ore in late August. Construction of the mill modifications was completed, and the plant switched to San Rafael ore as the sole feed source in November. The Los Braceros mill averaged approximately 1,400tpd through the pre-production period with silver, zinc and lead recoveries within 5% of the Company's expectations consistent with the March 2016 San Rafael PFS. Construction was completed for approximately $16 million, 32% below the PFS estimate.

Production from the Nuestra Señora mine stopped in early 2018 and the mine is currently on care and maintenance. The San Rafael mine continued advancing underground development into the Main Zone during 2018 in order to prepare the mine for 2019 production with targeted silver grades of approximately 60g/t with further increases expected in the silver grade in 2020 and beyond.

Since the commencement of operations in 2017 a total of approximately 0.8Mt ore has been produced from the San Rafael mine.

6.6 Historical Mineral Resource Estimates

Previous Mineral Resource estimates are provided as historical estimates only and should not be relied upon. They are superseded by the current Mineral Resource estimates for San Rafael and EC120 in Section 14.

A number of polygonal Mineral Resource estimates were completed prior to 2009 incorporating relevant drilling information but were used internally and do not meet NI 43-101 reporting requirements.

MDA completed a Technical Report for PRG and Scorpio on November 25, 2009 that included the first publicly reported Mineral Resource estimate for San Rafael and El Cajón (Ristorcelli et al., 2009). These Mineral Resource estimates are found in Table 6-1 and Table 6-2, respectively. The Mineral Resources were reported using a 1.5% zinc equivalent cut-off grade for San Rafael and a 100g/t silver equivalent cut-off grade for El Cajón. The 2009 Mineral Resource estimate for San Rafael considered mining the deposit by a combination of open pit and underground mining methods, and for El Cajón using underground mining methods similar to the Nuestra Señora mine. Numbers may not add or multiply accurately due to rounding.

TABLE 6-1 2009 MDA MINERAL RESOURCE ESTIMATE FOR SAN RAFAEL
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades			Contained Metal		
Category	(000)	Ag (g/t)	Pb (%)	Zn (%)	Ag oz (000)	Pb lbs (M)	Zn lbs (M)
Measured and Indicated	15,471	66.0	0.80	1.78	33,416	276.4	617.2
Inferred	545	72.7	0.23	0.38	1,274	2.8	4.6

TABLE 6-2 2009 MDA MINERAL RESOURCE ESTIMATE FOR EL CAJÓN
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades		Contained Metal	
Category	(000)	Ag (g/t)	Cu (%)	Ag oz (000)	Cu lbs (M)
Indicated	1,751	161.7	0.54	9,101	20.9
Inferred	545	138.5	0.49	2,429	5.9

7 GEOLOGICAL SETTING AND MINERALIZATION

The description of the geological setting and mineralization of the Cosalá property is summarized from the Technical Report by Dyer et al., 2016 with some minor modifications.

7.1 Regional Geology

The Cosalá mining district lies along the western edge of the Sierra Madre Occidental, an extensive volcanic province covering approximately 800,000km^2. The pre-volcanic basement consists of a variety of tectonic/stratigraphic terranes of Precambrian, Paleozoic and Mesozoic rocks. Reference can be made to the stratigraphic column provided in Figure 7-1. In the Cretaceous and Paleocene, a thick sequence of sedimentary units, primarily limestone, pelitic rocks and andesitic volcaniclastic units were deposited over the basement terranes. These marine sedimentary and volcanic rocks were intruded episodically from 140 million years ago to 25 million years ago by the composite, gabbroic to dominantly granodiorite and granitic intrusions of the Sinaloa Batholith, and host many of the carbonate replacement and skarn deposits in the Cosalá area and the rest of Mexico. The Cretaceous and Paleocene sedimentary and volcano-sedimentary rocks are unconformably overlain by Tertiary volcanic rocks, which have been subdivided into a lower, largely andesitic sequence and an upper, mostly rhyolitic sequence. Both volcanic sequences can range up to 1km or more in thickness. Within the western Sierra Madre Occidental, the Mesozoic rocks have been altered to recrystallized limestone and skarn in many locations.

An extensional, basin and range-type phase of faulting overprinted the western portion of the Sierra Madre Occidental during formation of the Gulf of California in Miocene time. In the Cosalá region this late-Tertiary faulting produced an extensive, northwest-trending graben and related, parallel fault system, along with later northeast-trending dextral faults.

Mineralization within the Cosalá mining district is related to granodioritic or granitic intrusions of the Sinaloa Batholith, a composite gabbroic to granodioritic complex that induced strong contact metamorphism in adjacent sedimentary and volcano-sedimentary units. Exposures of the sedimentary rocks and associated mineralization are small and surrounded by Tertiary volcanic rocks (Armbrust and Chlumsky, 2006).

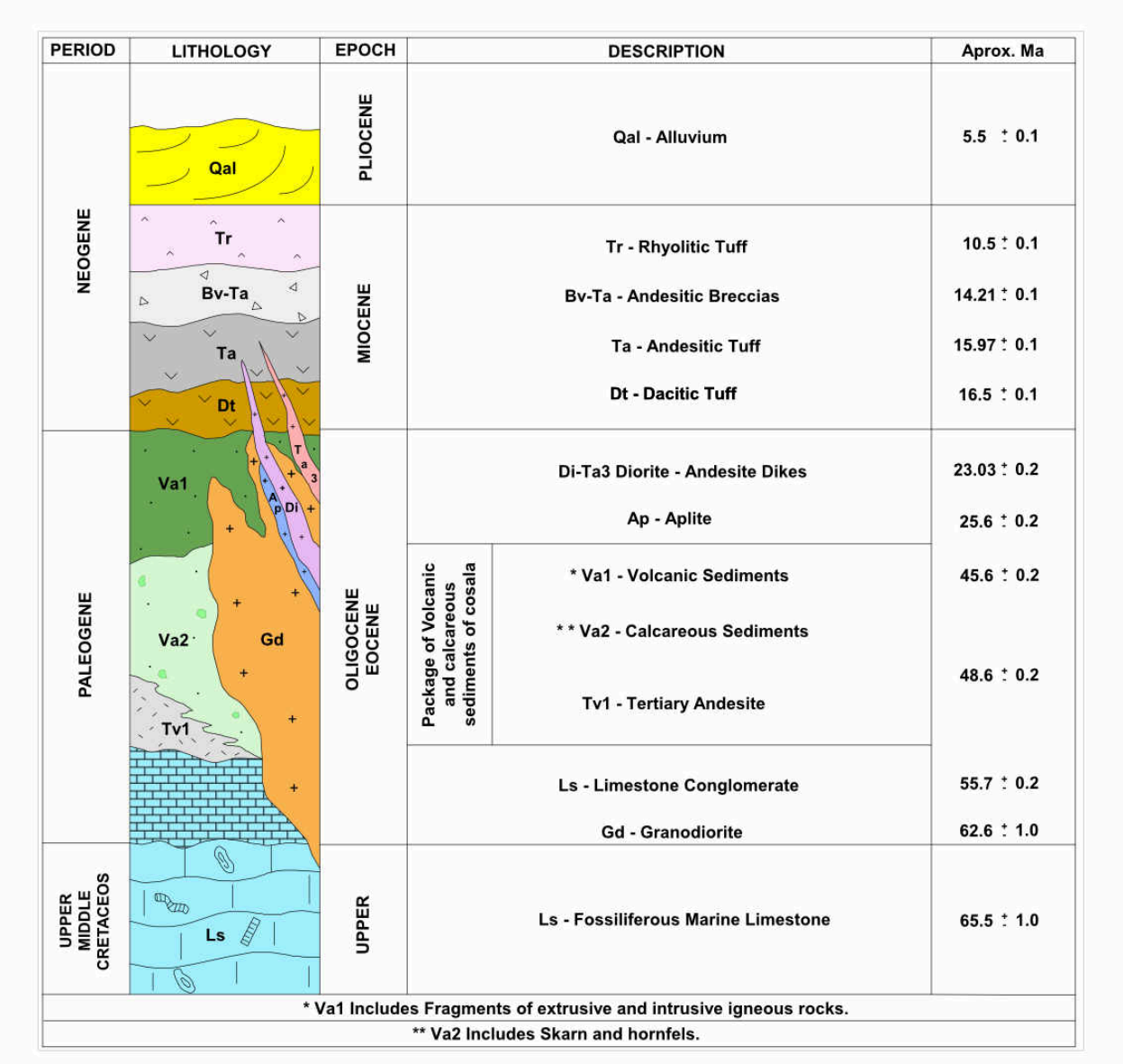

FIGURE 7-1 STRATIGRAPHIC COLUMN

7.2 Local and Property Geology

The surface geology of the San Rafael area is dominated by intrusive and extrusive volcanic rocks that make up much of the Sierra Madre Occidental. Cretaceous limestone, commonly recrystallized and marbleized, but only locally skarn-altered, is exposed within windows in the Tertiary volcanic rocks and is the oldest unit identified to date in the San Rafael- EC120 area. The basal Tertiary unit is a volcaniclastic arenite (“volc-arenite”) composed of heterolithic volcanic clasts that are variable in size, sub-angular to sub-rounded, and commonly porphyritic. This unit is divided by Americas Silver geologists into an upper unit, Va1, and a lower unit, Va2. Clast and

grain size generally range from fine-grained sand to medium-sized boulders, and the unit commonly displays graded bedding. The arenite is an extensive rock type on the property and is also the primary host for skarn alteration/mineralization at Zone 120 and the original La Verde mine. Va2 is characterized by higher content of sedimentary derived (carbonate) fragments and is prone to skarn development and forms a referred host rock for mineralization. Va1 is more siliceous and forms a hornfelsic rock which is less favourable for replacement ores and characterized by fracture filling and veinlets when mineralized. The contact between the Cretaceous limestone and the volc-arenite is disconformable and is often represented by a karst surface. Overlying the basal arenite are andesitic flows, andesitic tuffs and dacitic tuffs. At San Rafael, the basal arenite section is missing, and massive sulphide mineralization occurs primarily along the dacite tuff-Cretaceous limestone contact, with additional mineralization within the dacite in the Upper Zone and more distal skarn-altered volc-arenite, which is the main host rock for Zone 120, where it reoccurs northeast of San Rafael. The youngest rock type is felsic rhyolite tuff. The rhyolite tuff contains quartz phenocrysts and small lithic fragments. Although there are silver-gold veinlets that cross cut the tuff, no strong silver-copper-gold or silver-lead-zinc mineralization has been identified in the rhyolite. Figure 7-2 shows the geology of the San Rafael and EC120 areas.

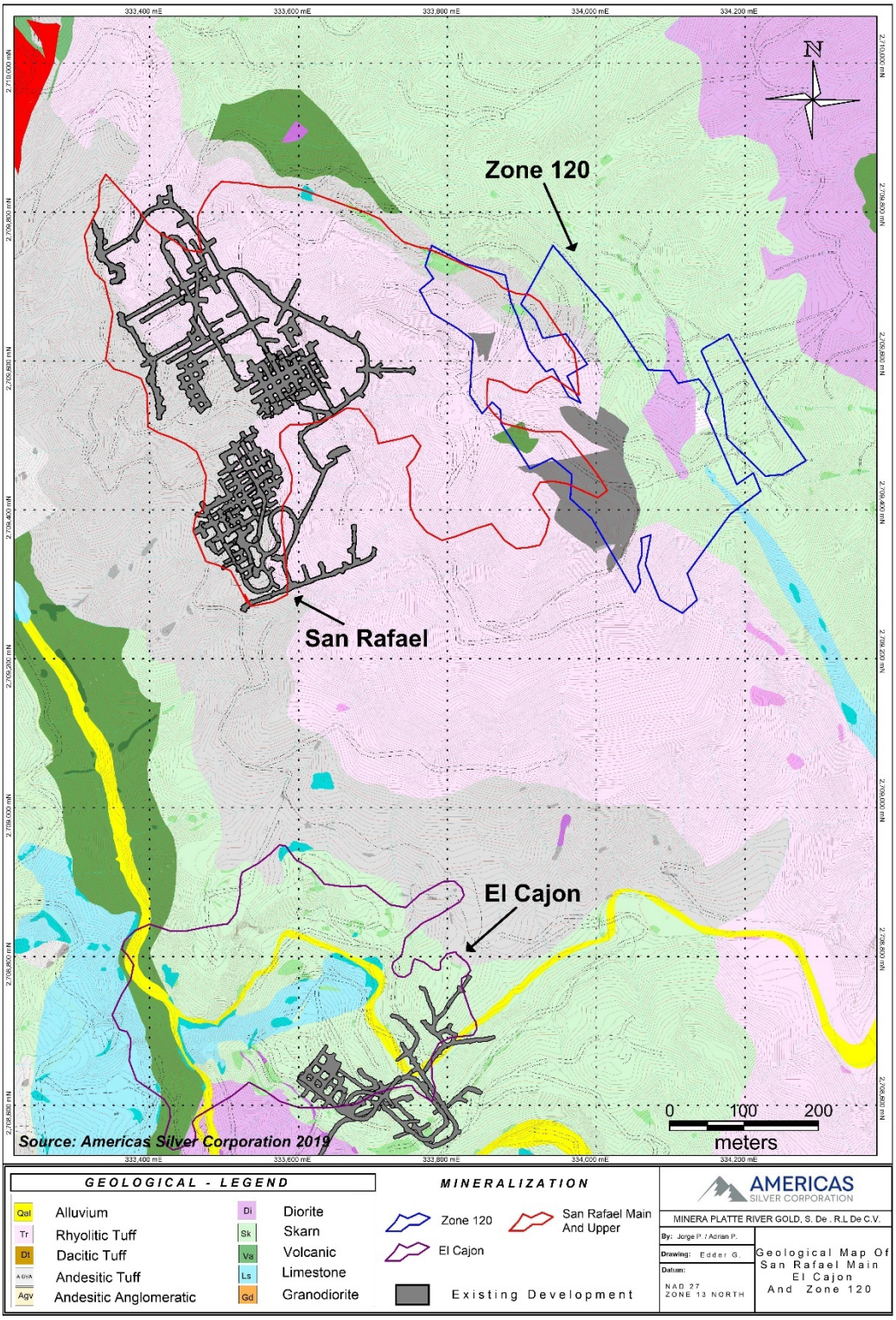

FIGURE 7-2 DETAILED GEOLOGY

Three types of intrusions are present in the San Rafael-El Cajón area. Medium- to coarse-grained granodiorite, which is part of the district-wide batholith, crops out in the western part of the project area and was also intersected at the bottom of a number of PRG drill holes in the El Cajón area. There are also large, local intrusions of diorite, often occurring as sills, that are interpreted to be related to the emplacement of the batholith. Andesitic dikes and sills, which are sometimes weakly magnetic, are also present.

The property-wide dioritic intrusions are often weakly magnetic and generally only weakly altered, although the dioritic intrusion(s) spatially associated with the El Cajón mineralization exhibit a pervasive skarn alteration assemblage consisting of albite, tourmaline, scapolite, epidote, calcite, titanite (sphene) and minor quartz. Similarly, the diorite at Zone 120 occurs as conformable sills or gently cross cutting dikes. These are generally lightly altered but are spatially related to mineralization. Though pervasively altered, the diorite contains only trace amounts of pyrite and chalcopyrite. The skarn-altered diorite was often logged by earlier geologists as quartz monzonite.

The skarn alteration in the vicinity of San Rafael intermittently covers a broad area of at least 20km^2. Paragenetically, from earlier to later stage, typical skarn minerals are garnet (especially andradite and grossularite), pyroxene, wollastonite and potassium feldspar, followed by calcite, chlorite, epidote, quartz, sericite and pyrite. Calcite and chlorite abundances increase near the mineralized zones. A quartz-sericite-pyrite assemblage is associated with the dominant, massive-textured, sulphide replacement mineralization at San Rafael. A similar mineral assemblage is observed at El Cajón where the mineralization is developed in similar host rock, the cretaceous limestone, but is more subtle and fine grained in Zone 120 where the mineralization is developed in preferential layers or beds in the volc-arenite. Skarn is developed preferentially in beds with higher carbonate content and is medium- to coarse-grained with fine-grained green garnets, epidote, calcite and chlorite with some silicification.

7.3 Mineralization

Three principal zones of sulphide mineralization have been identified within a broad area of skarn alteration in the vicinity of San Rafael and nearby El Cajón. The San Rafael Main Zone consists of masses of sulphide grains that occur as replacements at an unconformable contact between what is believed to be Tertiary dacite tuff and Cretaceous limestone. This surface exhibits significant development of karst with occasional caverns up to 150m^2 in plan. Although it can be difficult to determine the host rock when total sulphide content is 90 to 100%, most of the massive sulphide replacement mineralization appears to be hosted in the rubble of the karst horizon or within the dacite tuff. It contains silver, lead and zinc mineralization with lesser gold and copper.

The main minerals are pyrite, pyrrhotite, sphalerite and galena with minor marcasite, chalcopyrite and magnetite. This mineralization in the San Rafael Main Zone is often associated with quartz-sericite-pyrite alteration that has been interpreted as more distal skarn alteration. It has also been suggested that the San Rafael Main Zone displays many similarities to volcanogenic massive-sulphide deposits, such as those found in the Guerrero Terrane in central Mexico.

The Main Zone sulphide body is discrete, tabular, and lies along the shallow-dipping dacite tuff - limestone contact (Figure 7-3) where it has been referred to as “massive-sulphide mineralization” in previous reports. The zinc, lead and silver minerals include sphalerite and galena. The contacts of all elemental zones generally overlap within the massive sulphide, but mineral-shell boundaries and their internal grade distribution are not necessarily coincident.

The Main Zone mineralization as currently defined has a 1,000m strike length, is 15 to 20m thick, and extends down dip continuously for 300m and discontinuously for up to 600m. The Main Zone deposit strikes 320° and dips variably between 10° and 30° towards the southwest.

The Main Zone sulphide mineralization has been oxidized to a variable depth below surface, usually less than 30m, though in the northeast portion of the deposit oxidation can extend down dip for as much as 200m.

The silver-gold Upper Zone lies within the Tertiary volcanic rocks approximately 50 to 100m above the Main Zone sulphide replacement mineralization of the San Rafael deposit. The mineralized horizon can be up to 15m thick but often is approximately 5m thick. The Upper Zone is composed of irregular, sub-horizontal layers sub-parallel to the Main Zone. Mineralization consists of sulphides, however, sulphide content is much less than in the Main Zone. Weak base-metal mineralization with silver also occurs.

Zone 120 occurs not as a single horizon, but as multiple bedding- and intrusive-contact-related mineralized horizons. As currently defined, the Zone 120 mineralization occurs within a rock volume that is approximately 600m long, 250m wide and extends to a depth of about 350m below the surface. It strikes in a direction of 330°, and below the massive sulphide, the bedding-related mineralization dips steeply to the northeast at approximately 50°. The Zone 120 mineralization is interpreted to occur along near-vertical contacts between diorite and skarn-altered lime rich volc-arenites in the lower parts, and in quartz-sericite-pyrite-altered volc-arenites in the upper portions. The quartz altered material is now referred to as hornfels, differing from earlier interpretations. Hornfels seems to be developed in carbonate poor rocks whereas the more highly mineralized skarn is developed in more carbonate rich rocks. Carbonate content is judged based on fragments and inclusions with the Va2 or volc-arenite package. The Zone 120 mineralization extends

upwards to overlap with the Main Zone mineralization (Figure 7-3). Mineralization is associated with generally 2 to 10% sulphides and is more irregular in shape and more variable in mineral character than the San Rafael Main Zone. It consists of silver-copper-gold mineralization in the form of chalcopyrite and tetrahedrite with minor pyrite, galena, sphalerite, arsenopyrite, chalcocite, jalpaite, native silver, copper and bismuth. This mineralization accompanies pyroxene-garnet-calcite skarn alteration. Mineralization is best developed in unit Va2, a volc-arenite with a high component of carbonaceous fragments and carbonate. These are contained with beds of the same unit which a more siliceous and from hornfels instead of calcareous skarn. The hornfels are not a favourable host generally. Both skarn alteration and sulphide mineralization are spatially associated with intermediate dikes, sills and small stocks.

El Cajón mineralization consists of mantos and chimneys developed in skarn and recrystallized limestone. El Cajón and Zone 120 mineralization are similar in character consisting of veinlets and replacements of chalcopyrite and tetrahedrite-tennantite. The El Cajón deposit is roughly oval shaped extending 550m east-west and 400m north-south, with the mineralization aligned along the general 330° strike and 20° northeast dip of the limestone country rock. It varies in depth from approximately 20m below surface to a depth of approximately 250m.

Minor oxide mineralization occurs throughout the San Rafael and EC120 area. Significant gossan horizons are exposed along road cuts located up dip from the San Rafael sulphide mineralization, and a strong gossan surface trend occurs within the Los Manueles area just north of San Rafael. The exposed San Rafael oxide mineralization has been explored by shallow drill holes and surface trenches and has been sampled for metallurgical test work, however, it contributes only incrementally to the current San Rafael resource.

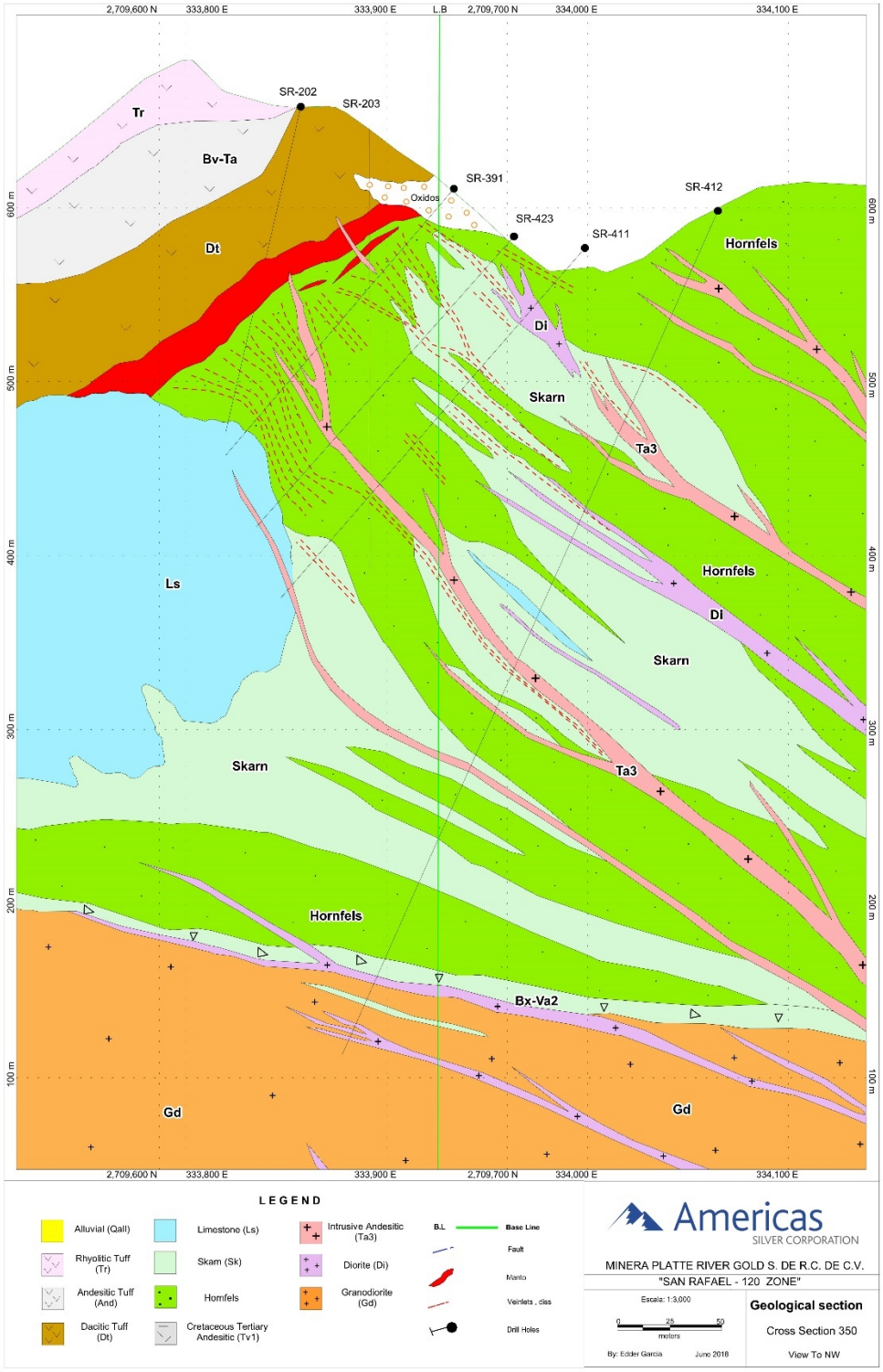

FIGURE 7-3 SCHEMATIC CROSS-SECTION WITH MINERALIZED ZONES

8 DEPOSIT TYPES

Zone 120 in the eastern portion of the San Rafael deposit contains silver-copper mineralization within garnet-pyroxene-calcite skarn. The strong metasomatic alteration and the close spatial relationship with a large dioritic intrusion suggest that Zone 120 represents a proximal skarn deposit. Silver-lead-zinc mineralization, in the form of massive sulphide replacements in the Main Zone and, to a lesser extent, in the Upper Zone is associated with quartz-sericite-pyrite alteration. This alteration and mineralization type is believed to be a more distal phase of the skarn system. El Cajón is a proximal silver-copper skarn related to an adjacent nearly cylindrical diorite intrusive body. Mineralization at El Cajón is replacement type and occurs as horizons in recrystallized limestone which are connected by mineralized zones localized by steeply dipping contacts, faults and fractures. Each of these three deposits appears to be related to different intrusive bodies which served as the source of mineralization.

9 EXPLORATION

This section describes exploration, other than drilling, which is discussed in Section 10, of the San Rafael and surrounding area by Americas Silver and its predecessor Scorpio since the acquisition of MPRG by Scorpio. All work completed by Scorpio before the corporate name change is attributed to Americas Silver.

Quantec Geoscience Ltd. completed a 48-line km Titan-24 DC/IP geophysical survey centered over the San Rafael area in 2010 (Izarra, 2010) at the request of Americas Silver. The survey was initiated in June 2010 and covered a 3km by 3km area, using 100m dipole spacing with a 200m line spacing. Interpreted results from this survey led to seven exploration core holes being drilled at El Cajón between September and November 2010 to test some of the geophysical anomalies. A total of 2,555.1m was drilled but the results were not encouraging and have not been followed up by additional drilling.

Apart from the DC/IP survey and core drilling summarized above, Americas Silver has conducted road building and surface mapping.

10 DRILLING

As of June 30, 2018, a total of 600 exploration drill holes for 104,443m had been completed for the El Cajón, Zone 120, Main Zone and Upper Zone. This total includes 282 drill holes completed by PRG between 2004 and 2008 and 318 drill holes completed by Scorpio and Americas Silver between 2010 and July 2018. Table 10-1 shows details of the amount of drilling at each area. Figure 10-1 indicates the location of the drill holes in the EC120 and San Rafael areas up to June 2018.

The PRG drilling was completed in four phases from late 2004 to 2008. Scorpio had two major drill campaigns in 2010 and 2012, and Americas Silver has drilled since 2014.

As of June 30, 2018, the Company had completed 174 exploration drill holes for 32,903m in El Cajón, 78 drill holes for 26,760m in Zone 120 and 348 drill holes for 44,780m in the Main and Upper Zones at San Rafael. Table 10-2 provides information regarding drilling completed per phase and year, and the areas targeted.

TABLE 10-1 DRILL HOLES FOR SAN RAFAEL, ZONE 120 AND EL CAJÓN
Americas Silver Corporation – San Rafael Mine and EC120 Project

Target	# of RC Drill Holes	Length (m)	# of Core Drill Holes	Length (m)	# RC-Core Drill Holes	Length (m)
Platte River Gold (2004 through 2008)						
El Cajón	24	3,712.4	38	9,021.4	26	6,204.0
San Rafael- Main and Upper	119	17,690.0	30	5,177.9	20	3,836.7
Zone 120	5	1,191.8	13	2,376.2	7	2,181.7
Sub Total -PRG	**148**	**22,594.2**	**81**	**16,575.5**	**53**	**12,222.4**
Scorpio and Americas Silver (2010 through June 2018)						
El Cajón			86	13,965.0		
San Rafael- Main and Upper			179	18,075.8		
Zone 120			53	21,010.2		
Sub Total – Scorpio and Americas Silver			**318**	**53,053.0**		
Total All	**148**	**22,594.2**	**399**	**69,628.5**	**53**	**12,222.4**

Notes:
1. Numbers may not add due to rounding.

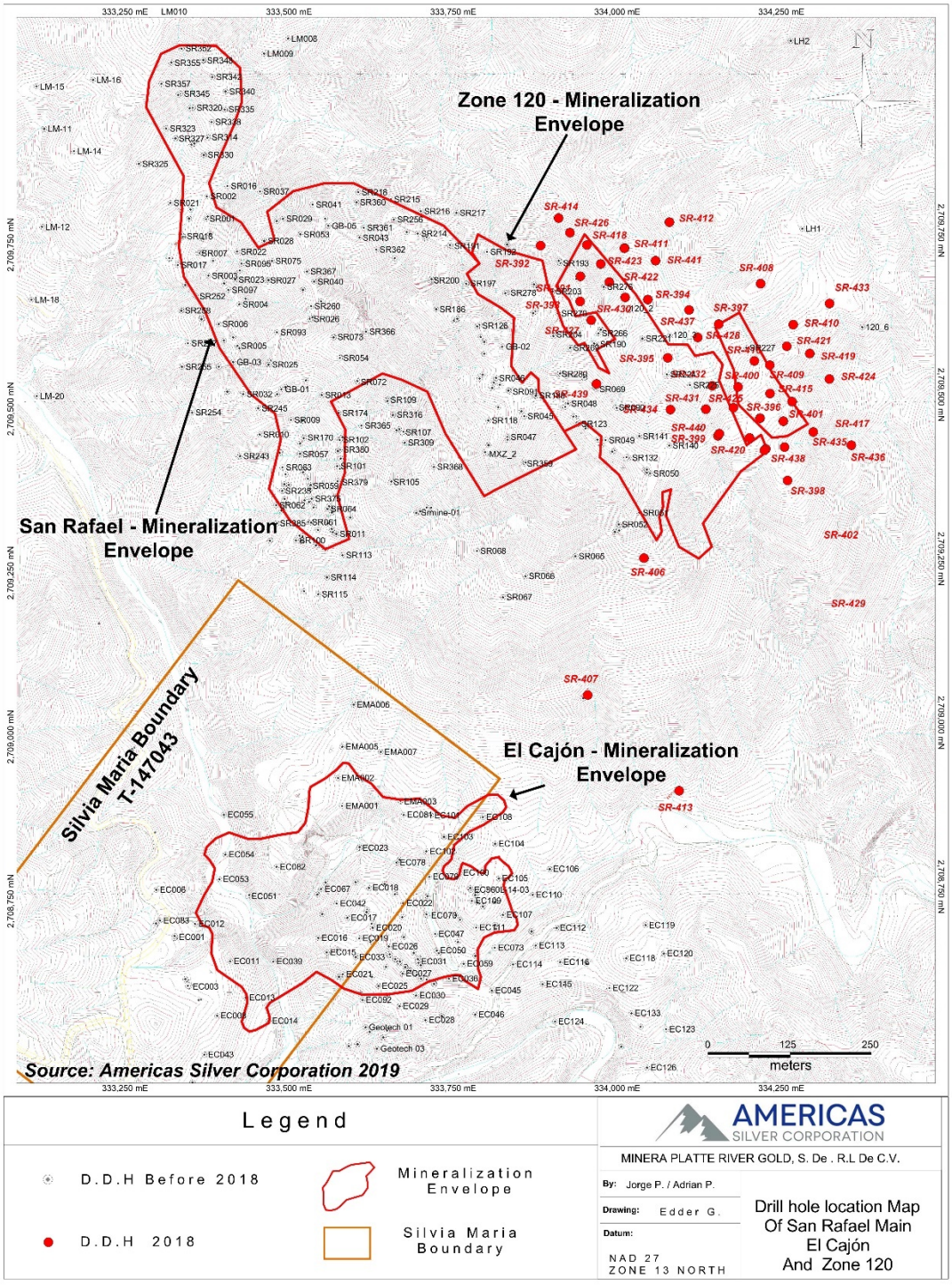

FIGURE 10-1 DRILL HOLE COLLARS IN SAN RAFAEL, ZONE 120 AND EL CAJÓN

TABLE 10-2 SAN RAFAEL AND EC120 DRILLING FROM 2004 TO 2018
Americas Silver Corporation – San Rafael Mine and EC120 Project

Company	Period	Drill Method	Drill Company	No. of holes	Meters Drilled (m)	Target Area
PRG Phase 1	2004 to mid-2005	RC	Layne	8	1,606.3	Tested prospects at El Cajón
PRG Phase 2	Late 05 to mid-06	RC	Layne	96	11,420.3	Tested prospects throughout San Rafael (Main, Upper and Zone 120) and El Cajón,
		RC/Core	Major	17	3068.1	
		Core	Major	20	4,744.6	Tested prospects at El Cajón
PRG Phase 3	Early to mid-2007	RC	Layne	34	8,514.5	Tested prospects throughout San Rafael (Main and Zone 120) and El Cajón,
		RC/Core	Major	26	6,405.9	
		Core	Major	21	3,744.5	
PRG Phase 4	2008	RC/Core	Major	5	2,181.7	Zone 120 and defining the limited extents of the oxide mineralization, as well as minor step-out drilling at El Cajón.
		Core	Major	40	8,086.5	
Scorpio	2010	Core	Major	4	1,555.1	Target Geophysical Anomaly in general El Cajón area. No positive results yielded from the drilling.
	2011	Core	Maza	93	8,592.80	Tested prospects throughout San Rafael (Main, Upper and Zone 120)
	2012	Core	Maza	80	11,278.7	Eastern extensions of El Cajón, San Rafael (Main, Upper and Zone 120)
Americas Silver	2014	Core	Maza	10	1,440.2	Tested prospects throughout San Rafael (Main, Upper and Zone 120).
	2015	Core	Maza	11	1,022.7	Tested prospects throughout San Rafael (Main and Upper zones)
	2017	Core	Maza	59	12,155.6	San Rafael Main, Upper and Zone 120 and underground at El Cajón
	2018	Core	Maza	46	13,831.1	San Rafael Main, Upper and Zone 120.

Different drilling methods were used, with earlier drill holes completed using RC and core drilling methods. Since 2008, drill holes were mostly cored or started with the RC method and then completed using core drilling methods.

In Phase I and Phase II, the rigs were set up with a predetermined azimuth, and no subsequent checking on the rig orientation occurred. During Phase III and Phase IV, the rig orientation was routinely checked by the responsible geologist using a Brunton compass. Corrections to actual rig orientation were noted and changed on the drill log before being entered into the database.

The RC drill holes were completed using a 5 $^{1}/_{8}$in. to 5 $^{1}/_{2}$in. drill bit and Layne de Mexico, S.A. de C.V. ("Layne") was the operator. Samples were collected every 5ft, or 1.5m, depending on the drill rig. During 2010, core drilling was done by Major Drilling de Mexico, S.A. de C.V. ("Major") with a track-mounted UDR-650 drill with RC and core capabilities. Since 2011, Scorpio and Americas Silver has used Maza Drilling de Mexico, S.A. de C.V. ("Maza") out of Mazatlán using Forage Val d'Or 38 rigs, drilling HQ size core (63.5 mm), and reducing to NQ size (47.6 mm) when necessary. Drill runs were consistently 3m, though shorter runs are used in the occasional interval of broken ground. Drill holes targeting Zone 120 in 2017 and 2018 were NQ-diameter core.

Drill hole collars were surveyed with a Trimble total station survey instrument by Servicio Topographic (now Terra Group) of Hermosillo during the earlier phases. The 2010 to 2012 drill collars were located by total station surveying provided by Hector Martinez, a licensed surveyor. Since 2014 drill collars have been surveyed with a total station or by triangulation by Americas Silver mine personnel.

The majority of RC holes in Phase II and Phase III were surveyed down-hole with a Reflex EZ-Shot survey tool giving digital readings. Several of the down-hole azimuth readings could not be used due to surveys being taken inside the drill rods, with magnetic effect resulting in meaningless readings. Vertical RC drill holes remain as undeviating vertical holes in the database. For the angle holes, the azimuth reading in the database is the estimated collar azimuth and dip readings were determined by the geologist using a Brunton compass.

During Phase III (2007) and IV (2008), core down-hole surveys were taken below the drill rods, and the azimuth and dip readings were used in the database. The magnetic nature of some of the project lithologies, especially the dioritic intrusions on the east side of San Rafael, resulted in a number of azimuth readings significantly deviated from either the collar set-up orientation or from adjacent down-hole readings. The values were checked and verified and readings that appear correct were entered into the database, while erroneous readings were excluded from the

database. Since 2010 down-hole survey information was collected using a Reflex survey tool operated by Scorpio and Americas Silver personnel.

Drilled core is brought to the logging facility within Americas Silver's secure, gated Cosalá compound usually once per day by an Americas Silver employee. The core is logged, and sample intervals are marked based on geologic breaks. Maximum sample lengths are up to 3m but are generally less than 1.5m within the mineralized zones. The core is generally cut with a diamond saw though some of the extremely hard core is split with a pneumatic splitter. The half-core samples are collected, bagged and marked with a blind sample ID. Core photos are taken before the core is logged and sampled. After processing, the wooden core boxes with the remaining half core are stored on pallets at the logging facility. The pallets are kept under permanent cover to keep them out of the weather.

Core recovery was generally very good (90% to 100%). Upon drill hole completion, the hole is abandoned and marked by a temporary wooden stake. Americas Silver personnel survey all holes with a Trimble GPS soon after drill completion (Tietz, 2017).

Core recoveries were generally greater than 95%, although lower recoveries occurred when drilling in strongly fractured and cavernous recrystallized limestone. The average core recovery for the San Rafael holes, based on 8,383 drill runs with calculated recovery data, is 92.2% while the median value is 98%. Approximately 20% of the core footage has recoveries less than 90% and only 3% of the San Rafael drill runs had calculated recoveries less than 50%. Core recovery from San Rafael is good to excellent and can be used to support the resource estimate.

In February 2007, September 2011, June 2012, June 2015 and April 2017, the drilling (RC and core) was audited by MDA. In general, the drilling was of good quality and to industry standard. Any holes with questionable quality of the sampling have been excluded from the Mineral Resource estimate.

Americas Silver is of the opinion that the drilling has been sufficiently audited and any drilling, sampling or recovery factors that could materially impact on the accuracy and reliability of the results have been eliminated.

11 SAMPLE PREPARATION, ANALYSES AND SECURITY

The following information refers only to the work of PRG and Americas Silver. Americas Silver has no information on sample preparation, analyses, or security used by prior operators, but none of their samples are used in the Mineral Resource estimate.

11.1 Sampling Methodology and Approach

11.1.1 Sampling RC Drill Holes

Prior to 2010, samples were collected every 5ft, or 1.5m, depending on the drill rig. The samples were split at the drill rig with a mechanical splitter for the dry samples and a rotating splitter for the wet samples. During 2004 to 2006, a 12.5% split was generally collected for the dry samples and a 16.6% split, for the wet samples. During Phase III, a 41.7% dry split and a 20.8% wet sample split was implemented. The sample splits were varied at times when sample return was very low to assure sufficient sample size (PRG, 2006d). The change in sample split occurred between samples and never within an individual sample. In areas of poor ground and resulting poor sample recovery, it was at times necessary to collect all of the sample returned to have a sufficient sample size for assaying. Records of drilling conditions and significant changes in sample procedures for each hole were kept.

The split dry samples were collected in 11x17in. cloth sample bags in Phases I and II, and during Phase III, 20x24in. cloth bags that fit inside a 5-gal bucket were used. Wet samples were collected in 5-gal buckets, with the excess water being allowed to overflow the bucket. There was some loss of sample due to the overflow, which could have been substantial when drilling in high-water zones. At the end of the sample interval, the bucket was removed and replaced with a clean bucket for the next sample. In Phases I and II, the complete wet sample was collected by decanting the water and filling an 11x17in. cloth sample bag with the remaining solids. During Phase III, Scorpio changed to 20x24in. cloth sample bags to avoid spillage and loss of sample material. Sample collection was greatly improved using the larger sample bag and bucket combination for both wet and dry samples, and larger sample splits were collected for RC samples.

11.1.2 Sampling Core Drill Holes

The following sampling procedure has been adopted for core drill holes;

a) Core is transported from the drill site to a secure core processing facility in the town of Cosalá every day by Company personnel.

b) The core is geotechnically and geologically logged by a Company geologist and marked for sampling.
c) The geologist determines sample intervals using geology as a guide, but only mineralized core (where sulphides are noted) is generally sampled. Sample intervals are normally 1.5m in mineralized zones and may vary up to 3m depending on geological units.
d) Core samples are split in half using a hydraulic or traditional splitter, a simple hammer or is cut using a diamond saw.
e) Half the sample intercept is put into a sample bag, while the remaining half is left in the core box. Sample numbers are based on a pre-determined scheme that allows for insertion of standards, blanks and duplicates.
f) Once the core hole is completely logged, split and sampled, appropriate blanks and standards are added to the sample stream in a random fashion, with an approximate average of one standard, one blank and one duplicate in every 20 samples.
g) Samples are bagged in rice bags and shipped by truck, using an independent contractor, to a commercial laboratory. On some occasions, Company personnel may take samples to the laboratory. A strict chain of custody protocol is in place to ensure no tampering occurs.
h) The remaining split core is stored in Cosalá at a secure site in wooden boxes under a covered roof.

11.2 Sample Preparation and Analysis

11.2.1 Phase I to Phase IV drilling (2004 to 2008)

Samples were sent to ALS laboratory in Hermosillo for sample preparation and analysis. Silver, copper, lead and zinc were analyzed by four-acid (HF-HNO_3-$HClO_4$-HCl) digestion and inductively coupled plasma atomic-emission spectrometry ("ICP-AES") and/or atomic absorption ("AA") finish (ALS method OG62). Gold was analyzed by 30g fire assay with AA finish ("FA-AA"). Pulps were sent by ALS from Hermosillo to the ALS assay laboratory in North Vancouver, British Columbia, Canada, for analysis.

RC rig duplicates were regularly checked by a second laboratory during drilling. SGS de México S.A. de C.V. ("SGS") was used for the Phase I and II check assaying. Sample preparation occurred at the SGS facility in Durango City, Durango, Mexico, and the pulps were sent to Toronto, Ontario, Canada for analysis. SGS used a similar multi-acid digestion and ICP-AES analysis (SGS method ICP90A), for the base-metal and silver, and a FA-AA process for the gold. International Plasma Labs Limited ("IPL") was used for the Phase III check assaying. Samples were prepared at IPL's facility in Hermosillo, Sonora, Mexico, and the pulps were sent to

Richmond, British Columbia, Canada for analysis. IPL used a similar multi-acid digestion for the base-metal and silver analysis, and a FA-AA process for the gold.

11.2.2 Drill Campaigns – 2010 – 2018

Samples were delivered to ALS's preparation laboratory in either Hermosillo or Chihuahua for drying, crushing and pulverizing. ALS then shipped the pulps by air-freight to ALS in North Vancouver, British Columbia, Canada for assaying. ALS is accredited to ISO 17025 and is independent of Americas Silver. Gold was analyzed by FA-AA on a 30g sample (ALS method Au-AA23). Silver, lead, zinc and copper were analyzed by HF-HNO_3-$HClO_4$ digestion with HCl leach and ICP-AES or AA finish (ALS method OG62). Samples were also analyzed for 33 major, minor and trace elements by ICP-AES following a four-acid digestion (ALS method ME-ICP61) for the drilling campaigns between 2014 and 2018. Over limits were re-analyzed by AA (ALS method OG62) for silver, copper, lead and zinc.

11.3 Sample Security

Security of samples is important for any sample which may be publicly reported or might be used in a resource estimation. Samples are accompanied by Company personnel from the collection site to the sample preparation facility. Samples are not left unattended for any period for any reason. All personnel with access to the sample preparation area are aware of the importance of sample security and not contaminating samples. Samples ready for shipment are secured in bags or boxes and kept in a secure area. If no security personnel are present, the sample is locked in a secure area.

When transporting, samples are not left unattended for any reason. If a third-party transporter is used, a copy of the receipt for acceptance of the shipment is kept and filed.

11.4 Quality Assurance/Quality Control

A Quality Assurance/Quality Control ("QA/QC") program was implemented in 2004 to ensure data integrity of the samples for use in the resource estimation. The QA/QC procedures were analyzed by the Company and MDA and have been validated to be reasonable.

11.4.1 QA/QC Procedures – RC Drilling

The Company inserted "blind" duplicates, pulp duplicates, standards and blanks for QA/QC. For the Phase I and II RC drilling, one duplicate sample was taken at the drill rig every 20 samples and was sent to SGS as a check on ALS's results. For the Phase III drilling, one duplicate sample

was taken at the drill rig every 10 samples and was sent to IPL as a check on ALS's results. A variable number of additional duplicate samples, collected at the RC rig at the geologists' discretion, were taken in strongly mineralized zones and sent to ALS. During the drilling, one blank sample was inserted into the sample sequence every 40 samples, with the original sample being moved to the end of the sequence and re-numbered. Unmineralized rock was collected on site and was lightly crushed to resemble RC chips. One "standard" reference material pulp was inserted into the sequence every 40 samples, with the original sample being moved to the end of the sequence and re-numbered. In addition, in the San Rafael deposit, two holes were twinned with core holes to provide an additional check on the RC assay results.

11.4.2 QA/QC Procedures – Core Drilling

Blanks, three separate standards, and quarter-core duplicate samples are inserted into the sample stream sent to the laboratory. About every fifth sample is a blank or standard while every 20th sample is a duplicate. The blank material is coarse-crushed material sourced from volcanic rock collected near Mazatlán. The three standards are pulp samples purchased from a commercial laboratory, so they are not blind to the assay laboratory.

11.4.3 Certified Reference Material

Standards are inserted at least one per batch, but no less frequently than one per every 20 samples. A standard laboratory size is 40 samples. With two standards, there is generally a guarantee that a standard will be associated with each laboratory run. If possible, standards were inserted close to areas where values of interest were expected. If a standard demonstrated an excursion from the known range, the entire batch was sent for re-analysis. The standard was also used to evaluate precision over time.

Four Certified Reference Materials ("CRMs"), 688, 689, 690, and 691, comprising low-grade and high-grade material were inserted into the sample stream. Standards 688 and 689 were used from 2004 to 2008, while standards 690 and 691 were used in the 2008, 2010 and 2012 drill programs. Standards used from 2004 to 2008 were prepared by McClelland Laboratories Inc. ("McClelland") from material collected from the La Verde mine and material for standards 690 and 691 used during 2010 and 2012 was prepared from San Rafael and El Cajón drill core.

Round-robin analysis at different laboratories were performed on each of the reference material to establish the accepted value and standard deviations for Ag, Cu, Pb and Zn. Reviewing of the round-robin analysis by MDA highlighted some concerns regarding the accuracy of the control values from the different laboratories during the round-robin analysis, thus having a low confidence in using the control values. Additional round-robin testing, which did not occur on the

standards could have resulted in a higher confidence in the standard. These standards probably can only be used to identify gross errors. MDA had reviewed the round-robin analyses for these standards in 2009 and believes that due to rounding issues, there are concerns about the precision of the control values.

The descriptive statistics for the standard control values are given in Table 11-1.

TABLE 11-1 RESULTS OF ROUND-ROBIN STANDARDS ANALYSIS
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
STD 688				
Count	30	35	15	15
Mean	37	0.218	0.030	0.051
Std. Dev.	5	0.014	0.001	0.007
CV	0.128	0.064	0.019	0.141
Minimum	29	0.190	0.028	0.040
Maximum	46	0.248	0.030	0.063
STD 689				
Count	35	35	8	14
Mean	473	1.834	0.091	2.259
Std. Dev.	41	0.204	0.006	0.062
CV	0.088	0.111	0.062	0.028
Minimum	360	1.540	0.080	2.124
Maximum	523	2.340	0.100	2.370
STD 690				
Count	24	30	31	31
Mean	819	2.667	0.019	0.343
Std. Dev.	27	0.068	0.004	0.030
CV	0.033	0.026	0.218	0.088
Minimum	774	2.580	0.011	0.290
Maximum	880	2.869	0.026	0.390
STD 691				
Count	36	36	31	31
Mean	82	0.330	0.017	0.068
Std. Dev.	9	0.032	0.004	0.007
CV	0.112	0.097	0.226	0.102
Minimum	67	0.270	0.011	0.057
Maximum	104	0.400	0.021	0.088

Americas Silver used three standards (standards PB123, PB128 and PB130) for its 2014 and 2015 drill programs. These reference materials were purchased as pulps from WCM Minerals, a commercial laboratory in British Columbia. WCM Minerals provided the three standards' round-robin analyses plus statistical summary (mean, standard deviation, etc.) for four metals (Ag, Cu, Pb and Zn). The three standards are pulp samples purchased from a commercial laboratory, so they are not blind to the assay laboratory, which reduces their effectiveness.

Four standards (standards PB128, PB130, PM 1123 and PM1147) were used during the 2017 and 2018 drilling, which primarily focused on the Zone 120 deposit. Round-robin results are not available for the standards and the control values provided by the commercial supplier is used. The results of the individual standards are briefly discussed.

Standard 688

Zinc and lead values have a mean grade that reproduces the accepted round-robin values, though there are a number of minor high failures that possibly reflect the laboratory precision at these low grades. Both metals show two significant failures within the 2008 Phase IV results which could be a result of a laboratory clerical error since these same two samples show failures in silver and copper. Silver grades show a consistently high bias, and there is some doubt as to the round-robin silver standard grades. Minor high failures, most reflective of the high bias, occur in the first three drill phase while the two significant high failures, mentioned above, occur within the 2008 Phase IV drilling. Copper results are reasonable with just one minor high failure outside of the two 2008 failures.

Standard 689

Zinc has an apparent low bias in the 2006-2007 analyses with no bias in the 2008 values. There are a number of failures, almost all below the accepted range, which is reflective of the low bias. There is one significant low failure in 2008 which is also observed in copper value for this same sample. Lead grades show good results, with just three minor failures. Silver had reasonable results with a minor high bias and just two minor failures. The copper results show a small negative bias, however, this might be because the Inspectorate samples in the round-robin are biased high relative to the other laboratories' values.

Standard 690

Only twelve standard 690 samples were submitted for analyses prior to 2008. One sample shows significant failures in all five metals which could be the result of a laboratory clerical error. For the

other eleven standard samples, the zinc, lead and silver grades are reasonable while the copper appears biased high.

MDA evaluated 41 analyses of standard 690 between 2008 and May 2012. The standard shows large errors for one or two samples that appear to be clerical errors. Removing these large errors result in just one minor over-limit failure (a value greater than three standard deviations from the mean) in lead for standard 690. These standards were assayed at ALS in February through May 2012 and no other significant issues were noted in the standard results.

A control chart for standard 690 samples submitted from May 2012 through September 2012 is depicted in Figure 11-1 for silver and Figure 11-2 for copper. The standards are mostly associated with drill holes in the El Cajón area. Of the 51 samples analyzed, there were two failures (one value greater and one value smaller than three standard deviations). The copper results had two failures. The silver standards do not indicate any bias, although the copper values indicate a possible high bias. The results for the silver and copper values in the area are reasonable and no significant issues were noticed.

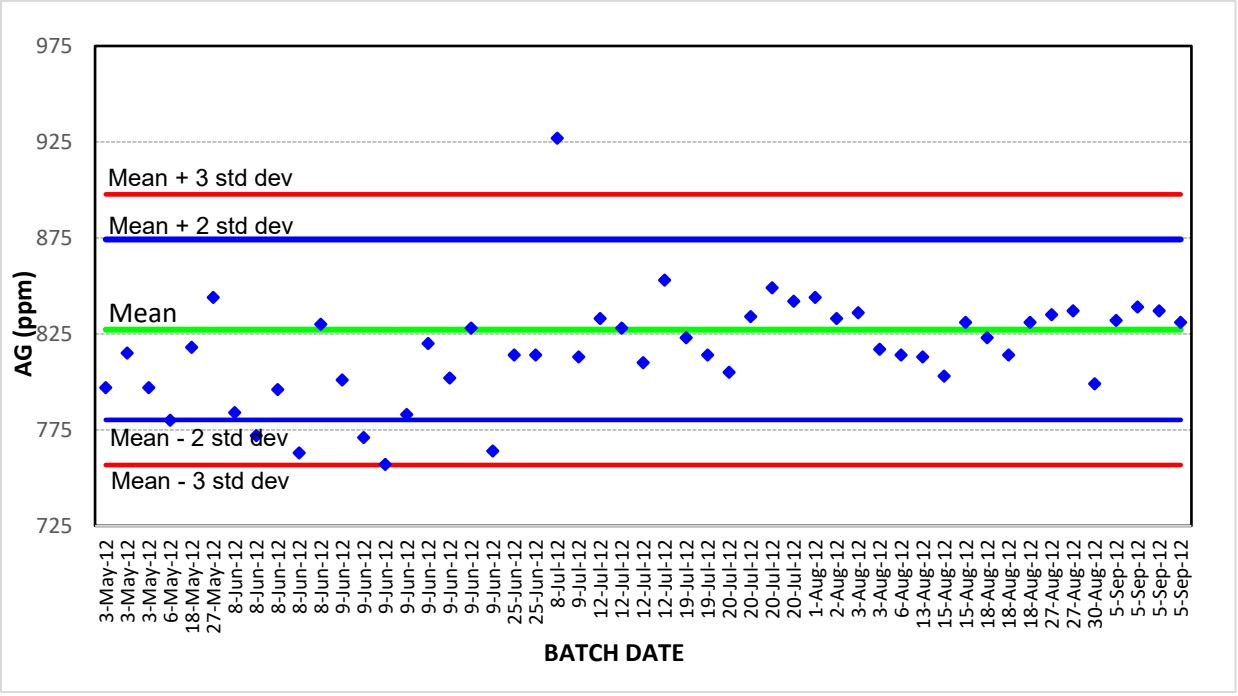

FIGURE 11-1 CRM STANDARD 690 CONTROL CHART FOR SILVER AT EL CAJÓN

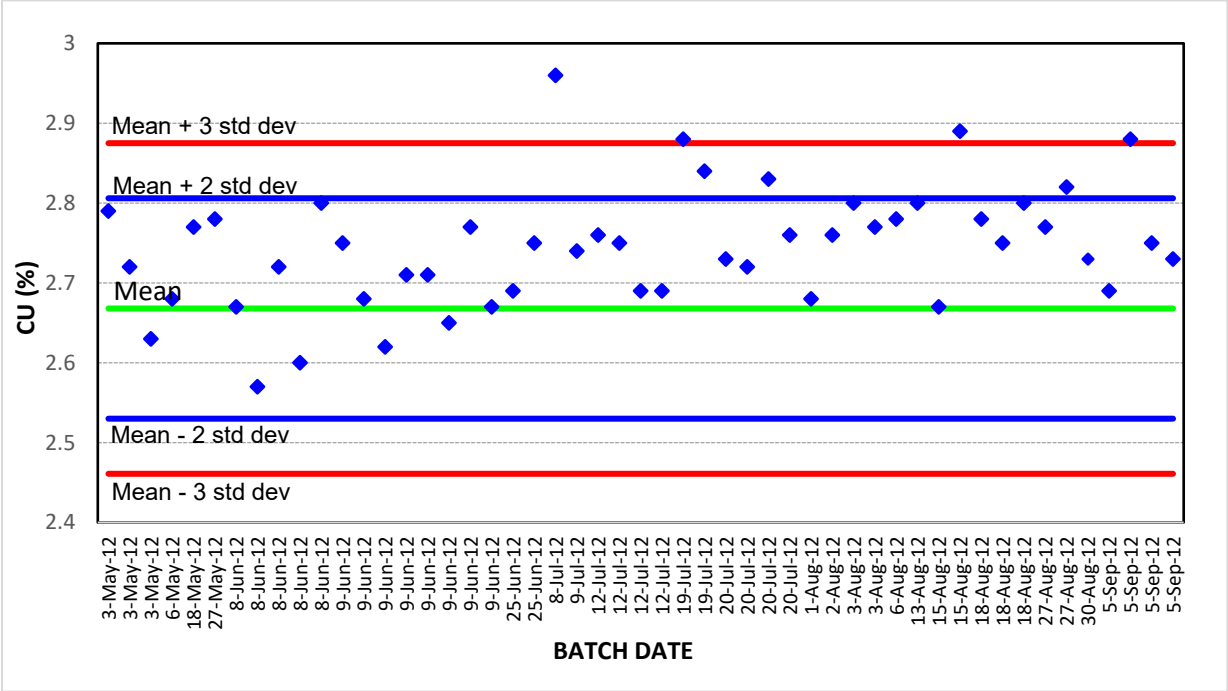

FIGURE 11-2 CRM STANDARD 690 CONTROL CHART FOR COPPER AT EL CAJÓN

Standard 691

Between 2004 and 2007, seven samples were submitted for analyses. The results for all four metals are reasonable. From February 2012 to May 2012, 72 analyses of standard 691 for San Rafael were analyzed by MDA. There were no failures for standard 691. The results for June and July 2012 are shown in Figure 11-3 for silver and Figure 11-4 for copper. The results are associated with drilling in the El Cajón area. No failures or significant issues were noted in these standard results.

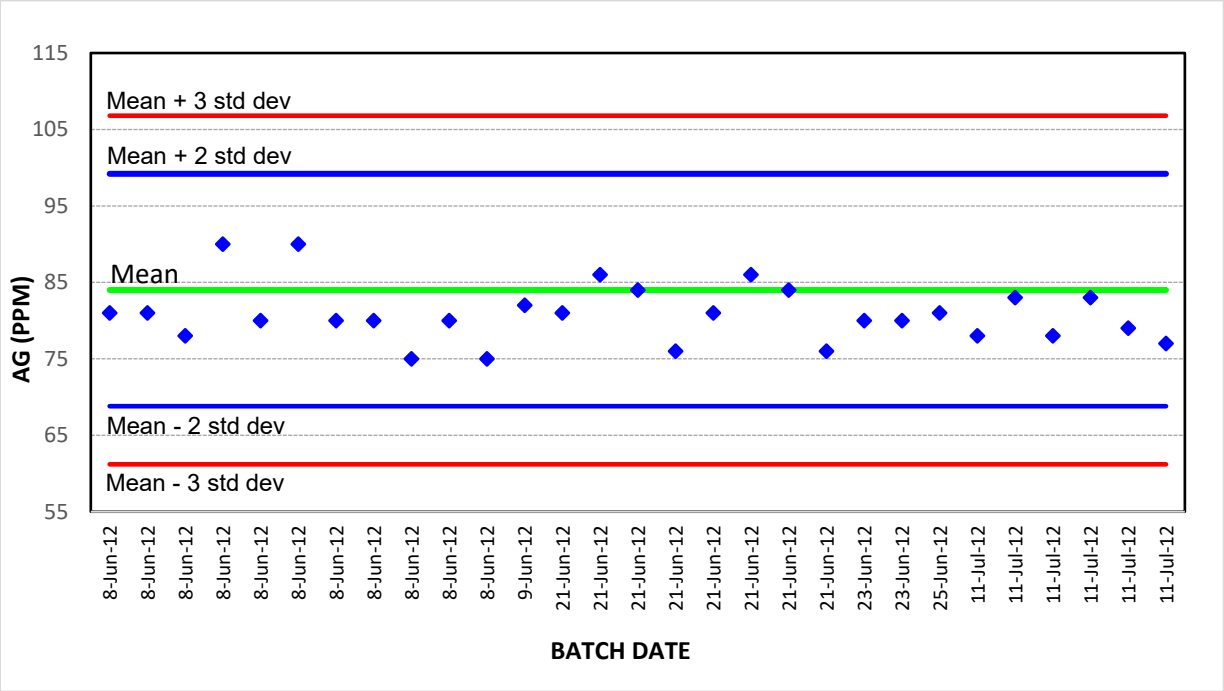

FIGURE 11-3 CRM STANDARD 691 CONTROL CHART FOR SILVER AT EL CAJÓN

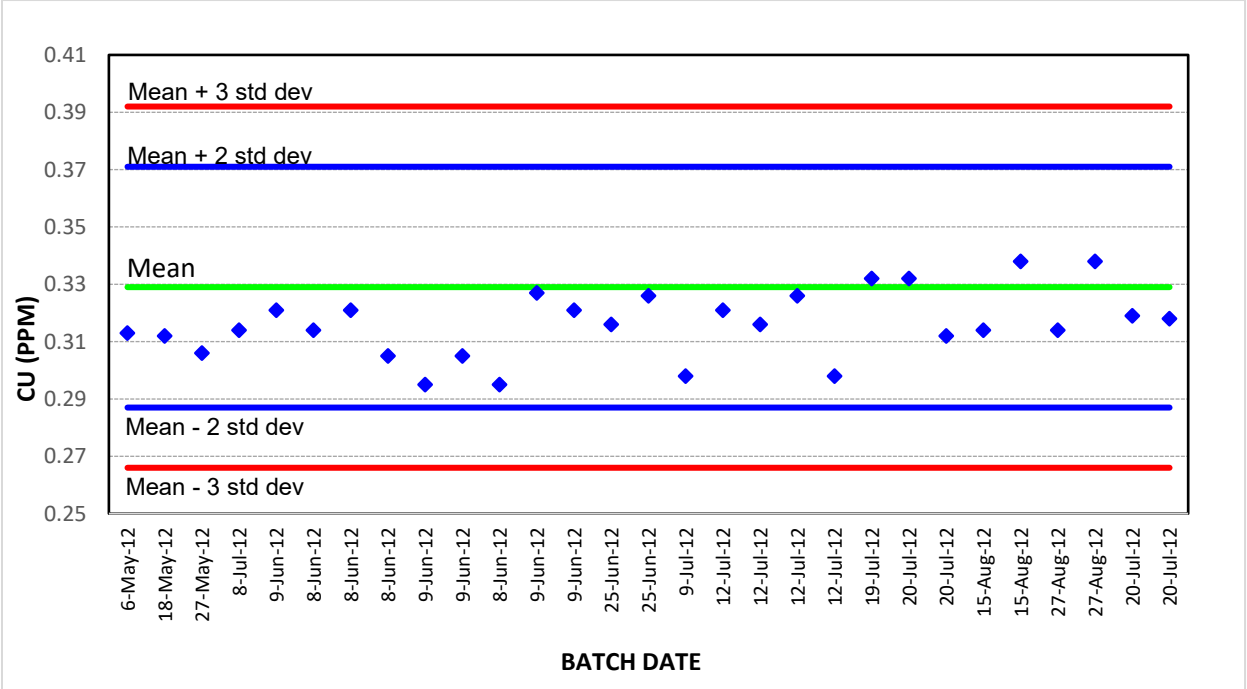

FIGURE 11-4 CRM STANDARD 691 CONTROL CHART FOR COPPER AT EL CAJÓN

Standard - PB 123

A total of 47 standard pulp samples were included in the original sample stream shipped to ALS while one sample of each standard type was analyzed at Inspectorate. One standard sample analyzed at ALS that showed a significant failure likely due to a clerical error was removed from the data set. The ALS results for the fifteen PB123 analyses show a persistent 7% low bias in the copper, lead and zinc analyses, with numerous and consistent under-limit failures. The PB130 results on a limited data set of nine ALS analyses show a minor 4% high bias in the zinc values and a consistent 9% high bias, with seven over-limit failures, in the silver analyses.

Standard PB-128

The standard results were submitted for analysis with this standard testing higher-grade Ag, Pb and Zn values. Prior to 2012, the PB128 ALS data (a total of 22 analyses) had the same 7% low bias for copper, with four under-limit failures, while the lead and zinc values are reasonable with no failures. The silver results for these two standards show no significant bias and no individual failures.

Results submitted from May 2017 to July 2017 indicate that silver grades are reasonable with a minor negative bias and zero failures (Figure 11-5). The copper results have a low bias with several minor failures and one major failure (Figure 11-6). These results are associated with drill holes targeting the San Rafael area and Zone 120.

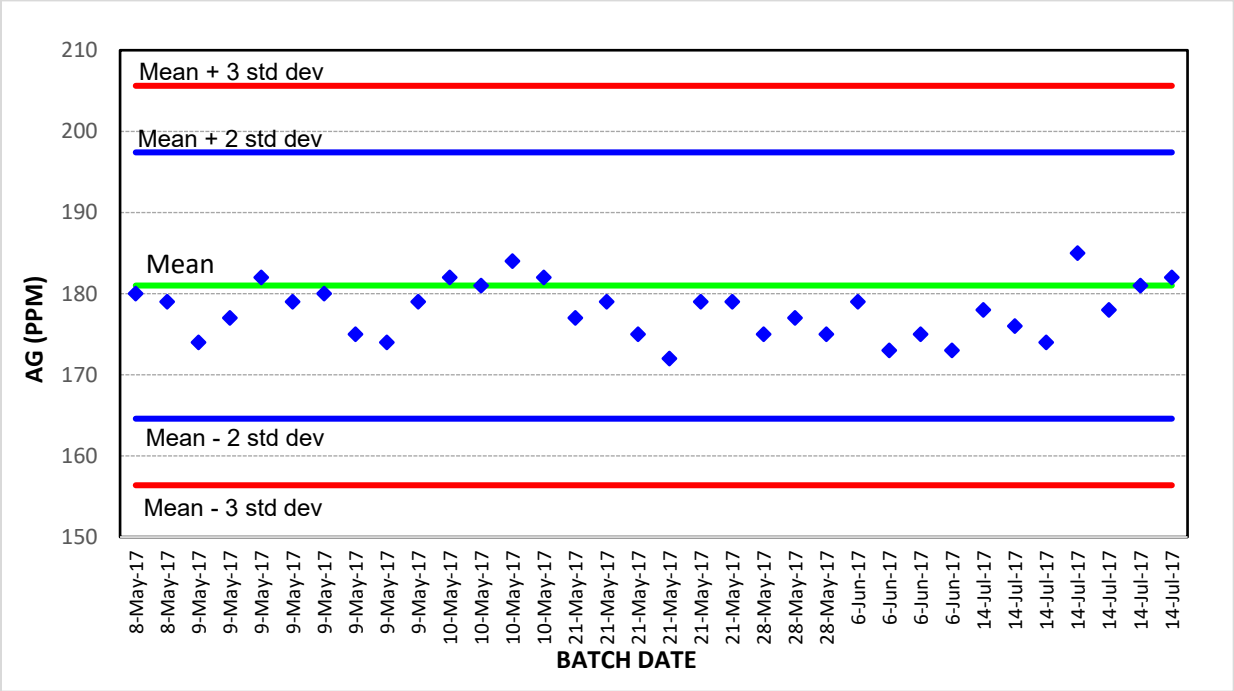

FIGURE 11-5 CRM STANDARD PB128 CONTROL CHART FOR SILVER AT ZONE 120

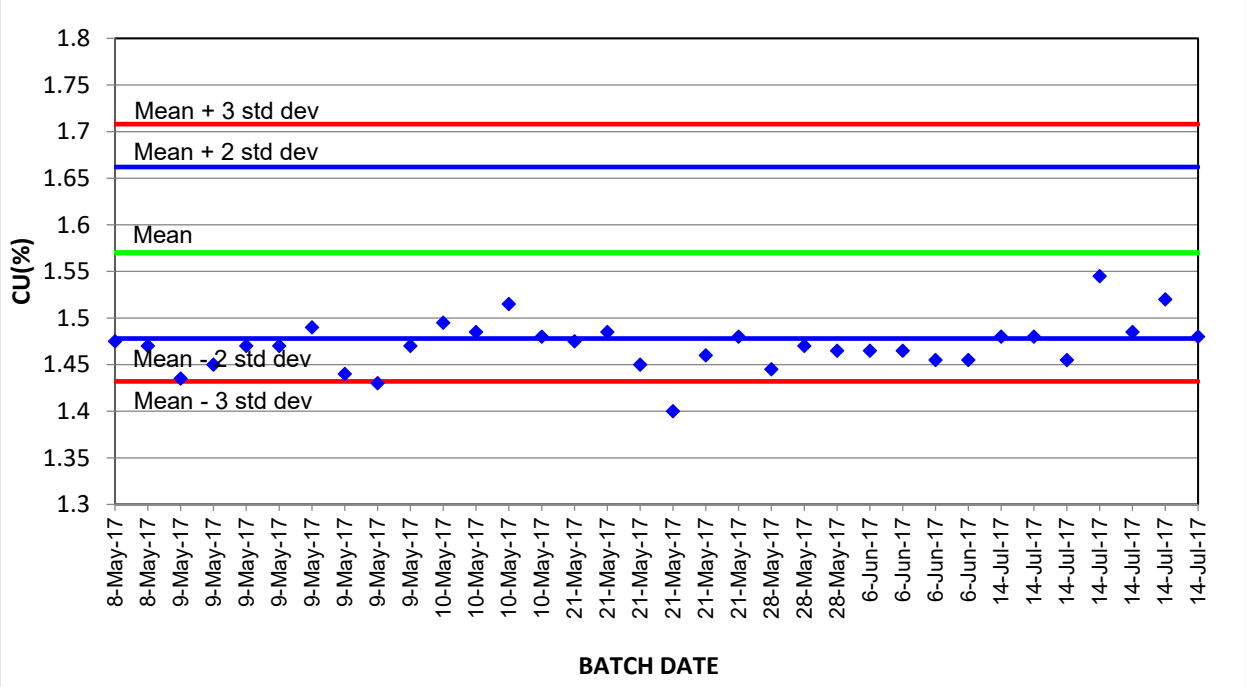

FIGURE 11-6 CRM STANDARD PB128 CONTROL CHART FOR COPPER AT ZONE 120

Standard - PB130

There was a high bias in the PB130 silver values prior to 2016, and Americas Silver had ALS re-run 65 original sample pulps that occur on either side of the standards within the original sample stream. The results show an average 3% decrease in silver grade for the pulp re-runs. This difference is not considered significant.

Results submitted from May to August 2017 show that zinc has a bias towards the positive, with five minor failures. Lead grades show reasonable results, with just three minor failures. Figure 11-7 is a control chart for silver showing reasonable results, with a minor high bias and four major failures. There is one significant low failure for copper with the remainder of the samples being within reasonable limits as depicted in Figure 11-8. The standard samples are within drill holes in the Zone 120 area.

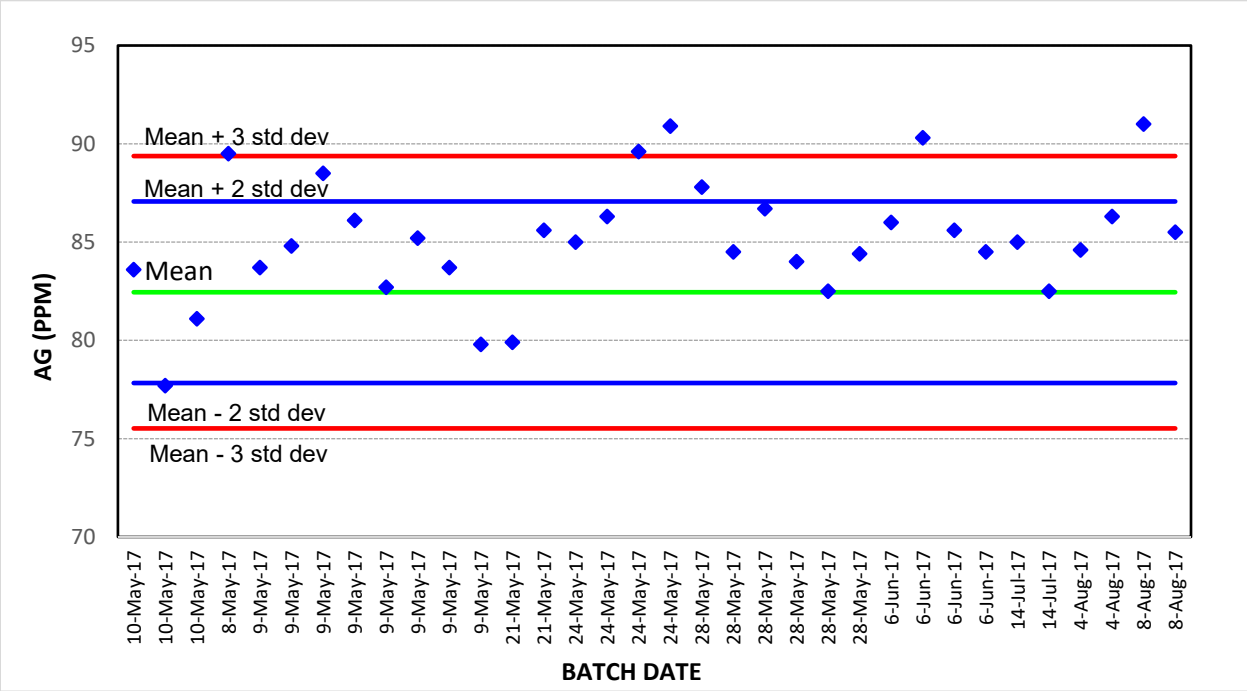

FIGURE 11-7 CRM STANDARD PB130 CONTROL CHART FOR SILVER AT ZONE 120

In general, the ALS results indicate a minor low bias in the base metals which would lend a conservative aspect to the assay data and resource estimate. However, the data set is limited and all conclusions should be considered preliminary at this time.

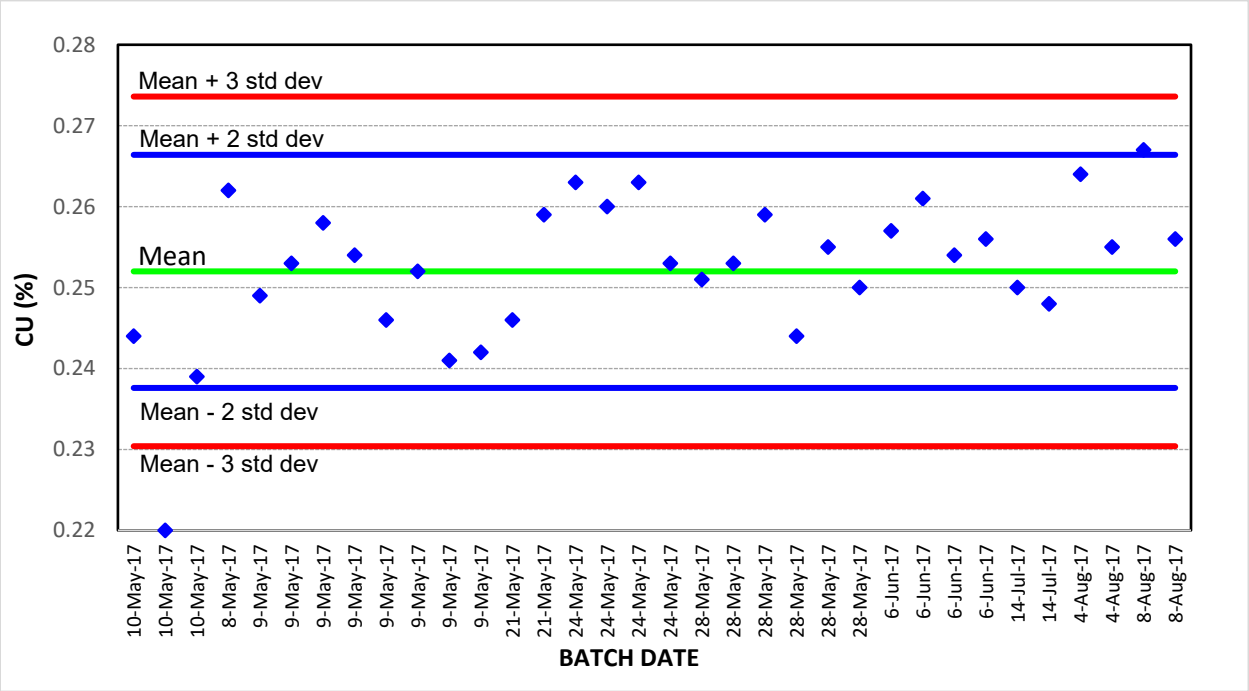

FIGURE 11-8 CRM STANDARD PB130 CONTROL CHART FOR COPPER AT ZONE 120

Standard PM1123

A total of 261 standard samples mostly associated with drill holes in Zone 120 was submitted for analyses. Two samples show major failures for silver as indicated in Figure 11-9. The values also have a high bias. There are three samples that fail for copper and have a low bias (Figure 11-10).

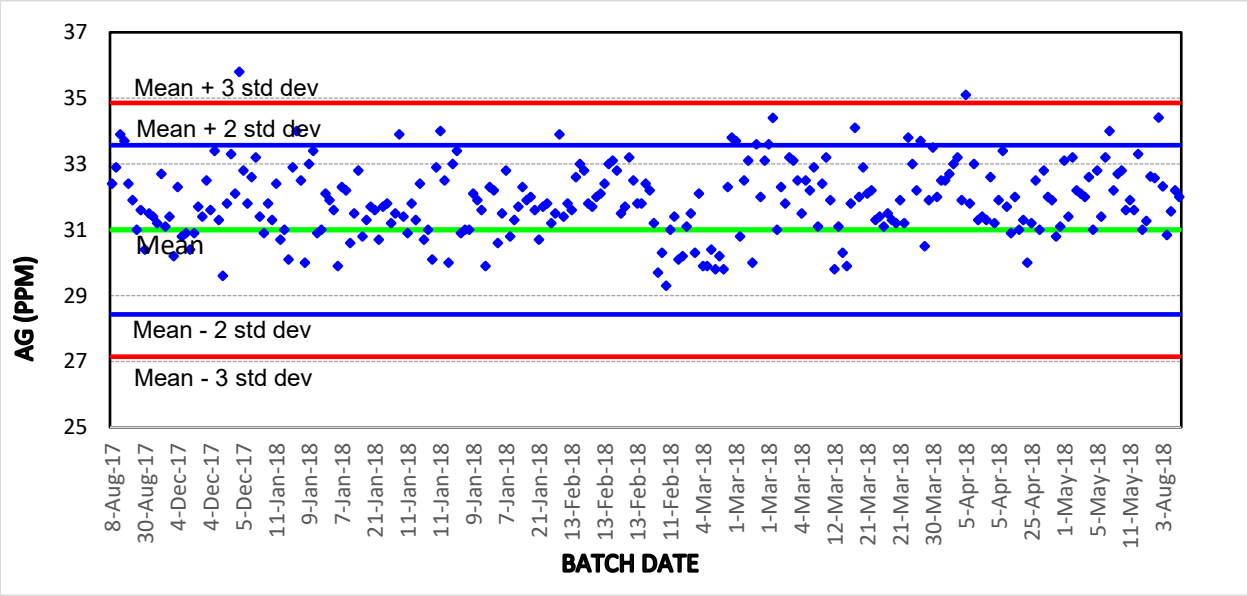

FIGURE 11-9 CRM STANDARD PB1123 CONTROL CHART FOR SILVER AT ZONE 120

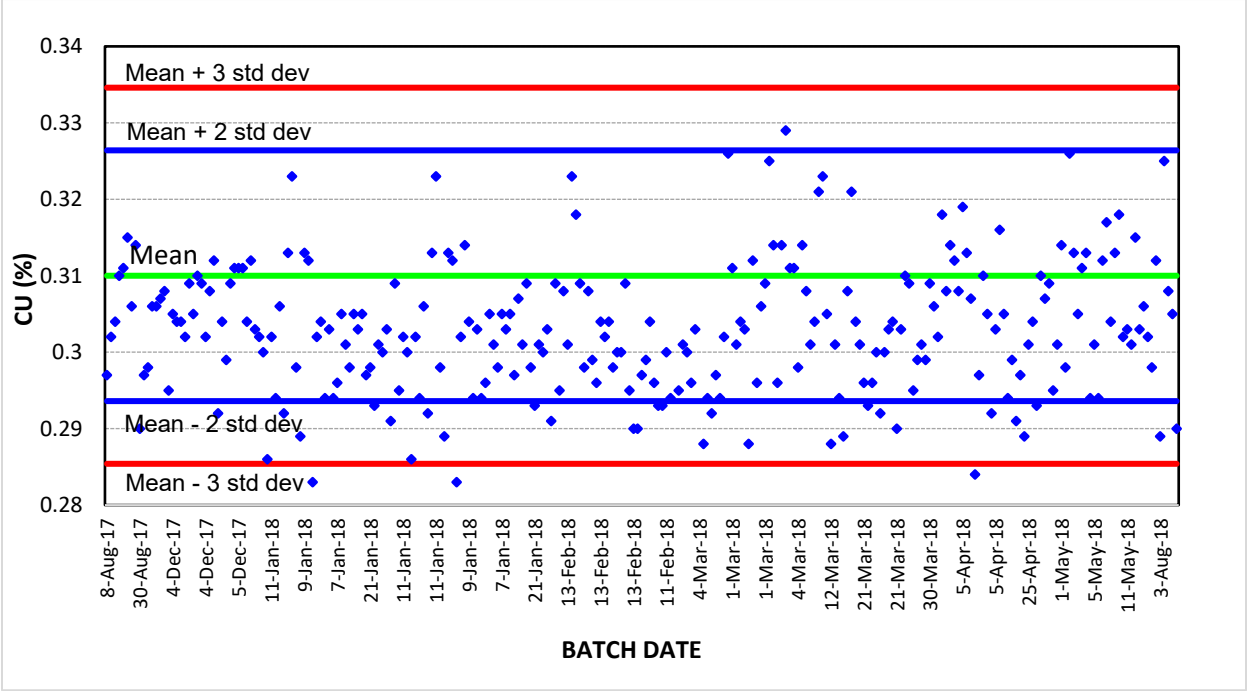

FIGURE 11-10 CRM STANDARD PB1123 CONTROL CHART FOR COPPER AT ZONE 120

Standard PM1147

A total of 110 samples were submitted for analyses and results are shown in Figure 11-11 for silver and Figure 11-12 for copper. The results for silver are reasonable though there is one minor failure. For copper, there is one high major failure and six minor failures towards the positive.

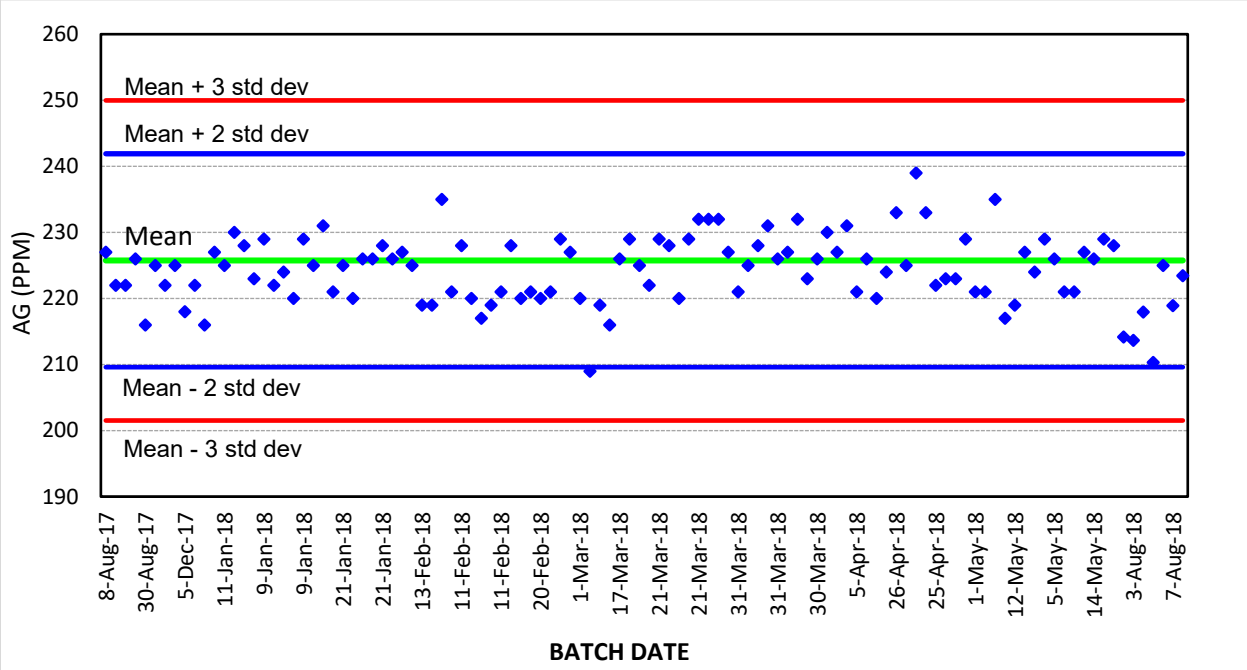

FIGURE 11-11 CRM STANDARD PB1147 CONTROL CHART FOR SILVER AT ZONE 120

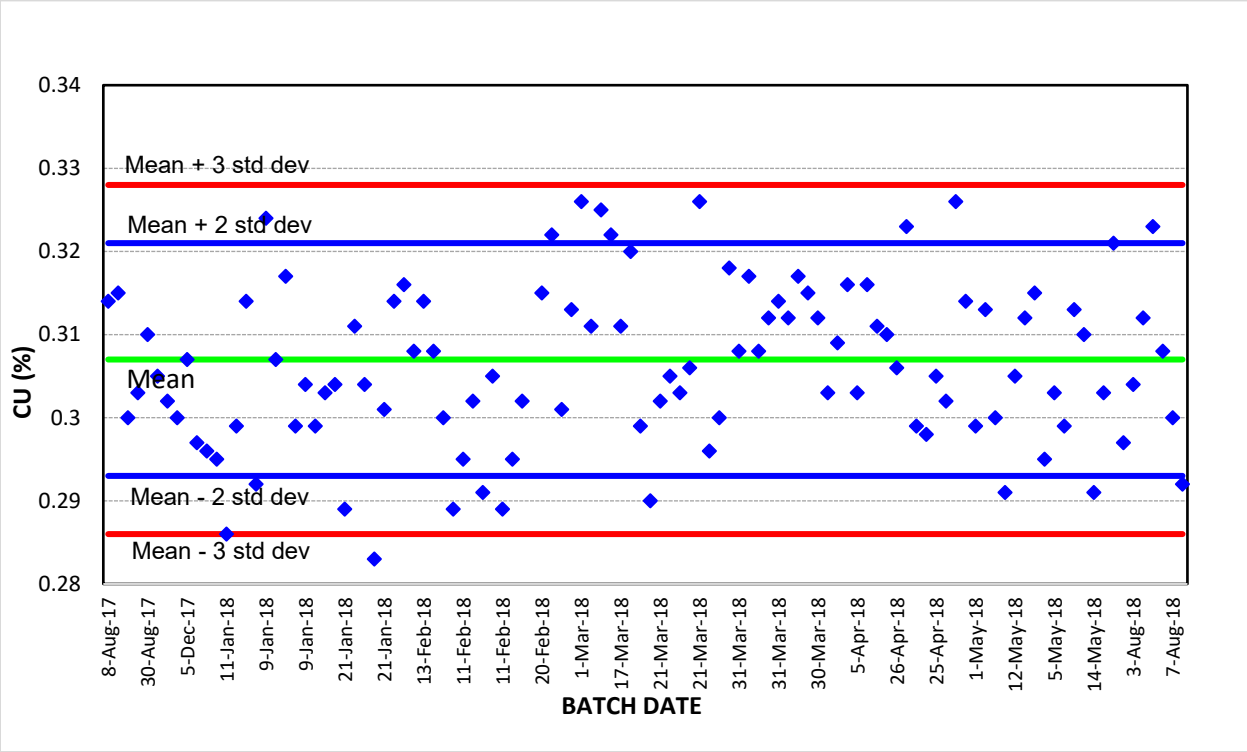

FIGURE 11-12 CRM STANDARD PB1147 CONTROL CHART FOR COPPER AT ZONE 120

There is also one major failure towards the negative as well as several negative minor failures. The values do not have a bias.

Although there are several failures in the data, it should not have significant impact on the resource estimation. MDA has reviewed the QA/QC data for the 2018 Mineral Resource estimate and used the appropriate data for the estimate.

11.4.4 Blank Material

Blanks were placed in work orders with the same frequency as observed with standards. Blanks were placed as close to mineralization as possible. Blank material used at Cosalá is collected from a basalt outcrop on the "Cuota" highway between Mazatlán and La Cruz approximately 1.5km north of the exit to Las Labradas on the east side of the road. It is broken by hand to pieces about 3x2x5 cm in size to be used as blank material.

A review of the results from May 2012 to June 2014 for blank samples program in the El Cajón area indicated one failure (a value five times the detection limit) in silver values as shown in the control chart in Figure 11-13. There were no errors noted in the copper data for the same period (Figure 11-14). The failure noted was at low levels and not considered significant

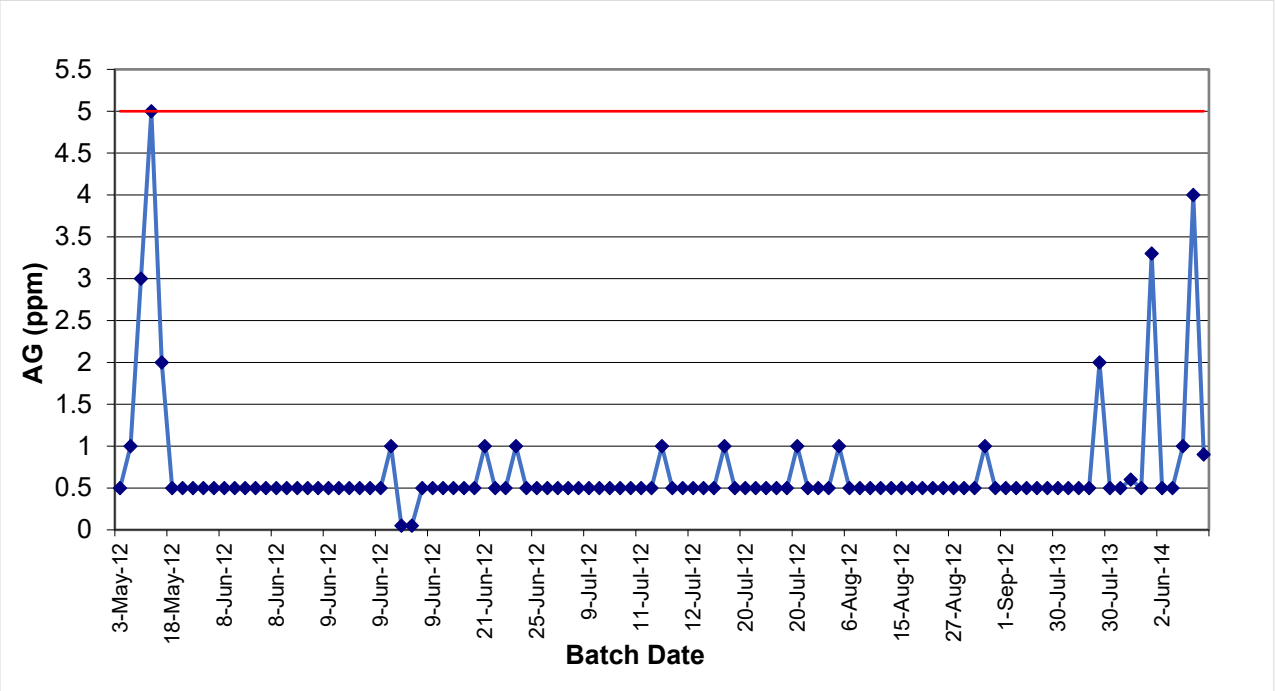

FIGURE 11-13 BLANK CONTROL CHART FOR SILVER – MAY 2012 TO JUNE 2014

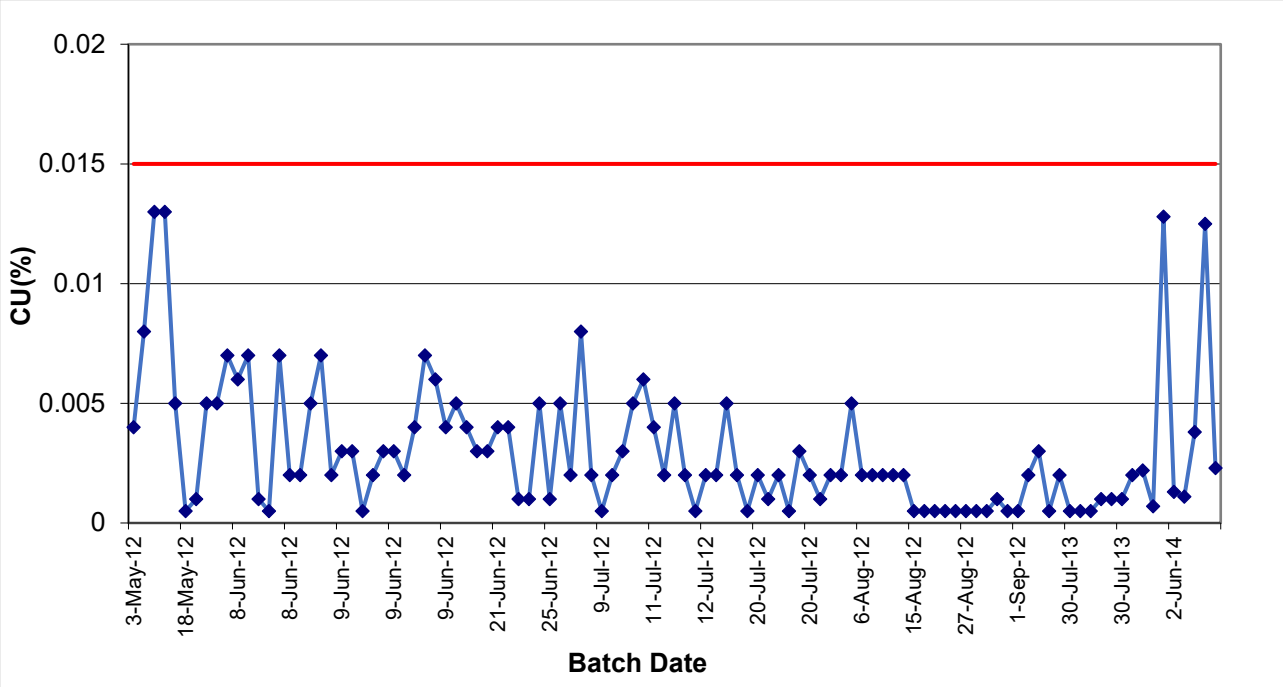

FIGURE 11-14 BLANK CONTROL CHART FOR COPPER – MAY 2012 TO JUNE 2014

Blank material used during the 2017 and 2018 period was coarse-crushed material sourced from basaltic rock collected near Mazatlán. The blank control charts for silver and copper results from drill holes in Zone 120 are shown in Figure 11-15 and Figure 11-16 respectively.

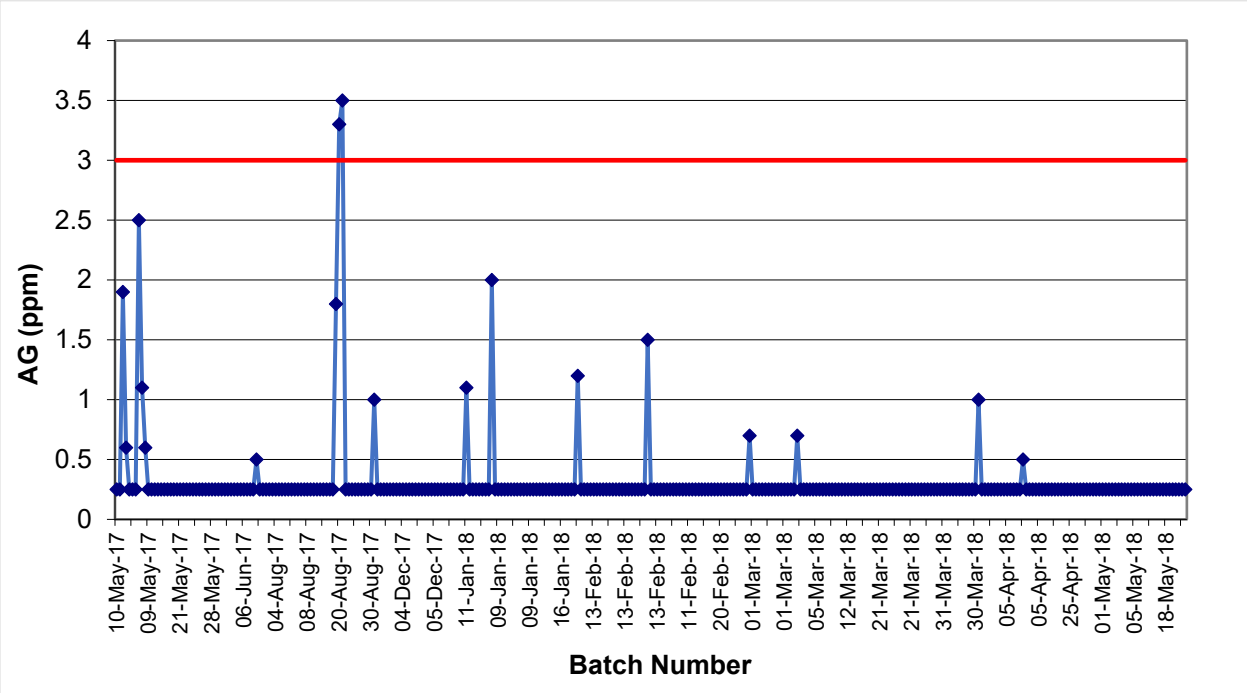

FIGURE 11-15 BLANK CONTROL CHART FOR SILVER – 2017 TO 2018

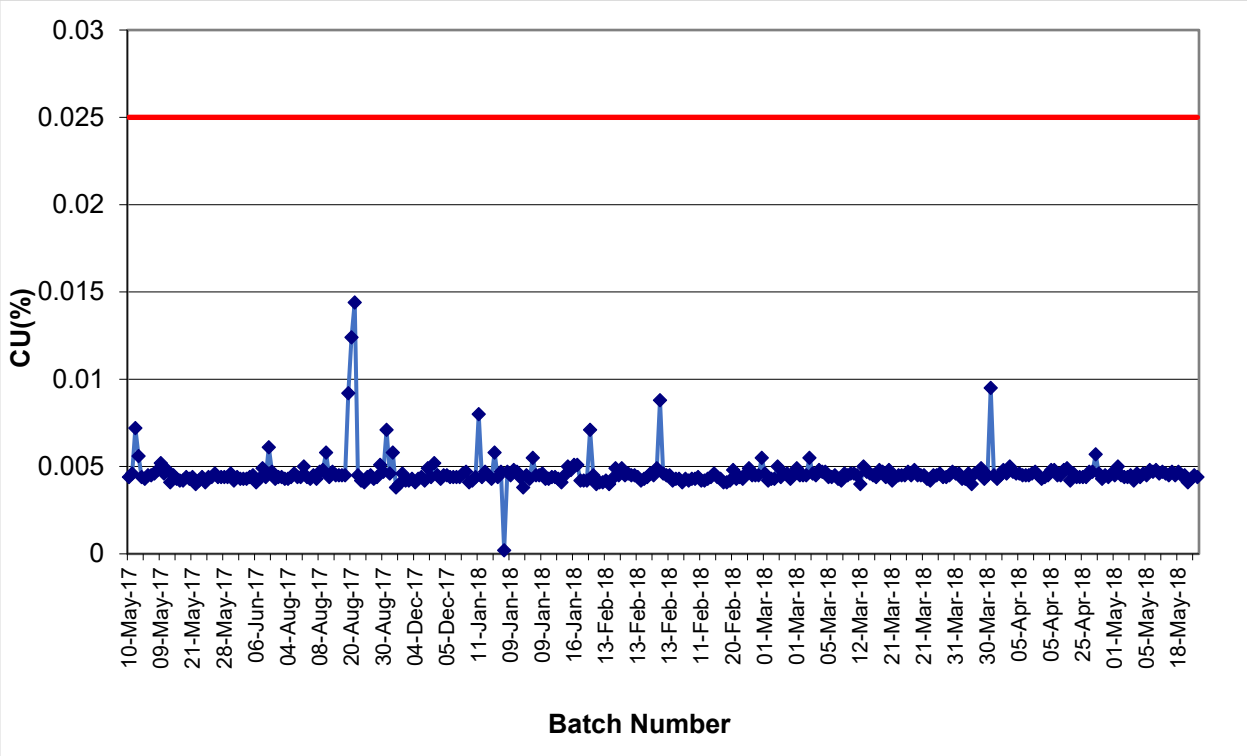

FIGURE 11-16 BLANK CONTROL CHART FOR COPPER – 2017 TO 2018

In reviewing the QA/QC results from May 2017 to May 2018, a number of blanks showed over-limit, though still low (<4ppm) silver values. It is possible that the blank material contains low-level silver which would create the illusion of contamination, but this cannot be determined without seeing the round-robin testing results. There was some preliminary evidence that the blanks that failed were in the sample stream directly after core samples with high base metal content, indicating possible weak laboratory contamination, likely in the prep stage.

None of the elevated silver values are significant and so would not materially affect the use of the drill data in the resource estimate.

11.4.5 Duplicate Samples

During the Zone 120 drilling in 2017 and 2018, the original samples for 273 core, 16 blank and 10 duplicate samples were sent to Inspectorate laboratories for duplicate analysis. Figure 11-17 and Figure 11-18 indicate the correlation for the duplicate samples. The norm is to have at least 85% of the samples within a 15% relative paired difference (RPD) limit.

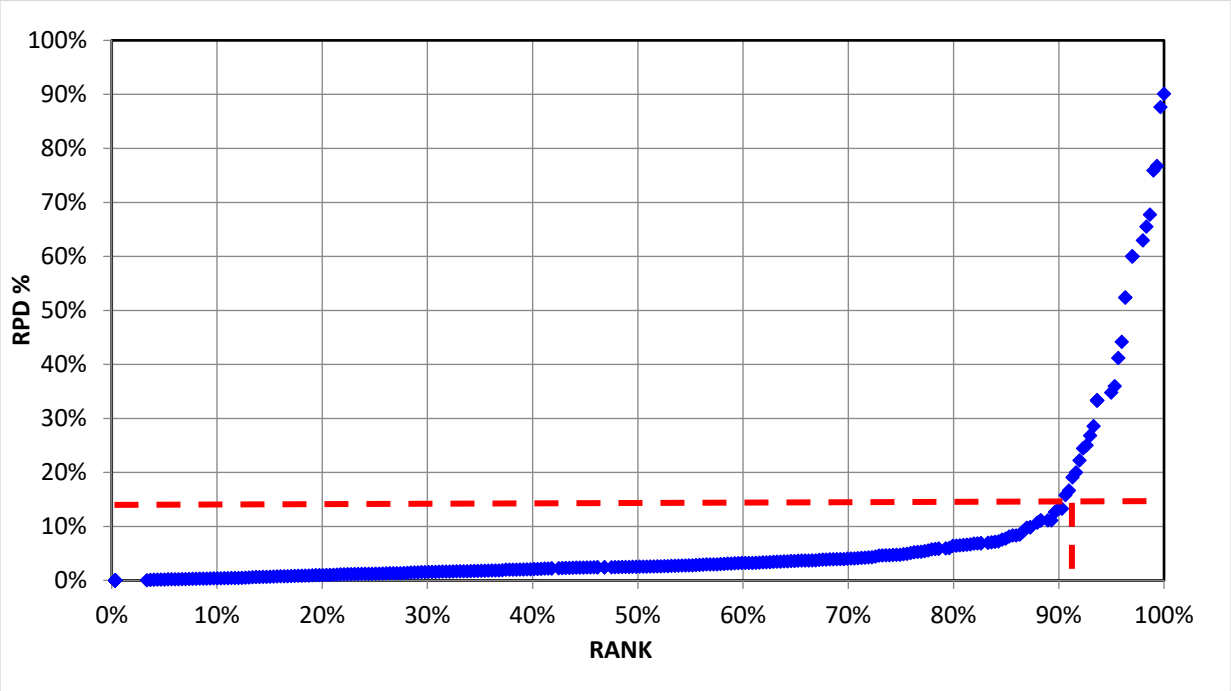

FIGURE 11-17 RELATIVE PAIRED DIFFERENCE PLOT FOR EXTERNAL LABORATORY DUPLICATES FOR SILVER

There is a reasonable correlation for the silver values in the duplicate samples as more that 92% of the results are below the 15% RPD limit. Within the copper duplicates, a reasonable correlation exists as more than 95% of the results are within the limit.

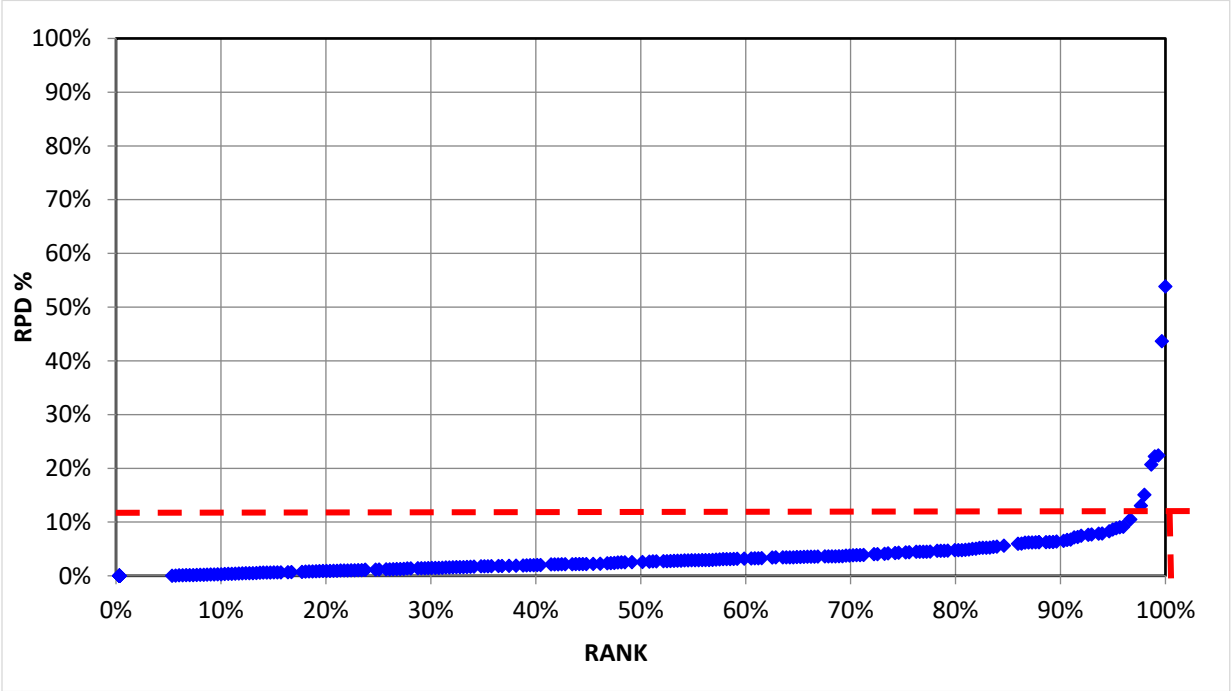

FIGURE 11-18 RELATIVE PAIRED DIFFERENCE PLOT FOR EXTERNAL LABORATORY DUPLICATES FOR COPPER

11.4.6 QA/QC Conclusions and Recommendations

Americas Silver's QA/QC program includes blanks, standards, and pulp, coarse reject and split-core duplicate samples. In Americas Silver's opinion, the sampling, sampling preparation, security and analytical procedures at San Rafael and EC120 are adequate for use in estimation of Mineral Resources.

12 DATA VERIFICATION

12.1 Overview of the Databases

The San Rafael database has been audited by Company personnel and the independent consultant (MDA), at various points during the exploration campaigns;

a) The data verification for the 2009 Technical Report (Ristorcelli et al., 2009) addressed all of the holes drilled from 2005 to 2008.
b) Holes drilled by Americas Silver in 2011 and 2012 were verified in 2012 (Ristorcelli et al. 2012). All the surface drill holes for the El Cajón deposit were completed by 2014.
c) The 21 Americas Silver holes drilled in 2014 and 2015 were verified in the San Rafael PFS report (Dyer et al. 2016).
d) The database for the 2017 and 2018 drill campaigns focusing on Zone 120 has been verified by MDA as part of the June 2018 Mineral Resource update.
e) Niel de Bruin reviewed the database as part of this Technical Report in April 2019.

12.2 Database Verification

Verification of the database focused on the (i) geochemical component, (ii) drill collar, (iii) down-hole survey and (iv) geotechnical database. Verification of the geochemical component of the database on multiple occasions included the following:

- Individual assays were checked for errors against the hard copy assay certificates received from the ALS laboratory.
- The total database was electronically compared against a compilation of all assay data provided in digital form by the ALS analytical laboratories.
- Sample interval data was checked against the geologic log sample to determine the correct position of the samples.
- The existing assay data was checked for numeric errors along with proper correlation between sample ID and database “from-to” sample intervals.

The rock quality designation (“RQD”) data from 2017 were reviewed against the drill logs, and it was noticed that the RQD percentage value for each drill interval was calculated using a “RQD length divided by recovered length” formula. This is not the correct method in calculating the RQD percentage as it should be “RQD length divided by drill interval length”. Americas Silver was notified of the issue and the database was corrected to reflect the correct RQD values for the 2017 and 2018 resource estimates. The collar coordinates for all drill holes were checked against

digital files supplied by the contracted different surveyor (Servicio Topographic and Terra Group of Hermosillo).

The database collar coordinates were checked against the original spreadsheet. The data for the drill hole final depths listed in the database was also verified with the depths noted on the drill logs. Any deviations were corrected in the database. The drill hole locations were also viewed on-screen and checked against the current topography. Americas Silver re-surveyed the collar location for this drill hole and the new, corrected coordinates were entered into the database. Any other deviations were also corrected. The location of drill holes was checked using a hand-held GPS. Although the hand-held GPS cannot achieve survey-level accuracy, it serves to verify that in general terms drill holes are where the database indicates they should be.

The down-hole survey data for the RC holes and core holes was audited. The survey readings were taken at approximate 30m down-hole intervals, with the bottom reading usually taken at a depth of 5 to 10m above the drill hole's final drill depth. No significant discrepancies between the survey field notes, the geologic logs, and the database were found.

Where down-hole survey readings were taken inside the drill rods, the azimuth readings were considered meaningless due to the magnetic effects of the drill rods. As a result of the unusable azimuth readings, all vertical holes remain as undeviating vertical holes in the database. The database has been changed by removing the actual dip readings and using the standard 0° azimuth and -90° dip values. For RC angle holes, the azimuth data are based on a Brunton compass reading taken by the field geologist. The down-hole survey readings were removed from the drill holes where there was a concern over the azimuth readings.

Americas Silver is of the opinion that database verification procedures for San Rafael and EC120 comply with industry standards and are adequate for the purposes of Mineral Resource estimation.

13 MINERAL PROCESSING AND METALLURGICAL TESTING

The following information concerning metallurgical testing and mineral processing for the EC120 Project has been prepared by Mr. Daren Dell, P.Eng., Chief Operating Officer of Americas Silver. Metallurgical test work has been done at commercial laboratories as well as the Company's site laboratory in Cosalá. Historical plant performance for the treatment of El Cajón material also provides relevant data.

13.1 Zone 120 Metallurgical Testing

13.1.1 2007-2008 Metallurgical Testing

McClelland Labs of Reno, Nevada completed early metallurgical test work in 2007 and 2008. The composite was prepared from drill core and drill cutting rejects for the purpose of preliminary flotation testing. The composite contained 0.61%Cu and 180g/t Ag.

A single batch flotation test was conducted in 2007 on the Zone 120 composite. Results showed higher than expected weight pulls of 23.4% to the rougher concentrate and 11.8% to the cleaner concentrate. The cleaner concentrate was 11.8% of the feed weight, assayed 4.45%Cu and 1,400g/t Ag, and represented silver and copper recoveries of 81% and 86%, respectively.

Further optimization testing was conducted at McClelland in 2008 but did not lead to a significant improvement in flotation response. The results indicated that additional testing would be required to prove that a saleable concentrate could be produced from Zone 120 material.

During the 2008 metallurgical testing program at McClelland, a Zone 120 sample was submitted to Amtel Limited in London, Ontario, Canada, for mineralogical characterization. The sample was subjected to general mineralogical analysis by scanning-electron microscopy and copper deportment analysis.

Principal copper minerals were reported to be chalcopyrite and tetrahedrite, with trace amounts of bornite, covellite and chalcocite noted. A copper recovery of approximately 86% with a mass pull of 3 to 4% was predicted for this material type. That observation suggested the potential for a substantial improvement in flotation response for this material. At the time, copper flotation testing on this composite had shown challenges with respect to concentrate dilution by gangue minerals. Further testing was recommended to determine if the response predicted by mineralogical analysis could be achieved.

13.1.2 2011-2012 Metallurgical Testing

Additional testing was conducted by McClelland on another Zone 120 drill-core composite in 2011 and 2012. Significant progress was made in reagent optimization and improvement in the flotation response.

A total of 48 drill core intervals were combined to make a Zone 120 master composite for flotation testing. Average head grades were 0.58%Cu and 186g/t Ag. Eighteen batch flotation tests were conducted to optimize conditions and reagents for producing a copper-silver concentrate. Work also established the optimum primary grind size to be 80% passing 150µm and identified the importance to regrinding prior to cleaner flotation.

A locked-cycle flotation test series was also conducted, using the optimized conditions, to determine the effects of flotation product recycle. The locked-cycle flotation testing demonstrated that it was possible to produce a final cleaner concentrate that was 2.1% of the feed weight, assayed 21.4%Cu and 5,978g/t Ag, and represented copper and silver recoveries of 84.7% and 72.1%, respectively.

13.1.3 2019 Metallurgical Testing

The most recent test work was completed in 2019 at the Company's metallurgical laboratory in Cosalá. Five composites from seven holes drilled in 2018 provided some variability data for both grade and location. Geologists have not classified distinct mineralized zones which could be used to distinguish metallurgical material types. Silver and copper grades for the composites are provided in Table 13-1. Other metals and elements are not metallurgically noteworthy.

TABLE 13-1 SUMMARY OF COMPOSITE GRADES – ZONE 120
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Assay Grades				
Composite	**g/t Ag**	**% Cu**	**% As**	**% Sb**	**Comment**
1	205	0.41	0.096	0.005	Mid elevation of deposit
2	211	0.44	0.54	0.008	Low elevation of deposit
3	356	0.81	0.07	0.039	Low elevation, centre of deposit, high grade
4	133	0.34	0.046	0.005	Upper elevation of deposit, oxidized, outside of mine design
5	145	0.31	0.23	0.007	Northern part of deposit, low grade

Following initial scoping flotation tests, conditions for further work were confirmed to conform with those established during full plant processing of El Cajón material.

Results of the rougher flotation tests are shown in Table 13-2. The arithmetic average copper and silver recoveries from all tests were found to be 92.2% and 88.7%, respectively. Performance was very good except for composite 4. This composite represented the topmost part of the deposit where oxidation exists. Further investigation revealed that this area was outside of the intended mine design, so no additional work was completed on this material.

TABLE 13-2 ROUGHER FLOTATION RESULTS – ZONE 120
Americas Silver Corporation – San Rafael Mine and EC120 Project

		Rougher Flotation Concentrate				
			Grade		Recovery	
Composite	Test	wt %	% Cu	g/t Ag	% Cu	% Ag
1	4	5.5	7.35	3,512	95.4	92.0
	5	5.9	6.48	2,903	97.2	94.3
2	8	7.8	6.28	2,757	95.3	96.8
	11	8.3	6.17	2,494	97.5	96.3
3	1	5.7	14.2	5,674	99.0	97.7
	2	6.8	12.4	5,079	98.4	98.2
	3	6.9	11.2	4,875	96.4	96.1
4	6	4.4	6.02	1,660	69.2	54.5
	9	5.2	5.83	1,641	80.0	62.5
5	7	6.4	5.16	2,205	94.8	93.7
	10	6.9	4.82	2,095	91.2	93.6

Many of the rougher flotation tests had the concentrate carried through cleaning. The arithmetic average recoveries for copper and silver from all tests were found to be 86.1% and 86.4%, respectively. Final concentrate grade averaged 20.6%Cu and 8,669g/t Ag. Results are summarized in Table 13-3. During the earlier scoping phase, it was determined that regrinding of the rougher concentrate to 80% passing 60µm was required. A single stage of cleaning was adequate to produce a concentrate grading at least 20% Cu from composites 1 and 3. The limited work did not produce a higher grade concentrate from composites 2 and 5. Even with two stages of cleaning, test 11 on composite 2 was unable to produce a 20%Cu concentrate. Cleaning pH was left at natural levels of 8.5-9 during these tests rather than raising it to approximately 11 with lime as in the other tests. The relatively high arsenic levels found in composites 2 and 5 may also be a factor. Additional work will be required to confirm the cause of the relatively low concentrate grades from some material types and to investigate possible remedies.

TABLE 13-3 CLEANER FLOTATION RESULTS – ZONE 120
Americas Silver Corporation – San Rafael Mine and EC120 Project

		Cleaner Flotation Concentrate				
			Grade		Recovery	
Composite	Test	wt %	% Cu	g/t Ag	% Cu	% Ag
1	5	1.6	21.3	9,116	89.6	83.1
2	11	4.5	10.7	4,337	92.4	91.9
3	2	2.3	30.0	12,292	78.7	78.6
3	3	2.5	27.2	11,639	85.2	83.2
5	10	2.2	14.0	5,961	84.6	85.3

13.2 El Cajón Metallurgical Testing

El Cajón material has been the subject of several metallurgical test campaigns. Batch flotation, locked cycle testing and mineralogical studies have all been completed. Results demonstrate that economic sulphide minerals float readily into a saleable concentrate. For the purposes of evaluating the deposit, little weight is placed on this historical work because of the ample information available from commercial scale processing of El Cajón material through the Company's Los Braceros plant.

13.2.1 El Cajón Production History

El Cajón material has been previously processed in multiple milling campaigns which provide excellent information for the deposit as a whole. These commercial scale tests were carried out at the Company's Los Braceros plant. Results are summarized in Table 13-4.

TABLE 13-4 EL CAJÓN MILL PRODUCTION HISTORY
Americas Silver Corporation – San Rafael Mine

		Head Grade		Recovery		Concentrate Grade	
Year	Milled Tonnes	% Cu	g/t Ag	% Cu	% Ag	% Cu	g/t Ag
2015	6,464	0.23	59	90.6	93.7	24.2	6,342
2017	110,890	0.32	77	89.8	89.0	23.8	5,707

When processing El Cajón material, mill throughput averaged approximately 1,500tpd in 2015 and over 1,600tpd in 2017. The bottleneck to higher throughput was pump capacity; grinding capacity and flotation residence time were not limiting factors. There was a ready market for the silver-copper concentrate although the product was penalized for elevated antimony and arsenic levels.

13.3 EC120 Metallurgy Summary

Laboratory testing has demonstrated that both Zone 120 and El Cajón materials can be successfully treated using flotation to produce a saleable copper-silver concentrate.

The relatively limited amount of flotation testing done on Zone 120 requires that a conservative approach be taken with projected future performance at a commercial scale. Many geological and metallurgical similarities exist between Zone 120 and El Cajón, including compatible flotation conditions and comparable rougher performance. Improving Zone 120 flotation response to match that of El Cajón is a reasonable goal. Additional work could and should be done on Zone 120 material to optimize cleaner flotation performance, especially for material carrying higher concentrations of arsenic.

The successful commercial scale processing of El Cajón material provides support for the lab-derived metal recovery and concentrate grade results. Historical plant performance is considered an excellent predictor of future performance.

The two material types are similar in the nature of the sulphide mineralization and the gangue. Within each deposit, geologists report the style of mineralization to be consistent. Although no complications are anticipated, test work could be done to confirm that the two material types can be commingled.

13.4 Production Metallurgical Performance

Given the above results, the following parameters are utilized for future planning and metal scheduling including cash flow modelling for the San Rafael Main Zone sulphide material:

- Primary grind, P_{80}: 110 – 130µm
- Rougher concentrate regrind target, P_{80}: 50 – 60µm
- Zone 120 recovery to final concentrate: 85.8% for Cu and 85.0% for Ag
- El Cajón recovery to final concentrate: 89.8% for Cu and 89.0% for Ag
- Final concentrate grade: 23.8%Cu
- Rougher flotation residence time: 15 minutes
- Number of cleaning stages: 2
- Cleaner flotation residence time: 5 minutes per stage

- Reagent suite: 30g/t Aerofloat 238 and 15g/t Aerophine 3416 to grinding mill
  10g/t Aerophine 3416 and 26g/t CC-1064 to rougher conditioner
  5g/t Aerophine 3416 to cleaner 2
  Lime to cleaners to maintain pH 10.5-11

In effect, El Cajón operating parameters were adopted. Zone 120 metal recoveries are taken to be those of El Cajón with a 4% deduction.

14 MINERAL RESOURCE ESTIMATES

The Mineral Resource estimate, exclusive of the Mineral Reserve estimate, for the San Rafael Mine (Main and Upper Zones) has an effective date of June 30, 2018. The Mineral Resource estimate, exclusive of the Mineral Reserve estimate, for EC120 has an effective date of April 3, 2019. The resource block models were prepared by an independent consultant but have been reviewed and adopted by Niel de Bruin, an employee of Americas Silver, P.Geo., who is a Qualified Person for the purpose of NI 43-101.

The Mineral Resource estimates for San Rafael and EC120 are summarized in Table 14-1 and Table 14-2, respectively, exclusive of Mineral Reserves. The data used in the Mineral Resource estimate for San Rafael and Zone 120 incorporates assay results and geologic interpretations up to June 30, 2018. The El Cajón database includes data up to 2017 (no new data exists) and remains unchanged from that used in the 2017 and 2018 Mineral Resource estimates.

Mineralization within each of the zones at San Rafael, which includes the Main Zone, Upper Zone and Zone 120, is slightly different. However, an approach to estimate the Mineral Resources for all zones into the San Rafael block model using certain parameters and constraints to ensure the adherence to the different mineralization styles was adopted. Given the similarities in mineralization between El Cajón and Zone 120, the reported Mineral Resources are categorized as San Rafael (Main Zone and Upper Zone) and EC120 (El Cajón and Zone 120).

Mineral Resources that are not Mineral Reserves do not have demonstrated economic viability.

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

TABLE 14-1 SUMMARY OF SAN RAFAEL MINERAL RESOURCES – JUNE 30, 2018
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades			Contained Metal		
Category	**(000)**	**Ag (g/t)**	**Pb (%)**	**Zn (%)**	**Ag oz (000)**	**Pb lbs (M)**	**Zn lbs (M)**
Measured	1,310	100	0.98	2.30	4,207	28.4	66.3
Indicated	1,774	82	0.91	2.12	4,692	35.7	83.0
Total M+I	3,084	90	0.94	2.20	8,899	64.1	149.3
Total Inferred	452	167	2.23	0.39	2,421	22.2	3.8

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Resources.
2. Mineral Resources are estimated at a net smelter return ("NSR") cut-off value of US$34 per tonne.
3. Mineral Resources are estimated using a silver price of US$18.00 per ounce, lead price of $1.05 per pound and zinc price of $1.05 per pound.
4. Mineral Resources are reported exclusive of Mineral Reserves and as such these Mineral Resources do not have demonstrated economic viability.
5. Numbers may not add or multiply accurately due to rounding.

TABLE 14-2 SUMMARY OF EC120 MINERAL RESOURCES – APRIL 3, 2019
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades		Contained Metal	
Category	**(000)**	**Ag (g/t)**	**Cu (%)**	**Ag oz (000)**	**Cu lbs (M)**
Indicated El Cajón	226	150	0.46	1,089	2.3
Indicated Zone 120	1,129	126	0.32	4,568	8.0
Total Indicated	1,355	130	0.34	5,657	10.3
Inferred El Cajón	164	117	0.20	618	0.7
Inferred Zone 120	214	125	0.32	864	1.5
Total Inferred	378	122	0.27	1,482	2.2

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Resources.
2. Mineral Resources are estimated at a net smelter return ("NSR") cut-off value of US$40 per tonne.
3. Mineral Resources are estimated using a silver price of US$18.00 per ounce and a copper price of US$3.00 per pound.
4. Mineral Resources are reported exclusive of Mineral Reserves and as such these Mineral Resources do not have demonstrated economic viability.
5. Numbers may not add or multiply accurately due to rounding.

14.1 Domain Models

Using all deposit-wide assay data, quantile plots for the different metals and percent sulphide are made to define the natural populations of metal grades. These analytical population breaks were used to guide the creation of distinct mineral domains for each metal which control the grade estimation and density. At San Rafael, additional plots were made after subdividing the assay

data into a west and east portion, based on the Main Zone mineralization in the west and the Zone 120 and Upper Zone mineralization in the east. For silver, there was a statistical difference between the west and east assays, and two unique population sets were used in creating the silver mineral domains. Copper mineralization occurs primarily within the eastern portion of the deposit, with limited data in the west. Lead and zinc mineralization were constrained to the west of the deposit.

Mineral domains for silver and copper were created for the El Cajón deposit with limited zinc and lead mineralization in this region. It should be noted that similar mineralization has been observed in the El Cajón and Zone 120 deposits. Table 14-3 shows the assay populations associated with each mineral domain within El Cajón and Table 14-4 shows the assay populations at San Rafael and Zone 120. Table 14-5 and Table 14-6 provide general geologic descriptions for the mineral domains coded into the two geologic models.

TABLE 14-3 EL CAJÓN ASSAY POPULATIONS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Metal (unit)	Low-grade	Mid-Grade	High-Grade	Very High-Grade
Ag (g/t)	15-75	75-250	>250	n/a
Cu (%)	0.05-0.28	0.28-1.30	>1.30	n/a
Sulphide (%)	2.00-6.00	>6.00	n/a	n/a

TABLE 14-4 SAN RAFAEL ASSAY POPULATIONS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Metal (unit)	Low-grade	Mid-Grade	High-Grade	Very High-Grade
Ag (g/t)	15-60	60-145	145-500	>500
Cu (%)	0.04-0.14	0.14-0.37	0.37-1.40	>1.40
Zn (%)	0.4-2.6	2.6-9.0	>9.0	n/a
Pb (%)	0.18-1.00	1.00-4.00	4.00-10.0	>10.00
Sulphide (%)	6.00-50.00	>50.00	n/a	n/a

TABLE 14-5 EL CAJÓN GEOLOGICAL DOMAINS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Mineral Domain Code	Description
100	Primarily low-grade silver, copper and gold and low sulphide; each element modelled independently. Characterized by weak to moderate skarn alteration within bedding horizons and peripheral to intrusive contacts.
200	High-grade sulphide, and mid-grade silver, copper and gold; each modelled independently. Characterized by moderate to strong skarn alteration within favourable horizons and along the intrusive contact.
300	High-grade silver and copper; each modelled independently. Localized strong skarn alteration/mineralization dominantly proximal to the intrusive contact though isolated zones occur within favourable horizons.

TABLE 14-6 SAN RAFAEL GEOLOGICAL DOMAINS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Mineral Domain Code	Description
100	Primarily low-grade zinc, lead, silver, gold and copper and low sulphide; each element modelled independently. Associated with weak mineralization and alteration peripheral to the Main Zone massive sulphide and/or the Zone 120 intrusive-contact-related skarn.
200	Primarily high-sulphide and mid-grade zinc, lead, silver and copper; each unique. Characterized by the more sulphide-rich Main Zone and moderate to strong skarn alteration within Zone 120.
300	High-grade zinc, lead, silver and copper; each unique. Characterized by favourable horizons of increased base-metal sulphides within the Main Zone massive sulphide (sulphide domain 200) and strong intrusive- and bedding-related skarn alteration within Zone 120.
400	Very high-grade lead and silver; each unique. Occurs as isolated zones primarily within the western area.

The geologic cross sections, which are evenly spaced on 25m intervals, looking northwest at 330° are modelled based on the domain information. Individual sets of sections with unique mineral domains were created for zinc, lead, silver, copper and percent sulphide. The mineral domains represent distinct styles of mineralization with unique statistical characteristics. Lithology, oxidation, and the topographic surface were also plotted on the cross sections. The cross sections were sliced to long section on 3m intervals to coincide with the centre of each row of blocks in the model. The sliced sections were reinterpreted on those 3m intervals.

Typical cross sections of the San Rafael and Zone 120, and El Cajón geologic models with the silver mineral domains are given in Figure 14-1 and Figure 14-2 respectively. The geologic cross

sections enabled the team to generate lithological solids. Using the oxide surface on the cross sections, a solid was created to code the block model on a block-in, block-out basis.

The increased drill density within the eastern portion of the deposit has allowed for the modelling of an oxide surface that marks the transition between oxide- and sulphide-dominant mineralization. In general, the oxide surface is 20 to 30m below topography, but in the central and northeast portions of the deposit, oxidation can occur up to 150 to 200m down-dip within the dominant southwest-dipping structures. Zinc is leached from the oxide material, so deep oxidation has a pronounced effect on zinc grades; there is a much less effect on the other four metals.

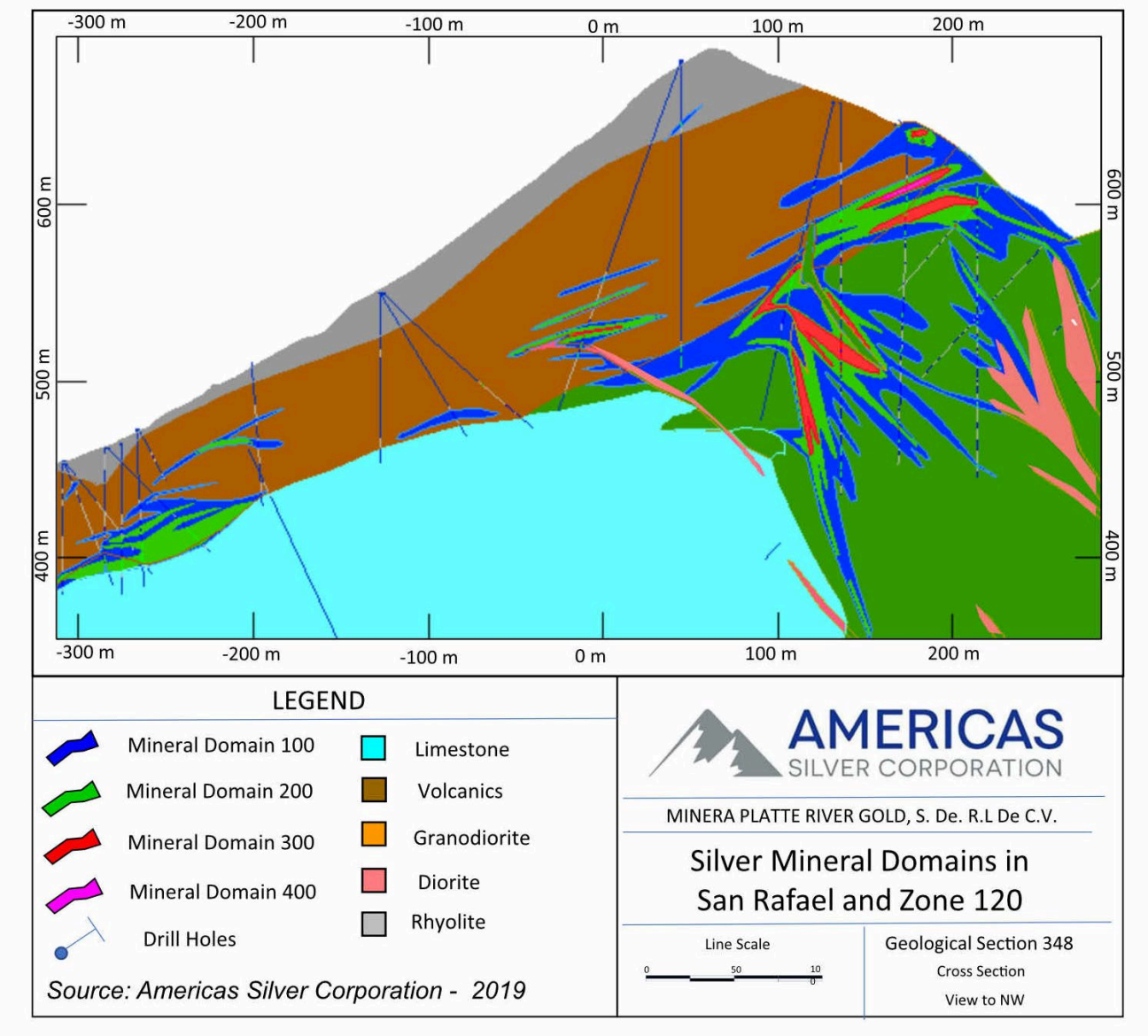

FIGURE 14-1 TYPICAL SECTION OF SAN RAFAEL AND ZONE 120 GEOLOGIC MODEL WITH SILVER DOMAINS

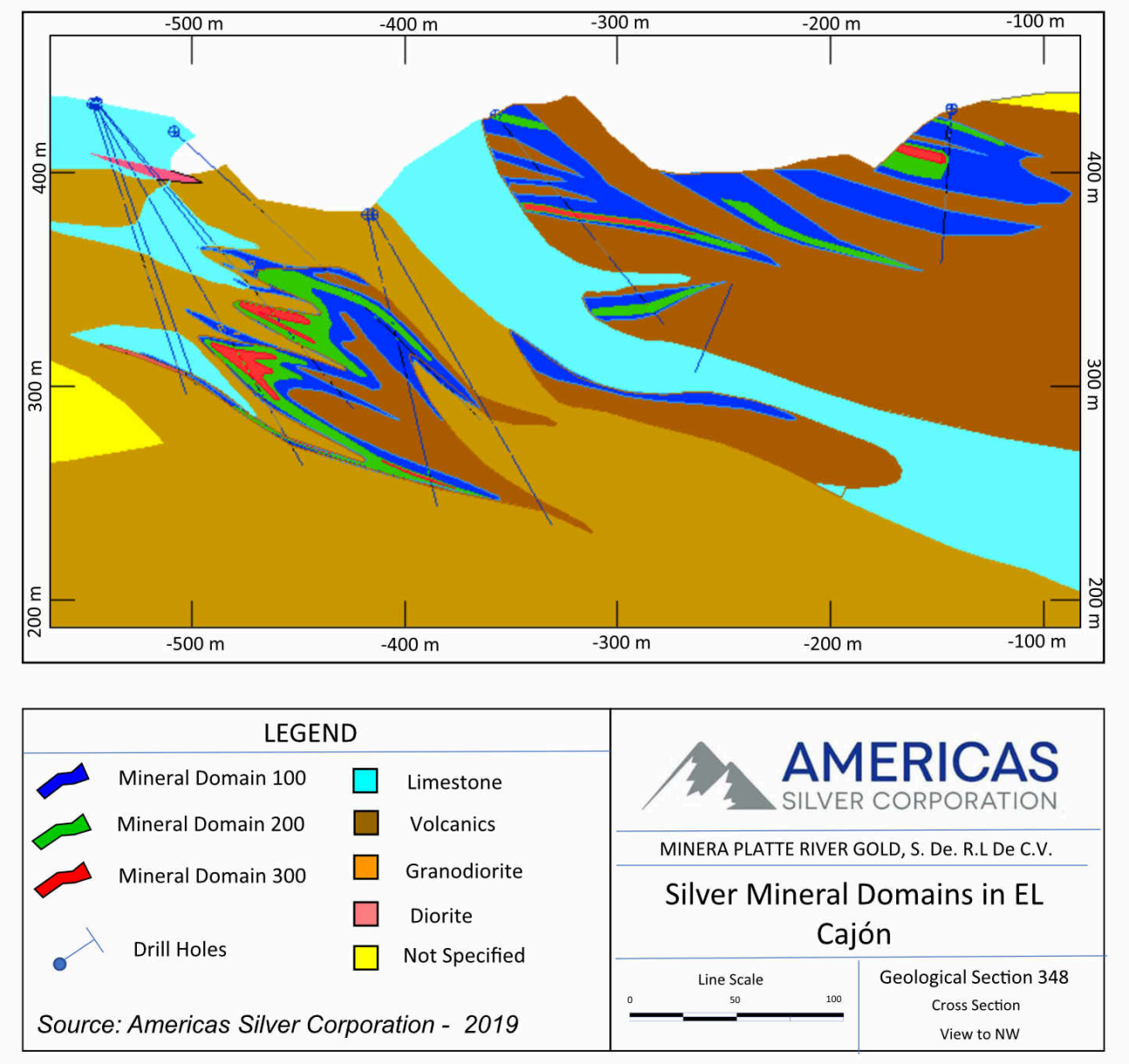

FIGURE 14-2 TYPICAL SECTION OF CAJÓN GEOLOGIC MODEL WITH SILVER DOMAINS

14.2 Block Model

Geovia Surpac geological software was used to construct the block model. Both the San Rafael block model, which includes the Main Zone, Upper Zone and Zone 120, and the El Cajón block model are rotated to a bearing of 330° with the block sizes for San Rafael of 3m(X) by 2m (Y) by 2m(Z) and block sizes for El Cajón of 3m(X) by 3m(Y) by 3m (Z). The long sections generated by slicing the cross sections coincide with the centre of each row of blocks in the model. The reinterpreted 3m interval sliced sections are used to code the block model with each mineral domain and allow for the calculation of each block's percentage within the domains. In addition, the block model is also coded with the oxide and lithological solids. The sulphide domains were used to assign density values, ranging from 2.50t/m^3 to 3.88t/m^3, to the blocks.

14.3 Sample Coding and Compositing

14.3.1 El Cajón

The 25m cross-section mineral-domain polygons were used to code drill samples. Quantile plots, along with domain statistics and spatial location of higher-grade samples, were made to assess validity of these domains and to determine capping levels for the individual mineral domain populations. After these analyses, 18 samples (21 silver and five copper) were capped as they did not appear to be representative of their domain populations and using these uncapped values could result in an over-estimating of grade into the mineral domains. The capped assays represent less than 0.4% of the assays used in the resource estimation. Assay descriptive statistics, including the capping levels and effects of capping on the assay statistics, are presented in Table 14-7 and Table 14-8.

TABLE 14-7 EL CAJÓN DOMAIN ASSAY DESCRIPTIVE STATISTICS (AG)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Assays	Count	Mean (g/t)	Median (g/t)	Std. Dev.	CV	Min. (g/t)	Max. (g/t)	# Capped
100	Ag	1,821	32.9	23.0	33.9	1.0	0.0	550.0	5
	Ag Cap	1,821	32.6	23.0	30.4	0.9	0.0	250.0	
200	Ag	849	135.9	121.0	90.1	0.7	0.5	931.0	4
	Ag Cap	849	135.1	121.0	84.6	0.6	0.5	600.0	
300	Ag	278	493.0	373.0	372.6	0.8	3.0	2,510.0	4
	Ag Cap	278	487.4	373.0	345.6	0.7	3.0	2,000.0	
All	Ag	2,948	103.8	44.0	181.4	1.8	0.0	2,510.0	13
	Ag Cap	2,948	102.9	44.0	174.2	1.7	0.0	2,000.0	

TABLE 14-8 EL CAJÓN DOMAIN ASSAY DESCRIPTIVE STATISTICS (CU)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Assays	Count	Mean (%)	Median (%)	Std. Dev.	CV	Min. (%)	Max. (%)	# Capped
100	Cu	1,673	0.123	0.100	0.090	0.730	0.001	0.643	0
	Cu Cap	1,673	0.123	0.100	0.090	0.730	0.001	0.643	
200	Cu	982	0.507	0.430	0.323	0.640	0.003	3.540	3
	Cu Cap	982	0.504	0.430	0.307	0.610	0.003	2.000	
300	Cu	189	1.808	1.500	1.355	0.750	0.084	10.400	2
	Cu Cap	189	1.750	1.500	1.046	0.600	0.084	6.000	
All	Cu	2,844	0.355	0.180	0.568	1.600	0.001	10.400	5
	Cu Cap	2,844	0.350	0.180	0.513	1.470	0.001	6.000	

Compositing of the capped assay data was done to 3m down-hole lengths, matching the model block size in the Z-direction, honouring all material-type and mineral-domain boundaries. Table 14-9 and Table 14-10 show the composite descriptive statistics for silver and copper, respectively.

TABLE 14-9 EL CAJÓN DOMAIN COMPOSITE DESCRIPTIVE STATISTICS (AG)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Count	Mean (g/t Ag)	Median (g/t Ag)	Std. Dev.	CV	Min. (g/t Ag)	Max. (g/t Ag)
100	1,222	32.6	27.6	23.60	0.720	0.0	211.5
200	572	135.1	122.2	65.82	0.490	0.5	600.0
300	204	487.4	393.7	287.97	0.590	35.0	2,000.0
All	1,998	102.9	45.5	161.25	1.570	0.0	2,000.0

TABLE 14-10 EL CAJÓN DOMAIN COMPOSITE DESCRIPTIVE STATISTICS (CU)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Count	Mean (% Cu)	Median (% Cu)	Std. Dev.	CV	Min. (% Cu)	Max. (% Cu)
100	1,136	0.123	0.107	0.071	0.580	0.002	0.643
200	642	0.504	0.453	0.228	0.450	0.007	1.450
300	135	1.750	1.536	0.942	0.540	0.545	6.000
All	1,913	0.350	0.186	0.485	1.380	0.002	6.000

14.3.2 San Rafael

The assay descriptive statistics for the different metals in their mineral domains for all the zones in the San Rafael block model, which includes the Main Zone, Upper Zone and Zone 120, are shown in Table 14-11 to Table 14-14. After coding of samples, the data was analyzed and samples not representative of their mineral domains were capped. In total ,13 samples (five zinc, seven silver and one copper) were capped to minimize the probability of over-estimating grade locally. The capped assays represent less than 0.2% of the assays used in the resource estimation.

TABLE 14-11 SAN RAFAEL (WEST) DOMAIN ASSAY DESCRIPTIVE STATISTICS (AG)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Assays	Count	Mean (g/t)	Median (g/t)	Std. Dev.	CV	Min. (g/t)	Max. (g/t)	# Capped
100	Ag	1,335	14.7	12.0	9.9	0.67	0.3	108.0	1
	Ag Cap	1,335	14.7	12.0	9.8	0.67	0.3	80.0	
200	Ag	927	54.3	48.0	26.8	0.49	1.0	206.0	0
	Ag Cap	927	54.3	48.0	26.8	0.49	1.0	206.0	
300	Ag	129	231.7	201.0	143.6	0.62	96.0	1,260.0	3
	Ag Cap	129	222.8	201.0	100.9	0.45	96.0	500.0	
400	Ag	17	474.0	424.0	304.1	0.64	1.6	1,060.0	0
	Ag Cap	17	474.0	424.0	304.1	0.64	1.6	1,060.0	
All	Ag	2,408	44.1	24.0	75.8	1.72	0.3	1,260.0	4
	Ag Cap	2,408	43.6	24.0	71.0	1.63	0.3	1,060.0	

TABLE 14-12 SAN RAFAEL (EAST) DOMAIN ASSAY DESCRIPTIVE STATISTICS (AG)

Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Assays	Count	Mean (g/t)	Median (g/t)	Std. Dev.	CV	Min. (g/t)	Max. (g/t)	# Capped
100	Ag	3,101	25.2	20.2	19.9	0.79	0.3	345.0	2
	Ag Cap	3,101	25.2	20.2	19.3	0.76	0.3	200.0	
200	Ag	955	87.7	84.0	47.0	0.54	0.6	411.0	0
	Ag Cap	955	87.7	84.0	47.0	0.54	0.6	411.0	
300	Ag	546	304.4	252.0	194.0	0.64	3.3	1,480.0	0
	Ag Cap	546	304.4	252.0	194.0	0.64	3.3	1,480.0	
400	Ag	47	1,526.5	956.0	1,377.1	0.90	134.0	8,130.0	1
	Ag Cap	47	1,468.8	956.0	1,145.5	0.78	134.0	5,000.0	
All	Ag	4,649	84.4	30.6	226.7	2.69	0.3	8,130.0	3
	Ag Cap	4,649	83.8	30.6	210.1	2.51	0.3	5,000.0	

TABLE 14-13 SAN RAFAEL DOMAIN ASSAY DESCRIPTIVE STATISTICS (PB)

Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Assays	Count	Mean (%)	Median (%)	Std. Dev.	CV	Min. (%)	Max. (%)	# Capped
100	Pb	2,843	0.384	0.290	0.322	0.84	0.002	4.440	2
	Pb Cap	2,843	0.384	0.290	0.322	0.84	0.002	4.440	
200	Pb	990	1.790	1.530	1.024	0.57	0.020	11.750	0
	Pb Cap	990	1.790	1.530	1.024	0.57	0.020	11.750	
300	Pb	97	6.826	6.040	2.700	0.40	2.420	17.250	0
	Pb Cap	97	6.826	6.040	2.700	0.40	2.420	17.250	
400	Pb	13	12.491	12.500	8.407	0.67	0.165	30.000	1
	Pb Cap	13	12.491	12.500	8.407	0.67	0.165	30.000	
All	Pb	3,943	0.914	0.430	1.537	1.68	0.002	30.000	3
	Pb Cap	3,943	0.914	0.430	1.537	1.68	0.002	30.000	

TABLE 14-14 SAN RAFAEL DOMAIN ASSAY DESCRIPTIVE STATISTICS (ZN)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Assays	Count	Mean (%)	Median (%)	Std. Dev.	CV	Min. (%)	Max. (%)	# Capped
100	Zn	3,165	0.817	0.580	0.757	0.93	0.008	9.850	2
	Zn Cap	3,165	0.815	0.580	0.738	0.91	0.008	7.200	
200	Zn	982	4.274	3.880	2.022	0.47	0.020	29.200	3
	Zn Cap	982	4.266	3.880	1.966	0.46	0.020	15.000	
300	Zn	83	13.732	12.600	5.617	0.41	5.050	31.820	0
	Zn Cap	83	13.732	12.600	5.617	0.41	5.050	31.820	
All	Zn	4,230	1.818	0.853	2.569	1.41	0.008	31.820	5
	Zn Cap	4,230	1.815	0.853	2.554	1.41	0.008	31.820	

Compositing of the capped assay data was done to 2m down-hole lengths, matching the model block size in the Z-direction, honouring all material-type and mineral-domain boundaries. The volume inside each mineral domain was estimated using only composites from inside that domain. Composite descriptive statistics are presented in Table 14-15 to Table 14-19.

TABLE 14-15 SAN RAFAEL (WEST) DOMAIN COMPOSITE DESCRIPTIVE STATISTICS (AG)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Count	Mean (g/t Ag)	Median (g/t Ag)	Std. Dev.	CV	Min. (g/t Ag)	Max. (g/t Ag)
100	1,227	14.7	13.1	8.55	0.58	0.5	65.0
200	812	54.3	49.3	22.70	0.42	4.7	199.0
300	130	222.8	193.0	97.49	0.44	98.0	500.0
400	18	474.0	441.0	302.55	0.64	1.8	1,060.0
All	2,187	43.6	24.0	70.02	1.61	0.5	1,060.0

TABLE 14-16 SAN RAFAEL (EAST) DOMAIN COMPOSITE DESCRIPTIVE STATISTICS (AG)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Count	Mean (g/t Ag)	Median (g/t Ag)	Std. Dev.	CV	Min. (g/t Ag)	Max. (g/t Ag)
100	2,824	25.2	21.4	16.25	0.64	0.3	200.0
200	907	87.7	84.5	39.76	0.45	1.0	411.0
300	521	304.4	260.0	166.06	0.55	28.0	1,480.0
400	46	1,468.8	956.0	1,053.32	0.72	259.6	4,493.0
All	4,298	83.8	31.1	202.10	2.41	0.3	4,493.0

TABLE 14-17 SAN RAFAEL DOMAIN COMPOSITE DESCRIPTIVE STATISTICS (CU)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Count	Mean (% Cu)	Median (% Cu)	Std. Dev.	CV	Min. (% Cu)	Max. (% Cu)
100	2,231	0.076	0.066	0.05	0.65	0.001	0.570
200	695	0.234	0.216	0.11	0.47	0.010	0.800
300	453	0.828	0.666	0.56	0.68	0.145	4.000
All	3,379	0.203	0.095	0.33	1.60	0.001	4.000

TABLE 14-18 SAN RAFAEL DOMAIN COMPOSITE DESCRIPTIVE STATISTICS (PB)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Count	Mean (% Pb)	Median (% Pb)	Std. Dev.	CV	Min. (% Pb)	Max. (% Pb)
100	2,582	0.384	0.308	0.28	0.73	0.004	4.440
200	893	1.790	1.582	0.91	0.51	0.180	8.920
300	97	6.826	6.230	2.58	0.38	2.420	17.250
400	14	12.492	13.300	8.34	0.67	0.192	30.000
All	3,586	0.914	0.436	1.51	1.65	0.004	30.000

TABLE 14-19 SAN RAFAEL DOMAIN COMPOSITE DESCRIPTIVE STATISTICS (ZN)
Americas Silver Corporation – San Rafael Mine and EC120 Project

Domain	Count	Mean (% Zn)	Median (% Zn)	Std. Dev.	CV	Min. (% Zn)	Max. (% Zn)
100	2,813	0.815	0.620	0.64	0.78	0.008	7.200
200	855	4.266	3.930	1.70	0.40	0.210	15.000
300	78	13.732	12.596	5.40	0.39	5.050	31.006
All	3,746	1.815	0.896	2.48	1.37	0.008	31.006

14.4 Grade Interpolation

Three search passes were used for the El Cajón and San Rafael block models. Different search pass orientations and parameters were used for El Cajón, Zone 120, Main Zone and Upper Zone. The Zone 120 mineral domains have a significantly different orientation than the sub-parallel Main Zone and Upper Zone mineralization necessitating the difference. The orientation followed the general bedding orientation of the country rock. Inverse distance interpolation method to the second power ("ID^2") for the El Cajón model and to the third power ("ID^3") for the San Rafael model was used to interpolate grades into the individual mineral domains and each metal.

The search distances were established with the assistance of variograms which were made for each metal in numerous orientations and at various lag lengths. Within the individual domains, the data was inadequate to construct usable variogram models domains and had to be combined to create variograms. The estimation search ellipsoid parameters at El Cajón are listed in Table 14-20.

TABLE 14-20 EL CAJÓN SEARCH ELLIPSOID PARAMETERS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Description	Parameter
Samples: minimum/maximum/maximum per hole (all searches)	1 / 9 / 3
Search Bearing/Plunge/Tilt (all searches)	330º / 10º / -25º
First Pass Search (m): major/semimajor/minor	40 / 40 /13
Second Pass Search (m): major/semimajor/minor	100 / 100 / 33
Third Pass Search (m): major/semimajor/minor	200 / 200 / 67

The estimation procedure for San Rafael and Zone 120 entailed splitting the silver assays and composites into a west and east population for estimating. Much higher silver grades are located within the eastern portion of the San Rafael deposit. Silver grade estimation was constrained by limiting the silver composites located in the west estimating only into the west area, and a similar process was used estimating silver into the eastern area. The other four metal assay and composite data sets have not been subdivided. Zone 120 is predominantly associated with the eastern silver population.

Within the Main Zone, the initial pass incorporated the surface trench data, while the latter two estimation passes excluded the trench samples. The estimation parameters for the Main Zone and Upper Zone are shown in Table 14-21 and for Zone 120 in Table 14-22 .

TABLE 14-21 SAN RAFAEL MAIN AND UPPER ZONE SEARCH ELLIPSOID PARAMETERS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Description	Parameter
Search Bearing/Plunge/Tilt (all searches)	330º / 0º / 20º
First Pass Search (m): major/semimajor/minor (includes trench samples)	40 / 40 / 10
First Pass Samples: minimum/maximum/maximum per hole	3 / 10 / 4
Second Pass Search (m): major/semimajor/minor	120 / 120/ 40
First Pass Samples: minimum/maximum/maximum per hole	2 / 12 / 4
Third Pass Search (m): major/semimajor/minor	250 / 250 / 83.3
Third Pass Samples: minimum/maximum/maximum per hole	1 / 16 / 4

TABLE 14-22 ZONE 120 SEARCH ELLIPSOID PARAMETERS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Description	Parameter
Search Bearing/Plunge/Tilt (all searches)	330º / 0º / -50º
First Pass Search (m): major/semimajor/minor (includes trench samples)	25 / 25 / 12.5
First Pass Samples: minimum/maximum/maximum per hole	2 / 10 / 4
Second Pass Search (m): major/semimajor/minor	120 / 120 / 40
Second Pass Samples minimum/maximum/maximum per hole	2 / 12 / 4
Third Pass Search (m): major/semimajor/minor	250 / 250 / 83.3
Third Pass Samples: minimum/maximum/maximum per hole	1 / 16 / 4

14.5 Bulk Density

14.5.1 El Cajón

Density data in the El Cajón area has been reviewed, eliminating samples deemed as outliers or being improbable. These data were then coded by the percent sulphide mineral domains and statistical values were determined for each grouping. Table 14-23 shows the results of the analysis. Due to potential sample collection bias (the use of whole solid core versus fractured, possibly less-dense core), the mean values of each group were lowered by approximately 1% for use in this resource estimate. The density values used in the estimate are shown in Table 14-23.

TABLE 14-23 EL CAJÓN MODEL DENSITY VALUES
Americas Silver Corporation – San Rafael Mine and EC120 Project

Sulfide Zone	Density
Outside Sulfide (<2%)	2.95
Low Sulfide (2%-6%)	3.16
High Sulfide (>6%)	3.23

14.5.2 San Rafael

The San Rafael density measurements were taken on samples from drill holes located in the massive-sulphide Main Zone, down-dip portion of the Main Zone, and down-dip and eastern up-dip portion where the Main Zone and Zone 120 overlap. Americas Silver also collected samples from the up-dip portion of the Upper Zone and a limited number of samples from the oxidized portion of the deposit.

The density data was categorized into high sulphide, low sulphide, outside sulphide and oxide categories using the percent sulphide domains and the oxidation model. There is a separate

"Outside Sulphide (<6%)" group for Zone 120 due to the observed difference in density values between Zone 120 and the Main/Upper Zone for this sulphide category. This category is listed as "Zone 120 (<6%)" in Table 14-24. Outliers or improbable density data were also eliminated, and the density mean values (the use of whole solid core versus fractured, possibly less-dense core) was also reduced with 1% in the San Rafael resource estimate. The density values used in the estimate are shown in Table 14-24.

TABLE 14-24 SAN RAFAEL MODEL DENSITY VALUES
Americas Silver Corporation – San Rafael Mine and EC120 Project

Sulfide Zone	Density
Oxide Only	2.50
Outside Sulfide (<6%)	2.72
Zone 120 (<6%)	2.94
Low Sulfide (6%-50%)	3.00
High Sulfide (>50%)	3.88

14.6 NSR Cut-Off Value

Americas Silver uses an NSR cut-off value to report Mineral Resources. Several factors are considered in the calculation of the NSR value, including (i) metallurgical recoveries, (ii) metal price assumptions, and (iii) smelter terms which include revenue of the metals, transportation costs to the smelter, treatment and refining charges, penalties and marketing costs. The metallurgical recoveries are based on a combination of actual achieved and expected recoveries at the plant. The metal prices used in the NSR cut-off algorithm are based on long-term consensus forecasts. The Mineral Resources are being reported at approximate economic cut-off grades that are reasonable for deposits of this nature that will be mined primarily by underground methods. Revenue assumptions, including metallurgical recovery and metal prices, are outlined in Table 14-25.

TABLE 14-25 REVENUE ASSUMPTIONS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Item	Units	Zinc Concentrate	Lead Concentrate	Copper Concentrate
Recovery				
Silver	%	20	28	85
Zinc	%	85	-	-
Lead	%	-	74	-
Copper	%	-	-	84
Metal Prices				
Silver	US$/oz		18.00	
Zinc	US$/lb		1.05	
Lead	US$/lb		1.05	
Copper	US$/lb		$3.00	

NSR multipliers representing value per unit grade were developed using the parameters described above. The multipliers were used with the block model grades to determine the "block" NSR value and perform Mineral Resource reporting, respectively.

Americas Silver currently has concentrate sales contracts in place with Metagri, S.A. de C.V. The contract terms have been considered in the evaluation, however, the terms of the contracts are confidential and not disclosed in this report. The Los Braceros plant currently produces both silver-lead and silver-zinc concentrates and separate sales contracts describe the treatment terms applicable to each of the concentrates. The current contracts cover the period until the end of 2021. The treatment terms reflect current prevailing market conditions and have been incorporated in the NSR value calculation algorithm. Future production from the EC120 Project will produce a silver-copper concentrate. Historical contract terms for copper concentrate production from the Los Braceros plant were considered in the NSR value calculation algorithm for El Cajón and Zone 120.

14.7 Resource Classification Criteria

The El Cajón Mineral Resource was classified by a combination of distance to the nearest sample and the number of samples, while at the same time taking into account reliability of underlying data and understanding and use of the geology. The samples used for the classification criteria stated above are independent of the modelled domains. The classification of the El Cajón Mineral Resource estimate was applied in the following way:

- All blocks completely or partially contained within the modelled mineralized domain were assigned a minimum classification of Inferred. All resource classified as oxide material was classified as Inferred.
- Blocks estimated by a minimum of two composites from a minimum of one hole for which the average distance to samples is less than or equal to 15m were upgraded to Indicated. Also, blocks estimated by a minimum of four samples from a minimum of two holes for which the average distance to samples is less than or equal to 30m were upgraded to Indicated.
- There are no Measured Resources estimated at El Cajón.

There are no Measured or Indicated Mineral Resources in the oxidized portion of the El Cajón deposit due to limited density data and uncertain metallurgy. It is important to note that none of these issues detracts from the overall confidence in the global project resource estimate, but they do detract from confidence which is required for Measured and Indicated in these specific areas.

The Zone 120 Mineral Resource was classified by a combination of distance to the nearest sample and the number of samples, while at the same time taking into account reliability of underlying data and understanding and use of the geology. Sample data from the Main, Upper and Zone 120 was used for the Zone 120 estimate. The classification of the Zone 120 Mineral Resource estimate was applied in the following way:

- All blocks completely or partially contained within the modelled mineralized domain were assigned a minimum classification of Inferred. All resource classified as oxide material was classified as Inferred.
- Blocks estimated by a minimum of two composites from a minimum of one hole for which the average distance to samples is less than or equal to 25m were upgraded to Indicated. Also, blocks estimated by a minimum of two samples from a minimum of two holes for which the average distance to samples is less than or equal to 40m were upgraded to Indicated.
- There are no Measured Resources estimated at Zone 120.

The classification of the San Rafael Mineral Resource estimate was applied in the following way:

- All blocks completely or partially contained within the modelled mineralized domain were assigned a minimum classification of Inferred. All resource classified as oxide material was classified as Inferred.
- Blocks estimated by a minimum of two composites from a minimum of one hole for which the average distance to samples is less than or equal to 30m were upgraded to Indicated.

Also, blocks estimated by a minimum of two samples from a minimum of two holes for which the average distance to samples is less than or equal to 50m were upgraded to Indicated.

- Blocks estimated by a minimum of two samples from a minimum of one hole for which the average distance to samples is less than 12 m were upgraded to Measured.

There are no Measured Mineral Resources within Zone 120 primarily due to limited density data and some spatial uncertainty in the mineral domain shape and extents. The maximum distance criteria for Indicated Mineral Resources within Zone 120 are less than that for the Main and Upper Zones due to the greater variability in domain morphology and metal grades. Tonnage grade curves for the Indicated Mineral Resources at El Cajón, the Indicated Mineral Resources at Zone 120 and the Measured and Indicated Mineral Resources at San Rafael are shown in Figure 14-3, Figure 14-4, and Figure 14-5 respectively.

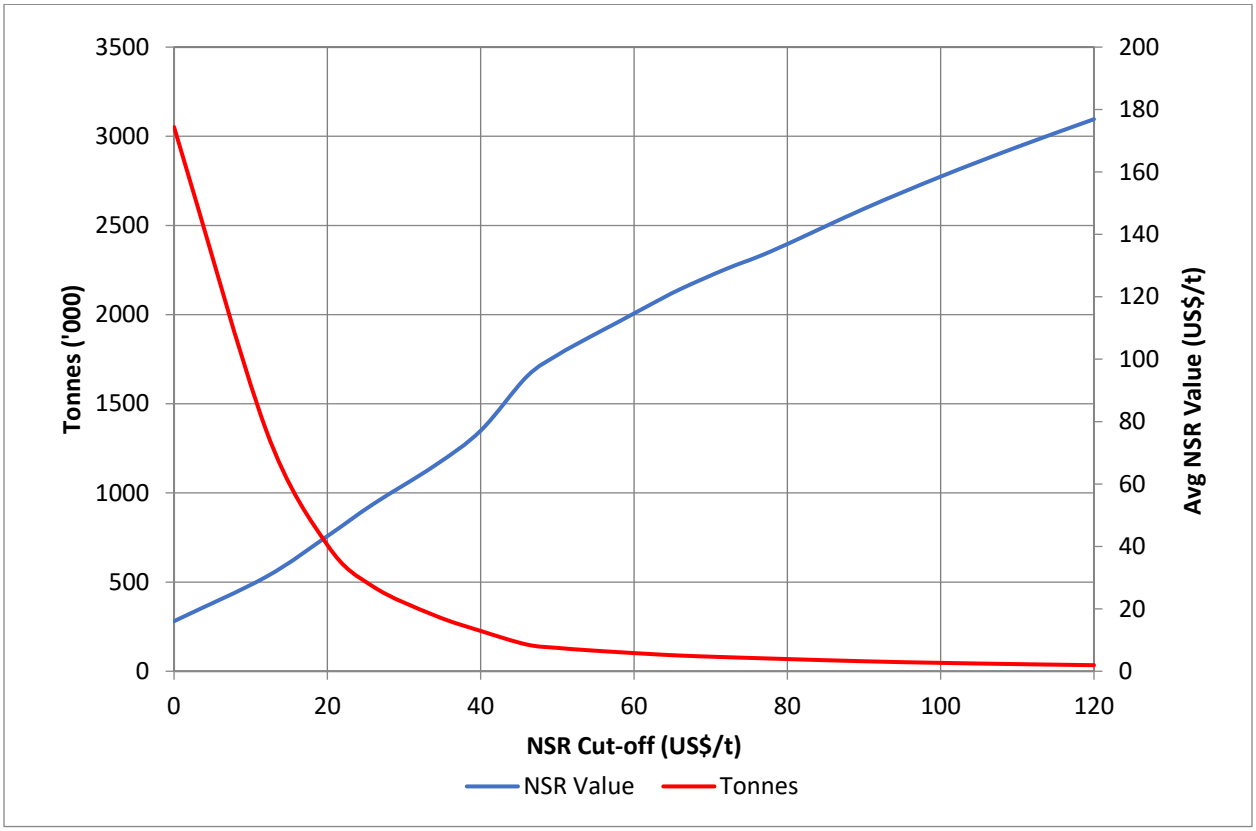

FIGURE 14-3 EL CAJÓN TONNAGE GRADE CURVE INDICATED

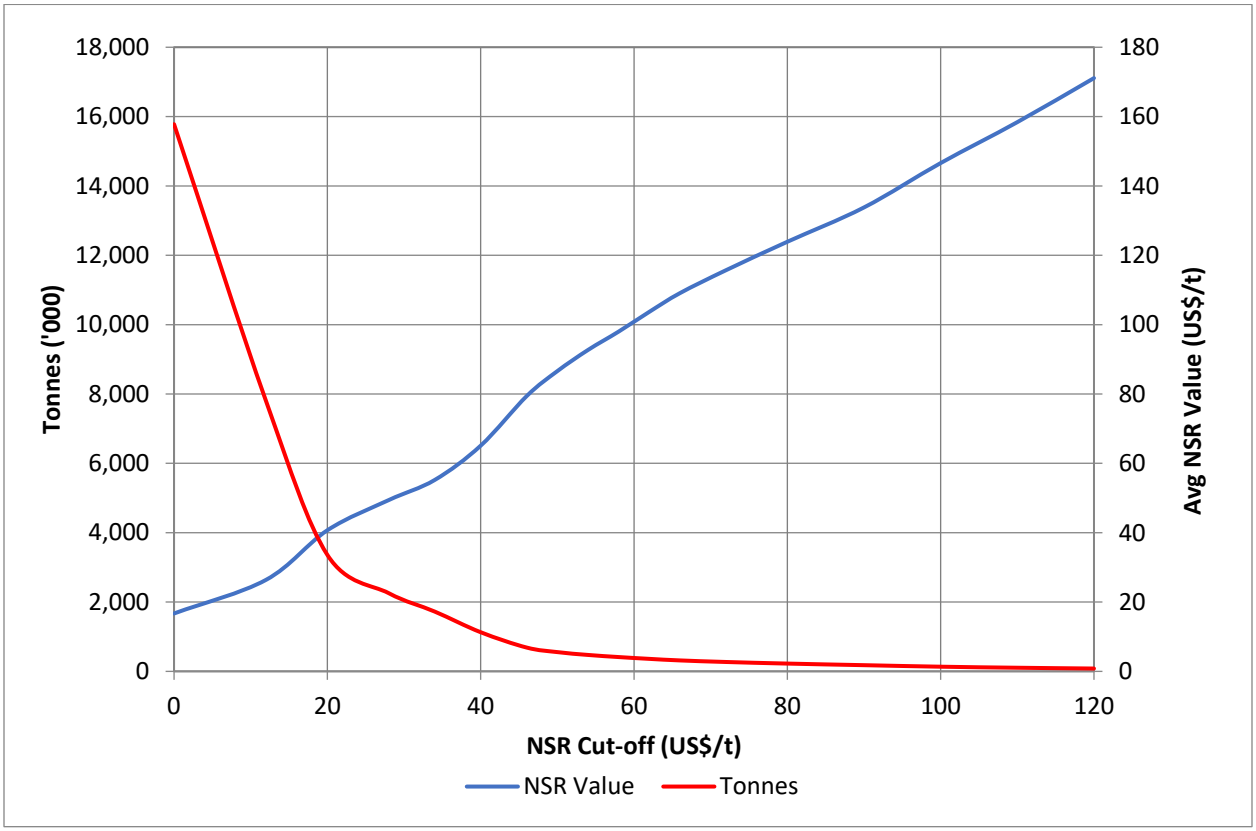

FIGURE 14-4 ZONE 120 TONNAGE GRADE CURVE INDICATED

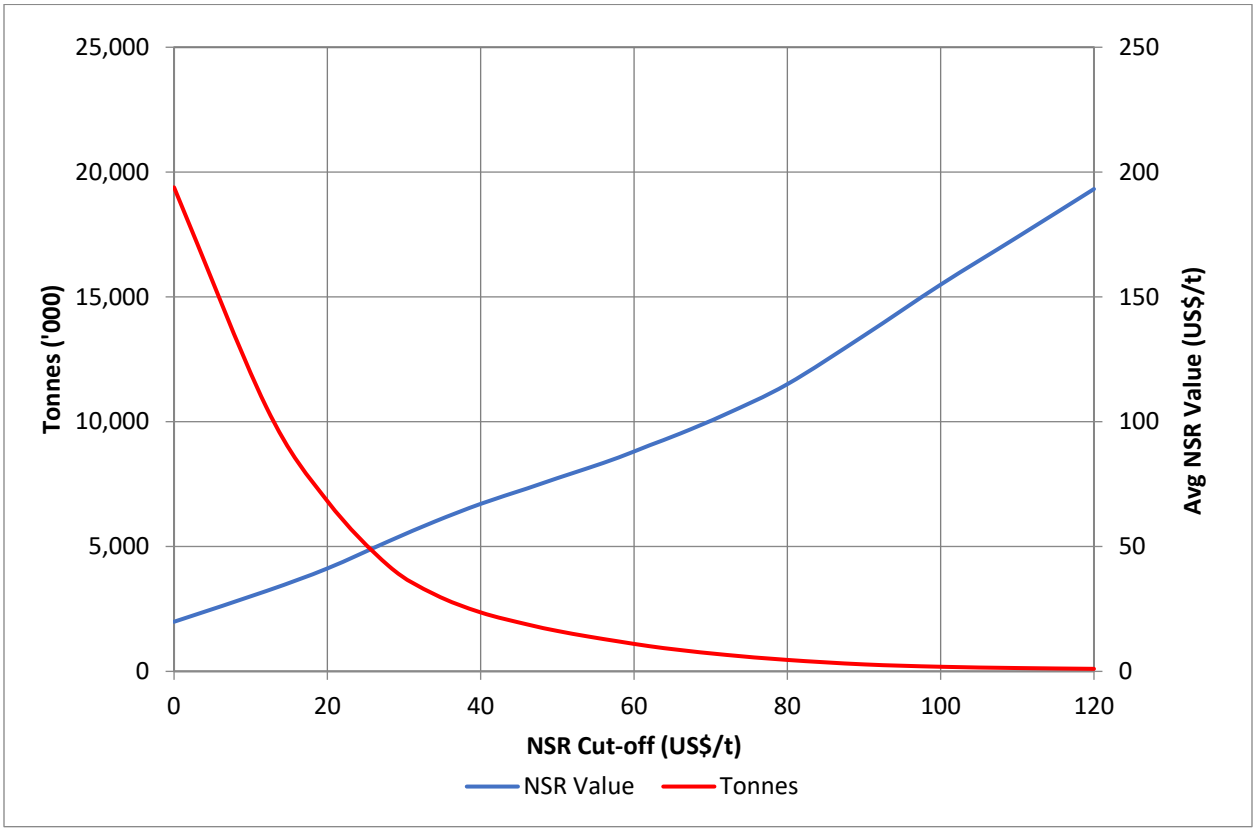

FIGURE 14-5 SAN RAFAEL TONNAGE GRADE CURVE MEASURED AND INDICATED

14.8 Block Model Validation

Checks were made on the San Rafael and El Cajón resource block models in the following manner:

a) Block-model information, such as metal grade and geology coding, number of samples, and classification, was checked visually on the computer by domain and lithology on sections and long sections.
b) Cross section volumes to long section volumes to block model volumes were checked.
c) Nearest-neighbour and ordinary kriging models were made for comparison.
d) A simple polygonal model was made with the original modelled section domains.
e) Normal-quantile distribution plots of assays, composites, and block-model grades were made to evaluate differences in distributions of metals.

The resource block models are reasonable, honour the geology and are supported by the geologic model.

14.9 Mineral Resource Changes

Changes between the June 30, 2017 and June 30, 2018 Mineral Resource estimates at San Rafael are tabulated in Table 14-26. The changes between the two resource dates were predominantly due to a combination of mining depletion and infill drilling that upgraded the resource and added material into the Inferred category.

TABLE 14-26 COMPARISON OF SAN RAFAEL 2017 AND 2018 ESTIMATES
Americas Silver Corporation – San Rafael Mine and EC120 Project

Measured and Indicated	Tonnes (000)	Ag (g/t)	Pb (%)	Zn (%)
June 30, 2017	2,874	97	0.93	2.11
June 30, 2018	3,084	90	0.94	2.20
Difference	210	-7	0.01	0.09
% Change	7%	-8%	1%	4%

Inferred	Tonnes (000)	Ag (g/t)	Pb (%)	Zn (%)
June 30, 2017	461	166	2.20	0.39
June 30, 2018	452	167	2.23	0.39
Difference	-9	1	0.02	-0.01
% Change	-2%	1%	1%	-2%

There was no change in the reported resources for El Cajón between June 30, 2017 and June 30, 2018. The El Cajón Mineral Resource estimates changed between the June 30, 2018 and April 3, 2019 estimates and are tabulated in Table 14-27. The reduction in Indicated Mineral Resources is attributable to the conversion of Indicated Mineral Resources to Probable Mineral Reserves as part of the EC120 PFS and that the Mineral Resources are reported exclusive of Mineral Reserves.

TABLE 14-27 COMPARISON OF EL CAJÓN 2018 AND 2019 ESTIMATES
Americas Silver Corporation – San Rafael Mine and EC120 Project

Indicated	Tonnes (000)	Ag (g/t)	Cu (%)
June 30, 2018	1,003	177	0.55
April 3, 2019	226	150	0.46
Difference	-777	-28	-0.09
% Change	-77%	-16%	-16%

Inferred	Tonnes (000)	Ag (g/t)	Cu (%)
June 30, 2018	278	103	0.18
April 3, 2019	164	117	0.20
Difference	-114	14	0.02
% Change	-41%	14%	13%

Changes in the Mineral Resource estimates between the June 30, 2017 and June 30, 2018 at Zone 120 are tabulated in Table 14-28. The change is predominantly due to infill drilling that upgraded the resource from the Inferred to the Indicated category. The infill drilling confirmed the boundaries of the mineralization in the area which slightly decreased with the latest information.

The Indicated Mineral Resources at Zone 120 was also reduced between the two resource dates, mainly attributable to the conversion of Indicated Mineral Resources to Probable Mineral Reserves as part of the EC120 PFS and that the Mineral Resources are reported exclusive of Mineral Reserves.

TABLE 14-28 COMPARISON OF ZONE 120 2017, 2018 AND 2019 ESTIMATES
Americas Silver Corporation – San Rafael Mine and EC120 Project

Indicated	Tonnes (000)	Ag (g/t)	Cu (%)
June 30, 2017	2,090	187	0.48
April 3, 2018	2,710	186	0.46
Difference	620	-1	-0.02
% Change	30%	0%	-4%
June 30, 2018	2,710	186	0.46
April 3, 2019	1,129	126	0.32
Difference	-1,581	-60	-0.14
% Change	-58%	-32%	-31%

Inferred	Tonnes (000)	Ag (g/t)	Cu (%)
June 30, 2017	1,379	216	0.59
April 3, 2018	216	126	0.33
Difference	-1,163	-90	-0.26
% Change	-84%	-42%	-44%
June 30, 2018	216	126	0.33
April 3, 2019	214	125	0.32
Difference	-2	-1	-0.1
% Change	-1%	-1%	-3%

15 MINERAL RESERVE ESTIMATES

Metal prices used for Mineral Reserves are based on consensus, long-term forecasts from banks, financial institutions and other sources.

Americas Silver is up to date with its permitting for the current underground operation at the San Rafael mine and future operations at the EC120 Project.

The Mineral Reserve estimate at the San Rafael mine is reported as of June 30, 2018. The Mineral Reserve estimate at the San Rafael mine is updated annually mid-year to reflect production depletion, changes in cut-off grade and changes in modifying factors such as mining recovery and mining dilution. The Mineral Reserve estimate at the EC120 Project is reported as of April 3, 2019.

The Mineral Reserve estimate for the San Rafael mine is summarized in Table 15-1.

TABLE 15-1 SAN RAFAEL SUMMARY OF MINERAL RESERVES – JUNE 30, 2018
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades			Contained Metal		
Category	**(000)**	**Ag (g/t)**	**Pb (%)**	**Zn (%)**	**Ag oz (000)**	**Pb lbs (M)**	**Zn lbs (M)**
Proven	1,155	127	1.80	3.97	4,722	45.9	101.1
Probable	1,757	98	1.59	3.99	5,563	61.8	154.7
Proven and Probable	2,912	110	1.68	3.98	10,285	107.7	255.7

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Reserves.
2. Mineral Reserves are estimated at a net smelter return (“NSR”) cut-off value of US$50 per tonne.
3. Mineral Reserves are estimated using a silver price of US$16.00 per ounce, lead price of US$0.90 per pound and a zinc price of US$0.90 per pound.
4. A mining recovery of 80% and dilution factor of 5% at zero grade were used for estimating Mineral Reserves to reflect the mining method (post-pillar cut and fill) used at the operation.
5. Numbers may not add or multiply accurately due to rounding.

The Mineral Reserve estimate for the EC120 Project is summarized in Table 15-2.

TABLE 15-2 EC120 SUMMARY OF MINERAL RESERVES – APRIL 3, 2019
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Tonnes	Grades		Contained Metal	
Category	**(000)**	**Ag (g/t)**	**Cu (%)**	**Ag oz (000)**	**Cu lbs (M)**
Probable El Cajón	831	147	0.46	3,939	8.4
Probable Zone 120	2,047	161	0.40	10,610	18.1
Total Probable	2,877	157	0.42	14,549	26.5

Notes:
1. CIM (2014) Definition Standards were followed for Mineral Reserves.
2. Mineral Reserves are estimated at a net smelter return ("NSR") cut-off value of US$40 per tonne.
3. Mineral Reserves are estimated using a silver price of US$16.00 per ounce and copper price of US$2.50 per pound.
4. A minimum mining width of 4.0m and 15% dilution factor at zero grade, were used for estimating Mineral Reserves. Mining recoveries vary between 80% and 95% depending on the width of the ore zone to reflect the proposed mining methods (post-pillar cut and fill and overhand cut and fill) for the Project.
5. Numbers may not add or multiply accurately due to rounding.

Americas Silver is not aware of any mining, metallurgical, infrastructure, permitting or other relevant factors that could materially affect the Mineral Reserve estimate.

15.1 Mineral Reserve Estimation

Mineral Reserves for the San Rafael mine were estimated by company personnel applying mining considerations to the Mineral Resource block model. Stope designs are prepared in Deswik software together with the required development for access to the stopes and associated ancillary development (both lateral and vertical) to provide materials handling, water management and ventilation.

Mineral Reserves for the EC120 Project were estimated by Mr. Shawn Wilson, P. Eng., applying mining considerations to the Mineral Resource block model. Stope designs were prepared in Deswik software using the Block Model Polygon Generation tool. Stope outlines were generated on a 5.0m vertical spacing and subjected to a minimum mining width of 4.0m. The required development for access to the stopes and associated ancillary development (both lateral and vertical) to provide materials handling, water management and ventilation was generated in Deswik software. Internal stope dilution is comprised of areas where the minimum mining width of 4.0m was not met and needed to be achieved. External stope dilution was added at zero grade to represent stope overbreak and a mining waste fill from previously mined cuts. The diluted stopes were reviewed to ensure that the shapes were mineable.

15.2 Dilution

For the San Rafael mine and EC120 Project block dilution was included in the estimation of the resource model. The resource block model was developed using 3m(X) by 2m(Y) by 2m(Z) blocks for San Rafael (includes Zone 120) and using 3m(X) by 3m(Y) by 3m (Z) blocks for El Cajón.

Internal dilution was included based on the underground designs. The stope designs were made to capture value from continuous blocks above the cut-off value. Varying amounts of incremental material below the NSR cut-off value have been included in the stope design in order to realize the greater value of the continuous material above the cut-off value. It is assumed that all material from a mined stope will be sent to the process plant and the material below the cut-off is considered internal dilution. Any material included in the stope designs to be classified as Mineral Reserves from Inferred Resource blocks has been added with zero metal content. Incremental material below the cut-off value from both Measured and Indicated Resource blocks has been added with the contained metal content from the resource model.

The primary mining method at the San Rafael mine is post-pillar cut and fill and at the EC120 Project is a combination of post-pillar cut and fill, and overhand cut and fill. These methods are very selective and allow overbreak during blasting to be tightly controlled. The fill type used at San Rafael and planned at EC120, is unconsolidated development waste and waste generated from a waste quarry. Ore mined from successive vertical cuts is mined off the unconsolidated waste. During stope mucking, over digging can result in external waste dilution being added to the ore. An external dilution factor of 5% with zero metal content has been added to the Measured and Indicated Mineral Resources in order to convert them to Mineral Reserves at San Rafael. An external dilution factor of 15% with zero metal content has been added to the Measured and Indicated Mineral Resources in order to convert them to Mineral Reserves at EC120.

15.3 Extraction

The mining method at San Rafael (post-pillar cut and fill) relies on leaving continuous vertical in-situ pillars to provide additional support in areas where the ore zone is wider than 8m in width. These pillars are nominally 6m by 6m in dimension. Placement of these pillars is initially planned for low grade areas of the deposit but due to the need of vertical continuity, they will potentially be placed in areas with higher grades. Detailed stope designs prepared for several areas within the mine were utilized to estimate the amount of ore that would be left in the ground. The result of the detailed stope design including pillars is that approximately 80% of the overall ore will be extracted. A mining recovery of 80% has been applied to the total Mineral Resources when converting them to Mineral Reserves.

The primary mining method considered for the EC120 Project is a combination of post-pillar cut and fill and overhand cut and fill. The application of these mining methods is dependent on the width of the mineralized zone in the various stoping areas. Mining recoveries ranging from 80% to 95% have been applied to the total Mineral Resources when converting them to Mineral Reserves.

15.4 NSR Cut-off Value

In order to estimate the Mineral Reserve portion of the Measured and Indicated Mineral Resource, it is first necessary to identify that part of the resource that can be economically extracted.

The economic portion of the resource is typically determined by the application of a breakeven cut-off value, that considers the total operating cost (mine, plant and administration), metal prices, process recoveries, applicable royalties, and forward costs for concentrate freight, insurance, smelting and refining. These parameters are equated to determine the minimum value of metal(s) that will produce the revenue needed to cover these total operating costs. Currently, the San Rafael mine is producing silver-lead and silver-zinc ores from the ore feed. It is easier to express the breakeven cut-off as an NSR value that will equal, or exceed, the total operating cost.

Since the breakeven cut-off value represents the minimum value that will be mined, the average value, delivered to the mill, will always be higher. This increment, between the breakeven cut-off value and the value delivered to the mill, provides the return of capital investment and profit.

Other cut-off values (incremental cut-off) may be employed later in the mine planning to handle situations where mineralized material, with a value below the economic cut-off value, must be mined in order to reach ore, or to optimize the cash flow. However, these incremental cut-off values are not normally used in determining the initial, breakeven cut-off value used to establish the Mineral Reserves.

Payable metal credits and forward costs are typically expressed in equivalent silver ounces. Forward costs typically include land and rail freight, smelter treatment and refining charges, smelter recoveries and penalty charges.

In determining the economic portion of the San Rafael and EC120 resources, NSR cut-off values are generally used. If the NSR value of a given block exceeds the cut-off value, the block will be considered economic to mine.

At San Rafael, the parameters in Table 15-3 are based on the estimated 2018 operating cost and production data, and were used to estimate the breakeven cut-off value used in determining the June 30, 2018 Mineral Reserve estimate.

TABLE 15-3 SAN RAFAEL MINERAL RESERVE CUT-OFF VALUE PARAMETERS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Description	Value
Mining Cost ($/ton)	$28
Processing Cost ($/ton)	$14
G&A Cost ($/ton)	$8
Total Operating Costs	$50
Silver Recovery (%)	48.0
Lead Recovery (%)	74.0
Zinc Recovery (%)	85.0
Silver Price ($/oz)	$16.00
Lead Price ($/lb)	$0.90
Zinc Price ($/lb)	$0.90
Royalty ($/oz)	none

The estimated operating cost of $50 per tonne was used as the NSR cut-off value for stope definition. The estimated operating cost at San Rafael over the remaining LOM summarized in Section 21.2 is $43.68 per tonne. Since the estimated operating cost over the remaining LOM is lower than the cut-off value used to initially define the Mineral Reserves, the Mineral Reserves remain reasonable.

At EC120, the parameters in Table 15-4 are based on actual recent operating costs from San Rafael with adjustments made to reflect the differences required to mine and process the EC120 ore compared to San Rafael.

TABLE 15-4 EC120 MINERAL RESERVE CUT-OFF VALUE PARAMETERS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Description	Value
Mining Cost ($/ton)	$20
Processing Cost ($/ton)	$12
G&A Cost ($/ton)	$8
Total Operating Costs	$40
Silver Recovery (%)	85.0
Copper Recovery (%)	84.0
Silver Price ($/oz)	$16.00
Copper Price ($/lb)	$2.50
Royalty ($/oz)	none

The estimated operating cost of $40 per tonne was used as the NSR cut-off value for stope definition. The estimated operating cost at EC120 over the LOM summarized in Section 21.2 is $42.74 per tonne. The estimated operating cost over the LOM is slightly higher than the cut-off value used to initially define the Mineral Reserves. The Mineral Reserves remain reasonable as the economic analysis results in positive cash flow both pre-tax and post-tax.

15.5 Classification

Measured Mineral Resources are converted to Proven Mineral Reserves and Indicated Mineral Resources are converted to Probable Mineral Reserves following the CIM (2014) Definition Standards.

16 MINING METHODS

The following sections provide background on the current mining methods utilized at the San Rafael mine and details for the EC120 Project mine development and production plan.

16.1 San Rafael Background

The San Rafael mine started project construction activities in September 2016 and has been in commercial production since December 2017. The Mineral Reserves support a mine life of five years. The underground mine is accessed by a decline that portals at surface near the southern portion of the deposit where the surface infrastructure is located. A series of ramp systems from the main decline provides access to the various stoping areas of the deposit.

The main decline has reached the bottom of the defined Mineral Reserves in the Main Zone and ramp development to access the Upper Zone has commenced. Due to the depth, shallow-dipping angle and variable thickness of the mineralization, the mining method used at San Rafael is post-pillar cut and fill. Stopes are accessed from a primary stope access driven at a -15% decline. After mining of each successive 5m high cut of ore, the stope is backfilled and the access "backslashed" to allow for mining of the next cut. This sequence is repeated up to five times until the stope access reaches an incline of +15%. Access to the next cut is then provided by a -15% stope access driven from a higher elevation.

The LOM plan anticipates that the post-pillar cut and fill stopes will be backfilled with unconsolidated development waste and waste generated from a waste quarry. Given the use of unconsolidated backfill, the mining sequence is typically from the bottom up.

Ventilation is provided to the mine via two vertical raise bores and the main decline. A main exhaust fan is located underground at the northern end of the deposit and fresh air is pulled through a central intake bored raise and the main decline. Fresh air is provided to the working development faces and stoping areas by use of secondary fans and ducting. The current LOM mine design for the San Rafael mine is shown in Figure 16-1.

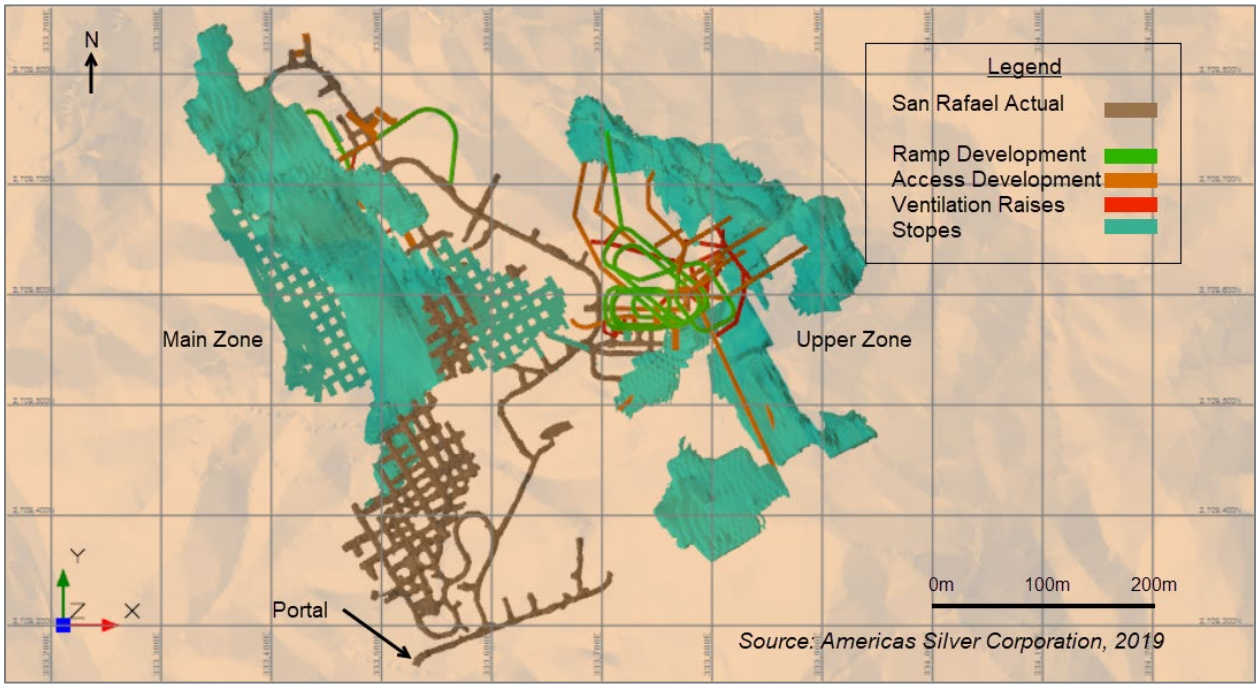

FIGURE 16-1 SAN RAFAEL MINE DESIGN LAYOUT

Mill production and mine primary waste development metres from San Rafael from 2017 to the end of Q1 2018 are shown in Table 16-1.

TABLE 16-1 SAN RAFAEL MINE PRODUCTION AND DEVELOPMENT
Americas Silver Corporation – San Rafael Mine and EC120 Project

Period	Tonnes	Ag (g/t)	Pb (%)	Zn (%)	Primary Waste Dev (m)
2017	74,456	49	1.61	3.55	156
2018	544,472	47	1.50	3.65	2,557
Q1 2019	152,605	57	1.82	4.16	314

The San Rafael mining equipment fleet comprises 24 major units as detailed in Table 16-2. This list excludes the trucks used by contractors for ore haulage from San Rafael to the Los Braceros plant and waste haulage from within the mine or surface waste stockpile to the mine.

TABLE 16-2 SAN RAFAEL MOBILE MINING EQUIPMENT
Americas Silver Corporation – San Rafael Mine and EC120 Project

Item	Manufacturer	Model	Capacity	Number
LHD 407 and 409	Atlas Copco	ST 1020	6 yd^3	2
LHD 410	Atlas Copco	ST 1030	6.5 yd^3	1
LHD 411 and 412	Atlas Copco	LH514	9 yd^3	2
LHD 704	Caterpillar	Unknown	6 yd^3	1
Jumbo 457	Sandvik	DD320-26X	2 boom	1
Jumbo 458	Sandvik	DD321-40	2 boom	1
Jumbo 466	Atlas Copco	Boomer 282	2 boom	1
Jumbo/Bolter 461	Sandvik	DS410	2 boom	1
Bolter 463 and 467	Sandvik	DS311	1 boom	2
Backhoe	Caterpillar	420F 4x4		1
Excavator	Caterpillar	336D		1
Telehandler	Caterpillar	TL943C		3
Dozer	Caterpillar	3046		1
Carmix	Matco	3.5TT	3.5 m^3	3
Shotcrete Spraymec	Normet	Alhpa20		1
UG Trucks	MTI		15 t	3

16.2 EC120 Mine Design and Access

The EC120 Project considers underground mining at both the El Cajón and Zone 120 deposits. These deposits are located approximately 1.5km from each other on surface and limited portions of the Mineral Resources underground, are as close as 600m.

The El Cajón underground mine is accessed by an existing decline that portals at surface near the El Cajón administration building. The Zone 120 underground mine will be accessed from the existing development at the San Rafael mine, which is accessed by an existing decline that portals at surface near the San Rafael surface infrastructure. Access to the stoping areas at the EC120 Project is provided by primary ramp and lateral access development. Ramp development is limited to a maximum gradient, both positive and negative, of 15% to allow mobile equipment to work efficiently. Primary ore access development is spaced nominally 25m vertically and typically consists of the following development types:

- Ore access
- Sump
- Muck bay
- Truck loadout area

- Exhaust raise ventilation access

The typical main level access development layout is illustrated in Figure 16-2.

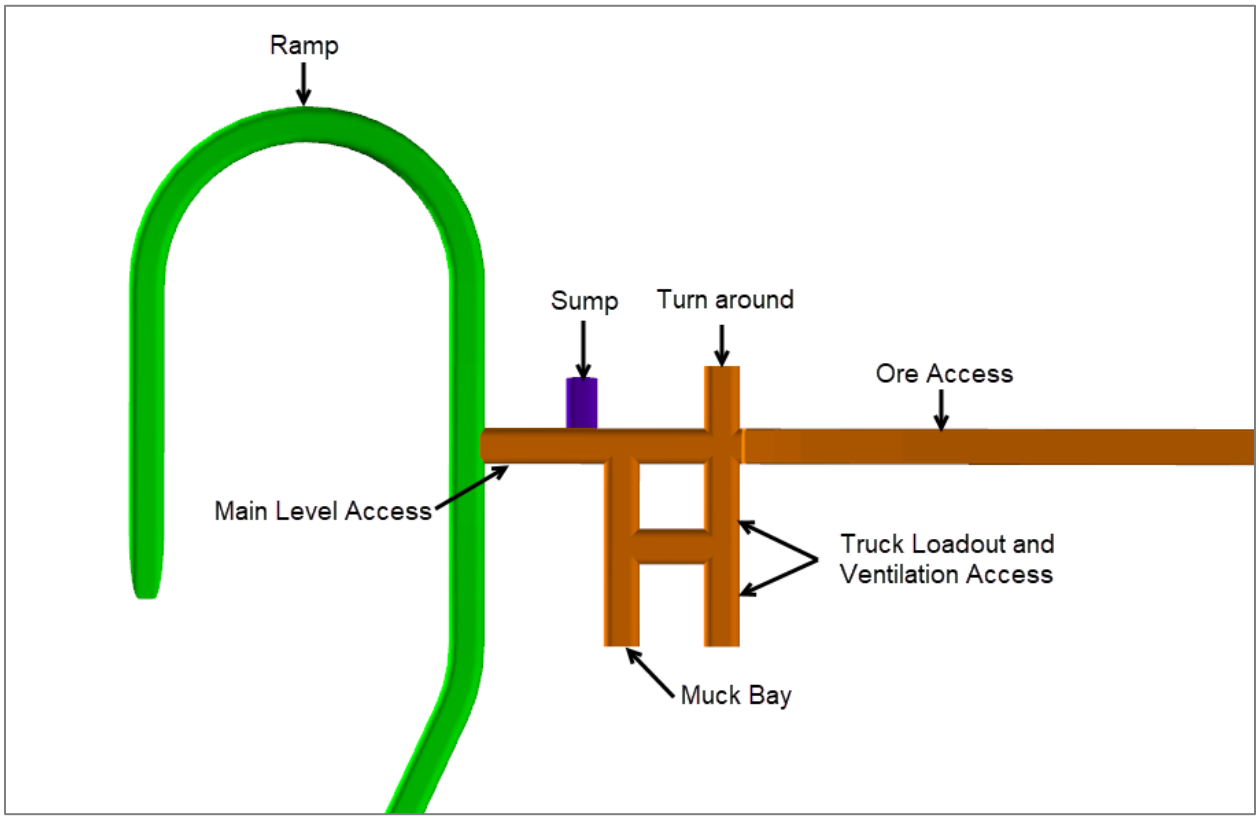

FIGURE 16-2 EC120 TYPICAL LEVEL ACCESS DESIGN

An additional allowance of 5% was added to the designed/scheduled metres for primary ramp and primary access development to account for miscellaneous development such as safety bays, electrical substations and material laydowns. The total development requirements for the EC120 Project are detailed in Table 16-3. At Zone 120, LOM development is sequenced to extend from an area near the existing Upper Zone incline in San Rafael to access the middle of the Mineral Reserves at approximately the 415 reference level ("RL"). From this point the ramp development splits into an incline which is developed to the top of the Mineral Reserves at the 550 RL and a decline which is developed to the bottom of the Mineral Reserves at the 260 RL. The vertical distance covered by this ramp system is approximately 290m. Advance rates for primary development are scheduled at a maximum rate of 3.0m/day.

As shown in Table 16-3, the LOM plan forecasts that a total of 19,944m of development will be required to access the EC120 Mineral Reserves. This includes 4,547m of primary ramps, 4,149m

of primary accesses and levels, and approximately 10,954m of secondary drifts and vertical raises.

Designed dimensions for the primary, secondary and vertical development at EC120 are as follows:

- Primary Ramp Development 4.5m wide by 5.0m high
- Primary Access Development 4.5m wide by 5.0m high
- Primary Sump Development 4.0m wide by 4.0m high
- Secondary Access Development 4.0m wide by 5.0m high
- Bored Ventilation Raise 3.5m diameter
- Conventional Ventilation Raise 2.8m by 2.8m

The El Cajon mine design layout is illustrated in Figure 16-3 and Figure 16-4. The decline development continues from the existing main decline to access the stoping areas defined by the Mineral Reserves. There are two main stoping areas in the mine that are both accessed from the same decline. The ventilation system consists of a series of vertical raises developed both conventionally and by a raise bore. The RB-01 bored raise is approximately 84m and the RB-02 bored raise is approximately 161m.

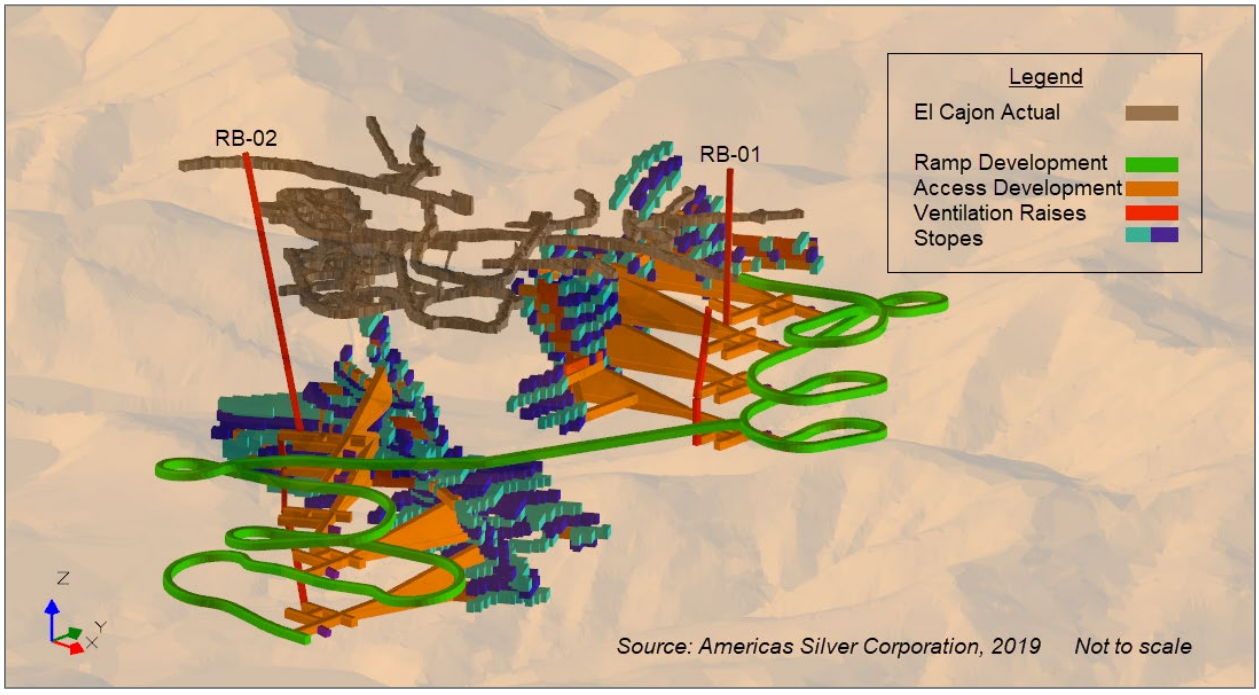

FIGURE 16-3 EL CAJÓN MINE DESIGN LAYOUT

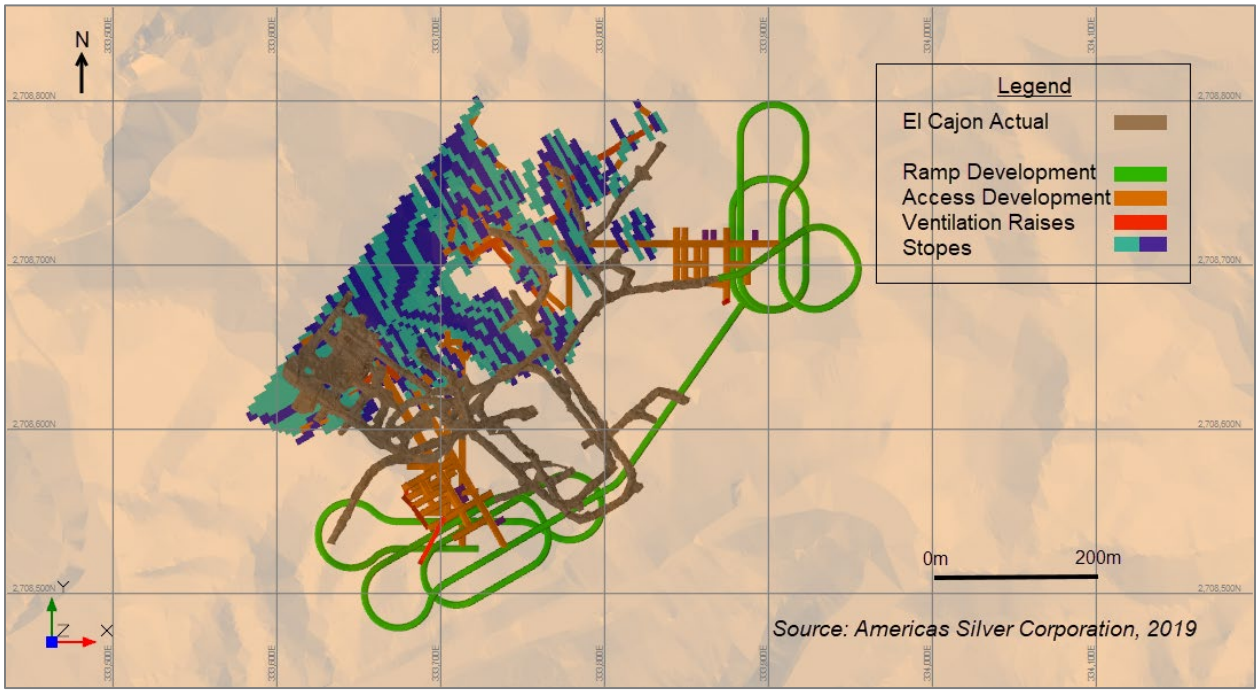

FIGURE 16-4 EL CAJÓN MINE DESIGN LAYOUT PLAN VIEW

The Zone 120 mine design layout is illustrated in Figure 16-5. Ramp access extends from an area near the existing Upper Zone incline in San Rafael to approximately the middle of the Mineral Reserves. From this point, the ramp system continues as an incline and decline to access the stoping areas defined by the Mineral Reserves. There are three main stoping areas in the mine that are accessed from this internal ramp system. The ventilation system consists of a series of vertical raises developed both conventionally and by a raise bore. The RB-03 bored raise is approximately 193m and the RB-04 bored raise is approximately 155m. The Zone 120 mine design layout shown in relation to the San Rafael mine is illustrated in Figure 16-6.

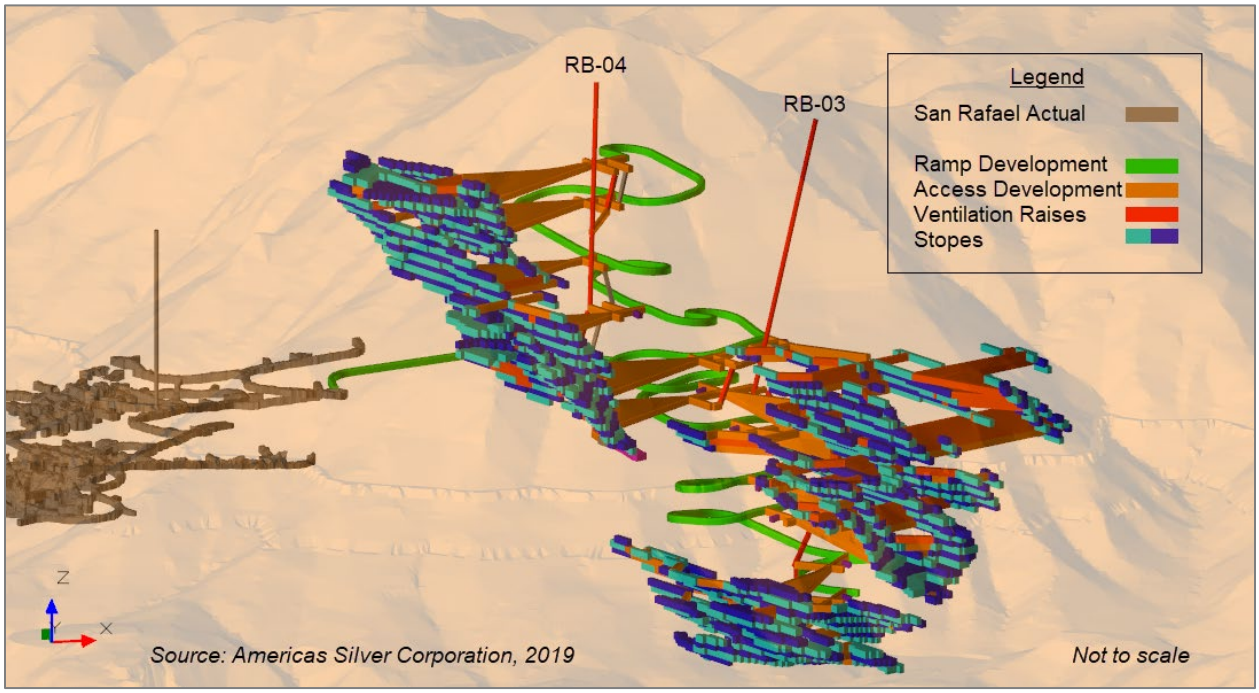

FIGURE 16-5 ZONE 120 MINE DESIGN LAYOUT

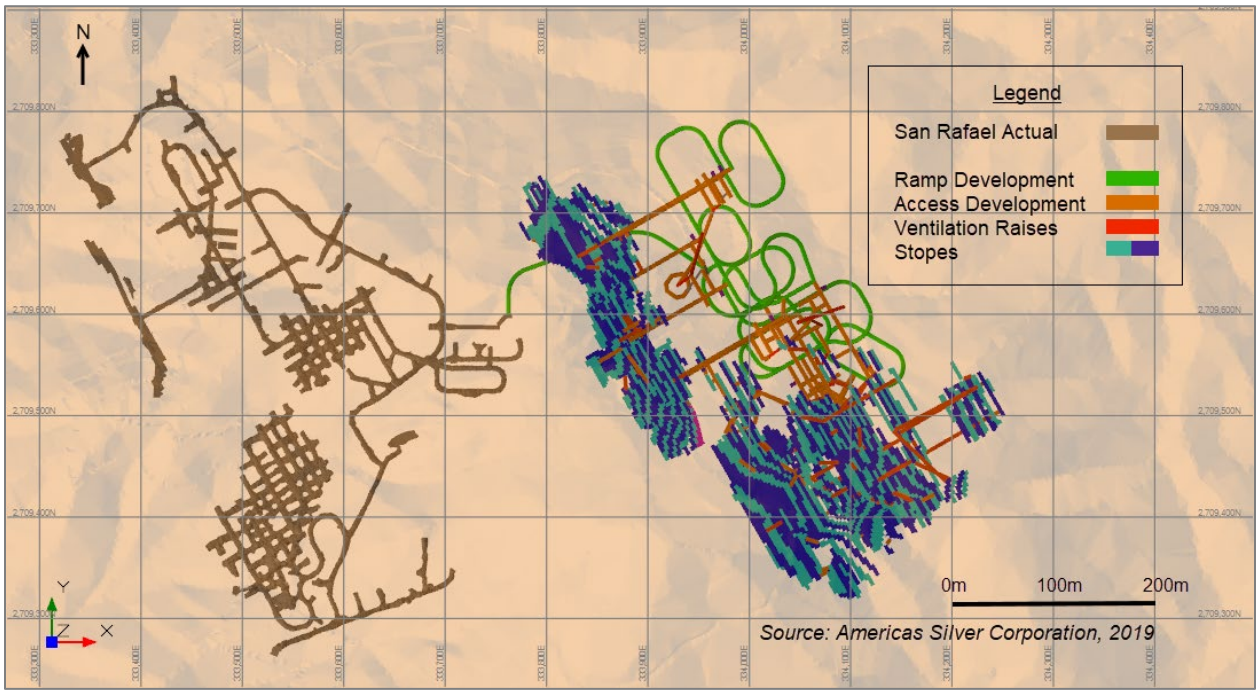

FIGURE 16-6 ZONE 120 AND SAN RAFAEL LAYOUT PLAN VIEW

16.3 EC120 Mining Method

Due to the depth, variable dip angle (shallow to near vertical) and variable thickness of the mineralization the mining method proposed at EC120 is a combination of post-pillar cut and fill and overhand cut and fill. This mining method is very selective and adaptable to changes in the mineralization in terms of shape, dip, thickness and lateral extent. The designed widths for the stoping areas at EC120 range from a minimum of 4m to a maximum of approximately 60m.

Stopes are accessed from a primary stope access driven at a -15% decline. After mining of each successive 5m high cut of ore, the stope is backfilled and the access “backslashed” to allow for mining of the next cut. This sequence is repeated up to five times until the stope access reaches an incline of +15%. Access to the next cut is then provided by a -15% stope access driven from a higher elevation. The nominal level spacing between main accesses is planned to be 25m.

The LOM plan assumes that the stopes will be backfilled with unconsolidated development waste. The typical layout for stoping and stope access is illustrated in Figure 16-7. Given the use of unconsolidated backfill, the mining sequence is generally from the bottom up.

Ore will be mucked from the stopes to muck bays located on the main level access using load-haul-dump equipment (“LHD”). LHDs will load trucks equipped for both underground and surface use at the truck loadout area. Ore will be hauled directly from the underground to the processing plant to avoid re-handling. On their return trip from the plant, trucks will be loaded with waste fill and travel directly or adjacent to the stopes requiring backfill. Final placement of the waste fill in stopes will be done using LHDs.

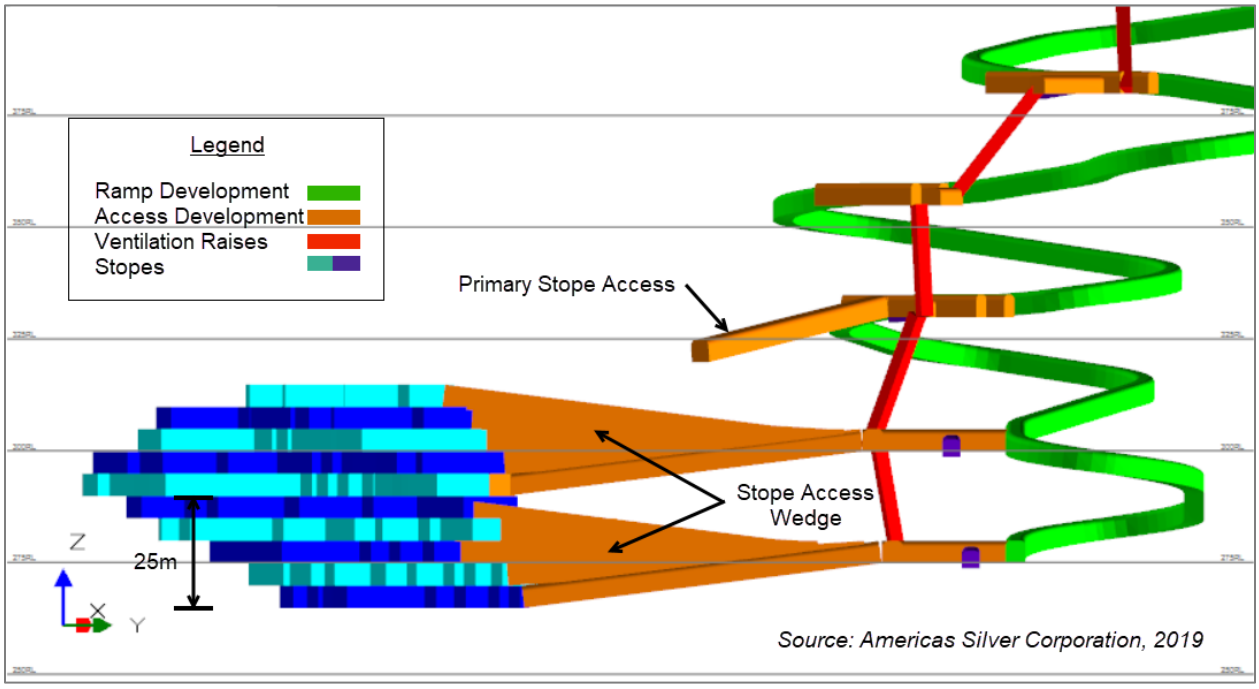

FIGURE 16-7 EC120 TYPICAL STOPES WITH STOPE ACCESS

16.4 EC120 Life of Mine Plan

A LOM plan has been prepared which reflects mining ore from the El Cajón and Zone 120 deposits concurrently and processing it at the existing Los Braceros plant. This LOM plan is the basis of the PFS. Based on the mining method selected, primary and secondary development required to access and extract the ore in the stoping areas has been defined and situated in 3D using the block models and the Deswik.CAD design software package. An associated mine development and production schedule has been produced in the Deswik.Sched software package.

The LOM plan is based on development and stoping rates currently being achieved at the San Rafael mine and estimated rates consider reasonable for the anticipated ground conditions at El Cajón and Zone 120.

16.4.1 Mine Development

At El Cajón, LOM development is sequenced to extend the existing decline deeper to the bottom of the defined Mineral Reserves. The vertical extents covered by the new decline is approximately 200m from the 360 RL to 160 RL. Advance rates for primary development are scheduled at a maximum rate of 3.0m/day.

At Zone 120, LOM development is sequenced to extend from an area near the existing Upper Zone incline in San Rafael to access the middle of the Mineral Reserves at approximately the 415 RL. From this point the ramp development splits into an incline which is developed to the top of the Mineral Reserves at the 550 RL and a decline which is developed to the bottom of the Mineral Reserves at the 260 RL. The vertical distance covered by this ramp system is approximately 290m. Advance rates for primary development are scheduled at a maximum rate of 3.0m/day.

As shown in Table 16-3, the LOM plan forecasts that a total of 19,944m of development will be required to access the EC120 Mineral Reserves. This includes 4,547m of primary ramps, 4,149m of primary accesses and levels, and approximately 10,954m of secondary drifts and vertical raises.

TABLE 16-3 EC120 LIFE OF MINE DEVELOPMENT METRICS
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Pre-Prod	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Primary Development (m)	**4,460**	**1,998**	**1,479**	**672**	**293**	**88**	**8,991**
Ramps	2,923	741	701	182	-	-	4,547
Access and Level	1,422	1,170	761	415	293	88	4,149
Other Primary	115	87	17	75	-	-	294
Secondary Development (m)	**245**	**1,957**	**1,474**	**1,555**	**2,949**	**1,649**	**9,830**
Ore Access	33	462	513	349	707	228	2,293
Other Secondary	212	1,495	961	1,206	2,243	1,421	7,537
Raises (m)	634	136	301	53	-	-	**1,124**
Bored Raises	438	-	155	-	-	-	593
Conventional Raises	196	136	146	53	-	-	530
Total Development (m)	**5,339**	**4,091**	**3,254**	**2,281**	**3,242**	**1,737**	**19,944**

16.4.2 Production Schedule

The LOM plan production schedule has been prepared to reflect concurrent mining from the El Cajón and Zone 120 deposits. The pre-production period is approximately 18 months as a significant amount of development is required to access the bottom of the stoping areas in both deposits and provide enough production stoping areas to reach the targeted mining rate. The maximum stoping rate scheduled at both El Cajon and Zone 120 is 1,000tpd or approximately 9m/d assuming an average stope mined width of 7m and height of 5m. Backfill is scheduled at a maximum rate of 750tpd. As mentioned in Section 16.3, the stopes are backfilled with unconsolidated development waste. Based on the development waste generated and the backfill requirements during the LOM, a backfill deficit occurs approximately 2.5 years into the Project. The total waste volume deficit is approximately 617,000m^3. In order to supplement the

development waste generated, it is assumed that additional waste fill will be locally sourced from a waste quarry operated by Americas Silver.

Over the projected five year mine life, a total of 2.9 million tonnes of Mineral Reserves are planned to be mined, at grades of 157g/t Ag and 0.42% Cu.

TABLE 16-4 EC120 LIFE OF MINE PRODUCTION METRICS
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Pre-Prod	Year 1	Year 2	Year 3	Year 4	Year 5	Total
Production Tonnes (000)	120	526	612	636	630	353	**2,877**
Silver Grade (g/t)	181	154	160	168	152	140	157
Copper Grade (%)	0.47	0.39	0.42	0.46	0.40	0.39	0.42
Development Waste Tonnes (000)	245	1,957	1,474	1,555	2,949	1,649	9,830
Total Tonnes Moved (000)	329	229	172	126	182	97	1,137

16.5 Geotechnical Assessment

A preliminary geotechnical assessment of Zone 120 and El Cajón was carried out by Adiuvare Geology and Engineering Ltd (“Adiuvare GE”). Mining is currently taking place in the Main Zone of the San Rafael mine where the post-pillar cut and fill mining method is currently being used. Post-pillars with dimensions of 6.0m by 6.0m and room spans of 7.0m are being mined successfully.

Geotechnical data for design of Zone 120 and El Cajón has been obtained from existing mine excavations and from exploration core. This data, together with geotechnical analysis has indicated that the following parameters are suitable for mine design.

16.5.1 Zone 120 and El Cajón Post-Pillar Cut and Fill Mining

For design purposes the following dimensions are suitable for the post-pillar cut and fill mining method:

Zone 120

- Pillar Dimensions 6.0m by 6.0m
- Supported Room Span 8.0m

El Cajón

- Pillar Dimensions 6.0m by 6.0m
- Supported Room Span 7.0m

16.5.2 Ground Support for Capital Development

Recommended ground support for capital development for both Zone 120 and El Cajón is with 20mm diameter, 2.4m long resin encapsulated rebar rockbolts installed on a 1.2m staggered spacing. For most mining situations the use of mesh for surface control is also recommended. Allowance has been made for overbreak or overmining of development drifts with maximum spans and heights of 6m considered. Provision for the use of shotcrete in poorer rock quality zones is also recommended.

16.5.3 Ground Support for Ore Development

For design purposes the following ground support is considered suitable for ore development:

Zone 120

Recommended ground support for ore development includes a combination of 2.4m and 3.5m long support elements on a 1.2m spacing. For wider spans of 9.0m (including 1.0m overbreak), ground support lengths of a minimum of 3.5m are recommended. Therefore, the use of split sets (SS33) or standard Swellex® could be used for the 2.4m long ground support elements. For the deeper 3.5m long support, coupled Swellex or spin cables would be an option.

El Cajón

Recommended ground support for ore development includes a combination of 2.4m and 3.0m long support elements on a 1.2m spacing. For wider spans of 8.0m (including 1.0m overbreak) ground support lengths of a minimum of 3.0m are recommended. Therefore, the use of split sets (SS33) or standard Swellex could be used for the 2.4m long ground support elements. For the deeper 3.0m long support, coupled Swellex or spin cables would be an option.

16.6 EC120 Ventilation

Mine Ventilation Services of SRK Consulting ("SRK") completed a preliminary ventilation study based on information provided by Americas Silver for the mine design and mobile equipment fleet requirements of the EC120 Project. SRK completed the following work for the Project:

- Estimated total airflow requirements.
- Determined required raise diameters/dimensions locations and quantities.
- Developed a Visual/Design model in Ventsim software illustrating flows during a typical LOM maximum production stage.

The airflow requirements for El Cajón and Zone 120 are based on the proportional amounts of the previously estimated requirements for San Rafael, listed in Table 16-5.

TABLE 16-5 LOM ESTIMATED VENTILATION REQUIREMENTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Area	Portion of San Rafael LOM Equipment	LOM Airflow Requirement (m^3/s)	LOM Airflow Requirement (kcfm)
San Rafael (reference)	100%	185	391
Zone 120	75%	139	293
El Cajón	33%	61	129

The El Cajón underground mine is accessed by an existing decline that portals at surface, serving as the fresh air supply in the LOM ventilation system, and maintains the main access/egress route in fresh air. El Cajón LOM workings are assumed to require a total of 61m³/s of airflow as shown in Table 16-5. Fresh air is brought in the through the main access portal and delivered to the El Cajón workings. Conventional raises connecting wedge ramps and levels underground tie into the full exhaust system for each ore zone. Exhausting primary fans on surface at the collar of each exhaust raise were assumed to drive the ventilation system, and regulators/bulkheads are used to distribute airflow to the levels. Figure 16-8 illustrates the ventilation system infrastructure designed for El Cajón.

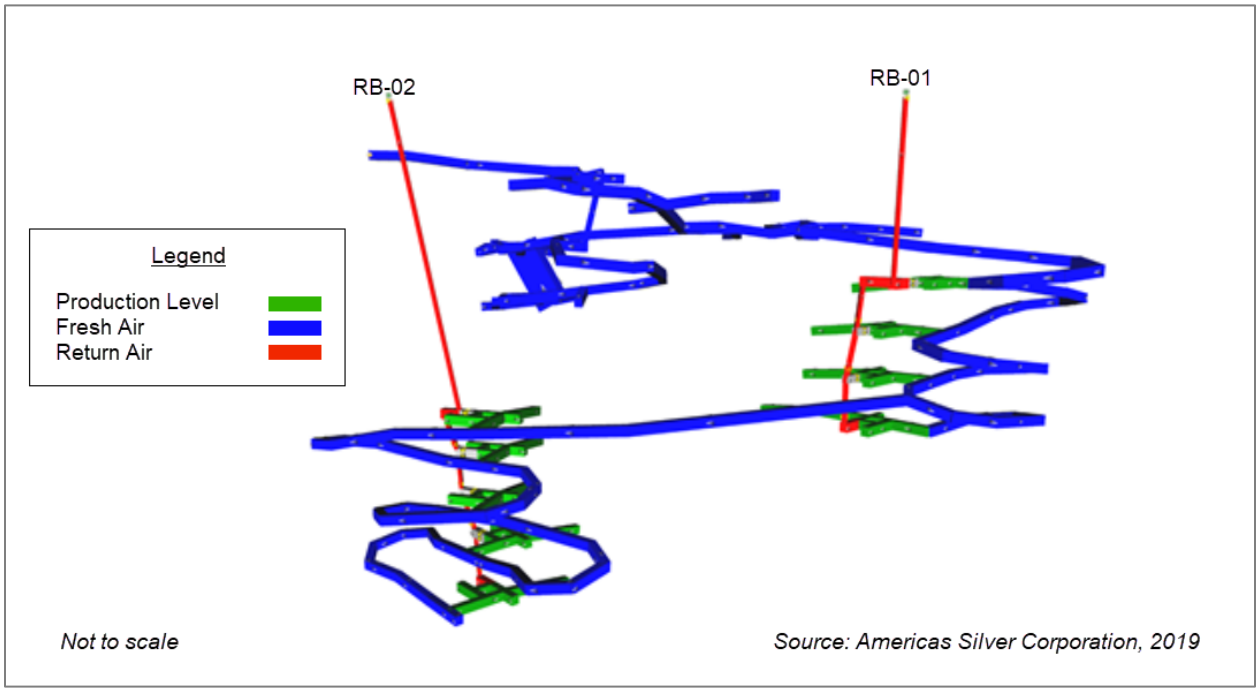

FIGURE 16-8 EL CAJÓN VENTILATION SYSTEM INFRASTRUCTURE

The Zone 120 underground mine is accessed by the San Rafael main decline which portals at surface, serving as an intake airway in the LOM ventilation system, and maintains the main access/egress route in fresh air. Zone 120 LOM workings are assumed to require a total of 139m³/s of airflow as shown in Table 16-5. Fresh air is brought in through the main access portal and RV-01, an existing bored raise in San Rafael, and delivered to the Zone 120 workings. Similar to El Cajón, conventional raises connecting wedge ramps and levels underground tie into the full exhaust system for each ore zone. Exhausting primary fans on surface at the collar of each exhaust raise were assumed to drive the ventilation system, and regulators/bulkheads are used to distribute airflow to levels. Figure 16-9 illustrates the ventilation system infrastructure designed for Zone 120.

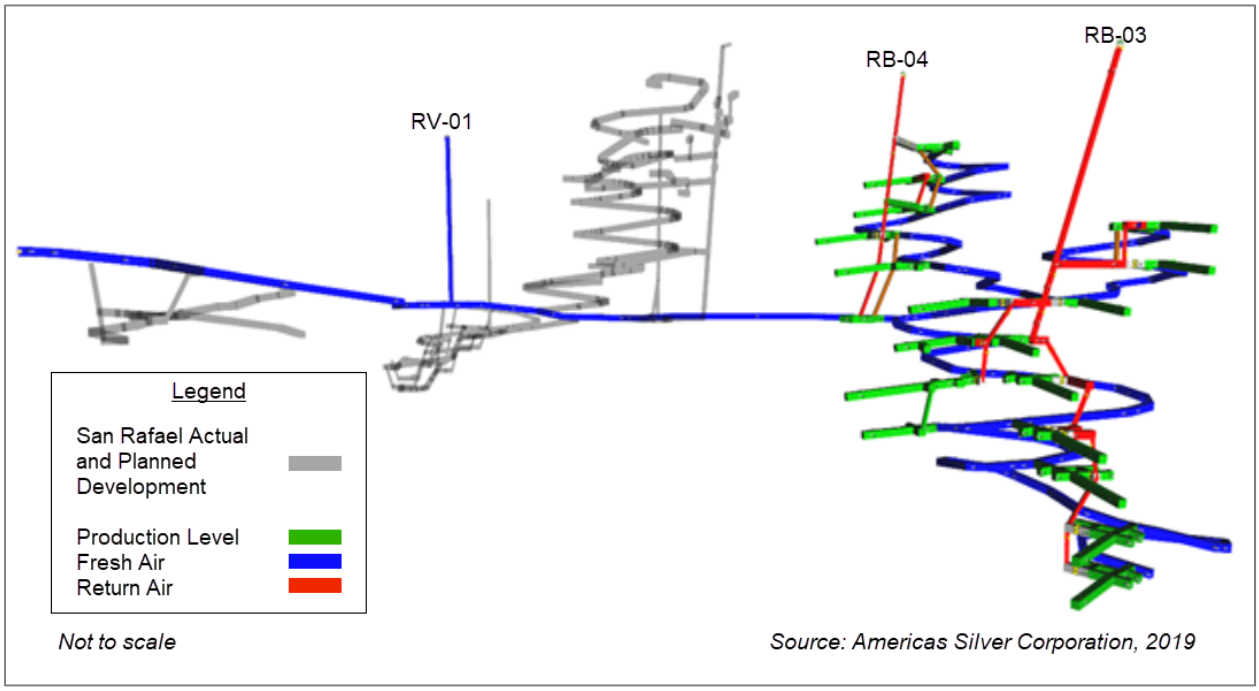

FIGURE 16-9 ZONE 120 VENTILATION SYSTEM INFRASTRUCTURE

At both El Cajón and Zone 120, ladders and landings, installed in the primary exhaust raises, are planned to provide secondary egress from the mines.

16.7 Mine Dewatering

A detailed hydrological study has not been completed for the EC120 Project. However, underground water is not expected to be a major issue during mine development or production stages since exploration drilling did not encounter large volumes of water. Experience from the San Rafael mine has shown that the ground- and surface-water inflows can be managed with appropriately constructed and located sumps and pumping equipment. Surface-water inflow to the mine, as well as water resulting from drilling or other sources, will be diverted or pumped to underground sumps and then pumped to a sedimentation tank near the portal. This water will be used for dust control on surface roads or hauled to the Los Braceros plant for use as makeup water.

16.8 EC120 Mining Equipment

The overall mine production rate for the EC120 Project is similar to San Rafael and it is assumed that the current equipment fleet will be able to service both mines. Table 16-6 lists the proposed equipment for the EC120 Project. New equipment purchases and major rebuild costs for some

key pieces of mobile equipment are accounted for in the capital cost estimate provided in Section 21.1.1.

TABLE 16-6 EC120 MOBILE MINING EQUIPMENT
Americas Silver Corporation – San Rafael Mine and EC120 Project

Item	Capacity	Number
LHDs	6-6.5yd^3	3
LHDs	9yd^3	2
Jumbos	2 boom	4
Bolters	1/2 boom	3
Backhoe		1
Excavator		1
Telehandler		3
Dozer		1
Carmix	3.5m^3	3
Shotcrete Spraymec		1
UG Trucks	15t	3

17 RECOVERY METHODS

17.1 San Rafael Processing

San Rafael ore has been the exclusive feed for the Los Braceros plant since November 2017. The Los Braceros process plant is a conventional polymetallic concentrator currently configured to produce zinc and lead concentrates. Throughput has recently been approximately 1,750 tonnes per operating day.

Acceptable production performance has been demonstrated, as summarized in Section 13.1. The flowsheet currently in use is shown in Figure 17-1. No material changes to the process flowsheet are planned for the remainder of the mine life at San Rafael. Efforts will continue to realize incremental gains in throughput, recovery and concentrate quality.

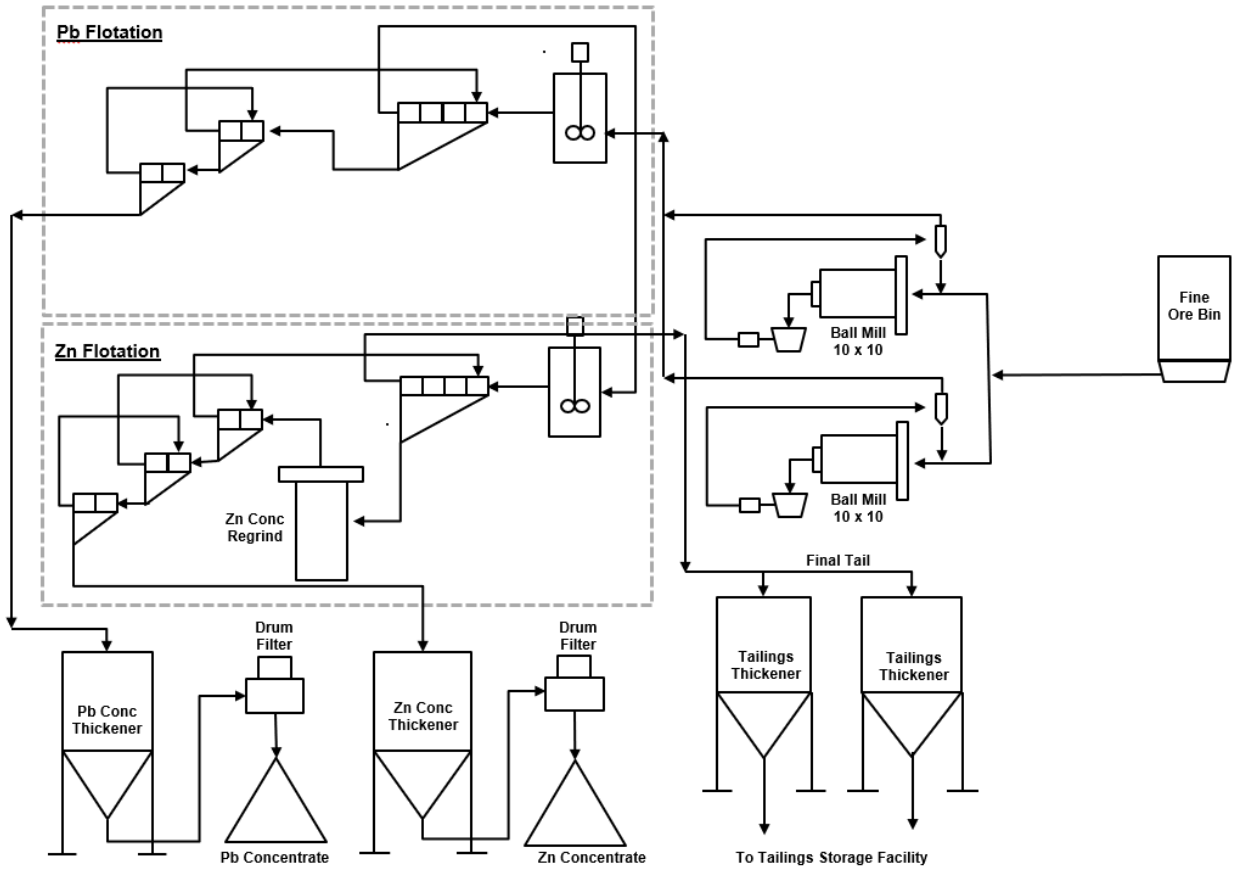

FIGURE 17-1 SIMPLIFIED SAN RAFAEL PROCESS FLOWSHEET

Key processing equipment currently installed at the Los Braceros plant includes:

- Three-stage crushing plant; 0.76m x 1.07m jaw crusher, 1.67m standard cone crusher, 1.67m shorthead cone crusher;
- 800 tonne fine ore bin;
- Primary grinding mills: two each, 3.0m x 3.2m, 600kW;
- Concentrate regrind mill; one VXP500 vertical mill;
- Wemco 300ft^3 rougher trough cells (lead and zinc);
- Wemco 10m^3 rougher tank cells (zinc);
- Galigher Agitair 54C x 40 and Denver Sub-A cleaner cells (lead and zinc);
- Four each 2.44m diameter x 3.65m drum filters;
- Bins and hoppers;
- Related support equipment – tanks, pumps, blowers, feeders, and instrumentation; and
- Engineered tailing storage facility.

Current operating costs are approximately $15.48 per tonne milled as summarized in Table 17-1.

TABLE 17-1 LOS BRACEROS PLANT OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Item	Units	LOM Average
Labour	$/t milled	2.74
Comminution	$/t milled	1.45
Electricity	$/t milled	3.38
Reagents	$/t milled	3.73
Maintenance	$/t milled	3.36
Assay Lab	$/t milled	0.26
Other	$/t milled	0.55
Total	$/t milled	15.48

Electrical power for the plant is supplied from the national grid. Electricity consumption averages approximately 1.4MWh per month, or 32kWh/tonne processed.

Of the total water used in the process plant, between 67% and 75% is recovered from the tailings thickeners and recirculation from the tailings storage facility. Fresh, make-up water is provided from nearby wells.

17.2 EC120 Processing

Processing of material from EC120 is expected to start after the cessation of production from San Rafael. The existing Los Braceros plant can be easily reconfigured to suit the needs of EC120. No unit operations will be added and no new equipment will be installed. The proposed flowsheet is shown in Figure 17-2.

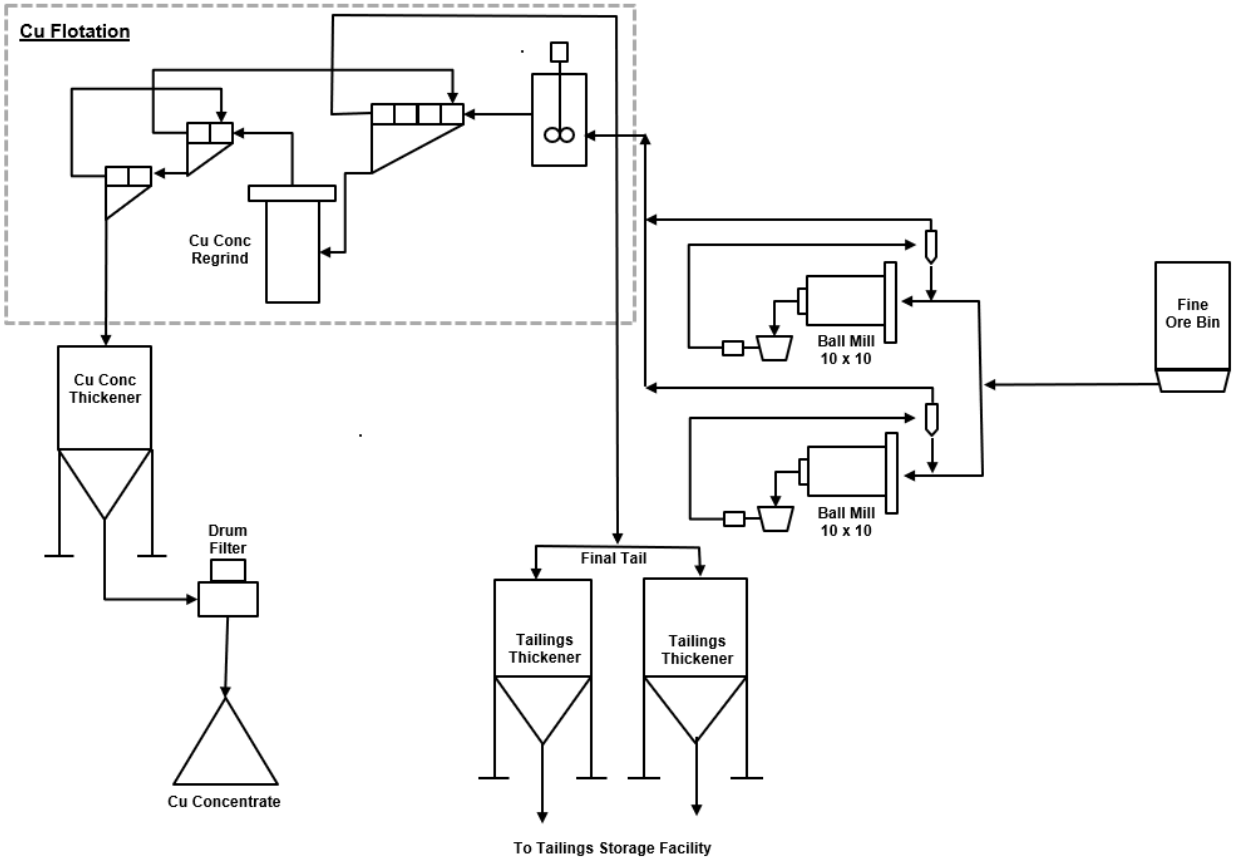

FIGURE 17-2 SIMPLIFIED EC120 PROCESS FLOWSHEET

The plant operating cost estimate is largely derived from extensive historical information available from the current operation. Compared to the processing of San Rafael ore, lower unit costs are predicted due to reduced electricity consumption (from 32.0 to 29.3kW·h/t) and the simplified reagent scheme associated with producing a single concentrate. Table 17-2 summarizes EC120 plant operating costs.

TABLE 17-2 EC120 PLANT OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Item	Units	LOM Average
Labour	$/t milled	2.74
Comminution	$/t milled	1.45
Electricity	$/t milled	3.09
Reagents	$/t milled	1.13
Maintenance	$/t milled	3.36
Assay Lab	$/t milled	0.26
Other	$/t milled	0.55
Total	$/t milled	12.58

17.3 Tailings Disposal

All tailings generated from the processing of San Rafael and EC120 ore can be deposited in the existing tailings storage facility (TSF). A 5m high lift of the tailings dam was completed as planned during Q1 2019. Over the remaining life of the San Rafael mine and the EC120 Project, it is anticipated that four more 5m high lifts will be completed. The tailings dam is currently planned to reach a level of 600m above sea level.

18 PROJECT INFRASTRUCTURE

The San Rafael mine and EC120 Project are located approximately 15km northeast of the town of Cosalá in the state of Sinaloa, Mexico. As described in Section 4, the principal Pacific coast highway is located 55km to the west of Cosalá, and 18km farther west are a toll highway and the railway. There are three main ports capable of handling either bulk or container concentrate products produced by the San Rafael mine and EC120 Project. These ports are each located in Mazatlán, Topolobampo (Los Mochis) and Manzanillo, approximately 160km southwest, 300km northwest and 870km southwest of Cosalá respectively. Zinc and lead concentrate shipments from San Rafael are currently transported via bulk transport trucks from the Los Braceros processing facility to the port in Manzanillo and it is assumed that the copper concentrate produced from EC120 will be delivered to Manzanillo.

An office complex consisting of an administration office, exploration geology office, core logging and cutting facilities, core storage, workshop and miscellaneous offices is located in the town of Cosalá. Main access to the San Rafael mine and EC120 Project is via the same, existing road from the town of Cosalá. The road from Cosalá can accommodate standard highway vehicles and heavy equipment. The road passes through the El Cajón portal location and terminates at the San Rafael (Zone 120) portal location. Figure 18-1 shows the access road to El Cajón and the San Rafael/Zone 120 portal location as well as to the Los Braceros process plant.

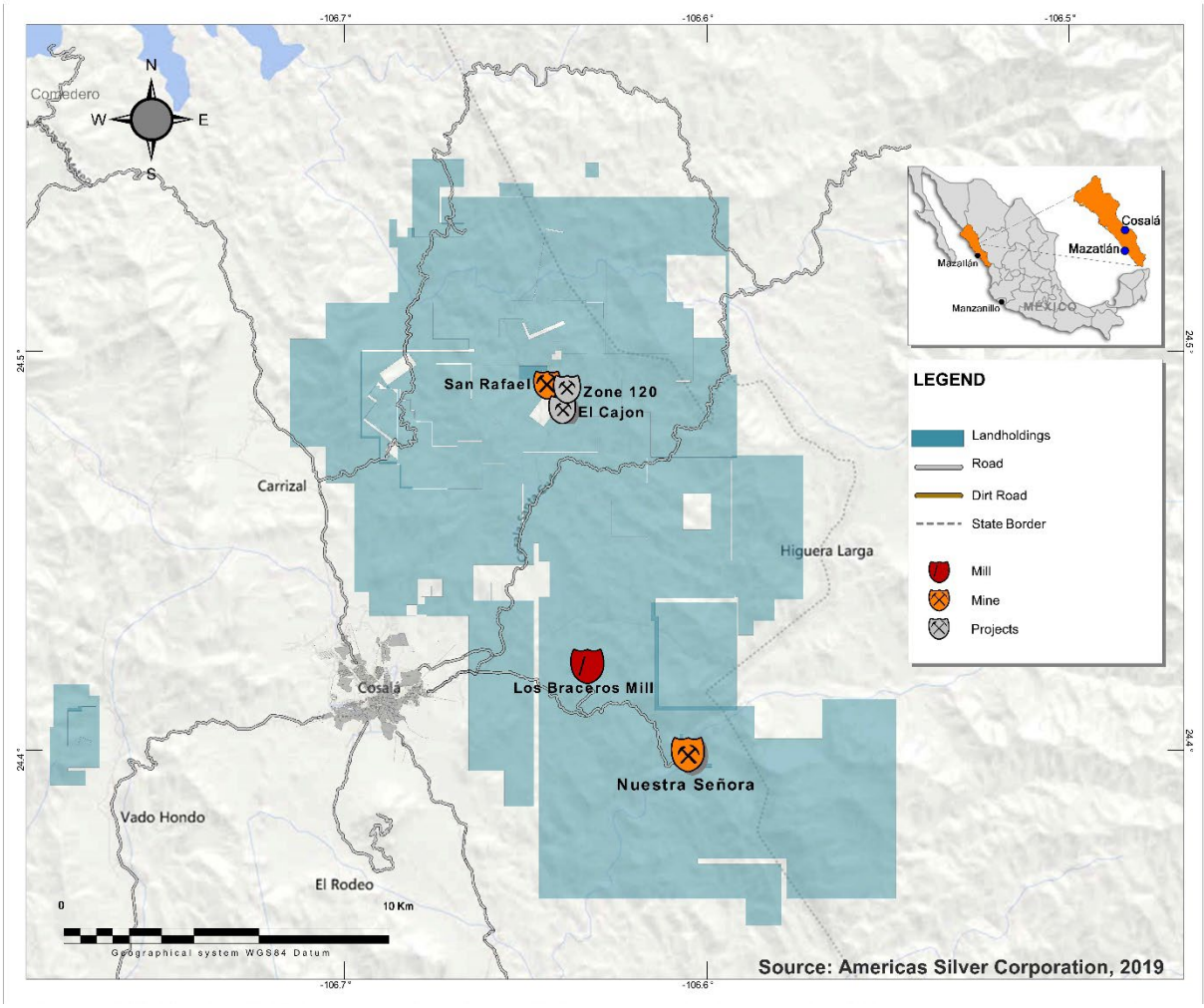

FIGURE 18-1 FACILITY ACCESS MAP

Surface buildings which include change rooms, lunch rooms and mine offices were completed in 2018 to service the San Rafael mine. Additionally, a surface shop, tire change facility, warehouse, concrete preparation area, diesel fuel storage with a capacity of 32,000L and vehicle parking were constructed in 2018. At the El Cajón project area there are existing mine office buildings, change rooms, diesel fuel storage with a capacity of 36,000L, equipment parking and emergency medical assistance. There are security stations located at both entrances to San Rafael and El Cajón.

An underground explosives magazine exists at San Rafael with enough storage capacity to meet the needs of the mine to store the following explosive types, Ammonium Nitrate Fuel Oil ("ANFO"), cartridge emulsion and separately store the ancillary supplies such as detonators and detonation cord. A permit to use this explosives magazine is pending final approval. Currently, explosives and ancillary supplies are stored at the underground magazines located at El Cajón.

Underground communication at the San Rafael mine is through a “leaky feeder” radio communication system installed throughout the mine. Mine foremen, leadmen, mechanics, electricians and other key personnel are equipped with portable two-way radios to facilitate communication. The system at San Rafael will be extending into Zone 120 when development commences towards this deposit. The existing leaky feeder system at El Cajón will be expanded when development commences at this deposit to provide communication throughout the mine.

Power is provided to both the El Cajón and San Rafael/Zone 120 portal locations via a private electricity line that branches off the national power grid located in the town of La Estancia approximately 9km from the project area. There are some backup diesel generators located at El Cajón to ensure operations can continue in the event of a power failure.

Waste material produced from the underground development for the San Rafael mine is used and from the EC120 Project will be used as mine backfill for the stoping areas. When possible, waste material is left in underground stockpiles and hauled directly to open stoping areas. If there is insufficient underground capacity, it will be hauled out of the mine and dumped on the existing El Cajón waste dump facility located approximately 0.7km from the San Rafael portal and 0.9km from the El Cajón portal. This waste material will be hauled back into the mines based on the mine production schedule. All waste material produced from the underground development at the San Rafael mine and the EC120 Project is planned to be placed underground at San Rafael, El Cajón or Zone 120.

Ore produced from the San Rafael mine is currently hauled from the mine using contractor haul trucks that take the ore directly to the Los Braceros process plant. At the Los Braceros plant, the trucks are weighed on a truck scale prior to dumping the ore into one of the surface stockpiles under geological control. The trucks are subsequently weighed empty on their way out of the facility to ensure ore tonnes are properly accounted for. The Los Braceros process facility consists of the following main infrastructure items:

- Tailings storage facility
- Process facility office building and assay laboratory
- Three stage crushing plant (primary jaw crusher, secondary standard cone crusher and tertiary shorthead cone crusher)
- Fine ore bin and conveyor system
- Two ball mills
- Two vertical regrind mills
- Various rougher and cleaner concentrate cells
- Four drum filters

- Various bins and hoppers
- Related support equipment (tanks, pumps, blowers, feeders and instrumentation)
- Warehouse and office buildings
- Truck scale

19 MARKET STUDIES AND CONTRACTS

Americas Silver has been producing and selling concentrates from the past-producing Nuestra Señora mine since 2008 and the current producing San Rafael mine since 2017. The duration of a typical concentrate sales contract is six to twelve months. Contracts are negotiated between the Company and metal concentrate trading firms based on standard industry terms that are adjusted for current market conditions in accordance with the characteristics of each product.

The San Rafael mine currently produces two concentrate products, a lead-silver concentrate and a zinc-silver concentrate. Both concentrates are classified as relatively clean, based on metallurgical testing and actual production quality, with minor penalties associated with impurities. There is a wide market available for these concentrates. The EC120 Project will be producing a copper-silver concentrate. Based on metallurgical testing, the copper-silver concentrate produced from EC120 will contain elevated levels of arsenic and antimony. This will limit the market for this concentrate but the existence of several potential buyers has been verified. Appropriate treatment charges and refining charges ("TCRCs") to reflect the anticipated quality of the copper-silver concentrate were utilized in the financial analysis of the EC120 Project detailed in Section 22.

20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT

20.1 Environmental Studies

Americas Silver's environmental management systems for the San Rafael project are under continual development. These systems include:

- Annual and quarterly reporting to SEMARNAT and PROFEPA (the policing, auditing, and inspection authority of SEMARNAT).
- Water quality monitoring at Arroyo Higuera Larga upstream and downstream from the El Cajón mine, as well as discharge at the mine portal.
- Hazardous waste control systems.
- Compliance with NOM 120-SEMARNAT-2011 regulations which dictate environmental protection and permitting requirements for exploration activities.
- Participation in PROFEPA's certified national Environmental Audit Program.

As part of the permitting process, Americas Silver has completed archaeological surveys in operational and project areas, including the San Rafael-El Cajón area.

20.2 Permitting

Most mining and processing activities are carried out under the terms of Authorization of Environmental Impact ("AIE") and Change of Land Use permits ("Cambio de Uso de Suelo" or "CUS"), issued by the Mexican Secretaria de Medio Ambiente y Recursos Naturale (The Secretariat of Environment and Natural Resources, or "SEMARNAT"). An AIE permit was issued in 2007 to allow for the construction of a process plant and tailings storage facility on site and another AIE permit was issued in 2014 to allow for the construction of the El Cajón mine and project area. A bond was not required. To maintain these permits in good standing, Americas Silver must report on activities on an annual basis, particularly any changes such as an increase in production. The permit for the Los Braceros plant area expires in February 2022 and the permit for the Cosalá Norte area expires in September 2020, both of which can be renewed. Americas Silver did obtain CUS permits for areas around the plant, San Rafael and El Cajón which have since expired (see Table 20-1). The surface work required under the CUS has been completed in these areas and there is no current need to obtain new CUS permits.

Americas Silver holds two explosives permits issued by the Secretaria de la Defensa Nacional ("The Secretariat of National Defence"). These permits are valid until December 2019 and are renewed on an annual basis.

Exploration activities, particularly drilling, are also governed by SEMARNAT regulations. Various authorization for a CUS are held by Americas Silver. The approval of affected surface rights holders is required as part of the permitting and drilling process.

The operating permits for the San Rafael mine, EC120 Project and Los Braceros plant are listed in Table 20-1.

TABLE 20-1 OPERATING PERMITS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Description	Name	Area Included	Expiry Date
Authorization of Environmental Impact	Los Braceros Plant	Plant and TSF	February 2022
Authorization of Environmental Impact	Cosalá Norte	SR and EC120	September 2020
Change of Land Use	Los Braceros Plant	Plant and TSF	July 2018
Change of Land Use	EC Mine	EC Mine	December 2014
Change of Land Use	SR Mine	SR Mine	May 2017
Explosives Permit	4424-Sin	EC, SR, LV Mine	December 2019
Explosives Permit	3788-Sin	NS Mine and Plant	December 2019
Water Use Permit	Water Delivery	NS Mine and Plant	Permanent

20.3 Community Relations

There are 14 communities distributed in eight ejidos in the vicinity of Americas Silver's mining concessions, including the capital of the municipality, Cosalá. Americas is the major local employer. Over 80% of the Company's employees live in the municipality of Cosalá. There is also a small administrative office located in Mazatlán.

Americas has created the Social Assistance Committee of Minera Cosalá ("CASMIC") to support the local community. CASMIC is formed of a group of local community leaders that accepts requests, reviews those requests and distributes assistance for initiatives that meet the basic needs of the Cosalá community, in accordance with the regulatory guidelines. CASMIC has been working since February 2, 2011, and is chaired by the Human Resources Manager of Minera Cosalá on behalf of Americas Silver.

In the past, Americas Silver has provided infrastructure projects (power, water and communications) to local communities. Currently Americas Silver is supporting various programs that promote education, local business development, road maintenance and local communities (ejidos).

Americas Silver reports full support of its workers, the local communities, and all levels of Mexican government and states that it is in full compliance with all of its commitments and all Mexican laws.

21 CAPITAL AND OPERATING COSTS

This section summarizes the estimated capital and operating costs in the LOM plan for the San Rafael mine and the EC120 Project. Cost estimates for the San Rafael mine are based on recent operating history and for EC120 are based on a combination of recent operating history at San Rafael and the Los Braceros plant, in conjunction with calculations from first principles. All costs provided in the following sections, unless otherwise stated, are in US dollars and used an exchange rate of 18.0 Mexican pesos per 1.0 US dollar where components of the costs were priced in Mexican pesos.

21.1 Capital Costs

For the San Rafael mine, sustaining capital costs are expected to total approximately $23.1 million over the remaining reserve life of four years. Table 21-1 provides a detailed breakdown of the anticipated capital expenditures associated with development, processing, tailings storage, exploration and fixed assets.

TABLE 21-1 SAN RAFAEL ESTIMATED LOM CAPITAL EXPENDITURE
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Centre	LOM Total ($M)
Development/Mine	14.3
Process/Tailings	2.3
Exploration	2.0
Other	4.5
Total Capital Expenditure	23.1

For the EC120 Project the total estimated initial and sustaining capital costs are based on the major capital items required for mining and processing ore from EC120 over the five year mine life. Table 21-2 provides a breakdown of the initial and sustaining capital costs over the life of the Project.

TABLE 21-2 EC120 ESTIMATED PROJECT CAPITAL COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Centre	Initial ($k)	Sustaining ($k)	Total LOM ($k)
Mine Development	9,237	7,972	17,209
UG Mining Capital	5,375	4,293	9,668
Process Capital	602	2,015	2,617
Other	458	500	958
Contingency 15%	1,009	-	1,009
Total Capital Expenditure	**16,680**	**14,780**	**31,460**

The initial and sustaining capital cost are exclusive of pre-production operating costs net of revenue and working capital which are approximately $1.4 million and $5.3 million respectively.

21.1.1 Mining Capital Costs

Mining capital cost estimates for the EC120 Project include mobile equipment, maintenance equipment and major rebuild costs, ventilation such as vent raises and fans, infrastructure, mine services such as compressed air, water and electrical, development and other miscellaneous items. These estimates are based on contractor and vendor quotations along with actual costs at the San Rafael mine. Table 21-3 shows the annual estimated mining related costs over the LOM plan.

TABLE 21-3 EC120 MINING CAPITAL COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Pre-Prod ($k)	Year 1 ($k)	Year 2 ($k)	Year 3 ($k)	Year 4 ($k)	Year 5 ($k)	Total ($k)
Mine Mobile Equipment	2,300	-	40	40	-	-	2,380
Maintenance (incl. Rebuild)	789	685	959	460	558	-	3,451
Ventilation	855	405	105	90	40	-	1,495
Infrastructure	251	70	-	-	-	-	321
Mine Development	9,237	3,161	3,163	1,053	457	137	17,209
Electrical	247	196	103	60	49	-	654
Compressed Air	160	-	-	-	-	-	160
Dewatering	571	233	92	75	13	-	983
Miscellaneous	202	11	6	6	-	-	224
Total Capital Expenditure	**14,612**	**4,761**	**4,467**	**1,784**	**1,116**	**137**	**26,877**

Approximately 64% of the mining capital costs for EC120 are associated with mine development. Capital development costs relate to ramp, level access, ventilation access, muck bay, sump,

ventilation raise, ore/waste pass and other miscellaneous long-term development. Table 21-4 details the costs associated with capital mine development for the various development types.

TABLE 21-4 EC120 DEVELOPMENT CAPITAL COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Pre-Prod ($k)	Year 1 ($k)	Year 2 ($k)	Year 3 ($k)	Year 4 ($k)	Year 5 ($k)	Total ($k)
Sump/Vent Access/Misc.	144	109	21	93	-	-	367
Main Access/Level Dev	2,219	1,826	1,187	648	457	137	6,474
Ramps	4,561	1,156	1,094	285	-	-	7,095
3.5m Bored Raise	2,212	-	785	-	-	-	2,996
2.8m Conventional Raise	102	71	76	28	-	-	276
Total Capital Expenditure	**9,237**	**3,161**	**3,163**	**1,053**	**457**	**137**	**17,209**

21.1.2 Process Capital Costs

The existing Los Braceros processing plant currently processes San Rafael ore and produces both zinc-silver and lead-silver concentrates. The details of the process flowsheet are described in Section 17. It is assumed that very little capital costs will be required at the plant to process ore from EC120. The capital costs associated for the EC120 Project are associated with the required tailings dam lifts and miscellaneous items. Table 21-5 details the capital costs associated with the plant.

TABLE 21-5 EC120 PLANT CAPITAL COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Pre-Prod ($k)	Year 1 ($k)	Year 2 ($k)	Year 3 ($k)	Year 4 ($k)	Year 5 ($k)	Total ($k)
Tailings Dam Lifts	302	302	-	302	210	-	1,117
Miscellaneous	300	300	300	300	300	-	1,500
Total Capital Expenditure	**602**	**602**	**300**	**602**	**$510**	**-**	**2,617**

21.1.3 Other Capital Costs

Other capital costs for the EC120 Project include environmental closure, initial exploration to increase confidence in reserve definition, safety/security and administration items. Table 21-6 details the capital costs associated with these other costs.

TABLE 21-6 EC120 OTHER CAPITAL COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Pre-Prod ($k)	Year 1 ($k)	Year 2 ($k)	Year 3 ($k)	Year 4 ($k)	Year 5 ($k)	Total ($k)
Environmental Closure	-	-	-	-	-	300	300
Exploration	188	-	-	-	-	-	188
Safety & Security	220	-	-	-	-	-	220
Administration	50	50	50	50	50	-	250
Total Capital Expenditure	**458**	**50**	**50**	**50**	**50**	**300**	**958**

In addition to the other capital costs shown in Table 21-6, contingency and working capital has been added for the EC120 Project. A contingency of 15% of the mining capital, process capital and other capital during the 18 month pre-production period was used. The total contingency capital is approximately $1.0 million.

In order to handle the ebbs and flows of the operations during initial startup, working capital has been estimated as three months of operating costs for the Project, or approximately $5.3 million. The working capital is returned to the Project in year 5 after mining in EC120 has ceased.

21.2 Operating Costs

For the San Rafael mine, operating costs in the LOM plan mine average approximately $25 million per year. The unit operating cost estimates for the LOM plan are shown in Table 21-7.

TABLE 21-7 SAN RAFAEL UNIT OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Item	Units	LOM Average
Mining	$/t milled	19.64
Processing	$/t milled	15.38
G&A	$/t milled	8.65
Total	**$/t milled**	**43.68**

The LOM plan annual operating costs for the EC120 Project are shown in Table 21-8. The associated annual unit operating costs are shown in Table 21-9. The operating cost estimates were prepared using the same procedures and methodology utilized to prepare the annual operating budget for San Rafael. Additionally, the development sizes and mining method to be used at EC120 are the same as those used at San Rafael, so there is a high level of confidence that the operating cost estimates used for EC120 are reasonable and achievable.

TABLE 21-8 EC120 OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Pre-Prod ($k)	Year 1 ($k)	Year 2 ($k)	Year 3 ($k)	Year 4 ($k)	Year 5 ($k)	Total ($k)
UG Mine Operations	2,044	8,939	11,111	11,548	11,476	7,040	52,158
Mine Development	137	1,245	1,070	975	1,885	920	6,232
Processing	500	7,600	7,604	7,604	7,604	5,286	36,198
G&A	2,005	5,376	5,362	5,362	5,362	4,936	28,402
Total Operating Cost	**4,686**	**23,160**	**25,147**	**25,489**	**26,326**	**18,182**	**122,990**

TABLE 21-9 EC120 UNIT OPERATING COSTS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Cost Center	Units	Pre-Prod	Year 1	Year 2	Year 3	Year 4	Year 5	Total
UG Mine Operations	($/t mined)	17.00	17.00	18.15	18.16	18.20	19.96	18.13
Mine Development	($/m)	556	636	726	627	639	558	634
Processing	($/t milled)	12.58	12.58	12.58	12.58	12.58	12.58	12.58
G&A	($/t milled)	50.45	8.90	8.87	8.87	8.87	11.75	9.87
Total Operating Cost	($/t milled)	117.91	38.34	41.60	42.17	43.55	43.27	42.74

The unit costs for the pre-production period and year 1 in Table 21-9 differ from average for the Project as there is a stockpile generated during the pre-production period to provide a more consistent plant feed during the first year of production.

21.2.1 Manpower

The current manpower at the San Rafael mine and Los Braceros plant is summarized in Table 21-10. The table includes both Company and contractor employees.

TABLE 21-10 MANPOWER
Americas Silver Corporation – San Rafael Mine and EC120 Project

	Company			
Department	**Staff**	**Hourly**	**Contractor**	**Total**
Mine	12	81	6	99
Mill	9	63		72
Maintenance	16	33		49
Technical Services	15	23		38
Exploration	8	3		11
Administration	28	9		37
Safety & Environment	9	5		14
Security	1	14	24	39
Total Manpower	**98**	**231**	**30**	**359**

Total manpower is expected to remain constant throughout the remaining mine life at San Rafael as the crews currently assigned to primary development could continue in this role to develop the EC120 Project. The manpower at EC120 is expected to follow very closely the manpower requirements at San Rafael given the same mining method and production rate is planned for the Project.

22 ECONOMIC ANALYSIS

This section is not required for the San Rafael mine, as Americas Silver is a producing issuer, the property is currently in production and there is no material expansion of current production.

The following sections describe the results of the economic analysis for the EC120 Project which is based on Probable Mineral Reserves.

A base case cash flow projection has been generated from the LOM production schedule, capital and operating cost estimates and is summarized in Table 22-1. A summary of the key criteria is provided below.

22.1 Economic Criteria

22.1.1 Physicals

- Life of mine production plan as summarized in Table 22-1.
- Mine life: 5 years.
- Pre-production development period of 18 months.
- Mill recovery average of 86.1% for silver and 87.1% for copper over the LOM.
- Silver and copper production averages approximately 2.5 million ounces and 4.5 million pounds respectively per year over the LOM.

22.1.2 Revenue

- Silver and copper are 95% net payable in the copper concentrate.
- Metal prices: US$17.50 per ounce silver and $3.00 per pound copper.
- NSR includes concentrate treatment, refining, penalties and transport costs.
- Revenue is recognized at the time of production.

22.1.3 Costs

- Mine life capital totals $26.9 million.
- Operating unit costs average $42.74 per tonne milled over the LOM.
- LOM Cash Operating Costs average $9.61 per ounce Ag and All-in Sustaining Costs (AISC) average $10.61 per ounce Ag.

22.1.4 Taxation and Royalties

Americas Silver operates under its wholly owned subsidiary PRG and is obligated to file Mexican federal and Sinaloa state income tax returns on an annual basis. Tax rates are calculated on an annual basis and are within industry norms in Mexico. As part of standard Mexican mining taxation regulations, there is a "special mining duty" of 7.5% that is paid to the tax authority. The special mining duty tax is applied to the net revenue less the operating costs for the Project. Additionally, there is an environmental royalty of 0.5% that is applied to the gross revenue from silver. Taxes amount to approximately $20.2 million over the life of the EC120 Project.

TABLE 22-1 EC120 CASH FLOW SUMMARY
Americas Silver Corporation – San Rafael Mine and EC120 Project

EC120 Project	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
Mining								
UG Ore Mined	k tonnes	120	526	612	636	630	353	2,877
UG Waste Mined	k tonnes	329	229	172	126	182	97	1,137
Primary Development	m	4,460	1,998	1,479	672	293	88	8,991
Secondary Development	m	245	1,957	1,474	1,555	2,949	1,649	9,830
Vertical Raises	m	634	136	301	53	-	-	1,124
Processing								
Mill Feed	k tonnes	40	604	604	604	604	420	2,877
Ag Grade	g/t	173	158	159	167	157	138	157
Cu Grade	%	0.46	0.40	0.42	0.46	0.41	0.38	0.42
Contained Ag	koz	221	3,066	3,099	3,255	3,046	1,863	14,549
Contained Cu	klbs	400	5,358	5,609	6,122	5,441	3,565	26,494
Concentrate Production								
Total Metal Recovery to Cu Concentrate	% Cu	86.9	86.7	87.0	87.2	87.4	87.0	87.1
	% Ag	85.9	85.8	86.0	86.3	86.4	85.9	86.1
Cu Concentrate Grade	% Cu	23.8	23.8	23.8	23.8	23.8	23.8	23.8
	g/t Ag	8,896	9,240	8,914	8,584	9,029	8,424	8,861
Cu Concentrate Tonnage	t	663	8,849	9,302	10,173	9,064	5,912	43,962
Recovered Ag	koz	190	2,629	2,666	2,807	2,631	1,601	12,524
Recovered Cu	klbs	348	4,643	4,881	5,338	4,756	3,102	23,067
Revenue								
Payable Metal - Ag	koz	182	2,524	2,559	2,695	2,526	1,537	12,023
Payable Metal - Cu	klbs	304	4,058	4,266	4,665	4,156	2,711	20,159
Payable Equivelant - Ag	koz	234	3,219	3,290	3,495	3,239	2,002	15,479
Gross Revenue - Ag	k USD	$ 3,185	$ 44,164	$ 44,786	$ 47,164	$ 44,206	$ 26,897	$ 210,403
Gross Revenue - Cu	k USD	$ 912	$ 12,173	$ 12,797	$ 13,995	$ 12,469	$ 8,132	$ 60,478
Total Gross Revenue	k USD	$ 4,097	$ 56,337	$ 57,583	$ 61,159	$ 56,675	$ 35,030	$ 270,881
Net Smelter Return								
Refining Cost Ag	k USD	$ 240	$ 3,263	$ 3,370	$ 3,618	$ 3,305	$ 2,083	$ 15,879
Treatment and Transport Costs - Cu Con	k USD	$ 550	$ 7,344	$ 7,721	$ 8,443	$ 7,523	$ 4,907	$ 36,489
Total TCRC Costs	k USD	$ 790	$ 10,608	$ 11,091	$ 12,061	$ 10,828	$ 6,990	$ 52,367
Net Smelter Return	**k USD**	**$ 3,307**	**$ 45,729**	**$ 46,492**	**$ 49,098**	**$ 45,848**	**$ 28,040**	**$ 218,513**
Royalty - NSR Environmental (0.5%)	k USD	$ 16	$ 221	$ 224	$ 236	$ 221	$ 134	$ 1,052
Net Revenue	**k USD**	**$ 3,291**	**$ 45,508**	**$ 46,268**	**$ 48,862**	**$ 45,627**	**$ 27,905**	**$ 217,461**

Operating Costs	Units	Pre-Prod	Yr 1	Yr 2	Yr 3	Yr 4	Yr 5	Total
UG Mine Operations	k USD	$ 2,044	$ 8,939	$ 11,111	$ 11,548	$ 11,476	$ 7,040	$ 52,158
Mine Development - Expensed	k USD	$ 137	$ 1,245	$ 1,070	$ 975	$ 1,885	$ 920	$ 6,232
Plant Operations	k USD	$ 500	$ 7,600	$ 7,604	$ 7,604	$ 7,604	$ 5,286	$ 36,198
Technical Services	k USD	$ 573	$ 1,536	$ 1,531	$ 1,531	$ 1,531	$ 1,410	$ 8,112
Safety & Environment	k USD	$ 325	$ 870	$ 868	$ 868	$ 868	$ 799	$ 4,597
Administration	k USD	$ 1,108	$ 2,971	$ 2,963	$ 2,963	$ 2,963	$ 2,727	$ 15,693
Total Operating Costs	**k USD**	**$ 4,686**	**$ 23,160**	**$ 25,147**	**$ 25,489**	**$ 26,326**	**$ 18,182**	**$ 122,990**
Capital Costs								
Mine Development	k USD	$ 9,237	$ 3,161	$ 3,163	$ 1,053	$ 457	$ 137	$ 17,209
UG Mining Capital	k USD	$ 5,375	$ 1,600	$ 1,304	$ 730	$ 659	$ -	$ 9,668
Process Capital	k USD	$ 602	$ 602	$ 300	$ 602	$ 510	$ -	$ 2,617
Other	k USD	$ 458	$ 50	$ 50	$ 50	$ 50	$ 300	$ 958
Contingency 15%	k USD	$ 1,009	$ -	$ -	$ -	$ -	$ -	$ 1,009
Working Capital	k USD	$ 5,342	$ -	$ -	$ -	$ -	$ (5,342)	$ -
Total Capital	**k USD**	**$ 22,023**	**$ 5,414**	**$ 4,817**	**$ 2,436**	**$ 1,676**	**$ (4,905)**	**$ 31,460**
Other Costs								
Special Mining Duty Tax (7.5%)	**k USD**	**$ 148**	**$ 1,676**	**$ 1,584**	**$ 1,753**	**$ 1,448**	**$ 761**	**$ 7,370**
Total Costs								
Total Cost	**k USD**	**$ 26,856**	**$ 30,250**	**$ 31,548**	**$ 29,678**	**$ 29,449**	**$ 14,039**	**$ 161,820**
Pre-Tax Cash Flow								
Net Operating Cash Flow	k USD	$ (1,395)	$ 22,348	$ 21,121	$ 23,373	$ 19,301	$ 9,723	$ 94,471
Total Pre-Tax Cash Flow	k USD	$ (23,565)	$ 15,258	$ 14,720	$ 19,184	$ 16,178	$ 13,866	$ 55,641
Cumulative Pre-Tax Cash Flow	kUSD	$ (23,565)	$ (8,307)	$ 6,413	$ 25,598	$ 41,775	$ 55,641	
After-Tax Cash Flow								
Cumulative Depreciable Capital	k USD	$ 18,075	$ 23,215	$ 23,065	$ 19,155	$ 13,194	$ 5,445	
Depreciation Taken	k USD	$ 274	$ 4,967	$ 6,346	$ 7,637	$ 8,186	$ 5,445	$ 32,581
Taxable Income	k USD		$ 17,381	$ 14,775	$ 15,737	$ 11,115	$ 4,278	$ 63,285
Tax Paid at 30%	k USD	$ -	$ 3,538	$ 2,849	$ 2,968	$ 1,887	$ 522	$ 11,763
Net Cash Flow After-Tax	k USD	$ (23,565)	$ 11,720	$ 11,872	$ 16,216	$ 14,291	$ 13,345	$ 43,878
Cumulative Cash Flow After-Tax	kUSD	$ (23,565)	$ (11,845)	$ 27	$ 16,243	$ 30,534	$ 43,878	
Cash and All-in Sustaining Costs								
Cash Cost	$/oz Ag		$ 8.94	$ 9.47	$ 9.10	$ 10.02	$ 11.20	$ 9.61
All-in Sustaining Cost	$/oz Ag		$ 11.00	$ 11.28	$ 9.97	$ 10.65	$ 11.48	$ 10.81

Pre-Tax Project Economics		
IRR	%	61%
NPV at 5%	k USD	$42,918
NPV at 7.5%	k USD	$37,750
NPV at 10%	k USD	$33,222
Payback Period	Years	1.6
After-Tax Project Economics		
IRR	%	47%
NPV at 5%	k USD	$32,939
NPV at 7.5%	k USD	$28,521
NPV at 10%	k USD	$24,664
Payback Period	Years	2.0

22.2 Cash Flow Analysis

Considering the EC120 Project on a stand-alone basis, the undiscounted pre-tax cash flow totals $55.6 million over the mine life.

The undiscounted after-tax cash flow totals $43.9 million. The after-tax internal rate of return (IRR) is 47% and payback on the Project is achieved in 2.0 years. After-tax NPV at various discount rates is:

- NPV@5% = $32.9 million
- NPV@7.5% = $28.5 million
- NPV@10% = $24.7 million

22.3 Sensitivity Analysis

Base case metal price and exchange rate inputs are based on independent forecasts. At reserve metal prices of $16.00 per ounce silver and $2.50 per pound copper and an exchange rate of MXN18.0=USD1.00, cash flow results remain positive:

- After-tax NPV@5% = $16.4 million
- IRR = 27%

Project risks can be identified in both economic and non-economic terms. Key economic risks were examined by running cash flow sensitivities on the following items:

- Metal price
- Operating costs
- Capital costs

NPV and IRR sensitivity has been calculated for -20% to +20% variations from the base case metal prices, operating cost and capital cost. The sensitivities are shown in Figure 22-1 and Table 22-2.

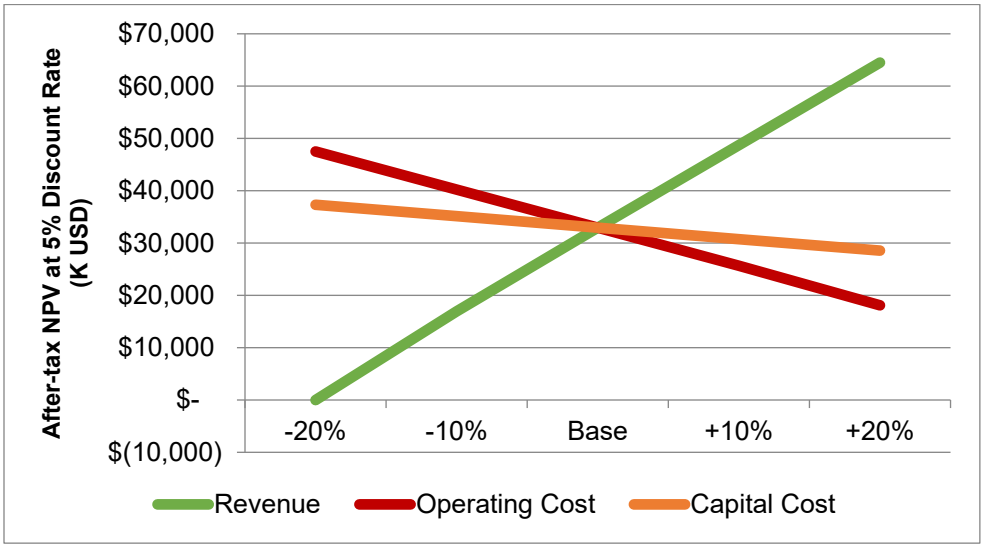

FIGURE 22-1 EC120 AFTER-TAX SENSITIVITY ANALYSIS

TABLE 22-2 EC120 AFTER-TAX SENSITIVITY ANALYSIS
Americas Silver Corporation – San Rafael Mine and EC120 Project

Sensitivity	Metal Price ($/oz Ag/$/lb Cu)	NPV ($k) at 5%	IRR
-20%	14.00/2.40	(13)	5%
-10%	15.75/2.70	16,937	27%
0% (Base)	17.50/3.00	32,939	47%
+10%	19.25/3.30	48,718	66%
+20%	21.00/3.60	64,498	86%

Sensitivity	Operating Cost ($k)	NPV ($k) at 5%	IRR
-20%	98,392	47,508	69%
-10%	110,691	40,223	58%
0% (Base)	122,990	32,939	47%
+10%	135,289	25,654	37%
+20%	147,588	18,099	27%

Sensitivity	Capital Cost ($k)	NPV ($k) at 5%	IRR
-20%	25,168	37,320	63%
-10%	28,314	35,129	54%
0% (Base)	31,460	32,939	47%
+10%	34,606	30,748	41%
+20%	37,752	28,558	36%

23 ADJACENT PROPERTIES

Minera Tapacoya, a private Mexican company, owns and operates the Silvia Maria mine. The mine has been sporadically producing since 2011. The mine shares a mineral boundary with El Cajón and is located approximately 1km southwest of the San Rafael mine and Zone 120 deposit. Material from this mine has been processed at Minera Tapacoya's 450tpd process plant located in the town of Cosalá. Minera Tapacoya has been constructing a process plant and tailings storage facility adjacent to the Silvia Maria mine over the past couple of years. However, production and construction details are not publicly available. This information was obtained by local knowledge and discussions between Minera Tapacoya and Americas Silver employees. The QP has been unable to verify this information.

Americas Silver has no other information regarding the concessions owned by other parties that lie within or adjacent to Americas Silver's property boundaries.

24 OTHER RELEVANT DATA AND INFORMATION

The authors are not aware of any addition relevant information or explanation necessary to make this technical report understandable and not misleading.

25 INTERPRETATION AND CONCLUSIONS

San Rafael is a successful producing mine with a demonstrated operating history since 2016. There are no remarkable or exceptional technical challenges.

EC120 is a viable project ready for development. A production decision has not yet been made, however, permits are in place. Processing of material from EC120 is expected to start after the cessation of production from San Rafael. The existing Los Braceros plant can be easily reconfigured to suit the needs of EC120. The proposed initial capital costs for EC120 are $16.8 million as the Project benefits from synergies with the current Cosalá Operation. The economic analysis for EC120 shows a positive after-tax net present value (“NPV”) at a 5% discount rate of $32.9 million and an internal rate of return (“IRR”) of 47%.

The current level of understanding is sufficient to make a development decision for EC120.

26 RECOMMENDATIONS

The EC120 PFS represents a complete technical report and produces a positive pre- and after-tax cash flow at both the consensus long-term metal prices used in the economic analysis and reserve metal prices. In order to complete a Feasibility Study, additional work on certain aspects of the PFS is recommended. This work is expected to cost approximately $1.35 million and should include the following:

- Additional infill drilling to improve the definition of the mineralization.
- Completion of a hydrological model.
- Detailed plans for mine infrastructure.
- Additional geotechnical evaluation.
- Locked cycle flotation testing for Zone 120.
- Detailed closure plan.

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28 DATE AND SIGNATURE PAGE (DRAFT)

This report titled "Technical Report on the San Rafael Mine and the EC120 Preliminary Feasibility Study, Sinaloa, Mexico" with an effective date of April 3, 2019 and dated May 17, 2019 was prepared and signed by the following authors:

(Signed & Sealed) "Daren Dell"

Dated at Toronto, Ontario
May 17, 2019

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May 17, 2019

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29 CERTIFICATE OF QUALIFIED PERSON

DAREN DELL

I, Daren Dell, P.Eng., as an author of this report entitled “Technical Report on the San Rafael Mine and the EC120 Preliminary Feasibility Study, Sinaloa, Mexico” with an effective date of April 3, 2019, prepared for Americas Silver Corporation, and dated May 17, 2019, do hereby certify that:

1. I am employed by, and carried out these assignments for Americas Silver Corporation, whose address is at 145 King Street West, Suite 2870, Toronto, ON, M5H 1J8, in the capacity of Chief Operating Officer.

2. I am a graduate of the Queen’s University, Kingston, Ontario, Canada, in 1992 with a Bachelor of Applied Science in Metallurgical Engineering.

3. I am a member in good standing of the Professional Engineers Ontario, P.Eng. Registration number 90428202. I have worked in the mining industry for a total of 27 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Review and report on metallurgical aspects at many mining operations and projects for due diligence and regulatory requirements.
   - Senior Metallurgist/Project Manager on numerous base metals and precious metals studies for several international mining companies.
   - Management and operational experience at several Canadian and U.S. mining and milling operations treating various metals, including base and precious metals.

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 property which is the subject of the Technical Report most recently in March 2019.

6. I am responsible for Sections 13, 17 and 20, and related disclosure in Sections 1, 2, 3, and Sections 24 through 29 of the Technical Report.

7. I am not independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8. Other than in my capacity as an employee of Americas Silver, I have had no prior involvement with the property that is the subject of the Technical Report.

9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th day of May 2019.

(Signed & Sealed) ***"Daren Dell"***

Daren Dell, P.Eng.

SHAWN WILSON

I, Shawn Wilson, P.Eng., as an author of this report entitled “Technical Report on the San Rafael Mine and the EC120 Preliminary Feasibility Study, Sinaloa, Mexico” with an effective date of April 3, 2019, prepared for Americas Silver Corporation, and dated May 17, 2019, do hereby certify that:

1. I am employed by, and carried out these assignments for Americas Silver Corporation, whose address is at 145 King Street West, Suite 2870, Toronto, ON, M5H 1J8, in the capacity of Vice President, Technical Services.

2. I am a graduate of the Queen’s University, Kingston, Ontario, Canada, in 2000 with a Bachelor of Applied Science in Mining Engineering.

3. I am a member in good standing of the Professional Engineers Ontario, P.Eng. Registration number 100076674. I have worked in the mining industry for a total of 19 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Review and report on mining aspects at many mining operations and projects for due diligence and regulatory requirements.
   - Operational experience as a Planning Engineer at two North American Mines.
   - Management and operational experience at several mining and milling operations around the world treating various metals, including base and precious metals.

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 property which is the subject of the Technical Report most recently in October 2018.

6. I am responsible for Sections 4, 5, 15, 16,18, 19, 21, 22, 23 and 30, and related disclosure in Sections 1, 2, 3, and Sections 24 through 29 of the Technical Report.

7. I am not independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8. Other than in my capacity as an employee of Americas Silver, I have had no prior involvement with the property that is the subject of the Technical Report.

9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th day of May 2019.

(Signed & Sealed) ***"Shawn Wilson"***

Shawn Wilson, P.Eng.

Niel de Bruin

I, Niel de Bruin, P.Geo., as an author of this report entitled “Technical Report on the San Rafael Mine and the EC120 Preliminary Feasibility Study, Sinaloa, Mexico” with an effective date of April 3, 2019, prepared for Americas Silver Corporation, and dated May 17, 2019, do hereby certify that:

1. I am employed by, and carried out these assignments for Americas Silver Corporation, whose address is at 145 King Street West, Suite 2870, Toronto, ON, M5H 1J8, in the capacity of Director of Geology.

2. I am a graduate of the University of Johannesburg, Johannesburg ,Gauteng, South Africa in 1995 with a Bachelor of Earth Science in Geology and Geography and University of the Free State, Bloemfontein, Free State, South Africa in 2013 with a Master of Science degree in Mineral Resource Management.

3. I am a member in good standing of the Association of Professional Geoscientists of Ontario, P.Geo. Registration number 2449. I have worked in the mining industry for a total of 22 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Review and report on geological aspects at many mining operations and projects for due diligence and regulatory requirements.
   - Senior Geologist and Geology Manager on several base and precious metal mine operations, exploration projects and studies.
   - Management and operational experience at several Canadian, American and South African mine operations in various base and precious metals.

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 property which is the subject of the Technical Report most recently in May 2019.

6. I am responsible for Sections 9 through 12 and Section 14, and related disclosure in Sections 1, 2, 3, and Sections 24 through 29 of the Technical Report.

7. I am not independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8. Other than in my capacity as an employee of Americas Silver, I have had no prior involvement with the property that is the subject of the Technical Report.

9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th day of May 2019.

(Signed & Sealed) ***"Niel de Bruin"***

Niel de Bruin, P.Geo.

James Stonehouse

I, James Stonehouse, SME (RM), as an author of this report entitled "Technical Report on the San Rafael Mine and the EC120 Preliminary Feasibility Study, Sinaloa, Mexico" with an effective date of April 3, 2019, prepared for Americas Silver Corporation, and dated May 17, 2019, do hereby certify that:

1. I am employed by, and carried out these assignments for Americas Silver Corporation, whose address is at 145 King Street West, Suite 2870, Toronto, ON, M5H 1J8, in the capacity of Director of Geology.

2. I am a graduate of Dartmouth College, Hanover, New Hampshire in the United States of America in 1974 with a B.A. in Earth Sciences and in 1976 with a M.A. in Earth Sciences.

3. I am a registered member in good standing of the Society for Mining, Metallurgy & Exploration, SME (RM). Registration number 4168919. I have worked in the mining industry for a total of 43 years since my graduation. My relevant experience for the purpose of the Technical Report is:
   - Review and report on geological aspects at many mining operations and projects for due diligence and regulatory requirements.
   - Senior Geologist and Geology Manager on several base and precious metal exploration projects and studies in North, Central and South America, Mexico and the FSU.
   - Management and operational experience at several base and precious metals mine operations in North, Central and South America, Mexico and the FSU.

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 property which is the subject of the Technical Report most recently in April 2019.

6. I am responsible for Sections 6 through 8, and related disclosure in Sections 1, 2, 3, and Sections 24 through 29 of the Technical Report.

7. I am not independent of the Issuer applying the test set out in Section 1.5 of NI 43-101.

8. Other than in my capacity as an employee of Americas Silver, I have had no prior involvement with the property that is the subject of the Technical Report.

9. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.

10. At the effective date of the Technical Report, to the best of my knowledge, information, and belief, the Technical Report contains all scientific and technical information that is required to be disclosed to make the Technical Report not misleading.

Dated this 17th day of May 2019.

(Signed & Sealed) ***"James Stonehouse"***

James Stonehouse, SME (RM)

30 APPENDIX 1

30.1 Mineral Concessions

TABLE 30-1 MINERAL CONCESSION LIST (APRIL 2019)
Americas Silver Corporation – San Rafael Mine

Concession Name	Title No.	Date Issued	Date Expires	Size (ha)
MPRG 100% (No Royalty)				
EL VENADO	155605	30-Sep-71	29-Sep-21	21.0000
LA VERDE	156662	14-Apr-72	13-Apr-22	100.0000
LA DURA	171975	21-Sep-83	20-Sep-33	100.0000
LA ESTRELLA	172855	29-Jun-84	28-Jun-34	55.0000
AMPL. LOS CRISTOS	178095	11-Jul-86	10-Jul-36	95.6962
LA DORA	186334	29-Mar-90	28-Mar-40	15.0000
REAL DE MONTECRISTO	207640	30-Jun-98	29-Jun-48	29.2739
MINA MAGISTRAL	210893	27-Jan-00	26-Jan-50	84.9234
LAS MILPAS	211200	11-Apr-00	10-Apr-50	20.9499
JIMMY 3	213060	2-Mar-01	1-Mar-51	40.0000
MONICA 2	213820	3-Jul-01	2-Jul-51	16.0000
EL SABINO	213989	13-Jul-01	12-Jul-51	13.9117
LAS GUASIMAS	214758	22-Nov-01	21-Nov-51	9.0000
SILVIA MARIA	216419	17-May-02	16-May-52	19.1510
LOS CRISTOS	221715	17-Mar-04	16-Mar-54	599.3038
RICARDO	225146	26-Jul-05	25-Jul-55	1271.3626
RICH 1	226550	26-Jan-06	25-Jan-56	179.9372
MAGDA 2	226587	27-Jan-06	26-Jan-56	519.7330
MAGDA 2 FRACCION 2	226588	27-Jan-06	26-Jan-56	0.5108
VENADO	228013	26-Sep-06	25-Jan-56	85.5091
VENADO	228014	26-Sep-06	25-Jan-56	100.0000
TANO	235521	11-Dec-09	10-Dec-59	596.1570
RICH 5	237398	9-Dec-10	8-Dec-60	67.0974
EL SALTO	237531	21-Dec-10	20-Dec-60	30.3760
EL GALLO	237532	21-Dec-10	20-Dec-60	17.5283
BIRO	237533	21-Dec-10	20-Dec-60	183.1473
RICH 3	237541	21-Dec-10	20-Dec-60	1.7425
MAGDA 3	237656	20-Apr-11	19-Apr-61	13.3281
MAGDA 5	237657	20-Apr-11	19-Apr-61	0.3214
MAGDA 4	237658	20-Apr-11	19-Apr-61	0.5423
MAGDA 6	237659	20-Apr-11	19-Apr-61	0.7701
MAGDA 7	237660	20-Apr-11	19-Apr-61	2.5396
EL OLVIDADO	237679	26-Apr-11	21-Nov-51	61.8585

Concession Name	Title No.	Date Issued	Date Expires	Size (ha)
RICH 4	237827	29-Apr-11	28-Apr-61	0.5889
ROJA	238285	26-Aug-11	10-Oct-51	47.8902
LA ROJA	238286	26-Aug-11	10-May-51	590.0487
JIMMY 5	238287	26-Aug-11	1-Mar-51	63.1020
MAGDA FRACC. A	238288	26-Aug-11	14-Mar-50	186.3836
SAN JOSE	238289	26-Aug-11	7-Jul-47	239.9812
HUMAYA	238290	26-Aug-11	7-Oct-49	289.1274
COVADONGA	238329	30-Aug-11	25-Oct-55	6.9869
PENNY	238330	30-Aug-11	26-Sep-56	198.8591
BRUJITA	238634	11-Oct-11	10-Oct-61	7.7743
FRANK	240925	15-Aug-12	1-Apr-52	60.0785
GORDON	240926	15-Aug-12	28-Oct-49	53.0697
JIMMY 4	240927	15-Aug-12	1-Mar-51	56.0000
SAN RAMON	240928	15-Aug-12	3-Dec-51	278.4991
MAGDA FRACC. B	240929	15-Aug-12	14-Mar-52	48.9471
MONICA	240930	15-Aug-12	12-Jul-51	54.6931
JIMMY 6	242315	28-Jun-13	1-Oct-51	174.7555
RICH 6	245889	15-Dec-17	8-Dec-60	10.4632
Sub-total MPRG	51 Concessions			6,718.9196
MCO 100% (No Royalty)				
EL ANGEL TERCERO	167215	22-Oct-80	21-Oct-30	64.0000
ANEXAS DEL ANGEL	167216	22-Oct-80	21-Oct-30	56.0000
ANEXAS AL PREDIO	167217	22-Oct-80	21-Oct-30	20.0000
LA SECA 2 FRACCION 2	223179	29-Oct-04	28-Oct-54	88.2008
LA SECA 3	225354	24-Aug-05	23-Aug-55	200.0000
AMPL. EL MAGISTRAL	226527	24-Jan-06	23-Jan-56	614.5519
EL PINO	227527	6-Jul-06	5-Jul-56	40.0000
LA SECA 2 FRACCION 1	244911	15-Apr-16	14-Apr-66	2837.6576
LA SECA FRACC. 1	245366	13-Dec-16	2-Jun-54	6219.6873
ZAIDA	245890	15-Dec-17	27-Mar-58	837.2654
Sub-total MCO (No Royalty)	9 Concessions			10,977.3630
MCO 100% (with 1.25% and 1.5%* NSR payable in the event of production)				
EL CAJÓN 2	210988	29-Feb-06	28-Feb-56	922.8364
EL MAGISTRAL	225864	4-Nov-05	3-Nov-55	80.5674
LA ESCONDIDA	225865	4-Nov-05	3-Nov-55	112.0000
SIMON	225867	4-Nov-05	3-Nov-55	245.7530
EL CAJÓN	226288	6-Dec-05	5-Dec-55	26.1143
COSALÁ 2*	239504	15-Dec-11	14-Dec-61	307.1945
Sub-total MCO (Royalty)	6 Concessions			1,694.4656
Total Americas Property	**67 Concessions**			**19,390.7482**