

# Technical Report and Updated Mineral Resource Estimate for the Las Chispas Property Sonora, Mexico



## SilverCrest Metals Inc.

EFFECTIVE DATE: SEPTEMBER 13, 2018

*Report Author:*

*N. Eric Fier, CPG, P.Eng,  
Chief Executive Officer – SilverCrest Metals Inc.*



---

This page intentionally left blank.

## EXECUTIVE SUMMARY

SilverCrest Metals Inc. (SilverCrest) of Vancouver, British Columbia, Canada has prepared this Updated Mineral Resource Estimate for the Las Chispas Property (Las Chispas or the Property), located in the State of Sonora, Mexico. This Technical Report is prepared in compliance with National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) and titled, “Technical Report and Updated Mineral Resource Estimate for the Las Chispas Property, Sonora, Mexico” (“September 2018 Updated Mineral Resource Estimate”), effective September 13, 2018. The September 2018 Updated Mineral Resource Estimate updates the Technical Report and Mineral Resource Estimate for the Las Chispas Property dated effective February 12, 2018, as amended May 9, 2018 (“February 2018 Maiden Resource Estimate”), prepared by James Barr, P.Geo independent Qualified Person (QP), Senior Geologist and Team Lead with Tetra Tech Inc. The total change in mineral resources disclosed in this September 2018 Mineral Resource Estimate is less than 100 percent from the February 2018 Maiden Resource Estimate. The September 2018 Updated Mineral Resource Estimate was completed by N. Eric Fier, CPG, P.Eng, and CEO of SilverCrest as author and QP. Refer to the “Technical Report and Mineral Resource Estimate for the Las Chispas Property” with Effective Date February 12, 2018, and amended May 9, 2018, for further information referenced in this report.

Las Chispas is the site of historical production of silver and gold from narrow high-grade veins in numerous underground mines dating back to approximately 1640. The bulk of historical mining occurred between 1880 and 1930 by the Pedrazzini Gold and Silver Mining Company. Minimal mining activity is believed to have been conducted on the Property since this time. In 1910, annual production for three years trailing ranged between 3,064 and 3,540 tonnes with grades on average over the period of 1.29 ounces per tonne gold and 173 ounces per tonne silver. High-grades in the mine are a result of the concentration and formation of numerous primary and secondary silver sulphides mainly argentite, acanthite, stephanite, polybasite and pyrargyrite. Numerous world class mineral specimens from the mine were donated to museums and educational institutions.

Historical mining was conducted along three main structures which are being identified by SilverCrest as the Las Chispas Vein, the William Tell Vein, and the Babicanora Vein. Each of these structures has various extents of underground development and many of the workings are restricted to small scale development on one or two working levels. The most extensive development appears to be along the Las Chispas Vein, historical mining has occurred over a strike length of approximately 1,250 m to a maximum depth of approximately 350 m. Mining at Las Chispas targeted high-grade mineralization through a series of interconnected stopes. Small scale mining was also conducted from three 30 m tunnels at the La Victoria prospect, located on the southwest portion of the Property.

SilverCrest has gained access to many of the historical workings through extensive mine rehabilitation of approximately 11 kilometres of a known 11.5 kilometres of underground development. Rehabilitation is now complete with access to nine levels (approximately 900 vertical feet) on the Las Chispas Vein.

Access to the Property is very good. A 10 km dirt road, which connects to the paved Highway 89, has been upgraded. The highway connects to Hermosillo, approximately 220 km to the southwest, to Cananea 150 km to the north, or to Tucson, Arizona, approximately 350 km to the northwest. Nearby communities include Banamichi, located 25 km to the south, which is the service community for the nearby Santa Elena Mine operated by First Majestic Silver Corp., and Arizpe located 12 km to the north. The Mercedes Mine operated previously by Yamana, and now Premier Gold Mine Limited, is located 33 km northwest of Las Chispas.

The Property is comprised of 28 mineral concessions totaling 1,400.96 hectares. Compañía Minera La Lllamarada S.A. de C.V. (Lllamarada), which is a Mexican wholly-owned subsidiary of SilverCrest, has acquired title to, or entered into option agreements to purchase with five concession holders. SilverCrest owns approximately two

thirds of the surface rights covering its optioned mining concessions. A 20 year lease agreement for land access and exploration activities to the remaining one third of the surface rights on the mineral concessions is in place with the local Ejido (Ejido Bamori). The map shown in Figure 1 shows the Property layout including mineral concessions and surface rights ownership.

Las Chispas will require ongoing exploration permits to continue with drilling and exploration activities. SilverCrest currently holds an exploration permit for surface drilling which will need to be extended as of March 28, 2020. SilverCrest submitted an environmental impact statement (MIA) to the Mexican Government's Secretariat of Environment and Natural Resources (SEMARNAT) along with an application for an underground drilling permit. The permit was authorized on September 19, 2016, for a 10-year period and also authorizes a proposed program to extract a bulk sample up to 100,000 tonnes for off-site test work. Future amendments to the MIA will be required for exploration drifting outside historic areas and building on-site facilities.

No known environmental liabilities exist on the Property from historical mining and processing operations. Soil and tailings testing was conducted as part of the overall sampling that has been ongoing on-site. To date there are no known contaminants. Water quality testing is currently ongoing for a baseline environmental study that is being done on-site.

The mineral deposits are classified as low to intermediate sulphidation epithermal veins, stockwork and breccia zones, where silver mineralization is present as primary minerals argentite/acanthite and secondary minerals stephanite, polybasite and pyrargyrite/proustite. Gold concentration is related to silver mineralization and may occur in trace quantities within the silver-sulphosalts, in addition to an electrum phase. Historical records document the irregular ore shoots of extreme high-grade mineralization which often occur in contact with, and likely in relation to, zones of leached and barren quartz and calcite filled fractures. Dufourcq (1910) describes these zones as commonly occurring horizontally and are a result of leaching, concentrating and redistributing the primary silver sulphides.

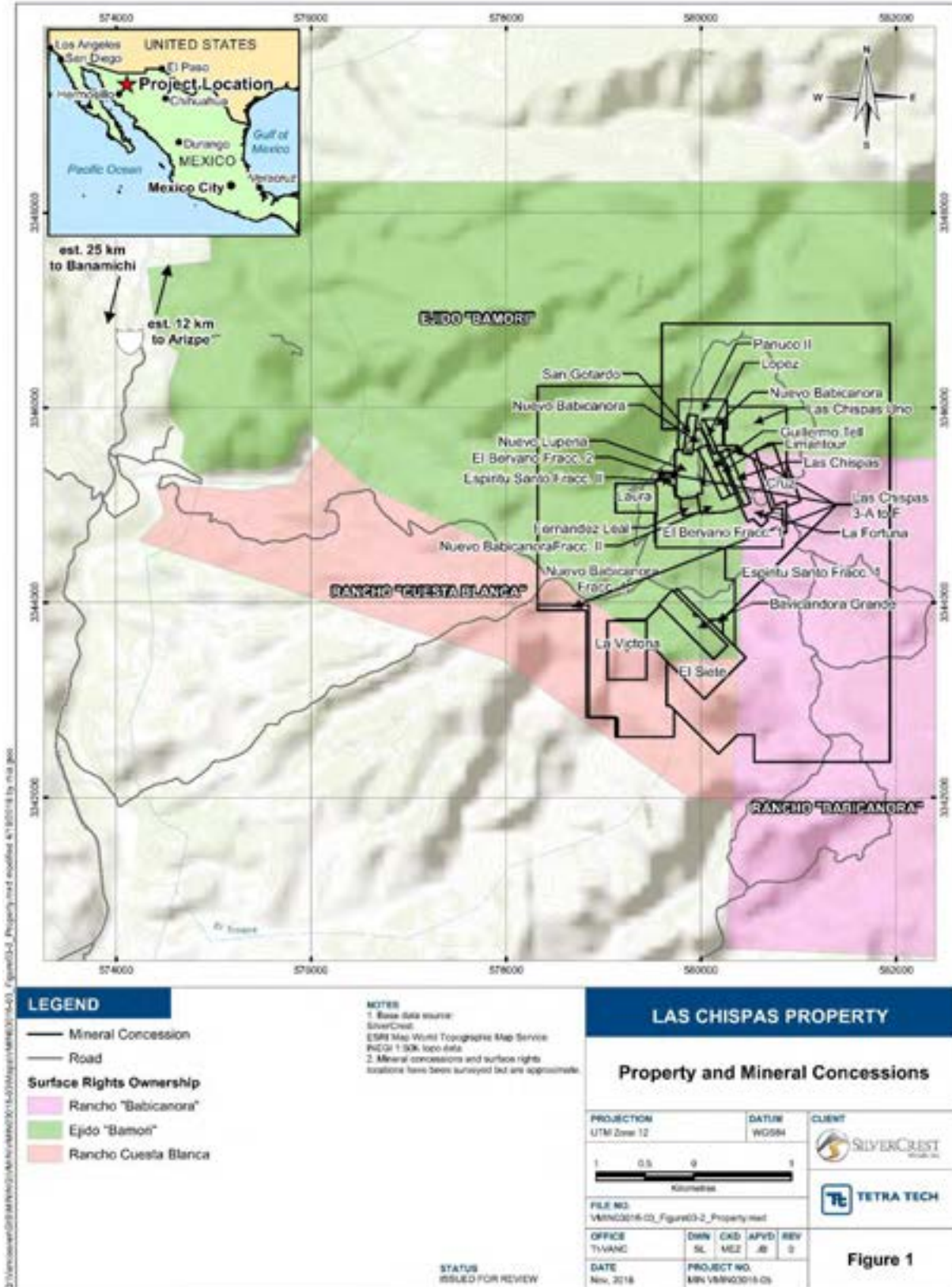
The deposits have been emplaced through a felsic to more mafic volcanoclastic sequence associated with volcanism of the upper portion of the Lower Volcanic Series, a dominant member of the Sierra Madre Occidental terrane which hosts similar deposits in northeastern portions of the State of Sonora and northwestern portions of the state of Chihuahua.

Previous exploration work was conducted by Minefinders Corporation Ltd. (Minefinders) between 2008 and 2011. During this period, Minefinders conducted exploration on the Property which was, however, limited by mineral concession rights. Regional activities consisted of geologic mapping and a geochemical sampling program totaling 143 stream sediment and bulk leach extractable gold (BLEG) samples, 213 underground rock chip samples, and 1,352 surface rock chips. The work was successful in identifying three gold targets along the 3 km long structural zone. The most prospective of these targets was interpreted to be an area between the Las Chispas Vein and the Babicanora Vein. Minefinders focused on the furthest western extension of the Babicanora Vein called El Muerto which is the only part of the trend that was acquired by concession and accessible for exploration work. They drilled seven reverse circulation holes, totaling 1,842.5 m from the road to the west and off the main mineralized trends. The program returned negative results and Minefinders dropped the Property in 2012.

SilverCrest Mines Inc. (now a subsidiary of First Majestic Silver Corp.), through its subsidiary Nusantara de Mexico S.A. de C.V., executed options agreements to acquire rights to 17 mineral concessions in September 2015. On October 1, 2015, these mineral concessions were transferred to SilverCrest's subsidiary Llamarada further to an arrangement agreement among SilverCrest Metals Inc. (SilverCrest), SilverCrest Mines Inc., and First Majestic Silver Corp. After October 2015, Llamarada obtained the rights to 11 additional mineral concessions.

Before SilverCrest acquired the Las Chispas Property in October 2015, no drilling had been completed on the northwest to southeast mineralized trend which contains the Las Chispas and Babicanora areas.

**Figure 1: Las Chispas Property and Mineral Concessions Map**





SilverCrest exploration began work on the Property in February 2016 with a primary focus on the Las Chispas, William Tell and Babicanora veins. From February to October 2016, the Phase I exploration program consisted of initial core drilling in the Las Chispas area, surface and underground mapping and sampling, and rehabilitating an estimated 6 km of underground workings. From November 2016 to February 2018, the Phase II exploration program consisted of additional drilling, surface and underground mapping and sampling, further rehabilitation of 4 km of underground workings plus auger and trenching of approximately 175,000 tonnes of surface historic waste dumps. The Phase III exploration program commenced in February 2018, and is currently ongoing as of the Effective Date of this report. From February 2018 to September 2018, the Phase III exploration program consisted of drilling, additional surface and underground mapping and sampling, and rehabilitation of 1.0 km of underground workings to complete the underground rehabilitation program of 11 km. The extensive mapping and sampling program being undertaken by SilverCrest has identified that many of the mineralized showings are comprised of narrow and high-grade mineralization as low to intermediate sulphidation epithermal deposits hosted in volcanoclastic rocks.

SilverCrest completed a Phase I, Phase II and partial Phase III surface and underground drill program totaling approximately 82,809 m in 305 core holes starting in March 2016 and continuing through to September 13, 2018.

Phase I core drilling of 22 holes totaling 6,392.6 m and 4,331 samples targeted near surface mineralization and lateral extensions of previously mined areas in the Las Chispas Vein, in addition to the William Tell Vein and the La Victoria prospect. Phase II core drilling of 161 drill holes totaling 39,357.7 m and 23,218 samples targeted testing unmined portions of the Las Chispas Vein, delineation of the Giovanni, Giovanni Mini, La Blanquita and other unnamed veins, in addition to exploration of the La Varela Vein, all within the Las Chispas Area. Drilling at Babicanora focused on delineating the down plunge and vertical extents of the Babicanora Vein, in addition to exploratory drilling on the Amethyst Vein and the Granaditas target, all within the Babicanora Area. Phase III core drilling of 122 drill holes totaling 37,059.5 m and 19,455 samples targeted the Babicanora Norte Vein, Luigi Vein and Granaditas Vein as well as continuing to delineate the down plunge and vertical extents of the Babicanora Vein and Footwall vein.

Drilling on the Babicanora Vein has identified significant silver and gold mineralization along a regional plunging trend which has been named the Area 51 zone, based on anchor mineral intersection in hole BA-17-51. The zone measures approximately 800 m along strike, 500 m vertically, and remains open down plunge. The top of Area 51 is located at approximately the same elevation as the valley bottom or 200 vertical metres from the ridge crest.

Select highlights of the Phase III drilling results are shown in Table 1. The location of the SilverCrest drilling in the Las Chispas Area is shown in Figure 2 and in the Babicanora Area in Figure 3. Surface collar locations were initially surveyed using a handheld GPS unit, then by a professional surveyor using a differential Trimble GPS. All hole inclinations were surveyed utilizing single shot measurements with a Flex-it® tool. Underground collar locations were surveyed relative to the underground survey network which has been tied in by a professional survey contractor.

**Table 1: Select Highlights from Phase III Drilling Results**

Hole No.	Vein	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au (gpt)	Ag (gpt)	AgEq* (gpt)
LC17-34	Luigi	214.0	214.9	0.9	0.8	1.03	151.0	228
LC17-45	Luigi	222.3	227.2	4.9	4.1	1.71	231.8	360
incl.	Luigi	224.5	225.0	0.5	0.4	7.07	938.0	1,468
LC17-58	Luigi	319.9	321.9	2.0	1.8	0.28	221.5	243
LC17-65	Luigi	243.0	244.5	1.5	1.4	13.22	2,006.7	2,999
incl.	Luigi	243.5	244.0	0.5	0.4	39.20	5,930.0	8,870
LC17-69	Luigi	180.4	182.0	1.6	1.4	0.18	172.5	186
LC17-72	Luigi	254.9	256.7	1.8	1.6	3.41	265.4	521
incl.	Luigi	254.9	255.6	0.7	0.6	7.69	590.0	1,167
LCU18-25	Luigi	43.8	44.9	1.1	1.0	2.75	231.5	438
BA18-83	Babicanora Footwall	285.2	287.1	1.9	1.5	54.59	6,534.9	10,629
incl.	Babicanora Footwall	286.0	286.6	0.6	0.5	183.50	21,858.0	35,621
BA18-85	Babicanora Footwall	328.3	330.9	2.6	2.3	4.07	436.0	741
incl.	Babicanora Footwall	329.3	329.8	0.5	0.4	5.95	564.0	1,010
BA18-89	Babicanora Footwall	302.5	303.6	1.1	0.9	1.15	151.4	238
incl.	Babicanora Footwall	302.5	303.0	0.5	0.4	2.37	317.0	495
BA18-70	Babicanora	447.1	448.5	1.4	1.2	0.36	1,558.7	1,586
incl.	Babicanora	447.1	447.9	0.8	0.6	0.10	2,670.0	2,678
BA18-72	Babicanora	461.8	462.6	0.5	0.5	1.46	141.0	250
BA18-74	Babicanora	385.9	397.0	11.1	9.2	1.34	252.5	353
incl.	Babicanora	385.9	391.0	5.1	3.9	2.66	344.0	543
BA18-77	Babicanora	356.0	362.0	6.0	4.5	7.96	912.0	1,509
incl.	Babicanora	356.5	359.0	2.5	1.8	20.62	2,167.6	3,714
BA18-81	Babicanora	274.2	278.2	4.0	4.0	22.83	1,718.8	3,431
Incl.	Babicanora	275.2	277.2	2.0	2.0	46.06	3,342.0	6,796
BA18-82	Babicanora	270.2	275.1	4.9	4.9	0.35	179.4	205
Incl.	Babicanora	274.2	275.1	0.9	0.9	0.25	402.3	421
BA18-83	Babicanora	262.6	265.1	2.5	2.0	0.87	269.0	334
BA18-85	Babicanora	313.0	315.8	2.8	2.5	6.04	368.8	822
incl.	Babicanora	314.1	315.0	0.9	0.8	14.95	742.0	1,863
BA18-88	Babicanora	377.8	378.5	0.7	0.6	2.19	63.5	228
BA18-89	Babicanora	268.9	269.9	1.0	0.9	0.06	99.1	104
BAN18-02	Babicanora Norte	70.8	72.3	1.5	1.4	9.11	1,033.3	1,716
incl.	Babicanora Norte	71.8	72.3	0.5	0.5	25.00	2,760.0	4,635
BAN18-03	Babicanora Norte	95.8	97.3	1.5	1.3	5.19	726.0	1,115
BAN18-04	Babicanora Norte	89.5	91.0	1.5	1.2	4.71	592.9	946
incl.	Babicanora Norte	89.5	90.0	0.5	0.4	14.05	1,775.0	2,829



**Table 1: Select Highlights from Phase III Drilling Results**

Hole No.	Vein	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au (gpt)	Ag (gpt)	AgEq* (gpt)
BAN18-06	Babicanora Norte	101.6	103.1	1.5	1.5	23.96	2,081.0	3,879
incl.	Babicanora Norte	102.1	102.6	0.5	0.5	71.80	6,230.0	11,615
BAN18-07	Babicanora Norte	132.7	134.0	1.4	1.4	1.33	140.9	240
BAN18-09	Babicanora Norte	80.6	81.6	1.0	0.9	1.26	146.5	241
BAN18-10	Babicanora Norte	93.0	95.5	2.5	2.2	61.36	2,833.5	7,436
incl.	Babicanora Norte	95.0	95.5	0.5	0.4	305.00	13,889.5	36,764
BAN18-11	Babicanora Norte	357.4	359.0	1.6	1.4	1.88	206.0	347
BAN18-12	Babicanora Norte	101.9	103.4	1.5	1.4	1.18	136.9	225
incl.	Babicanora Norte	101.9	102.4	0.5	0.4	3.44	405.0	663
BAN18-13	Babicanora Norte	134.9	136.3	1.5	1.2	2.89	0.2	216
BAN18-14	Babicanora Norte	329.4	330.9	1.5	1.2	1.33	102.1	201
Incl.	Babicanora Norte	329.4	329.9	0.5	0.4	3.89	305.0	596
BAN18-16	Babicanora Norte	156.0	157.5	1.5	1.3	1.50	176.0	288
BAN18-26	Babicanora Norte	328.9	330.5	1.6	1.4	51.43	2,838.0	6,695
incl.	Babicanora Norte	329.5	330.0	0.5	0.4	153.50	7,430.0	18,942
BAN18-27	Babicanora Norte	244.6	246.8	2.2	2.1	6.54	795.3	1,286
incl.	Babicanora Norte	246.1	246.8	0.7	0.6	18.35	2,240.0	3,616
BAN18-30	Babicanora Norte	246.7	247.2	0.5	0.4	1.01	246.0	321
BAN18-31	Babicanora Norte	208.8	210.7	1.9	1.8	15.11	1,718.2	2,851
Incl.	Babicanora Norte	210.2	210.7	0.5	0.4	56.70	6,260.0	10,512
BAN18-33	Babicanora Norte	224.1	225.9	1.8	1.7	1.00	131.4	206
incl.	Babicanora Norte	225.3	225.9	0.6	0.5	1.97	212.0	359
BAN18-36	Babicanora Norte	221.1	221.7	0.6	0.5	0.51	74.8	113
BAN18-37	Babicanora Norte	231.9	233.4	1.6	1.5	4.22	687.0	1,004
incl.	Babicanora Norte	234.0	234.5	0.5	0.4	7.72	688.0	1,267
BAN18-40	Babicanora Norte	189.8	191.5	1.7	1.6	8.96	1,078.7	1,750
incl.	Babicanora Norte	190.3	190.9	0.6	0.5	26.60	3,210.0	5,205
GR17-02	Granaditas	138.9	140.6	1.7	1.5	3.63	190.1	462
incl.	Granaditas	139.9	140.6	0.7	0.6	8.16	387.0	999
GR18-04	Granaditas	133.3	135.3	2.0	1.8	12.14	1,440.3	2,350
incl.	Granaditas	133.8	134.3	0.5	0.4	47.50	5,620.0	9,183
GR18-09	Granaditas	165.9	167.3	1.4	1.3	3.24	338.9	582
incl.	Granaditas	166.4	167.3	0.9	0.8	4.86	498.0	863
GR18-11	Granaditas	179.4	180.6	1.2	1.2	1.23	114.0	206
GR18-12	Granaditas	162.4	164.0	1.6	1.2	5.60	15.0	437
incl.	Granaditas	162.9	164.0	1.1	0.8	8.30	20.0	641
GR18-15	Granaditas	210.8	212.4	1.6	1.3	4.20	229.0	543

**Table 1: Select Highlights from Phase III Drilling Results**

Hole No.	Vein	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au (gpt)	Ag (gpt)	AgEq* (gpt)
incl.	Granaditas	211.8	212.4	0.6	0.5	10.10	520.0	1,274
GR18-17	Granaditas	280.6	282.3	1.7	1.2	3.10	4.0	234
incl.	Granaditas	280.6	281.1	0.5	0.4	10.00	11.0	760
GR18-03	Granaditas Dos	47.5	48.1	0.6	0.5	0.50	97.0	134
GR18-04	Granaditas Dos	107.9	108.4	0.5	0.5	1.80	149.0	285
GR18-07	Granaditas Dos	25.0	25.5	0.5	0.4	2.40	421.0	600
GR18-09	Granaditas Dos	80.7	81.2	0.5	0.5	2.90	294.0	514
GR18-12	Granaditas Dos	66.2	68.0	1.7	1.2	1.20	162.0	248
incl.	Granaditas Dos	67.4	68.0	0.6	0.4	3.30	468.0	712
GR18-13	Granaditas Dos	117.8	118.3	0.5	0.3	0.90	130.0	197
GR18-15	Granaditas Dos	86.0	86.5	0.5	0.4	0.70	157.0	208

Note: All numbers are rounded.

\* AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

\*\*All holes were drilled at angles to mineralization and adjusted for true thickness.

**Figure 2: Las Chispas Drilling Overview Map**

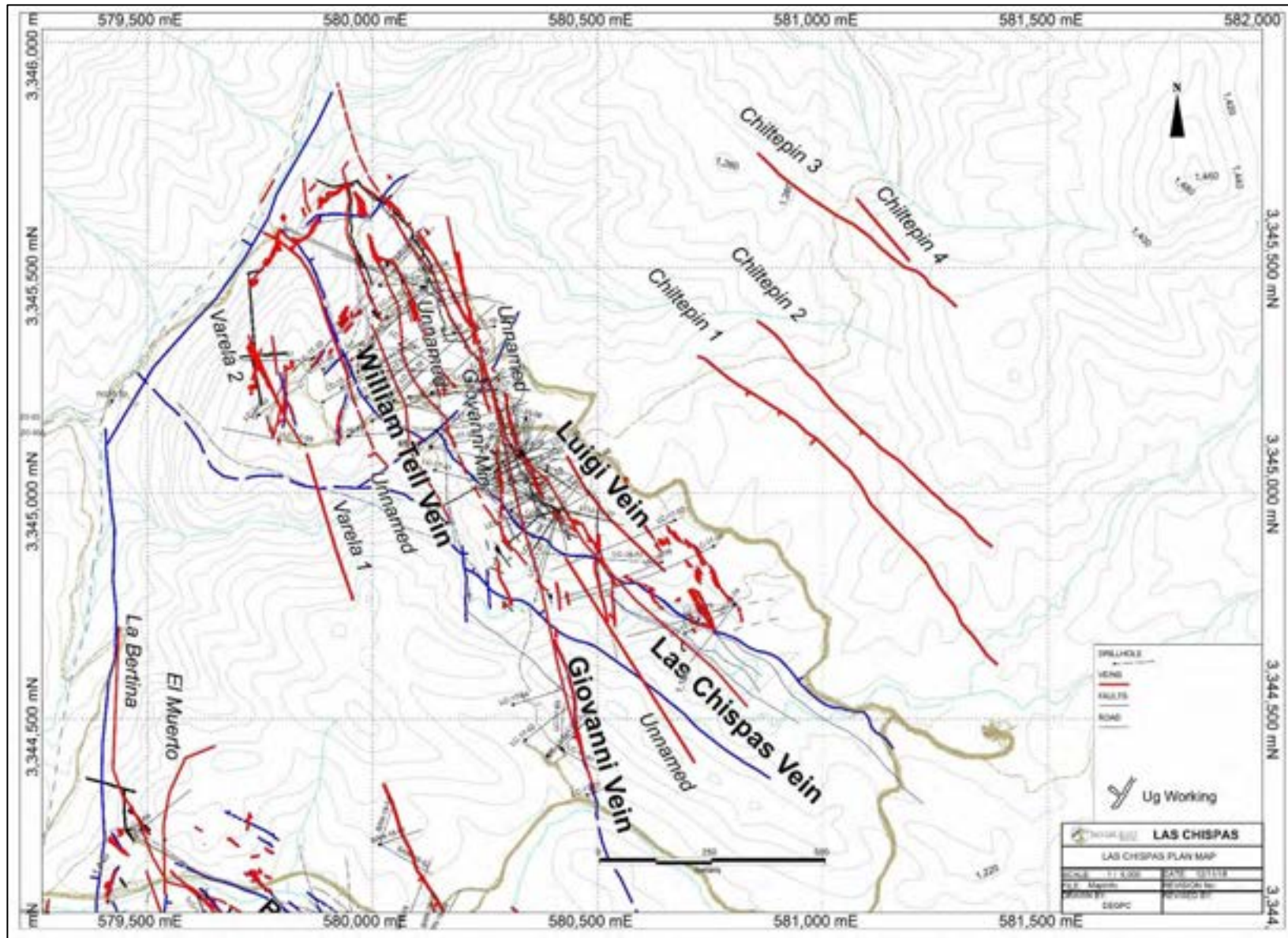
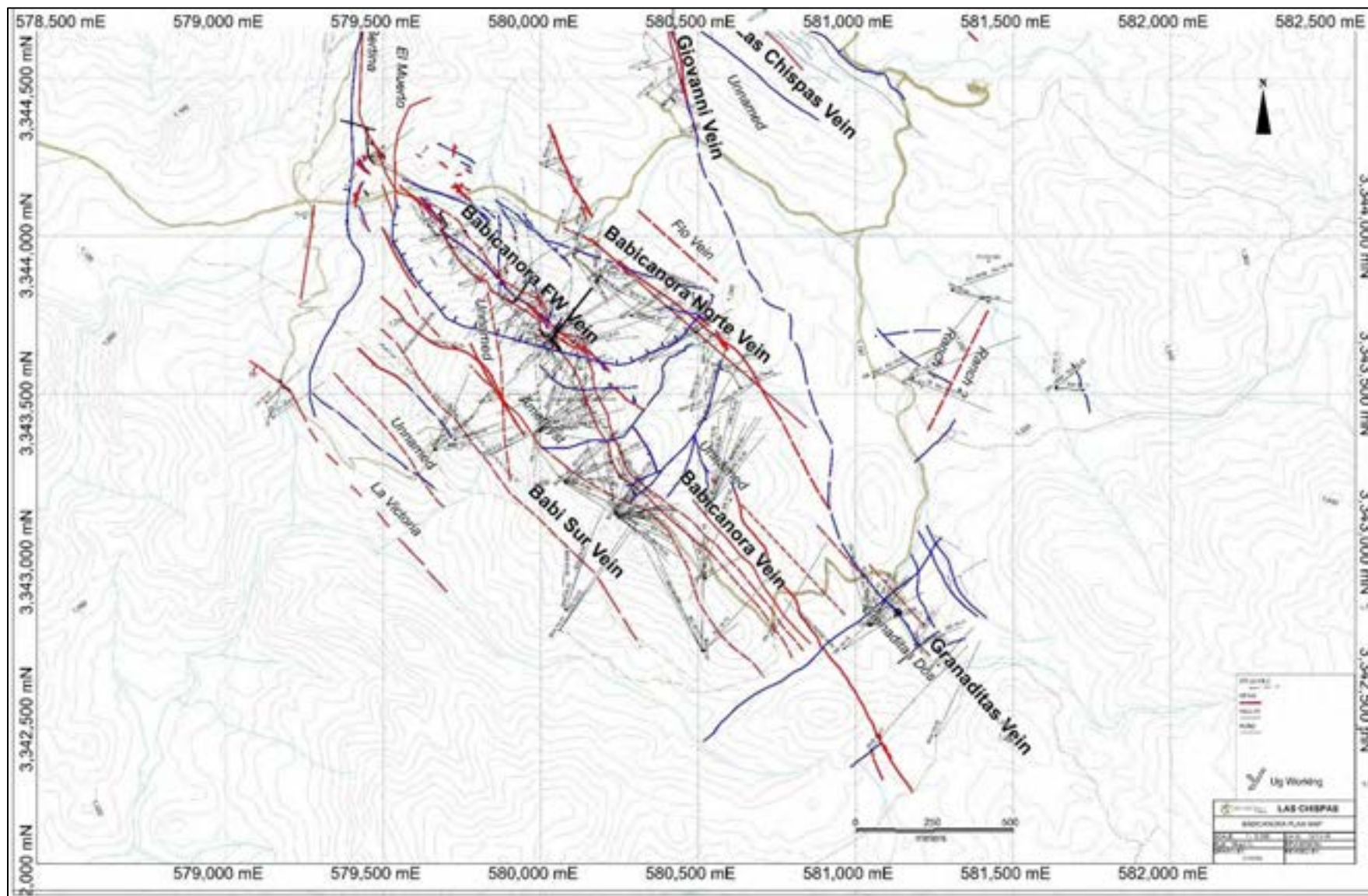




Figure 3: Babicanora Drilling Overview Map



The February 2018 Maiden Resource Estimate encompasses vein hosted material at the Babicanora, Las Chispas, William Tell and Giovanni veins, and surface stockpiled material remaining from historical operations as waste dumps, waste tailings deposits and as recovered underground muck material. The September 2018 Updated Mineral Resource Estimate is the subject of this report and encompasses vein material at the Babicanora, Babicanora Footwall, Babicanora Norte, Granaditas, Las Chispas, William Tell, Giovanni and Luigi veins and previously reported surface stockpiled material. The comparison of the February 2018 Maiden Resource Estimate to the September 2018 Updated Mineral Resource Estimate is set out in Table 2.

**Table 2: Maiden vs. Updated Resource Comparison**

Resource Category <sup>(1)</sup>	Tonnes (M)	Au gpt	Ag gpt	AgEq <sup>(2)</sup> gpt	Contained Au Ounces	Contained Ag Ounces	Contained AgEq <sup>(2)</sup> Ounces
February 2018 Resource	3.4	3.63	296.0	568	401,600	32,675,600	62,826,100
Includes*	1.0	7.43	469.0	1,026	231,000	14,581,000	32,247,000
September 2018 Resource	4.3	3.68	347.0	623	511,500	48,298,700	86,701,200
Includes**	1.6	6.97	568.5	1,091	359,900	29,343,600	56,333,400

Notes: All numbers are rounded.

\* Includes Area 51 resource estimation.

\*\* Includes Area 51 and adjacent Babicanora Norte resource estimation.

- (1) Conforms to NI 43-101, Companion Policy 43-101CP, and the Canadian Institution of Mining, Metallurgy and Petroleum (“CIM”) Definition Standards on Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.
- (2) AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.
- (3) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.

Vein models were constructed by SilverCrest using Aranz Leapfrog Geo v.4.3 and the majority of the veins were constrained to a minimum thickness of 1.5 m. Block models were constructed using Geovia GEMS v.6.7.4. Data was reviewed by the QP in Geovia GEMS v.6.7.4. The vein models were used to constrain drill hole samples and underground channel samples to be representative of the mineralized vein. Drill hole assays were composited within the vein solid to 1 m intervals, and channel samples were kept at the original sample length which was approximately 1 m. A total of 1,318 composite drill core data points and 2,652 underground channel data points were used as the basis for the mineral resource estimate.

In total there were four block models developed for the September 2018 Updated Mineral Resource Estimate. One block model was developed for the veins in the Las Chispas Area, which included Las Chispas, William Tell, Giovanni, Giovanni Mini, La Blanquita and Luigi veins. Three block models developed in the Babicanora area were defined by vein and structural controls. These three models were divided into the Babicanora model which included the Babicanora Main, Babicanora Footwall and Babicanora Hanging wall veins, the Babicanora Norte model and the Granaditas model. The block models were established on 2 m by 2m by 2m blocks using the percent model methods in Geovia GEMs to accommodate the vein widths averaging approximately 3 m.

Input parameters for block model interpolation included Ag and Au grades. Metal grades were interpolated using ordinary kriging and inverse distance squared methods using search parameters based on variographic assessment. Where inputs grades were used from underground sampling and drill hole sampling, multiple interpolation passes were used to first isolate underground sample in short range searches, following by larger

searches which included both underground sampling and drill hole sampling. Where only drill hole sampling was available, single interpolation passes were used.

A fixed bulk density value of 2.55 t/m<sup>3</sup> was applied to all materials within the block model. Bulk density was measured in 72 independent laboratory wax coated bulk density tests on mineralized and non-mineralized rock samples, and 641 specific gravity measurements collected by SilverCrest.

Excavation models were developed for historical underground workings within the Las Chispas vein, William Tell Vein and Giovanni veins based on SilverCrest underground mapping and historical records when available. The excavation models were superimposed onto the vein models, and the material volumes removed from the mineral resource estimate computations. Additionally, the Las Chispas estimate did not include any material below the 900 level workings (approximately 900 metres above sea level (masl)) due to limited mapping and sampling in this area.

A total of 41 historical stockpiles were mapped, surveyed and sampled by SilverCrest between July 2017 and January 2018. The sample collection program included trenching and auger sampling resulting in 1,340 samples. The stockpile surveys were used in combination with average trench depths and an estimated bulk density value of 1.7 t/m<sup>3</sup> to estimate volume and tonnages for each stockpile, and the sample grades were averaged. Stockpiles with average grade of >100 gpt AgEq, were tabulated and classified as Inferred Mineral Resources.

The estimates are effective as of September 13, 2018, and are summarized in Table 3. A detailed breakdown of the vein estimates is included in Table 4 and details of the stockpile estimate are included in Table 5. These estimates adhere to guidelines set forth by National Instrument 43-101 and the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) Best Practices. All estimates prepared for the Las Chispas Property have been classified as Inferred using CIM Definition Standards.

**Table 3: Summary of Mineral Resource Estimates for Vein Material and Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018**

Type	Cut-off Grade <sup>3</sup> (gpt AgEq <sup>2</sup> )	Classification <sup>1</sup>	Tonnes	Au gpt	Ag gpt	AgEq <sup>2</sup> gpt	Contained Au Ounces	Contained Ag Ounces	Contained AgEq <sup>2</sup> Ounces
Vein material	150	Inferred	4,153,900	3.78	356.7	640	503,900	47,634,100	85,455,100
Stockpile	100	Inferred	174,500	1.38	119.0	222	7600	664,600	1,246,100
<b>Overall</b>		<b>Inferred</b>	<b>4,328,400</b>	<b>3.68</b>	<b>347.1</b>	<b>623</b>	<b>511,500</b>	<b>48,298,700</b>	<b>86,701,200</b>

- (1) Conforms to NI 43-101, Companion Policy 43-101CP, and the Canadian Institution of Mining, Metallurgy and Petroleum (“CIM”) Definition Standards on Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.
- (2) AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.
- (3) Vein resource is reported using a 150 gpt AgEq cut-off grade and minimum 1.5 m true width (approximate), and surface stockpile resource is reported using a 100 gpt AgEq cut-off.
- (4) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.
- (5) All numbers are rounded. Overall numbers may not be exact due to rounding.



**Table 4: Mineral Resource Estimate for Vein Material at the Las Chispas Property, Effective September 13, 2018**

Vein <sup>(6)</sup>	Classification <sup>(1)</sup>	Tonnes	Au	Ag	AgEq <sup>(2)</sup>	Contained	Contained	Contained
			gpt	gpt	gpt	Au Ounces	Ag Ounces	AgEq <sup>(2)</sup> Ounces
Babicanora <sup>(4)</sup>	Inferred	1,931,200	5.06	447.2	826	314,100	27,763,700	51,318,800
Includes Area 51	Inferred	1,116,800	7.13	613.8	1,148	256,000	22,040,000	41,238,100
Babicanora Norte	Inferred	488,800	6.61	464.8	961	103,900	7,303,600	15,095,300
Granaditas	Inferred	95,100	2.46	220.9	405	7,500	675,100	1,239,200
Las Chispas <sup>(5)</sup>	Inferred	171,000	2.39	340.0	520	13,000	1,869,500	2,861,000
Giovanni <sup>(4)</sup>	Inferred	686,600	1.47	238.7	349	32,500	5,269,000	7,699,800
William Tell <sup>(5)</sup>	Inferred	595,000	1.32	185.0	284	25,000	3,543,000	5,438,000
Luigi	Inferred	186,200	1.32	202.1	301	7,900	1,210,200	1,803,000
<b>Total</b>	<b>Inferred</b>	<b>4,153,900</b>	<b>3.78</b>	<b>356.7</b>	<b>640</b>	<b>503,900</b>	<b>47,634,100</b>	<b>85,455,100</b>

(1) Conforms to NI 43-101, Companion Policy 43-101CP, and the CIM Definition Standards for Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.

(2) AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

(3) All numbers are rounded. Overall numbers may not be exact due to rounding.

(4) Babicanora resource includes the Babicanora Vein and Babicanora Footwall & Hangingwall Veins and Giovanni resource includes the La Blanquita extension and Giovanni mini Vein.

(5) Resource estimations for the Las Chispas and William Tell veins are unchanged from the February 2018 Maiden Resource Estimate.

(6) The estimate for Vein material is reported using a 150 gpt AgEq cut-off grade and minimum 1.5 m true width (approximate).

(7) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.

**Table 5: Mineral Resource Estimate for Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018**

Stockpile Name	Tonnes	Au (gpt)	Ag (gpt)	AgEq <sup>(2)</sup> (gpt)	Contained Gold Ounces	Contained Silver Ounces	Contained AgEq <sup>(2)</sup> Ounces
North Chispas 1	1,200	0.54	71	111	20	2,700	4,200
La Capilla	14,200	4.92	137	506	2,300	62,700	231,600
San Gotardo	79,500	0.79	121	180	2,000	308,100	459,600
Lupena	17,500	1.38	79	182	800	44,300	102,700
Las Chispas 1 (LCH)	24,200	0.78	125	183	600	97,000	142,500
Las Chispas 2	1,100	1.23	236	329	40	8,100	11,300
Las Chispas 3 (San Judas)	1,000	2.05	703	857	100	22,400	27,300
La Central	3,800	0.75	116	172	100	14,300	21,200
Chiltepines 1	200	0.87	175	240	0	800	1,200
Espiritu Santo	1,700	0.52	94	133	30	5,000	7,100
La Blanquita 2	4,600	0.53	118	158	100	17,500	23,400
El Muerto	5,800	2.52	79	268	500	14,900	50,200
Sementales	800	4.38	47	376	100	1,200	9,700
Buena Vista	400	4.62	57	403	100	700	5,100
Babicanora	10,300	1.81	56	192	600	18,500	63,300
Babicanora 2	1,000	2.63	276	473	100	8,900	15,300
El Cruce & 2,3	100	0.75	39	96	3	200	400
Babi stockpiled fill	800	1.80	120	255	50	3,100	6,600
LC stockpiled fill	300	2.50	243	431	20	2,300	4,200
Las Chispas u/g backfill	2,000	2.10	243	431	100	16,500	26,600
Babicanora u/g backfill	4,000	1.80	120	255	200	15,500	32,800
<b>TOTAL</b>	<b>174,500</b>	<b>1.38</b>	<b>119</b>	<b>222</b>	<b>7,600</b>	<b>664,600</b>	<b>1,246,100</b>

- 1) Conforms to NI 43-101, Companion Policy 43-101CP, and the CIM Definition Standards for Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.
- 2) All numbers are rounded. Overall numbers may not be exact due to rounding.
- 3) AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.
- 4) Resource is reported using a 100 gpt AgEq cut-off grade.
- 5) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.
- 6) Resource estimations for the historical dumps are unchanged from the February 2018 Maiden Resource Estimate.

In August 2017, SilverCrest conducted preliminary metallurgical testwork using 19 drill core samples from the Las Chispas and Babicanora veins that were combined into three composite samples. The testwork conducted at SGS Mineral Services in Durango, Mexico, included standard bottle rolls with 85% of material passing 150 mesh, pH at 11-11.5, 48% solids, and retention time of 50 hours. The results after 50 hours were an average of 98.9% gold recovery and 86.6% silver recovery. NaCN consumption rates averaged 1.5 Kg/t and CaO consumption rates averaged 1.4 Kg/t.

Based on the results of exploration work completed to date, the Las Chispas Property comprises an extensive mineralizing system, with numerous veins, or portions of veins, that remain intact and potentially undiscovered.

The Las Chispas Property comprises an extensive mineralizing system and merits further work to continue to characterize the internal variability and extents of the 30 known veins in the district and to explore the numerous veins not yet tested. A Phase III program estimated to cost approximately US\$15 million, which was originally recommended in the February 2018 Maiden Resource Estimate, continues to be reasonable. This exploration program, which commenced in February 2018 and is currently ongoing as of the Effective Date of this report, includes additional underground channel sampling, dedicated metallurgical testwork on significant veins, expansion and infill drilling along multiple veins, exploration decline at Area 51 zone, baseline work and permitting has been recommended. Results from the remainder of the Phase III program should be incorporated into a second updated mineral resource technical report and preliminary economic assessment. A cost estimate for this program is included below.

**Table 6: Cost Estimate for Additional Phase III Exploration Work**

Item	Units	Cost Estimate (USD\$000)
Dedicated sampling and metallurgical testwork on most significant veins	200 samples, composites and testwork	100
Expansion and infill drilling along multiple veins	45,000 m (surface and underground)	9,000
Area 51 decline and exploration	1,500 m	3,000
Baseline work and permitting	Decline, explosives, added drilling	200
Water exploration, permitting and purchase	All rights for water use	300
Update resource and technical report	Q1 2019 Technical Report	100
Preliminary economic assessment	Q1 2019 PEA	300
Mexico admin and labor	G & A	1,500
Corporate support	Corporate G & A	500
<b>Total</b>		<b>15,000</b>

## TABLE OF CONTENTS

<b>EXECUTIVE SUMMARY .....</b>	<b>1</b>
<b>1.0 INTRODUCTION .....</b>	<b>1</b>
1.1 Site Visit .....	2
1.2 Effective Date.....	2
1.3 Reporting of Grades by Silver Equivalent.....	2
<b>2.0 RELIANCE ON OTHER EXPERTS .....</b>	<b>3</b>
<b>3.0 PROPERTY DESCRIPTION AND LOCATION.....</b>	<b>4</b>
3.1 Mineral Tenure.....	4
3.1.1 Mineral Concession Payment Terms.....	8
3.2 Land Access and Ownership Agreements .....	9
3.3 Royalties .....	10
<b>4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY .....</b>	<b>11</b>
4.1 Climate.....	11
4.2 Physiography .....	11
4.3 Property Access.....	11
4.4 Local Resources .....	11
4.4.1 Water Supply .....	11
4.4.2 Power.....	12
4.4.3 Infrastructure.....	12
4.4.4 Community Services.....	12
<b>5.0 HISTORY .....</b>	<b>13</b>
5.1 1800's and Early 1900's .....	13
5.2 Mid-Late 1900's to Early 2000's .....	21
5.3 Minefinders (2008 – 2011).....	21
5.3.1 Minefinders Surface Sampling.....	21
5.3.2 Minefinders Drilling, 2011 .....	24
5.4 SilverCrest, 2013 to Start of Phase I Drilling in 2016 .....	24
<b>6.0 GEOLOGICAL SETTING AND MINERALIZATION .....</b>	<b>26</b>
6.1 Regional Geology .....	26
6.2 Local Geology.....	29
6.2.1 Geochemistry.....	34
6.2.2 Alteration.....	35
6.2.3 Mineralization.....	37
6.2.4 Structural Geology.....	41
6.2.5 Deposits and Mineral Occurrences .....	42
<b>7.0 DEPOSIT TYPES .....</b>	<b>60</b>

<b>8.0</b>	<b>EXPLORATION .....</b>	<b>63</b>
8.1	Underground Exploration .....	63
8.1.1	Underground Surveying .....	67
8.2	Surface Exploration .....	67
<b>9.0</b>	<b>DRILLING .....</b>	<b>70</b>
9.1	Program Overview .....	70
9.2	Drilling Results .....	73
9.2.1	Phase I .....	73
9.2.2	Phase II .....	73
9.2.3	Phase III .....	73
<b>10.0</b>	<b>SAMPLE PREPARATION, ANALYZED, AND SECURITY .....</b>	<b>81</b>
10.1	Underground Chip Sample Collection Approach .....	81
10.2	Underground Muck/Stockpile Sample Collection Approach .....	82
10.3	Drill Core Sample Collection Approach .....	82
10.4	SilverCrest Internal QA/QC Approach .....	82
10.4.1	Phase III QA/QC Program .....	83
10.5	QP Opinion on Sample Preparation, Analysis and Security .....	89
<b>11.0</b>	<b>DATA VERIFICATION .....</b>	<b>90</b>
11.1	Phase I Independent QP Site Visit – August 30 to September 1, 2016 .....	90
11.1.1	Underground Chip Samples .....	90
11.1.2	Core Samples .....	90
11.1.3	Underground Stockpile Samples .....	92
11.1.4	Grain Size and Metal Distribution Testwork .....	93
11.1.5	Bulk Density Testwork .....	93
11.1.6	Independent QP Verification Samples, Laboratory Analysis .....	94
11.2	Phase II Independent QP Site Visit - January 15 to 19, 2017 .....	95
11.3	Phase II Independent QP Site Visit - November 21 to 22, 2017 .....	95
11.3.1	Bulk Density Testwork .....	96
11.4	Phase III QP Site Visit – Various dates in 2018 .....	97
11.5	QP Opinion on Data Verification .....	101
<b>12.0</b>	<b>MINERAL PROCESSING AND METALLURGICAL TESTING .....</b>	<b>102</b>
<b>13.0</b>	<b>MINERAL RESOURCE ESTIMATES .....</b>	<b>105</b>
13.1	Basis of Current Mineral Resource Estimate .....	105
13.2	Vein Models .....	106
13.2.1	Geological Interpretation for Model .....	106
13.2.2	Input Data and Analysis .....	115
13.3	Surface Stockpile Material Models .....	124
13.3.1	Calculation of Estimated Tonnage and Grade .....	124
13.3.2	Potential Error and Inaccuracy .....	124
13.4	Mineral Resource Estimate .....	125
13.4.1	Cut-off Grade .....	125

13.4.2	Vein Mineral Resource Estimate .....	126
13.4.3	Surface Stockpile Mineral Resource Estimate .....	131
13.4.4	Classification.....	132
13.4.5	Validation .....	132
13.4.6	Grade-Tonnage Curves .....	137
<b>14.0</b>	<b>ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT .....</b>	<b>141</b>
14.1	Permitting.....	141
14.2	Environmental Impact Statement for Exploration and Bulk Sampling .....	141
14.3	Environmental Liabilities .....	141
<b>15.0</b>	<b>ADJACENT PROPERTIES.....</b>	<b>142</b>
15.1.1	Nearby Operating Mines.....	142
<b>16.0</b>	<b>CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>143</b>
16.1	Recommendations.....	143
	<b>REFERENCES .....</b>	<b>145</b>

## LIST OF TABLES IN TEXT

Table 1:	Select Highlights from Phase III Drilling Results .....	vi
Table 2:	Maiden vs. Updated Resource Comparison.....	xi
Table 3:	Summary of Mineral Resource Estimates for Vein Material and Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018.....	xii
Table 4:	Mineral Resource Estimate for Vein Material at the Las Chispas Property, Effective September 13, 2018.....	xiii
Table 5:	Mineral Resource Estimate for Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018 .....	xiv
Table 6:	Cost Estimate for Additional Phase III Exploration Work .....	xv
Table 3-1:	Mineral Concessions held by SilverCrest for the Las Chispas Property .....	7
Table 5-1:	Las Chispas Mine Production, 1908 – 1911 (Dufourcq, 1910).....	15
Table 5-2:	Summary of Minefinders 2011 RC Drill Program .....	24
Table 6-1:	Correlation Coefficient Table, Anomalous Values Highlighted, >0.25 and <-0.25 .....	34
Table 6-2:	Basic Statistics, with Sample Population and Modal Abundance of Elements.....	35
Table 8-1:	Las Chispas Vein – Significant Channel Sampling Results .....	64
Table 8-2:	Las Chispas Area, Other Vein Targets – Significant Channel Sampling Results.....	64
Table 8-3:	Babicanora Area, Other Vein Targets – Significant Channel Sampling Results .....	65
Table 8-4:	List of Surface Stockpiles (dumps, muck and tailing) Mapped on the Las Chispas Property.....	67
Table 9-1:	Summary of Drilling Completed by SilverCrest (Inception to September 13, 2018).....	71
Table 9-2:	Las Chispas Most Significant Drill Hole Results for all Phases (March 2016 to September 2018).....	77
Table 10-1:	Standards Expected Ag and Au Values and the Failure Rates for the Drill Program.....	84



Table 10-2:	Summary of Blank Sample Insertion Performance for the Phase III Exploration Campaign .....	88
Table 11-1:	List of Verification Samples Collected by the Independent QP from Underground Chip Samples .....	90
Table 11-2:	List of Verification Samples Collected by the QP from Surface Diamond Drill Core Samples .....	91
Table 11-3:	List of Verification Samples Collected by the Independent QP from Underground Stockpiles in the Babicanora Workings .....	93
Table 11-4:	Assay Results by Grain Size Distribution for Sample 500459 .....	93
Table 11-5:	Results of Bulk Density Measurements .....	94
Table 11-6:	Summary of Independent QP Verification Samples Collected November 2017 .....	96
Table 11-7:	Results of Bulk Density Measurements, November 2017 .....	97
Table 11-8:	Summary of Phase III Sample Analytical Results by Independent Lab .....	97
Table 12-1:	List of Drill Core Samples used for Metallurgical Testwork Bulk Composite Sample....	103
Table 12-2:	Initial Metallurgical Test Results for Las Chispas .....	104
Table 13-1:	Maiden vs. Updated Resource Comparison .....	105
Table 13-2:	Summary of Basic Statistics for Input Composite Data Used for Block Model Interpolation.....	117
Table 13-3:	List of Drill Holes Omitted from the Mineral Resource Estimation Database .....	118
Table 13-4:	Summary of Grade Capping Applied to Drilling and Underground Channel Samples ..	120
Table 13-5:	Babicanora and Las Chispas Block Model Dimensions (ref. UTM WGS84 z12R).....	121
Table 13-6:	Summary of Bulk Density Measurements on Babicanora and Las Chispas .....	122
Table 13-7:	Experimental Variogram Parameters for Babicanora .....	122
Table 13-8:	Interpolation Search Anisotropy and Orientation for Babicanora Veins (Main, Footwall, Hanging Wall) .....	123
Table 13-9:	Interpolation Search Anisotropy and Orientation for Babicanora Norte Central & South).....	123
Table 13-10:	Interpolation Search Anisotropy and Orientation for Granaditas .....	123
Table 13-11:	Interpolation Search Anisotropy and Orientation for Las Chispas.....	123
Table 13-12:	Interpolation Search Anisotropy and Orientation for William Tell .....	123
Table 13-13:	Interpolation Search Anisotropy and Orientation for Giovanni, Giovanni Mini, and La Blanquita .....	124
Table 13-14:	Summary of Mineral Resource Estimates for Vein Material and Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018.....	125
Table 13-15:	Mineral Resource Estimate for Vein Material at the Las Chispas Property, Effective September 13, 2018.....	126
Table 13-16:	Mineral Resource Estimate for Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018 .....	131
Table 16-1:	Cost Estimate for Additional Phase III Exploration Work .....	144

## LIST OF FIGURES IN TEXT

Figure 1:	Las Chispas Property and Mineral Concessions Map.....	iv
Figure 2:	Las Chispas Drilling Overview Map.....	ix
Figure 3:	Babicanora Drilling Overview Map .....	x
Figure 3-1:	Regional Location Map of the Las Chispas Property .....	5
Figure 3-2:	Mineral Concession Map for the Las Chispas Property .....	6
Figure 5-1:	Long Section of the Historical Las Chispas Underground Development (circa 1921) and SilverCrest Resource Target Area, Looking Northeast .....	20
Figure 5-2:	Minefinders Rock Chip Sample Locations and Ag Results (after Turner, 2011). .....	22
Figure 5-3:	Minefinders Stream Sediment Sample Ag Results - BLEG and 80 Mesh (after Turner, 2011).....	23
Figure 6-1:	Regional Geology Showing Major Graben of the Rio Sonora and Continuous Normal Fault between Santa Elena and Las Chispas .....	28
Figure 6-2:	Stratigraphic Column for Las Chispas Property .....	30
Figure 6-3:	Las Chispas District Cross-Section .....	32
Figure 6-4:	Las Chispas District Geology Map .....	33
Figure 6-5:	Thin Section of Gold and Silver Emplacement at Las Chispas .....	38
Figure 6-6:	Breccias at Las Chispas.....	39
Figure 6-7:	Plan Overview of the Las Chispas and Babicanora .....	43
Figure 6-8:	Plan View of Geological Mapping at the Babicanora Area.....	45
Figure 6-9:	Vertical Cross-Section through Babicanora, Line 1+300N, Looking to the Northwest ....	46
Figure 6-10:	A. Sinter lamina, B. Quartz Replacement of Bladed Calcite with Minor Amethyst, C. Massive Chalcedonic Quartz.....	47
Figure 6-11:	Babicanora Thin Section with Gold and Argentite.....	47
Figure 6-12:	(A) Multiphase Vein Hosted Crustiform with Sulphides BA-17-51; from 267.45 to 268.75 grading 96.3 gpt Au and 12,773.5 gpt Ag, or 19,996 gpt AgEq. (B) Breccia hosted mineralization BA-17-04; 2.21 gpt Au and 437 gpt Ag, 603 gpt AgEq over 3.1 m. ....	48
Figure 6-13:	Plan View of Geological Mapping at the Las Chispas Area .....	51
Figure 6-14:	Typical Geological Cross-Section through the Las Chispas Property, looking to the Northwest .....	52
Figure 7-1:	Detailed Low-Sulphidation Deposit with ore, Gangue and Vein Textures, Buchanan, 1981, With Estimated Location of Las Chispas Epithermal Mineralization .....	61
Figure 7-2:	Illustration of Intermediate Sulphidation Hydrothermal Systems, Sillitoe, 2010 .....	62
Figure 8-1:	Las Chispas Vein Long Section with 2018 Underground Infrastructure (Looking North East) .....	66
Figure 8-2:	Location of Surface Stockpiles and Historic Waste Dumps Mapped and Sampled by SilverCrest.....	69
Figure 9-1:	Map of Drilling Completed by SilverCrest on the Property .....	72
Figure 9-2:	Babicanora Long Section Looking Southwest.....	75
Figure 9-3:	Babicanora Vein Plan View on 1130m Level .....	76
Figure 10-1:	Scatter Plot of CRM Results, Showing Four Distinct CRM Populations.....	83
Figure 10-2:	CRM CDN-ME-1601 Analysis, Silver .....	84
Figure 10-3:	CRM CDN-ME-1601 Analysis, Gold.....	84

Figure 10-4:	CRM CDN-ME-1505 Analysis, Silver .....	85
Figure 10-5:	CRM CDN-ME-1505 Analysis, Gold.....	85
Figure 10-6:	CRM CDN-GS-P6A Analysis, Silver.....	86
Figure 10-7:	CRM STD CDN-GS-P6A Analysis, Gold.....	86
Figure 10-8:	CRM SN97 Analysis, Silver.....	87
Figure 10-9:	CRM SN97 Analysis, Gold .....	87
Figure 10-10:	Analytical Results for Gold Grades from QAQC Blank Sample Insertions .....	88
Figure 10-11:	Analytical Results for Silver Grades from QAQC Blank Sample Insertions .....	89
Figure 11-1:	Histogram Plot of Bulk Density Measurements .....	94
Figure 13-1:	Long Section of the Babicanora Vein Illustrating Three Zones of Modelled Mineralization with Associated Rock Codes.....	107
Figure 13-2:	Long Section of Babicanora FW Vein Illustrating Three Zones of Modelled Mineralization with Associated Rock Codes.....	107
Figure 13-3:	Long Section of Babicanora HW Vein Illustrating Three Zones of Modelled Mineralization with Associated Rock Codes.....	109
Figure 13-4:	Long Section of Babicanora Norte Vein Illustrating Two Zones of Modelled Mineralization with Associated Rock Codes.....	110
Figure 13-5:	Long Section of Granaditas with Associated Rock Code .....	111
Figure 13-6:	Long Section of Las Chispas with Associated Rock Code .....	112
Figure 13-7:	Long Section of William Tell with Associated Rock Code .....	113
Figure 13-8:	Long Section of Giovanni, La Blanquita and Giovanni Mini Illustrating Zones of Modelled Mineralization with Associated Rock Codes .....	114
Figure 13-9:	Long Section of Luigi Vein Illustrating Modelled Mineralization with Associated Rock Code.....	115
Figure 13-10:	Plan Map Showing Location of Block Models and Veins Modelled for Mineral Resource Estimation .....	116
Figure 13-11:	Length Histogram Showing Predominant 1 m Drill Core Sample Length.....	119
Figure 13-12:	Log Probability Plot of Field SG Measurements, Data Cut Above 1.2 and Below 4.25 (n=638, m = 2.516).....	121
Figure 13-13:	Vein Block Models Looking West.....	127
Figure 13-14:	Babicanora Grade (AgEq gpt) –Thickness (metres) Contours Long Section Looking Southwest.....	128
Figure 13-15:	Babicanora Grade (AgEq gpt) Contours Long Section Looking Southwest .....	128
Figure 13-16:	Babicanora Thickness (metres) Contours Long Section Looking Southwest.....	129
Figure 13-17:	Babicanora Norte Grade (AgEq gpt) –Thickness (metres) Contours Long Section Looking Southwest.....	129
Figure 13-18:	Granaditas Grade (AgEq gpt)-Thickness (metres) Contours Long Section Looking Southwest.....	130
Figure 13-19:	Babicanora Area 3D Section with Vein Shapes Included Resource Estimation, Looking Northwest.....	130
Figure 13-20:	Babicanora, Swath Plots for Au Comparing Composite and Block Model Data.....	133
Figure 13-21:	Babicanora, Swath Plots for Ag Comparing Composite and Block Model Data.....	134
Figure 13-22:	Las Chispas, Swath Plots for Au and Ag Comparing Composite and Block Model Data.....	135

Figure 13-23: Giovanni, Giovanni Mini and La Blanquita, Swath Plots for Au and Ag Comparing Composite and Block Model Data .....	136
Figure 13-24: William Tell, Swath Plots for AgEq Comparing Composite and Block Model Data .....	137
Figure 13-25: Grade-tonnage Plot for the Babicanora Area .....	138
Figure 13-26: Grade-tonnage Plot for Area 51 within the Babicanora Area .....	138
Figure 13-27: Grade-tonnage Plot for Babicanora Norte.....	139
Figure 13-28: Grade-tonnage Plot for Babicanora Footwall Vein .....	139
Figure 13-29: Grade-tonnage Plots for the Las Chispas Area (Las Chispas, Giovanni, Giovanni Mini, La Blanquita).....	140

## LIST OF PHOTOGRAPHS IN TEXT

Photo 3-1: Las Chispas Property Looking East .....	4
Photo 5-1: Giovanni Pedrazzini and Family at Las Chispas, Circa Early 1880's .....	13
Photo 5-2: Antonio Pedrazzini and Family at Las Chispas, Circa Early 1900's .....	15
Photo 5-3: View Looking to the North Down to Main Valley where the Las Chispas Community and Processing Plants were Located, Photo taken September 2016 .....	16
Photo 5-4: Historical Photo of Former Las Chispas Community, shown as Location 1 in Photo 5-2 (Circa Mid-Late 1920's).....	17
Photo 5-5: Historic Photo of a Processing Facility at Northwest of Community, Identified as Location 2 in Photo 5-2, circa (mid-late 1920's).....	17
Photo 5-6: Historic Photo of San Gotardo Mill at Location Identified as Location 3 in Photo 5-2, near San Gotardo Portal, circa (early 1910's).....	18
Photo 5-7: Photo of Historical Processing Facility at Babicanora, Year est. 1921 .....	18
Photo 5-8: Current View of Babicanora Portal and Site of Historical Processing Facility, November 2017 .....	19
Photo 6-1: Coarse-Grained White and Black Banded (+Manganese) Calcite Vein .....	36
Photo 6-2: Laminated (banded) Vein Style Mineralization along Las Chispas Vein, tip of Rock Hammer shown on Upper Left (near SilverCrest sample 227908, 1.04 gpt Au and 197 gpt Ag over 1.33 m).....	40
Photo 6-3: Breccia Style Mineralization along Las Chispas Vein (base of Las Chispas Gallery near SilverCrest sample 617179, 2.34 gpt Au and 343.5 gpt Ag, or 519 AgEq over 1.46 m .....	40
Photo 6-4: Main Portal at Babicanora, 4 m by 4 m, built in 1860's .....	44
Photo 6-5: Babicanora Stockpile Removed from Babicanora Adit, Estimated Grade of 400 gpt AgEq.....	45
Photo 6-6: Area 51 Mineralization, Babicanora Hole BA17-51 (Discovery Hole); from 265.9 to 269.2m, 3.3 (3.1m true width) metres grading 40.45 gpt Au and 5375.2 gpt Ag, or 8409 gpt AgEq, with hematite breccias, coarse banded argentite, native silver, electrum and native gold. ....	48
Photo 6-7: BAN18-10, from 93.0 to 95.5 metres grading 61.36 gpt au, 2833.5 gpt Ag or 7436 gpt AgEq with visible argentite, pyrrargyrite, electrum, native silver and native gold. ....	49
Photo 6-8: Hole LC17-45; from 159.6 to 161.9 at 2.3m (1.9m true width) grading 50.56 gpt Au and 5018.8 gpt Ag, or 8810 gpt AuEq .....	50

---

Photo 6-9:	William Tell Underground Channel Sample No. 144840 grading 13.4 gpt Au and 1560 gpt Ag, or 2565 gpt AgEq .....	53
Photo 6-10:	William Tell Vein, Drill Hole LC16-03; from 172m to 176m, 4m (1.5m true width) grading 2.03 gpt Au and 683.0 gpt Ag, or 835 gpt AgEq .....	53
Photo 6-11:	Drill Hole LC-17-69; from 168.2 to 169.75 m, includes 1.6 m True Width, Grading 1.95 gpt Au and 252.0 gpt Ag, or 398 gpt AgEq.....	54
Photo 6-12:	La Blanquita historical dumps in distance to right, looking NW .....	54
Photo 6-13:	Drill Core, LC-17-61 at La Blanquita, 116.0 to 116.55 m, 6.65 gpt Au and 1445 gpt Ag, or 1943 gpt AgEq in a Saccharoidal-Comb Quartz Vein.....	55
Photo 6-14:	DH BA-17-20, from 75.7 m to 78.2 m Grading 3.05 gpt Au and, 77.8 gpt Ag, or 306 gpt AgEq.....	56
Photo 6-15:	Drill Hole GR-17-02; from 139.85 m to 140.55 m, 0.7 m Grading 8.15 gpt Au and 387 gpt Ag, or 998 gpt AgEq, and 1.02% Cu .....	59
Photo 6-16:	Drill Hole GR-17-04; from 133.8 m to 134.3 m, 0.5 m grading 47.5 gpt Au and 5620 gpt Ag, or 9182 gpt AgEq .....	59
Photo 8-1:	Photos of Las Chispas Underground Rehabilitation Activities .....	65
Photo 11-1:	Photo of Mineralized Zone in Hole LC-16-05; Includes the Independent QP Verification Samples 500460-500462 (SilverCrest samples 604951 to 604953, 169 to 172 m) .....	92

## APPENDIX SECTIONS

---

Appendix A Statement of Qualifications

## ACRONYMS & ABBREVIATIONS

Acronyms/Abbreviations	Definition
Ag	silver
AgEq	silver equivalent
Au	gold
Ba	barium
BLEG	bulk leach extractable gold
Ca	calcium
CaO	calcium oxide
CIM	Canadian Institute of Mining Metallurgy and Petroleum
Cu	copper
ETT	estimated true thickness
Fe	iron
FW	footwall
gpt	grams per metric tonne
km	kilometre(s)
Llamarada	La Compañía Miñera La Llamarada S.A. de C.V.
m	metre(s)
masl	metres above sea level
NaCN	sodium cyanide
NI 43-101	National Instrument 43-101
opt	troy ounces per short tonne
Pb	lead
RC	reverse circulation
ROM	run-of-mine
RPD	relative percent difference
Sb	antimony
SEMARNAT	Mexican Government's Secretariat of Environment and Natural Resources
SilverCrest	SilverCrest Metals Inc.
Tetra Tech	Tetra Tech Inc.
U	uranium
UTM	Universal Transverse Mercator
QAQC	quality assurance and quality control
QP	Qualified Person
Zn	zinc



## 1.0 INTRODUCTION

SilverCrest Metals Inc. (SilverCrest) of Vancouver, British Columbia, Canada has prepared this Updated Mineral Resource Estimate for the Las Chispas Property (Las Chispas or the Property), located in the State of Sonora, Mexico. This Technical Report is prepared in compliance with National Instrument 43-101 Standards of Disclosure for Mineral Projects (NI 43-101) and titled, "Technical Report and Updated Mineral Resource Estimate for the Las Chispas Property, Sonora, Mexico" ("September 2018 Updated Mineral Resource Estimate"). The September 2018 Updated Mineral Resource Estimate updates the Technical Report and Mineral Resource Estimate for the Las Chispas Property dated effective February 12, 2018, as amended May 9, 2018 ("February 2018 Maiden Resource Estimate"), prepared by James Barr, P.Geol., an independent Qualified Person (QP), Senior Geologist and Team Lead with Tetra Tech Inc. The total change in mineral resources disclosed in this September 2018 Mineral Resource Estimate is less than 100 percent from the February 2018 Maiden Resource Estimate. The September 2018 Updated Mineral Resource Estimate was completed by N. Eric Fier, CPG, P.Eng., and CEO of SilverCrest as author and QP. Refer to the February 2018 Maiden Resource Estimate for further information referenced in this report.

Las Chispas is the site of historical production of silver and gold from narrow high-grade veins in numerous underground mines. SilverCrest has obtained some records from the most recent operations which occurred between 1880 and 1930. No additional mining or metal production is known to have been conducted on the Property since this time.

Since February 2016, SilverCrest has conducted mapping, sampling, and drilling as part of their early exploration efforts to identify the extent of historical development and to delineate targets for further exploration. Over 11 km of historical underground development has been made accessible by an extensive underground rehabilitation program. Core drilling has been completed on 305 holes for a total of 82,810 metres and 47,004 core samples.

Terms of reference for Las Chispas throughout this report include the following:

- The Las Chispas Property: this encompasses all mineral occurrences and land underlying the mineral concessions under option to SilverCrest or 100% owned by SilverCrest.
- The Las Chispas District: this is a general term used in historical context for the various mines which operated in the area prior to the 1930's. The District has an approximate footprint of 4 kilometres north to south, 3 kilometres east to west, and consists of the Las Chispas Area and Babicanora Area which are approximately 1.5 km apart.
- The Las Chispas Area consists of the Las Chispas Vein and Historic Mine, Giovanni & La Blanquita Veins, William Tell Vein, Luigi Vein, Varela Veins, and various other unnamed veins.
- The Babicanora Area consists of the Babicanora Vein, Babicanora Footwall (FW) Vein, Babicanora Norte Vein, Granaditas Vein, Amethyst Vein, Babi Sur Vein, La Victoria Vein and various other unnamed veins.
- The Las Chispas Mine: this refers to a historical shaft and series of underground developments believed to be sunk under the original discovery outcrop that was located in the 1640's.
- Area 51: the high-grade mineralized area or zone of the Babicanora Vein defined by the Company as having average inferred mineral resource grades of greater than 1,000 gpt AgEq.
- Vein: this is a current term used by SilverCrest that encompasses the various mineral showings, underground developments and shafts which exist along a semi-continuous north to northwest trending structures consisting of quartz veins, stockwork and breccia.

- Bonanza grade or zone: the term bonanza grade is used in the report to describe mineral concentration of greater than 1,000 gpt AgEq.

## 1.1 Site Visit

---

Numerous site visits have been completed by Qualified Person, Mr. N. Eric Fier, CPG, P.Eng., starting from October 1, 2015 to September 13, 2018. During the site visits, Mr. Fier reviewed the Property layout, drill operations, sample collection methods, QA protocols and reviewed independent verification samples. Conversations with on-site SilverCrest technical personnel including;

- Stephany (Rosy) Fier, Exploration Manager and Mining Engineer;
- Maria Lopez, Regional Manager;
- Nathan Fier, Mining Engineer; and
- Pasqual Martinez, Senior Geologist.

Topics covered during review related to Property geology, drilling methods, sample collection methods, analytical methods, surface Property ownership, mineral tenure, and other project considerations.

In accordance with NI 43-101 guidelines, the Qualified Person (QP) for this report is Mr. N. Eric Fier, CPG, P.Eng., and CEO for SilverCrest.

## 1.2 Effective Date

---

The Effective Date of September 13, 2018, applied to this report reflects the cut-off date by which all scientific and technical information was received and used for the preparation of the Technical Report and the mineral resource estimate. For drilling, the last holes to receive assay data for inclusion to the mineral resource estimate are as follows:

- Drill holes at Las Chispas Area: up to and including holes LC-17-77 and LCU-18-29 (excluding LCU-18-27 and LCU-18-28).
- Drill holes at Babicanora Area: up to and including holes BA-18-91, UB-17-13, BAN-18-40 and GR-18-21.

## 1.3 Reporting of Grades by Silver Equivalent

---

Throughout the report, reference is made to silver equivalent (AgEq) grade to aid in assessment of the polymetallic nature of the mineralization.

For the purpose of this report, the silver equivalent calculation uses long-term silver and gold prices of US\$18.50 per ounce silver and US\$1,225 per ounce gold. From limited metallurgical testwork, detailed in Section 12.0, the average metal recoveries are 86.6% silver and 98.9% gold. Assuming these stated metal prices and recoveries, the AgEq calculation equates to a silver to gold ratio of 75:1. Based on preliminary metallurgical testing and at this stage of the project, the conceptual process for metal recoveries would be by cyanidation with no smelter charge reduction and no metal losses assumed.

## **2.0 RELIANCE ON OTHER EXPERTS**

With respect to information regarding mineral tenure and ownership of surface rights described in Section 3.0, the QP has relied on information in title opinions dated May 17, 2018, from independent Mexican legal counsel, Urias Romero y Asociados, S.C., as updated effective November 19, 2018. The QP has no reason to believe the title opinions are not true or are not accurate as of November 19, 2018.

### 3.0 PROPERTY DESCRIPTION AND LOCATION

The Property is in the State of Sonora, Mexico, at approximate lat/long of 30.233902°N, and 110.163396°W (Universal transverse Mercator [UTM] WGS84: 580,500E, 3,344,500N) within the Arizpe Mining District. The city of Hermosillo is approximately 220 km, or a three-hour drive, to the southwest, Tucson, Arizona, is approximately 350 km via Cananea, or a five-hour drive, to the northwest, and the community and mine in Cananea is located approximately 150 km, or a two-and-a-half-hour drive, to the north along Highway 89. Figure 3-1 provides a location map for the Property and Photo 3-1 shows view of the general topography of the area surrounding Las Chispas.

Other nearby communities include Banamichi which is located 25 linear km to the southwest, and Arizpe which is located approximately 12 linear km to the northeast. The area is covered by the 1:50,000 topographic mapsheet “Banamichi” H12-B83.

Few remnants exist on the Property which expose the active mining history and community development which once existed in this district. There are numerous historic mine portals and shafts which are partially overgrown with vegetation.

**Photo 3-1: Las Chispas Property Looking East**

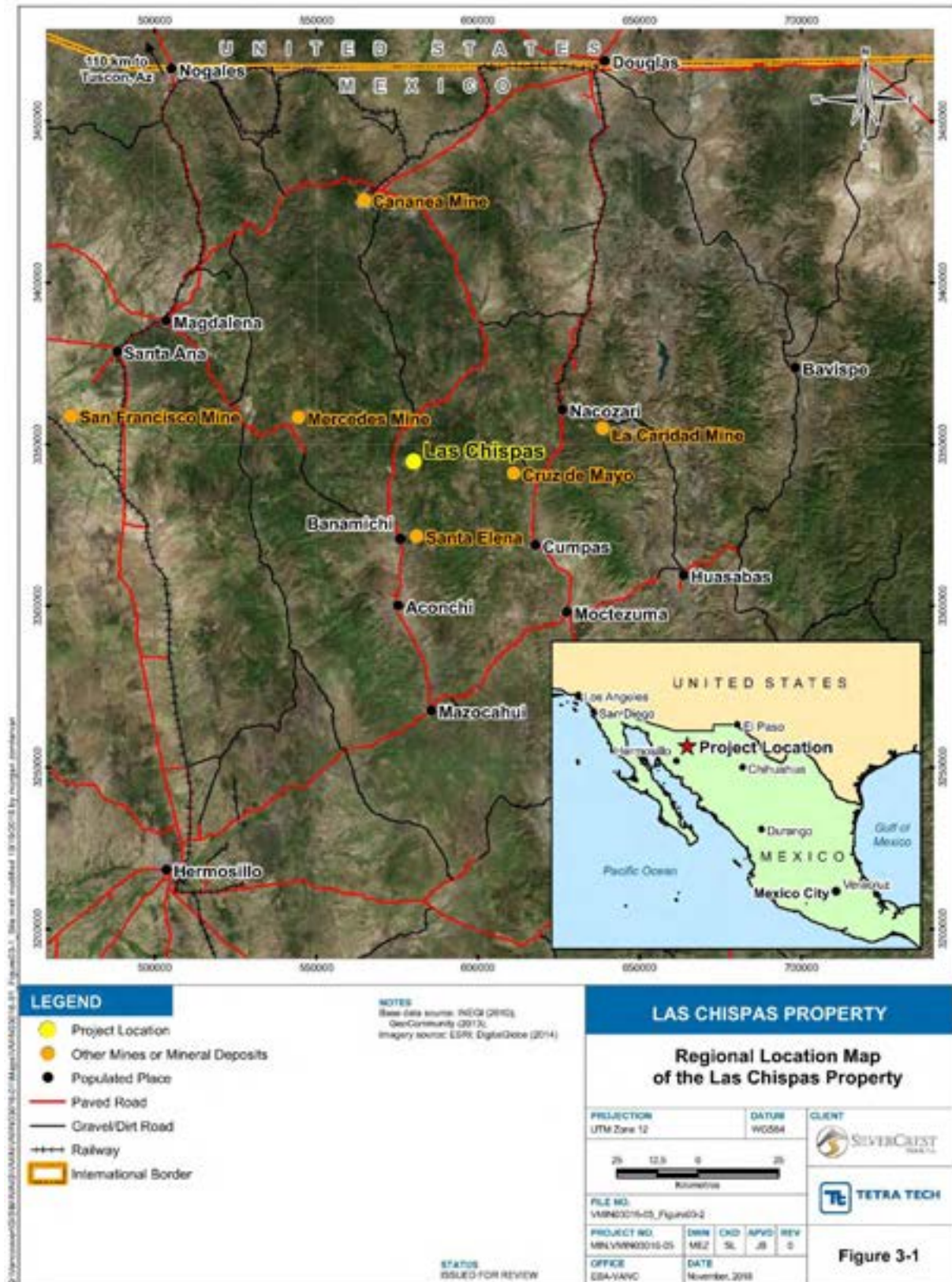


### 3.1 Mineral Tenure

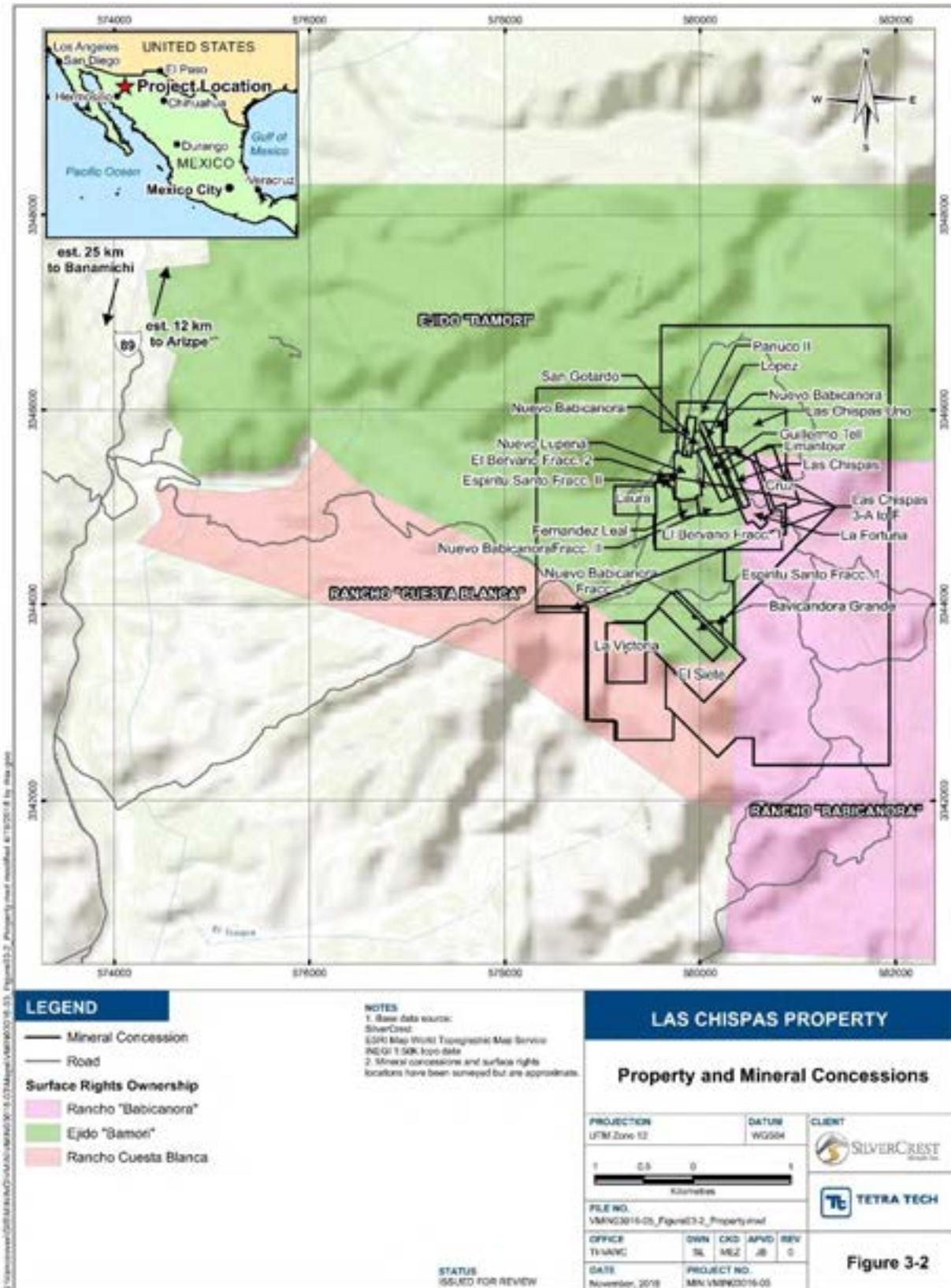
Las Chispas is comprised of 28 mineral concessions, totaling 1,400.96 hectares, shown in Figure 3-2. Compañía Minera La Lllamarada S.A. de C.V. (Lllamarada), which is a Mexican wholly-owned subsidiary of SilverCrest has acquired title to, or entered into option agreements to purchase the concessions listed in Table 3-1.



**Figure 3-1: Regional Location Map of the Las Chispas Property**



**Figure 3-2: Mineral Concession Map for the Las Chispas Property**





**Table 3-1: Mineral Concessions held by SilverCrest for the Las Chispas Property**

Concession Name	Title Number	Registration Date	End Date	Surface Area (ha)	Concession Holder
EL BERVANO FRACCION 1	212027	8/25/2000	8/24/2050	53.4183	(3) Lllamarada
EL BERVANO FRACCION 2	212028	8/25/2000	8/24/2050	0.9966	(3) Lllamarada
LAS CHISPAS UNO	188661	11/29/1990	11/28/2040	33.711	(3) Lllamarada
EL SIETE	184913	12/6/1989	12/5/2039	43.239	(3) Lllamarada
BABICANORA GRANDE	159377	10/29/1973	10/28/2023	16.00	(3) Lllamarada
FERNANDEZ LEAL	190472	4/29/1991	4/28/2041	3.1292	(3) Lllamarada
GUILLERMO TELL	191051	4/29/1991	4/28/2041	5.6521	(3) Lllamarada
LIMANTOUR	191060	4/29/1991	4/28/2041	4.5537	(3) Lllamarada
SAN GOTARDO	210776	11/26/1999	11/25/2049	3.6171	(3) Lllamarada
LAS CHISPAS	156924	5/12/1972	5/11/2022	4.47	(3) Lllamarada
LA FORTUNA	*	Pending	Pending	15.28	(6) Pending
ESPIRITU SANTO FRACC. I	217589	8/6/2002	8/5/2052	733.3232	(3) Lllamarada
ESPIRITU SANTO FRACC. II	217590	8/6/2002	8/5/2052	0.877	(3) Lllamarada
LA CRUZ	223784	2/15/2005	2/14/2055	14.436	(3) Lllamarada
LOPEZ	190855	4/29/1991	4/28/2041	1.7173	(4) Lopez Mejia – Espina-Cruz
NUEVO BABICANORA FRACC. I	235366	11/18/2009	11/17/2059	392.5760	(2) Cirett-Cruz
NUEVO BABICANORA FRACC. II	235367	11/18/2009	11/17/2059	9.8115	(2) Cirett-Cruz
NUEVO BABICANORA FRACC. III	235368	11/18/2009	11/17/2059	2.2777	(2) Cirett-Cruz
NUEVO BABICANORA FRACC. IV	235369	11/18/2009	11/17/2059	3.6764	(2) Cirett-Cruz
NUEVO LUPENA	212971	2/20/2001	2/19/2051	13.0830	(1) Lllamarada
PANUCO II	193297	Cancelled (legal recourse pending)	Cancelled (legal recourse pending)	12.93	(1) Pending
LA VICTORIA	216994	6/5/2002	6/4/2052	24.0000	(5) Morales-Fregoso
Las Chispas 3-A	245423	01/24/2017	01/23/2067	1.0809	Lllamarada
Las Chispas 3-B	245424	01/24/2017	01/23/2067	0.3879	Lllamarada
Las Chispas 3-C	245425	01/24/2017	01/23/2067	0.3413	Lllamarada
Las Chispas 3-D	245426	01/24/2017	01/23/2067	0.3359	Lllamarada
Las Chispas 3-E	245427	01/24/2017	01/23/2067	0.4241	Lllamarada
Las Chispas 3-F	245428	01/24/2017	01/23/2067	5.6112	Lllamarada
<b>TOTAL (28)</b>				<b>1400.96</b>	

\*Non-titled applications No.082/39410 and 082/38731

Mining duties are based on the surface area and date of issue of each concession and are due in January and July of each year at a total annual cost of approximately US\$20,000 (adjusted scale). All mining duties have been paid by Lllamarada to date.

### 3.1.1 Mineral Concession Payment Terms

Payment terms under each option agreement is included below. All dollar figures are in USD, unless stated otherwise.

#### **Concession Holder 1: Lllamarada previously; Adelaido Gutierrez Arce (34%), Luis Francisco Perez Agosttini (33%) y Graciela Ramirez Santos (33%)**

Lllamarada has agreed for the following payment terms with Gutierrez-Perez-Ramirez: four payments totaling \$150,000; first payment of \$10,000 was due on December 11, 2015, (paid), second payment of \$10,000 due on December 11, 2016 (paid), third payment of \$30,000 due on December 11, 2017 (paid), and final payment of \$100,000 due on December 11, 2018 (paid in February 12, 2018).

In February 2018, Lllamarada exercised its option for the Nuevo Lupena concession by paying the final balance as specified in the option agreement. Upon payment and execution of an Assignment of Mining Concession Agreement dated February 10, 2018, title of this mining concession was transferred to Lllamarada.

Panuco II was cancelled in 1999; public notice of open ground has not been published as a legal recourse for reinstatement of concessions was filed unsuccessfully but is under appeal by the concession owner and is still ongoing as of this date. At the time of cancellation, the registered owner was Gutierrez who transferred the mining concession to Lllamarada subject to its reinstatement. The Nuevo Lupena agreement has an area of influence that covers the Panuco II concession; therefore, the terms of this agreement apply to Panuco II.

#### **Concession Holder 2: Jorge Ernesto Cirett Galán (80%) y María Lourdes Cruz Ochoa (20%)**

Lllamarada has agreed for the following payment terms with Cirett-Cruz: five payments totaling \$575,000; first payment of \$30,000 was due on May 20, 2016 (paid), second payment of \$35,000 due May 20, 2017 (paid), third payment of \$60,000 due May 20, 2018 (paid), fourth payment of \$100,000 due May 20, 2019, and final payment of \$350,000 due May 20, 2020.

On June 29, 2018, Lllamarada and María Lourdes Cruz Ochoa agreed to amend the fourth and final payments whereby Lllamarada could exercise its option and earn a 20% interest in the concessions. The amended payment schedule called for a payment of \$86,400, representing a 4% discount to the original total remaining payments to Maria Lourdes Cruz Ochoa of \$90,000. On June 29, 2018, Lllamarada made a payment of \$86,400 and earned a 20% interest in the concessions.

#### **Concession Holder 3: Lllamarada previously; Local Mexican Company**

Lllamarada has agreed for the following payment terms with a Local Mexican company: four cash payments totaling \$2,450,000; first payment of \$50,000 was due on December 3, 2015, (paid), second payment of \$75,000 due on June 3, 2016, (paid), third payment of \$100,000 due June 3, 2017 (paid), the fourth payment of \$200,000 due September 22, 2017, the fifth payment of \$1,012,500 due June 3, 2018 (paid) and the final payment due December 3, 2018 of \$1,012,500. Lllamarada has also agreed to issue SilverCrest Shares equal to \$250,000 on each of June 3, 2018 (issued) and December 3, 2018. On August 7, 2018, this Local Mexican company assigned and transferred to Lllamarada 100% title to these concessions, subject to the reservation of legal ownership to be released on final payment by December 3, 2018, of \$1,012,500 in cash and \$250,000 in shares of SilverCrest. The Las Chispas Assignment Agreement was filed for registration at the Mines Recorder's Office on August 28, 2018 and is currently under review.

**Concession Holder 4: Jose Cruz Lopez Mejia (34%); Eliseo Espina Guillen (33%); and Jesus Cruz Lopez (33%)**

Llamarada entered into an arrangement agreement in order to acquire 67% of the Lopez concession, but under Mexican law the owner of the remaining 33% is required to consent to such transfer to Llamarada. Such consent has not been obtained as of this date.

**Concession Holder 5: Felizardo Morales Baldenegro (70%) y Martha Silvia Fregoso (30%)**

Llamarada has agreed for the following payment terms with Morales-Fregoso: three payments totaling \$150,000, first payment of \$30,000 was due on June 15, 2016 (paid), second of \$20,000 due June 15, 2017 (paid), and third of \$100,000 due June 15, 2019.

**Concession Holder 6: Minerale de Tarachi S. de R.L. de C.V.**

On February 21, 2018 Llamarada acquired from Minerale de Tarachi, S. de R.L. de C.V. an option to purchase the rights to the La Fortuna mining concession applications No. 082/39410 and 082/38731 which cover the Panuco II and Carmen Dos Fracción II mineral lots on payment of \$500,000 Mexican Pesos (paid) and \$150,000 payable on acquisition of title by Llamarada. Title transfer of concessions are pending until the applications are issued as mining concessions.

## **3.2 Land Access and Ownership Agreements**

---

The surface rights overlying the Las Chispas mineral concessions and road access are either owned by Llamarada or held by Llamarada under a negotiated 20-year lease agreement.

### **Ejido Bamori**

On November 18, 2015, Llamarada signed a 20-year lease agreement with the Ejido Bamori for surface access and use of facilities. Compensation for exploration activities will be paid at a rate of MXN\$ 700 per hectare, up to a total of 315.5 hectares. After exploration and announcement of mine construction/production, compensation will be paid on a scaled timeframe at a rate of MXN\$ 2,000 per hectare in construction and production years 1-4 and MXN\$ 4,000 per hectare on the fifth year and beyond.

### **Cuesta Blanca Ranch**

In February 2018, Llamarada purchased the Cuesta Blanca Ranch covering 671.9 hectares of land situated in the municipality of Arizpe, Sonora.

### **Babicanora Ranch**

In April 2017, Llamarada purchased from Maprejex Distributions Mexico, S.A. de C.V. the Babicanora Ranch of 2,500 hectares of land situated in the municipality of Arizpe, Sonora.

### **Tetuachi Ranch**

In November 2017, Llamarada signed a lease agreement for a term of 20 years with Maria Dolores Pesqueira Serrano for the lease of the Tetuachi Ranch of 32.3 ha of land situated in Arizpe, Sonora, on payment of an annual rental fee of US\$2,000 during exploration phase and US\$7,000 during exploitation phase.

### **3.3 Royalties**

---

A 2% Net Smelter Return royalty is payable to the current concession holder, Gutierrez-Perez-Ramirez, of the Nuevo Lupena and Panuco II (pending registry) concessions for material that has processed grades of equal to or greater than 40 ounces per tonne of silver and 0.5 ounce per tonne of gold, combined.

## **4.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE, AND PHYSIOGRAPHY**

### **4.1 Climate**

The climate is typical for the Sonoran Desert, with a dry season from October to May. Seasonal temperatures vary from 0°C to 40°C. Average rainfall is estimated at 300 mm per annum. There are two wet seasons, one in the summer (July to September) and another in the winter (December). The summer rains are short with heavy thunderstorms whereas the winter rains are longer and lighter. Summer afternoon thunderstorms are common and can temporarily impact the local electrical service.

### **4.2 Physiography**

The Property is located on the western edge of the north trending Sierra Madre Occidental mountain range geographically adjacent to the Sonora River Valley. The Property surface elevation ranges from 950 m above sea level (masl) to approximately 1,250 masl; the San Gotardo portal to the Las Chispas and William Tell Veins is located at 982 masl. Hillsides are often characterized with steep colluvium slopes or subvertical scarps resulting from fractures through local volcanoclastic bedrock units.

Drainage valleys generally flow north to south, and east to west towards the Rio Sonora. Flash flooding is common in the area.

Vegetation is scarce during the dry season, limited primarily to juvenile and mature mesquite trees and cactus plants. During the wet season, various blooming cactus, trees, and grasses are abundant in drainage areas and on hillsides.

### **4.3 Property Access**

From Banamichi, the paved Highway 89 is followed for approximately 25 km. Access to the Property is gained via secondary gravel roads, as shown in Figure 3-2, approximately 10 km off the paved highway. Fording across the Rio Sonora river bed is required, typically the water levels in the river are low and easily passed but can raise to temporary unpassable levels following major rain events. The remainder of the road has been upgraded by dozer/grader. Net elevation gain to the Property from the highway is approximately +250 vertical metres.

### **4.4 Local Resources**

#### **4.4.1 Water Supply**

Current water requirements during exploration are minimal, where diamond drilling requires the greatest capacity. Some wells have been established to supply local ranches. Preliminary hydrogeological testing has been conducted to determine depth to water table. Twelve pilot water wells have been completed on the Property, and initial pump testing of three, shows ample (preliminary results) water for potential production facilities in the future. Pilot wells need to be upgraded to larger diameter wells for adequate capacity.

Historical underground workings have been noted to be dry down to the 900 (feet from surface) level where the water table has been defined underground.

#### **4.4.2 Power**

Low voltage power lines and generators exist on the Property to supply local ranches. This amount of power is sufficient for exploration requirements. Provision of grid power to a potential operation may be possible in the future, but would require permitting and a significant capital expenditure. Conceptually, diesel generators may be used for future production similar to the nearby Santa Elena Mine.

#### **4.4.3 Infrastructure**

No infrastructure from the historical mining industry remains on the Property except for roads and a few eroding rock foundations. Several ranch buildings, corrals and fencing were acquired from the purchase of ranches.

#### **4.4.4 Community Services**

Mining supplies and services are readily available from Cananea, north of Las Chispas, Hermosillo, to the southwest, and Tucson, Arizona, to the northwest.



## 5.0 HISTORY

Historical records indicated mining around the Las Chispas Property started as early as the 1640's. There are incomplete records and history available on mining activities which took place in the 1800's and 1900's. There is also a gap in records of mining activity for Las Chispas between the mid-1930's through to 1974. In 2008, exploration activities resumed on Las Chispas with modern techniques.

A summary of Las Chispas' history has been extracted from the limited documentation available to SilverCrest in the public domain and private libraries. Numbers and mine descriptions extracted from these documents are historical in nature and cannot be relied upon and should only be used in context for the rich mining history in the Las Chispas district.

### 5.1 1800's and Early 1900's

Mining interest on the Las Chispas Property is believed to have begun in 1640 when outcrop of Las Chispas Vein was discovered by a Spanish General named Pedro de Perra (Wallace, 2008), which led to the development of the Las Chispas Mine. Through to 1880, small scale mining was intermittently conducted along this trend with significant interference from local Apache resistance. The company operating the mine at this time was called the Santa Maria Mining Company (Russell, 1908).

The Las Chispas Mine was operated intermittently from the 1880's onwards by John (Giovanni) Pedrazzini (Photo 5-1), as President, whom maintained control of the development along the Las Chispas Vein and the William Tell Vein through the company Minas Pedrazzini Gold and Silver Mining Company (Minas Pedrazzini, est. February 1907). Giovanni Pedrazzini was reportedly a former cook and accountant of the Santa Maria Mining Company, and he received the Las Chispas Mine as compensation for unpaid back wages. Antonio Pedrazzini (Photo 5-2), nephew of Giovanni, maintained an active role in the operation and management of the mine into the 1920's. In 1904, Edward Dufourcq, a well-known mining engineer, was appointed as general manager of the mine. The Minas Pedrazzini was the first operator to drive an adit into the Las Chispas Vein known as the San Gotardo Tunnel or 600 level an estimated length of 1,250 m. Referenced historical levels, i.e., 600 level, are marked as the depth in feet from the Las Chispas shaft collar (Figure 5-1).

**Photo 5-1: Giovanni Pedrazzini and Family at Las Chispas, Circa Early 1880's**



Pedrazzini's company was one of three to be working in the area at this time. At least two other companies focused efforts on the El Carmen, located approximately 5 km to the southeast of the Las Chispas Mine and the Babicanora area approximately 2 km south of the Las Chispas Mine. Little is known about the historical production and operations of these companies; however, it is understood that small mills were installed at Babicanora and El Carmen to process ores of Babicanora, El Carmen and Granaditas Veins in a similar manner to the San Gotardo (Las Chispas) mill (Russell, 1907). The district had a mix of 6 operating flotation & cyanidation mills from the late 1880 to 1984.

The San Gotardo Mill, operated by Minas Pedrazzini, was located at the northern portal to the 600 level of the Las Chispas and William Tell Veins, and consisted of rock breakers, five gravity stamps, two Wilfley tables, and three amalgamation pans, with reported recovery of 70% - 75% (Russell, 1907). The mill developed up to 20 operating stamps and four pans in 1910, when total recovery was noted then to be between 71% and 84%. An estimate of about 26,000 tonnes were treated in the mill, and over 12,000 tonnes of tailings were estimated to have been deposited as tails into ponds below the mill. In 1910, a 24-inch gauge tramway was built from the San Gotardo portal to the new mill, anticipating daily production to increase to 60 tonnes per day. Wallace (2008) reports that in the 1970's the mill was salvaged and hauled away with old mine buildings and much of the tailings for reprocessing.

In 1910, the decision was made to install a cyanide plant at the Las Chispas Mine in an effort to reduce overall processing costs, enable reprocessing of the earlier deposited tailings and to attempt higher metal recoveries, with a throughput of 30 - 40 tonnes per day. Construction of the plant occurred during and was delayed by the occurrence of the Mexican Revolution (Dufourcq, 1912). Mulchay (1935) indicates that this plant was used for less than six months due to interference from sulphides in the ore with cyanidation. A small flotation plant was installed prior to 1926 (Mulchay, 1935).

Water for the operations was supplied via a 5 km long pipe line from the Sonora River, and power reportedly from a small power line running from a diesel generator at Nacozari. In 1918, the pumping station along the Rio Sonora was destroyed by a flood; the mine resorted to pumping from within the mine to supply the mill with water (Wallace, 2008). Dufourcq (1910) indicates that water was originally intersected below the 900 level of the mine.

In 1917, it is reported that the mine was confiscated by local government whom operated and extracted "rich ore" before eventually returning the mine back to Pedrazzini (Montijo Jr, 1920).

Two versions exist of how the mine was taken over and eventually closed. Mulchay (1935) suggests that in 1935, Minas Pedrazzini was taken over under option by Douglas-Williams associated with the Phelps-Dodge Corporation. The mine was managed by Henry Bollweg at this time. Whereas Wallace (2008) reports the mine was acquired by a French corporate subsidiary Corporación Miñera de Mexico, S.A. in 1921. This company was reported to have remodelled the power plant and continued mining until its eventual closure in 1930.

A French company under the name Camou Brothers are reported to have re-developed the Babicanora Mine around 1865 (internal SilverCrest report, September 2015). The Babicanora area was most recently mined by Chinese immigrants whom originally settled in Baja, relocated to the State of Sinaloa in the late 1800's for agriculture and were eventually pushed inland by competition. Here they found occupation in the mines. The portal construction and dimensions of underground development in Babicanora is notably different than that of the Las Chispas and William Tell workings. The main access is a 4 m by 4 m drift approximately 230 m in length to intersect the Babicanora Vein.

**Photo 5-2: Antonio Pedrazzini and Family at Las Chispas, Circa Early 1900's**



From 1900 to 1926, production from the Las Chispas and William Tell Veins is reported to have been interrupted several times due to numerous interventions including theft of high-grade ore, the Mexican revolution from 1910 - 1920, the Mexican National Catholic Church revolution in 1925, mill flooding/fire, and the government took over the mine with no economic plan (Montijo, 1920).

The limited information that is available on metal production suggests approximately 100 million ounces of silver and 200 thousand ounces of gold were recovered from mines within the loosely defined Las Chispas District, including approximately 20 to 40 million ounces of silver estimated to have been recovered from the Las Chispas and William Tell Veins. Wallace (2008) estimates that in the period between 1907 and 1911, annual production at the Las Chispas Mine achieved approximately 3,000 to 12,000 \*(estimated projected budget for 1911) tonnes producing 1.5 million ounces of silver and 10,000 ounces of gold per year with an estimated average grade of 1.1 ounces per tonne gold and 146.8 ounces per tonne silver (Table 5-1). Reports indicate that gold and silver was produced from both quartz/amethyst veinlets less than 5 cm thick and local high-grade shoots up to 4 m thick.

**Table 5-1: Las Chispas Mine Production, 1908 – 1911 (Dufourcq, 1910)**

	1908	1909	1910	1911*	Total
Tonnes	3,286	3,064	3,540	12,000	21,890
Gold ounces per tonne	1.5	1.4	1.0	1.0	1.1
Silver ounces per tonne	199.9	187.2	136.9	125.0	146.8
Gold ounces	4,876	4,189	3,615	12,000	24,680
Silver ounces	656,882	573,448	484,746	1,500,000	3,215,076

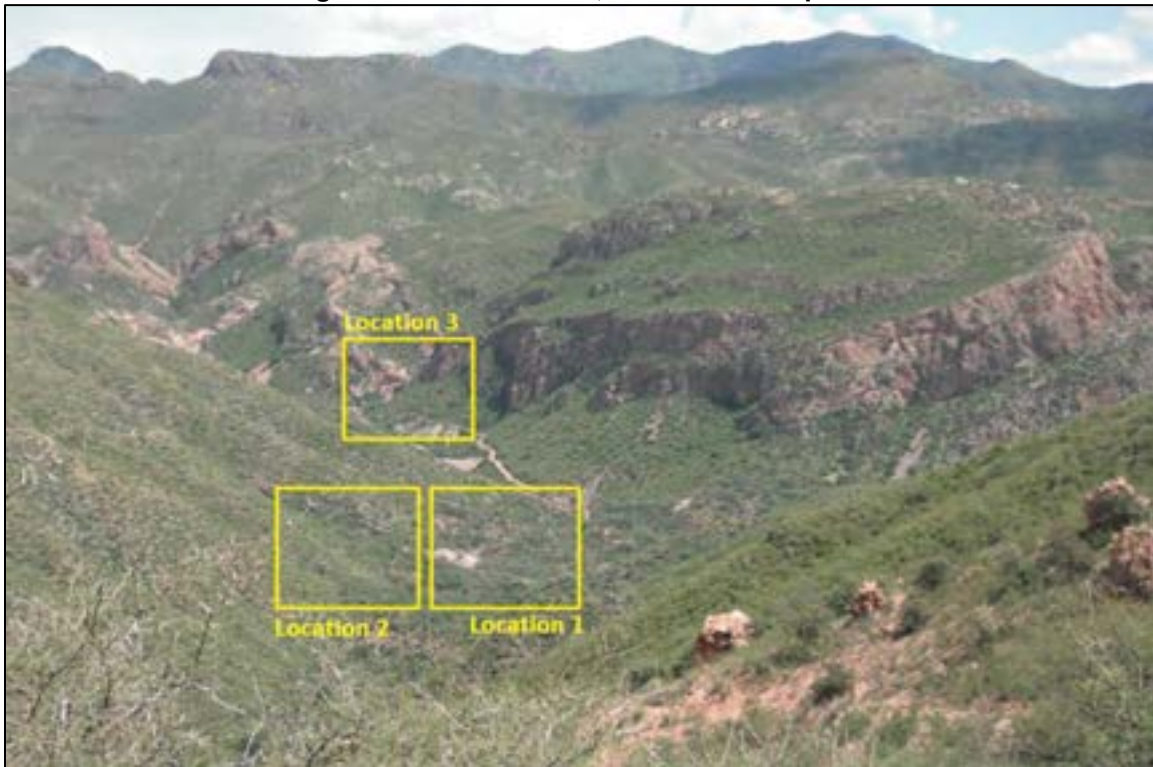
\*(Estimated projected budget for 1911)

Some records suggest that small scale mining at Espiritu Santo and operation of a small mill at Babicanora occurred in 1935 (Mulchay, 1935). Espiritu Santo workings consist of a small inclined shaft approximately 80 cm wide which declines below a small drainage to two short ore drifts where grades up to 500 ounces per tonne silver where noted. Approximately 13.2 tonnes of ore reported to have been shipped from this small mine in 1934 and ranged in grade from 0.17 to 1.36 ounces per tonne gold and 79.2 to 490 ounces per tonne silver.

Another small mining operation at La Victoria was estimated around 1940. The workings consist of three short ore drives on separate levels approximately 30 m in length with gold grades up to 6 ounces per tonne over one metre (Mulchay, 1941).

Photo 5-3 provides an overview of the Las Chispas valley and highlights the locations of where the community of Las Chispas once stood in addition to the original San Gotardo mill and the later developed rail-connected mill near the community. Historical Photos 5-3 through 5-7 are from various locations around the historical operation. Photo 5-8 is a rendering of the current view to the Upper Babicanora portal.

**Photo 5-3: View Looking to the North Down to Main Valley where the Las Chispas Community and Processing Plants were Located, Photo taken September 2016**





**Photo 5-4: Historical Photo of Former Las Chispas Community, shown as Location 1 in Photo 5-2 (Circa Mid-Late 1920's)**



**Photo 5-5: Historic Photo of a Processing Facility at Northwest of Community, Identified as Location 2 in Photo 5-2, circa (mid-late 1920's)**





**Photo 5-6: Historic Photo of San Gotardo Mill at Location Identified as Location 3 in Photo 5-2, near San Gotardo Portal, circa (early 1910's)**



**Photo 5-7: Photo of Historical Processing Facility at Babicanora, Year est. 1921**

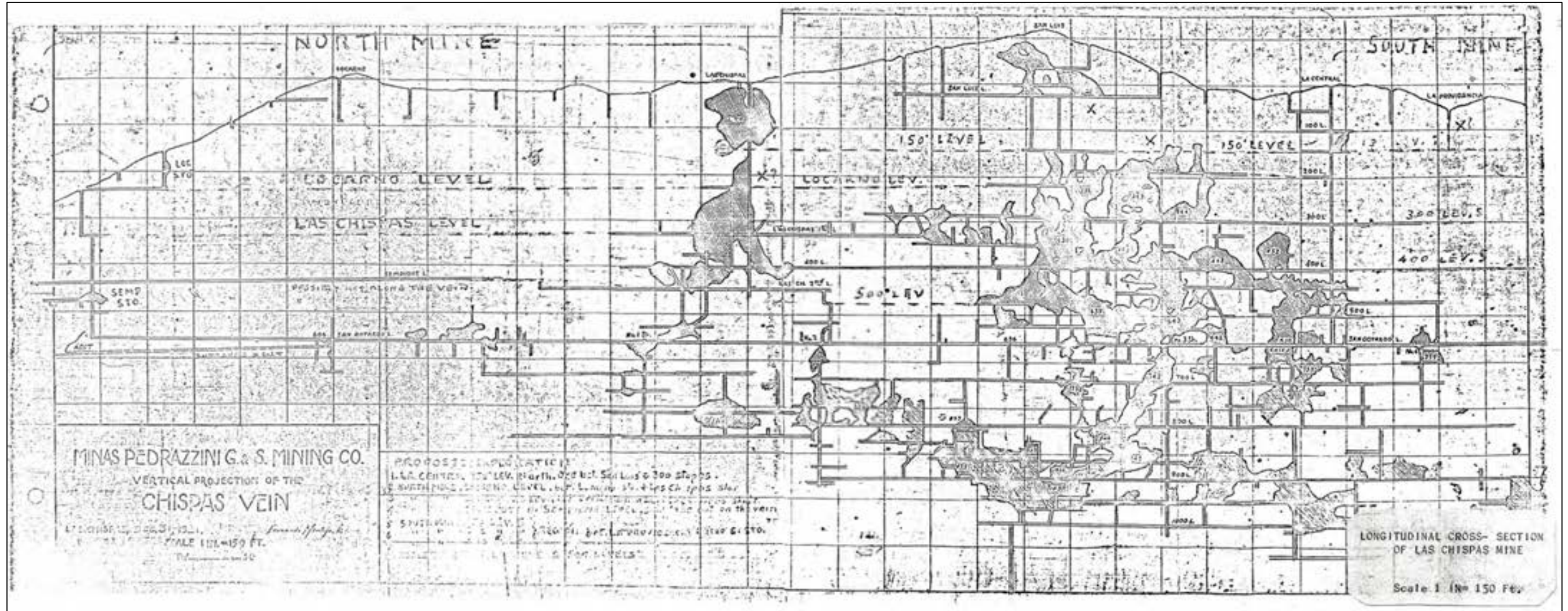


**Photo 5-8: Current View of Babicanora Portal and Site of Historical Processing Facility, November 2017**





Figure 5-1: Long Section of the Historical Las Chispas Underground Development (circa 1921) and SilverCrest Resource Target Area, Looking Northeast



## 5.2 Mid-Late 1900's to Early 2000's

---

No written documented information is available for the Property during this period. Verbal discussions with Luis Perez, a local operator, indicate from 1974 to 1984 a small cyanide leach mill was constructed near the highway entrance to the Property. During this period, approximately 75,000 tonnes of historic waste was processing with dore poured on-site. No estimation of production was available.

It is assumed that sometime between the mid-1930's and 2008, the historic and 1974 processing plants were dismantled and transported from the area and that both concession and surface Property ownership likely changed hands at least once from the mining companies to their current owners. It is seen in Table 3-1 that the current mineral concessions (excluding the Nuevo Babicanora concessions) were registered, or reregistered under new mining regulation, from 1972 to as recent as 2002.

## 5.3 Minefinders (2008 – 2011)

---

In 2008, Minefinders Corporation Ltd. (Minefinders) operating under their Mexican affiliate, Miñera Minefinders, acquired the Cirett concessions under option (Nuevo Babicanora I to IV, Table 3-1, Figure 3-2) but were unable to negotiate with the main district concession owners. Subsequently, Minefinders completed initial exploration work on the district which they referred to as collectively the Babicanora Project. They drilled seven reverse circulation holes off the main mineralized trends with negative results and then dropped the Property option in 2012.

Minefinders conducted a systematic exploration program across these concessions between the years 2008 and 2011. Regional activities consisted of geologic mapping and a geochemical sampling program totaling 143 stream sediment and bulk leach extractable gold (BLEG) samples, 213 underground rock chip samples, and 1,352 surface rock chips. The work was successful in identifying three gold targets along the 3 km long structural zone. The most prospective of these targets was interpreted to be an area between the Las Chispas Vein and the Babicanora Vein. Minefinders focused on the furthest western extension of the Babicanora Vein called El Muerto which is the only part of the trend that was acquired by concession and accessible for exploration work.

Targeted exploration conducted solely within the Babicanora Project area included the collection of 24 stream sediment and BLEG samples, 184 select surface rock chip samples, 474 grid rock chip samples, and drilling of seven reverse circulation drill holes for a total of 1,842.5 m. The drill hole locations are provided in Figure 9-1.

### 5.3.1 Minefinders Surface Sampling

Turner (2011) describes the work by Minefinders on the Babicanora Project in detail. Outcrop in the area is variable and the sampling was adjusted based on terrain limitations. Minefinders determined that high-grade gold and silver (1-2 gpt Au and 30-60 gpt Ag) occurrences noted in mine workings and outcrops occurred mainly as discontinuous and narrow quartz stockwork zones. Notable exceptions were a 5 m zone of 1.53 gpt Au and narrow veins up to 13 gpt Au with 439 gpt Ag from El Muerto north of the Babicanora Mine workings.

Twenty-four stream sediment samples were collected from drainages in Las Chispas area as part of a regional sampling program. The large samples were analyzed as both 2 kg BLEG samples and by more conventional analysis of a -80 mesh sieved product. The material utilized for the -80 mesh analysis was obtained after splitting of the initial 2 kg used for BLEG analysis. Anomalous zones defined by the regional stream sediment program were later confirmed by a follow-up rock chip grid sampling program.



All surface rock chip and stream sediment samples were collected by the staff of Miñera Minefinders and submitted to ALS Chemex in Hermosillo. Coverage and results of the sampling are summarized in Figures 5-1 and 5-2.

**Figure 5-2: Minefinders Rock Chip Sample Locations and Ag Results (after Turner, 2011).**

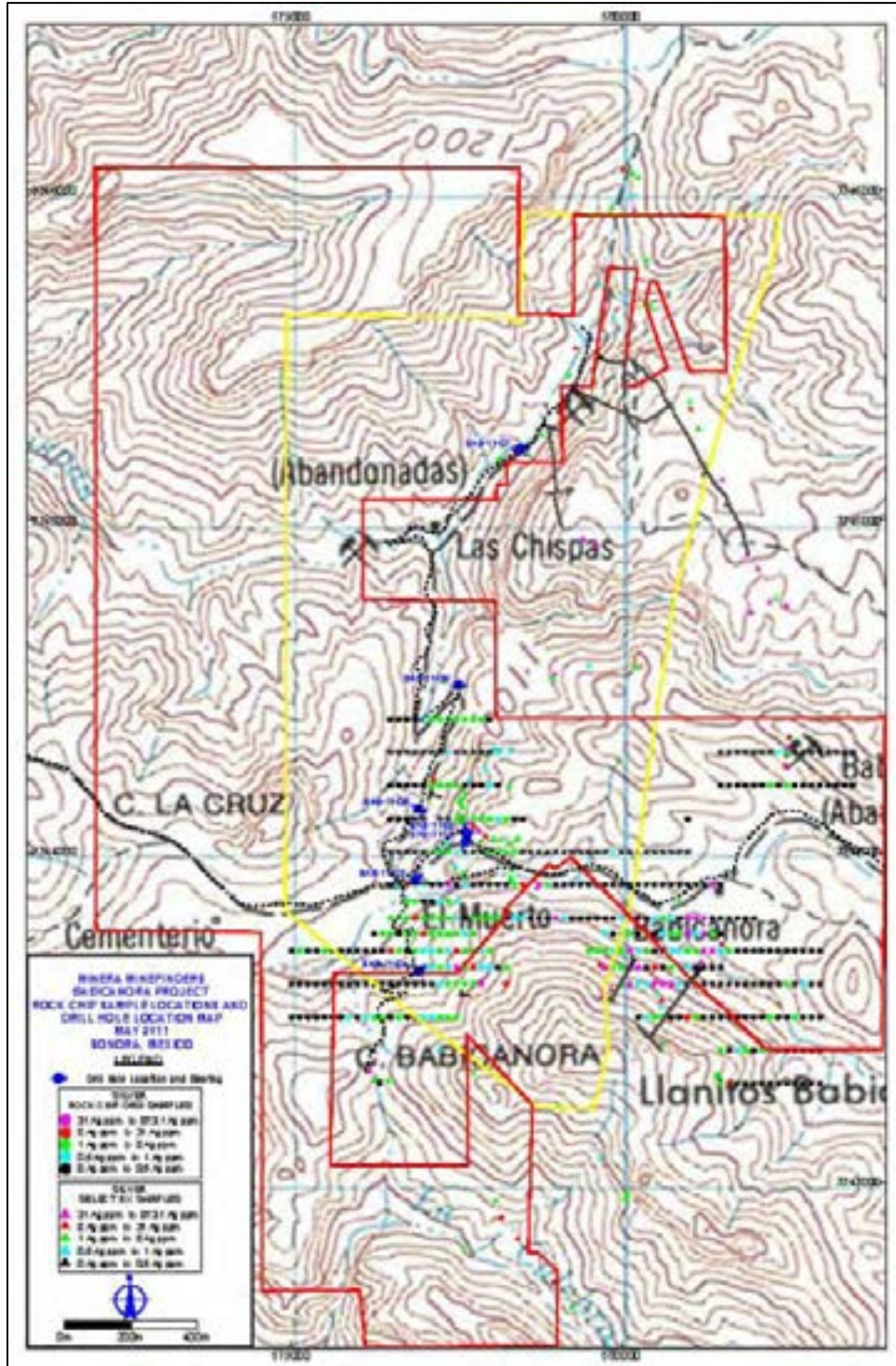
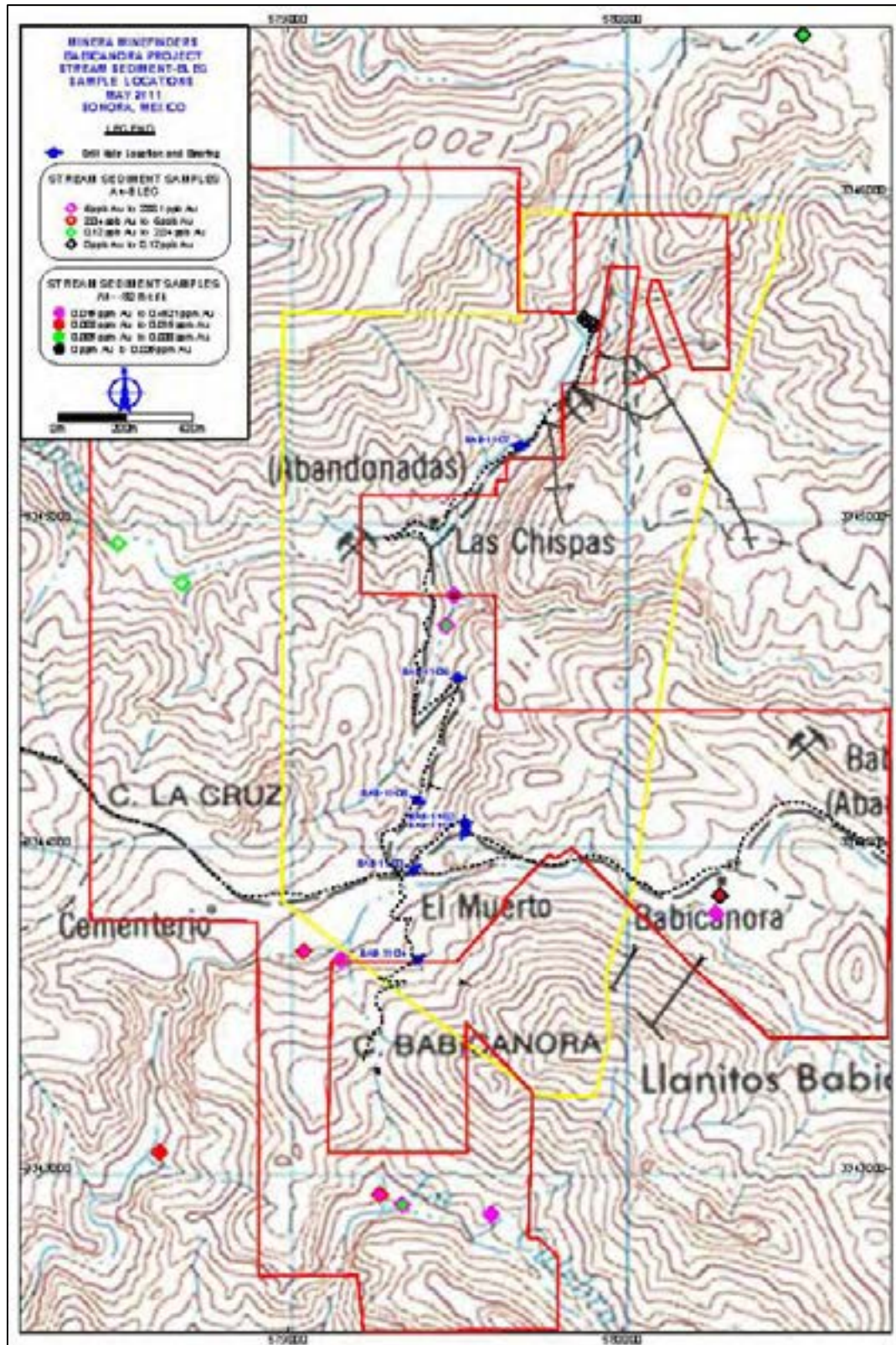




Figure 5-3: Minefinders Stream Sediment Sample Ag Results - BLEG and 80 Mesh (after Turner, 2011)



### 5.3.2 Minefinders Drilling, 2011

Minefinders carried out a seven hole RC drill program in 2011. The purpose of the program was to test a porous volcanic agglomerate (i.e., lithic tuff) unit located along a 1.5 km structural zone located adjacent to the Babicanora and Las Chispas historical workings.

Minefinders contracted Drift Drilling to drill seven holes utilizing a MPD-1000 reversed circulation drill rig. The drilling was conducted from existing roads with drill pads enlarged to allow for safe and effective operations. Environmental permitting with SEMARNAT was prepared by Bufete Miñera y Servicios de Ingeniería S.A. de C.V. and completed on March 23, 2011. All assay work was conducted by Inspectorate Laboratories of Hermosillo & Reno.

The program was conducted during the period of April 7, 2011, through May 3, 2011, with a total of 1,842.5 m drilled. The drill holes were oriented to intercept a range of host rocks in areas of anomalous precious metals or adjacent to mine workings. The hope was that bulk tonnage targets might exist within more porous or chemically reactive rocks. A summary of the drilling is provided in Table 5-2 and collar locations shown in Figure 9-1.

**Table 5-2: Summary of Minefinders 2011 RC Drill Program**

Hole ID	Easting	Northing	Elev.	Dip	Azimuth	Depth (m)	Depth (ft.)
BAB-11-01	579527	3344033	1,135	-60	30	304.8	1,000
BAB-11-02	579526	3344060	1,130	-90	0	324.6	1,065
BAB-11-03	579372	3343914	1,091	-60	50	242.3	795
BAB-11-04	579382	3343638	1,132	-55	60	350.5	1,150
BAB-11-05	579386	3344130	1,053	-45	115	198.12	650
BAB-11-06	579507	3344503	1,009	-70	90	182.9	600
BAB-11-07	579693	3345216	977	-70	90	239.3	785
<b>Total</b>						<b>1,842.52</b>	<b>6,045</b>

The drill results were disappointing in that none of the holes are interpreted to have intersected the mineralized structure beneath the historic workings. Only narrow zones of gold mineralization at scattered depths were encountered and only one hole, BAB-11-02, intercepted significant mineralization in four narrow intervals of greater than 900 gpt Au. The most significant of these intercepts was 4.6 m of 1.1 gpt Au and 2 gpt Ag including a 1.5 m interval of 2.9 gpt Au at a depth of 292.6 m. This mineralized interval occurs within basal volcanoclastic sandstones and rhyodacitic tuffs cut by propylitic altered dacite dykes.

Results of the drilling indicate that several phases of quartz veining accompanied by broad zones of argillic and propylitic alteration are present in the 1.5 km long target zone. Mineralization was determined to occur as low- sulphidation Au-Ag epithermal quartz and calcite veins and stockwork within an Oligocene volcanic sequence consisting of volcanoclastic sediments interbedded with rhyolitic tuff and andesitic dykes/flow cut by dacitic dykes.

In 2012, Minefinders dropped their interest in the Nuevo Babicanora I to IV mineral concessions which returned to Cirett as having controlling interest.

### 5.4 SilverCrest, 2013 to Start of Phase I Drilling in 2016

Following Minefinders' retreat, SilverCrest Mines Inc. (now a subsidiary of First Majestic Silver Corp.) through its subsidiary Nusantara de Mexico S.A. de C.V. initiated their interest in Las Chispas in 2013. Legal issues in the

main Las Chispas District were settled and SilverCrest could negotiate option agreements with all the concession holders through their Mexican subsidiary Nusantara de Mexico S.A. de C.V. By the end of September 2015, SilverCrest Mines Inc. executed options agreements to acquire rights to 17 concessions.

On October 1, 2015, pursuant to an arrangement agreement, SilverCrest Mines Inc. was acquired by First Majestic Silver Corp. and these mineral concessions were transferred to a new spun out company, SilverCrest Metals Inc. and its subsidiary La Compañía Miñera La Llamrada S.A. de C.V. which was listed on the TSX Venture Exchange on October 9, 2015, and subsequently obtained rights to 11 additional mineral concessions for a total of 28 concessions.

## 6.0 GEOLOGICAL SETTING AND MINERALIZATION

### 6.1 Regional Geology

The Las Chispas Property is located in northwestern Mexico where much of the exposed geology can be attributed to the subduction and related magmatic arc volcanism of the Farallon Plate beneath the North American Plate. The east-directed subduction of the Farallon Plate began in early Jurassic (~ 200 Ma) with the tectonic rifting of the supercontinent Pangea (Rogers, 2004). The resulting NW-SE trending Sierra Madre Occidental extends over 1200 km from the USA-Mexican border to Guadalajara in the southeast.

Delgado-Granados et al. (2000) propose that subduction of the Farallon Plate occurred at a relatively shallow angle, resulting in continental uplift across northern Mexico with accretionary terranes developing along the western fringes of the pre-existing Jurassic continental and marine sediments, and crystalline Cambrian basement rocks.

Volcanism is related to fractional crystallization of mantle sourced basalts during subduction (Johnson, 1991; Wark, 1991). The widespread volcanic deposits and intrusive stock development from emplacement of the regional batholith typify the upper Cretaceous record in the area, which was followed by dramatic accumulation of volcanic flows, pyroclastics, and volcano-sedimentary rocks during the Upper Cretaceous through to the Eocene.

Continental arc volcanism culminated with the Laramide orogeny in the early to late Eocene (Alaniz-Alvarez et al., 2007). The waning of compression coincides with E-W directed extension between late Eocene to the early Oligocene (Wark et al., 1990; Aguirre-Diaz and McDowell, 1991, 1993) along the eastern Sierra Madre Occidental flank and is considered to be the first formation stage of the Basin and Range province.

By early to mid-Miocene, extension migrated west into Northern Sonora and along the western flank of the Sierra Madre Occidental resulting in NNW-SSE trending, west dipping, and normal faults. This extensional regime caused major deformation across the Sierra Madre Occidental resulting in localized exhumation of pre-Cambrian basement rocks within horst structures, especially in the Northern Sierra Madre Occidental (Ferrari et al., 2007). Bimodal volcanic flows capped the volcano-sedimentary deposit of the late Eocene. Migration of later hydrothermal fluids along the pre-existing structures are related to the cooling of the orogenic system.

The Pliocene-Pleistocene is characterized by a general subsidence of volcanic activity, with deposition of some basalt flows, and accumulation of conglomerate, locally known as the Baucarit Formation.

1. Ferrari et al. (2007) summarizes five main igneous deposits of the Sierra Madre Occidental:
2. Plutonic/volcanic rocks: Late Cretaceous –Paleocene.
3. Andesite and lesser Dacite-Rhyolite: Eocene (Lower Volcanic Complex).
4. Felsic dominant and silicic ignimbrites: Early Oligocene and Miocene (Upper Volcanic Complex).
5. Basaltic-andesitic flows: late stage of and after ignimbrite pulses.
6. Alkaline basalts and ignimbrites: Late Miocene-Pleistocene (Post-subduction volcanism).

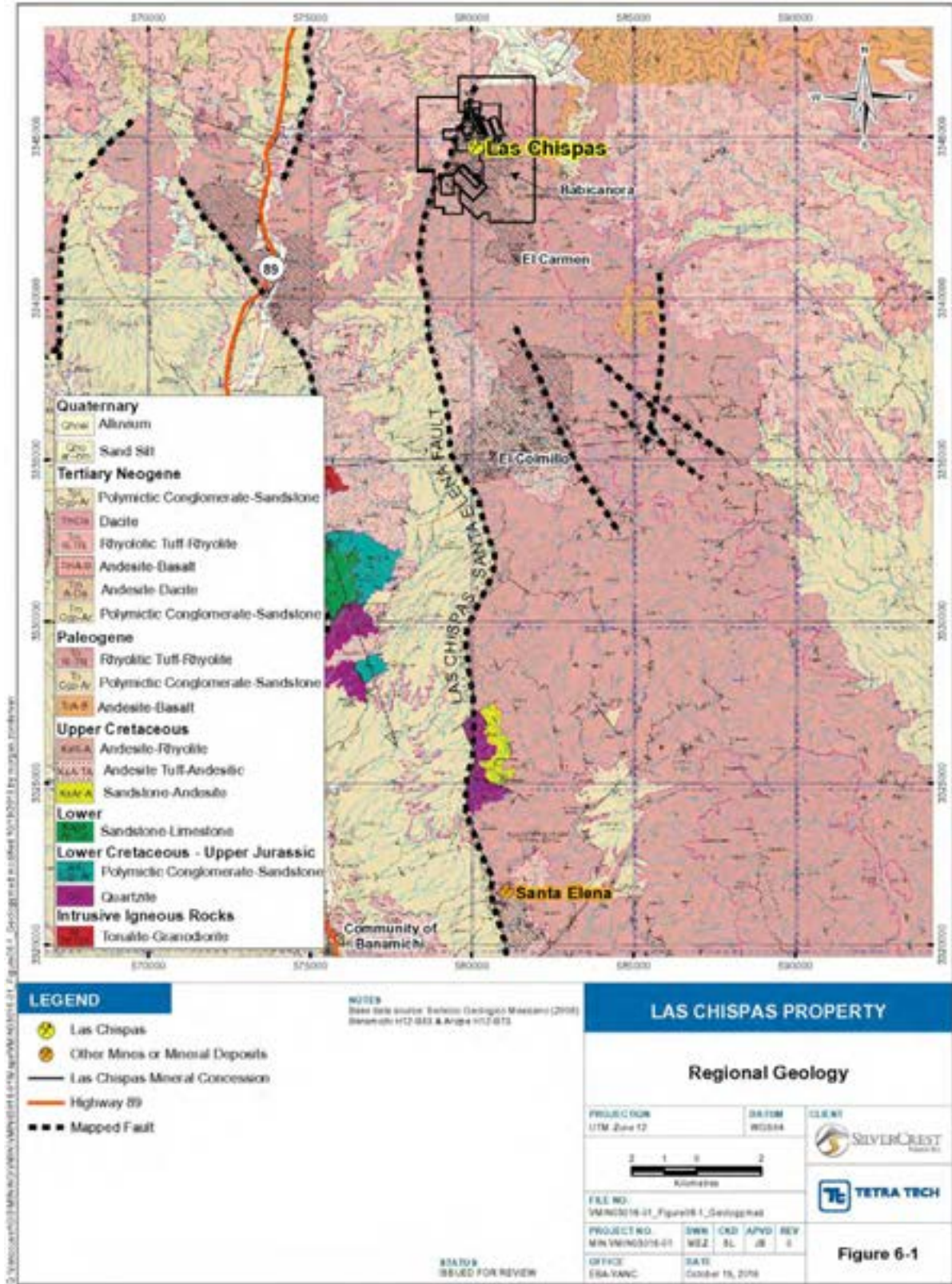
Mineralizing fluids are likely sourced from mid-Cenozoic intrusions. The structural separation along the faults formed conduits for mineral bearing solutions. The heat source for the mineralizing fluids was likely from the plutonic rocks that commonly outcrop in Sonora.

Many significant porphyry deposits of the Sierra Madre Occidental occur in the Lower Volcanics and are correlated with the various Middle Jurassic through to Tertiary aged intrusions. These deposits include Cananea, Nacozari and La Caridad. (Ferrari et. al., 2007). In Sonora, emplacement of these systems are considered to be influenced by E-W and ENE-WSW directed extension. Early Eocene tectonic activity which resulted in northwest trending shear and fault zones appears to be an important control on mineralization in the Sonora region.

Figure 6-1 provides a regional view of the major geological features that exist near the Las Chispas Property.



**Figure 6-1: Regional Geology Showing Major Graben of the Rio Sonora and Continuous Normal Fault between Santa Elena and Las Chispas**



## 6.2 Local Geology

---

The western and southwestern portion of the Las Chispas Property is overlain by a series of young Oligocene aged reddish dark brown vesicular dacitic-andesitic to basaltic lava flows (Upper Volcanic Complex) with subordinate pyroclastic to lapilli tuff interbeds (Gonzalez-Becuar et al., 2017). The exposed thickness of these units on-site is 150 m (~500 feet). Underlying this package (Lower Volcanic Complex) and exposed in the eastern portion of the land package is a thick sequence (>500m) of Early Tertiary rhyodacitic to andesitic lapilli (lithic) to variably welded ash tuffs (Colombo, 2017). Both sequences are intruded by two phases of intermediate intrusive rocks. The volcanic rocks are variably altered, brecciated, mineralized, and display a range of intensities of brittle deformation. Outcrop exposure is moderate to poor on slopes, with most areas covered by a mantle of colluvium at the lower elevations and along the valley bottoms. Exceptions are intensely silicified rocks which often form resistant ridges, ledges and ribs.

The Upper Volcanic Complex including felsic volcanics and ignimbrites are primarily composed of lava flows, with lesser lapilli tuffs and volcanic breccias. These rocks are widespread at higher elevations and cap the surrounding mountains in the western and southwestern portion of the Property. This upper volcanic unit conformably overlay the lower Early Tertiary rhyodacitic to andesitic volcanics. The lava flows consist of strongly erosion resistant, reddish brown crystal-rich dacites with intercalated, dark brown, fine grained crystal-poor dark brown to black andesitic to basalt flows. Individual flows vary in thickness from 0.5 m to 10's of metres with easily identified flow tops consisting of increasing vesicles to angular broken rubbly breccia. Beds of lapilli ash also outcrop on bluffs and are observed in the typically recessive cliffs. The lapilli ash and airfall tuffs are poorly sorted, angular, and theorised to be basal surge or pyroclastic flows. These members typically have an upper ash layer, reverse grading of pumice and lapilli clasts (rare blocks) with a lower basal ash layer, with evidence of welding observed in the ash unit. Laterally, these sub-intervals are continuous throughout the Property and region (Gonzalez-Becuar et al., 2017).

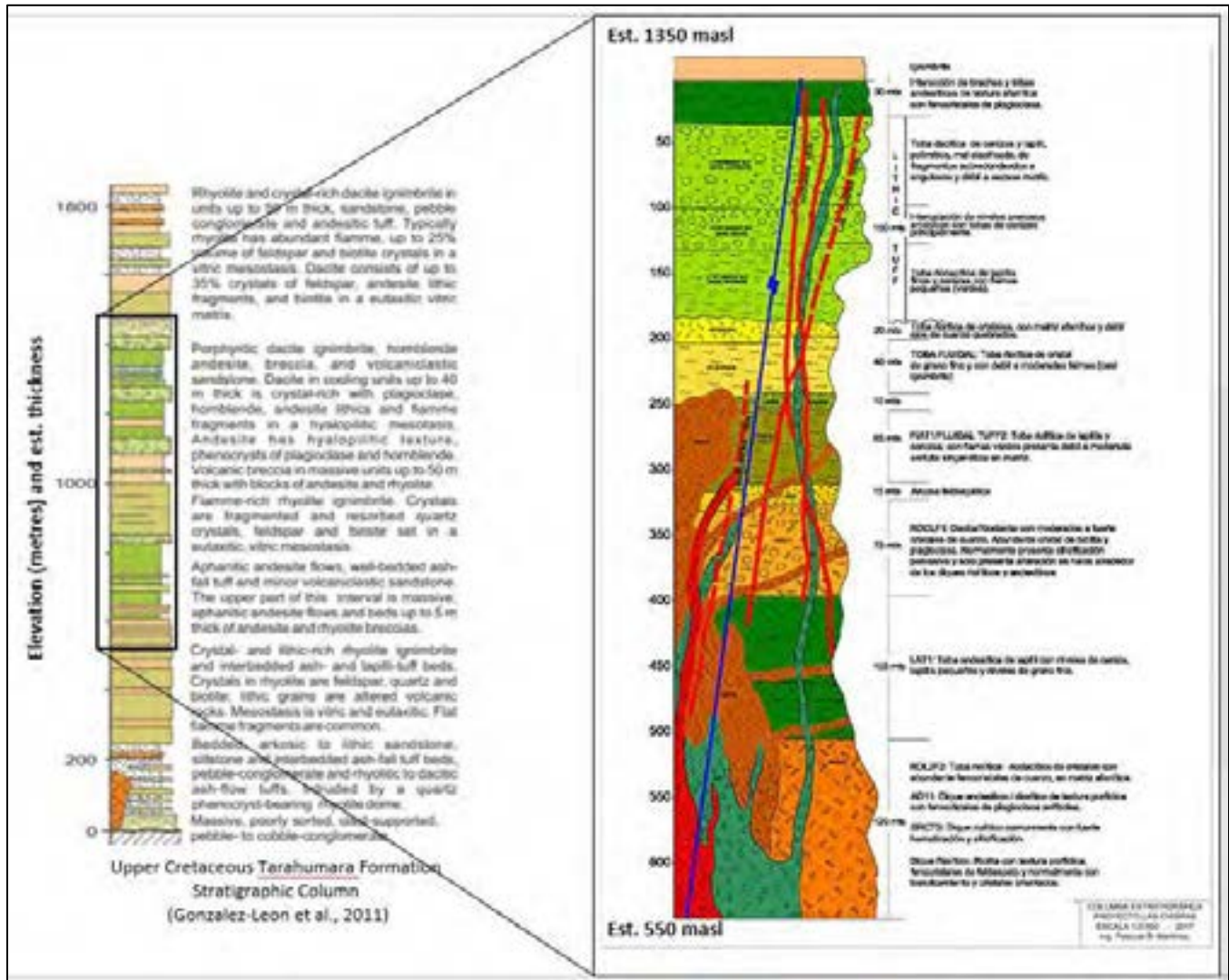
The upper part of the Lower Volcanic Complex hosts the presently identified mineralization on the Property. These units are comprised of rhyodacitic to andesitic flows and volcanic rocks that vary widely in texture and genesis, from coarse pyroclastic, air fall breccias to finely laminated ash, and from welded tuff through reworked volcano-lithic greywackes. There are also interbedded flows of a similar composition to the volcanoclastics that infill distinct local basins based on the local paleo topography during the eruption, adding complexity in identifying these restricted sub-intervals. The source of the clastic, and flow lithologies infilling the basin is local, within 5km. The thin section study undertaken by SilverCrest demonstrates that most quartz fragments are angular throughout all the clastic units. This indicates that there has been little transport in the high-energy environment of pyroclastic flows and air fall tuffs. Most mineralization is located within a lapilli lithic tuff that is approximately 200 m thick.

Intrusive rocks are noted throughout the Property. Several phases are currently recognized, such as rhyodacite intrusives cross-cut many of the local Oligocene volcanic sequence as NW trending dykes and intrusive plugs at intersection points between major structures. Often the intrusive dykes and plugs exploit the same faults used by the mineralizing fluids. Both styles of intrusives vary from mafic, andesitic-dacitic to rhyolitic and are very fine grained to aphanitic. In the courser grained samples, the mineral assemblage is dominated by white laths of plagioclase with rare trigonal K-feldspar, quartz grains and elongate hornblende. Typically, all intrusives are weakly to strongly magnetic unless strongly clay altered.

The Las Chispas Property is comprised of a sequence of coarse to fine grained dacitic, andesitic and rhyolitic interbedded volcanoclastics, flows and pyroclastics (Figures 6-2). These units are cross-cut by several late, fine-to-medium grained, and steeply dipping andesitic and rhyodacitic dykes.

To summarize, host rocks in the Las Chispas District are generally pyroclastic, tuffs, and rhyolitic flows which are interpreted as members of the Lower Volcanic Complex. Locally, volcanic pyroclastic units mapped within the underground workings include rhyolite, welded rhyodacite tuff, lapilli (lithic) tuff, and volcanic agglomerate. Figure 6-2 provides a schematic summary of the regional and local stratigraphy.

**Figure 6-2: Stratigraphic Column for Las Chispas Property**



The volcanics are cut by several different types of intrusive dykes and appear to have some influence on the distribution of mineralization. Large rhyodacite intrusives cross-cut much of the volcanic sequence as NW trending dykes; however, dykes of andesitic, diorite, rhyolitic (youngest), and granodiorite composition have also been noted in drill core. Early dykes appear to be related to mineralization influencing ground preparation (fracturing) of host rocks. Rhyolite flow domes are suggested in the area and radial structural features are noted from surface lineament mapping.

The volcanics form a gentle syncline and anticline complex across the Property, which is cross-cut nearly perpendicular to the folds axis by veins (Mulchay, 1935). Figure 6-3 and 6-4 shows the district geology and a typical section looking towards the east through the Las Chispas Property.



Numerous mineral occurrences around the Las Chispas Mine were identified by previous operators on the Property with historic reports of up to 14 nearly parallel veins (Russell, 1908). Many of these veins fall along, parallel to, the Las Chispas and William Tell Veins. Veins in the Babicanora area are considered similar the Las Chispas Mine veins. Each structural zone occurs along a consistent orientation and may be comprised of pinch and swell veins, stockwork, parallel sheet veins, or breccia. Varying degrees of mining has occurred within these structures; however, based on historical records for both Las Chispas and Babicanora areas, the mining appears to have been selective based on grade cut-offs of greater than 1,000 gpt Ag. Material grading below these cut-offs may have been considered sub-economic to previous operators and remain intact today. These remaining deposits along with high-grade vein splays and fault-displaced unmined veins are the main targets of SilverCrest exploration.

Figure 6-3: Las Chispas District Cross-Section

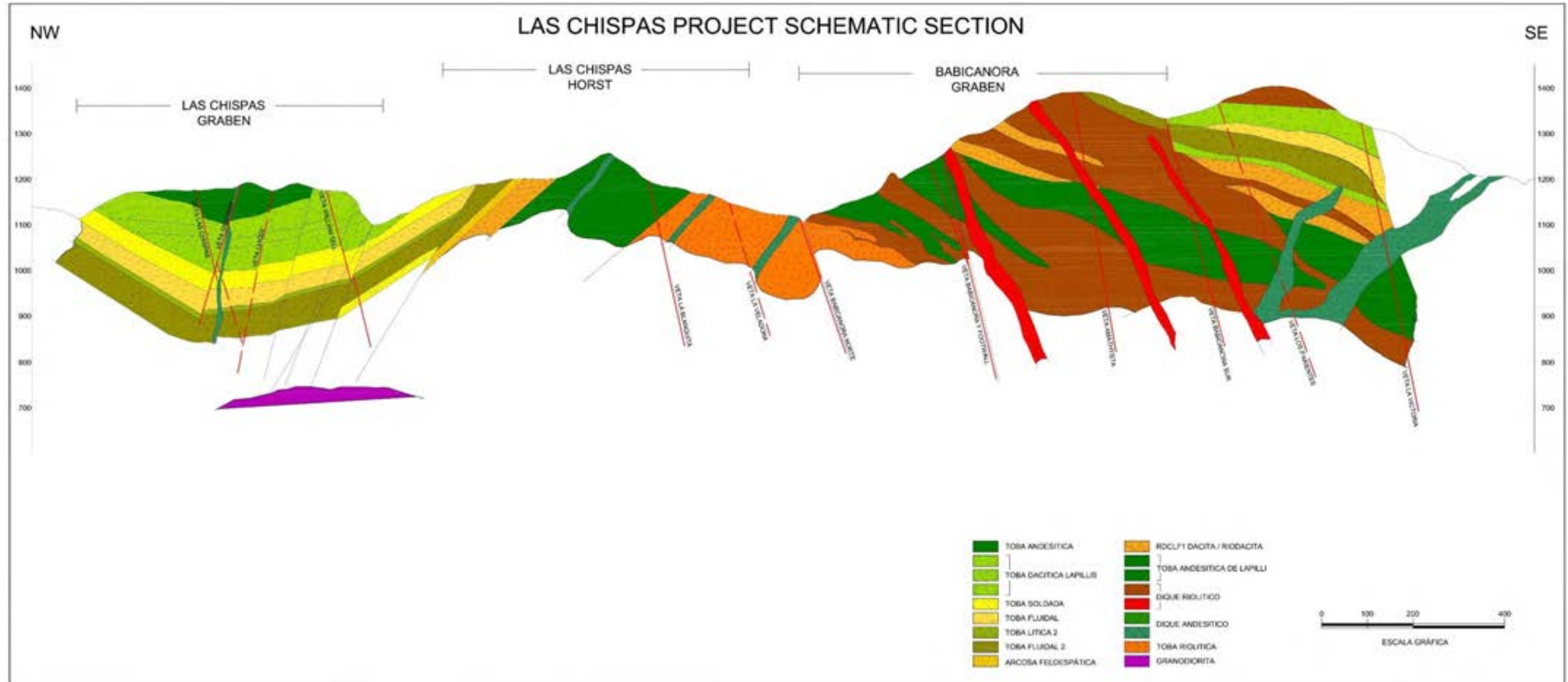
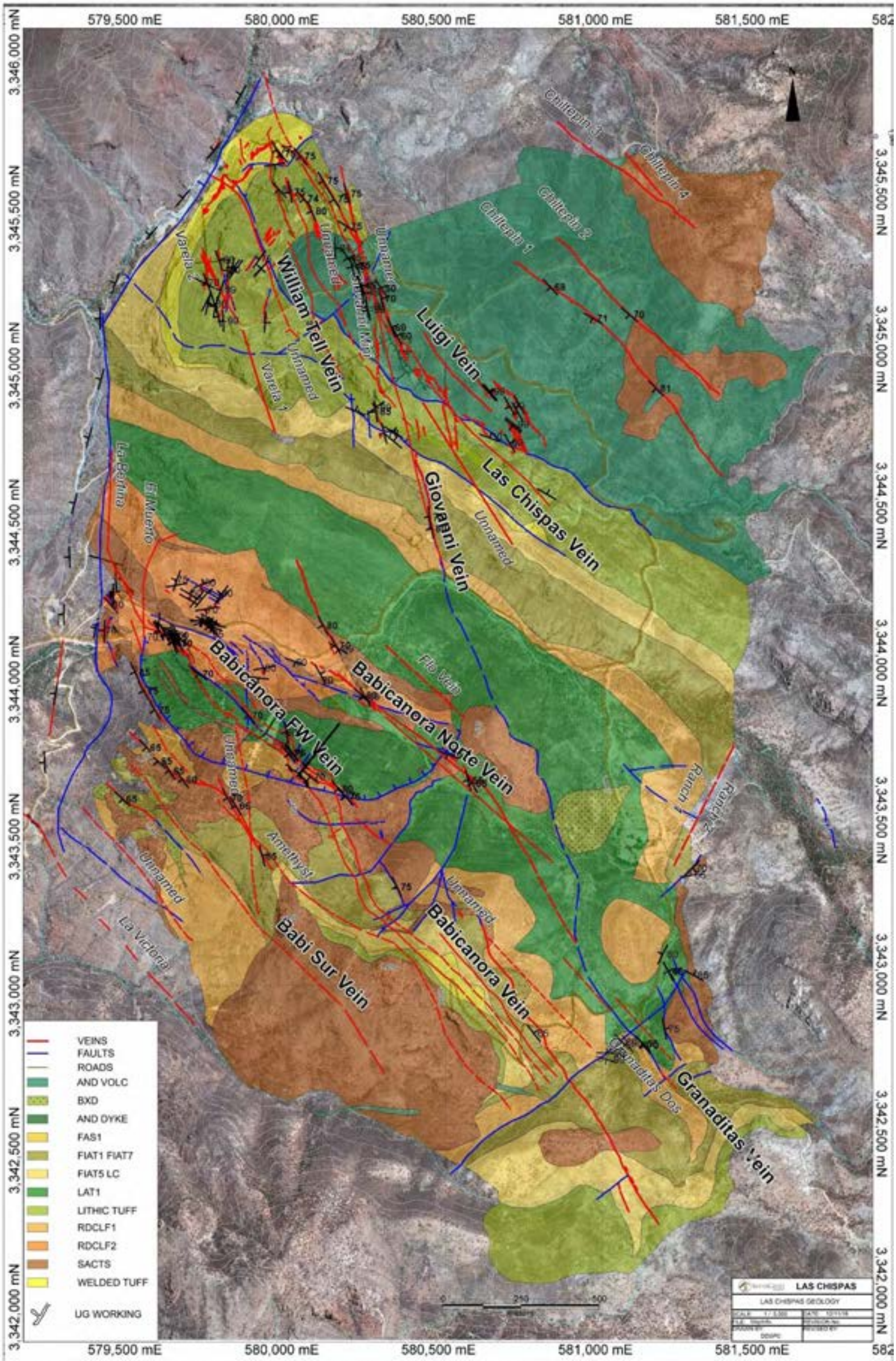




Figure 6-4: Las Chispas District Geology Map



Major mineralized lithologic units for this geology plan map are defined as; LAT1; Lithic andesitic tuff and the most significant host for vein-related silver-gold mineralization, RDCLF 1 and 2; Rhyodacitic flows which restrict mineralization but can be mineralized, SACTS; Silicic andesitic to rhyolitic tuffs or ignimbrite which occur in sill and dyke form with dykes associated with mineralization.



## 6.2.1 Geochemistry

Thin section and TerraSpec studies show that the mineralizing fluids on the Las Chispas Property are dominantly neutral with separate acidic fluid pulses overprinting alteration and mineralization. Relative metal abundance and correlation coefficients have been calculated to characterize the geochemistry of the Las Chispas deposits and showings.

Both the thin section report and TerraSpec work indicates that the alteration generated during the mineralization events are dominantly multi-pulse neutral and consistent with Low-Sulphidation mineralization. The typical alteration assemblage is montmorillonite-illite +/- kaolinite +/- MgFe chlorite +/- pyrite. However, more acidic species of minerals and clays are also present, such as alunite, dickite and ammonium. In conjunction with the more acidic alteration, magmatically derived orthoclase is noted in thin sections as fine grained interlobated aggregates that occupy the interstices between the coarse grained quartz. This indicates that the quartz-rich mineralizing fluids and the orthoclase are syngenetic. Thus, both the orthoclase and quartz are part of the same event (Colombo, 2017). To produce these near neutral clays and minerals in conjunction with the more highly acidic species, two or more distinct fluid pulses are plausible.

A review of the core database, comprised of 46,925 samples, from all known deposits within the Las Chispas Property was undertaken. The review centered on the correlation coefficient (Table 6-1) and modal abundance (Table 6-2) of the anomalous and expected elements typically associated with Low to Intermediate Sulphidation deposits. The correlation complex was used to determine the relationship between elements and the modal abundances of those relationships.

**Table 6-1: Correlation Coefficient Table, Anomalous Values Highlighted, >0.25 and <-0.25**

	Au	Ag	Cu	Pb	Zn	As	Ba	Cd	Co	Fe	Hg	Mn	Mo	S	Sb
Au	1.00	0.87	0.33	0.20	0.17	0.04	0.00	0.23	-0.01	0.00	0.11	0.00	0.01	0.01	0.52
Ag	0.87	1.00	0.31	0.18	0.16	0.03	0.00	0.20	-0.01	0.00	0.09	0.00	0.02	0.01	0.41
Cu	0.33	0.31	1.00	0.14	0.14	0.06	0.01	0.19	0.09	0.05	0.08	0.01	0.14	0.04	0.33
Pb	0.20	0.18	0.14	1.00	0.39	0.21	0.00	0.43	0.00	-0.03	0.08	0.01	0.09	0.07	0.17
Zn	0.17	0.16	0.14	0.39	1.00	0.20	0.00	0.93	0.10	0.07	0.12	0.06	0.03	0.17	0.16
As	0.04	0.03	0.06	0.21	0.20	1.00	0.00	0.20	0.07	0.07	0.11	0.08	0.06	0.18	0.12
Ba	0.00	0.00	0.01	0.00	0.00	0.00	1.00	0.00	-0.01	-0.01	0.04	0.39	0.02	-0.07	0.21
Cd *	0.23	0.20	0.19	0.43	0.93	0.20	0.00	1.00	0.03	-0.04	0.13	0.04	0.05	0.12	0.21
Co	-0.01	-0.01	0.09	0.00	0.10	0.07	-0.01	0.03	1.00	0.74	0.03	0.21	0.02	0.10	0.05
Fe	0.00	0.00	0.05	-0.03	0.07	0.07	-0.01	-0.04	0.74	1.00	-0.03	0.15	-0.02	-0.25	0.04
Hg *	0.11	0.09	0.08	0.08	0.12	0.11	0.04	0.13	0.03	-0.03	1.00	0.02	0.03	0.05	0.14
Mn	0.00	0.00	0.01	0.01	0.06	0.08	0.39	0.04	0.21	0.15	0.02	1.00	-0.02	-0.03	0.31
Mo *	0.01	0.02	0.14	0.09	0.03	0.06	0.02	0.05	0.02	-0.02	0.03	-0.02	1.00	0.02	0.17
S	0.01	0.01	0.04	0.07	0.17	0.18	-0.07	0.12	0.10	-0.25	0.05	-0.03	0.02	1.00	0.00
Sb *	0.52	0.41	0.33	0.17	0.16	0.12	0.21	0.21	0.05	0.04	0.14	0.31	0.17	0.00	1.00

\*Low statistical population

**Table 6-2: Basic Statistics, with Sample Population and Modal Abundance of Elements**

Column	Count	Min	Max	Mean	Total	Variance	StDev	CV	Skewness	Kurtosis
Weight (kg)	45,944	0.22	12.94	3.899	179,149	3.77	1.942	0.5	0.81	-0.23
Length (m)	46,925	0.1	7.5	1.113	52,249	0.28	0.527	0.47	0.83	0.94
Au (ppm)	45,934	0.001	305	0.122	5,611	5.7	2.387	19.54	77.06	7,654
Ag (ppm)	45,934	0.2	21,858	11.068	508,393	34,356	185.353	16.75	68.64	6,237
Cu (ppm)	29,184	1	10,250	10	290,069	5,810	76	7.67	91.07	11,398
Pb (ppm)	29,184	2	8,150	37	1,089,937	36,473	191	5.11	19.58	526.5
Zn (ppm)	29,060	2	17,700	58	1,699,437	45,639	214	3.65	38.92	2477
Ba (ppm)	29,091	1	10,000	151	4,386,336	78,966	281	1.86	9.57	207.5
Ca (pct)	28,933	0.01	25	1.086	31,420	1.87	1.366	1.26	5.69	64.74
Cd (ppm)	3,740	0.5	130	2.023	7,568	25.96	5.095	2.52	13.74	248
Co (ppm)	24,678	1	176	4	101,027	31.29	6	1.37	3.45	41.09
Hg (ppm)	4,311	0	41	1	4,692	1.03	1	0.93	22.57	705.3
Mn (ppm)	29,064	1	50,000	564	16,399,438	991,598	996	1.76	26.17	1,063
Mo (ppm)	11,304	0	1,670	4	43,432	623.7	25	6.5	44.69	2,531
S (pct)	24,815	0.01	34	0.388	9,636	0.9	0.947	2.44	16.65	381.9
Sb (ppm)	13,910	1	1,045	5	75,476	316.2	18	3.28	36	1,717

Au and Ag have a strong positive correlation coefficient. Emplacement of both silver and gold seems to be strongly related, although there is thin section evidence of a quartz+Ag only event at Babicanora. The core low to intermediate sulphidation elements (Au, Ag, Cu, Pb, Zn and Sb) all have a strong affinity for one another. Mercury does not have a conclusive positive or a negative correlation and has negligible values. Pb and Zn have a very high correlation coefficient 0.870. However, base metals and accessory minerals have low abundance within all the targets. There is a slight increase in base metal content in the targets located deeper in the eastern portion of the Property. This may indicate an evolution of the fluids as they ascend or separate base metal rich pulses, the mode of which emplacement is unclear. Sulphur has a moderate correlation with Zn and Pb, likely due to sulphur in their respective sulphides. The gold and silver mineralization in the upper portion of the targets has been oxidized and the sulphides leached out, resulting in a lower sulphur signature.

## 6.2.2 Alteration

All rock types on Las Chispas show signs of extensive hydrothermal alteration. Thin section and TerraSpec spectral analysis were completed on drill core samples from DDH BA-17-9A, which cuts all the major lithologies on the Babicanora target and the alteration is generally consistent with the all the showings on the Property. The TerraSpec work was completed using the Mineral Deposits Research Unit (MDRU) TerraSpec 4 at the University of British Columbia. Both studies identified alteration consistent with argillic and advanced argillic alteration. The alteration minerals identified throughout the Las Chispas Property include smectite, illite, kaolinite, chlorite, carbonate, Fe oxy/hydroxides, probable ammonium, gypsum/anhydrite, silica and patch trace alunite.

The dominant alteration mineralogy throughout the drill hole is montmorillonite-illite +/- kaolinite +/- MgFe chlorite. This is consistent with argillic and possibly advanced argillic alteration. Most the alteration shows a progression of alteration minerals consistent with lower hydrothermal fluid temperatures. These low temperature clays and minerals indicate a near neutral pH with decreasing depth and distance from the conduit of flow.

White clay composition is predominantly low Al (phengitic) but there are several interbedded narrow intervals of typical alumina bearing muscovitic illite zones at the top and base of sampling. This variation may be due to lithological variations of the parent rock. Sericitic alteration occurs as widespread fine grained aggregates that form anhedral grains. These grains replace the fine grained matrix and feldspar phenocrysts. White clay crystallinity ranges from poor to moderate, indicating lower temperatures of emplacement.

Chlorite is relatively common, and two phases have been identified, Mg>Fe, with minor intervals of Fe>Mg chlorite. These differences may be related to parent lithologies or relative Fe-Mg. Localized, coarse clots of chlorite can replace small clasts, although fine grained pervasive chlorite is more common.

Pyrite is consistently observed throughout the target, overprinting the host rock and associated with the silicification adjacent to, and within, the mineralized zones. Forms include cubic disseminations, aggregates and veins. Pyrite is often weathered to Fe-oxides to depths of >200m within the mineralized zones.

Silicification ranges from white to pale massive chalcedonic and saccharoidal to coarse crystalline comb quartz. Despite the visual identification of silicification in the core, little silica was noted in spectra. Silica is not infrared active but is suggested by the presence of strong groundwater features in the spectra. The groundwater features were largely absent, but their absence may be due to destructive reheating of the silica due to multiple pulses of fluids and/or syngenetic reactivation of fault structures causing damage to the previously emplaced quartz veins. Reactivation of faulting is noted within the mineralization and the generation of cataclastic breccias which are, in turn, recemented with later pulses of coarse to microcrystalline silica.

Calcite with trace anhydrite +/- gypsum is abundant throughout the Property. It is emplaced during and after the mineralizing events. In thin section, coarse-grained equigranular aggregates of quartz hosts rare interstitial crystals of calcite (up to 3 mm), in the mineralized zone. Late fine- to coarse-grained calcite veins and veinlets cross-cut the mineralization. The northwest part of the Babicanora Vein shows late stage, coarse-grained white and black banded (+manganese) calcite infills open spaces and cross-cuts mineralization (Photo 6-1).

**Photo 6-1: Coarse-Grained White and Black Banded (+Manganese) Calcite Vein**



Near neutral pH and reduced fluids form low-sulphidation state sulfide minerals and alteration mineralogy (Barton and Skinner, 1979). However, within the Babicanora samples there is sporadic localized potassic alunite, dickite and ammonium identified at ~90m depth indicating a more acidic environment. This change in pH may be due to the incorporation of higher volumes of magmatic fluids or changes in the volumes of the meteoric fluids content.

Thin section work notes a change in the chemical environment within this zone, "Euhedral to subhedral phenocrysts of orthoclase are immersed within a heterogeneous groundmass. The heterogeneity of the groundmass suggests that a strong alteration event altered the groundmass. K-feldspar-K-bearing clays comprise the groundmass. The clays are weak to moderate after the plagioclase, strong after biotite with weak quartz within the groundmass (Colombo, 2017).

Generally, the host rocks are above the water table. Oxidation of sulphides is noted from near surface to depths greater than 300 m and the presence of secondary minerals are noted from the Las Chispas underground workings approximately 60 m to 275 m depth from surface. Hematite mineralization occurs as halos around small veins due to percolated meteoric water along small faults and fractures. Strong and pervasive near surface oxidation is noted to occur in the Babicanora Area where host rocks have experienced faulting and advanced weathering to limonite, hematite, and clays.

### 6.2.3 Mineralization

Mineralization at the Las Chispas Property is characterized as a deeply emplaced low to intermediate sulphidation system, with mineralization hosted in hydrothermal veins, stockwork and breccia. Emplacement of the mineralization is influenced by fractures and low pressure conduits formed within the rocks during tectonic movements. Mineralization can be controlled lithologically along regional structures, local tension cracks, and faulted bedding planes. Brecciated mineralization forms in two ways, in zones of low pressure as hydrothermal brecciation and mechanical breccias. Both are interpreted to occur most often at the intersection of two or more regional structural trends. Historic reports and work conducted by SilverCrest have further investigated the gold, silver, base metals and gangue minerals associated with the mineralization.

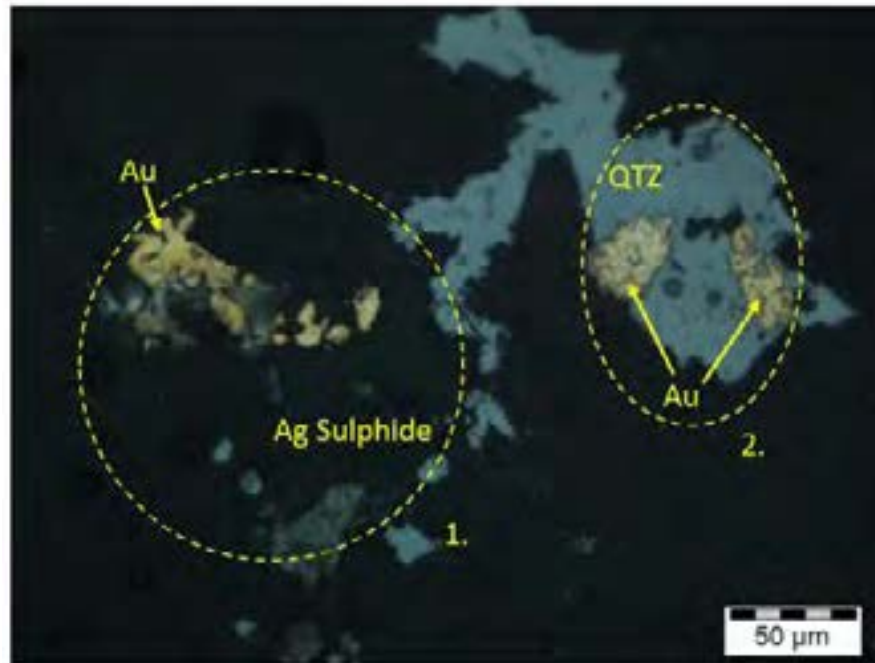
The width of mineralization is 0.10 m to 7.9 m in true width that typically encompasses a central quartz +/-calcite mineralized corridor with narrow veinlets within the adjacent fault damage zone. Stockwork and breccia zones are centered on structurally controlled hydrothermal conduits.

Historical reporting has identified economic mineralization in the form of silver sulphides and sulfosalts as the primary silver mineral species, and in association with pyrite. Secondary silver enrichment is indicated by the gradation from chlorargyrite near the surface to pyrargyrite at depth. Dufourcq (1910) noted the variability of the mineralization within the Las Chispas Vein and attributed the variation to changing elevations of water tables, late stage hydrothermal pulses and supergene remobilization. Current thin section work and observations during SilverCrest's ongoing field work support Dufourcq's historic observations.

Silver mineralization is dominant throughout the Las Chispas Property. Typical ratios of Ag:Au are: Babicanora Vein at 64:1, Babicanora bonanza zone (Area 51) at 63:1, Las Chispas Vein at 142:1, Giovanni Vein at 172:1, and William Tell Vein at 140:1. Overall, a 100:1 silver to gold ratio is considered for the Las Chispas Property. Stronger gold mineralization is noted within the Babicanora Area than the Las Chispas Area. The modes of gold mineralization currently identified are, gold associated with pyrite and chalcopyrite, gold emplacement with silver sulphides (typically argentite), and as native gold flakes in quartz (Figure 6-5).



**Figure 6-5: Thin Section of Gold and Silver Emplacement at Las Chispas**



Other sulphide species identified at the Las Chispas Property include minor chalcopyrite, sphalerite, and galena. The Las Chispas Veins are conspicuously low in base metal mineralization except for the Granaditas Vein located in the southeastern part of the district. Historic documents show that base metal abundances are significantly higher in El Carmen area, a historic mine to the south of the Property. In addition to the petrographic findings in Babicanora samples of an early sphalerite phase followed by a later galena phase of mineralization (see 6.2.3.1), visual inspection of the base metal mineralization also shows galena and sphalerite emplaced at the same time within the same discrete vein. This observation indicates that there are multiple pulses of base metal rich fluids of variable composition that comprise the mineralization at the Las Chispas Property. Furthermore, there seems to be an increasing base metal content to the southeast and to depth. Government geophysical maps note a large magnetic anomaly to the east of the Property which could be a buried intrusive and potentially the main source of the district's mineralization.

The veins and stockwork within the Las Chispas Vein consist of fine-to-medium grained, subhedral to euhedral interlocking quartz with minor cavities lined by comb quartz (typically crystals are 5-10 mm in length). SilverCrest geologists have not noted any quartz-pseudomorphed blades after platy carbonate or other textures that would indicate a shallow environment. Vein emplacement and form are structurally and lithologic controlled. The rheology of the host rock plays an important role in structural preparation and emplacement of the mineralization. Within the fine grained welded tuff, veining is narrow and chaotic. Veins and breccia emplacement in the more competent, medium grained lapilli tuffs are wider and focused along the main structure with denser veining in the adjacent fault damage zone.

The two types of breccias associated with mineralization at Las Chispas, hydrothermal breccia and recemented mechanical breccia, are hosted differently. In the hydrothermal breccia, mineralization is hosted in a siliceous matrix of hydrothermal quartz +/- calcite, and previously formed vein clasts that have been brecciated and recemented (Figure 6-6 A, B). Clasts are typically homolithic, angular and show minimal signs of milling and rounding by hydrothermal processes. Although heterolithic breccias are present, they tend to be at the

intersection points of the cross-cutting faults (striking 360°) to the main trend and at depth. The gold values increase with increasing visible pyrite and chalcopryite within the quartz matrix.

Recemented mechanical breccia generated by the reactivation of the fault hosting the mineralization are also present. These breccias are comprised of fault gouge and have a cataclasite texture and are recemented with quartz and calcite. This mechanism also produces open space filling ores including narrow stockwork quartz +/- calcite +/- adularia veins. Other textures include banding, crustiform, comb and chalcedonic silica-calcite veins. Often the matrix has fine disseminated to course banded sulphides associated with the cement.

**Figure 6-6: Breccias at Las Chispas**



- (A) Hydrothermal angular homolithic breccia, siliceous matrix with calcite and fine grained sulphides weathering red.
- (B) Heterolithic breccia with minor rounding of clasts and open space filling. Fine grained black sulphides and manganese hosted in the crystalline quartz matrix.

Argentite is the principle silver mineral in association with galena, pyrite +/- marcasite and chalcopryite. Silver and gold values have a strong correlation with one another and are likely precipitated together during the crystallization of quartz. Base metals are low in veins. Minor zinc and lead are principally found in black sphalerite and galena as blebs and veinlets. Arsenic and mercury are noticeably absent from the geochemistry. Minor antimony is present. Minor secondary copper minerals as chrysocolla and malachite are noted in the underground in association with oxidized chalcopryite.

Styles of mineralization present on the Property include laminated veins (Photo 6-2), stockwork and quartz-calcite filled hydro-brecciated structures (Photo 6-3). The presence of epithermal textures, such as bladed calcite (replaced by quartz), miarolitic cavities, and chalcedony/crustiform banding mapped underground, suggest multiple phases of fluid pulses have contributed to the mineral deposits.

Generally, it appears that epithermal mineralization is higher in the system (closer to the paleo-surface) on the west side (i.e. La Victoria Vein and historic mine) of the district versus the east side (Granaditas Vein and historic mine) where there is a noted increase in base metals. Government geophysical maps note a large magnetic anomaly to the east of the Property which could be a buried intrusive and potentially the main influence of district mineralization.

**Photo 6-2: Laminated (banded) Vein Style Mineralization along Las Chispas Vein, tip of Rock Hammer shown on Upper Left (near SilverCrest sample 227908, 1.04 gpt Au and 197 gpt Ag over 1.33 m)**



**Photo 6-3: Breccia Style Mineralization along Las Chispas Vein (base of Las Chispas Gallery near SilverCrest sample 617179, 2.34 gpt Au and 343.5 gpt Ag, or 519 AgEq over 1.46 m)**



### 6.2.3.1 Petrographic Analysis

Thin section work on the Babicanora Vein indicates that there are discrete base metal pulses within the fluids, and consequently within the quartz veining. Thin sections show that clusters of anhedral sphalerite are associated with subordinate fine grained blebs of galena and lesser chalcopyrite. The microstructure shown by sphalerite and galena indicates that galena post-dated the crystallization of the sphalerite, which was fractured then partially replaced by the galena. This indicates that there was an early phase of sphalerite with a later galena pulse of mineralization (Colombo, 2017).

Gangue minerals, from visual inspection of core and underground workings include calcite, pyrite, goethite, adularia, chlorite, sericite, epidote (dykes only), barite, manganese oxides (e.g., pyrolusite), and rhodonite. Adularia and manganese oxides are noted to occur within quartz veining and cavities. Amethyst and fluorite are present at Babicanora, William Tell and the Las Chispas veins. Abundant limonite +/- jarosite are commonly in association with goethite and pyritic alteration in proximity to, and within the mineralized faults and dykes, of all the targets to depths of +175 m below surface.

### 6.2.3.2 Fluid Inclusion Study

The fluid inclusion study for the Las Chispas Property found depths of emplacement of mineralization ranging from approximately 100 m to >2 km. The shallow depth of emplacement readings are outside the main mineralized zones. Depth of emplacement in the main mineralized zone are well below 1,000 m with a maximum depth of >2 km (Pérez, 2017). These deeper depths of emplacement are complicated by possible caldera collapse with a change in the paleo-surface.

Overprinting of low and high-sulphidation mineralization and alteration with conflicting depths of formation are noted in the fluid inclusion, TerraSpec, and thin section studies that point towards caldera collapse as a mechanism of emplacement.

## 6.2.4 Structural Geology

Mapping and interpretation of the structural controls on mineralization and post-mineral displacement is ongoing by SilverCrest (Figures 6-5, 6-6 and 6-7). Regionally, the Las Chispas Property is situated in an extension basin related to a Late Oligocene half graben of the Sonora River basin. Multiple stages of normal faulting affect the basin. The main structures are steep, west dipping (80°) and sub-parallel to the Granaditas normal fault located along the western margin of the Property, striking ~030°. The basin is further cross-cut by younger NW-SE normal faults dipping to the southwest, creating both regional and local graben structures (Carlos et al., 2010).

Three local grabens have been identified on the Property, referred to as the Las Chispas, Babicanora and El Carmen grabens. All three grabens are bounded by: 1) steeply dipping (80-90°) oblique strike-slip sinistral faults trending northeast and south-southwest, and 2) oblique strike-slip dextral faults trending southeast dipping (60-80°) to the northeast.

Locally, graben structures are complicated by probable caldera collapse. Circular structures noted in the lineament analysis in conjunction with locally derived immature volcanic fill containing sharp primary quartz clasts indicate local volcanism (Colombo, 2018). Within a collapsed caldera, telescoping, juxtaposing or overprinting deep mineralization, is common. Paleo-surfaces may be easily lowered by 1.0 km, leading to vertical compression of contained ore deposits (Sillitoe, 1994).

Current understanding suggests that mineralized structures are oriented along a northwest-southeast trend. Three structural controls, excluding bedding contacts, are considered to influence alteration and mineralization;

- 150° to 170° and are inclined at approximately 65° to 75° to the southwest,
- 340° to 360° and are inclined 75° west to 75° east, and
- 210° to 230° and are inclined 70° to 85° to the northwest.

Russell (1908) states that a total of 14 veins were mapped by Pedrazzini concordant to this trend near the Las Chispas Mine. SilverCrest has defined 30 epithermal veins on the Property (Las Chispas and Babicanora area) to date.

Vein and stockwork mineralization is influenced by fractures and low pressure conduits formed within the rocks during tectonic movements. These can be controlled along regional structures, local tension cracks, and along broken or sheared bedding planes. Brecciated mineralization forms in zones of low pressure and is interpreted to occur at the intersection of two or more regional structural trends.

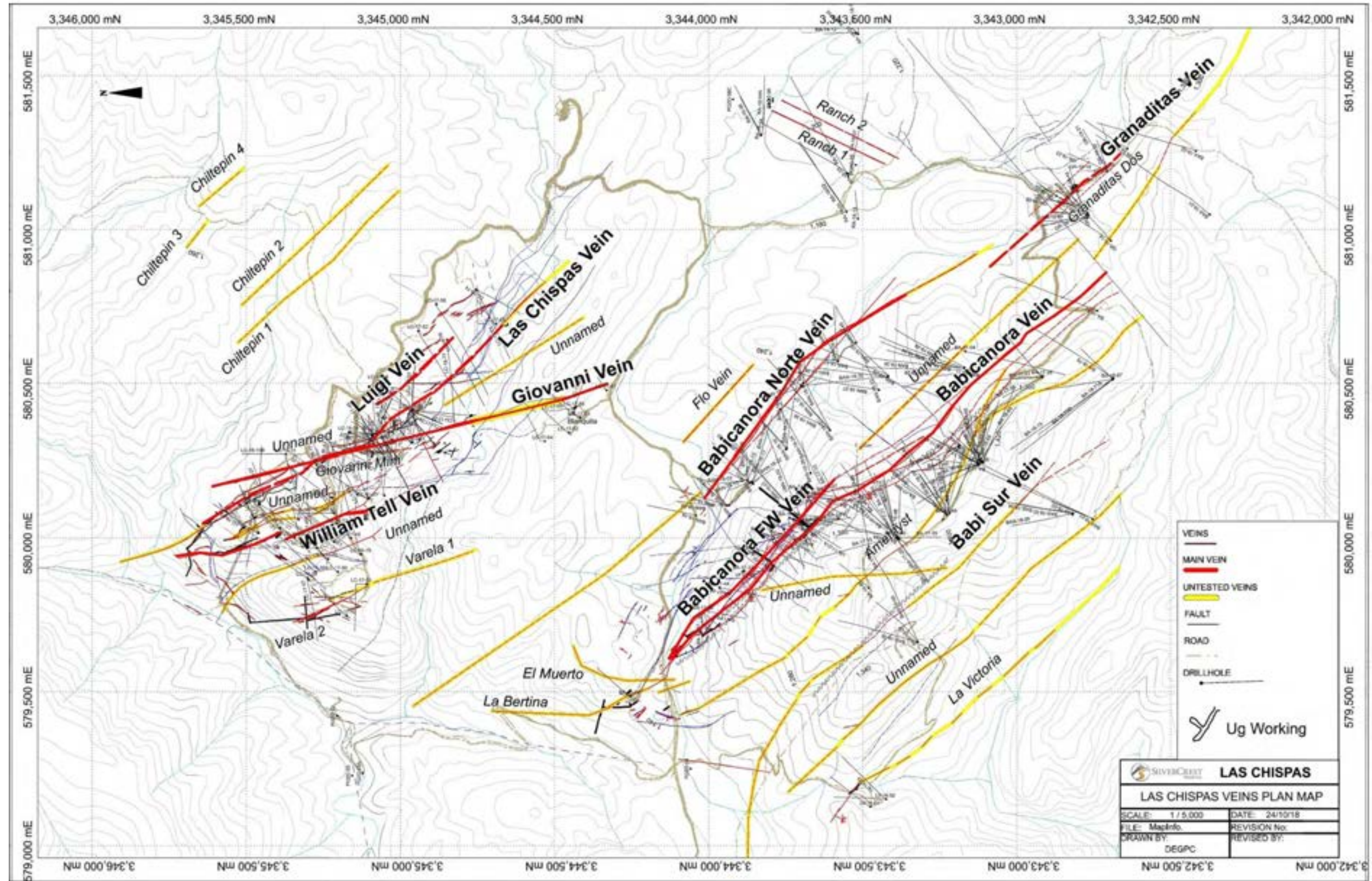
Regionally, the mineralized structures are terminated against the northeast trending regional fault (Las Chispas-Santa Elena Fault) which is a normal fault that has down dropped to the west. Absolute direction and magnitude of movement along the fault in this area is not known. At the nearby Santa Elena mine, this post mineralization normal fault is down dropped on the west side by approximately 400 m (drill-tested). This normal fault is also considered a major controlling feature for important regional aquifers.

### **6.2.5 Deposits and Mineral Occurrences**

The Las Chispas District with subsequent mineral deposit is split into the Las Chispas Area and the Babicanora Area and currently consists of 30 epithermal veins (Figure 6-5). Of the 30 veins, SilverCrest has partially drilled 21 and has intercepted high-grade (>150 gpt AgEq) mineralization in all. The updated resource presented in this report is based on 8 of the 30 veins.



Figure 6-7: Plan Overview of the Las Chispas and Babicanora





### 6.2.5.1 Babicanora and Babicanora Footwall (FW) Veins

The Babicanora Vein is located in the southern portion of the Las Chispas Property. Historically, the Babicanora Vein and surrounding area was considered the largest mineralized system in the Las Chispas District. Mineralization is hosted in structurally controlled veins with associated stockwork and breccias. A majority of high-grade mineralization is located within medium to coarse-grained lithic tuff (LAT1). The strike length of the surface exposures of mineralization and old workings is approximately 3.2 km. The historic workings are in the hanging wall of the vein and are reported to be as much as 450 feet deep (Dahlgren, 1883).

Underground workings along the Babicanora Vein are located to the northwest portion of the vein, and is currently accessed by several adits including a 4 m by 4 m adit (Photo 6-4). Mineralization is characterized as quartz veins, stockwork, and breccias. The mineralized structural zone is oriented along strike between 140° to 150° with inclination of approximately 60 to 70° to the southwest. Several 200 to 220° striking faults and dense fractures intersect the Babicanora Vein. These intersections appear to influence mineralization by developing high-grade shoots that typically plunge to the northwest. From observations underground at the nearby Las Chispas Vein, these cross-cutting faults or dense fractures can be mineralized along an approximate 220° strike for up to 20 metres.

The Babicanora Mine had hangingwall stoping from the main adit level (1152 masl) to the surface, approximately 150 m. Depth of historic underground workings is approximately 25 m below the main adit level. SilverCrest removed and stockpiled approximately 800 tonnes of material for underground drill access in 2017 (Photo 6-5). The Babicanora Vein is in the footwall of the historic stoping along a fault with no known mining in the footwall where SilverCrest has discovered high-grade mineralization. Geological mapping in the Babicanora Area is shown in Figure 6-6 and a typical cross-section is shown in Figure 6-7.

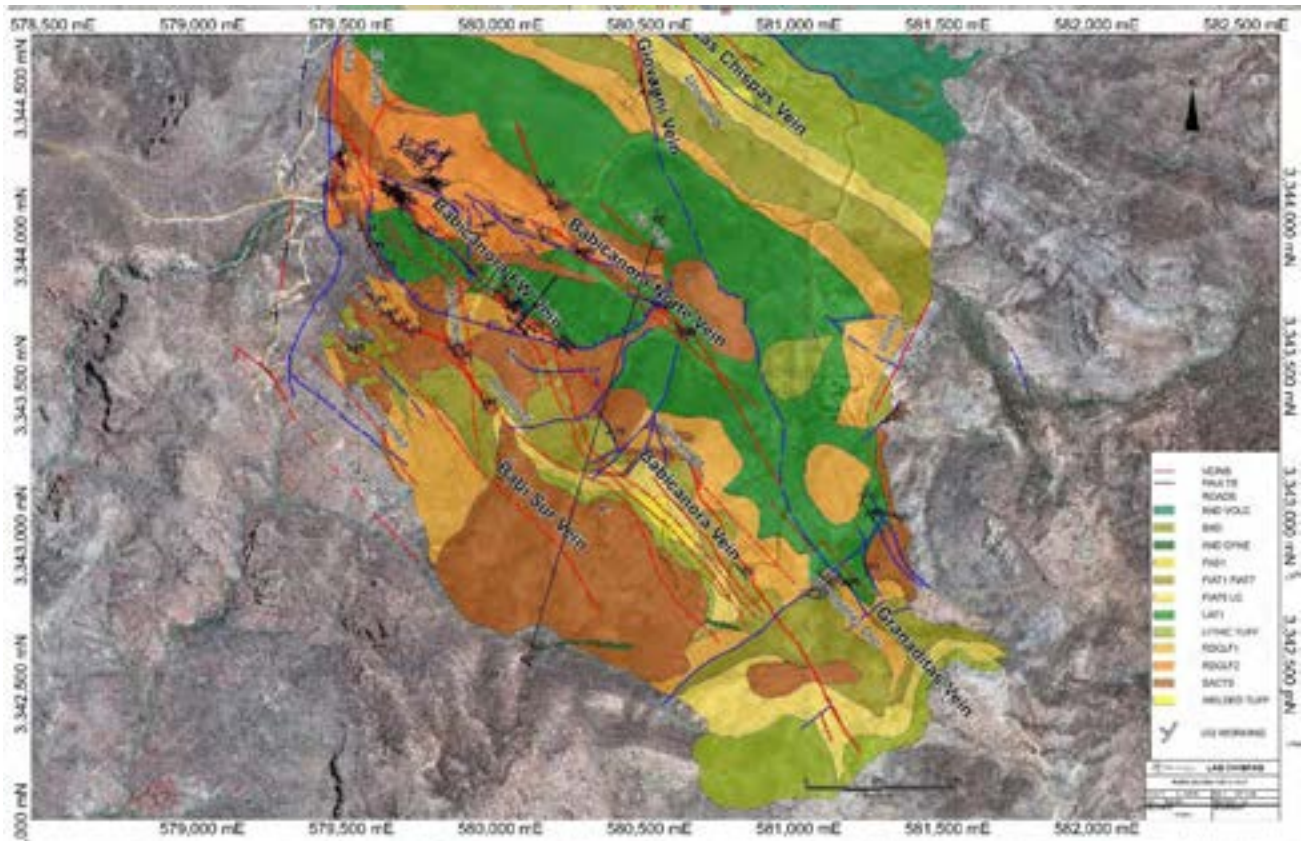
**Photo 6-4: Main Portal at Babicanora, 4 m by 4 m, built in 1860's**



**Photo 6-5: Babicanora Stockpile Removed from Babicanora Adit, Estimated Grade of 400 gpt AgEq**

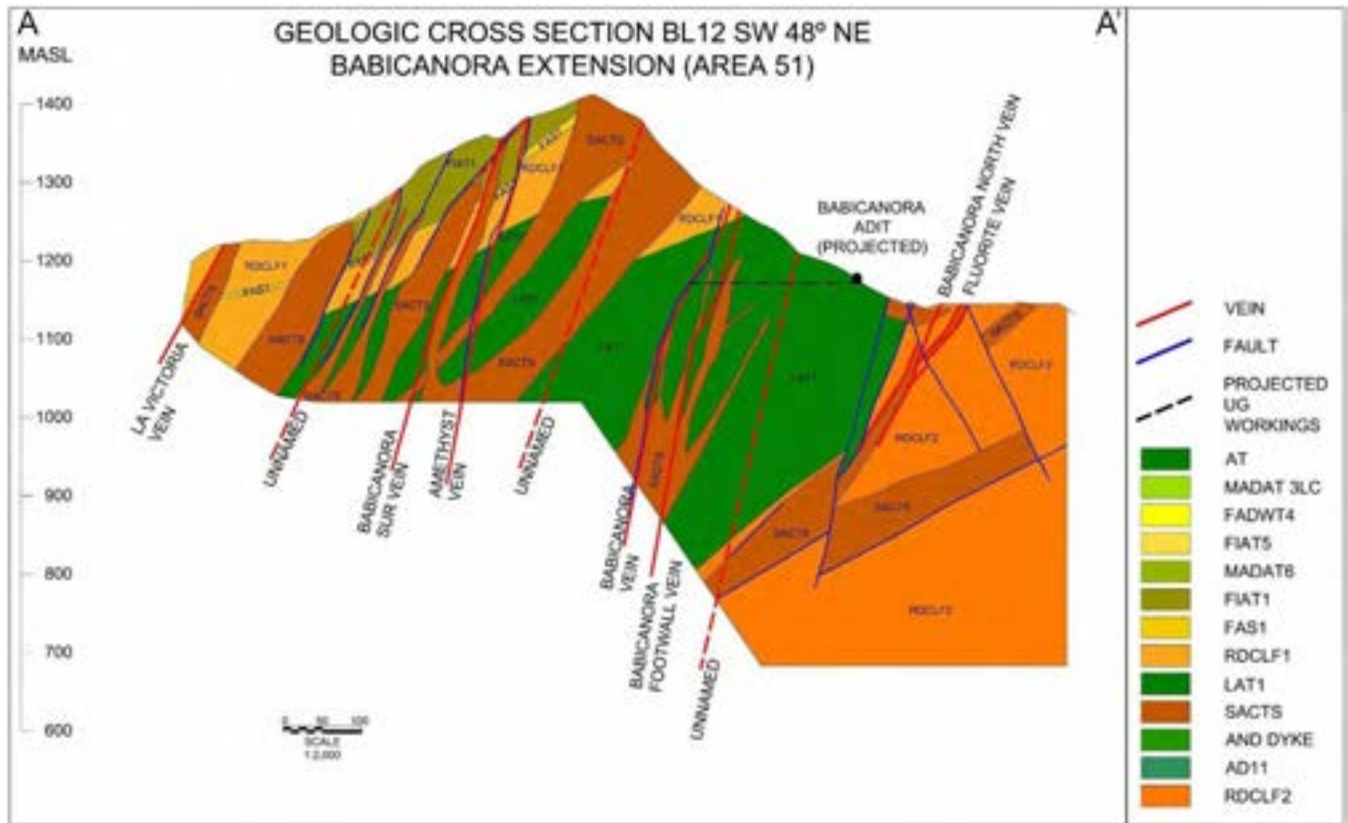


**Figure 6-8: Plan View of Geological Mapping at the Babicanora Area**





**Figure 6-9: Vertical Cross-Section through Babicanora, Line 1+300N, Looking to the Northwest**



Major mineralized lithologic units are defined as; LAT1; Lithic andesitic tuff and the most significant host for vein-related silver-gold mineralization, RDCLF 1 and 2; Rhyodacitic Flows which restrict mineralization with narrow high-grade mineralized veining, SACTS; Silicic andesitic tuff or ignimbrite which can be in sill and dyke form. Dykes are associated with mineralization.

General lithologies are andesitic to dacitic with rhyolitic interbeds. These units are cross-cut by andesitic dykes to the southeast strike of the Babicanora Vein and rhyodacitic dykes to the northwest. Strong to intense silicification caps the ridges in the area with a 300 m by 400 m horizontal zone interpreted as sinter (Figure 6-8A) covering the slopes in the southwestern portion of the Property.

Mineralization of the Babicanora Vein is characterized as a low to intermediate sulphidation system. SilverCrest has identified numerous sulphidation features including; sinter capping on the ridges which indicate the silica saturated fluids have reached the surface and cooled, generating hard siliceous terraces. Quartz after calcite, bladed textures (Figure 6-8B), were found at high elevations on the western side of the Property. This texture and composition is comprised of intersecting blades where each blade consists of a series of parallel seams. This texture indicates boiling. It is typically caused when an ascending fluid undergoes rapid expansion, and the vapour pressure exceeds hydrostatic pressure causing boiling and a dramatic decrease in metal solubility. Massive chalcedonic textured silica (Figure 6-8C) were also identified on the western portion of the Property, indicating low temperatures before and after deposition, Morrison, G et al., 1990. These high-level features and textures point to the preservation of the mineralized system below and at depth.



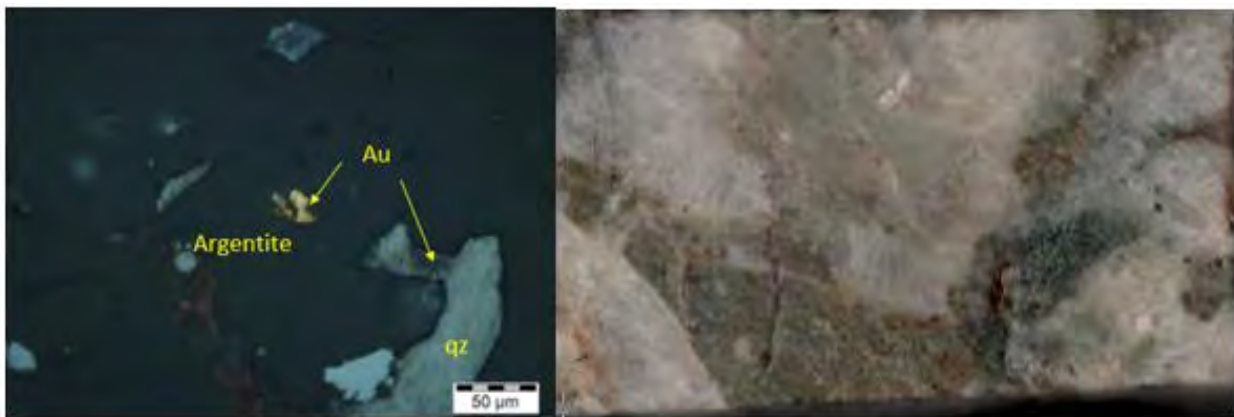
**Figure 6-10: A. Sinter lamina, B. Quartz Replacement of Bladed Calcite with Minor Amethyst, C. Massive Chalcedonic Quartz**



The depths from the fluid inclusion study concluded that emplacement of the mineralization ranges from 1,000 to 1,800 m and that the mineralization is confined to 140-150° trending faults that dip 65° southwest. Ongoing drilling has defined a well mineralized zone over 1.5 km in the Babicanora Area.

The mineralization at Babicanora has a strong magmatic component. The potassic alteration observed in thin section is crystalline, orthoclase and is magmatically derived. Adularia is also present but in limited zones. Argentite is the principle silver mineral, native silver is present, gold occurs as native flakes and as in association with pyrite and chalcocopyrite (Figure 6-11). Silver and gold values have a strong correlation with one another and are likely precipitated together during the crystallization of quartz, thus belonging to the infill paragenesis, Heiberline K, 2018.

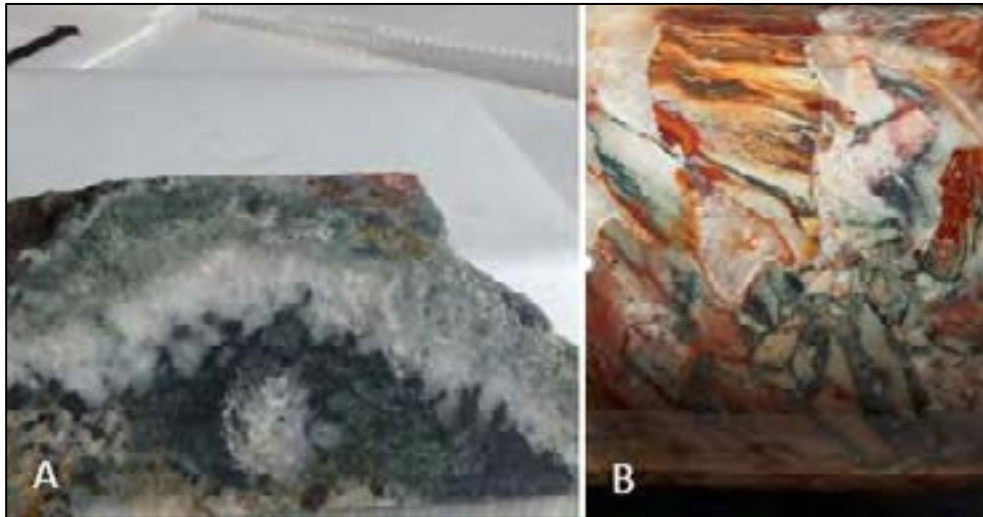
**Figure 6-11: Babicanora Thin Section with Gold and Argentite**



- (A) Thin section. A very fine particle of gold is dispersed within the quartz, and it is spatially associated with the argentite. Plane-polarized reflected light.
- (B) Core, taupe, brecciated fine grained quartz brecciated and recemented with coarse white quartz, fine grained disseminated pyrite throughout.

Base metals are low in Babicanora. Zinc and lead are principally found in black sphalerite and galena. Early stages of galena are noted in the thin section study. With clusters of anhedral sphalerite (up to 1 mm long) are associated with subordinate fine grained blebs of galena and lesser chalcocopyrite (up to 0.2 mm). Microstructures shown in the sphalerite and in the galena indicate that the galena post-dates the crystallization of the sphalerite which is partly replaced by the galena. Indicating galena only pulses of mineralization. Arsenic and mercury are noticeably absent from the geochemistry. Silver and gold mineralization can be characterized with three end-member types; breccia hosted, vein hosted, and vuggy quartz hosted (Figure 6-12).

**Figure 6-12: (A) Multiphase Vein Hosted Crustiform with Sulphides BA-17-51; from 267.45 to 268.75 grading 96.3 gpt Au and 12,773.5 gpt Ag, or 19,996 gpt AgEq. (B) Breccia hosted mineralization BA-17-04; 2.21 gpt Au and 437 gpt Ag, 603 gpt AgEq over 3.1 m.**



Area 51, named after hole BA-17-51, is the southeast extension of the Babicanora Vein and represents the bonanza zone of a typical epithermal system. This high-grade zone is located 200 to 300 m from surface and is over 800 m long by 200 m high by 2.7 m in average true width (Photo 6-6).

**Photo 6-6: Area 51 Mineralization, Babicanora Hole BA17-51 (Discovery Hole); from 265.9 to 269.2m, 3.3 (3.1m true width) metres grading 40.45 gpt Au and 5375.2 gpt Ag, or 8409 gpt AgEq, with hematite breccias, coarse banded argentite, native silver, electrum and native gold.**



The Babicanora FW Vein is sub-parallel to the Babicanora Vein. This vein is approximately 30 m north of the Babicanora Vein in the northwestern part of the area. The vein appears to intersect the Babicanora Vein near Area 51. The Babicanora HW Vein is a minor hangingwall splay sub-parallel to the Babicanora Vein.

### 6.2.5.2 Babicanora Norte Vein

The mineralization of the Babicanora Norte Vein is similar to components found at the adjacent Babicanora Vein. A majority of the high-grade mineralization is located within the RDCLF1 (rhyodacitic flow) near intersections of cross-cutting 220° striking faults and dense fracturing. Argentite is the principle silver mineral, gold occurs as native flakes and in association with pyrite and chalcopyrite. This vein is dissimilar then other veins in the Babicanora Area with a high component of pyrargyrite and/or proustite visually identified in cavities within core samples (Photo 6-7).

**Photo 6-7: BAN18-10, from 93.0 to 95.5 metres grading 61.36 gpt au, 2833.5 gpt Ag or 7436 gpt AgEq with visible argentite, pyrargyrite, electrum, native silver and native gold.**



Base metals in Babicanora Norte are similar in nature to the Babicanora Vein but higher in content (up to 0.5%). Zinc and lead are principally found in black sphalerite and galena. A chalky white mineral is immediately adjacent to high-grade silver and may be a silver halide. Arsenic and mercury are noticeably absent from the geochemistry. Silver and gold mineralization can be characterized with three end-member types; breccia hosted, vein hosted, and vuggy quartz hosted.

### 6.2.5.3 Las Chispas Vein

The Las Chispas Vein is located in the northern portion of the Las Chispas Property and is the most extensively mined vein in the district (Figure 6-5). Mining along the Las Chispas Vein is well documented in the historical longitudinal section documented by Minas Pedrazzini Gold & Silver Mining Co., circa December 31, 1921 (Figure 5-1).

SilverCrest's exploration work has focused on defining the lithology, structure, alteration, mineralization and channel sampling in unmined pillars and surrounding intact vein. Vein mineralization is described as an undulating

and dilating quartz stockwork and breccia zone, as defined in underground mapping and in drill core, of 0.10 m to 7.9 m in true width which typically encompass narrow veins of quartz, visible sulphides, and calcite (Photo 6-7).

The Las Chispas Vein strikes 150° and inclined at approximately 75° to the southwest. Cross-cutting the Las Chispas Vein are normal secondary faults trending 220° and dipping 65°. These secondary faults seem to play an important role in generating zones of dilatation for the emplacement of high-grade shoots and breccia zones. Flat to steeply inclined bedding parallel to faults are also noted to offset the late stage andesitic dykes by 10-20 m and are a common feature of drag folds (Schlische, 1995). A majority of high-grade mineralization is within the lithic tuff units. Geological mapping in the Las Chispas Area is shown in Figure 6-13 and a typical cross-section is shown in Figure 6-14.

Alteration is similar to the other veins on the Property. Silicification is extensive in mineralized zones with multiple generations of quartz and chalcedony commonly accompanied by calcite with minor adularia. Pervasive silicification in vein envelopes is flanked by sericite and clay alteration of the host rock. Intermediate argillic alteration (likely kaolinite-illite-smectite) forms adjacent to some veins. Advanced argillic alteration (kaolinite-alunite) is suspected within the Las Chispas Vein, but formal studies of the alteration mineralogy have not been completed to confirm their presence. Propylitic alteration dominates at depth and peripherally to the mineralization with abundant fine grained chlorite and pyrite proximal to the mineralization. Fe-oxyhydroxides, manganese after pyrite and other fine grained sulphides are closely associated with the mineralization. Reactivation of the central fault hosting the mineralization provided a conduit for deep weathering of the sulphides and possible supergene enrichment of the silver mineralization. The andesitic dykes are weakly to moderately clay altered with weak epidote along their narrow chill margins.

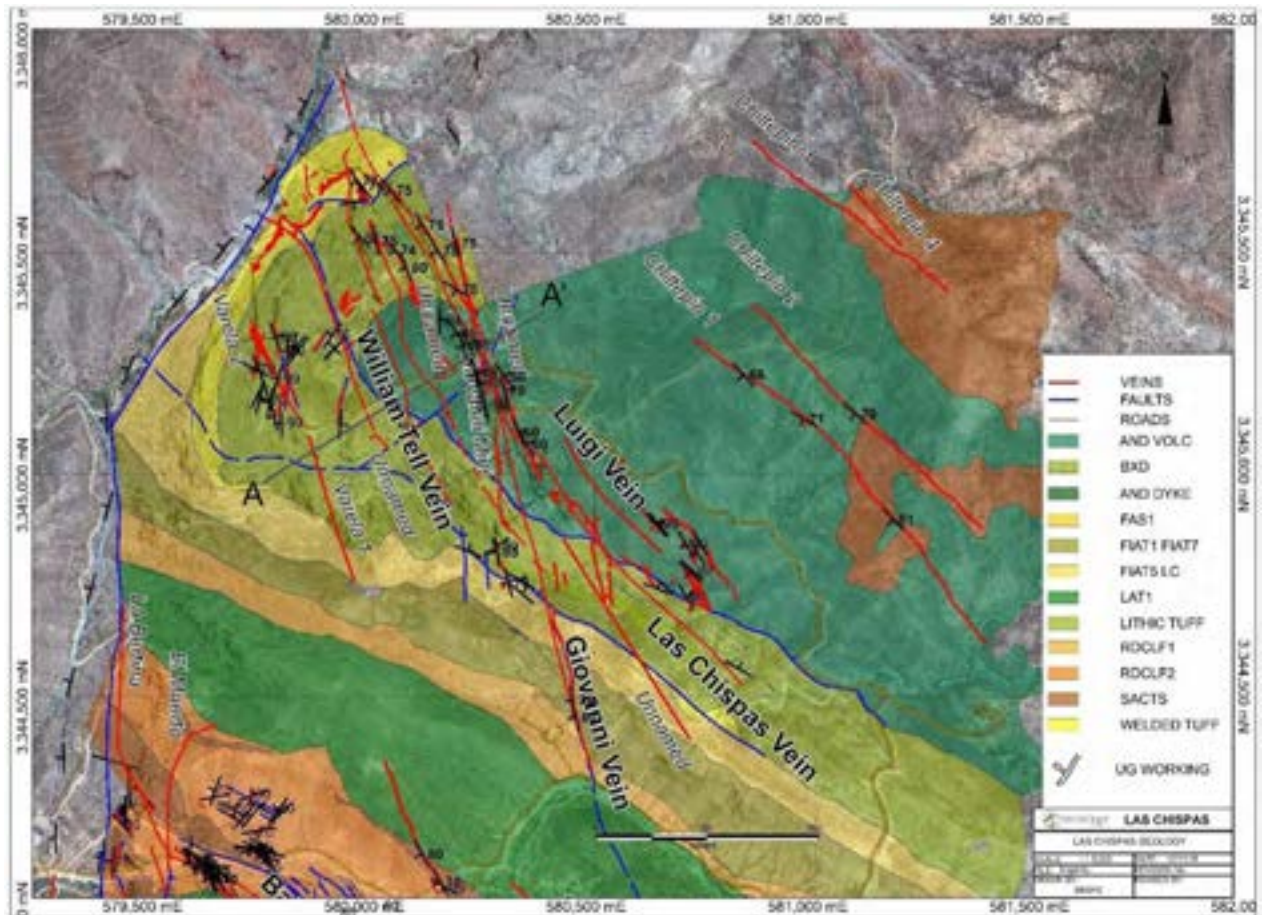
Recent mapping by SilverCrest, confirms the location and extent of mining indicated on the historical longitudinal section (Figure 5-1) as being representative and accurate. At the date of the most recent QP site visit, access, and mine rehabilitation had been completed from the 50 level to the 900 level covering most of the historic workings. Mapping and sampling on all levels is near completion.

**Photo 6-8: Hole LC17-45; from 159.6 to 161.9 at 2.3m (1.9m true width) grading 50.56 gpt Au and 5018.8 gpt Ag, or 8810 gpt AuEq**

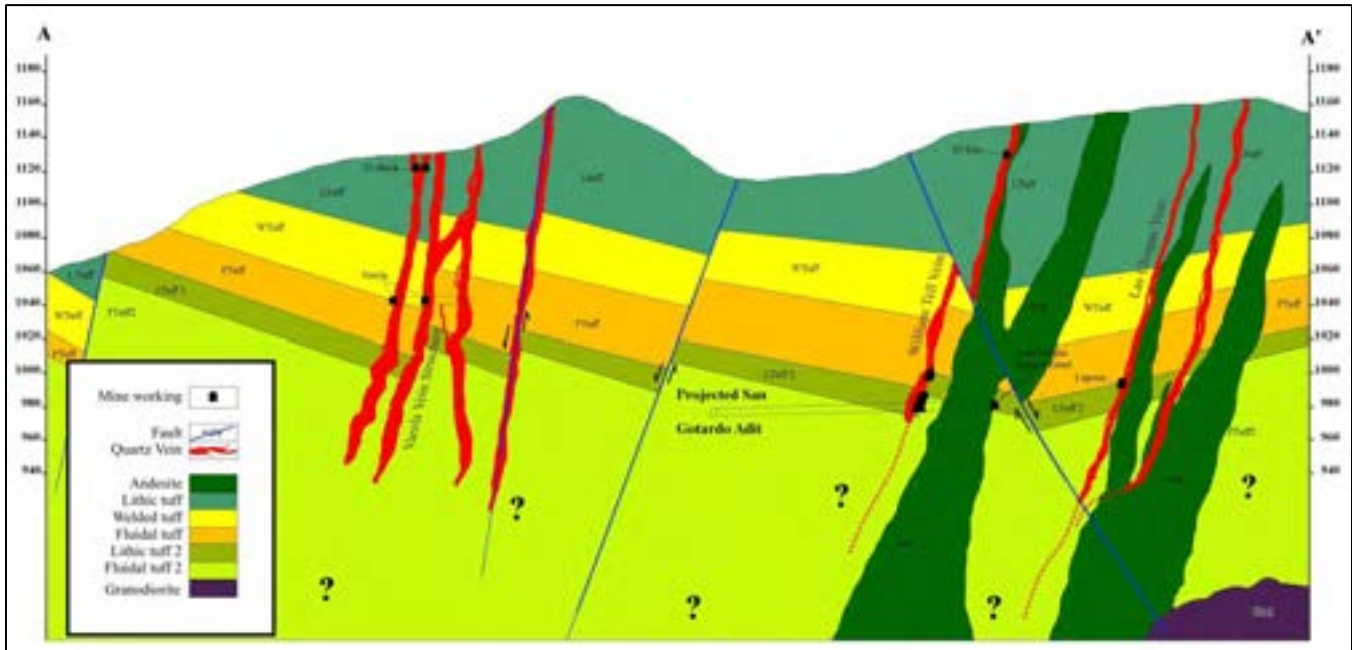




Figure 6-13: Plan View of Geological Mapping at the Las Chispas Area



**Figure 6-14: Typical Geological Cross-Section through the Las Chispas Property, looking to the Northwest**



#### 6.2.5.4 William Tell Vein

The William Tell Vein is located 115 m to the west, and is oriented roughly sub-parallel to, the Las Chispas Vein.

The mineralization is characterized as a quartz stockwork zone in the footwall of a continuous NE-SW fault striking 140° and dipping 65°. Underground mapping by SilverCrest indicates that mining from the main San Gotardo adit terminated against a cross-cutting fault (220°/70°), which SilverCrest interprets to have approximately 10 m of left lateral displacement, based on drilling results.

The William Tell Vein is hosted in the same sequence of course to fine grained volcanoclastic, flows and pyroclastics that are detailed in the Las Chispas vein description. Alteration is comprised of; white clays, sericite, and fine grained chlorite with strong silicification. Within the mineralized structure and central vein; fine pyrite, limonite and Fe-oxides are present.

Historic mining of the structure is contemporaneous to mining within the Las Chispas Vein, although there is limited historic documentation available. The northern portion of the historical workings can be accessed from the same adit that connects with the San Gotardo level within the Las Chispas Vein. The extents of mapped workings total approximately 3 km horizontally over three levels, and approximately 60 m vertical (450 level to 650 level). A shaft, and/or small stope, from the lower working level exists. The vertical extent of this shaft/stope cannot be confirmed but based on the historical long section and drilling in the area it is not believed to be significant.

Mining activity along this structure south of the projected fault cannot be confirmed; however, no voids were intersected by SilverCrest drilling where the structure was interpreted to be, and no surface workings are noted.

In 2016, underground channel sampling by SilverCrest was completed with high-grade mineralization defined in pillars and intact exposures (Photo 6-8, Photo 6-9).



**Photo 6-9: William Tell Underground Channel Sample No. 144840 grading 13.4 gpt Au and 1560 gpt Ag, or 2565 gpt AgEq**



**Photo 6-10: William Tell Vein, Drill Hole LC16-03; from 172m to 176m, 4m (1.5m true width) grading 2.03 gpt Au and 683.0 gpt Ag, or 835 gpt AgEq**



### 6.2.5.5 Giovanni and La Blanquita

Giovanni and La Blanquita Veins were discovered by SilverCrest in 2016 while drill testing the Las Chispas Vein from surface. The La Blanquita may be the southern extension of the Giovanni Vein with similar orientation.

The mineralization is hosted in a quartz stockwork zone striking 340° to 10°, near vertical dipping, and cross-cutting the same volcanic units as the Las Chispas Vein. The best lithologic host appears to be a lapilli (lithic) tuff approximately 200 m in thickness. The zone is near-parallel to an andesite dyke.

The Giovanni Vein is exposed in several historic cross-cuts in the Las Chispas Vein historic workings but was never historically mined. A photo of the vein intersection in drill hole LC-17-69 is shown in Photo 6-10.

**Photo 6-11: Drill Hole LC-17-69; from 168.2 to 169.75 m, includes 1.6 m True Width, Grading 1.95 gpt Au and 252.0 gpt Ag, or 398 gpt AgEq**



La Blanquita is located 250 m southwest of the projected extension of the Giovanni Vein on the southwestern flank of a south-east trending ridge. Historical information on the target is limited, although there are historical trenches, pits and historic waste dumps (Photo 6-12).

**Photo 6-12: La Blanquita historical dumps in distance to right, looking NW**





At surface, the host rocks are strongly clay altered with moderate to strong sericite. Fine grained chlorite is also noted but is confined to a fine grained crystal crowded rhyodacitic ash. Chalcedonic and saccharoidal silicification and veining is noted along the surface trace of the mineralized zone, infilling joints and fractures (Photo 6-13).

**Photo 6-13: Drill Core, LC-17-61 at La Blanquita, 116.0 to 116.55 m, 6.65 gpt Au and 1445 gpt Ag, or 1943 gpt AgEq in a Saccharoidal-Comb Quartz Vein**



#### **6.2.5.6 Other Structures or Mineral Occurrences of Significance**

##### **Amethyst Vein**

The Amethyst (Amatista) Vein is located 200 m southeast of, and parallel to the Babicanora Vein. Historic information is limited, but there are numerous historic workings pits and trenches along the 1 km strike length of the surface lineament.

The Amethyst Vein is steeply dipping and strikes 140°. It is cross-cut by several 200 to 220° trending faults and dense fractures that intersect the vein with high-grade near these intersections. The mineralization is hosted in sequence of 10-15° striking, northeast dipping lithic tuffs (LAT1). The individual units and lithology details are detailed Section 6.2.5.1. Drill hole BA-17-20 drill-intercepted high-grade mineralization from 75.7 m to 78.2 grading 3.05 gpt Au and, 77.8 gpt Ag, or 306 gpt AgEq (Photo 6-13).

**Photo 6-14: DH BA-17-20, from 75.7 m to 78.2 m Grading 3.05 gpt Au and, 77.8 gpt Ag, or 306 gpt AgEq**



### **Babicanora Sur Vein**

The Babicanora Sur vein is located approximately 300 metres southwest of the Babicanora Vein and is parallel to the vein. The structural zone is oriented along strike between 140° to 150° with inclination of approximately 55 to 65° to the southwest. It is cross-cut by several 220° trending faults and dense fractures. Refer to Section 6.2.5.1 for more details.

### **La Victoria Vein**

This area is defined by small workings near surface on the southwest portion of the Property. The workings consist of three short and vertically offset tunnels, each approximately 30 m in length. The vein is trending 140° with an inclination of approximately 70 degrees to the northeast. In 2016, SilverCrest rehabilitated the access underground due to the highly oxidized and soft nature of the host rock, comprised of strongly clay altered

breccia. SilverCrest sampling of old underground workings suggests this structure to be gold-dominated with assays up to 100 gpt Au.

Historical sampling from three levels of the La Victoria Mine by Ronald Mulchay in 1941 assayed as high as 6.5 ounces per tonne gold (approximately 220 gpt Au) with minor silver with a gold to silver ratio of 1:1 for high-grade mineralization.

In June 2016, three drill holes were drilled down-dip of the workings by SilverCrest. Significant mineralization was not intersected by the drill holes, suggesting a possible offset in the mineral continuity at depth or epithermal zonation. Significant alteration was encountered in the drill holes along with multiple stages of intrusive activity. The nature of the mineralization and alteration at La Victoria is currently not well understood. Future additional work is proposed by SilverCrest.

### **Espiritu Santo Vein**

The Espiritu Santo workings are developed to the southeast of the Las Chispas Vein and William Tell Vein. Two historic adits and a shaft are accessible and have been mapped and sampled.

Two structural trends appear to have been mined in the workings. The first, on an upper level of strikes 150° with a dip of 60°. The second, on the lower level strikes 290° with a dip of 48°. The latter mineralization is as stockwork within the footwall and parallel to the volcanic bedding contact. At surface, the andesitic volcanics that are exposed are strongly silicified with moderate to strong clay alteration focused along the above noted structures. Historic selective underground sampling shows grades at Espiritu Santo as high as 500 ounces per tonne silver (Mulchay). Historic (Mulchay) dump samples returned seven samples greater than 111 gpt Au and 100 gpt Ag to 892 gpt Ag. Three drill holes were completed at the target with negligible results.

### **La Varela Veins**

The La Varela workings are located approximately 300 m to the west of the William Tell Vein. Two veins are oriented along a strike of 170° and are near vertical with an average vein width of 1 m. Higher grade precious metal mineralization is dominant in the southern part of the two noted veins. SilverCrest has rehabilitated the existing underground workings (est. 400 m) with mapping and sampling. Three holes have been completed in this area with the most significant intercept from Drill hole LC-17-55 with a length of 0.8 m grading 2.67 gpt Au and, 272 gpt Ag, or 472 gpt AgEq.

### **Granaditas Vein**

The Granaditas Vein is located to the southeast of Babicanora in the eastern portion of the Property. The Spaniards discovered the Granaditas Mine in 1845 (Dahlgren, 1883) with subsequent mining. Little information is available on this historic mine. Mining appears to have been to a depth of 90 feet with about US\$300,000 (historic dollars) in ore extracted. After a local rancher provided an 1882 district map, SilverCrest was able to locate several adits, shafts, and dumps in the area.

The showing is located within 75 m of the confluence of two major lineaments interpreted as faults. The first trends 220° has a strike length of 3.5 km and is interpreted to be the eastern bounding structure to the Las Chispas graben. The second trends is mineralized, and strikes 145° and parallels the Babicanora trend. The interpreted mineralized strike length is over 500m. Several drill holes have intersected fractured zones and encountered mafic andesitic dykes at depth.

Alteration at the target is consistent with the intermediate sulphidation model with strong silicification in patches, strong clay alteration with zones of pervasive sericite and chlorite.

In the Phase II exploration program, two diamond drill holes were completed on the target. The highest assay was from GR-17-02, which returned values of 8.15 gpt Au and 387 gpt Ag, or 998 gpt AgEq, with highly anomalous Pb (600 ppm), Cu (10,250 ppm) and 595 ppm Zn over 0.7 m (Photo 6-14). Copper and base metals are elevated over 20-40 m with grades of 0.5% Pb and 0.3% Zn.

In the Phase III exploration program, 19 diamond drill holes were completed on the target. The highest assay was from GR-17-04, which returned values of 47.5 gpt Au and 5620 gpt Ag, or 9183 gpt AgEq, with highly anomalous Pb (2,610 ppm), Cu (1,010 ppm) and 3,130 ppm Zn over 0.5 m (Photo 6-15).

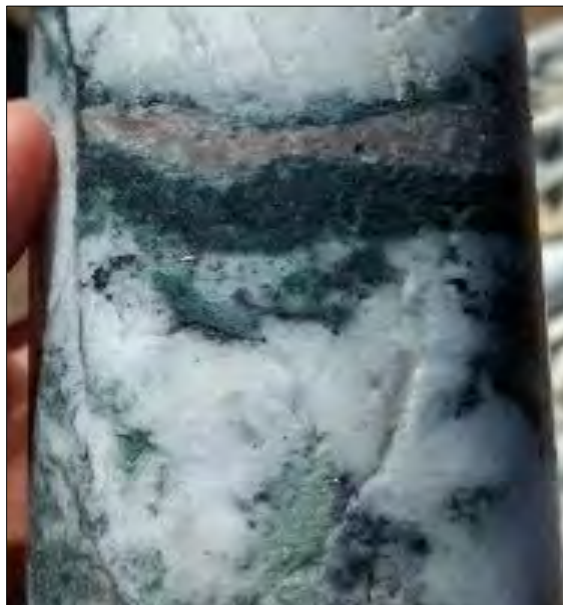
These elevated base metal metals in core suggest that base metals increase to the southeast and may indicate deeper depths of emplacement of the mineralization.



**Photo 6-15:** Drill Hole GR-17-02; from 139.85 m to 140.55 m, 0.7 m Grading 8.15 gpt Au and 387 gpt Ag, or 998 gpt AgEq, and 1.02% Cu



**Photo 6-16:** Drill Hole GR-17-04; from 133.8 m to 134.3 m, 0.5 m grading 47.5 gpt Au and 5620 gpt Ag, or 9182 gpt AgEq



## 7.0 DEPOSIT TYPES

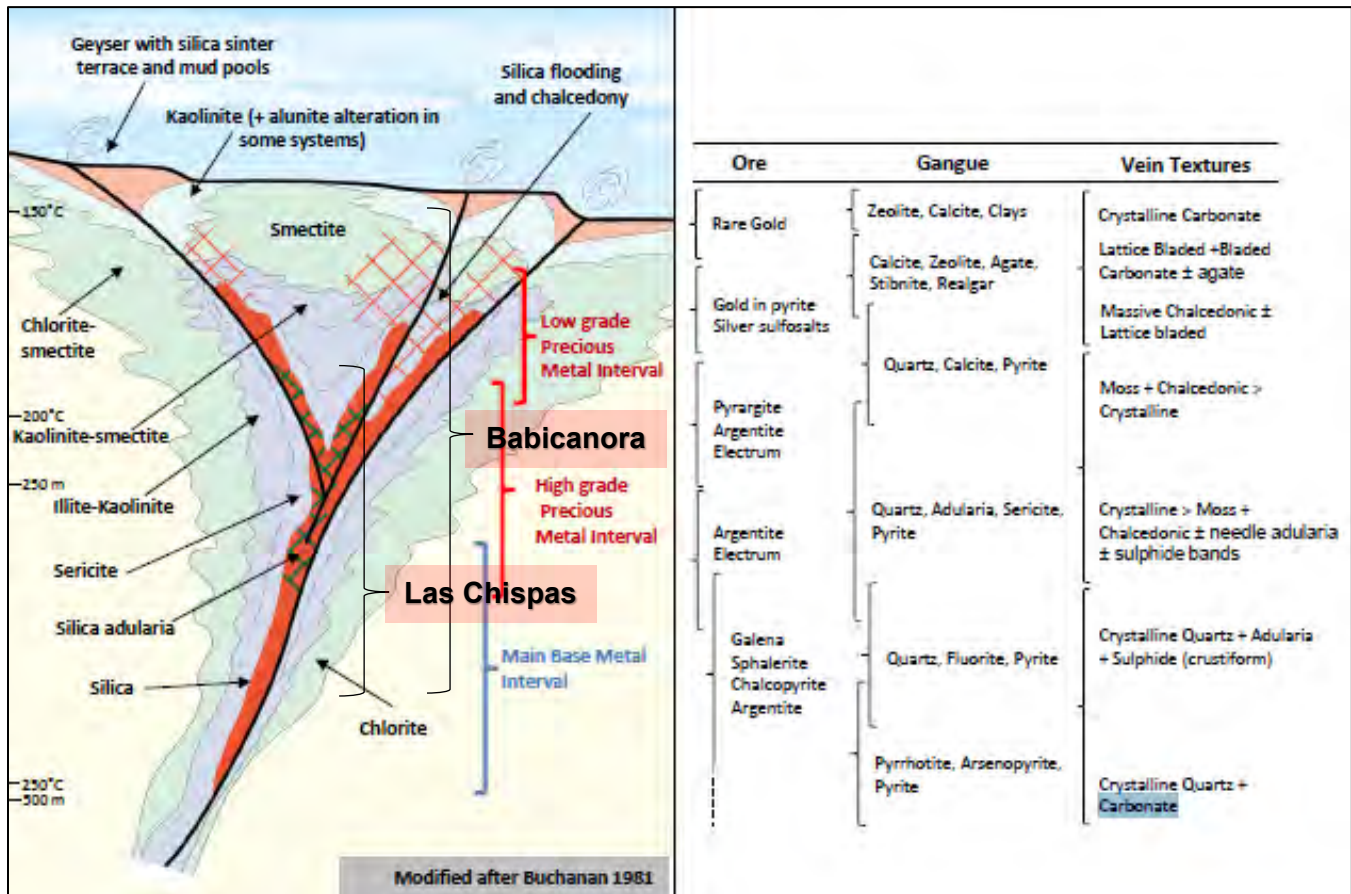
Mineral deposits in the Las Chispas district are classified as silver and gold low to intermediate sulphidation epithermal systems, typical of many local deposits in northeastern Sonora, including the nearby Santa Elena mine (First Majestic Silver) and the Mercedes Mine (Premier Gold). Elsewhere in the Sierra Madre, other examples include the Dolores mine (Pan American Silver) in the state of Chihuahua and Piños Altos mine (Agnico Eagle) also in Chihuahua.

### **Low-Sulphidation:**

The terms low and intermediate sulphidation are based on the sulphidation state of the sulphide assemblages. In low-sulphidation epithermal deposits are formed at shallow depths from hydrothermal systems related to volcanic activity (Figure 7-1). Low-sulphidation deposits typically display all or most of the following characteristics (e.g., Sillitoe, 1991; White and Hedenquist, 1990):

- Hosted in volcanic rocks ranging from andesite to rhyolite in composition.
- Hydrothermal fluids are characterized to be lower temperatures, have circumneutral pH and are reduced.
- Alteration consists of quartz, sericite, illite, adularia and silica. Barite and fluorite may also be present.
- Mineralization hosted in quartz and quartz-carbonate veins and silicified zones.
- Silica types range from opal through chalcedony to massive quartz. Textures include crustiform and colloform banding, drusy, massive and saccharoidal varieties. Calcite may form coarse blades, and is frequently replaced by quartz.
- Deposits of this type may be overlain by barren zones of opaline silica.
- Sulphides typically comprise less than 5% by volume.
- Sulphides average up to several per cent and comprise very fine grained pyrite, with lesser sphalerite, galena, tetrahedrite and chalcopyrite sometimes present.
- Gold may be present as discreet, very fine grains or may be silica or sulphide refractory.
- Gold and silver grades are typically low, but may form extremely high-grade “bonanza” ore shoots.
- Common associated elements include Hg, As, Sb, Te, Se, and Mo.

**Figure 7-1: Detailed Low-Sulphidation Deposit with ore, Gangue and Vein Textures, Buchanan, 1981, With Estimated Location of Las Chispas Epithermal Mineralization**



Low-sulphidation gold-silver epithermal systems commonly precipitate gold from hydrothermal fluids in near surface hot spring environments. The mechanism most commonly evoked for gold precipitation is boiling. As pressure decreases in fluid rising to the surface, boiling occurs. The physical and chemical changes that accompany boiling cause breakdown of the gold-bearing chemical complexes and result in gold precipitation. Because pressure from the overlying fluid column or rock column constrains the level at which boiling occurs, the location of the boiling zone commonly lies within a particular vertical range. However, this depth can change significantly with changes in the water table, sealing of the system, burial of the system through deposition of volcanic rocks, or emergence due to tectonic uplift. The boiling zone is typically within 500 m, and rarely more than 1 km of the surface at the time of mineralization.

### Intermediate Sulphidation

Intermediate sulphidation epithermal systems are less common but share some characteristics of both the high and the low types. Like the high-sulphidation types, they also occur in mainly in volcanic sequences of andesite to dacite composition within volcanic arcs.

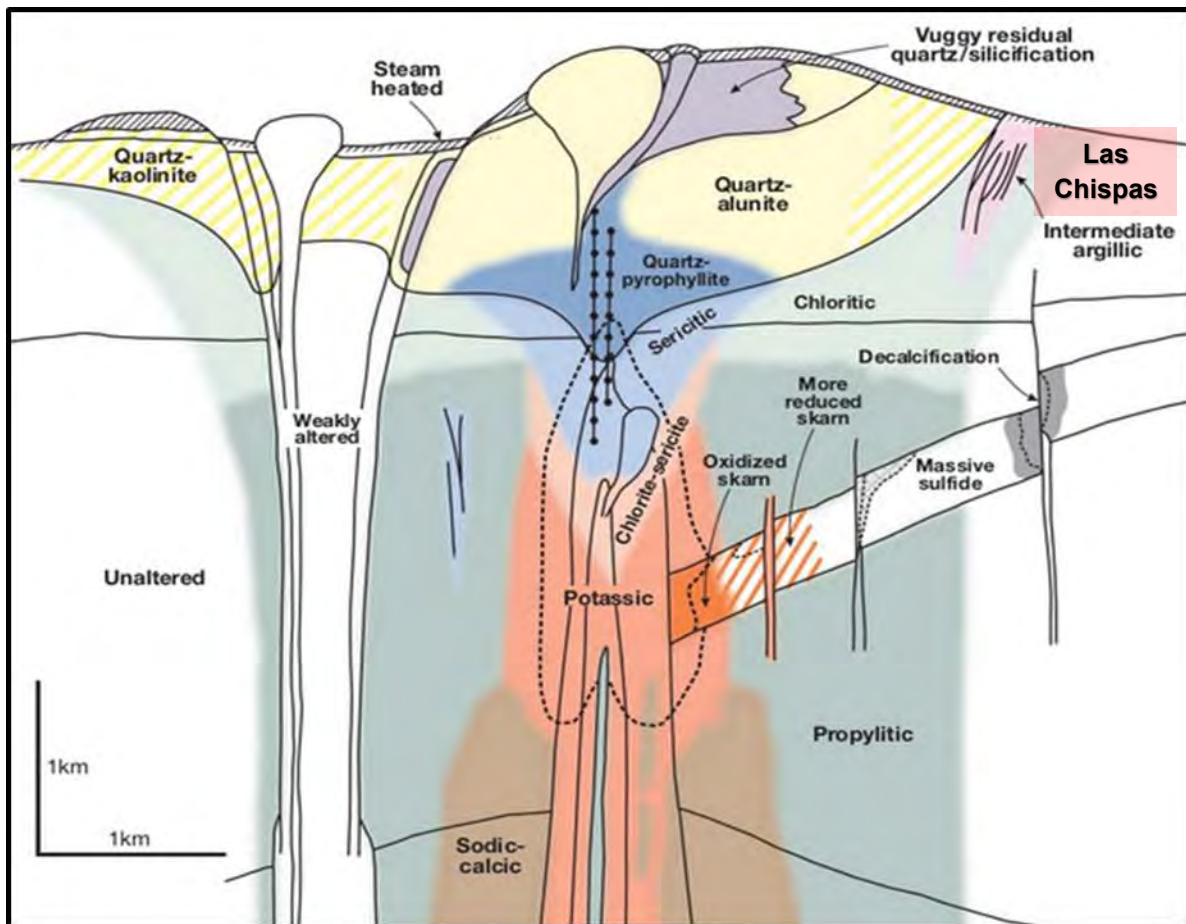
Like the low-sulphidation systems, the mineralization normally occurs in veins, stockworks and breccias. The veins can be rich in quartz, with manganiferous carbonates like manganese-rich calcite or rhodochrosite plus adularia, which typically hosts the gold mineralization. Gold is present as the native metal but is also found as tellurides and in a variety of gold-rich base metal sulphides and sulfosalts. Low iron sphalerite, tetrahedrite-

tennantite and galena often are the dominant sulfide minerals. The overall sulfide content of the deposits is in the range of 5 to 20 percent by volume.

Alteration consists of a mixture High and Low-Sulphidation assemblages that may overprint one another depending on the evolution of the fluids. Silica (vuggy), advance argillic (alunite, pyrophyllite, diaspore, dickite, and sericite), argillic (kaolinite), anhydrite, barite, sericite, illite and adularia may be present or absent within the system (Figure 7-2).

Permeable host rocks within the deposit may allow the mineral fluids to form a large tonnage of low-grade, bulk-minable stockwork mineralization, Ralf, C, 2017.

**Figure 7-2: Illustration of Intermediate Sulphidation Hydrothermal Systems, Sillitoe, 2010**





## 8.0 EXPLORATION

Before SilverCrest acquired the Las Chispas Property in 2015, no drilling had been completed on the northwest to southeast mineralized trend which contains the Las Chispas and Babicanora Areas. This trend is approximately 2.5 km long and 3.5 km wide.

SilverCrest exploration began work on the Property in February 2016 with a primary focus on the Las Chispas, William Tell and Babicanora Veins. From February to November 2016, Phase I exploration program consisted of initial drilling, surface and underground mapping and sampling, and rehabilitating an estimated 6 km of underground working. Drilling of 22 holes during Phase I is described in Section 9 below.

From November 2016 to February 2018, Phase II exploration program consisted of drilling, additional surface and underground mapping and sampling, further rehabilitation of 4 km of underground working plus auger and trenching of approximately 186,000 tonnes in 42 surface historic waste dumps. Drilling of 161 additional holes during Phase II is described in Section 9 below.

Phase III exploration program commenced in February 2018 and is currently ongoing as of the Effective Date of the report. From February to September 2018, Phase III exploration program consisted of drilling, additional surface and underground mapping and sampling, and finalizing approximately 11 kilometres of underground rehabilitation a major of which is located on the Las Chispas Vein and historic mine. Drilling of 122 additional holes during Phase III is described in Section 9.0 below.

### 8.1 Underground Exploration

Initial access to the underground historical workings, a majority located in the Las Chispas (Historic, Vein) Mine, commenced with an underground rehabilitation program in February 2016. Rehabilitation has included removal of backfill, construction of a network of bridges and ladders across open stopes, installation of safety cables, removal of obstructions and unsafe overhead supports, construction of new overhead supports, rough rock scaling and development of a control survey (Figure 8-1). At the effective date, SilverCrest has estimated that approximately 11.0 km of underground workings have been rehabilitated with work nearly complete (Figure 8-2).

As part of the rehabilitation program, an underground mapping and sampling program began in February 2016. Collection of a series of select chip samples was followed by a systematic and continuous saw cut channel sampling program along the rehabilitated underground workings. Samples were collected perpendicular to mineralization as transverse samples and as longitudinal samples along footwall or hanging wall contacts through stopes. More than 8,984 chip and channel samples had been collected at the effective date of this report. Of these, 1,094 sample results graded above a cut-off of 150 gpt AgEq with averages of 4.05 gpt Au and 504.4 gpt Ag, or 807 gpt AgEq.

A total of 94 muck samples have been collected at Las Chispas, grading in average 2.1 gpt Au and 256 gpt Ag, or 414 gpt AgEq.

Summary statistics of underground chip and channel sampling are summarized for the Las Chispas Workings Table 8-1, other workings in the Las Chispas Area in Table 8-2 and workings in the northwest portion of the Babicanora Area in Table 8-3.

**Table 8-1: Las Chispas Vein – Significant Channel Sampling Results**

Las Chispas	Mean Au	Mean Ag	Mean AgEq*
200L	0.050	7.4	11.1
300L	1.008	141.0	216.6
350L	2.329	333.2	507.9
400L	1.688	266.2	392.8
450L	3.237	439.9	682.6
500L	2.549	336.6	527.8
550L	1.784	256.1	389.9
600L	0.410	57.6	88.3
700L	0.121	15.5	24.5
743L	0.615	118.2	164.3
<b>Average</b>	<b>0.903</b>	<b>131.4</b>	<b>199.17</b>
Number of Samples	3,923	3,923	3,923
Max Value	136	10,000	20,200
Min Value	0.002	0.2	0.575
Standard Deviation	3.713	444.5	704.0
Number of Samples >150 AgEq			805

\*AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

**Table 8-2: Las Chispas Area, Other Vein Targets – Significant Channel Sampling Results**

Las Chispas	Mean Au	Mean Ag	Mean AgEq*
El Erick	1.85	117.8	256.4
El Sheik	1.16	75.8	162.8
Espiritu Santo	0.02	11.2	12.4
Lupena	0.45	39.4	73.0
Varela	0.22	26.5	43.1
WT500L	1.05	62.8	141.4
WT600L	1.29	145.8	242.4
<b>Average</b>	<b>0.91</b>	<b>73.9</b>	<b>142.0</b>
Number of Samples	1,292	1,292	1,292
Max Value	52.2	3,220	5,455
Min Value	0.01	0.2	0.0
Standard Deviation	3.44	221.4	431.1
Number of Samples >150 AgEq			237

\*AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

**Table 8-3: Babicanora Area, Other Vein Targets – Significant Channel Sampling Results**

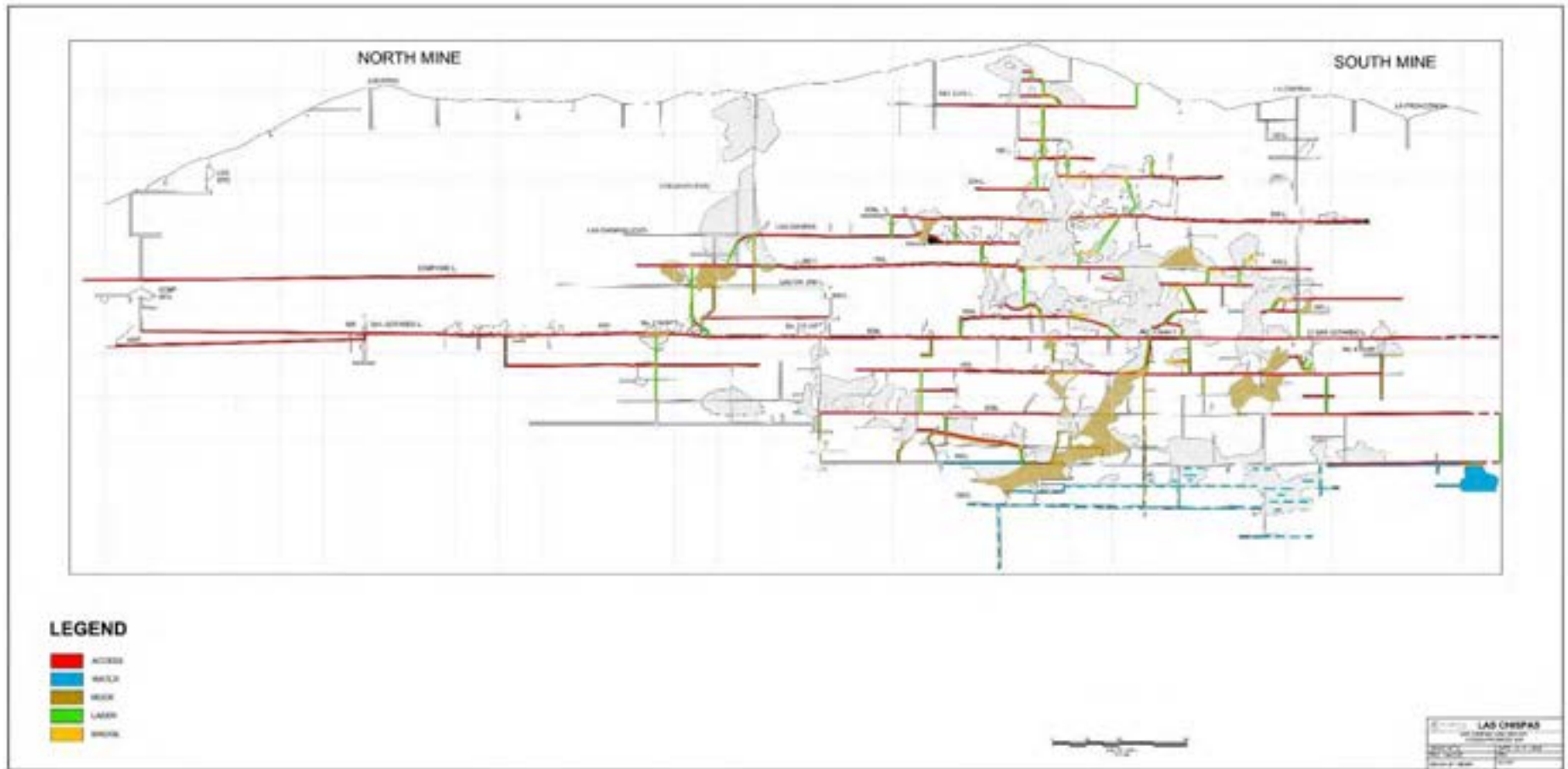
Las Chispas	Mean Au	Mean Ag	Mean AgEq*
Babicanora	0.41	26.1	56.6
Babicanora de abajo	0.07	7.7	12.6
Bertina	0.08	4.6	10.9
Buena Vista	0.03	7.1	9.1
El Muerto	0.62	33.4	80.1
Jabali	0.15	10.3	21.9
Sementales	0.49	18.7	55.0
<b>Average</b>	<b>0.31</b>	<b>16</b>	<b>39</b>
Number of Samples	756	756	756
Max Value	20.80	821.0	2,381
Min Value	0.01	0.2	1.0
Standard Deviation	1.22	51.9	135.8
Number of Samples >150 AgEq			52

\*AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

**Photo 8-1: Photos of Las Chispas Underground Rehabilitation Activities**



**Figure 8-1: Las Chispas Vein Long Section with 2018 Underground Infrastructure (Looking North East)**



Note: Based on schematic from Pedrazzini Gold and Silver Mining Company circa 1921.



### 8.1.1 Underground Surveying

A network of control points is first established by a SilverCrest surveying crew once accesses to workings have been rehabilitated and secured. Control points were established at approximately 15 m intervals using portable drills, survey chains, distance lasers and handheld Brunton compass. The control network was then re-surveyed by Precision GPS, with professional surveying crew using a Trimble VX Total Station on level 600 to level 150. The center line of each drift was collected, this included a data set of 178 points. The purpose of this survey was to adjust the tape and Brunton survey completed by the SilverCrest Staff. This underground control network is the base reference for all underground sampling and drilling activities.

## 8.2 Surface Exploration

Surface exploration has focused on geological mapping and delineation of the numerous historical shafts and portals present across the Property. To the effective date, a total of 8.0 square kilometres has been mapped by SilverCrest geologists.

Surface dump augering, trenching and sampling has been completed. Analytical results received as of the effective date total 1,340 surface dump samples averaging 1.12 gpt Au and 106.6 gpt Ag, or 185 AgEq. Select grades from the dump sampling range up to 4,548 gpt AgEq. The mapping data is georeferenced and being used to develop a GIS database for Las Chispas.

In 2017, historical waste dumps were sampled by a trenching and auger program, to collect data, identify dump volumes, and calculate precious metal grades. Data was collected from field measurements using a GPS and trenching rock and sediment material in the dumps. The dumps were later surveyed between December 14, 2017, and January 26, 2018, using a Trimble Spectra Total Station Model TS-415. Samples were sent to ALS CHEMEX in Hermosillo, Mexico for preparation and then sent to its Northern Vancouver lab for analysis of gold and silver.

In total, 41 dumps at 20 locations within the Las Chispas Project were sampled by an auger or trenching process between July 2017 and January 2018. The dump names are summarized in Table 8-4 and Figure 8-2.

**Table 8-4: List of Surface Stockpiles (dumps, muck and tailing) Mapped on the Las Chispas Property**

Dump Name	Sample Style
North Chispas 1, 2	Trench
La Capilla (LCA), tailings	Auger
San Gotardo (LCD)	Trench
Lupena (LUP)	Trench
El Eric	Trench
Locarno 1, 2, 3, 4	Trench
Las Chispas 1, 2, 3 (LCH)	Trench
La Central	Trench
Maria	Trench
Chiltepines 1, 2, 3	Trench
La Providencia 1, 2, 3	Trench
Espiritu Santo 1, 2	Trench

**Table 8-4: List of Surface Stockpiles (dumps, muck and tailing) Mapped on the Las Chispas Property**

Dump Name	Sample Style
La Blanquita 1, 2	Trench
La Curva 1, 2	Trench
La Bertina 1, 2	Trench
El Muerto 1, 2	Trench
Sementales 1, 2	Trench
Buena Vista 1, 2, 3	Trench
Babicanora 1, 2	Trench
El Cruce 1, 2, 3	Trench
<b>TOTAL</b>	<b>41</b>

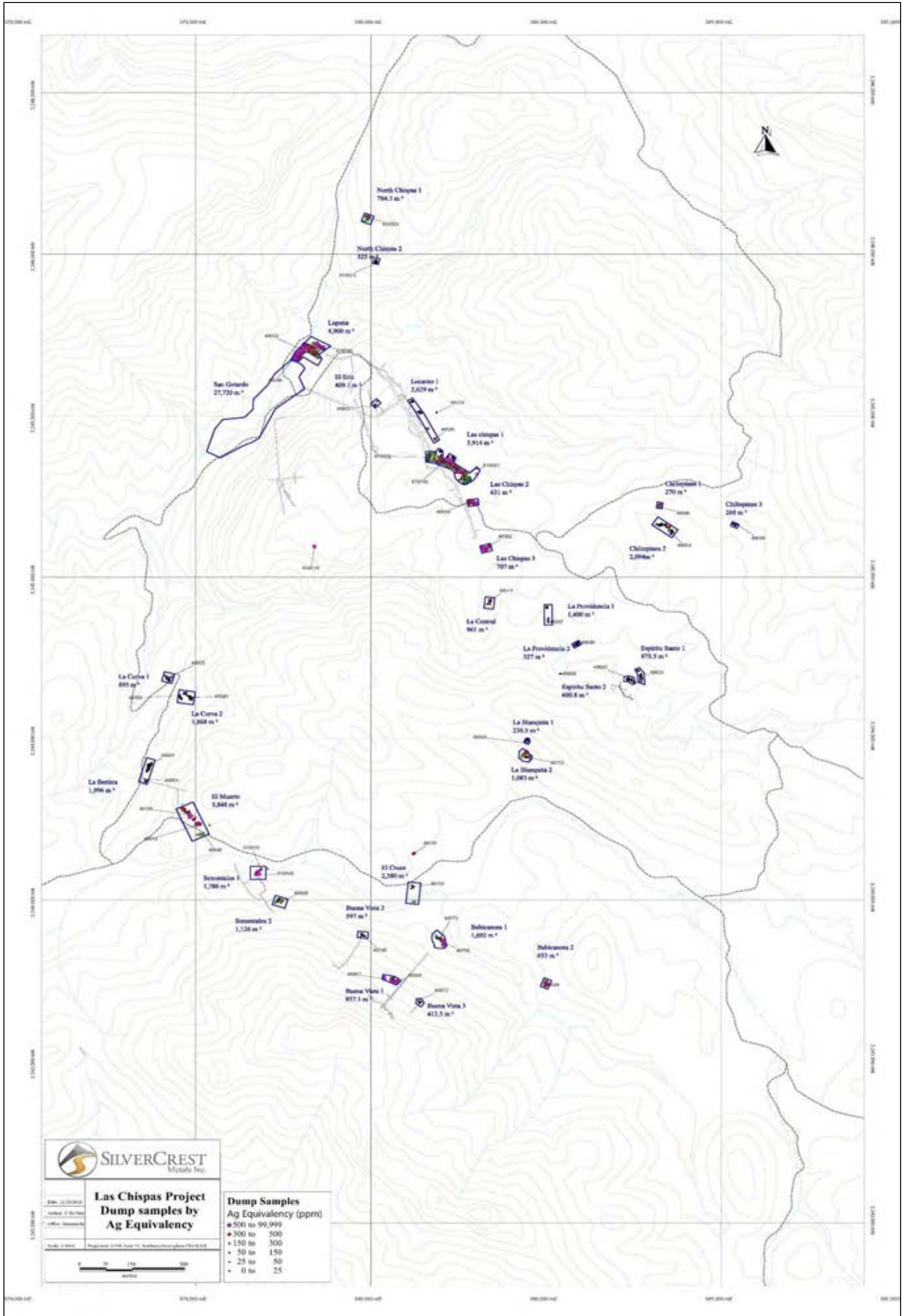
To initially determine the feasibility of evaluating historical dumps, an auger program was tested in July 2017. Auger drilling was only found to be useful for one dump (La Capilla tailings), due to problems occurring with large rocks and low recovery. A standard mechanical gas-powered auger was used to complete the auger program.

The auger program began by setting up the base grid lines with a north-south direction near the center of a dump. First, a compass, GPS and tape was used to mark a hole, then flag and tag it with 10 m between each flag. Depending on the site's size, a specific number of gridlines were placed running parallel east-west 10 m away from the base gridline. Second, a tripod was situated over the surface of a flagged hole and a pulley attached at the top. Next, the standard penetration test equipment was aligned at the tripod's center and the initial hole within 1 m proximity to the flagging. Two personnel man the sampler and one on the capstan, to drive the sampler into the soil surface and down until either the sampler hits a fixed depth of 1 m or it until it cannot gain depth. If a rock prevents downward movement of the auger, it must either drill down by uplifting it or pushing it into the wall, or the piercer can be used to pulverize the rock. Once a fixed depth or bedrock reached, the sampler is pulled up to the surface placing the contents on a tarp to spread and homogenize the mixture. Each interval was bagged with the hole ID and interval. The process of three personnel manning the sampler and capstan was repeated at 1 m interval depths.

In 2016 and early 2017, initial testing of waste dump material was completed by hand cut trenches for sample collection. Trenches were hand excavated to approximately 0.5 m in the face of dumps with collection of samples every 1 m down strike. This program identified that most dump had significant precious metals that warranted further evaluation.

From mid-2017 to January 2018, mechanical trenching was completed on all accessible historic dumps. A backhoe with used to dig trenches approximately 1.5 m deep and pile materials next to the trench for sampling and description. Samples were collected with and approximate weight of 3 to 5.0 kilograms. Samples were labelled with an interval ID, GPS coordinate, and depth recorded. The backhoe continued to work on an interval until either the soil was reached, or the walls collapsed into the trench. The removal process repeats until the backhoe reached the marked end of the trench. Additionally, a supervisor analyzed the piles for quartz percentage, historical trash, and describing the grain size and rock type.

**Figure 8-2: Location of Surface Stockpiles and Historic Waste Dumps Mapped and Sampled by SilverCrest**



## 9.0 DRILLING

### 9.1 Program Overview

SilverCrest has completed a Phase I, Phase II and partial Phase III surface and underground drill program totaling 82,809.8 m in 305 drill holes starting in March of 2016 and continuing through September 2018. The Phase I drill program targeted near surface mineralization, lateral extensions of previously mined areas, and potential deep extensional mineralization proximal to the historical workings. The Phase II drill program focused extensive surface drilling at Las Chispas, Babicanora, William Tell, and Giovanni veins and underground drilling at Las Chispas and Babicanora veins. The Phase III drill program focused on extensive surface drilling at Babicanora, Babicanora FW, Babicanora Norte, Granaditas, Luigi and Giovanni veins and underground drilling at Las Chispas veins.

The Phase II drilling program commenced in November 2016 and was completed in February of 2018. The program included the completion of 161 drill holes totaling 39,357 m, and includes 126 holes totaling 35,917 m of surface drilling, and 35 holes totaling 3,440 m of underground drilling. This drilling program focused on testing unmined portions of the Las Chispas Vein, delineation of the Giovanni, Giovanni Mini, La Blanquita and other unnamed veins, in addition to exploration of the La Varela veins, all within the Las Chispas Area (drill holes ending LC18-73 and LCU18-20). Drilling at Babicanora focused on delineating the down plunge and vertical extents of the Babicanora Vein, in addition to exploratory drilling on the Amethyst Vein and the Granaditas target, all within the Babicanora Area (drill holes ending BA18-69 and UB17-13).

The Phase III drilling program commenced in February 2018 and is currently ongoing as of the Effective Date of this report. This phase has included the completion of 122 drill holes totaling 37,059 m, and includes 115 holes totaling 36,418 m of surface drilling, and 7 holes totaling 640 m of underground drilling. So far, this drilling program has focused on the Babicanora Area to delineate the up and down mineralized plunge to the southeast and vertical extents of the Babicanora, Babicanora FW and Giovanni veins, in addition to exploratory drilling on the Babicanora Norte, Granaditas, and Luigi veins, most within the Babicanora Area (drill holes ending BA18-91, UB17-13, BAN18-40, LC18-77 and LCU18-29).

A summary of drilling is provided in Table 9-1 and Figure 9-1. Surface collar locations were initially surveyed using a handheld GPS unit, then professionally surveyed by local contractor. The most recent surface survey was done by external consultant, David Chavez Valenzuela between September 1, 2018, and September 4, 2018. This survey was done using a GNSS Acnovo GX9 UHF. The purpose of this survey was to survey surface drill hole collars, additional roads and more detail on property boundaries.

Underground collars were surveyed using the underground control points established for each of the workings, which were professionally surveyed. All holes were surveyed as single shot measurements with a Flex-it® tool starting at 15 m with measurements at every 50 m to determine deviation. The survey measurements were monitoring for significant magnetic interference from the drill rods which would prevent accurate readings.



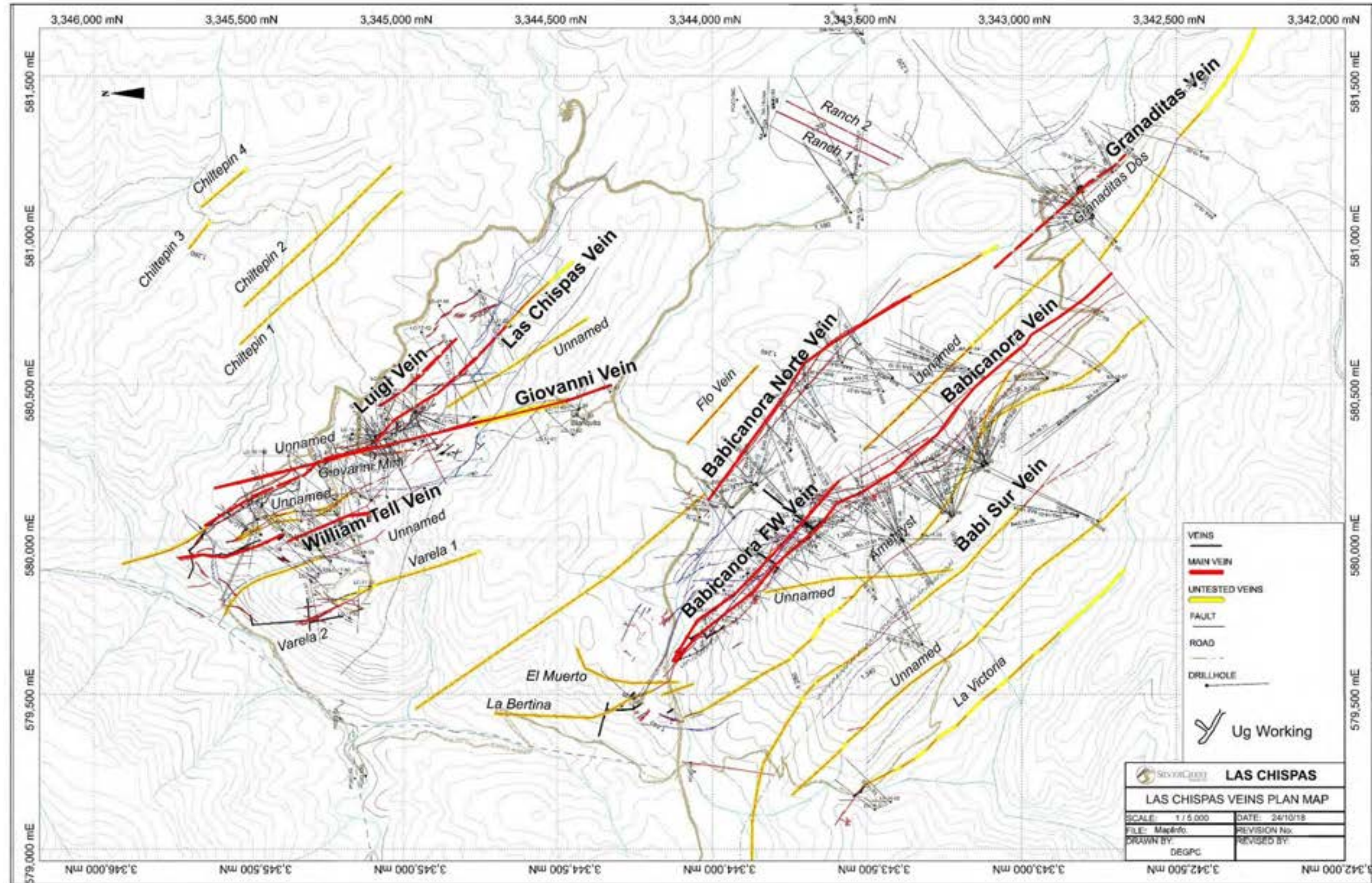
**Table 9-1: Summary of Drilling Completed by SilverCrest (Inception to September 13, 2018)**

Phase	Main Area	Drill Location	Number of Drill Holes	Length Drilled (m)	Number of Samples	Length of Samples (m)
<b>Phase I</b>						
	Las Chispas <sup>1</sup>	Surface	19	5,461.4	3,620	5,402.4
	La Victoria	Surface	3	931.2	711	924.0
<b>Subtotal</b>			<b>22</b>	<b>6,392.6</b>	<b>4,331</b>	<b>6,326.0</b>
<b>Phase II</b>						
	Las Chispas <sup>1</sup>	Surface	54	14,1234.0	10,675	11,527.5
		Underground	21	1,992.9	1,782	1,780.2
	Babicanora <sup>2</sup>	Surface	70	21,140.2	8,916	9,822.4
		Underground	14	1,447.2	1,251	1,414.7
	Granaditas	Surface	2	653.5	594	653.5
<b>Subtotal</b>			<b>161</b>	<b>39,357.7</b>	<b>23,218</b>	<b>25,198.1</b>
<b>Phase III</b>						
	Las Chispas <sup>1</sup>	Surface	4	1,176.9	832	907.3
		Underground	7	640.9	572	625.9
	Babicanora <sup>2</sup>	Surface	24	10,564.5	2,504	2,718.5
	Granaditas	Surface	19	5,553.4	4,968	4,885.5
	Babicanora Norte	Surface	40	11,810.7	7,233	7,767.9
	Babi Sur	Surface	7	3,069.3	967	995.3
	Ranch	Surface	9	3,140.8	1,756	1,941.3
	Well	Surface	12	1,103.0	623	952.9
<b>Subtotal</b>			<b>122</b>	<b>37,059.5</b>	<b>19,455</b>	<b>20,794.4</b>
<b>Total</b>			<b>305</b>	<b>82,809.8</b>	<b>47,004</b>	<b>52,318.9</b>

<sup>1</sup> Las Chispas area totals include some re-drilled holes and holes drilled at Las Chispas, William Tell, Giovanni, Giovanni Mini, La Blanquita, La Varela, Luigi and other unnamed veins in the Las Chispas Area.

<sup>2</sup> Babicanora area totals include holes drilled at Babicanora, Babicanora FW, Babicanora HW, Amethyst Vein and other unnamed veins in the Babicanora Area.

Figure 9-1: Map of Drilling Completed by SilverCrest on the Property





## 9.2 Drilling Results

---

### 9.2.1 Phase I

A total of 4,331 core samples, totaling 6,326.4 m, were collected and assayed during the Phase I program. The program targeted the historical Las Chispas Vein to verify location of the vein and existence of mineralization along trend of mapped historical workings. All drill holes intercepted quartz stockwork veinlets, veining and/or breccia along with variable amounts of Au and Ag mineralization. The results confirmed the historic mineralized structure and suggest that relatively unexplored and unmined areas exist proximal to the historic workings. Hole LC-16-05 intercepted 4.6 m (true) at 4.56 gpt gold and 622 gpt silver, or 963 gpt AgEq, in a breccia. The intersection is near the location of an underground channel sampling grading 1163 gpt AgEq over 8 m in vein strike length and 1 m true width.

Additional drilling targeting the William Tell Vein intercepted the mineralized structure in four of seven holes with grades greater than 400 gpt AgEq over estimated true widths of 0.8 to 1.5 m.

The 2016 program also included three holes (LV-16-01, LV-16-02 and LV-16-03) in the La Victoria area, located 800 m southwest of the Babicanora Vein. These holes intersected only low-grade mineralization.

Significant results for this drilling were reported in the Qualifying Report for Las Chispas, with effective date September 15, 2016 that was prepared by James Barr, P. Geo, Independent QP, Senior Geologist and Team Lead with Tetra Tech Inc.

### 9.2.2 Phase II

A total of 23,218 core samples, totaling 25,198 m, were collected and assayed during the Phase II program. The program targeted delineation and expansion of known vein targets at Las Chispas, William Tell and Babicanora, and tested new targets such as at La Varela, La Blanquita, Granaditas and Amethyst veins. Significant drill hole intercepts for these areas are presented in Table 9-2.

Significant results for this drilling were reported in the Technical Report and Mineral Resource Estimate for the Las Chispas Property, with effective date February 12, 2018, and amended May 9, 2018, that was prepared by James Barr, P. Geo, Independent QP, Senior Geologist and Team Lead with Tetra Tech Inc.

### 9.2.3 Phase III

A total of 19,455 core samples, totaling 20,794 m, were collected and assayed during the Phase III program, as of September 13, 2018. The program targeted delineation and expansion of known vein targets that include the Babicanora, Babicanora Footwall, Babicanora Hangingwall, and Giovanni veins. Newly tested targets for the Phase III program include the Babicanora Norte, Babicanora Sur, Granaditas, Luigi and Ranch veins. Intercepts for these areas are presented in Table 9-2, excluding unpublished results for Babicanora Sur and Ranch veins.

#### ***Babicanora***

Expansion and delineation of Babicanora during Phase III was focused on surface drilling in the southeast portion of the vein. This drilling was accessed via a high elevation road from the ridge crest permitting drill access to the vein from the hangingwall side. Numerous high-grade intercepts were made in this area previously defined as "Area 51" including BA-18-81 with an estimated true thickness of 4.0 m grading 22.83 gpt Au and 1718.8 gpt Ag

or 3431 gpt AgEq and presented in Table 9-2. Figures 9.2 shows the Babicanora long section with distribution of drill hole pierce points, high-grade footprint (Precious Metal Zone), and location of Area 51 zone. Figure 9.3 shows a plan view of Level 1130 (masl) with the Babicanora, Babicanora FW and Babicanora HW veins shape as modelled for resource estimation along with drill hole traces on this level and select mineralized intercepts.

### ***Babicanora Norte***

Surface drilling commenced on the Babicanora Norte Vein in March 2018 and was discovered on the second drill hole, BAN-18-02. The vein is located near the portal of the Babicanora adit and projects under historical waste dumps. Initial drilling was directed 50 m below a shallow shaft where the high-grade vein was intercepted. After discovery, the Babicanora Norte Vein was systematically drilled to the northwest and southeast along vein strike. Numerous high-grade intercepts were made from step-out drilling, including the most significant in hole BAN18-10 with an estimated true thickness of 2.2 m grading 61.36 gpt Au and 2833.5 gpt Ag, or 7436 gpt AgEq.

### ***Babicanora Sur***

The Babicanora Sur vein is located approximately 300 m south-west and is oriented roughly parallel to the Babicanora Vein. Drilling commenced on Babicanora Sur in the southeast portion of the Property based on availability and access of surface drill rigs on roads constructed in the Babicanora area. Progress of delineating the vein will continue throughout the Phase III program as surface access is constructed to the northwest.

### ***Granaditas***

The Granaditas vein is parallel to the Babicanora and Babicanora Norte veins and consists of southeastward plunging high-grade mineralization similar to the adjacent Babicanora and Babicanora Norte veins. Drilling during Phase III focused on delineating the high-grade footprint that included hole GR18-04 with an estimated true thickness of 1.8 m grading 12.14 gpt Au gold and 1440.3 gpt Ag or 2350 gpt AgEq.

### ***Luigi***

Luigi Vein was discovered in the footwall of the Las Chispas Vein in mid-2017 but it remained unnamed until there was enough drilling to delineate an actual mineral vein. The Phase III program focused on delineating the vein through underground drilling on the 550 and 600 level of the historic Las Chispas workings.

### ***Ranch Area***

Surface drilling commenced in the Babicanora Ranch area during Phase III with nine holes to accomplish condemnation drilling in the surrounding area for potential processing facilities.

### ***Espiritu Santo***

The Espiritu Santo workings are located to the southeast of the Las Chispas Vein and William Tell Vein. Drilling during phase III targeted the two adits and a shaft in this area with a total of three holes completed.



Figure 9-2: Babicanora Long Section Looking Southwest

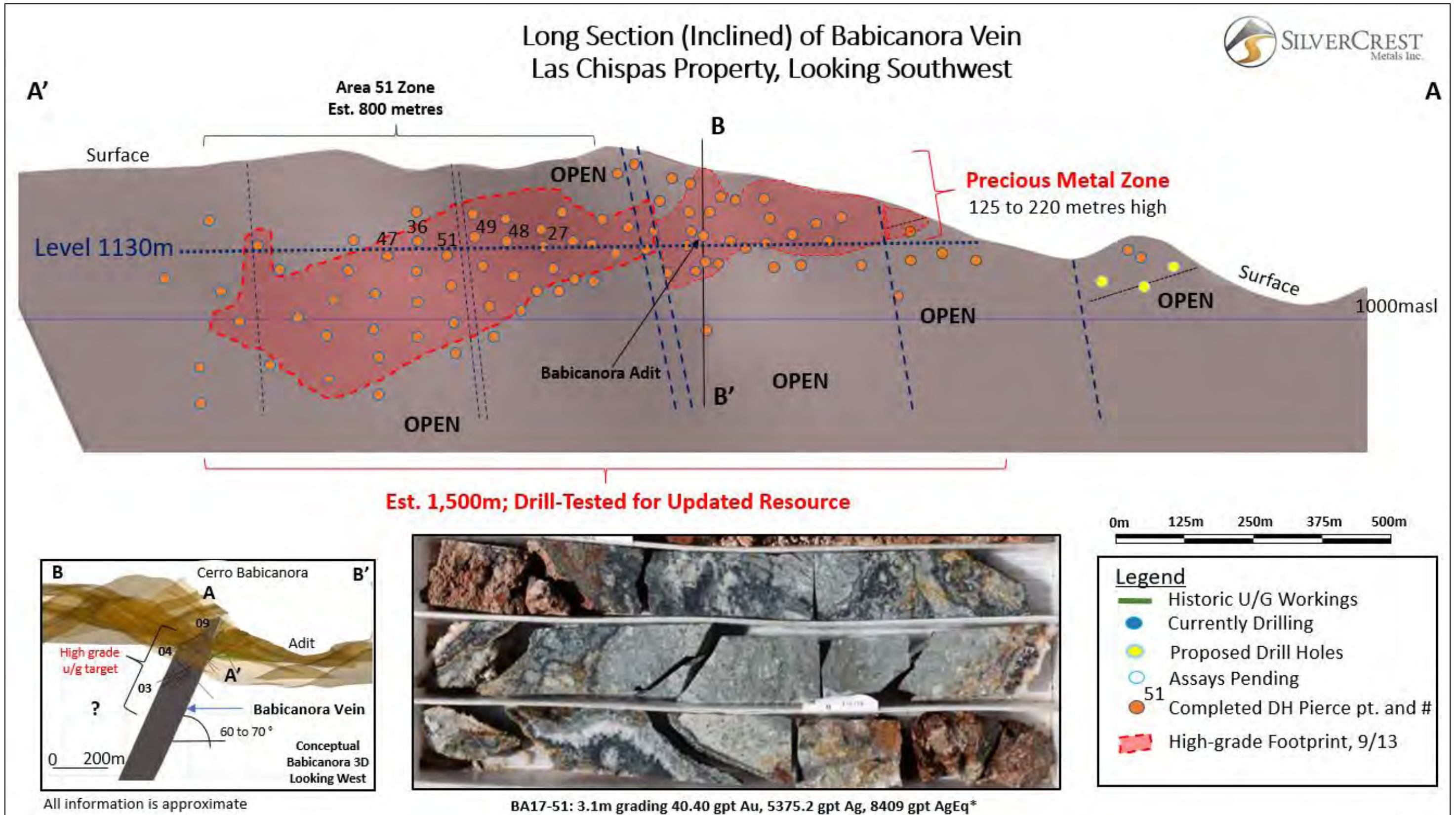
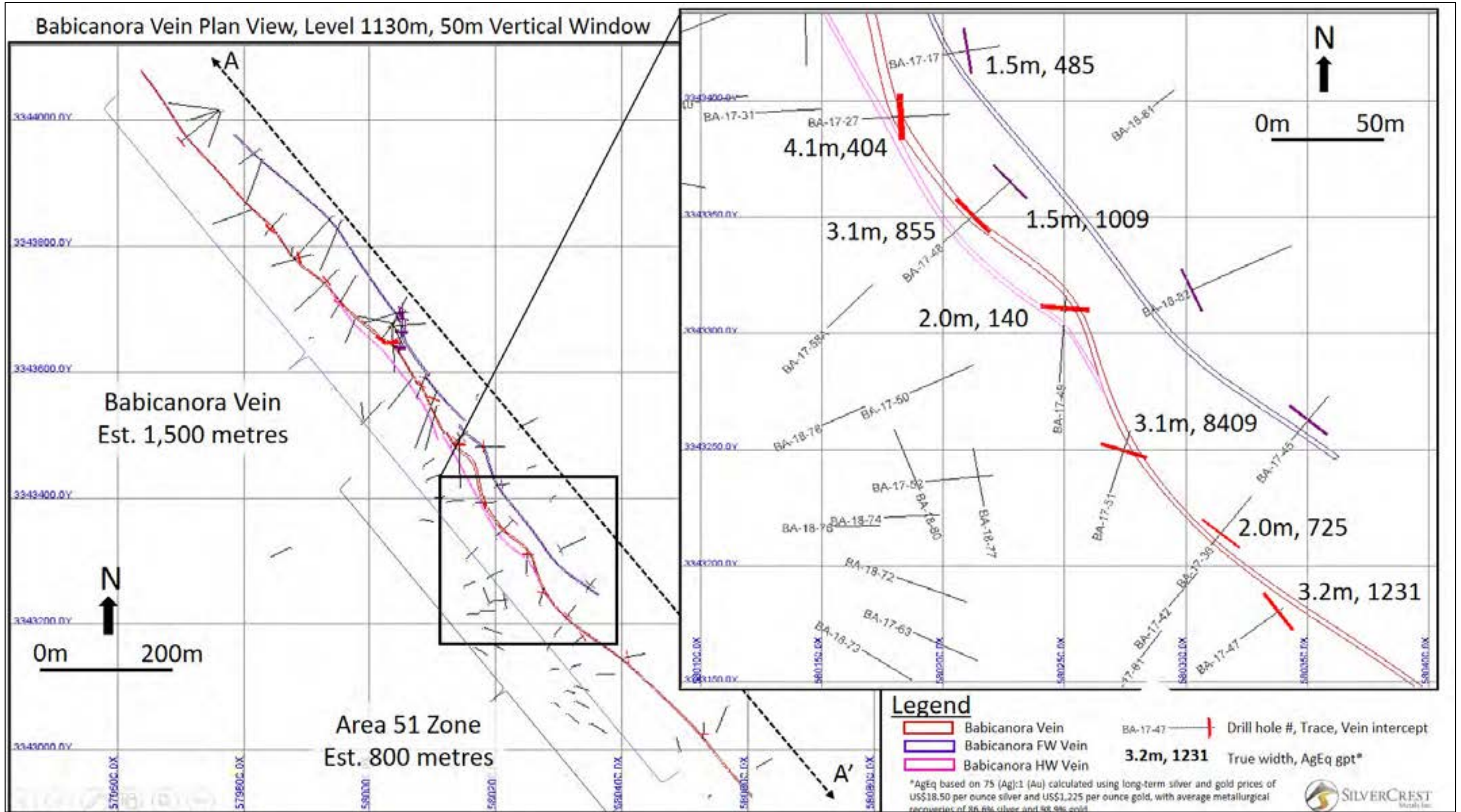




Figure 9-3: Babicanora Vein Plan View on 1130m Level



**Table 9-2: Las Chispas Most Significant Drill Hole Results for all Phases (March 2016 to September 2018)**

Hole No.	Vein	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)	Au (gpt)	Ag (gpt)	AgEq* (gpt)
BA17-20	Amethyst	75.7	78.2	2.5	2.0	3.05	77.8	307
BA17-04	Babicanora	43.9	53.4	9.5	6.6	1.03	328.5	406
BA17-05	Babicanora	50.3	53.9	3.6	2.0	3.78	67.8	347
BA17-07	Babicanora	207.6	219.6	12.0	4.8	4.63	250.9	598
BA17-10	Babicanora	80.5	81.0	0.5	0.5	4.78	37.0	396
BA17-13	Babicanora	276.5	278.4	1.9	1.9	0.29	394.4	416
BA17-14	Babicanora	134.6	137.2	2.6	2.1	2.01	160.5	311
BA17-17	Babicanora	273.0	276.0	3.0	2.9	5.62	172.7	594
BA17-18	Babicanora	148.9	152.9	4.0	3.0	4.34	130.4	456
BA17-23	Babicanora	131.0	136.0	5.0	4.0	0.05	397.4	401
BA17-27	Babicanora	286.5	291.0	4.5	4.1	3.56	137.0	404
BA17-31	Babicanora	313.7	317.5	3.8	3.8	5.65	451.5	875
BA17-33	Babicanora	225.7	228.9	3.2	3.1	5.08	570.5	951
BA17-36	Babicanora	241.4	243.5	2.1	2.0	3.65	451.6	725
BA17-38	Babicanora	15.0	18.6	3.6	3.6	4.21	165.0	481
BA17-42	Babicanora	279.8	282.4	2.6	2.2	3.79	388.1	673
BA17-43	Babicanora	324.4	328.0	3.6	3.2	26.95	1,493.6	3,515
BA17-46	Babicanora	6.5	8.1	1.6	1.2	54.20	2,020.7	6,086
BA17-47	Babicanora	268.5	272.0	3.5	3.2	4.96	859.1	1,231
BA17-48	Babicanora	289.8	293.2	3.4	3.1	6.82	343.1	855
BA17-50	Babicanora	313.3	318.7	5.4	5.0	1.95	265.2	411
BA17-51	Babicanora	265.9	269.2	3.3	3.1	40.45	5,375.2	8,409
BA17-52	Babicanora	340.4	343.9	3.5	2.7	7.20	593.9	1,134
BA17-53	Babicanora	363.8	366.7	2.9	2.2	3.15	378.9	615
BA17-58	Babicanora	340.7	345.7	5.0	3.3	1.96	176.3	323
BA17-63	Babicanora	468.7	473.3	4.5	3.5	41.05	1,074.5	4,153
BA18-64	Babicanora	380.0	383.0	3.0	2.6	2.21	273.3	439
BA18-65	Babicanora	382.6	387.6	5.0	3.9	12.13	1,411.6	2,321
BA18-68	Babicanora	481.7	483.4	1.7	1.3	1.00	201.6	276
BA18-70	Babicanora	447.1	448.5	1.4	1.2	0.36	1,558.7	1,586
BA18-72	Babicanora	461.8	462.6	0.5	0.5	1.46	141.0	250
BA18-74	Babicanora	385.9	397.0	11.1	9.2	1.34	252.5	353
BA18-77	Babicanora	356.0	362.0	6.0	4.5	7.96	912.0	1,509
BA18-81	Babicanora	274.2	278.2	4.0	4.0	22.83	1,718.8	3,431
BA18-82	Babicanora	270.2	275.1	4.9	4.9	0.35	179.4	205

**Table 9-2: Las Chispas Most Significant Drill Hole Results for all Phases (March 2016 to September 2018)**

Hole No.	Vein	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)	Au (gpt)	Ag (gpt)	AgEq* (gpt)
BA18-83	Babicanora	262.6	265.1	2.5	2.0	0.87	269.0	334
BA18-85	Babicanora	313.0	315.8	2.8	2.5	6.04	368.8	822
UB17-01	Babicanora	33.5	40.9	7.4	4.5	1.30	343.0	440
UB17-01a	Babicanora	17.9	20.9	3.0	2.0	0.08	450.3	456
UB17-03	Babicanora	23.0	29.9	6.9	2.8	3.29	447.2	694
UB17-04	Babicanora	9.1	15.6	6.5	5.0	3.91	182.5	476
UB17-05	Babicanora	7.7	14.5	6.8	6.1	4.84	383.0	746
UB17-05	Babicanora	7.7	14.5	6.8	6.1	4.84	383.0	746
UB17-08	Babicanora	54.6	55.8	1.2	1.2	3.53	303.0	568
UB17-09	Babicanora	70.2	77.8	7.6	7.6	4.08	196.1	502
UB17-11	Babicanora	85.1	92.5	7.4	3.7	2.58	332.6	526
BA17-17	Babicanora Footwall	262.0	262.5	0.5	0.4	8.70	783.0	1,435
BA17-21	Babicanora Footwall	15.5	16.0	0.5	0.5	4.67	289.0	693
BA17-48	Babicanora Footwall	324.2	325.8	1.6	1.4	5.10	438.8	821
BA17-49	Babicanora Footwall	324.3	326.5	2.2	2.0	18.20	1,791.4	3,158
BA18-83	Babicanora Footwall	285.2	287.1	1.9	1.5	54.59	6,534.9	10,629
BA18-85	Babicanora Footwall	328.3	330.9	2.6	2.3	4.07	436.0	741
BAN18-02	Babicanora Norte	70.8	72.3	1.5	1.4	9.11	1,033.3	1,716
BAN18-03	Babicanora Norte	95.8	97.3	1.5	1.3	5.19	726.0	1,115
BAN18-04	Babicanora Norte	89.5	91.0	1.5	1.2	4.71	592.9	946
BAN18-06	Babicanora Norte	101.6	103.1	1.5	1.5	23.96	2,081.0	3,879
BAN18-10	Babicanora Norte	93.0	95.5	2.5	2.2	61.36	2,833.5	7,436
BAN18-11	Babicanora Norte	357.4	359.0	1.6	1.4	1.88	206.0	347
BAN18-26	Babicanora Norte	328.9	330.5	1.6	1.4	51.43	2,838.0	6,695
BAN18-27	Babicanora Norte	244.6	246.8	2.2	2.1	6.54	795.3	1,286
BAN18-30	Babicanora Norte	246.7	247.2	0.5	0.4	1.01	246.0	321
BAN18-31	Babicanora Norte	208.8	210.7	1.9	1.8	15.11	1,718.2	2,851
BAN18-37	Babicanora Norte	231.9	233.4	1.6	1.5	4.22	687.0	1,004
BAN18-40	Babicanora Norte	189.8	191.5	1.7	1.6	8.96	1,078.7	1,750
LC16-05	Giovanni	167.0	172.0	5.0	4.6	4.56	621.5	963
LC16-06	Giovanni	66.0	67.0	1.0	0.7	14.90	1,815.0	2,933
LC-16-17	Giovanni	81.0	82.0	1.0	1.0	2.27	306.0	476
LC-16-18	Giovanni	80.0	81.0	1.0	1.0	1.55	706.0	822
LC16-20	Giovanni	131.0	132.0	1.0	1.0	0.05	306.0	309
LC17-34	Giovanni	155.2	157.3	2.1	2.1	1.76	215.5	347



**Table 9-2: Las Chispas Most Significant Drill Hole Results for all Phases (March 2016 to September 2018)**

Hole No.	Vein	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)	Au (gpt)	Ag (gpt)	AgEq* (gpt)
LC17-35	Giovanni	134.0	134.5	0.5	0.5	7.50	1,095.0	1,657
LC17-35	Giovanni	106.5	108.6	2.1	2.1	3.40	329.7	585
LC17-37	Giovanni	205.3	207.6	2.3	2.3	3.57	577.8	845
LC17-38	Giovanni	146.5	147.4	0.9	0.9	4.42	563.7	895
LC-17-45	Giovanni	159.6	161.9	2.3	1.9	50.56	5,018.8	8,803
LC-17-45	Giovanni	172.6	173.1	0.5	0.4	3.72	506.0	785
LC-17-45	Giovanni	179.4	180.3	0.9	0.7	1.96	255.0	402
LC-17-45	Giovanni	222.3	227.1	4.8	4.1	1.71	231.8	360
LC-17-52	Giovanni	358.4	358.9	0.5	0.5	2.96	107.0	329
LC17-68	Giovanni	106.0	108.0	2.0	2.0	5.85	1,191.5	1,630
LC17-69	Giovanni	168.2	169.8	1.6	1.6	1.95	252.0	398
LC17-72	Giovanni	115.0	119.0	4.0	4.0	18.61	696.2	2,092
LCU17-04	Giovanni	34.3	42.5	8.2	6.3	1.97	241.4	389
LCU17-05	Giovanni	54.1	54.6	0.5	0.5	1.65	253.0	377
LCU17-05	Giovanni	76.7	77.8	1.1	1.1	1.41	213.4	319
GR17-02	Granaditas	138.9	140.6	1.7	1.7	3.63	190.1	462
GR17-02	Granaditas	138.9	140.6	1.7	1.5	3.63	190.1	462
GR18-04	Granaditas	133.3	135.3	2.0	1.8	12.14	1,440.3	2,350
GR18-09	Granaditas	165.9	167.3	1.4	1.3	3.24	338.9	582
GR18-12	Granaditas	162.4	164.0	1.6	1.2	5.60	15.0	437
GR18-15	Granaditas	210.8	212.4	1.6	1.3	4.20	229.0	543
GR18-07	Granaditas Dos	25.0	25.5	0.5	0.4	2.40	421.0	600
GR18-09	Granaditas Dos	80.7	81.2	0.5	0.5	2.90	294.0	514
LC17-56	La Blanquita	54.0	55.0	1.0	1.0	1.23	362.0	454
LC17-60	La Blanquita	100.6	102.7	2.1	2.1	2.28	469.5	641
LC17-61	La Blanquita	115.5	117.1	1.6	1.6	2.39	516.0	695
LC16-05	Las Chispas	149.0	150.0	1.0	0.9	2.10	226.0	384
LC16-08	Las Chispas	171.0	182.0	11.0	7.2	2.41	311.5	493
LCU17-02	Las Chispas	6.8	10.0	3.2	2.2	9.42	1,369.3	2,076
LC17-45	Luigi	222.3	227.2	4.9	4.1	1.71	231.8	360
LC17-65	Luigi	243.0	244.5	1.5	1.4	13.22	2,006.7	2,999
LC17-72	Luigi	254.9	256.7	1.8	1.6	3.41	265.4	521
LCU18-25	Luigi	43.8	44.9	1.1	1.0	2.75	231.5	438
BA17-18	Unknown	140.7	141.3	0.6	0.4	3.46	233.0	492
LC16-13	Unnamed	180.0	181.0	1.0	0.8	4.79	364.0	723

**Table 9-2: Las Chispas Most Significant Drill Hole Results for all Phases (March 2016 to September 2018)**

Hole No.	Vein	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)	Au (gpt)	Ag (gpt)	AgEq* (gpt)
LC16-16	Unnamed	93.0	94.0	1.0	0.9	6.57	395.0	888
LC16-26	Unnamed	11.7	12.7	1.0	1.0	5.65	316.0	739
LC17-34	Unnamed	115.6	116.0	0.4	0.4	3.54	555.0	820
LC17-37	Unnamed	176.4	177.6	1.2	1.2	1.60	203.0	323
LC-17-50	Unnamed	17.5	18.2	0.7	0.6	2.52	256.0	445
LC17-65	Unnamed	243.0	244.5	1.5	1.5	13.22	2,006.7	2,999
LC17-68	Unnamed	138.9	140.0	1.1	1.1	0.05	320.0	324
LC17-69	Unnamed	179.1	180.9	1.8	1.8	0.32	306.9	330
LC17-72	Unnamed	254.9	256.7	1.8	1.8	3.41	265.4	521
LC17-55	Varela	179.9	180.7	0.8	0.8	2.67	272.0	472
LC16-03	William Tell	172.0	176.0	4.0	1.5	2.03	683.0	835
LC16-12	William Tell	118.0	119.0	1.0	0.9	2.40	229.0	409
LC16-15	William Tell	197.5	199.0	1.5	1.3	1.94	352.0	497
LC-16-27	William Tell	51.4	52.4	1.0	1.0	2.03	313.0	465
LC-17-30	William Tell	249.9	251.8	1.9	1.9	0.39	427.8	457
LC-17-47	William Tell	214.6	215.0	0.4	0.3	7.42	417.0	974
LC-17-49	William Tell	217.4	217.9	0.5	0.5	3.14	595.0	831
LC-17-51	William Tell	204.8	205.8	1.0	1.0	2.11	214.0	372

All numbers are rounded.

\*AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

## 10.0 SAMPLE PREPARATION, ANALYZED, AND SECURITY

To date, four types of sample collection programs have been conducted on the Property:

1. Underground and Surface Sampling as chip samples and/or channel samples.
2. Stockpile/Backfill Sampling as intact historical muck from draw points and/or placed or remobilized muck within underground development.
3. Drill Core Sampling as hand split core or wet saw cut core.
4. Surface dump trenching and sampling.

The sample collection approaches being conducted by SilverCrest are described below. A sample processing facility has been established by SilverCrest on the Property where core samples are logged, SG measurements collected, photographed, sampled, bagged and tagged, and stored on-site prior to being transported to the laboratory by SilverCrest staff. Underground chip samples are bagged and tagged at the point of collection and are also stored at the sample processing facility. All coarse reject materials, pulps and blank materials are stored indoors within the facility.

### 10.1 Underground Chip Sample Collection Approach

The following describes SilverCrest's approach to underground rock sample collection:

- Underground continuous chip samples were being marked by a geologist per lithology or mineralization contacts using spray paint prior to sample collection;
- The chip samples were collected using a small sledge hammer, a hand maul/chisel and a small tarp on the floor to collect the chips;
- The chip samples were then collected and placed into clear plastic sample bags with a sample tab, secured with a zip tie, labelled and stored in the semi-secure core storage facility at Las Chispas prior to be transported to the ALS Chemex preparation facility located in Hermosillo;
- The chips were collected along development ribs as longitudinal samples, along backs and overhead stope pillars as transverse samples, and along some cross-cuts as transverse samples. The SilverCrest collection program was eventually modified to allow identification of each sample type in the geological database;
- A follow-up program has been initiated by SilverCrest where duplicate and new samples were collected using a power saw to cut a channel along the initial chip path; saw cut samples were being collected at approximately every 5 to 8 samples, depending on access;
- Each sample path is labelled with a sample number written on a piece of flagging and anchored to the development wall; and
- Follow-up review of the sampling program is conducted by the Senior Geologist and the Exploration Manager to ensure that all development tunnels near the mineralized zone have been sampled, that transverse samples were properly collected across veins, and that the samples were clearly and properly labelled.

## 10.2 Underground Muck/Stockpile Sample Collection Approach

---

The following describes SilverCrest's approach to underground muck and/or stockpile sample collection (refer to Figure 8-2 for muck locations):

- Samples have been conducted at random within the existing historical muck and material stockpiles in the Las Chispas, William Tell and Babicanora workings;
- The average mass of the sample that were collected was approximately 4 kg;
- Sample spacing along continuous muck piles was approximately 10 m, suggesting each sample could represent approximately 20-40 tonnes of material, depending on the size of the pile;
- Sample collection is completed by hand or shovel, from near surface material, as non-selective collection to be representative of both the fine and coarse fragment portions of the muck piles;
- The muck samples were then collected and placed into clear plastic sample bags with a sample tab, secured with a zip tie, labelled and stored in the semi-secure core storage facility at Las Chispas prior to be transported to the ALS Chemex preparation facility located in Hermosillo; and
- Follow-up review of the sampling program is conducted by SilverCrest's Senior Geologist and Exploration Manager to ensure that all appropriate muck piles have been sampled, and that the samples were clearly and properly labelled.

## 10.3 Drill Core Sample Collection Approach

---

The following describes SilverCrest's approach to drill core sample collection:

- The drill holes were logged by project geologists, and reviewed by the Senior Geologist;
- Sample intervals were laid out for mineralization, veining and structure. Approximately 10 m before and after each mineralized zone was included in the sampling intervals. A minimum of 0.5 m sample lengths were taken in mineralized material up to a maximum of 3 m in non-mineralized rock.
- Each sample interval has been either split using a hand splitter or cut by wet core saw perpendicular to veining, where possible, to leave representative core in the box and to reduce bias in mineral submitted with the sample;
- Half of the core is placed into clear plastic sample bags with a sample tab, secured with a zip tie, labelled and stored in the semi-secure core storage facility at Las Chispas before being transported to the ALS Chemex preparation facility located in Hermosillo; and
- Follow-up review of the core sampling program is conducted by SilverCrest's Senior Geologist and Exploration Manager to ensure that each core sample has been properly split/cut, that the sample intervals were clearly marked, representative core samples remain in the core box, and that sample tags were stapled to the core boxes in sequential order.

## 10.4 SilverCrest Internal QA/QC Approach

---

At the exploration stage, SilverCrest has implemented a program of certified reference material (CRM), blank sample insertions for all sample types being collected, and duplicate samples for some underground chip samples.



A summary of the QAQC program for the Phase I and Phase II programs can be referenced in the February 2018 Maiden Resource Estimate. The Program being implemented for Phase III is described below.

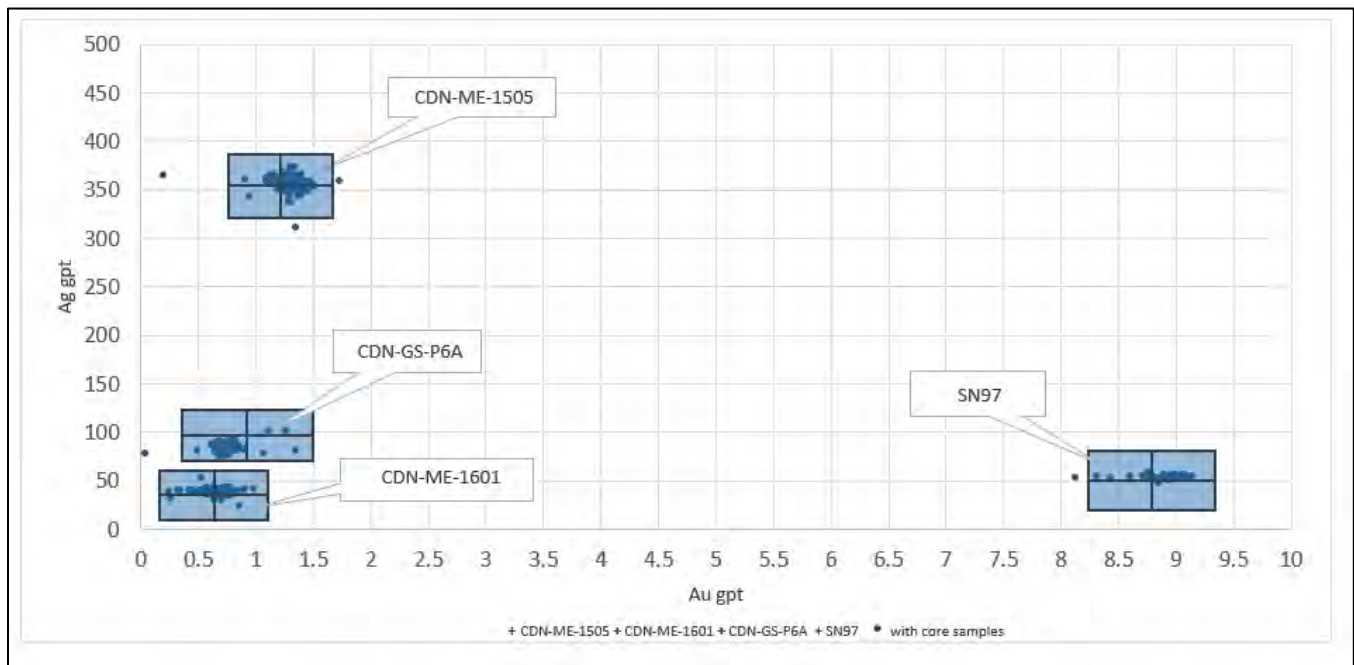
### 10.4.1 Phase III QAQC Program

#### 10.4.1.1 Certified Reference Standards (CRMs)

Commercial standards in 1 kg plastic bottles were sourced from CDN Resource Laboratories Ltd. (CDN Labs). The CRM material is selected to contain Ag/Au grades and a matrix that is consistent with the grades of the known mineralization and with a similar host rock lithology to the host rocks. At the Property’s core logging facility, 70 grams of the reference material is weighed, placed in a paper envelope and added to the sample stream as directed by the field geologists. These samples are used to test the precision and accuracy of both gold and silver assays, and to monitor the consistency of the laboratory’s performance. Insertion frequency of the standards is approximately 1:50 samples.

A total of 560 standards were inserted into the sample stream during this phase of drilling. Each standard, and corresponding sample number, was recorded in a QA / QC sample tracking spreadsheet. A scatter plot showing the analytical results for the CRMs and in relation to their referenced error of two standard deviations is shown in Figure 10-1.

**Figure 10-1: Scatter Plot of CRM Results, Showing Four Distinct CRM Populations**



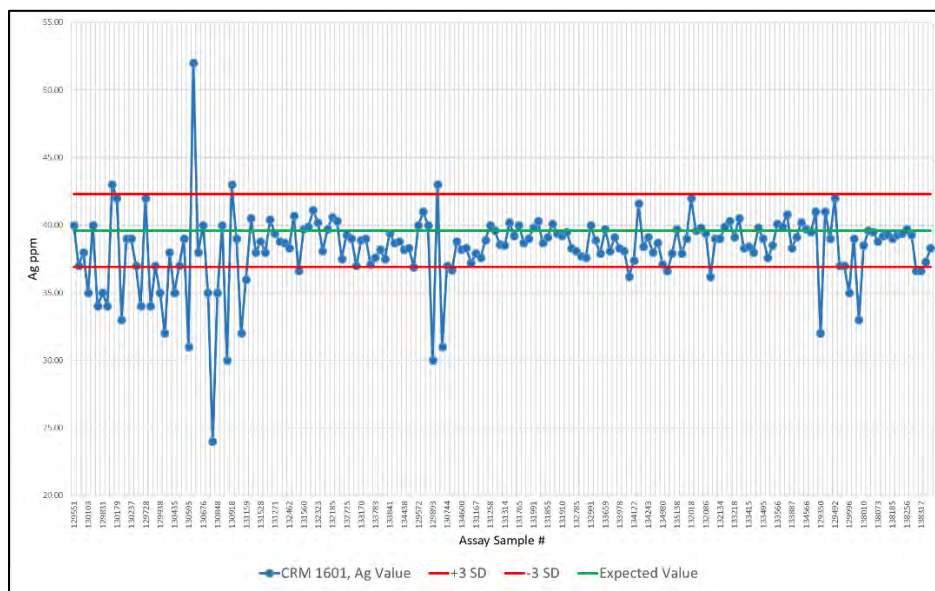
A CRM failure is defined by receipt of a standard greater than three standard deviations above or below the expected value in either silver or gold. In cases where the standard failures occurred in “non-mineralized” rock (generally in zones returning < 0.1 g/t Au or < 5 ppm Ag), no action is taken. The standards expected values and failure rates are shown in Table 10-1.

The protocol for re-assaying the standard failures is to re-analyse the pulps within a range of 10 samples above and 10 samples below the failed standard. The results of the CRM performance analysis are charted in Figures 10-2 through 10-9.

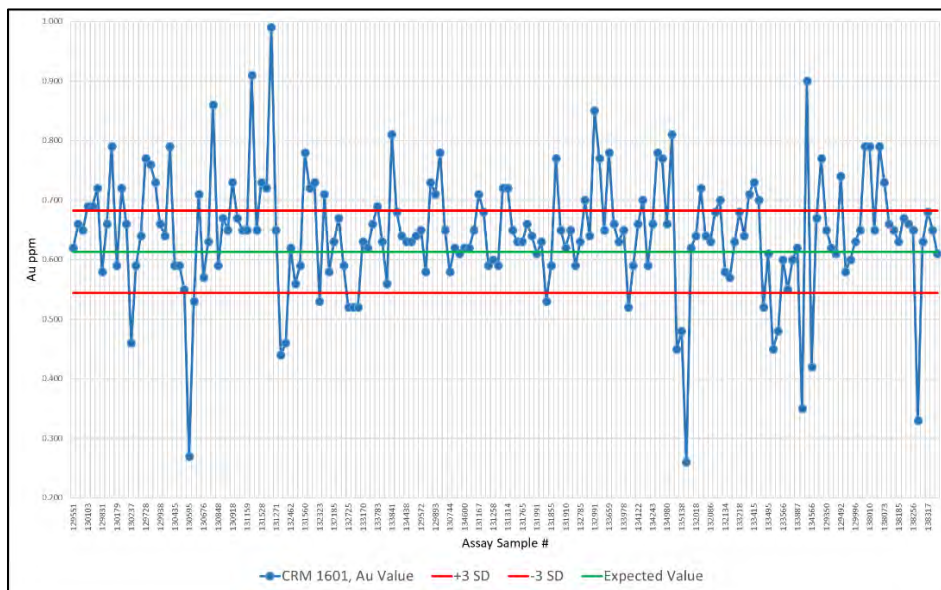
**Table 10-1: Standards Expected Ag and Au Values and the Failure Rates for the Drill Program**

Standards	Expected Ag Values, $\pm 3SD$	Expected Au Values, $\pm 3SD$	Sent	Au Failures %	Ag Failures %
CDN-ME-1601	39.6 gpt, $\pm 2.70$ gpt	0.613 gpt, $\pm 0.069$ gpt	180	38	18
CDN-ME-1505	360 gpt, $\pm 18$ gpt	1.29 gpt, $\pm 0.165$ gpt	210	4	3
CDN-GS-P6A	81 gpt, $\pm 10.50$ gpt	0.738 gpt $\pm 0.084$ gpt	127	13	1
SN97	53.10 gpt, $\pm 1.20$ gpt	9.026 gpt, $\pm 0.087$ gpt	43	58	44

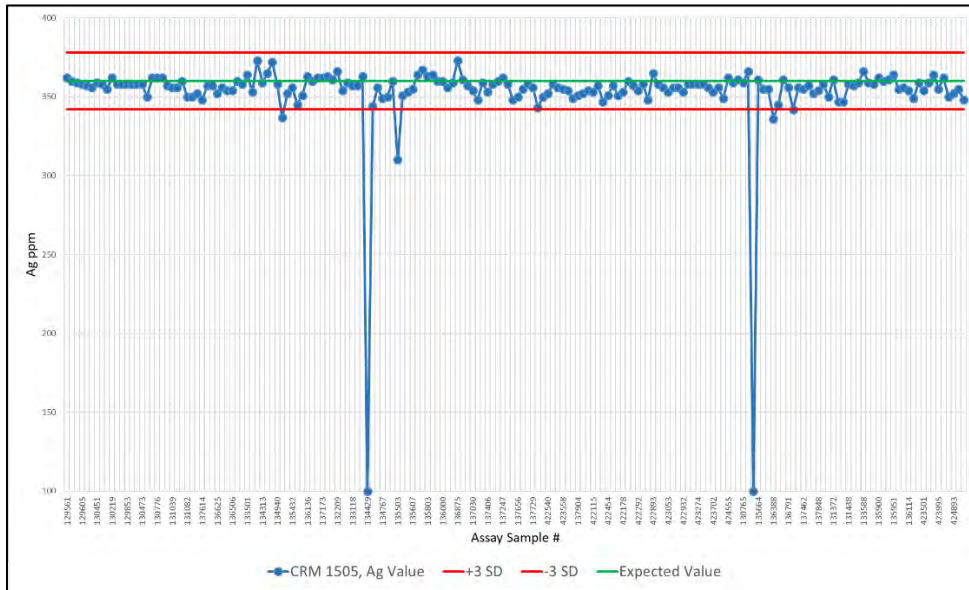
**Figure 10-2: CRM CDN-ME-1601 Analysis, Silver**



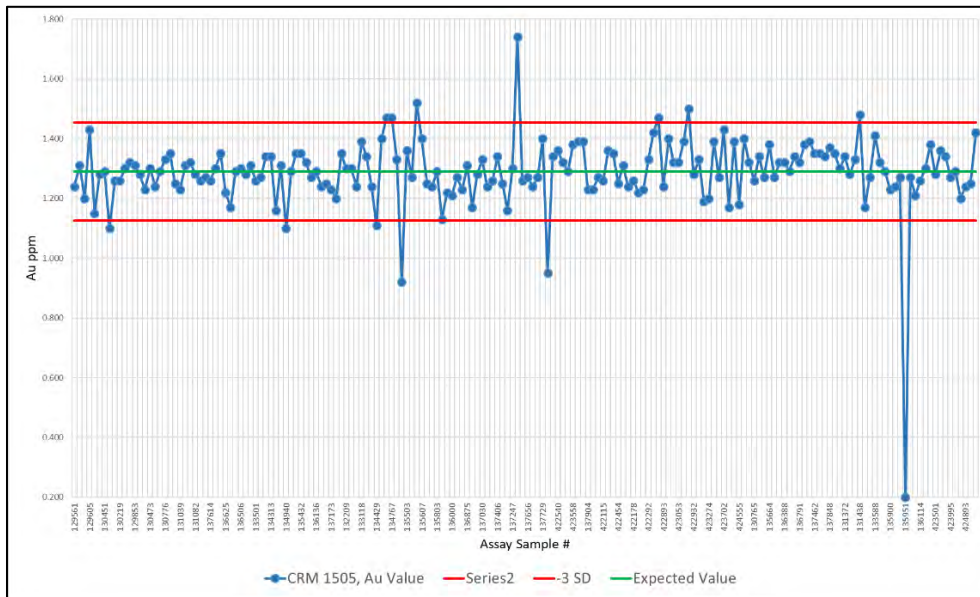
**Figure 10-3: CRM CDN-ME-1601 Analysis, Gold**



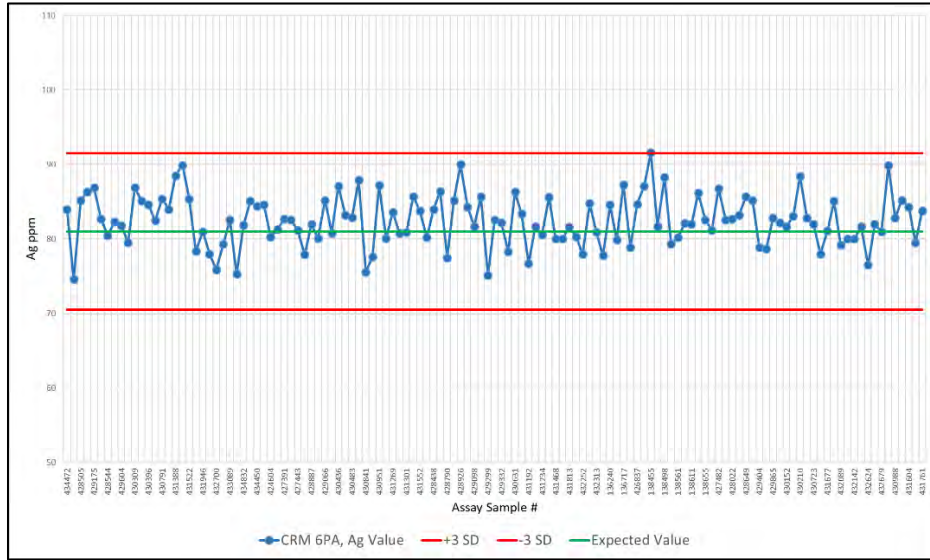
**Figure 10-4: CRM CDN-ME-1505 Analysis, Silver**



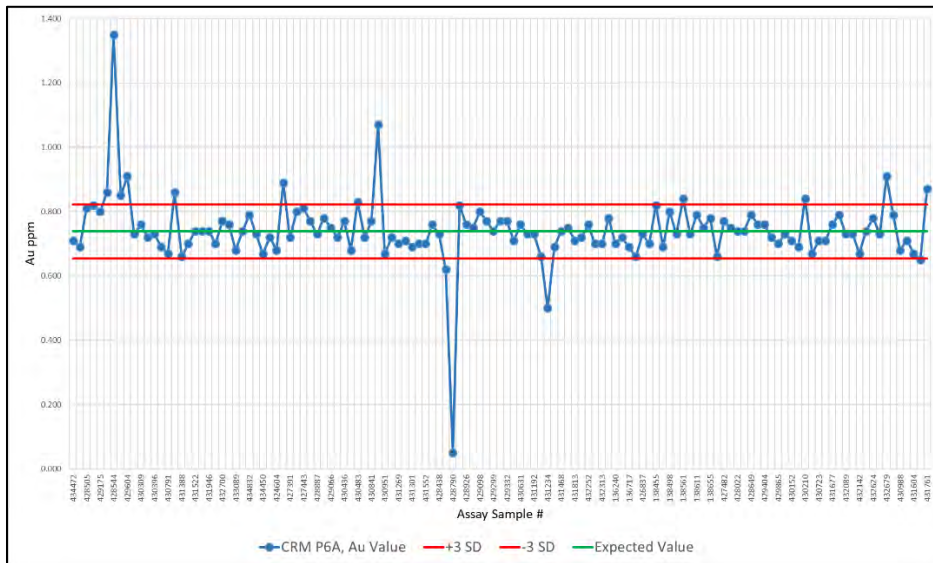
**Figure 10-5: CRM CDN-ME-1505 Analysis, Gold**



**Figure 10-6: CRM CDN-GS-P6A Analysis, Silver**

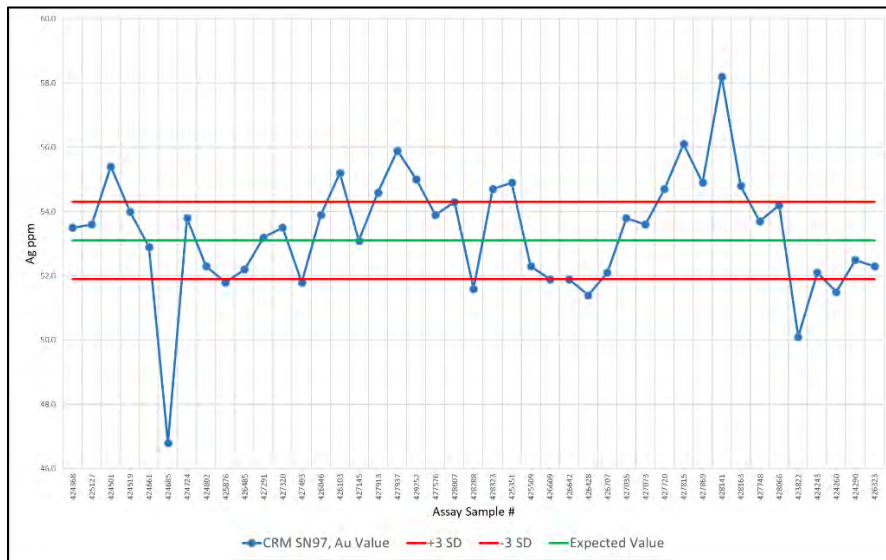


**Figure 10-7: CRM STD CDN-GS-P6A Analysis, Gold**

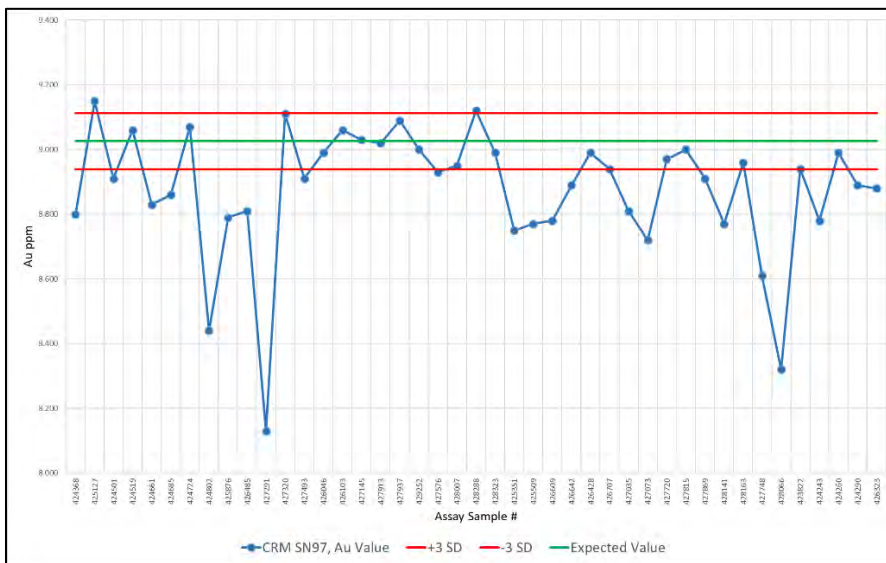




**Figure 10-8: CRM SN97 Analysis, Silver**



**Figure 10-9: CRM SN97 Analysis, Gold**



Assessment of the CRM performance concluded that CDN-ME-1601 and SN97 had a significant number of failures (18% and 44% in Ag, 38% and 58% in Au). While CDN-ME-1505 and CDN-GS-P6A had acceptable failure rate. SN97 had a high failure rate. Use of the CRM CDN-ME-1601 and SN97 was discontinued.

**10.4.1.2 Blanks**

For monitoring of contamination or contamination of sample crushing, grinding and sorting equipment, SilverCrest inserted a benign rock sample at an interval of 1:50. The material used for blanks was collected from a nearby silica cap. The analytical results for the blank samples are shown in Figures 10-10 and 10-11. A total of 729

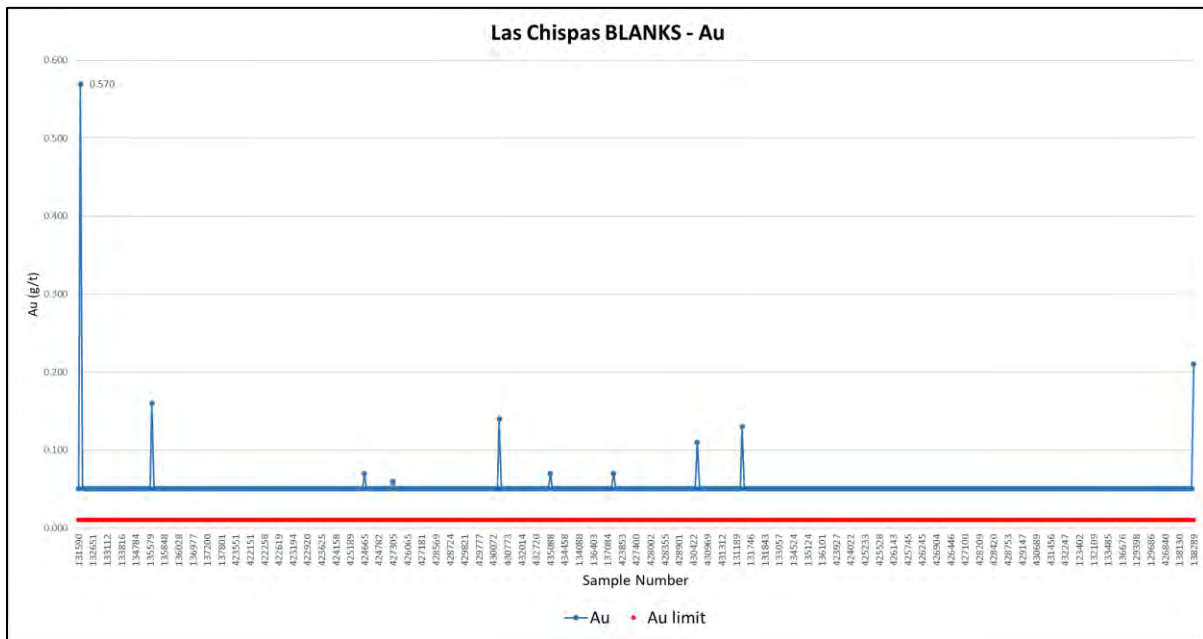
blank insertions were noted in the database was reviewed by the QP. Of these, only one is located adjacent a sample with >2000 gpt Ag.

The failure threshold for the blanks is five times the detection limits of the analytical equipment, 25 gpt Ag and 0.25 gpt Au, for fire assay (gravimetric) method. Table 2 tabulates the performance of the Blank sample insertions. Minor contamination be observed in the ICP analytical stream, for lower grade analysis, however, no contamination was identified in the fire assay stream, for high grade analysis.

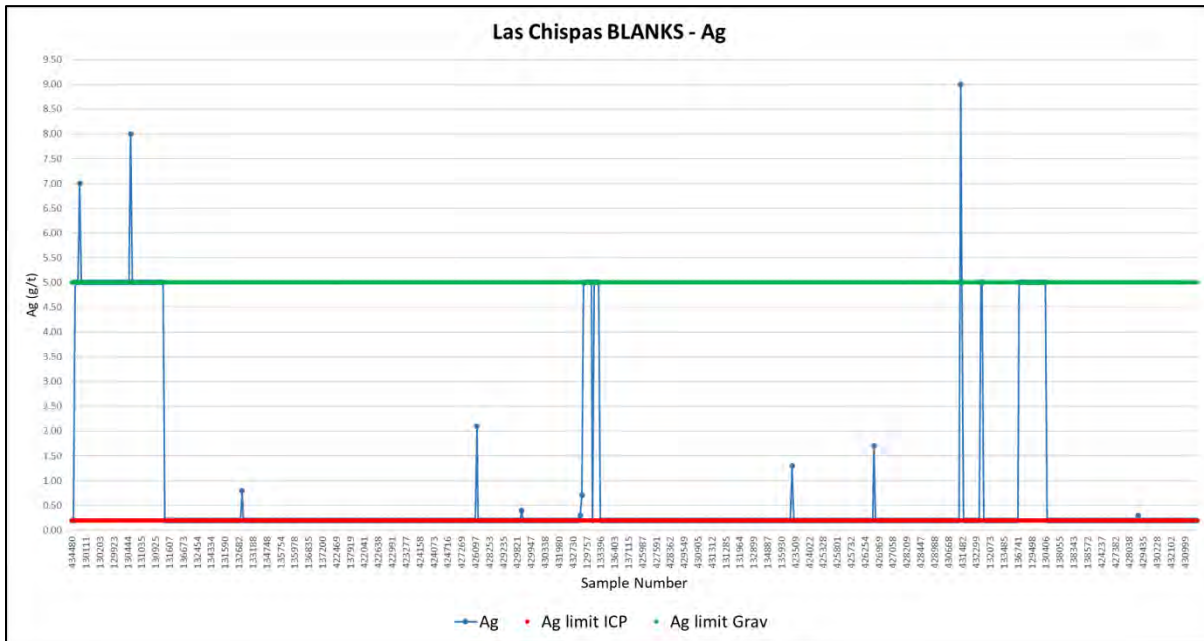
**Table 10-2: Summary of Blank Sample Insertion Performance for the Phase III Exploration Campaign**

Element	Method	Number of Samples	Detection Limit	# Samples greater than DL	# Samples greater than 5x DL	Failure Rate
Au	FA, Gravity	717	0.05 ppm	3	1	0.14%
Ag		87	5 ppm	3	0	0%
Au	Aqua Regia, ICP	102	0.01 ppm	12	12	12%
Ag		102	0.2 ppm	8	6	6%

**Figure 10-10: Analytical Results for Gold Grades from QAQC Blank Sample Insertions**



**Figure 10-11: Analytical Results for Silver Grades from QAQC Blank Sample Insertions**



### 10.4.1.3 Duplicate Program

A routine duplicate sampling program has not been conducted as part of the Phase III program. An independent field duplicate program was conducted by the QP using seventy-five (75) samples collected from drill core. This program is described further in Section 11.4.

## 10.5 QP Opinion on Sample Preparation, Analysis and Security

The sample preparation, analyzed and security program implemented by SilverCrest was designed with the intent to support collection of a large volume of data. Sample collection and handling routines were well documented. The laboratory analytical methods, detection limits and ore grade assay limits are suited to the style and grade of mineralization.

The QAQC methods implemented by SilverCrest enabled assessment of sample security, assay accuracy, assay precision and potential for contamination. The results of the QAQC program identified the use of CRM CDN-ME-1601 and SN97 as improperly prepared samples and were discontinued. There were no other significant concerns related to the integrity of sample collection and analysis.

The QP has reviewed the sample collection and handling procedures, laboratory analytical methods, QAQC methods and the results of the QAQC program and believes these methods are adequate for mineral resource estimation, as used in this Technical Report.

## 11.0 DATA VERIFICATION

### 11.1 Phase I Independent QP Site Visit – August 30 to September 1, 2016

James Barr, P.Geol, Senior Geologist and Team Lead with Tetra Tech Inc., and the author and Independent QP for the February 2018 Maiden Resource Estimate, visited the Las Chispas Property from August 30, 2016 to September 1, 2016. The three-day site visit included the review of underground chip samples, core samples, underground stockpile samples, grain size and metal distribution testwork, bulk density testwork and laboratory analysis.

#### 11.1.1 Underground Chip Samples

Two verification samples were collected from the underground workings as duplicates to the existing chip sample records. At the time of the visit, neither of these samples had been channel cut. Due to the large number of underground samples, the Independent QP did not attempt to collect a representative proportion of samples for verification. The purpose of these samples was to evaluate reproducibility of chip samples, however, due to the inherent sampling bias naturally introduced with chip samples, it was not anticipated that the duplicate sample grades will be equal. The results indicate poor reproducibility of the chip sample grades, with no apparent bias indicated.

The Independent QP collected the samples along the existing chip sampling path using a geological rock hammer. The chips were collected in a plastic bag with a sample tag, sealed, and submitted to ALS by the Independent QP for analysis. Table 11-1 lists the two samples with comparison between the analytical results reported by SilverCrest and the results of the Independent QP's independent sample analysis.

**Table 11-1: List of Verification Samples Collected by the Independent QP from Underground Chip Samples**

Location	Source	Sample ID	Description	Au (gpt)	Ag (gpt)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Las Chispas	SIL	144712	Silicified lithic tuff, quartz veining, FeOx	7.99	867	56	201	401
	Tt	500458		0.10	6	7	31	78
	% Diff			>100%	>100%	>100%	>100%	>100%
William Tell	SIL	144843	Lithic tuff, propylitic alt with Py cubes, qtz-calcite veining with MnOx, weak malachite precip on walls	0.07	237	115	71	49
	Tt	500459		1.86	248	384	197	125
	% Diff			<-100%	-4%	<-100%	<-100%	<-100%

#### 11.1.2 Core Samples

Numerous holes and core intersections were inspected for review during the QP site visit. The intervals were selected to provide good coverage of hanging wall, mineralized zone and footwall intersections. The intervals were retrieved from storage and laid out in core boxes.

Seven verification samples from drill core were selected from the available core. These verification samples are listed in Table 11-2 below with comparison between the analytical results reported by SilverCrest and the results of the Independent QP's sample analysis. Each interval was marked with orange flagging, photographed and quarter-cut by diamond blade. Sample tickets were stapled to the core boxes for record of sampling.



**Table 11-2: List of Verification Samples Collected by the QP from Surface Diamond Drill Core Samples**

Hole ID	From	To	Sample ID	Source	Au (gpt)	Ag (gpt)	Cu (ppm)	Pb (ppm)	Zn (ppm)
LC-16-05	169	170	604951	SIL	2.28	354	31	98	142
			500460	Tt	0.49	64	17	25	48
				<b>% Diff</b>	<b>&gt;100%</b>	<b>&gt;100%</b>	<b>82%</b>	<b>&gt;100%</b>	<b>&gt;100%</b>
LC-16-05	170	171	604952	SIL	0.67	71	7	30	40
			500461	Tt	1.70	198	20	73	71
				<b>% Diff</b>	<b>-61%</b>	<b>-64%</b>	<b>-65%</b>	<b>-59%</b>	<b>-44%</b>
LC-16-05	171	172	604953	SIL	18.55	2,460	190	881	2150
			500462	Tt	23.00	3,340	234	886	2670
				<b>% Diff</b>	<b>-19%</b>	<b>-26%</b>	<b>-19%</b>	<b>-1%</b>	<b>-19%</b>
LC-16-06	66	67	612229	SIL	14.90	1,815	44	105	146
			500463	Tt	0.04	537	62	108	150
				<b>% Diff</b>	<b>&gt;100%</b>	<b>&gt;100%</b>	<b>-29%</b>	<b>-3%</b>	<b>-3%</b>
LC-16-06	67	68	612230	SIL	0.02	5	8	17	40
			500464	Tt	0.01	6	9	15	47
				<b>% Diff</b>	<b>100%</b>	<b>-11%</b>	<b>-11%</b>	<b>13%</b>	<b>-15%</b>
LC-16-13	168	169	920833	SIL	3.58	249	18	46	102
			500465	Tt	5.74	269	21	53	109
				<b>% Diff</b>	<b>-38%</b>	<b>-7%</b>	<b>-14%</b>	<b>-13%</b>	<b>-6%</b>
LC-16-13	169	170	920834	SIL	0.47	62	17	36	101
			500466	Tt	0.10	14	9	36	93
				<b>% Diff</b>	<b>&gt;100%</b>	<b>&gt;100%</b>	<b>89%</b>	<b>0%</b>	<b>9%</b>

**Photo 11-1: Photo of Mineralized Zone in Hole LC-16-05; Includes the Independent QP Verification Samples 500460-500462 (SilverCrest samples 604951 to 604953, 169 to 172 m)**



### 11.1.3 Underground Stockpile Samples

Historical muck that has been stockpiled by SilverCrest in the Babicanora Adit, was sampled to verify reported grades. The samples were collected at two locations. The first sample location was at a draw point where coarse rock material in fist size grab sample was collected. This sample underrepresents bulk grade as the fine fragment portion was selectively omitted from the sample.

The second location was from the muck pile which has been created by SilverCrest using material from the draw points. Here, two samples were collected: one to represent to coarse fragment portion (fist size fragments), and a second sample represents the smaller fragment portion (gravels through to clays).

Sample descriptions and comparison between the analytical results reported by SilverCrest and the results of Independent QP's independent sample analysis are listed in Table 11-3. The results for the Independent QP check samples 500468 and 500469 have been averaged per proportional mass and compared to the composite sample collected by SilverCrest. It is acknowledged, that the proportion of 'coarse fraction' collected in sample 500468 in relation to the 'fine fraction' collected in sample 500469 is not representative of the actual fragment/grain size distributions with the muck. A further analysis of this was conducted and is presented in Section 11.1.4.

**Table 11-3: List of Verification Samples Collected by the Independent QP from Underground Stockpiles in the Babicanora Workings**

Location	Source	Sample ID	Comment	Au (gpt)	Ag (gpt)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Babicanora Draw point	SIL	612656	Composite sample collected by SilverCrest	1.29	122	32	81	123
	Tt	500467	Mixed, coarse and fine, qtz +/- silicified tuff fragments, stockwork-breccia	2.40	58	37	51	118
	% Diff			-46%	>100%	-14%	59%	4%
Babicanora stockpile in adit	SIL	16507	Composite sample collected by SilverCrest	3.44	213	39	39	64
	Tt	500468	Coarse fraction, green silicified tuff, prominent quartz, visible Ag-sulphides	30.00	689	113	186	340
	Tt	500469	Finer fraction, soft brown clayey-sand, with 10% qtz pebbles	5.97	372	74	115	182
	Tt	Average (by %mass)		20.53	564	98	158	278
	% Diff			-83%	-62%	-60%	-75%	-77%

### 11.1.4 Grain Size and Metal Distribution Testwork

For the purposes of verification and to develop insight into metal distribution in the various fragment/grain size fractions, the Independent QP requested that a grain size gradation test fine fragment sample collected in Babicanora (Tt sample number 500459). Screen sizes were set up to roughly separate cobbles, from sand from fines using a 12.5 mm screen and a 0.15 mm screen. The three size fractions were then submitted for metals analysis. The results of this testwork are summarized in Table 11-4.

**Table 11-4: Assay Results by Grain Size Distribution for Sample 500459**

Size Fraction	Mass (g)	Percentage	Au (gpt)	Ag (gpt)	Zn (ppm)	Pb (ppm)	Cu (ppm)	Al (pct)	Fe (pct)	Mn
+12.5 mm	896	25%	4.65	286	173	89	99	0.93	1.46	363
-12.5 mm, +150 um	2,275	64%	6.40	398	184	124	64	1.70	1.73	706
-150 um	45	1%	10.85	807	238	179	103	2.67	2.42	985
<b>Sum weights</b>	<b>3,216</b>	<b>90%</b>	<b>5.97</b>	<b>372</b>	<b>182</b>	<b>115</b>	<b>74</b>	<b>1.50</b>	<b>1.66</b>	<b>614</b>
Moisture content	344	10%								
Total sample weight	3,560	100%								

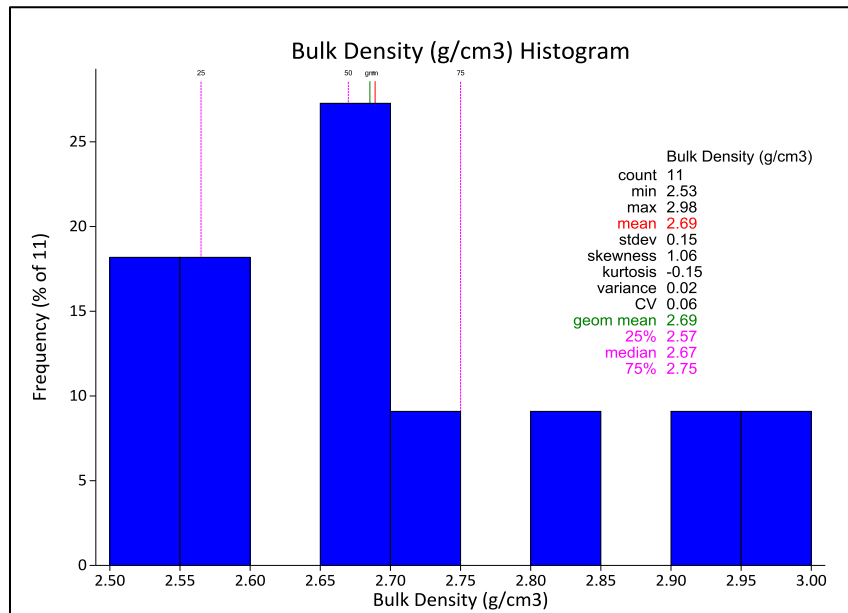
### 11.1.5 Bulk Density Testwork

The Independent QP requested that bulk density measurement using wax coating (OA-GRA09a) be performed on all samples except 500459. The results of the measurements are shown in Table 11-5 and show a mean value of 2.69 g/cm<sup>3</sup>. A histogram is provided in Figure 11-1 as a visual display of the distribution.

**Table 11-5: Results of Bulk Density Measurements**

Sample ID	Sample Weight (kg)	Bulk Density (g/cm <sup>3</sup> )
500458	0.22	2.98
500459	0.21	2.67
500460	0.16	2.8
500461	0.16	2.54
500462	0.17	2.57
500463	0.16	2.91
500464	0.15	2.56
500465	0.14	2.53
500466	0.17	2.67
500467	0.41	2.7
500468	0.36	2.65
<b>Mean</b>		<b>2.69</b>

**Figure 11-1: Histogram Plot of Bulk Density Measurements**



The measurements were compared with grade, and there does not appear to be an obvious relationship between bulk density and metal grade, however, this is not conclusive as the sample population is small.

### 11.1.6 Independent QP Verification Samples, Laboratory Analysis

All of the QP’s independent samples collected from the Las Chispas site were delivered to the ALS Chemex preparation facility in Hermosillo, Sonora, by the Independent QP. To be consistent with current SilverCrest analytical procedures, the same procedures were requested for the verification samples. The standard analytical procedures are as follows:



- All samples were received, registered, and dried;
- All samples were crushed to 70% <2 mm, then mixed and split with a riffle splitter;
- A split from all samples were then pulverized to 85% <75 µm;
- All pulverized splits were submitted for multi-element aqua regia digestion with ICP-MS detection (ME ICP41);
- All pulverized splits were submitted for gold fire assay fusion with AAS detection (30 g, Au AA25);
- Ore grade analysis is conducted on samples which return results at ICP-MS upper detection limits, per the following criteria:
  - Samples returning grades of >100gpt from ICP-MS analysis were then re-run using aqua regia digestion and ICP-AES detection, (Ag OG46) and diluted to account for ore grade detection limits;
  - Sample returning grades of >10gpt Au from ICP-MS were then re-run using fire assay fusion with gravimetric detection (Au GRA-21);
  - Samples returning grades of >10,000 ppm Zn, Pb or Cu from ICP-MS analysis were then re-run using aqua regia digestion with ICP-AES finish (Pb/Zn/Cu OG46);
- Ore grade analysis returning Ag grades of >1,500 Ag were then re-run again fire assay fusion with gravimetric detection (Ag GRA-21).

## 11.2 Phase II Independent QP Site Visit - January 15 to 19, 2017

---

A second site visit was completed by the Independent QP, James Barr, from January 15 to 19, 2017. The four-day site visit allowed for discussions with project geologists, a more thorough inspection of drill core to understand local stratigraphy, and more thorough inspection of the underground workings to understand various structural controls on mineralization across the Property. The inspections were not conducted as a strict verification of SilverCrest assay results.

A total of 33 samples were collected, as 22 from underground workings and 11 from drill core. The samples were collected by the Independent QP, bagged and delivered directly to the ALS preparation lab located in Hermosillo where the samples were weighted, crushed and pulverized prior to being shipped for analysis to the ALS Minerals Laboratory located in North Vancouver, British Columbia. The samples were submitted for 35 element trace geochemistry (aqua regia, ICP-AES), whole rock (fusion, XRF) and analysis of gold and silver by fire assay and gravimetric finish. Representative hand specimens of the samples were packaged in buckets and shipped to Tetra Tech's laboratory in Kelowna, British Columbia, for further inspection and preservation.

## 11.3 Phase II Independent QP Site Visit - November 21 to 22, 2017

---

A third site visit was conducted by the Independent QP, James Barr, from November 21 to 22, 2017. The two-day site visit included review of recent Phase II drill core and related assay results, review of on-site core handling and processing methods, and to view newly accessible portions of the underground workings at Las Chispas.

Three composite samples were collected and marked as "TTLC" from three drill holes to verify reported assay grades. Composites were prepared from consecutive samples which occurred within demarcated mineralized zones. Composite samples reduce the amount of local variability which can be observed in individual samples.

The samples were collected by the Independent QP, bagged and delivered directly to the ALS preparation lab located in Hermosillo where the samples were weighted, crushed and pulverized prior to being shipped for analysis to the ALS Minerals Laboratory located in North Vancouver, British Columbia. The samples were submitted for 35 element trace geochemistry (aqua regia, ICP-AES), whole rock (fusion, XRF), analysis of gold by fire assay (AAS finish), silver (aqua regia, ICP-AES), silver by fire assay (gravimetric finish), and bulk density.

The results of the verification sampling were compared using relative percent difference which showed good to excellent reproduction. Sample TTLC-02 did not reproduce the same concentration of gold as the SilverCrest sample, however, the magnitude of gold returned in the verification sample of 20.1 gpt Au was indicative of the high-grade gold reported by SilverCrest assays with value of 41.27 gpt Au. The verification samples are compared in Table 11-6, below.

**Table 11-6: Summary of Independent QP Verification Samples Collected November 2017**

Sample No.	Hole ID	Sample	From	To	Length	Au (ppm)	Ag (ppm)
SilverCrest	BA-17-42	125673	279.3	279.8	0.5	0.03	3
	BA-17-42	125675	279.8	280.45	0.65	8.03	787
	BA-17-42	125676	280.45	280.95	0.5	1.58	37
	Length Weighted Average					5.84	500
QP - Field Duplicate	Composite	TTLC11-01				5.34	478
<b>RPD (%)</b>						<b>8.9</b>	<b>4.5</b>
SilverCrest	LC-17-72	125846	115	115.8	0.8	74.08	2,312
	LC-17-72	125847	115.8	116.8	1	0.20	416
	Length Weighted Average					41.27	1516
QP - Field Duplicate	Composite	TTLC11-02				21.10	1620
<b>RPD (%)</b>						<b>64.67</b>	<b>6.6</b>
SilverCrest	BA-17-17	19171	274	275	1	14.75	182
	BA-17-17	19172	275	276	1	0.05	285
	Length Weighted Average					7.40	234
QP - Field Duplicate	Composite	TTLC11-03				3.31	546
<b>RPD (%)</b>						<b>76.4</b>	<b>0.01</b>
Standard CRM	n/a	CDN-ME-19	n/a	n/a	n/a	0.62 +/- 0.062	103 +/-7
QP - Field Duplicate		TTLC11-04				0.66	104
<b>RPD (%)</b>						<b>6.25</b>	<b>1.0</b>

### 11.3.1 Bulk Density Testwork

Using the samples collected during the November 2017 site visit, was coated bulk density tests were conducted at ALS prior to sample preparation and analysis. The results of the measurements are shown in Table 11-7 and show a mean value of 2.56 g/cm<sup>3</sup>.

**Table 11-7: Results of Bulk Density Measurements, November 2017**

Sample ID	Sample Weight (kg)	Bulk Density (g/cm3)
TTLC-01	2.74	2.59
TTLC-02	2.48	2.57
TTLC-03	1.50	2.52
<b>Mean</b>		<b>2.56</b>

## 11.4 Phase III QP Site Visit – Various dates in 2018

Several site visits were conducted by the QP, N. Eric Fier, from February 12 to September 13, 2018. Site visits included review of recent Phase III drill core and related assay results, the review of on-site core handling and processing methods, and review of newly accessible portions of the underground workings at Las Chispas.

Seventy-five (75) quarter-cut core samples were collected from 13 drill holes to verify reported assay grades. Samples were from demarcated mineralized zones.

The samples were collected by the QP, bagged and delivered directly to the ALS preparation lab located in Hermosillo where the samples were weighted, crushed and pulverized prior to being shipped for analysis to the ALS Minerals Laboratory located in North Vancouver, British Columbia. The samples were submitted for 35 element trace geochemistry (aqua regia, ICP-AES), whole rock (fusion, XRF), analysis of gold by fire assay (AAS finish), silver (aqua regia, ICP-AES), and silver by fire assay (gravimetric finish).

The results of the verification sampling were compared using relative percent difference which showed moderately low to high reproduction (Table 11-8). After review of the quarter-cut core results verses half-cut core results, it was determined that; 1) using quarter-cut verses half-cut core is not recommended with a range of variables, including size of sample, making comparisons unreliable, 2) this method of comparison did confirm a high-nugget effect, which is common for high-grade deposits. With the confirmation of a high-nugget effect, several analytical steps was implemented to determine the effects of larger samples for pulverizing, 250 grams increased to 500 grams, larger sample for fire assaying, 30 grams to 50 grams, and testing of metallic screen analysis verses gravity analysis.

**Table 11-8: Summary of Phase III Sample Analytical Results by Independent Lab**

Hole ID	Original Sample	From (m)	To (m)	Interval	Au Results			Ag Results		
					Au_orig	Au_dup	Au_RPD (%)	Ag_orig	Ag_dup	Ag_RPD (%)
					½ core	¼ core		½ core	¼ core	
BA-18-70	130306	446.5	447.2	0.70	0.05	0.07	33	5.0	1.5	108
	130308	447.2	448.0	0.80	0.10	0.05	67	2,670.0	1,290.0	70
	130309	448.0	448.6	0.60	0.71	0.57	22	77.0	69.7	10
	130302	444.1	444.6	0.50	0.05	0.05	0	5.0	0.8	145
	130303	444.6	445.5	0.85	0.05	0.05	0	5.0	0.4	170
	130304	445.5	446.0	0.50	0.05	0.05	0	5.0	0.7	151

**Table 11-8: Summary of Phase III Sample Analytical Results by Independent Lab**

Hole ID	Original Sample	From (m)	To (m)	Interval	Au Results			Ag Results		
					Au_orig	Au_dup	Au_RPD (%)	Ag_orig	Ag_dup	Ag_RPD (%)
					½ core	¼ core		½ core	¼ core	
	130305	446.0	446.5	0.50	0.05	0.05	0	5.0	0.6	157
	130310	448.6	449.7	1.15	0.05	0.05	0	5.0	1.4	113
	130311	449.7	450.2	0.50	0.05	0.05	0	6.0	1.0	143
	130312	450.2	450.8	0.55	0.05	0.05	0	5.0	1.0	133
	130313	450.8	452.1	1.35	0.05	0.05	0	5.0	2.1	82
	130315	452.1	452.8	0.65	0.05	0.05	0	5.0	1.0	133
BA-17-31	124549	313.7	314.2	0.45	0.20	0.05	120	398.0	376.0	6
	124550	314.2	314.8	0.60	5.75	2.87	67	505.0	349.0	37
	124551	314.8	315.4	0.65	25.70	33.40	26	1,405.0	841.0	50
	124552	315.4	316.8	1.35	0.67	0.34	65	163.0	156.0	4
	124553	316.8	317.5	0.70	0.05	0.05	0	111.0	66.3	50
	124554	317.5	318.3	0.85	0.05	0.05	0	78.0	149.0	63
UB-17-05	41488	7.7	8.7	1.00	0.51	1.99	118	79.0	50.3	44
	41489	8.7	10.0	1.25	18.75	7.69	84	360.0	131.0	93
	41490	10.0	10.6	0.68	4.63	1.04	127	2,560.0	396.0	146
	41491	10.6	11.7	1.02	0.24	0.05	131	48.0	33.5	36
	41492	11.7	12.7	1.00	0.05	0.05	0	75.0	16.6	128
	41493	12.7	13.4	0.70	0.05	0.05	0	40.0	16.2	85
	41494	13.4	14.5	1.10	4.69	4.29	9	103.0	134.0	26
BA-17-63	128766	468.2	468.7	0.54	0.05	0.05	0	83.0	94.0	12
	128768	468.7	471.3	2.51	72.50	59.40	20	1,800.0	1,945.0	8
	128769	471.3	473.3	2.00	1.57	8.97	140	164.0	1,245.0	153
LC-17-72	125846	115.0	115.8	0.80	92.60	25.90	113	2,890.0	1,440.0	67
	125847	115.8	116.8	1.00	0.20	2.31	168	416.0	363.0	14
	125848	116.8	117.5	0.70	0.05	0.10	67	6.0	10.5	55



**Table 11-8: Summary of Phase III Sample Analytical Results by Independent Lab**

Hole ID	Original Sample	From (m)	To (m)	Interval	Au Results			Ag Results		
					Au_orig	Au_dup	Au_RPD (%)	Ag_orig	Ag_dup	Ag_RPD (%)
					½ core	¼ core		½ core	¼ core	
	125849	117.5	118.0	0.50	0.17	0.05	109	39.0	55.4	35
	125850	118.0	119.0	1.00	0.05	0.05	0	33.0	16.5	67
GR-18-04	131437	133.3	133.8	0.50	0.79	1.07	30	123.0	128.0	4
	131439	133.8	134.3	0.50	47.50	54.20	13	5,620.0	5,890.0	5
	131440	134.3	134.8	0.50	0.20	0.07	96	17.8	12.9	32
	131441	134.8	135.3	0.50	0.05	0.05	0	1.7	1.3	27
BAN-18-02	132210	70.8	71.3	0.50	0.63	0.26	83	74.1	33.8	75
	132211	71.3	71.8	0.50	1.71	0.70	84	266.0	121.0	75
	132212	71.8	72.3	0.50	25.00	19.55	24	2,760.0	2,550.0	8
	132213	72.3	73.3	1.00	0.05	0.05	0	1.9	2.2	15
BA-18-77	130786	356.0	356.9	0.85	0.16	0.98	144	288.0	263.0	9
	130788	356.9	357.9	1.05	34.30	22.10	43	2,960.0	2,390.0	21
	130789	357.9	359.0	1.07	7.21	5.95	19	1,390.0	1,200.0	15
	130790	359.0	360.1	1.13	1.17	1.17	0	244.0	183.0	29
	130791	360.1	360.8	0.65	1.96	0.05	190	242.0	159.0	41
	130792	360.8	362.0	1.20	0.78	0.05	176	128.0	166.0	26
	130793	362.0	362.5	0.55	0.17	0.05	109	43.0	29.4	38
	130794	362.5	363.0	0.50	0.07	0.07	0	32.0	19.2	50
	130795	363.0	363.9	0.85	0.05	0.05	0	17.0	8.0	72
BA-18-65	128677	382.6	383.1	0.50	10.45	39.80	117	1,835.0	3,000.0	48
	128678	383.1	384.1	1.05	0.25	1.46	142	592.0	548.0	8
	128679	384.1	385.0	0.90	39.20	27.10	37	3,750.0	3,040.0	21
	128680	385.0	385.7	0.65	11.85	9.74	20	1,290.0	1,125.0	14
	128681	385.7	386.2	0.59	1.56	2.55	48	288.0	276.0	4
	128682	386.2	387.6	1.36	8.73	7.60	14	887.0	768.0	14

**Table 11-8: Summary of Phase III Sample Analytical Results by Independent Lab**

Hole ID	Original Sample	From (m)	To (m)	Interval	Au Results			Ag Results		
					Au_orig	Au_dup	Au_RPD (%)	Ag_orig	Ag_dup	Ag_RPD (%)
					½ core	¼ core		½ core	¼ core	
GR-18-13	425032	212.0	212.5	0.50	0.05	0.07	33	7.2	7.0	3
	425033	212.5	213.1	0.60	0.05	0.05	0	4.7	4.0	16
	425034	213.1	213.6	0.50	0.05	0.05	0	2.8	4.0	35
	425035	213.6	214.5	0.90	0.39	0.22	56	41.6	39.0	6
	425036	214.5	215.0	0.50	0.14	0.05	95	13.0	5.0	89
GR-18-14	425527	216.9	218.2	1.25	0.05	0.05	0	1.1	1.0	10
	425529	218.2	218.7	0.55	0.05	0.05	0	1.5	1.0	40
BA-18-72	130452	461.0	461.9	0.90	0.05	0.05	0	8.0	10.0	22
	130453	461.9	462.6	0.75	1.46	1.20	20	141.0	126.0	11
	130454	462.6	463.9	1.30	0.17	0.24	34	23.0	34.0	39
	130455	463.9	464.4	0.50	0.05	0.19	117	6.0	1.0	143
	130456	464.4	465.2	0.80	0.05	0.05	0	5.0	3.0	50
	130457	465.2	466.3	1.10	0.05	0.05	0	5.0	3.0	50
GR-18-18	427876	192.1	192.7	0.60	0.05	0.05	0	1.5	4.0	91
	427877	192.7	193.3	0.55	0.13	0.17	27	41.9	21.0	66
	427878	193.3	193.8	0.50	0.05	0.07	33	0.4	1.0	86
	427879	193.8	194.3	0.50	0.05	0.05	0	0.2	1.0	133
	427880	194.3	195.1	0.85	0.05	0.05	0	0.3	1.0	108
	427881	195.1	195.6	0.50	0.05	0.05	0	0.2	1.0	133
<b>Count</b>	<b>75</b>									
<b>Average</b>				<b>0.8</b>	<b>5.69</b>	<b>4.63</b>	<b>43.84</b>	<b>497.5</b>	<b>419.1</b>	<b>58.30</b>
<b>Min</b>				<b>0.5</b>	<b>0.05</b>	<b>0.05</b>	<b>0</b>	<b>0.20</b>	<b>0.40</b>	<b>3</b>
<b>Max</b>				<b>2.51</b>	<b>92.6</b>	<b>59.4</b>	<b>190</b>	<b>5,620.0</b>	<b>5,890.0</b>	<b>170</b>
<b>Average &gt;1 gpt Au or &gt;100 gpt Ag</b>				<b>0.94</b>	<b>19.90</b>	<b>14.80</b>	<b>56.00</b>	<b>1,175.0</b>	<b>994.0</b>	<b>37.00</b>

Note: Select samples had triplicate testing and most comparative used. “Orig” is Original ½ core sample, “Dup” is a duplicate of original using ¼ core sample. RPD is relative percent difference between original and duplicate sample.

## **11.5 QP Opinion on Data Verification**

---

An extensive dataset has been developed by SilverCrest for the Las Chispas Property which is saved and managed using a Geospark database. The QP has reviewed the data compilation and management procedures and has audited the Geospark database.

Based on the QP’s review of data compilation, management procedures, the results of the data audit and independent verification samples of drill core, underground channel samples and underground muck sample, the QP believes the data verification methods are adequate to support for mineral resource estimation, as used in this Technical Report.

## 12.0 MINERAL PROCESSING AND METALLURGICAL TESTING

In August 2017, nineteen (19) core samples from the Las Chispas and Babicanora areas were combined into three (3) representative bulk composites for metallurgical testing as follows;

- Composite 1 – Babicanora Vein near the defined top of the precious metal zone, approximately 50 m from surface. The sample included partly oxidized quartz veining, stockwork and breccia.
- Composite 2 – Babicanora Vein near the defined bottom of the precious metal zone, approximately 220 m from the surface. The sample included partly oxidized quartz veining, stockwork, breccia and visible sulfides.
- Composite 3 – Las Chispas & Giovanna Veins near the center of the known high-grade mineralization, approximately 175 m from surface and near historic underground workings. The sample included quartz veining and stockwork with visible argentite (silver sulphide).

Location and analytical results for the core used in composites are presented in the following Table 12-1:



**Table 12-1: List of Drill Core Samples used for Metallurgical Testwork Bulk Composite Sample**

Composite ID	Location	Hole ID	Sample ID	From	To	Interval	Au ppm	Ag ppm	Cu ppm	Pb ppm	Zn ppm	Ba ppm	Ca %	Cd ppm	Fe %	Mn ppm	S %	Sb ppm
1	Babicanora	UB-17-09	46897	70.2	71.7	1.5	0.05	218.0	14.0	9.0	86.0	40.0	0.5	0.6	1.1	356	0.0	2.0
1	Babicanora	UB-17-09	46898	71.7	73.5	1.8	0.09	321.0	28.0	24.0	46.0	40.0	0.7	1.0	1.0	279	0.0	5.0
1	Babicanora	UB-17-09	46899	73.5	75.6	2.0	3.11	87.0	50.0	70.0	49.0	20.0	1.9	3.9	0.9	78	0.0	5.0
1	Babicanora	UB-17-09	46900	75.6	77.8	2.3	10.80	181.0	74.0	127.0	158.0	40.0	1.7	0.7	0.9	635	0.0	2.0
2	Babicanora	UB-17-11	13137	89.3	89.8	0.6	0.10	221.0	73.0	83.0	76.0	500.0	0.1	<0.5	0.9	189	0.0	19.0
2	Babicanora	UB-17-11	13138	89.8	90.3	0.6	12.55	853.0	133.0	122.0	106.0	220.0	0.1	<0.5	0.7	171	0.0	10.0
2	Babicanora	UB-17-11	13139	90.3	90.9	0.6	12.60	1,590.0	161.0	185.0	186.0	330.0	0.1	<0.5	0.9	255	0.0	6.0
2	Babicanora	UB-17-11	13140	90.9	91.9	1.0	4.33	279.0	31.0	47.0	93.0	20.0	0.1	<0.5	0.7	137	0.0	6.0
3	Las Chispas	LC-16-08	905684	171.0	172.0	1.0	2.39	271.0	36.0	84.0	88.0	20.0	0.7	0.6	2.8	841	1.6	23.0
3	Las Chispas	LC-16-08	905685	172.0	173.0	1.0	0.88	137.0	33.0	120.0	57.0	50.0	1.5	0.5	2.0	1,060	1.1	13.0
3	Las Chispas	LC-16-08	905686	173.0	174.0	1.0	0.05	6.6	22.0	25.0	39.0	30.0	0.9	<0.5	1.9	793	1.2	2.0
3	Las Chispas	LC-16-08	905687	174.0	175.0	1.0	2.29	323.0	27.0	239.0	280.0	30.0	0.4	1.7	2.2	1,500	1.0	10.0
3	Las Chispas	LC-16-08	905688	175.0	176.0	1.0	5.62	644.0	37.0	921.0	927.0	100.0	1.1	5.8	2.4	1,450	1.4	24.0
3	Las Chispas	LC-16-08	905689	176.0	177.0	1.0	0.01	1.5	2.0	17.0	27.0	50.0	0.4	<0.5	1.1	447	0.6	<2.0
3	Las Chispas	LC-16-08	905690	177.0	178.0	1.0	0.01	1.0	3.0	15.0	26.0	130.0	0.5	<0.5	1.2	452	0.8	<2.0
3	Las Chispas	LC-16-08	905691	178.0	179.0	1.0	0.37	60.9	8.0	50.0	46.0	70.0	0.4	<0.5	1.4	497	0.7	2.0
3	Las Chispas	LC-16-08	905692	179.0	180.0	1.0	0.36	53.1	6.0	43.0	57.0	110.0	1.5	<0.5	1.3	922	0.4	2.0
3	Las Chispas	LC-16-08	905693	180.0	181.0	1.0	0.17	28.4	6.0	28.0	51.0	110.0	0.5	<0.5	1.4	526	0.5	<2.0
3	Las Chispas	LC-16-08	905694	181.0	182.0	1.0	14.40	1,900.0	88.0	1,465.0	1,600.0	130.0	0.6	11.8	1.5	492	1.0	25.0

Metallurgical testwork, including geochemical analysis, was completed by SGS Mineral Services in Durango, Mexico. Criteria for testing included standard bottle rolls using the following common processing parameters:

- 85% passing 150 mesh,
- pH 11-11.5,
- 48% solids, and
- Retention time of 50 hours.

The following Table 12-2 summarizes initial metallurgical test results for Las Chispas:

**Table 12-2: Initial Metallurgical Test Results for Las Chispas**

Sample ID	Assay Head Au g/t	Assay Head Ag g/t	Head Calculated Au g/t	Head Calculated Ag g/t	% Recovery Gold	% Recovery Silver
Composite 1 (oxide)	3.61	180.0	3.66	203.4	99.2	77.8
Composite 2 (mixed)	6.19	500.0	5.63	552.7	98.6	85.9
Composite 3 (sulfide)	2.95	274.0	2.15	295.0	99.1	96.2
Average	4.25	318.0	3.81	350.3	98.9	86.6

Note: all numbers are rounded.

NaCN consumption rates averaged 1.5 Kg/t and CaO consumption rates averaged 1.4 Kg/t. The NaCN consumption rate is similar to that at Santa Elena, while the CaO rate is marginally lower at Santa Elena (“Update to Santa Elena Pre-Feasibility Study” dated December 31, 2014, available under First Majestic Silver Inc.’s SEDAR profile). Lead nitrate and oxygen were also applied in the testing at the equivalent rates used at Santa Elena.

Further metallurgical testing is recommended to increase sample distribution and confidence for continuing studies.

## 13.0 MINERAL RESOURCE ESTIMATES

There is no historical mineral resource estimate for the Las Chispas Property. To SilverCrest's knowledge, they were the first company to have drilled the district-wide mineralized trend. Two mineral resource estimates are presented in this report; an updated estimate for vein material, and the estimate for stockpiled mineralized material on surface from historical operations. The comparison of the February 2018 Maiden Resource Estimate to the September 2018 Updated Mineral Resource Estimate is stated in the following table.

**Table 13-1: Maiden vs. Updated Resource Comparison**

Resource Category <sup>(1)</sup>	Tonnes (M)	Au gpt	Ag gpt	AgEq <sup>(2)</sup> gpt	Contained Au Ounces	Contained Ag Ounces	Contained AgEq <sup>(2)</sup> Ounces
February 2018 Resource	3.4	3.63	296.0	568	401,600	32,675,600	62,826,100
Includes*	1.0	7.43	469.0	1,026	231,000	14,581,000	32,247,000
September 2018 Resource	4.3	3.68	347.0	623	511,500	48,298,700	86,701,200
Includes**	1.6	6.97	568.5	1,091	359,900	29,343,600	56,333,400

\* Includes Area 51 resource estimation.

\*\* Includes Area 51 and adjacent Babicanora Norte resource estimation.

<sup>(1)</sup> Conforms to NI 43-101, Companion Policy 43-101CP, and the Canadian Institution of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.

<sup>(2)</sup> AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

<sup>(3)</sup> All numbers are rounded.

<sup>(4)</sup> There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.

### 13.1 Basis of Current Mineral Resource Estimate

Mineral resource estimates have been prepared for intact vein hosted material at the Babicanora, Babicanora Norte, Granaditas, Las Chispas, William Tell, Luigi and Giovanni Veins as potential underground narrow vein mining targets. Vein models were constructed by SilverCrest using Aranz Leapfrog Geo v.4.3 and the majority of the veins were constrained to a minimum thickness of 1.5 m. Block models were constructed using Geovia GEMS v.6.7.4. Data was reviewed by the QP in Geovia GEMS v.6.7.4. Further details on development of the block models and vein resources are included in Section 13.2 below.

Mineral resource estimates have also been prepared for surface stockpiled material remaining from historical operations as waste dumps, waste tailings deposits and as recovered underground muck material. A total of 41 material stockpiles were mapped, surveyed and sampled by SilverCrest between July 2017 and January 2018. The stockpiles are easily accessible by site roads. Further details on development of the stockpile resources are included in Section 13.3 below.

## 13.2 Vein Models

---

### 13.2.1 Geological Interpretation for Model

Mineral resource estimates have been prepared for multiple areas located on Las Chispas Property. Each area is considered to be part of the same regional mineralizing system, however, each are characterized by local variation in mineralization and dimensions. These areas are described further in Section 6.2.5 and are summarized below.

#### 13.2.1.1 Babicanora

The Babicanora Vein include the Babicanora Vein, Babicanora Footwall Vein and the Babicanora Hangingwall Vein. The Babicanora Vein is transected by a cross-cutting 220° directed faults which divide the vein into three distinct zones of mineralization that include Central Babicanora, Silica zone and Area 51 zone (Figure 13-1).

The veins are hosted within a structural zone oriented variably between 140° - 150° azimuth and with inclination of approximately 65° to the southwest. The Babicanora Vein has been intersected by drilling over a strike length of approximately 1.5 km and to a depth of approximately 350 m from the valley bottom (approximately 1,150 masl), or 500 m from the outcrop along the ridge slope (approximately 1,300 masl). This vein was modelled using only drilling intercepts with elevated Ag and Au grades with a minimum downhole width of 1.5 m, and resulted in an estimated average true thickness of 3.0 m. The Babicanora Vein was also manually clipped to better represent the trend of the mineralization until further drilling gives confidence that this mineralization continues toward surface.

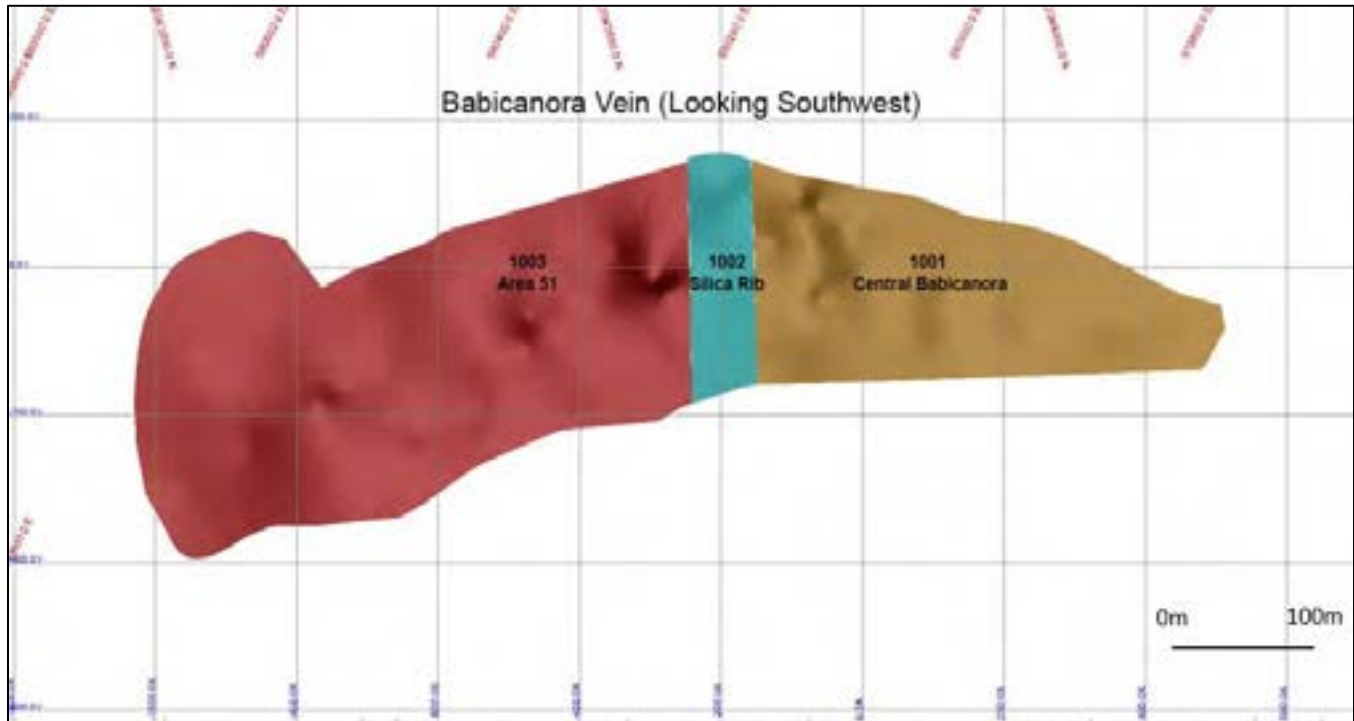
The Babicanora Footwall Vein is sub-parallel to the Babicanora Vein. This vein is approximately 30 m north of the Babicanora Vein in the northwestern part of the area. The vein appears to intersect the Babicanora Vein near Area 51 and has been intercepted by drilling over a strike length of 500 m and down to approximately 250 m below valley bottom (Figure 13-2).

The Babicanora Hangingwall Vein has been identified by drilling over a strike length of 900 m and down to 100 m below the valley bottom (Figure 13-3).

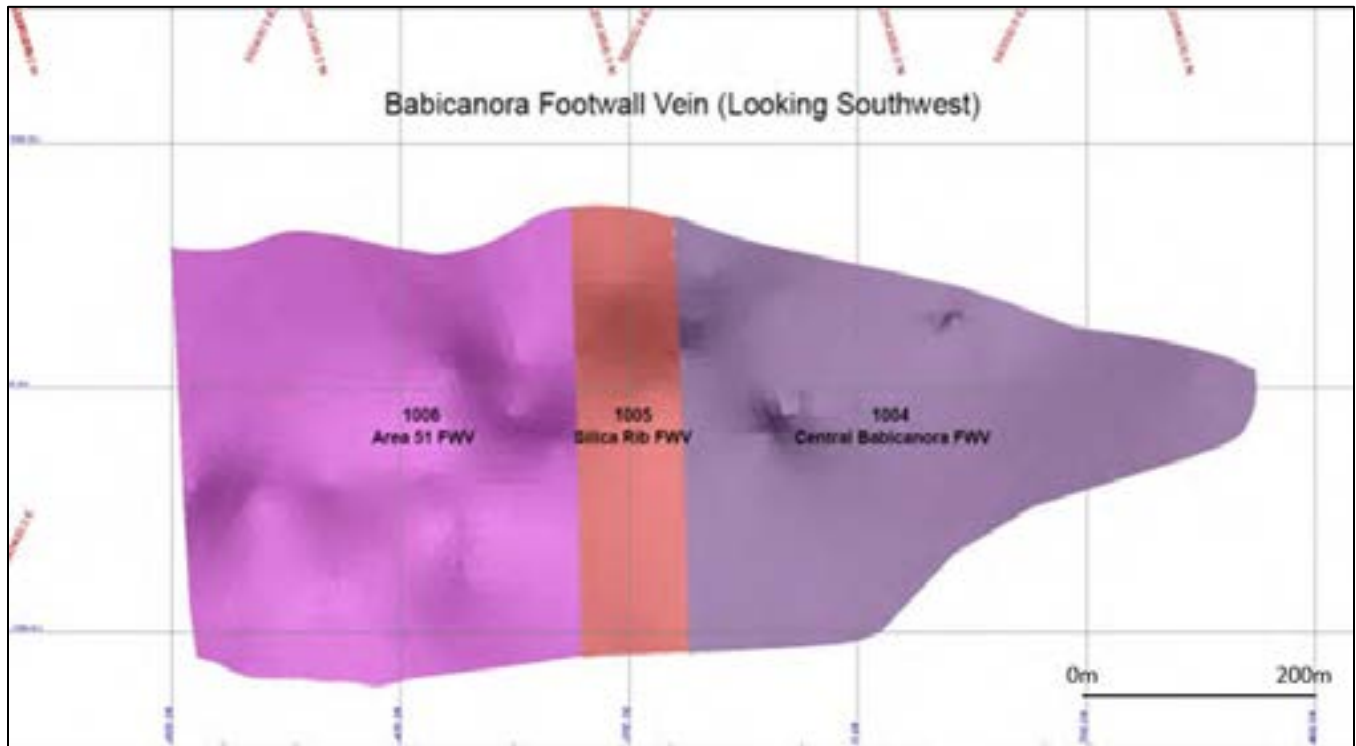
Areas of known historical workings are located in the northwest portion of the Babicanora Vein and Babicanora FW Vein and have been mapped by SilverCrest. These excavations have been excluded from the vein model based on void intercepts logged from surface drilling and positioning of underground drilling.



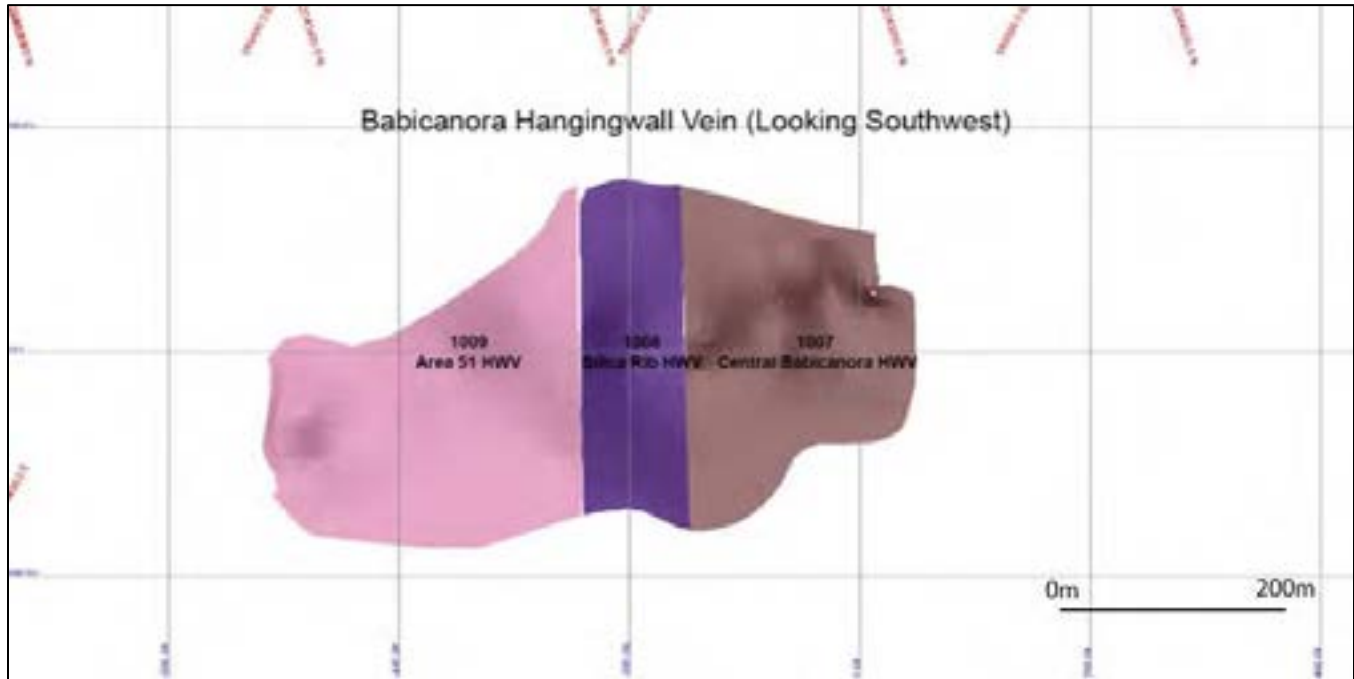
**Figure 13-1: Long Section of the Babicanora Vein Illustrating Three Zones of Modelled Mineralization with Associated Rock Codes**



**Figure 13-2: Long Section of Babicanora FW Vein Illustrating Three Zones of Modelled Mineralization with Associated Rock Codes**



**Figure 13-3: Long Section of Babicanora HW Vein Illustrating Three Zones of Modelled Mineralization with Associated Rock Codes**

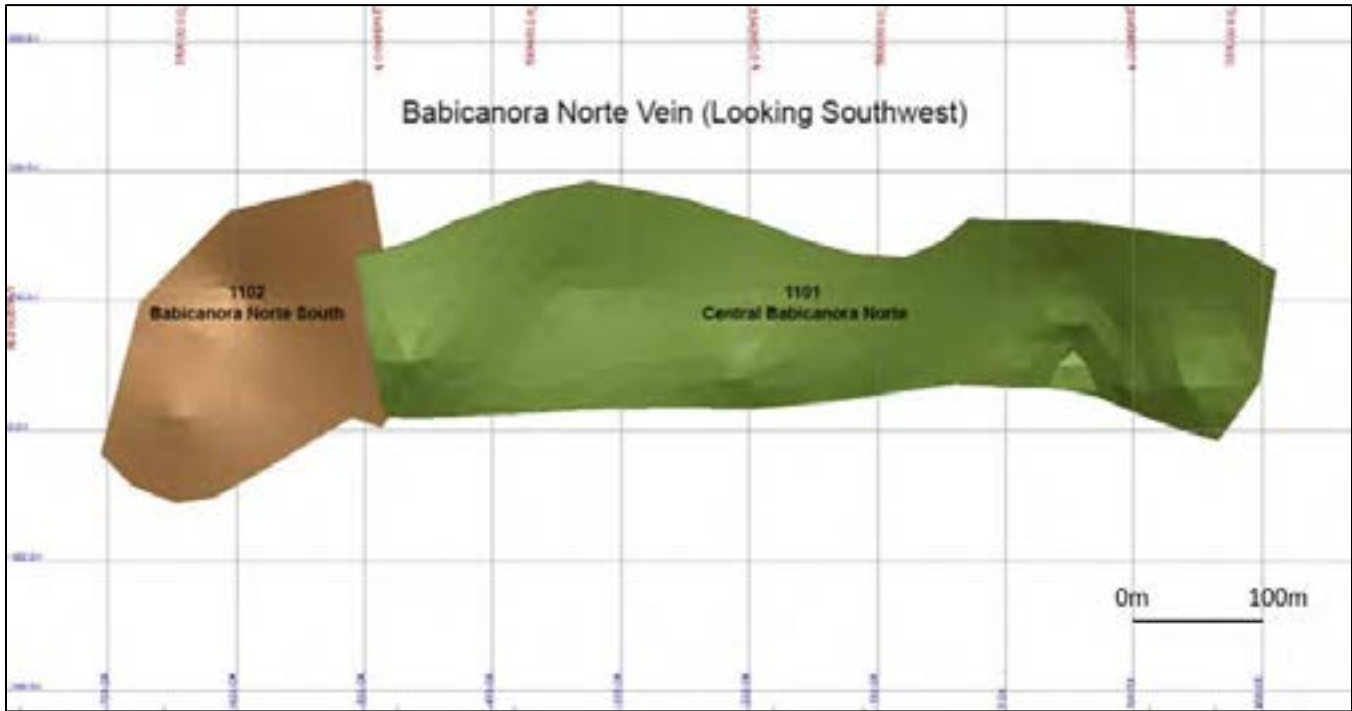


### 13.2.1.2 Babicanora Norte

The Babicanora Norte Vein includes the central and southern portion of the vein. The Babicanora Norte Vein is transected by a cross-cutting 220° directed faults which divides the vein into two zones, Babicanora Norte Central and Babicanora Norte South and off sets the southern portion 100m laterally (Figure 13-4).

The vein is hosted within a structural zone with variable orientation between 130° – 150° azimuth and with an inclination of approximately 60° to the south west. The Babicanora Norte Vein has been intersected by drilling over a strike length of approximately 900 m and to a depth of approximately 250 m from the valley bottom (approximately 1,150 masl), or 400 m from the outcrop along the ridge slope (approximately 1,300 masl). This vein was modelled using only drilling intercepts with elevated Ag and Au grades with a minimum downhole width of 1.5 m and resulted in an estimated average true thickness of 1.5m.

**Figure 13-4: Long Section of Babicanora Norte Vein Illustrating Two Zones of Modelled Mineralization with Associated Rock Codes**



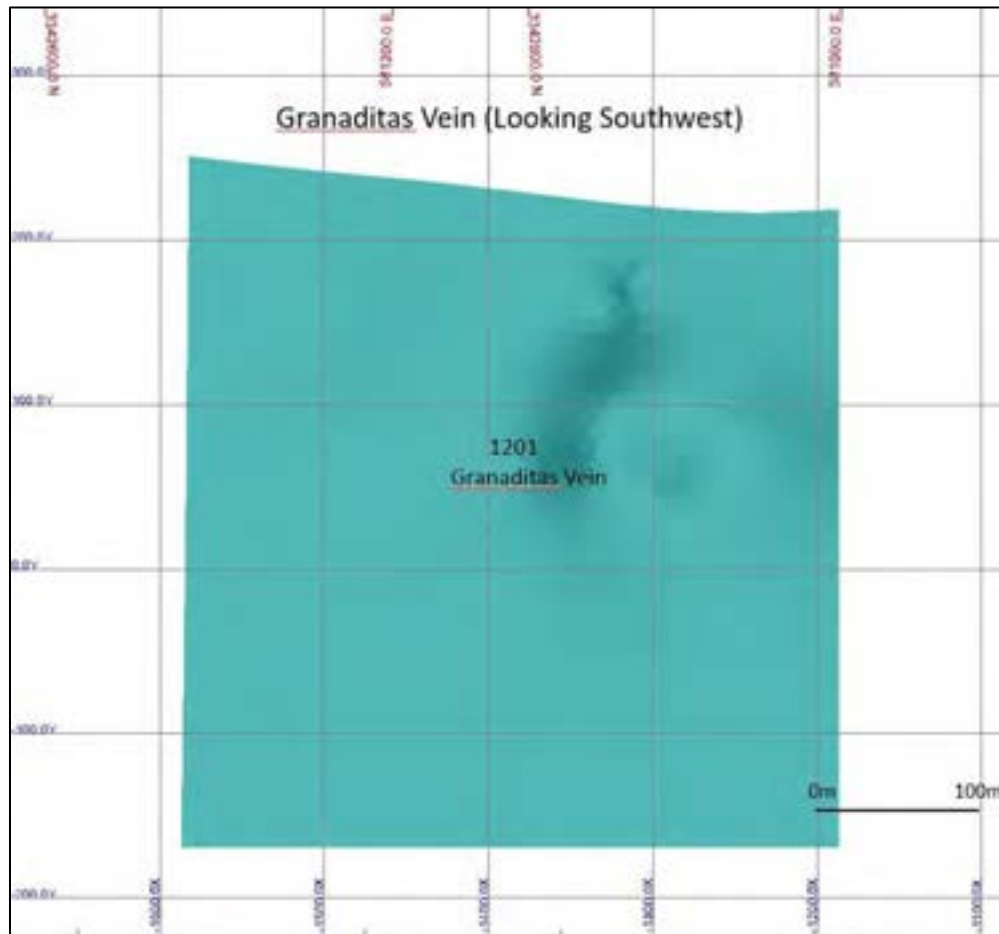
### 13.2.1.3 Granaditas

The Granaditas Vein is transected by a cross-cutting 220° directed faults which have displaced the northern section of the vein. This fault is a hard boundary and cuts the solid off to the northwest (Figure 13-5).

The vein is hosted within a structural zone oriented at a 130° azimuth and with a near vertical inclination. The Granaditas Vein has been intersected by drilling over a strike length of approximately 350 m and to a depth of approximately 200 m from the valley bottom (approximately 1,150 masl), or 350 m from the outcrop along the ridge slope (approximately 1,300 masl). This vein was modelled using only drilling intercepts with elevated Ag and Au grades with a minimum downhole width of 1.5 m and resulted in an estimated average true thickness of 1.5m.



**Figure 13-5: Long Section of Granaditas with Associated Rock Code**



### 13.2.1.4 Las Chispas

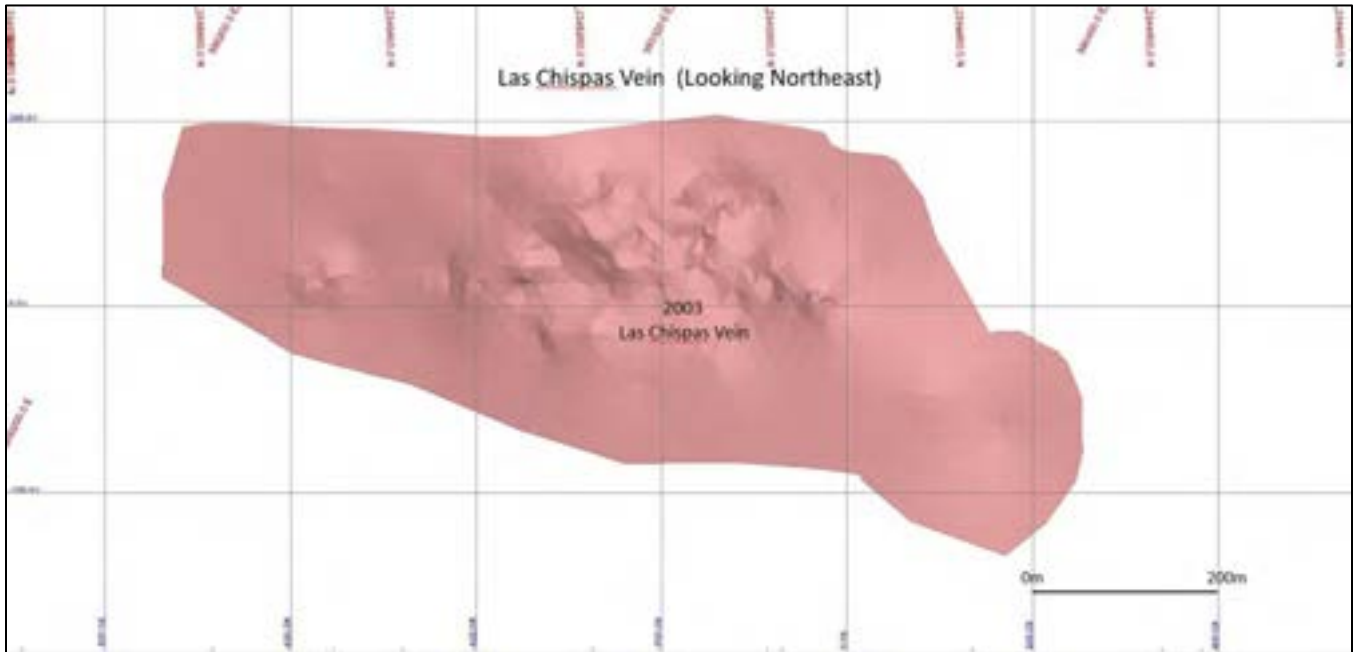
Extensive underground rehabilitation has enabled SilverCrest access to the historical workings for mapping and sampling over one kilometre of strike length and over 300 m of vertical elevation. Drilling has intersected the vein down to 350 m depth from valley bottom (approximately 990 masl), or 560 m depth from outcrop along the ridge crest (approximately 1200 masl). The vein was modelled using drilling intercepts with elevated Ag and Au grades, and underground sampling and mapping to have a minimum downhole width of 1.5 m and resulted in an average estimated true thickness of 1.5 m (Figure 13-6).

The vein is hosted within a structural zone with variable orientation between 140° - 150° azimuth and with inclination of approximately 70° to the southwest and is cross-cut by 220° faults that appear to control high grade mineralization. The Las Chispas Vein has been mapped with various splays and anastomosing structures, however, has been modelled as a single continuous vein solid respecting drill hole intersections and underground sampling where possible as the basis for mineral resource estimation.

Some manual adjustments were required to reconcile vein contacts interpreted from underground sampling with the vein contacts delineated by drilling due to a slight shift identified in the underground surveying. The resulting vein model will require correction to the surveying before the vein is ready for detailed mine planning, however, is believed to be suitable for initial estimation of mineral resources.

Portions of the vein with known historical workings were removed from mineral resource estimate following grade interpolation. These stoped areas are located throughout the Las Chispas Vein from surface (0 Level) to depth of at least 1,000 Level, and total approximately 62,923 cubic metres excluding drifts, cross-cuts and sumps, based on the void model. The mineral resource estimate was limited to data collected from the 900 Level (approximately 900 masl) and above.

**Figure 13-6: Long Section of Las Chispas with Associated Rock Code**

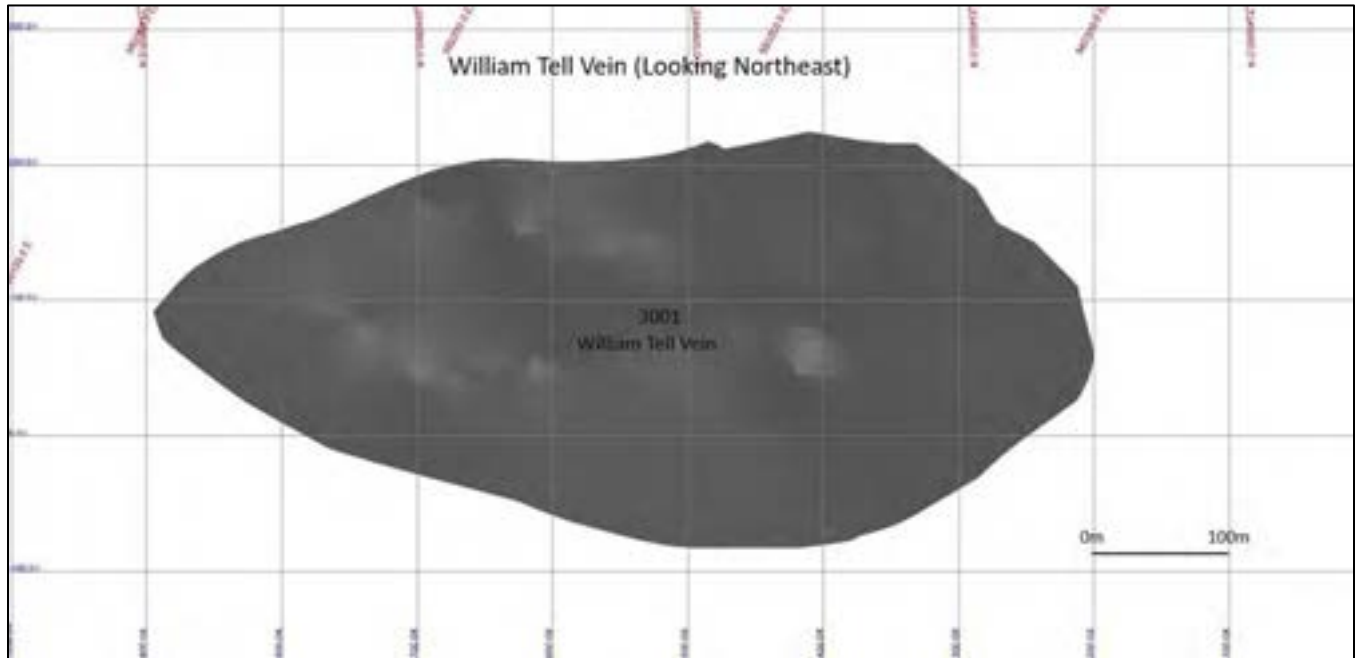


### 13.2.1.5 William Tell

The William Tell Vein is located 115 m to the west, and is oriented subparallel to the Las Chispas Vein. The William Tell Vein has been modelled as a single continuous vein solid approximately 600 m along strike and to depth of approximately 100 m below valley bottom (approximately 990 masl), or 300 m below outcrop along the ridge crest at approximately 1,200 masl (Figure 13-7).

This vein was modelled using drill hole intersections with elevated Ag and Au grades, and limited underground mapping and sampling data to have a minimum and an estimated average width of 1.2 m. Historical workings exist within the northwestern portion of the vein. Portions of the vein with known historical workings were removed from mineral resource estimate following grade interpolation.

**Figure 13-7: Long Section of William Tell with Associated Rock Code**



#### **13.2.1.6 Giovanni, La Blanquita and Gio Mini**

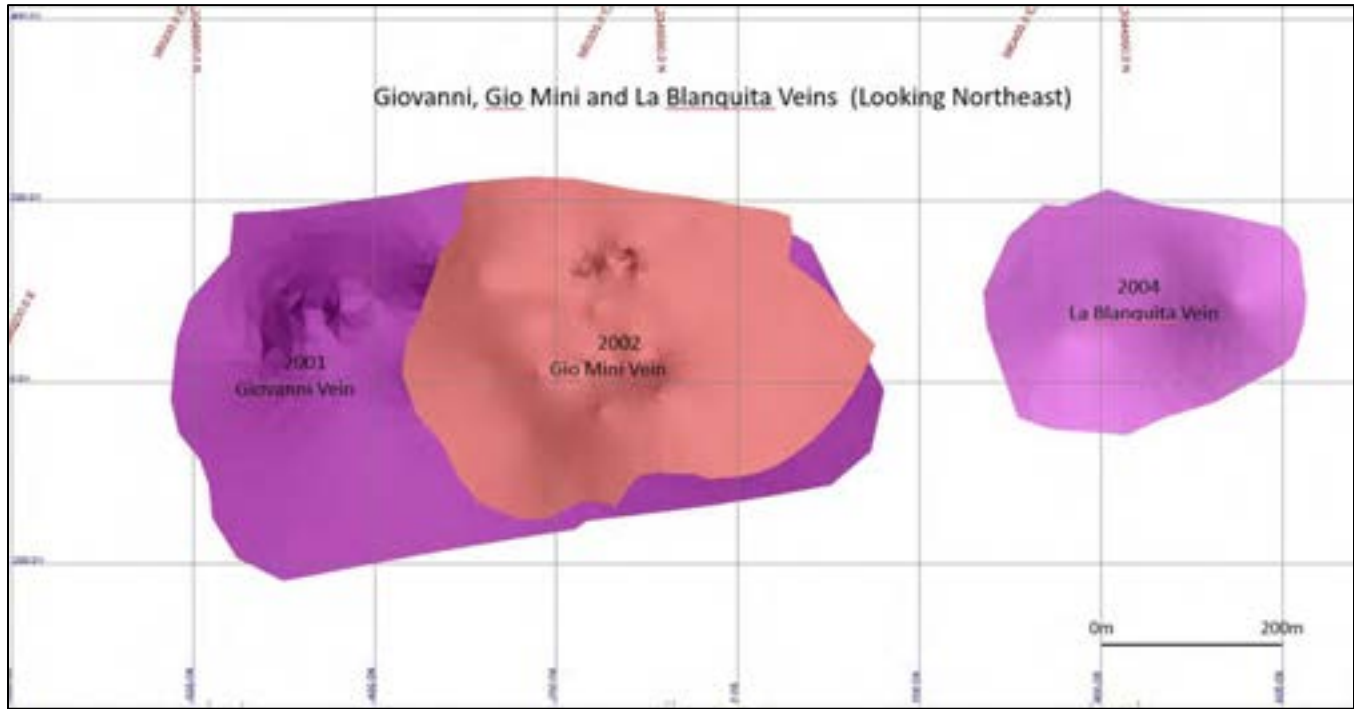
The Giovanni Model Vein includes the Giovanni, Giovanni Mini and La Blanquita Veins. The Giovanni Mini Vein is located in the hangingwall and is parallel to the Giovanni Vein (Figure 13-8).

The Giovanni Vein was modelled using drill hole intersections, and limited underground mapping and sampling data to have a minimum downhole width of 1.5 m and resulted in an estimated average true width of 1.8 m, strike length of approximately 700 m and depth of 100 m below valley bottom (approximately 990 masl), depth of 300 m from outcrop along the ridge crest (approximately 1,200 masl). The vein strikes at approximately 120° degrees azimuth and is subvertical to slightly incline with east facing dip of 85 degrees. Historical workings exist within the northwestern portion of the vein, and these volumes were removed following grade interpolation.

The Giovanni Mini Vein was modelled using drill hole intersections with elevated Ag and Au grades with an estimated average true width of 1.2 m, strike length of approximately 530 m and depth of 100 m below valley bottom (approximately 990 masl), depth of 300 m from outcrop along the ridge crest (approximately 1,200 masl). The vein is approximately parallel to the Giovanni Vein.

The La Blanquita Vein is located approximately 300 m to the south of the Giovanni Vein with strike of approximately 130° azimuth and slight inclination of 85 degrees to the west. It may represent the continued trend of the Giovanni Vein; however, more work is required to support geological continuity between these mineralized areas. The vein was modelled using only drill whole intersections with elevated Ag and Au grades to have a minimum downhole width of 1.5 m and an estimated average true thickness of 1.6 m. The vein model strikes approximately for approximately 300 m.

**Figure 13-8: Long Section of Giovanni, La Blanquita and Giovanni Mini Illustrating Zones of Modelled Mineralization with Associated Rock Codes**



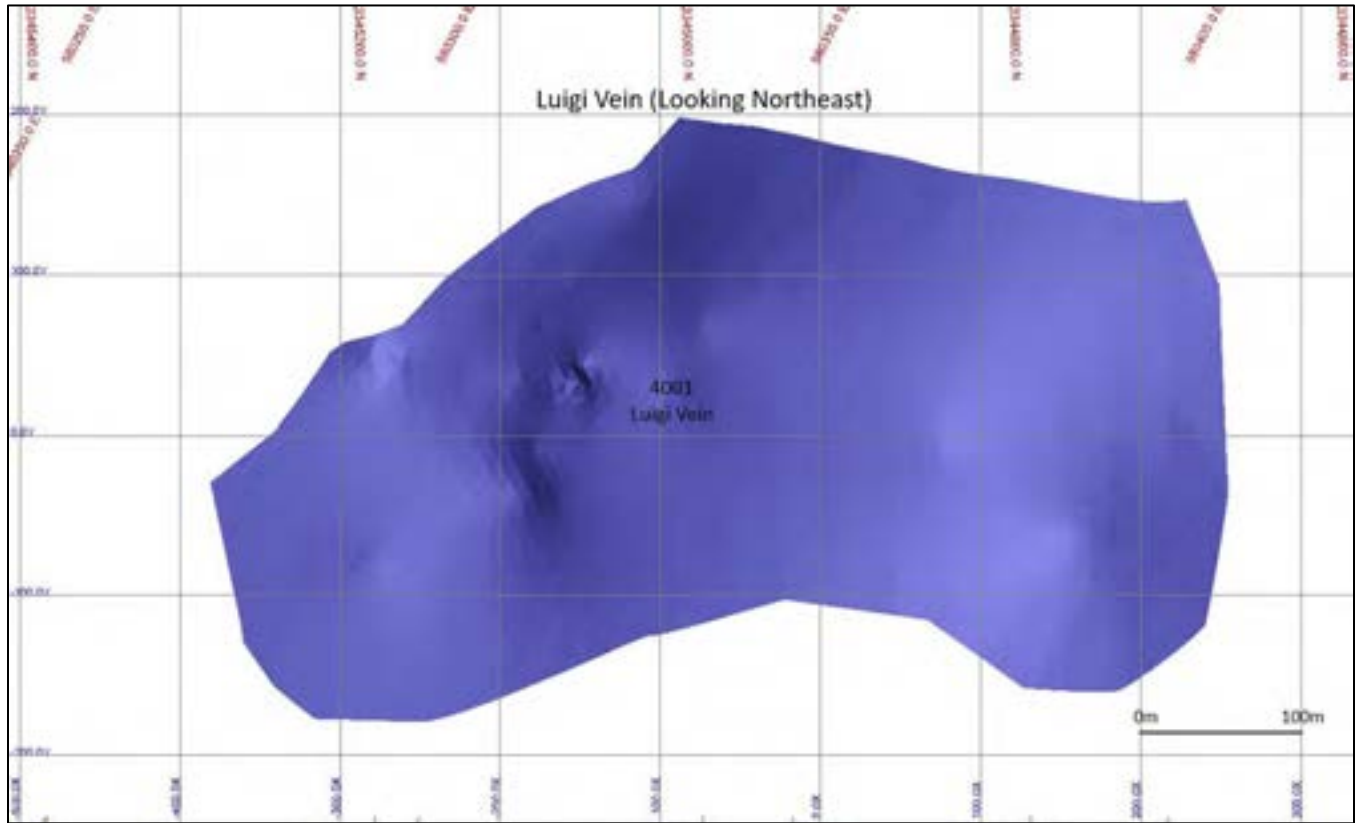
### 13.2.1.7 Luigi

The Luigi vein is located 45 m to the east, and sub-parallel, to the Las Chispas Vein. The Luigi Vein has been modelled as a single continuous solid approximately 650 m along strike and depth of 100 m below the valley bottom (approximately 990 masl), depth of 400 m from outcrop along the ridge crest at approximately 1,200 masl (Figure 13-9).

This vein was modelled using only drilling intercepts with elevated Ag and Au grades with a minimum downhole width of 1.5 m, and resulted in an average true thickness of 1.7 m. There have been no historical workings found to date on the Luigi Vein.



**Figure 13-9: Long Section of Luigi Vein Illustrating Modelled Mineralization with Associated Rock Code**



## 13.2.2 Input Data and Analysis

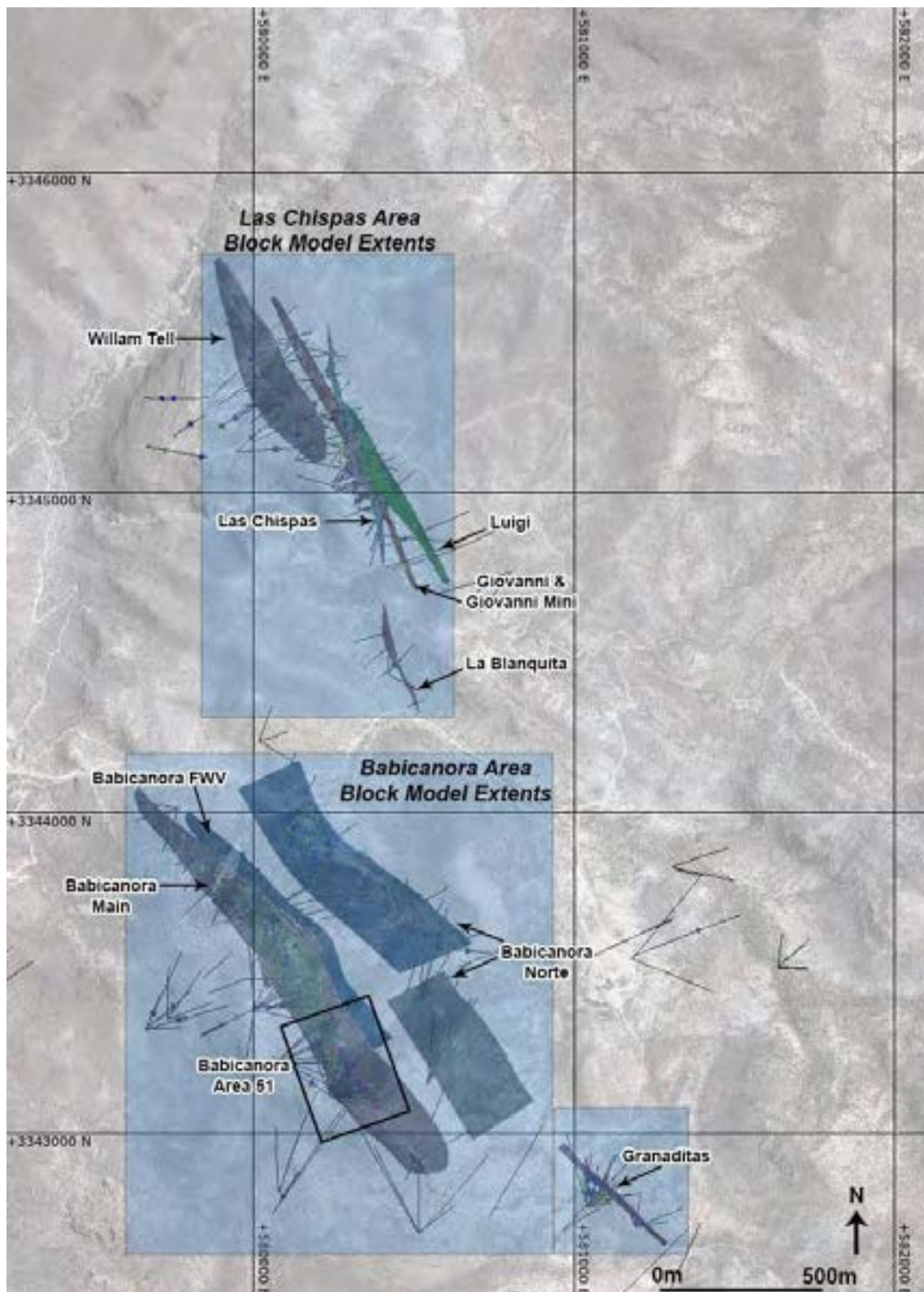
### 13.2.2.1 Database

Data is managed by SilverCrest using Geospark, a relational database designed for collection of exploration information, drill logs, assay and QAQC results. The database can be accessed by multiple users, however, is generally administered by one user.

The current mineral resource estimate has been based on information collected from surface and underground geological mapping, 1,318 one (1) m samples taken from drill holes, 2,652 underground exploration channel samples, and 1,340 surface stockpile samples collected by SilverCrest since project inception in March 2016. All data received by SilverCrest up to and including the Effective Date of September 13, 2018, has been incorporated into the mineral resource estimate. The locations of the blocks models are shown in Figure 13-10.

Summarized descriptive geostatistics for each of the input files used for interpolation of grade into the block model are shown in Table 13-2 below. Where underground and drilling data exists.

**Figure 13-10: Plan Map Showing Location of Block Models and Veins Modelled for Mineral Resource Estimation**



**Table 13-2: Summary of Basic Statistics for Input Composite Data Used for Block Model Interpolation**

Table	n	Au				Ag			
		Mean	Var	SD	CoV	Mean	Var	SD	CoV
Babicanora, DH	309	3.93	124.9	11.17	2.84	341	611,867	782	2.3
Babicanora FW, DH	191	0.76	21.1	4.59	6.02	68	75,929	275	4.1
Babicanora HW, DH	119	0.24	0.3	0.52	2.16	47	4,415	66	1.4
Granaditas, DH	64	0.77	4.9	2.20	2.86	53	41,968	205	3.8
Babicanora Norte, DH	73	5.17	416.1	20.39	3.95	381	1,371,610	1,171	3.1
Giovanni, DH	152	1.28	19.6	4.42	3.44	156	129,354	360	2.3
Giovanni, UG	434	0.83	3.0	1.70	2.10	135	73,706	271	2.0
Giovanni, ALL	586	0.95	7.3	2.71	2.85	141	88,223	297	2.1
Giovanni Mini, DH	97	0.37	0.6	0.78	2.10	45	7,449	86	1.9
La Blanquita, DH	15	0.74	1.7	1.30	1.70	152	80,911	284	1.9
GIO, GIOmini, La Blanquita, ALL	698	0.86	6.3	2.51	2.91	128	77,952	279	2.2
Luigi, DH	61	0.69	3.7	1.91	2.76	87	58,373	242	2.8
Las Chispas, DH	174	1.79	143.0	11.98	6.70	201	1,422,142	1,193	5.9
Las Chispas, UG	1887	1.45	15.0	3.93	2.70	212	261,712	512	2.4
Las Chispas, ALL	2050	1.42	18.0	4.19	3.00	205	275,960	525	2.6
William Tell, DH	63	0.45	1.0	1.00	2.20	98	47,659	218	2.2
William Tell, UG	331	1.77	16.0	4.04	2.30	165	113,793	337	2.1
William Tell, ALL	394	1.56	14.0	3.75	2.40	154	103,821	322	2.1

A total of 14 drill holes have been omitted from the from the mineral resource estimate. These holes are listed in Table 13-3 with description for why they were omitted.

**Table 13-3: List of Drill Holes Omitted from the Mineral Resource Estimation Database**

Hole	SilverCrest Comment
LC-17-29A	LC-17-29A – same hole as 29 just had to re-enter 29 and re-started as 29A
LC-17-67	LC-17-67 – not sampled
LCU-17-07	LCU-17-07 – its 07A
LCU-17-10	LCU-17-10 – stopped at 5 m due to cave on top of drill. 10A lost hole before target
UB-17-01A	Displacement, bad survey
UB-16-02	Issues with drilling and did not go through the vein
BA-17-09	Ignored because it was deviated and completed before hitting the vein
BA-17-21	Issues with drilling and did not go through the vein
BA-17-38	Drilled voids, more drilling needs to be in area to include
BA-17-59	The continuation for reaching the vein is 59A
BA-18-75	The continuation for reaching the vein is 75B

### 13.2.2.2 Compositing

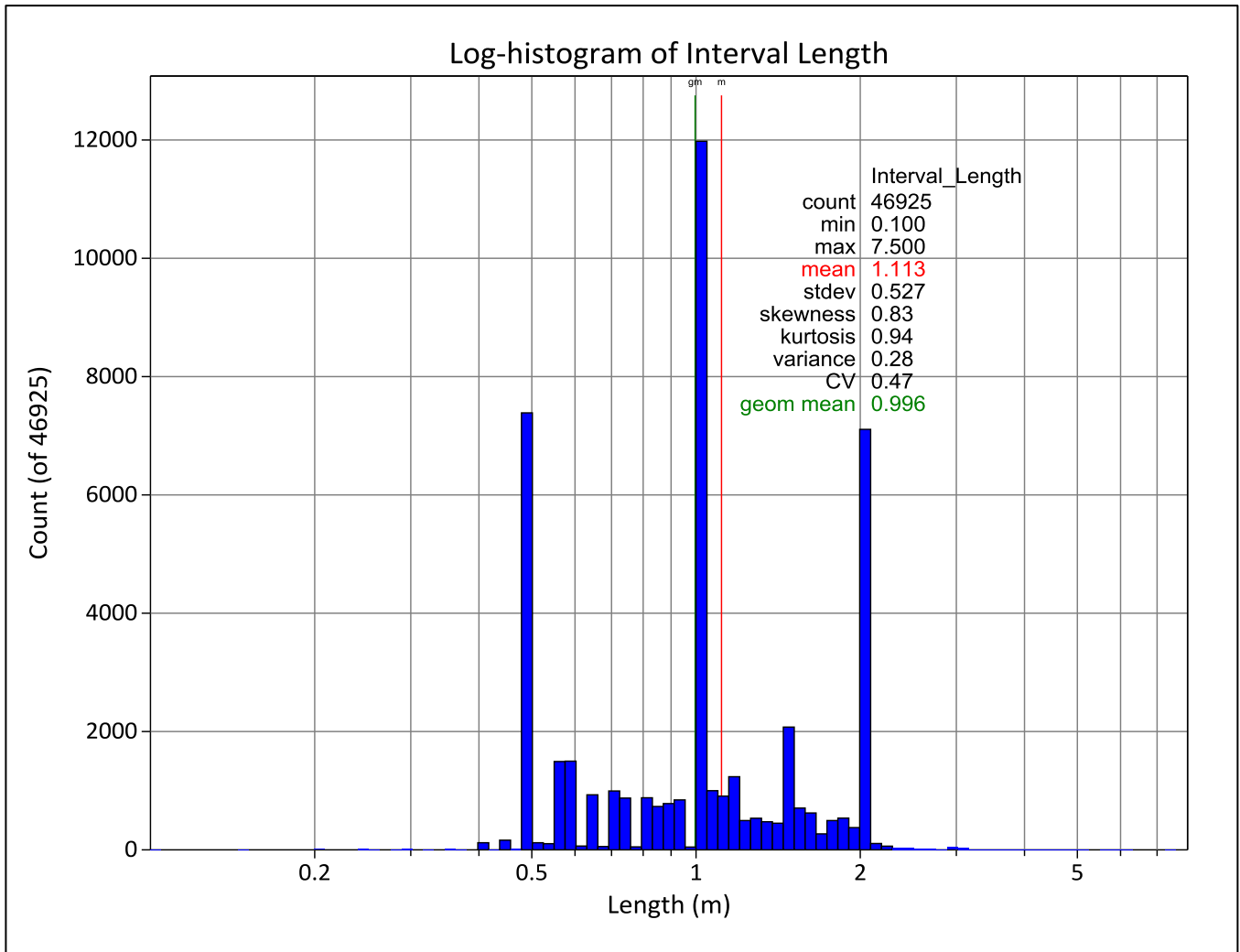
Samples were collected from drill core at various interval lengths ranging from 0.10 m to 7.9 m with the average length of approximately 1 m (Figure 13-11). Sample intervals were selected by SilverCrest geologists to respect lithological and mineralization contacts. Residual intervals at the downhole contact less than 0.1m were ignored. This resulted in a decrease from 1,409 raw samples to 1,302 composite samples. The mean values and overall sample distribution was not significantly impacted by the compositing process.

The predominant sample length for all raw is 1.1 m with standard deviation of +/- 0.53 m. The predominant sample length for data only within the mineralized zones is 0.5 m, however, the mean length is 0.82 m, with a standard deviation of +/- 0.43.

Based on statistical analysis, the raw assay data was composited to 1 m samples lengths within the vein model boundaries starting from the up hole contact.



**Figure 13-11: Length Histogram Showing Predominant 1 m Drill Core Sample Length**



### 13.2.2.3 Capping Analysis

Grade capping assessment was completed separately for each vein and individual caps were applied, where deemed appropriate to do so, for both drill hole and underground drilling data. Data was capped based upon a statistical analysis which included examination of probability plots, and decile analysis to remove potential outlier sample grades. Capping analysis was performed on the 1 m composite sample grades for both silver and gold. A summary of the capping values applied to the data are shown in Table 13-4.

**Table 13-4: Summary of Grade Capping Applied to Drilling and Underground Channel Samples**

Dataset	Au Capping			Ag Capping		
	Au Cap	Percentile	Number Samples Capped	Ag Cap	Percentile	Number Samples Capped
Babicanora Central, DH	10.8	98	3	1,072	98	3
Babicanora Silica Rib, DH	2.13	98	1	95	98	1
Babicanora Area 51, DH	75.0	98	3	5,685	98	3
Babicanora Footwall Vein, DH	51.1	98.5	1	2,323	98.5	2
Babicanora Hanging Wall Vein, DH	2.6	98.5	2	287	98.5	2
Babicanora Norte Central, DH	165.7	98.5	1	8,520	98.5	1
Babicanora Norte South, DH	41.0	98.5	1	2,267	98.5	1
Granaditas, DH	15.0	98.5	1	1,590	98.5	1
Las Chispas, DH	13.0	98.76	2	1,738	98.15	3
Las Chispas, UG	44.1	99.9	2	4,390	99.79	4
Giovanni and La Blanquita, DH	46.6	98.5	1	2,066	98.5	3
Giovanni and La Blanquita, UG	9.2	99.13	3	1,425	99.13	3
William Tell, DH	4.5	98.39	1	842	98.39	1
William Tell, UG	17.5	98.78	4	1,910	99.39	2
Luigi, DH	13.0	98.5	1	1,735	98.5	1

#### 13.2.2.4 Block Model Dimensions

In total, there were four block models developed for the September 2018 Updated Resource Estimate. One block model was developed for the veins in the Las Chispas Area, which included Las Chispas, William Tell, Giovanni, Giovanni Mini, La Blanquita and Luigi veins. Three block models were developed in the Babicanora area that were defined by vein and structural controls. These three models were divided into the Babicanora model which included the Babicanora, Babicanora Footwall and Babicanora Hangingwall veins, the Babicanora Norte model and the Granaditas model. The block models were established using the percent model methods in Geovia GEMS software.

All block models were built using 2 m by 2 m by 2 m blocks to reflect the narrow vein nature of the mineralization and to reflect the minimum UG mining widths of 1.5m. The block dimensions are listed in Table 13-5. The models are referenced in zone 12R of the Universal Traverse Mercator (UTM) grid with World Geodetic System (WGS) 84 as reference datum.

**Table 13-5: Babicanora and Las Chispas Block Model Dimensions (ref. UTM WGS84 z12R)**

	Origin X	Origin Y	Origin Z	Rotation (deg)	Columns	Rows	Levels	Block Size (m)
Babicanora	579,370	3,342,750	1,350	0	735	690	295	2
Babicanora Norte	579,750	3,342,830	1,350	0	735	765	295	2
Granaditas	580,775	3,342,290	1,300	0	350	501	300	2
Las Chispas	579,840	3,344,174	1,240	0	377	788	250	2

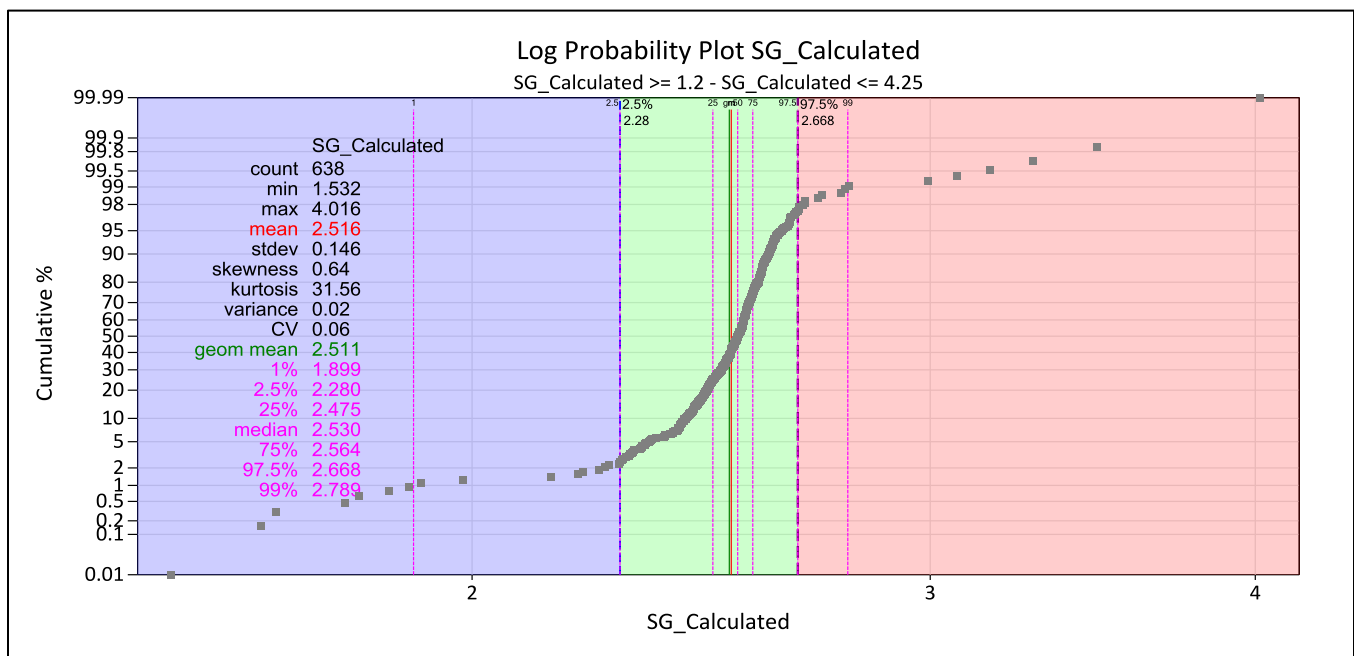
**13.2.2.5 Bulk Density Estimation**

Specific gravity (SG) measurements were collected at SilverCrest's core processing facility. A total of 641 SG measurements were collected using measurement apparatus made of a water bucket and scale. Core fragments greater than 5 cm in length were dried and weighed prior to being suspended and submerged from a scale in a bucket of water using a wire basket. The mass of the submerged core sample was recorded. The scale was reset and tared between each measurement.

The measurements tested various mineralized and unmineralized material types at approximately 20 m downhole intervals. Where rock material was highly fragmented or strongly clay altered, in situ SG measurements were not collected.

When plotted, the measurements form a log-normal distribution with mean value of 2.516 and standard deviation of 0.146, and geometric mean of 2.511 (Figure 13-12). Three outliers have been removed from the sample data in this figure (n = 638).

**Figure 13-12: Log Probability Plot of Field SG Measurements, Data Cut Above 1.2 and Below 4.25 (n=638, m = 2.516)**



Seventy-two (72) samples were shipped to ALS Chemex in Hermosillo, Mexico, for wax coated bulk density (BD) testing to validate the in situ measurements. The samples were collected from non-mineralized hangingwall and footwall materials, and mineralized material, free of clay alteration. The results of the bulk density tests are shown in Table 13-6 below.

**Table 13-6: Summary of Bulk Density Measurements on Babicanora and Las Chispas**

Las Chispas		Babicanora		Combined Las Chispas and Babicanora	
Number of samples	27	Number of samples	45	Number of samples	72
Mean (g/cm <sup>3</sup> )	2.50	Mean (g/cm <sup>3</sup> )	2.49	Mean (g/cm <sup>3</sup> )	2.50
Standard Deviation	0.06	Standard Deviation	0.10	Standard Deviation	0.08
Minimum (g/cm <sup>3</sup> )	2.36	Minimum (g/cm <sup>3</sup> )	2.18	Minimum (g/cm <sup>3</sup> )	2.18
Maximum (g/cm <sup>3</sup> )	2.65	Maximum (g/cm <sup>3</sup> )	2.59	Maximum (g/cm <sup>3</sup> )	2.65

A mean bulk density of 2.55 g/cm<sup>3</sup> was applied to the mineral resource estimate based on the results of the testwork, bulk density testwork completed by SilverCrest, and previous bulk density testwork completed by an Independent QP.

### 13.2.2.6 Variography Assessment

Experimental variogram modelling was undertaken on drill core results for the Babicanora and the Las Chispas Veins where sample spacing, and sample density were considered sufficient. Silver and gold grades were transformed into log10 values prior to experimental variogram analysis and back-transformed following the analysis. Anisotropic search parameters were based on factored ranges extracted from the experimental variogram model.

Variogram assessment was not undertaken for the Babicanora Norte, Luigi, Giovanni, Giovanni Mini, La Blanquita and William Tell veins.

Downhole variograms were not successful in defining nugget due to the narrow mineralized zone in proportion to the number of samples collected within each hole. Nugget, sill, range and structures were estimate purely from spherical experimental semi-variogram plots of composited data contained within the vein models. These values are listed in the Table 13-7 below.

**Table 13-7: Experimental Variogram Parameters for Babicanora**

Vein	Metal	Nugget	Total Sill	Range Total Sill (m)
Babicanora	Au	1.5	5.93	200
	Ag	1.4	708	200
Las Chispas (underground samples)	Au	5.1	15.5	11.5
	Ag	36	50.8	119
Las Chispas (underground samples and drill samples)	Au	5.1	15.5	125
	Ag	1.6	1,919	125

### 13.2.2.7 Interpolation Parameters

Grade interpolation parameters were performed using Inverse Distance squared to the second power (ID2) for most veins in the updated resource, including Babicanora (including hangingwall and footwall), Babicanora Norte, Granaditas, Giovanni, Giovanni Mini, Luigi and La Blanquita. The Las Chispas Vein, ran with ordinary kriging, and



the William Tell Vein, ran with ID2, parameters and resource remained unchanged from the February 2018 Maiden Resource Estimate.

Interpolation search ellipse anisotropies and orientations were defined for each vein and based on variography where the information was available. Where variography was not available, search ellipses were defined based on average drill spacing, ellipse parameters in adjacent veins and known geologic constraints. All searches were performed with major and intermediate axes orientation parallel to the average plane of the vein.

Where underground sampling data was available, multiple interpolation passes were used to first isolate underground sampling from drill hole data in the short range, followed by longer range searches using combined underground and surface drilling data.

Details of the interpolation search anisotropy and orientation are listed in the tables below for Babicanora (Table 13-8), Babicanora Norte (Table 13-9), Granaditas (Table 13-10), Las Chispas (Table 13-11), and William Tell (Table 13-12) and Giovanni, Giovanni Mini and La Blanquita (Table 13-13).

**Table 13-8: Interpolation Search Anisotropy and Orientation for Babicanora Veins (Main, Footwall, Hanging Wall)**

Ellipse	min comp	max comp	Max comp per hole	P.Azi	P.Dip	Int. Azi	Major (m)	Semi-major (m)	Minor (m)
PASS 1	3	12	3	166.47	-7.64	265.34	200	175	75

**Table 13-9: Interpolation Search Anisotropy and Orientation for Babicanora Norte Central & South)**

Ellipse	min comp	max comp	Max comp per hole	P.Azi	P.Dip	Int. Azi	Major (m)	Semi-major (m)	Minor (m)
PASS 1 Central	3	12	3	216	-63	137.6	200	175	75
PASS 1 South	3	12	3	150	-20	265	125	50	50

**Table 13-10: Interpolation Search Anisotropy and Orientation for Granaditas**

Ellipse	min comp	max comp	Max comp per hole	P.Azi	P.Dip	Int. Azi	Major (m)	Semi-major (m)	Minor (m)
PASS 1	3	12	3	216	-63	137.6	200	175	75

**Table 13-11: Interpolation Search Anisotropy and Orientation for Las Chispas**

Ellipse	Min Comp	Max Comp	Max Comp Per Hole	P.Azi	P.Dip	Int. Azi	Major (m)	Semi-Major (m)	Minor (m)	Comment
PASS 1	2	4	3	344	23	132	25	15	10	u/g samples only
PASS 2	3	9	3	344	23	132	50	35	20	u/g samples and dh
PASS 3	2	12	3	344	23	132	100	60	30	u/g samples and dh

**Table 13-12: Interpolation Search Anisotropy and Orientation for William Tell**

Ellipse	Min Comp	Max Comp	Max Comp Per Hole	P.Azi	P.Dip	Int. Azi	Major (m)	Semi-Major (m)	Minor (m)	Comment
---------	----------	----------	-------------------	-------	-------	----------	-----------	----------------	-----------	---------

PASS 1	2	4	3	340	20	105	20	20	15	u/g samples only
PASS 2	3	15	3	340	20	105	125	100	50	u/g samples and dh

**Table 13-13: Interpolation Search Anisotropy and Orientation for Giovanni, Giovanni Mini, and La Blanquita**

Ellipse	min comp	max comp	Max comp per hole	P.Azi	P.Dip	Int. Azi	Major (m)	Semi-major (m)	Minor (m)	Comment
PASS 1	2	4	3	338	-22	159	20	20	15	u/g samples only
PASS 2	3	15	3	(rot_Z) 280	(rot_X) -89	(rot_Z) 15	125	100	50	u/g samples and dh

## 13.3 Surface Stockpile Material Models

### 13.3.1 Calculation of Estimated Tonnage and Grade

Stockpiles that were trenched with subsequent assay results were initially estimated for tonnage by calculating length x width x height x rock density. Following a visual estimation, a surveyor was hired to provide more accurate estimation of the perimeter and surface area measurements. The survey was completed between December 14<sup>th</sup>, 2017, and January 26<sup>th</sup>, 2018, using a Trimble Spectra Total Station Model TS-415.

Based on the average profile depths of the trenches, depth of the stockpiles was estimated to have an average depth of 2.0 m, except for La Capilla (2.5 m) and San Gotardo (3.0 m). The density of the stockpiles was estimated to have an average density of 1.7 g/cm<sup>3</sup>, including the tailings material at La Capilla. Thus, the estimated tonnage of each stockpile was calculated using the average depths, estimated density, and measured surface area of each dump.

Average grades were estimated for each stockpile area based on the samples collected for each stockpile. The tonnage and average grades for stockpiles with average AgEq >100 AgEq were then tabulated for the mineral resource estimate.

### 13.3.2 Potential Error and Inaccuracy

Potential sources of error during the trenching program include the high degree of inaccuracy of GPS measurements for profile elevations and cross-sections. Additionally, samples may not completely be random and representative enough of the entire dump and human error is a factor. The intervals used in the trenching process were not measured with a set length but estimated by the length of the backhoe bucket.

Assumptions incorporated into the stockpile estimates include:

- Estimation of density to be the same across all stockpiles.
- Estimation of depth to be 2.0 m across all stockpiles, except for La Capilla and San Gotardo.
- Perimeter measurements used to calculate surface areas were performed by a surveyor may not be accurate.
- Stockpiles not on a horizontal plane are more open to visual estimation for depth and area.
- Grade of Au and Ag measured from assay results are averaged for each stockpile, even though there can be a significant standard deviation, and difference between the minimum and maximum result. Grade capping was not applied.

## 13.4 Mineral Resource Estimate

The Mineral Resource Estimate for the Las Chispas Property are summarized in Table 13-14. This estimate is effective as of September 13, 2018. This estimate adheres to guidelines set forth by NI 43-101 and the CIM Best Practices and Definition Standards.

**Table 13-14: Summary of Mineral Resource Estimates for Vein Material and Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018**

Type	Cut-off Grade <sup>3</sup> (gpt AgEq <sup>2</sup> )	Classification <sup>1</sup>	Tonnes	Au gpt	Ag gpt	AgEq <sup>2</sup> gpt	Contained Au Ounces	Contained Ag Ounces	Contained AgEq <sup>2</sup> Ounces
Vein	150	Inferred	4,153,900	3.78	356.7	640	503,900	47,634,100	85,455,100
Stockpile	100	Inferred	174,500	1.38	119.0	222	7600	664,600	1,246,100
<b>Overall</b>		<b>Inferred</b>	<b>4,328,400</b>	<b>3.68</b>	<b>347.1</b>	<b>623</b>	<b>511,500</b>	<b>48,298,700</b>	<b>86,701,200</b>

- (1) Conforms to NI 43-101, Companion Policy 43-101CP, and the Canadian Institution of Mining, Metallurgy and Petroleum (“CIM”) Definition Standards on Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.
- (2) AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.
- (3) Vein resource is reported using a 150 gpt AgEq cut-off grade and minimum 1.5 m true width (approximate), and surface stockpile resource is reported using a 100 gpt AgEq cut-off.
- (4) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.
- (5) All numbers are rounded. Overall numbers may not be exact due to rounding.

### 13.4.1 Cut-off Grade

The Las Chispas Property is being contemplated as a potential underground narrow vein mining operation using standard cut & fill and/or long hole mining or equivalent method, and metal recovery using an standard cyanide extraction method. Mining, process engineering and economic studies have not been conducted for the Las Chispas Property.

The vein mineral resource estimates are reported using a 150 gpt AgEq cut-off grade based on long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold and approximate metallurgical recovery of 98.9% gold and 86.6% silver, and possible operating cost of \$100/t. A comparable figure was reported for the Santa Elena Mine, which reported underground mineral resources at a 145 gpt AgEq cut-off (First Majestic, AIF 2017). The surface stockpile estimates were reported using a 100 gpt AgEq cut-off grade since mining costs are assumed to be significantly lower than underground mining costs.

Based on similar host geology, deposit types, and metal grades, the nearby underground gold-silver vein mining projects at the Santa Elena Mine (operated by First Majestic Silver Corp.) and Los Mercedes Mine (operated by Premier Gold Mines Limited) are considered analogous projects to verify reasonableness of the selected cut-off grade for in site vein material. The Santa Elena Mine has reported underground mineral resources at a 145 gpt AgEq cut-off (First Majestic, AIF 2017), and Los Mercedes has reported underground mineral resources at 2.0 gpt Au (Premier Gold Mines, AIF 2018), or 150 gpt AgEq in terms of the Las Chispas AgEq calculation. Although the mining, processing and operating methods used at these mines may not be considered as a direct comparison, the QP is satisfied that the cut-off grade assumptions are reasonable for the style and size of the mineral deposits on the Las Chispas Property.

### 13.4.2 Vein Mineral Resource Estimate

The Mineral Resource Estimate for intact vein material was calculated using Geovia GEMs v6.7.4 using vein models developed with Aranz Leapfrog Geo v.4.3 and sample data collected underground mapping, underground drilling and surface drilling. Silver and gold assay grades were interpolated into a block model. Block volumes were reduced based on the proportion of each block which is bisected by the vein solid. A fixed bulk density value of 2.55 t/m<sup>3</sup> was applied to the volumes. The Mineral Resource estimate reports average silver and gold grades on block volume weighted basis.

This estimate is listed in Table 13-15 and is effective as of September 13, 2018. This estimate adheres to guidelines set forth by NI 43-101 and the CIM Best Practices and Definition Standards.

**Table 13-15: Mineral Resource Estimate for Vein Material at the Las Chispas Property, Effective September 13, 2018**

Vein <sup>(6)</sup>	Classification <sup>(1)</sup>	Tonnes	Au	Ag	AgEq <sup>(2)</sup>	Contained	Contained	Contained
			gpt	gpt	Gpt	Au Ounces	Ag Ounces	AgEq <sup>(2)</sup> Ounces
Babicanora <sup>(4)</sup>	Inferred	1,931,200	5.06	447.2	826	314,100	27,763,700	51,318,800
Includes Area 51	Inferred	1,116,800	7.13	613.8	1,148	256,000	22,040,000	41,238,100
Babicanora Norte	Inferred	488,800	6.61	464.8	961	103,900	7,303,600	15,095,300
Granaditas	Inferred	95,100	2.46	220.9	405	7,500	675,100	1,239,200
Las Chispas	Inferred	171,000	2.39	340.0	520	13,000	1,869,500	2,861,000
Giovanni <sup>(4)(5)</sup>	Inferred	686,600	1.47	238.7	349	32,500	5,269,000	7,699,800
William Tell <sup>(5)</sup>	Inferred	595,000	1.32	185.0	284	25,000	3,543,000	5,438,000
Luigi	Inferred	186,200	1.32	202.1	301	7,900	1,210,200	1,803,000
<b>Total</b>	<b>Inferred</b>	<b>4,153,900</b>	<b>3.78</b>	<b>356.7</b>	<b>640</b>	<b>503,900</b>	<b>47,634,100</b>	<b>85,455,100</b>

(1) Conforms to NI 43-101, Companion Policy 43-101CP, and the Canadian Institution of Mining, Metallurgy and Petroleum ("CIM") Definition Standards on Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.

(2) AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.

(3) All numbers are rounded.

(4) Babicanora resource includes the Babicanora Vein with Area 51 zone and Babicanora Footwall Vein. Giovanni resource includes the Gio-mini and the La Blanquita veins.

(5) Resource estimations for the Las Chispas and William Tell veins are unchanged from the February 2018 Maiden Resource Estimate.

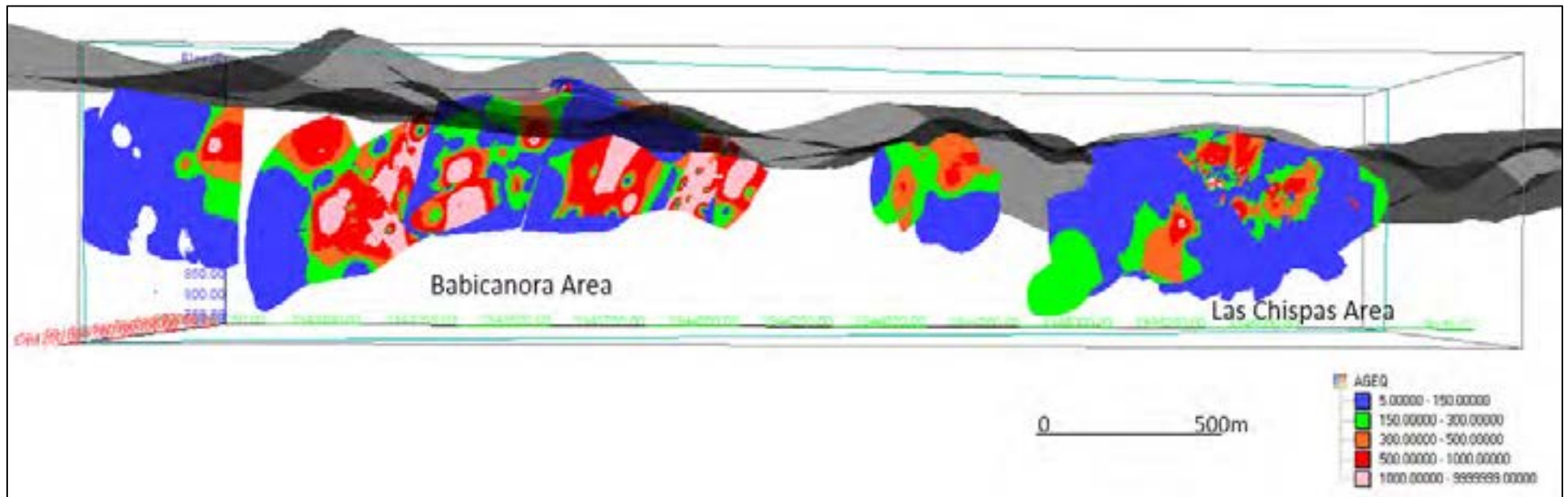
(6) The estimate for Vein material is reported using a 150 gpt AgEq cut-off grade and minimum 1.5 m true width (approximate).

(7) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.

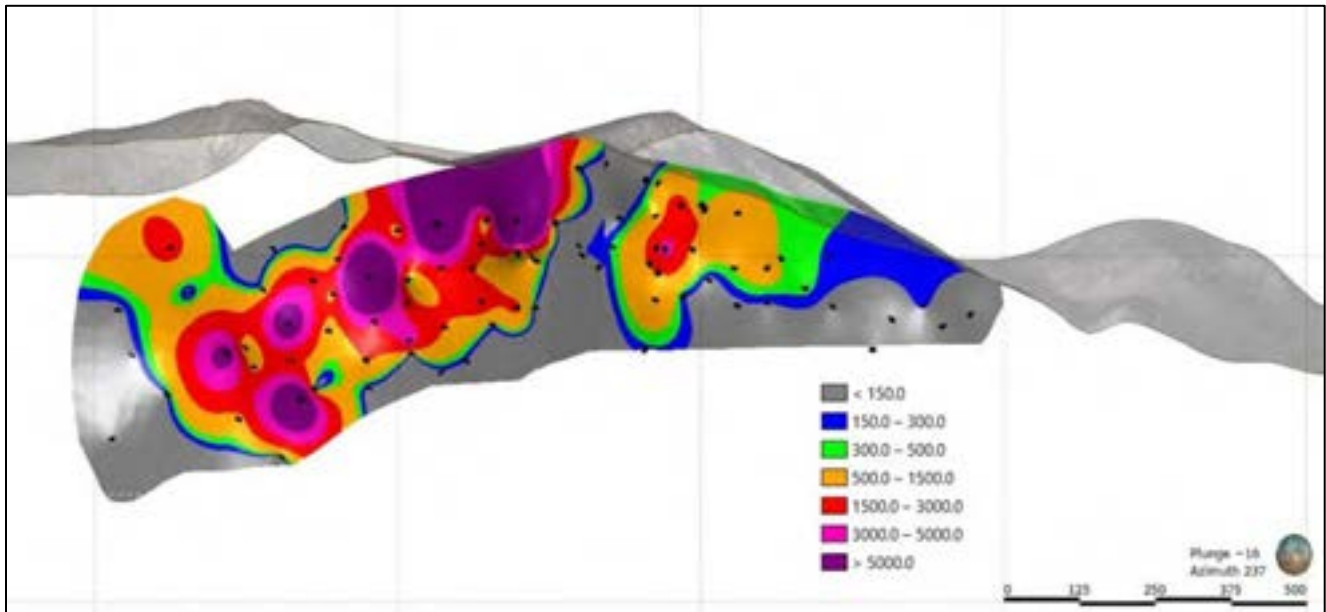
A perspective view of the block models filtered to >150 gpt AgEq is shown in Figure 13-13 and select grade thickness contour long sections the Babicanora area (Figures 13-14 to 13-18). Figure 13-19 shows a 3D cross-section through the Babicanora area with veins that were modelled for resource estimation.



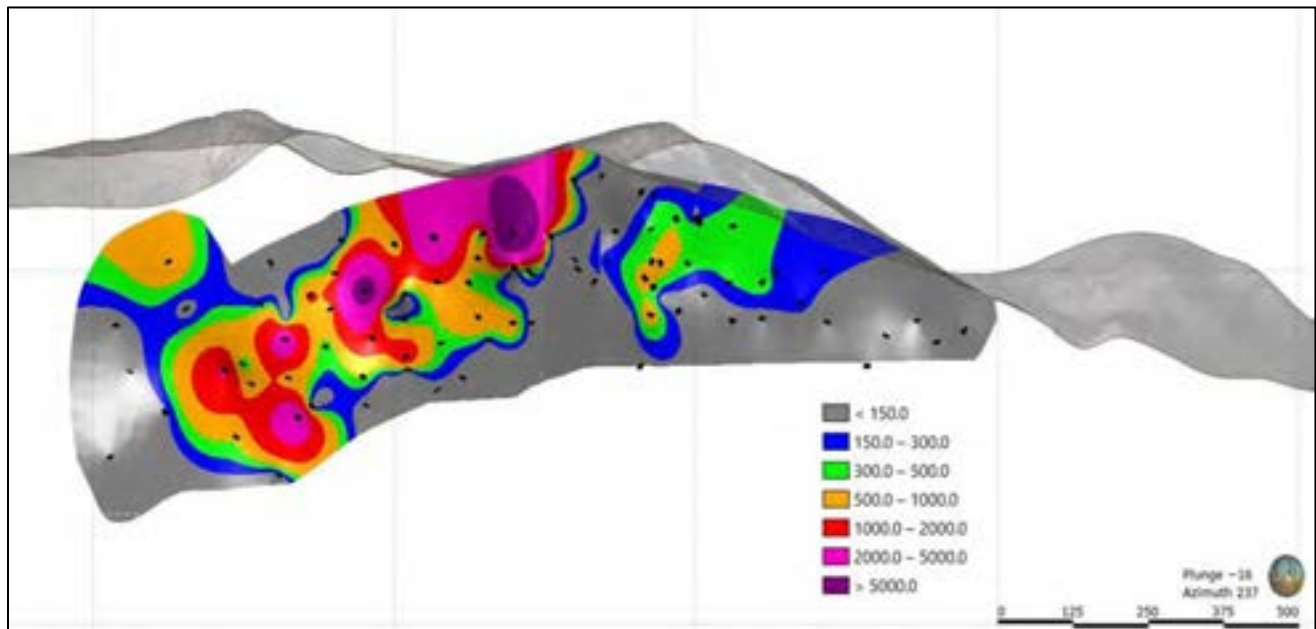
Figure 13-13: Vein Block Models Looking West



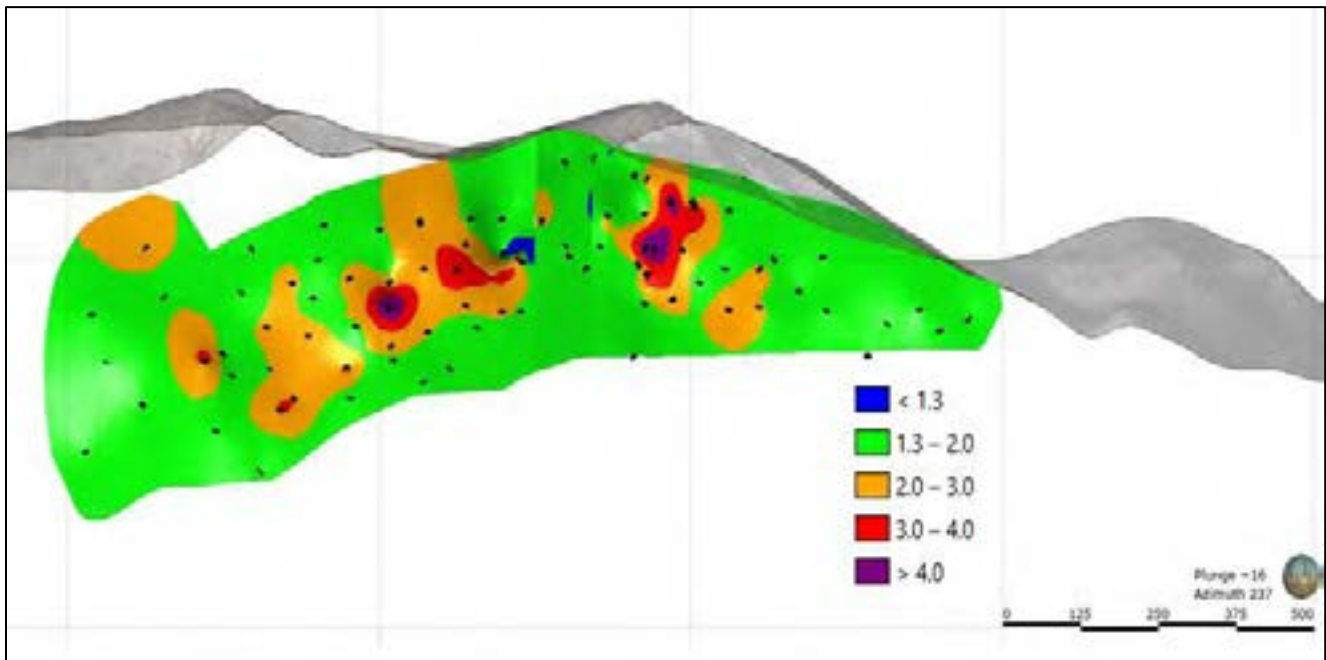
**Figure 13-14: Babicanora Grade (AgEq gpt) –Thickness (metres) Contours Long Section Looking Southwest**



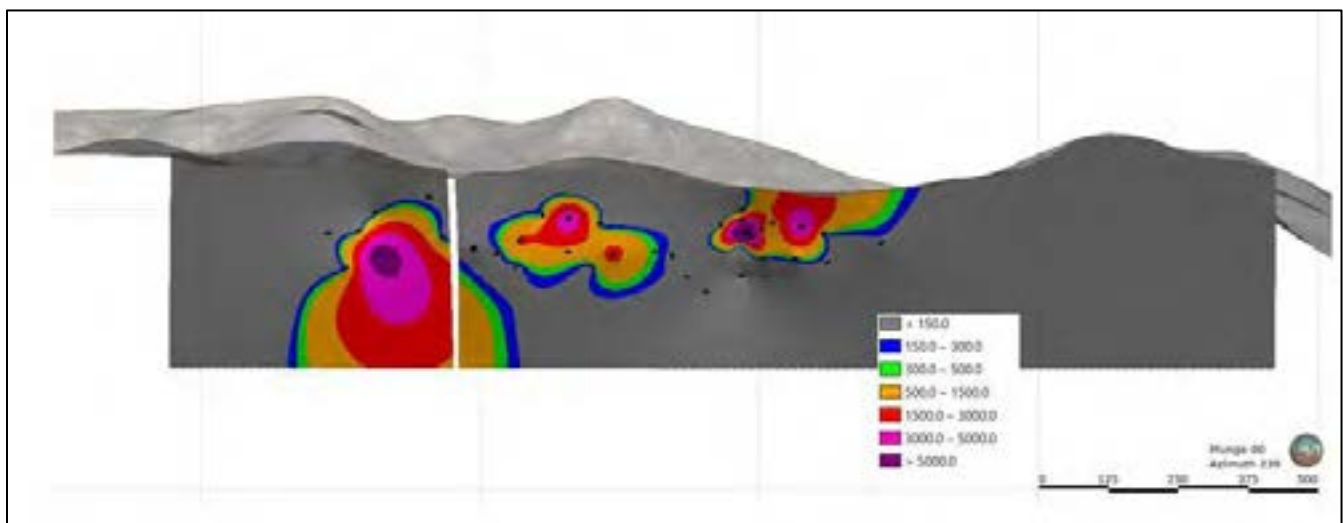
**Figure 13-15: Babicanora Grade (AgEq gpt) Contours Long Section Looking Southwest**



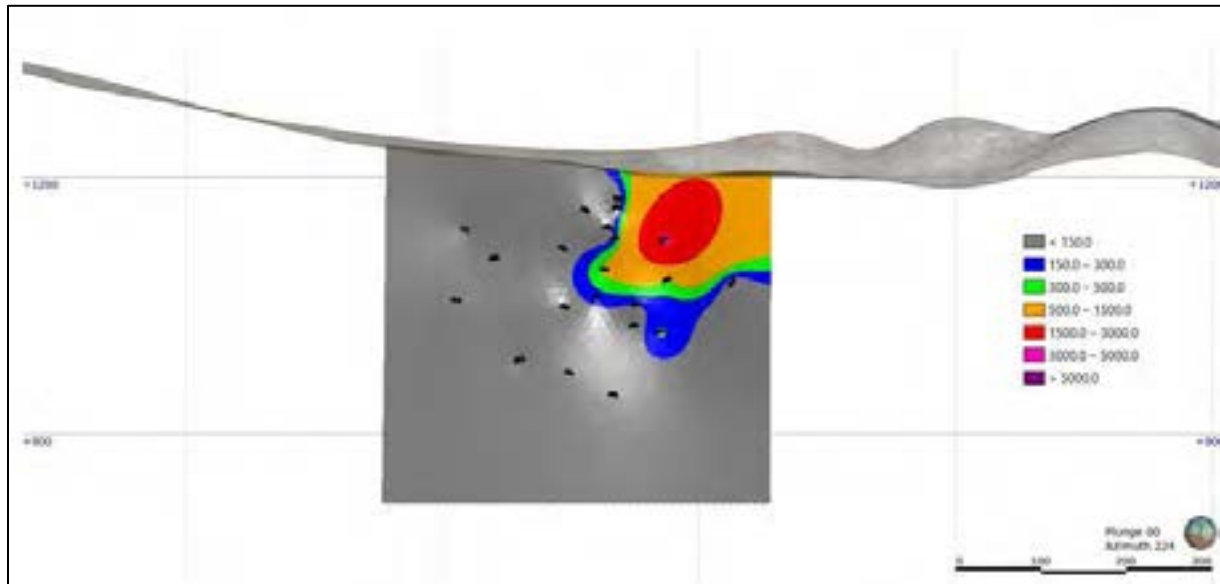
**Figure 13-16: Babicanora Thickness (metres) Contours Long Section Looking Southwest**



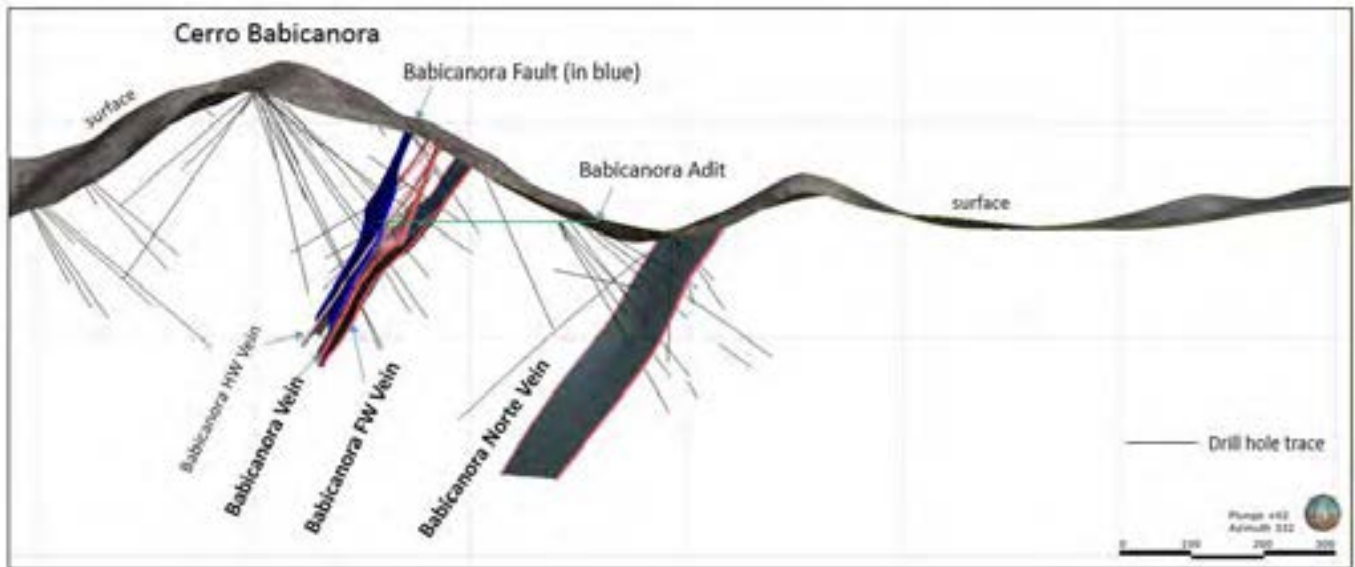
**Figure 13-17: Babicanora Norte Grade (AgEq gpt) –Thickness (metres) Contours Long Section Looking Southwest**



**Figure 13-18: Granaditas Grade (AgEq gpt)-Thickness (metres) Contours Long Section Looking Southwest**



**Figure 13-19: Babicanora Area 3D Section with Vein Shapes Included Resource Estimation, Looking Northwest**





### 13.4.3 Surface Stockpile Mineral Resource Estimate

A total of 21 surface dumps, stockpile, and back fill are estimated to have a AgEq value of > 100 gpt, out of the total 42 sampled by auger and trenching. The 21 surface dumps, stockpile and back fill are estimated to total 172,491 tonnes, and have an average grade of 1.37 gpt Au (containing 7,618 oz of gold), 116.85 gpt Ag (containing 648,108 oz), and 219 gpt AgEq (containing 1,219,426 oz). This estimate is summarized in Table 13-16 and is effective as of September 13, 2018. This estimate adheres to guidelines set forth by NI 43-101 and the CIM Best Practices and Definition Standards.

**Table 13-16: Mineral Resource Estimate for Surface Stockpile Material at the Las Chispas Property, Effective September 13, 2018**

Stockpile Name	Tonnes	Au (gpt)	Ag (gpt)	AgEq <sup>(2)</sup> (gpt)	Contained Gold Ounces	Contained Silver Ounces	Contained AgEq <sup>(2)</sup> Ounces
North Chispas 1	1,200	0.54	71	111	20	2,700	4,200
La Capilla	14,200	4.92	137	506	2,300	62,700	231,600
San Gotardo	79,500	0.79	121	180	2,000	308,100	459,600
Lupena	17,500	1.38	79	182	800	44,300	102,700
Las Chispas 1 (LCH)	24,200	0.78	125	183	600	97,000	142,500
Las Chispas 2	1,100	1.23	236	329	40	8,100	11,300
Las Chispas 3 (San Judas)	1,000	2.05	703	857	100	22,400	27,300
La Central	3,800	0.75	116	172	100	14,300	21,200
Chiltepines 1	200	0.87	175	240	0	800	1,200
Espiritu Santo	1,700	0.52	94	133	30	5,000	7,100
La Blanquita 2	4,600	0.53	118	158	100	17,500	23,400
El Muerto	5,800	2.52	79	268	500	14,900	50,200
Sementales	800	4.38	47	376	100	1,200	9,700
Buena Vista	400	4.62	57	403	100	700	5,100
Babicanora	10,300	1.81	56	192	600	18,500	63,300
Babicanora 2	1,000	2.63	276	473	100	8,900	15,300
El Cruce & 2,3	100	0.75	39	96	3	200	400
Babi stockpiled fill	800	1.80	120	255	50	3,100	6,600
LC stockpiled fill	300	2.50	243	431	20	2,300	4,200
Las Chispas u/g backfill	2,000	2.10	243	431	100	16,500	26,600
Babicanora u/g backfill	4,000	1.80	120	255	200	15,500	32,800
<b>TOTAL</b>	<b>174,500</b>	<b>1.38</b>	<b>119</b>	<b>222</b>	<b>7,600</b>	<b>664,600</b>	<b>1,246,100</b>

- 1) All Stockpile mineral resource estimates are classified as Inferred. This conforms to NI 43-101, Companion Policy 43-101CP, and the CIM Definition Standards on Mineral Resources and Mineral Reserves. Inferred Resources have been estimated from geological evidence and limited sampling and must be treated with a lower level of confidence than Measured and Indicated Resources.
- 2) AgEq based on 75 (Ag):1 (Au), calculated using long-term silver and gold prices of U.S.\$18.50 per ounce silver and U.S.\$1,225 per ounce gold with average metallurgical recoveries of 86.6% silver and 98.9% gold.
- 3) Resource is reported using a 100 gpt AgEq cut-off grade.
- 4) There are no known legal, political, environmental, or other risks that could materially affect the potential development of the mineral resources.
- 5) Resource estimations for the historical dumps are unchanged from the February 2018 Maiden Resource Estimate.

### 13.4.4 Classification

Work undertaken by SilverCrest has set a solid foundation in support of a geological model and demonstrated grade continuity from drilling and underground mapping activities.

All Mineral Resource Estimates prepared for Las Chispas as of the Effective Date September 13, 2018, are classified as Inferred. It cannot be assumed that all of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued drilling and exploration, however, it is reasonably expected that the majority of Inferred mineral resources could be upgraded to Indicated.

The basis for the classification are as following:

- Current drill spacing is not sufficient to identify the various short range complexities mapped within the veins such as splays, faults offsets, and pinch and swell structures.
- Vein models have been used to constrain the interpolation, however, search ellipses used in the interpolation are quite broad resulting in smearing of high-grades along the fringes of some veins. Although geological continuity is believed to exist in these areas, the presence and concentration of Ag and Au mineralization has not been confirmed.
- Use of extensive underground mapping and channel sampling has helped delineate areas of mineralization not extracted from previous mining operations. Currently at Las Chispas and Giovanni, the number of underground samples far outweigh the number of drill hole samples used to define the geological structure and metal concentration. The mineralization should continue to be drill-tested to confirm grade continuity outward into wall from best underground sample targets.
- Some uncertainty exists in the underground survey reconciliation with drilling intercepts.

### 13.4.5 Validation

Model validation is undertaken to demonstrate that the input data has been fairly and accurately represented in outputs of the block modelling process. Substantial deviations to the data distribution or mean tendency, or inflations to high-grade ranges can lead to misrepresentation or overstatement of the mineral resource estimate.

Methods used to validate the models include visual spatial comparison of input data (i.e., drill hole and underground sampling) on cross-section with block model output, and swath plot analysis. Additionally, the results of the Ordinary Kriging models developed for Babicanora and Las Chispas were also compared to the results of Inverse Distance Weighted (ID, to power of 3) interpolation model. These methods provide qualitative comparison of the results. Quantitative comparison of results can be more challenging to achieve, particularly in widely spaced data, as the results of the model and the input composite data have vastly different sample density to volume relationships (i.e., sample support) due to the large search parameters that are required to support grade continuity.

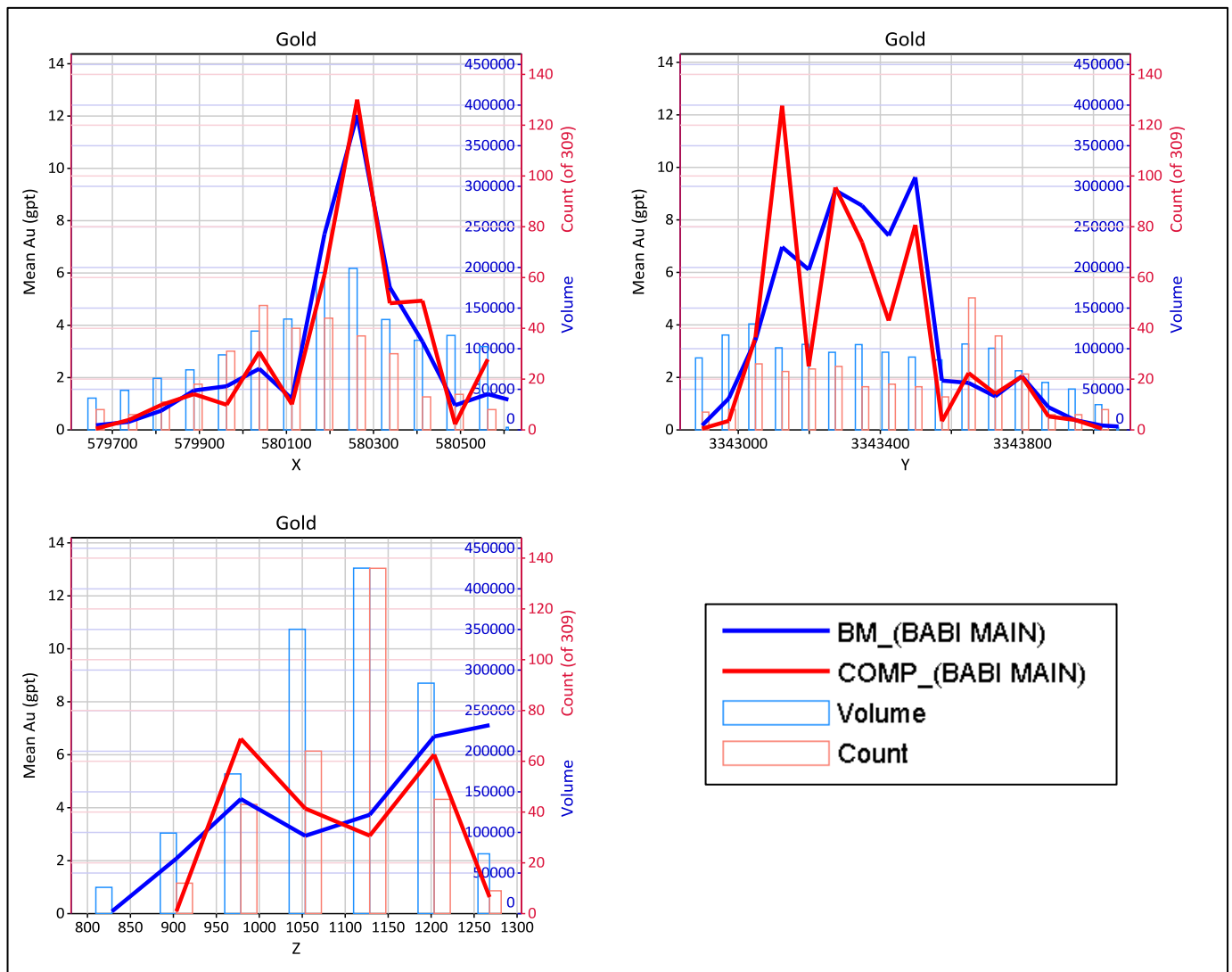
Visual comparison of the input data with the output block model resulted in decent correlation. The modelled grade trends in certain areas did not appear to follow consistent trends, however, this can be improved in future modelling by incorporating additional geological and structural controls.

In general, the ID methods resulted in slightly higher average grades with lower tonnages and sharper contrasts (i.e., steeper gradients) between high and low-grade samples compared to the Ordinary Kriging model. The effect of Kriging the mineral grades is higher grades can be slightly reduced and lower grade are slightly increased resulting in an overall smoother correlation between the input data.

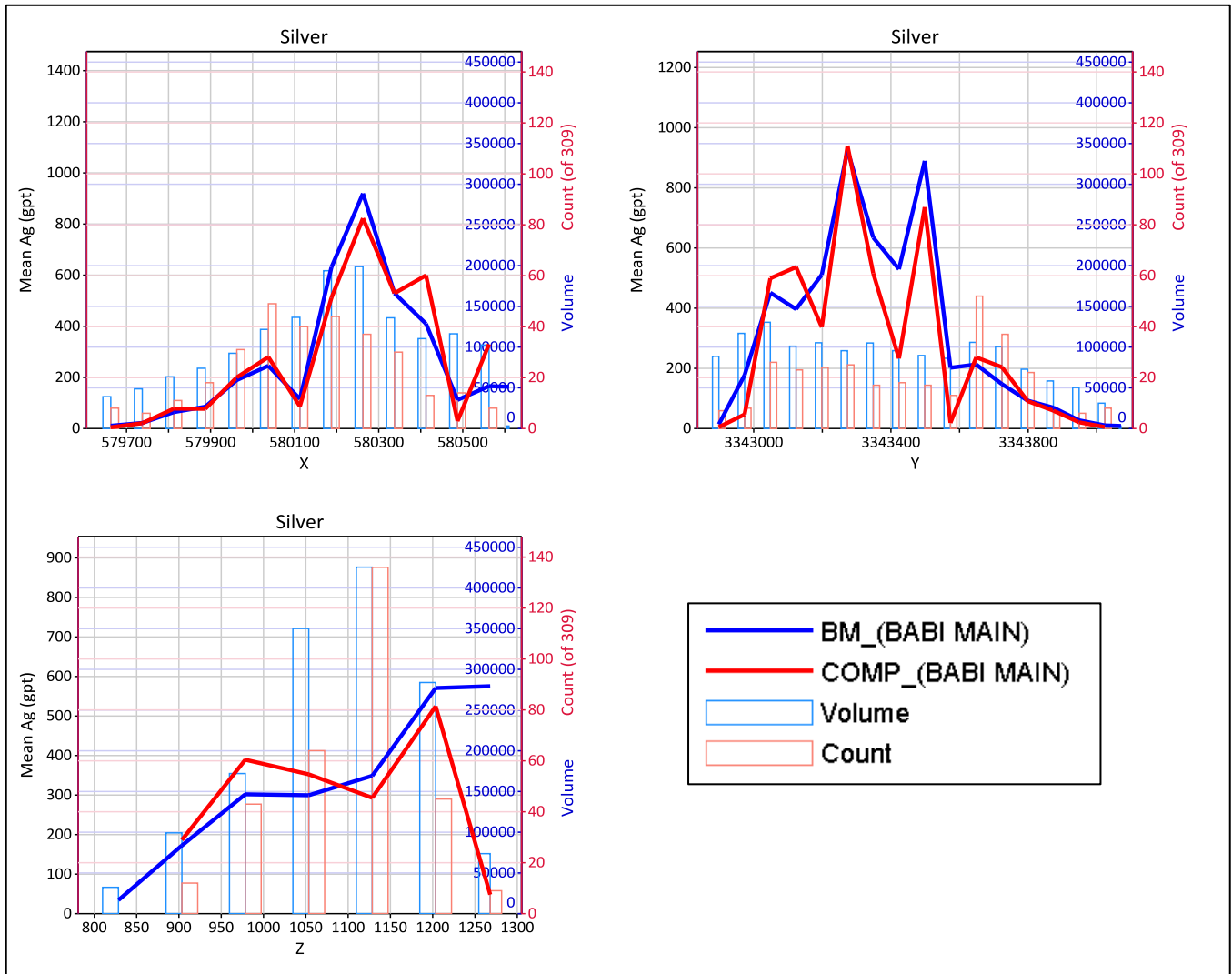
Swath plots provide a qualitative method to observe preservation of the grade trends on a spatial basis. The data is plotted with average values along discrete intervals along the Cartesian X, Y and Z axis (i.e., easting, northing, and elevation). Sample data used for these swath plots is composited and capped, resulting in a slightly smoother trend than raw data. However, the sample data can be clustered and may misrepresent areas of high-grade mineralization that have been oversampled. The block data is based on the composited and capped data but is non-clustered. Both datasets have been constrained to the vein models. Swath plots for Babicanora are shown below in Figure 13-20 (gold) and Figure 13-21 (silver), for Las Chispas in Figure 13-22, for Giovanni, Giovanni Mini and La Blanquita in Figure 13-23, and for William Tell in Figure 13-24.

The model validation indicates that the input data has been reasonably represented in the model, at a confidence level of an Inferred Mineral Resource.

**Figure 13-20: Babicanora, Swath Plots for Au Comparing Composite and Block Model Data**

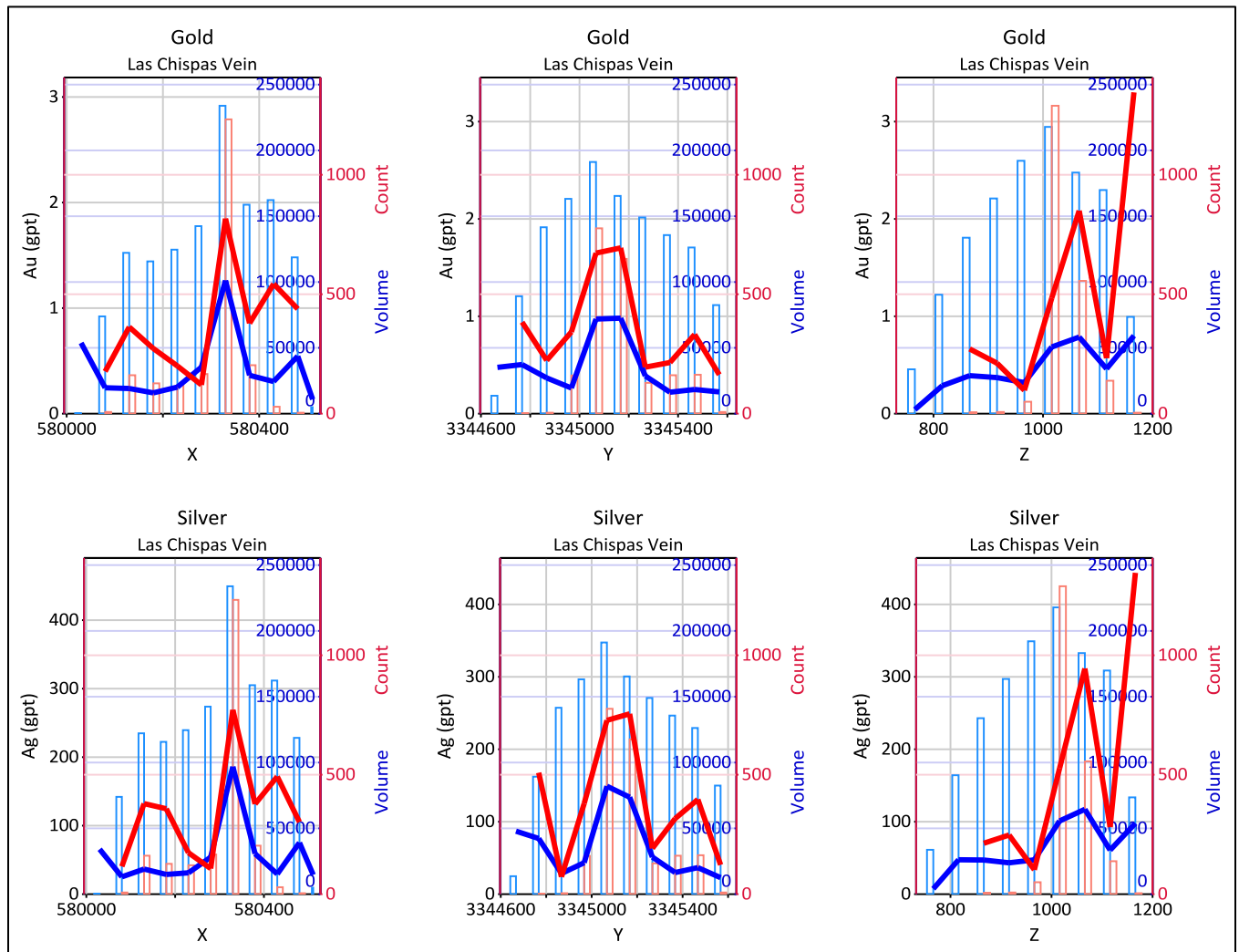


**Figure 13-21: Babicanora, Swath Plots for Ag Comparing Composite and Block Model Data**

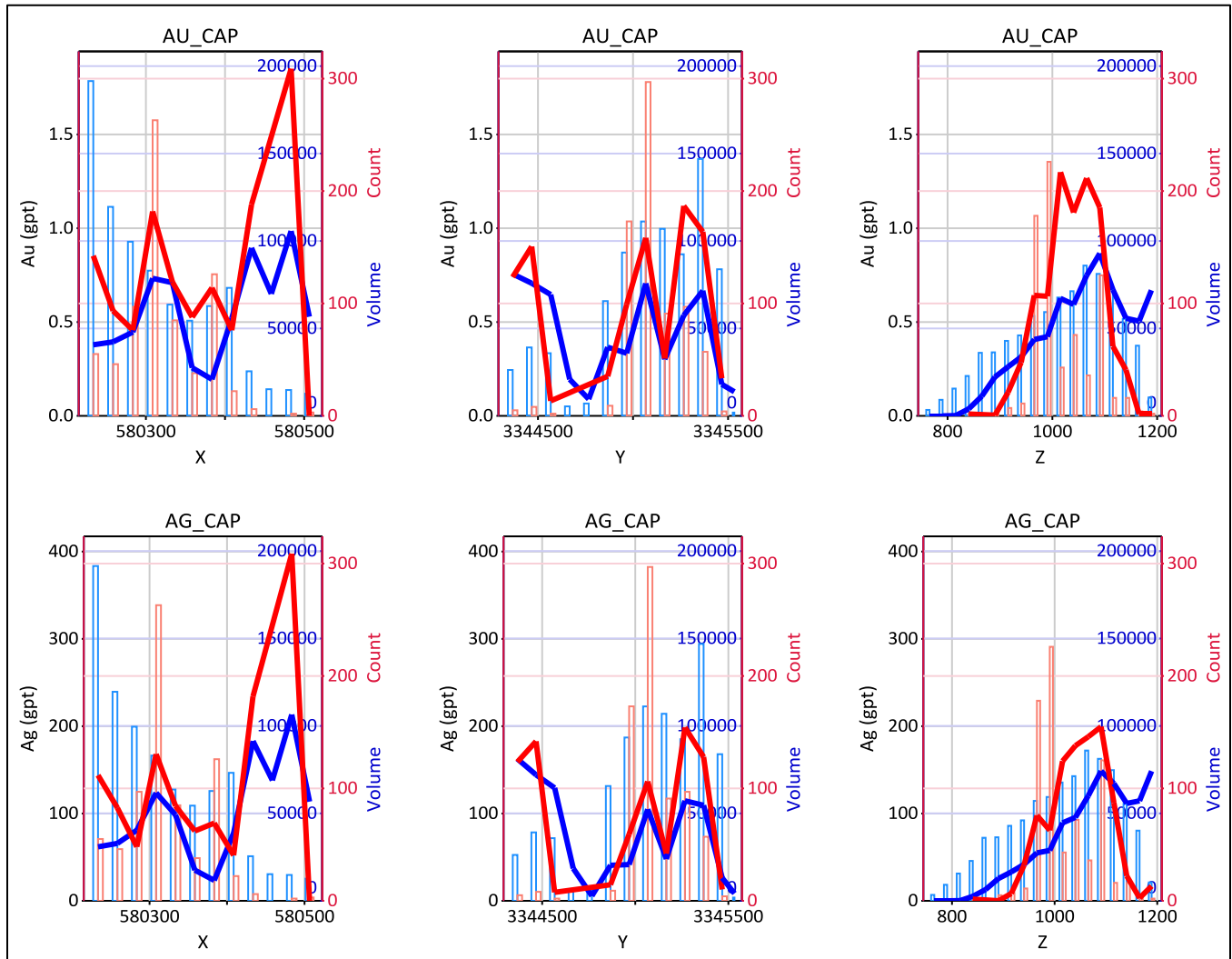




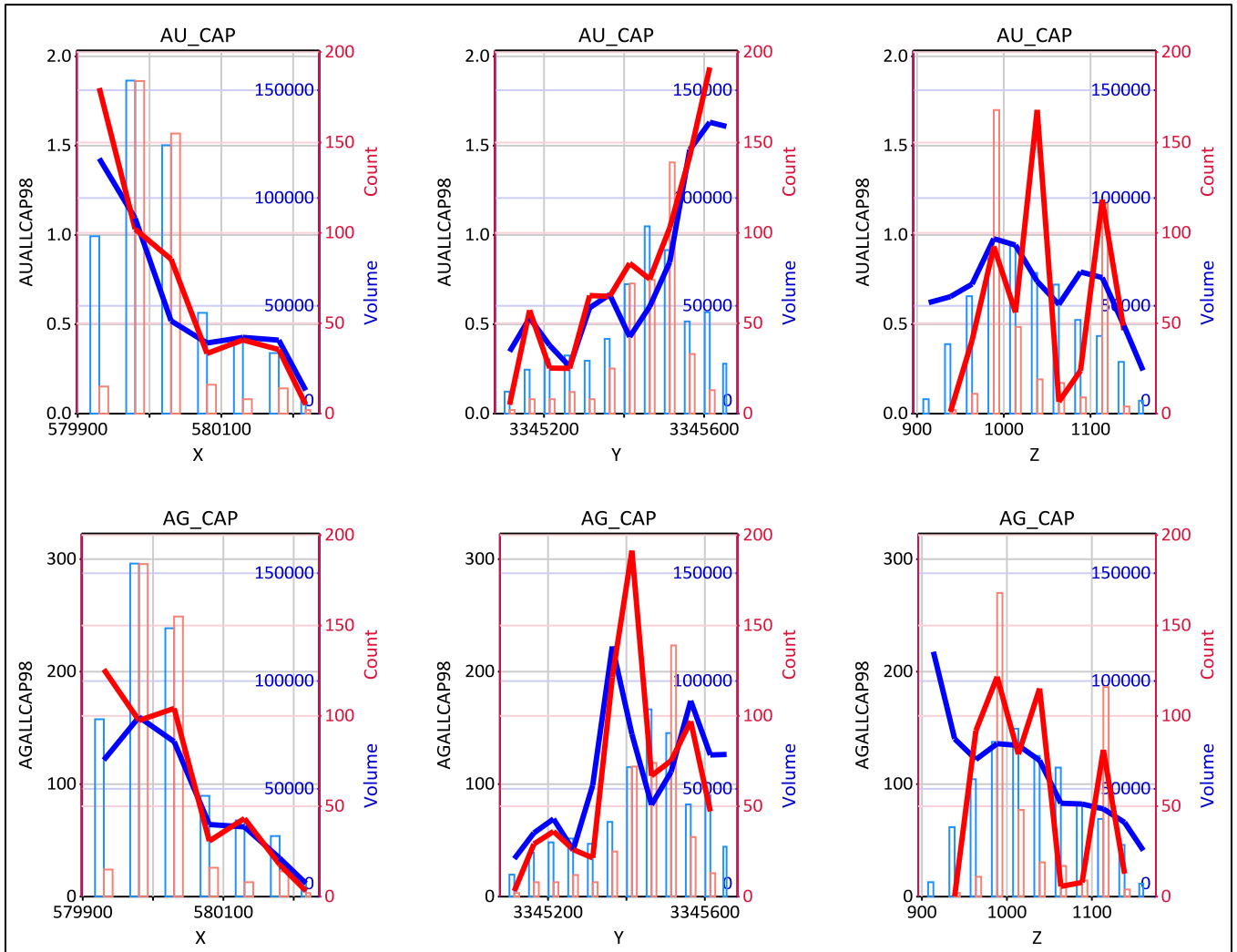
**Figure 13-22: Las Chispas, Swath Plots for Au and Ag Comparing Composite and Block Model Data**



**Figure 13-23: Giovanni, Giovanni Mini and La Blanquita, Swath Plots for Au and Ag Comparing Composite and Block Model Data**



**Figure 13-24: William Tell, Swath Plots for AgEq Comparing Composite and Block Model Data**

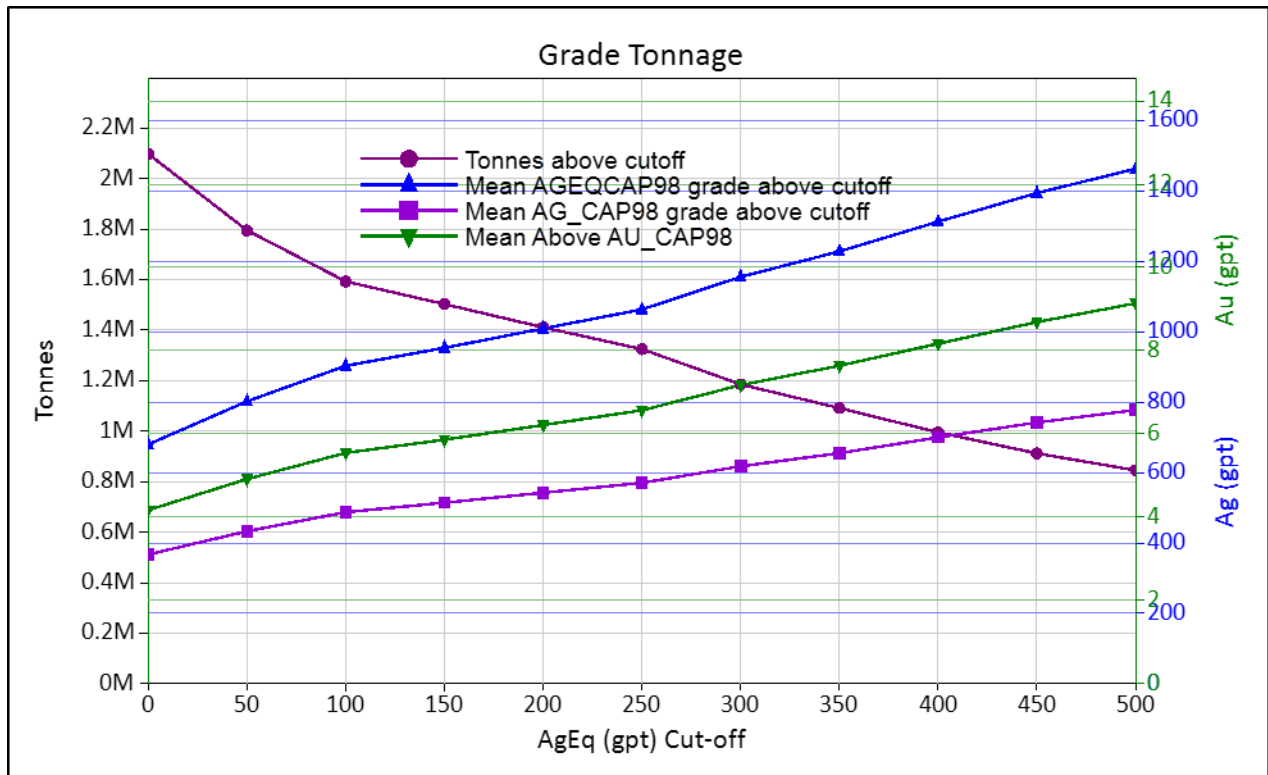


### 13.4.6 Grade-Tonnage Curves

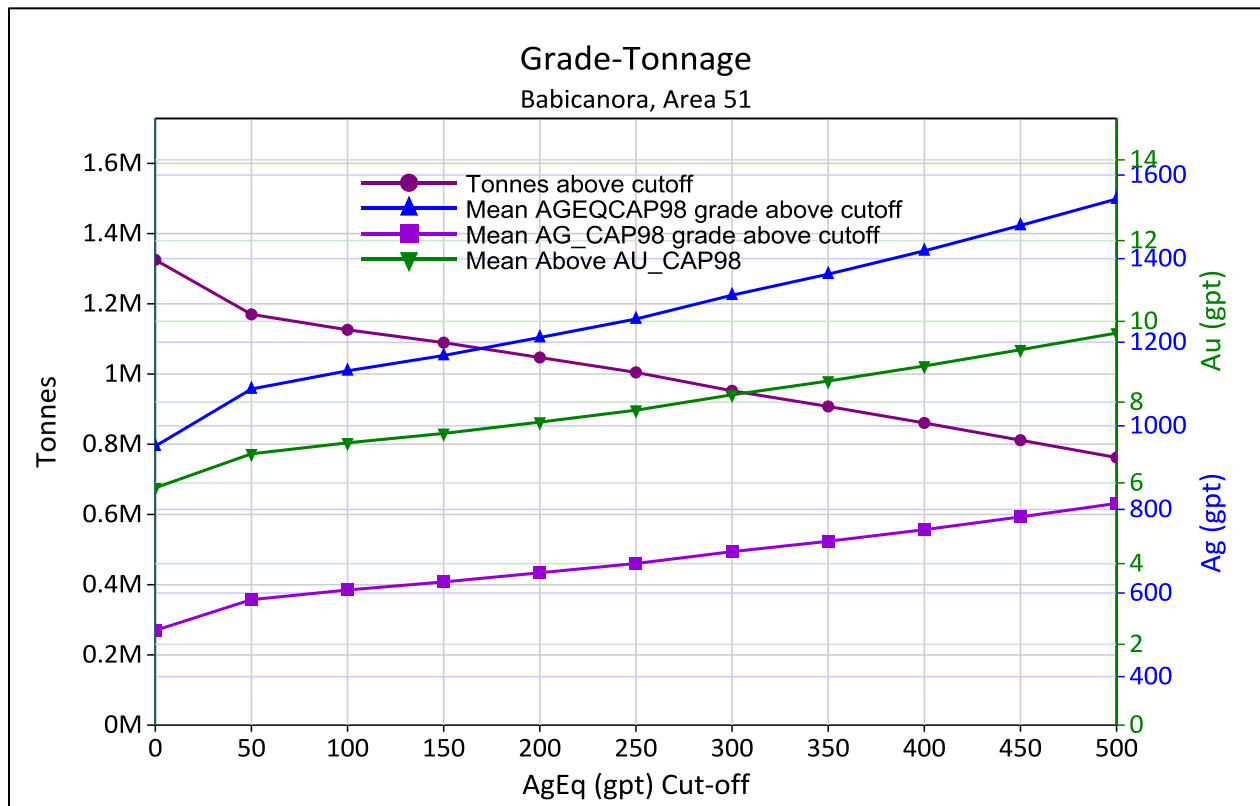
Grade-tonnage curves provide an indication of average grade and tonnage sensitivity to various cut-off grades based on the existing block model and constraining parameters. True increase or reduction of the cut-off grades could alter the limits of the vein model which would have an influence on the volume, and tonnage, of material available to the model resulting in different grade-tonnage plot than those shown below.

Grade-tonnage plots are included below for the Babicanora Area block model in Figure 13-25, for the Area 51 domain within the Babicanora model in Figure 13-26, for Babicanora Norte in Figure 13-27, Babicanora Footwall in Figure 13-28 and for the entire Las Chispas Area block model, including Las Chispas, Giovanni, Giovanni Mini and La Blanquita in Figure 13-29.

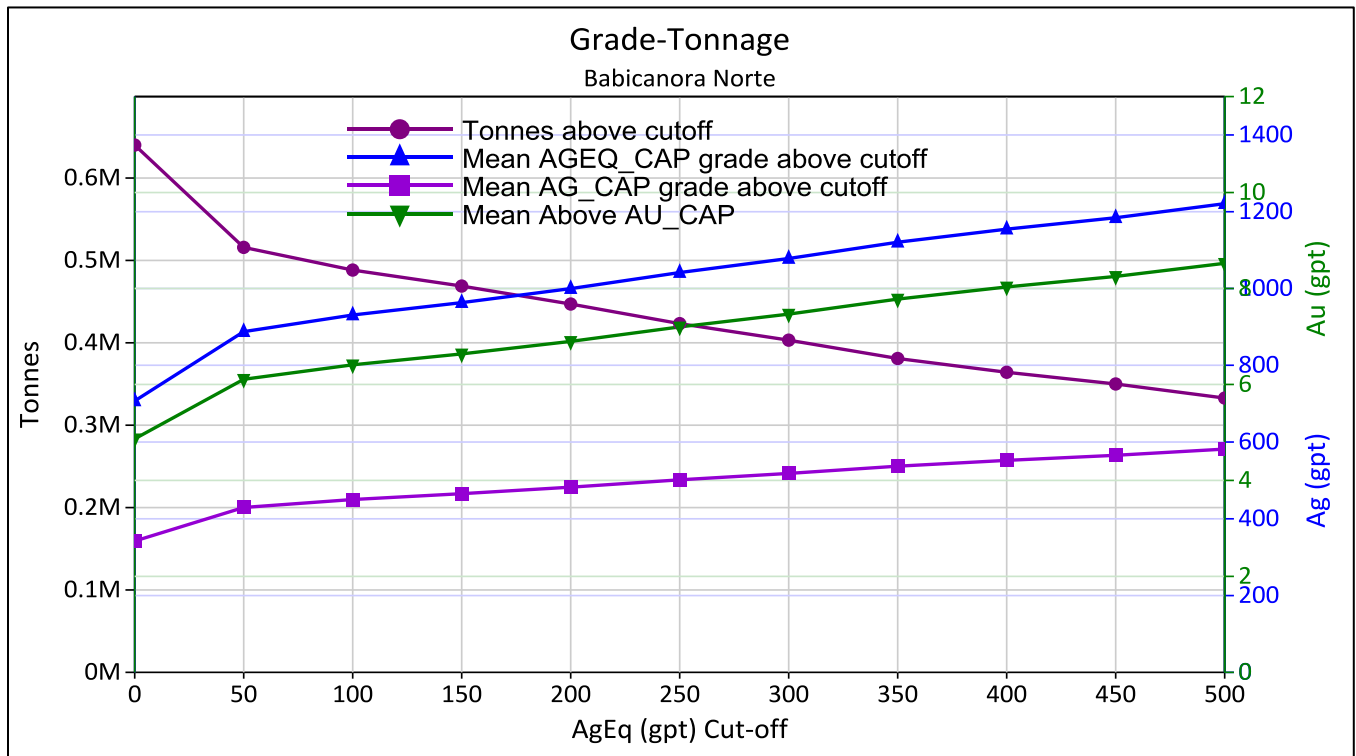
**Figure 13-25: Grade-tonnage Plot for the Babicanora Area**



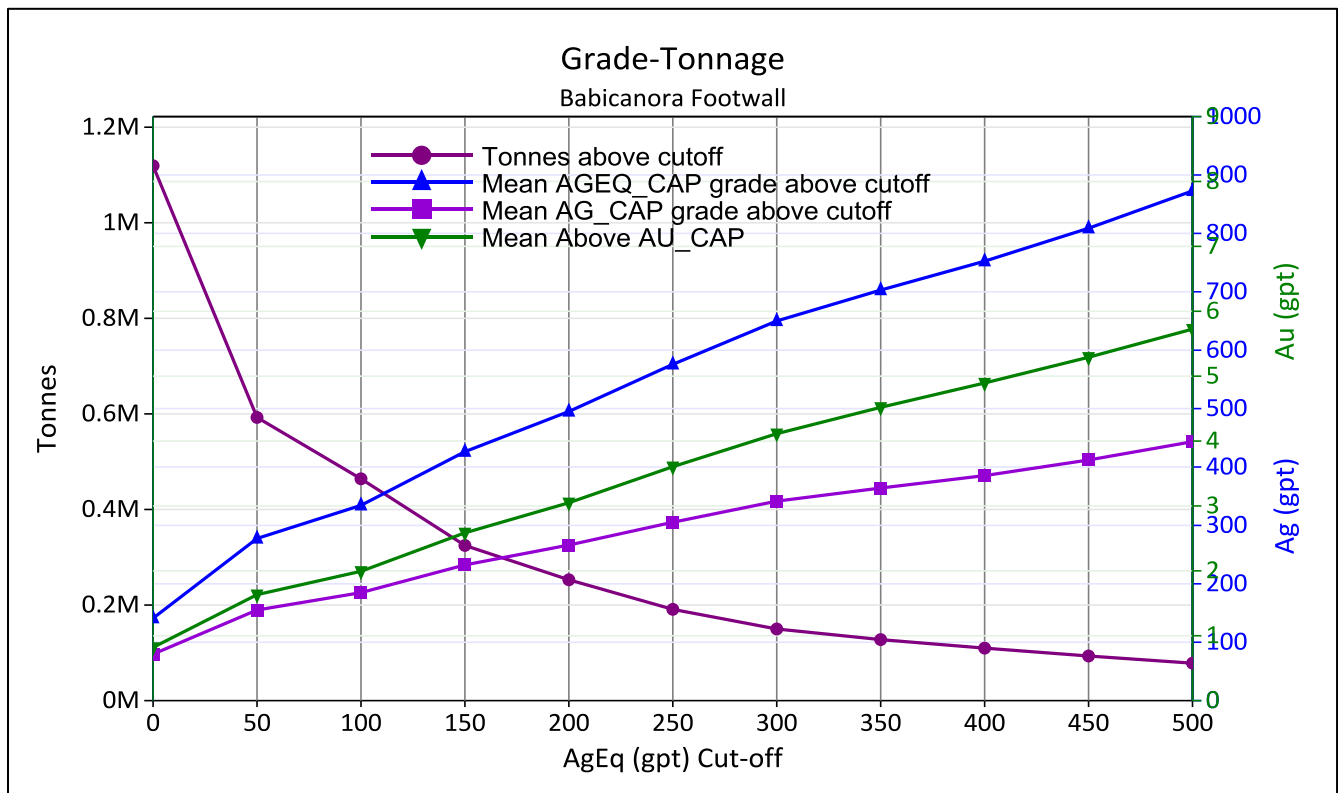
**Figure 13-26: Grade-tonnage Plot for Area 51 within the Babicanora Area**



**Figure 13-27: Grade-tonnage Plot for Babicanora Norte**

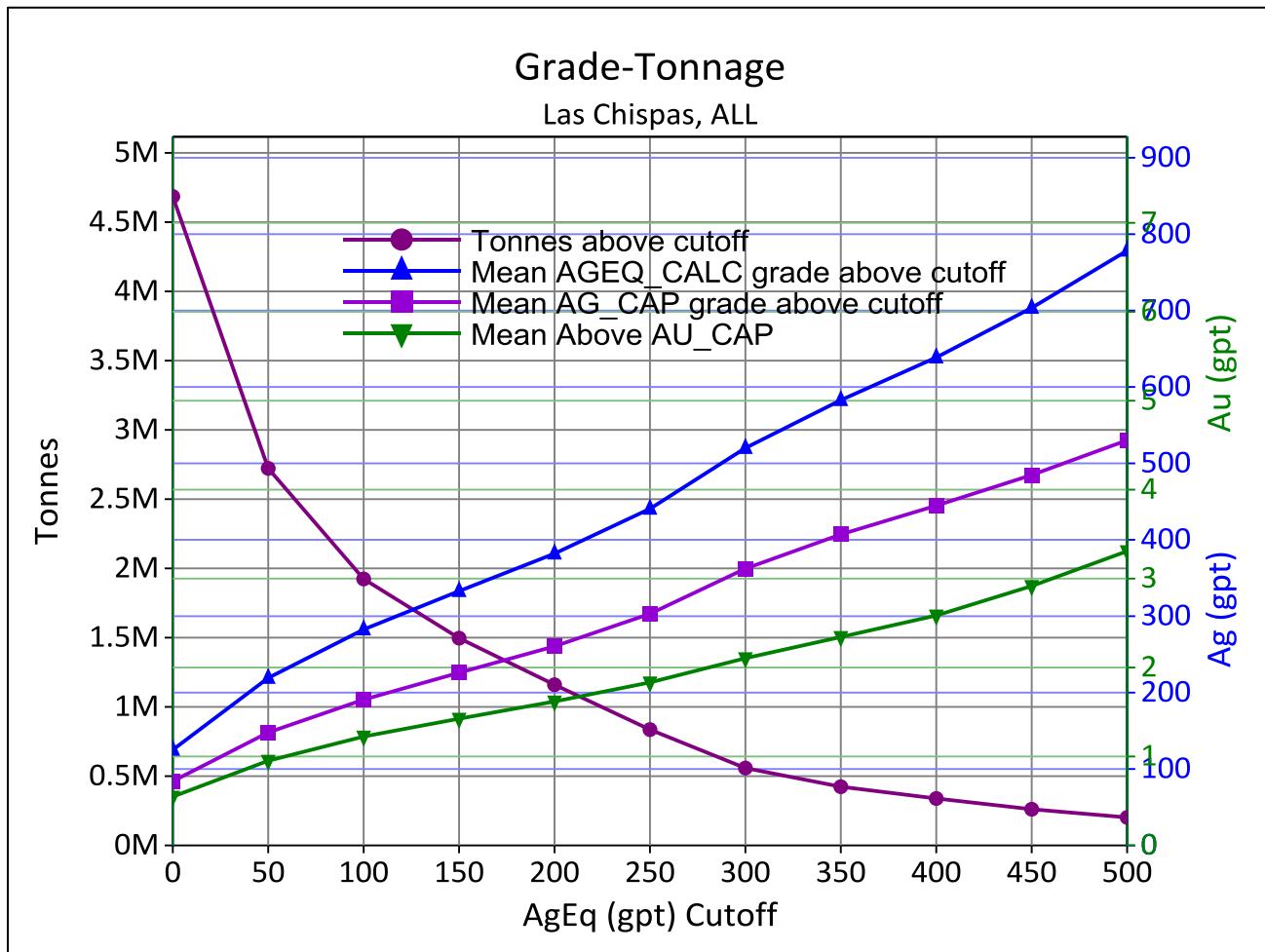


**Figure 13-28: Grade-tonnage Plot for Babicanora Footwall Vein**





**Figure 13-29: Grade-tonnage Plots for the Las Chispas Area (Las Chispas, Giovanni, Giovanni Mini, La Blanquita)**



## **14.0 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT**

### **14.1 Permitting**

---

Las Chispas will require ongoing exploration permits to continue with drilling and exploration activities. SilverCrest currently holds an exploration permit for surface drilling which will need to be extended as of June 26, 2021.

### **14.2 Environmental Impact Statement for Exploration and Bulk Sampling**

---

SilverCrest submitted an environmental impact statement (MIA) to the Mexican Government's Secretariat of Environment and Natural Resources (SEMARNAT) along with an application for an underground drilling permit. The permit was authorized on September 19, 2016 for a 10 year period and also authorizes a proposed program to extract a bulk sample up to 100,000 tonnes for off-site testwork. Amendments to the MIA will be required to conduct exploration activities beyond the historical mining areas, and also prior to the construction of any building facilities on-site.

### **14.3 Environmental Liabilities**

---

No known environmental liabilities exist on the Property from historical mining and processing operations. Soil and tailings testing was conducted as part of the overall sampling that has been ongoing on-site. To date there are no known contaminants in the soils. Water quality testing is currently ongoing for a baseline environmental study that is being done on-site.

## 15.0 ADJACENT PROPERTIES

No advanced exploration or operating properties are known to exist immediately adjacent, or continuous to, the Las Chispas Property, which have relevance to this report.

### 15.1.1 Nearby Operating Mines

Numerous operating mines exist along the Rio Sonora valley in proximity to the Las Chispas Property. These include the nearby Santa Elena Mine which is operated by First Majestic Silver Corp. and the Mercedes Mine which is operated by Premier Gold Mines Ltd. Santa Elena Mine is an Au-Ag underground mine, processing approximately 3,000 tpd and is located approximately 22 km south-southwest of Las Chispas (First Majestic, 2017). The Mercedes Mine is also an Au-Ag underground mine, processing approximately 2,000 tpd and is located approximately 33 km to the northwest of Las Chispas (Premier, 2018).

The mineral deposits being exploited at these mines are low to intermediate sulphidation epithermal veins with associated breccia and stockwork over varying widths of less than one metre to greater than ten metres. Deposits are hosted in volcanoclastic host rock lithologies with similar age of precious metal emplacement of late Cretaceous to Tertiary compared to Las Chispas. The Au-Ag endowment and mineralization found on these properties are similar to Las Chispas in lithology, structural controls, alteration, and geochemistry with some variations. The operations of these mines may differ from a potential future operation at Las Chispas.

The QP was part of the acquisition, discovery, exploration, study, financing, construction and the first 5 years of production at the Santa Elena Mine. The QP has visited the Mercedes Mine on numerous occasions since 2010 with knowledge of the geology, mineralization, controls, metallurgy, construction and production.

## 16.0 CONCLUSIONS AND RECOMMENDATIONS

The vein models currently assume that all mineralization is hosted in competent and semi-homogenous material. Zones of strong clay alteration or brecciation have been observed to exist at vein contacts and internal to vein structures. The veins should be modelled with representation of significant features such as these which may have impact on mining considerations.

Phase I core drilling of 22 holes totaling 6,392.6 m and 4,331 samples targeted near surface mineralization and lateral extensions of previously mined areas in the Las Chispas Vein, in addition to the William Tell Vein and the La Victoria prospect. Phase II core drilling of 161 drill holes totaling 39,357.7 m and 23,218 samples targeted testing unmined portions of the Las Chispas Vein, delineation of the Giovanni, Giovanni Mini, La Blanquita and other unnamed veins, in addition to exploration of the La Varela Vein, all within the Las Chispas Area. Drilling at Babicanora focused on delineating the down plunge and vertical extents of the Babicanora Vein, in addition to exploratory drilling on the Amethyst Vein and the Granaditas target, all within the Babicanora Area. Phase III core drilling of 122 drill holes totaling 37,059.5 m and 19,455 samples targeted the Babicanora Norte Vein, Luigi Vein and Granaditas Vein as well as continuing to delineate the down plunge and vertical extents of the Babicanora Vein and Footwall vein. As of the Effective Date, SilverCrest has completed drilling a total of 82,809 m in 305 core holes since starting in March 2016.

Drilling on the Babicanora Vein has discovered significant silver and gold mineralization along a regional plunging trend which has been named Area 51 zone, based on anchor mineral intersection in hole BA-17-51 (3.1 m grading 40.45 gpt Au and 5375.2 gpt Ag, or 8409 gpt AgEq). The area measures approximately 800 metres along strike and 500 m vertically. The top of Area 51 is located at approximately the same elevation as the valley bottom or 200 vertical m from the ridge crest.

The extensive mapping and sampling program being undertaken by SilverCrest has identified that many of the mineralized showings are comprised of narrow and high grade mineralized veins corresponding with low to intermediate sulphidation epithermal deposit models and which are hosted in volcanic and volcanoclastic rocks.

### 16.1 Recommendations

Based on the results of exploration work completed to date, it is concluded that the Las Chispas Property comprises an extensive mineralizing system, with numerous veins, or portions of veins, that remain intact and potentially undiscovered.

The Las Chispas Property comprises an extensive mineralizing system and merits further work to continue to characterize the internal variability and extents of the 30 known veins in the district and to explore the numerous veins not yet tested by drilling. A Phase III program estimated to cost approximately US\$15 million, which was originally recommended in the February 2018 Maiden Resource Estimate, continues to be reasonable. This exploration program, which commenced in February 2018 and is currently ongoing as of the Effective Date of this report, includes additional underground channel sampling, dedicated metallurgical testwork on significant veins, expansion and infill drilling along multiple veins, exploration decline at Area 51 zone, baseline work and permitting. Results from the remainder of the Phase III program should be incorporated into a second updated mineral resource technical report and preliminary economic assessment. A cost estimate for this program is included below.

**Table 16-1: Cost Estimate for Additional Phase III Exploration Work**

<b>Item</b>	<b>Units</b>	<b>Cost Estimate (USD\$000)</b>
Dedicated sampling and metallurgical testwork on most significant veins	200 samples, composites and testwork	100
Expansion and infill drilling along multiple veins	45,000 m (surface and underground)	9,000
Area 51 decline and exploration	1,500 m	3,000
Baseline work and permitting	Decline, explosives, added drilling	200
Water exploration, permitting and purchase	All rights for water use	300
Update resource and technical report	Q1 2019 Technical Report	100
Preliminary economic assessment	Q1 2019 PEA	300
Mexico admin and labor	G & A	1,500
Corporate support	Corporate G & A	500
<b>Total</b>		<b>15,000</b>



## REFERENCES

- Aguirre-Díaz, G., and McDowell, F., 1991, The volcanic section at Nazas, Durango, Mexico, and the possibility of widespread Eocene volcanism within the Sierra Madre Occidental: *Journal of Geophysical Research*, v. 96, p. 13,373–13,388.
- Aguirre-Díaz, G., and McDowell, F., 1993, Nature and timing of faulting and synextensional magmatism in the southern Basin and Range, central-eastern Durango, Mexico: *Geological Society of America Bulletin*, v. 105, p. 1435–1444.
- Alaniz-Alvarez and Nieto-Samaniego, A.F., 2007, the Taxco-San Miguel de Allende fault system and the Trans-Mexican Volcanic Belt: Two tectonic boundaries in central Mexico active during the Cenozoic, in Alaniz-Alvarez, S.A and Nieto-Samaniego, A.F., ed., *Geology of Mexico: Celebrating the Centenary of the Geological Society of Mexico: Geological society of America special Paper 422*, p. 301-316.
- Barton, P.B., Jr., and Skinner, B.J., 1979, Sulfide mineral stabilities, in Barnes, H.L., ed., *Geochemistry of Hydrothermal Ore Deposits: New York, Wiley Interscience*, p.278-403.
- Buchanan, L.J., 1981, Precious metal deposits associated with volcanic environments in the southwest: in *Relations of Tectonics to Ore Deposits in the Southern Cordillera: Arizona Geological Society Digest*, v. 14, p. 237-262.
- Carlos M. González-León., Víctor A. Valencia., Margarita López-Martínez., Hervey Bellon., Martín Valencia-Moreno., and Thierry Calmus, 2010, Arizpe sub-basin: A sedimentary and volcanic record of Basin and Range extension in north-central Sonora, Mexico. *Revista Mexicana de Ciencias Geológicas*, v. 27, núm. 2, 2010, p. 292-312
- Colombo, F., 2017, Petrographic Report on Eight Rock Samples from Las Chispas District, Sonora, Mexico for SilverCrest Metals Inc. Internal report, Oct 31, 2017, pp 1-17.
- Colombo, F., 2017, Petrographic Report on 24 Rock Samples from Las Chispas District, Sonora, Mexico for SilverCrest Metals Inc. Internal report for SilverCrest Metals, p. 1-71. December 1, 2017
- Dahlgren, C.B., 1883, *Historic Mines of Mexico: a Review of the Mines of that Republic for the past Three Centuries*, p 81-82.
- Delgado-Granados, H., Aguirre-Díaz, G.J., Stock, J.M., 2000, Cenozoic Tectonics and Volcanism of Mexico, *Geological Society of America Special Paper 336*, 278 pages.
- Desautels, P.E., 1960, Occurrence of Multi-form Fluorite from Mexico, *Notes and News in the American Mineralogist*, vol 45, p 884, July-August 1960.
- Dufourcq, E.L., 1910, Minas Pedrazzini Operations near Arizpe Sonora, *Engineering and Mining Journal*, vol 90, p 1,105, December 3, 1910.
- Dufourcq, E.L., 1912, Chispas Cyanide Plant, Arizpe, Sonora, *Columbia University, The School of Mines Quarterly*, vol 33, p 18, 1912.
- Ferrari, L. Valencia-Moreo, M., Bryan, S., 2007, Magmatism and tectonics of the Sierra Madre Occidental and its relation with the evolution of the western margin of north America, p. 1-29; in *Geology of Mexico: Celebrating the Centenary of the Geological Society of Mexico*, The Geological Society of America, Special Paper 422, 2007, edited by Susana A. Alaniz-Alvarez and Angel F. Nieto-Samaniego; 465pp.
- First Majestic Silver, 2017. Annual Information Form (AIF) for the Year Ended December 31, 2016, report dated March 31, 2017.
- Gonzalez-Becuar Elizard., Efrén Perez-Segura., Ricardo Vega-Granillo., Luigi Solari., Carlos M. Gonzalez-Leon, Jesus Sole., and Margarita Lopez Martinez., 2017, Laramide to Miocene synextensional plutonism in the Puerta del Sol area, central Sonora, Mexico. *Revista Mexicana de Ciencias Geológicas*, vol. 34, number. 1, March, 2017, pp. 45-61

- Carlos M. González-León, Luigi Solari, Jesús Solé, Mihai N. Ducea, Timothy F. Lawton, Juan Pablo Bernal, Elizard González Becuar, Floyd Gray, Margarita López Martínez, and Rufino Lozano., 2011 Stratigraphy, geochronology, and geochemistry of the Laramide magmatic arc in north-central Sonora, Mexico. *Geosphere*; December 2011; v. 7; no. 6; p. 1392–1418.
- Heberlein Kim., 2018, Thin Section Analysis of Babicanora, SilverCrest Internal report, pp 1-18.
- Henley, R.W., and Ellis, A.J., 1983. Geothermal systems, ancient and modern. *Earth Science Reviews*, v.19, p. 1-50.
- Johnson, C. M., 1991, Large-scale crust formation and lithosphere modification beneath middle to late Cenozoic calderas and volcanic fields, Western North-America: *Journal of Geophysical Research*, v. 96, p. 13485–13507.
- Mining and Scientific Press, 1897, published June 26, 1897, p 539.
- Montijo, F., 1920, the Las Chispas Mine, in Sonora Mexico, Mining and Scientific Press, vol 121, p 58, July-December. 1920.
- Morrison Greg, Guoyi Dong, Jaireth., 1990, Textural Zoning in Epithermal Quartz Veins, Klondike Exploration Services, pp 5-10.
- Mulchay, R.B., 1935, Summary of Reconnaissance Examinations and General Information Arizpe District, Sonora, West Coast Syndicate.
- Mulchay, R., 1941, Victoria – Chispas District, File Collection Dr6: historical sample analysis records from the La Victoria workings, internal SilverCrest document.
- Pérez Segura Efrén, 2017, Estudio microtermométrico (inclusiones fluidas) del yacimiento Las Chispas, Sonora México, Internal report for SilverCrest Ltd, May 2017.
- Premier Gold Mines Limited, 2018. Annual Information Form (AIF) for the Year Ended December 31, 2017, report dated March 29, 2018.
- Quevedo León, A., Ramírez López, J.A., 2008, Carta Geológico-Minera Bánamichi, H12-B83, Sonora, Servicio Geológico Mexicano, map scale 1:50,000
- Ralf, C., 2017 Epithermal Gold and Silver Deposits: ICMJ's Prospecting and Mining Journal, on line <https://www.icmj.com/magazine/print-article/epithermal-gold-and-silver-deposits-3618/>
- Rogers, J.W et.al., 2004, Continents and Supercontinents. Chapter 6. p85.
- Russell, B.E., 1908, Las Chispas Mines, Sonora, Mexico, *The Engineering and Mining Journal*, vol 86, p 1,006, November 21, 1908.
- Schlische W. R., 1995, Geometry and Origin of Fault-Related Folds in Extensional Settings. *AAPG Bulletin*, V. 79, No. 11, November 1995, p. 1661-1678.
- SGS Mineral Services, 2017. Lixiviación en Botella con NaCN Paratres Muestras de Mineral de Silvercrest "Las Chispas", document DU36998, November 15, 2017.
- Sillitoe, R.H., 1991, Gold rich porphyry systems in the Maricunga Belt, northern Chile: *Economic Geology*, v. 86, p. 1238-1260.
- Sillitoe, R.H., 1994, Erosion and collapse of volcanoes: Causes of telescoping in intrusion-centered ore deposits. *Geology*, v. 22, number 10, p. 945-967.
- Sillitoe, R.H., 2010, Porphyry copper systems. *Economic Geology*, v. 105, p. 3-41.
- SilverCrest, 2015, Babicanora Project, Arizpe, Sonora, Mexico, internal SilverCrest report.
- Turner, M., 2011, Babicanora Project, Sonora, Mexico, Nuevo Babicanora Lote, Drilling Summary, internal Minefinders report.

Wallace, T.C., 2008, Famous Mineral Localities: The Las Chispas Mine, Arizpe, Sonora, The Mineralogical Record, vol 39, p , November-December, 2008.

Wark, D. A., Kempter, K. A., and McDowell, F. W., 1990, Evolution of waning subduction-related magmatism, northern Sierra Madre Occidental, Mexico: Geological Society of America Bulletin, v. 102, p. 1555–1564.

Weed, W.H., 1922, The Mines Handbook, vol 15, p 1946-1947.

White, N.C. and Hedenquist, J.W., 1995, Epithermal gold deposits: styles, characteristics and exploration: SEG Newsletter, no. 23, p. 1, 9-13.

## **APPENDIX A**

### **STATEMENT OF QUALIFICATIONS**

## **N. Eric Fier, CPG, P.Eng**

### **I, N. Eric Fier, CPG, P.Eng, of Mission, British Columbia, do hereby certify:**

- I am the CEO of SilverCrest Metals Inc. with a business address at Suite 500 - 570 Granville Street, Vancouver, BC, V6C 3P1.
- I am a Certified Professional Geologist registered with the American Institute of Professional Geologists (AIPG USA) (member #10622) and am a member in good standing in the Engineers and Geoscientists of British Columbia (EGBC) (member #135165).
- Since 1984, I have worked as a professional engineer and geologist in exploration, development, financing, construction and production for numerous precious and base metal projects in over 30 countries including Mexico and throughout North America, South America, Africa and Asia, and have been preparing mineral resource estimates since 1986, including for underground gold and silver vein hosted deposits.
- I hold two Bachelors of Science degrees in Geological Engineering (1984) and Mining Engineering (1986) from Montana Tech, Butte, Montana.
- This certificate applies to the technical report entitled, "Technical Report and Updated Mineral Resource Estimate for the Las Chispas Property Sonora, Mexico" with an effective date of September 13, 2018 (the "Technical Report").
- I have visited the Property that is the subject of the Technical Report on numerous occasions from October 1, 2015 to September 13, 2018.
- I am not independent of SilverCrest Metals Inc., as independence is described in National Instrument 43-101 ("NI 43-101").
- Previous to this report, I have authored several technical reports adjacent to the Las Chispas property including; various technical reports on the Santa Elena Property, Mexico and Cruz de Mayo Property, Mexico
- I am responsible for the contents of this Technical Report.
- I confirm that I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with them.
- 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.

**Signed and dated this 19<sup>th</sup> day of November 2018 at Vancouver, British Columbia**

*Original has been signed and sealed*

---

N. Eric Fier, CPG, P.Eng  
Chief Executive Officer  
SilverCrest Metals Inc.