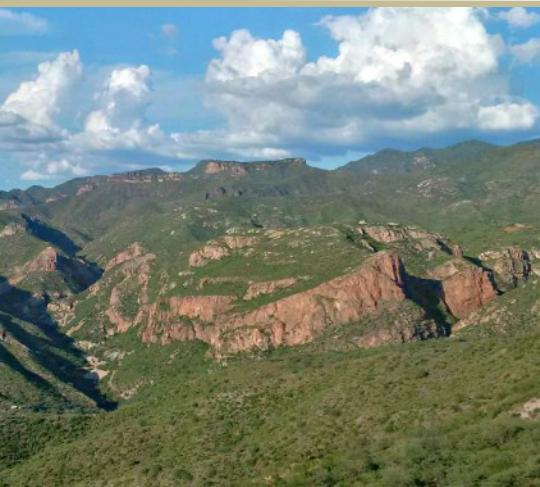


## Technical Report on the Las Chispas Property Sonora, Mexico



PRESENTED TO  
**SilverCrest Metals Inc.**



EFFECTIVE DATE: SEPTEMBER 15, 2016  
RELEASED DATE: OCTOBER 26, 2016

*Report Author:*  
*James Barr, P. Geo.*

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## EXECUTIVE SUMMARY

Tetra Tech EBA Inc. (Tetra Tech) was retained by SilverCrest Metals Inc. (SilverCrest) to prepare a National Instrument 43-101 (NI 43-101) Qualifying Report (the Qualifying Report) for the Las Chispas Property (Las Chispas or the Property), located in the State of Sonora, Mexico. The effective date of this report is September 15, 2016.

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 to no mining activity is believed to have been conducted on the Property since this time. In 1910, annual production for 3 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. Exceptionally high grades in the mine are a result of the concentration and formation of numerous secondary sulphide and antimonide minerals, mainly argentite/acanthite, stephanite, polybasite and pyrargyrite. Numerous mineral specimens from the mine were donated to museums and educational institutions, most notably those on display at the American Museum of Natural History in New York City.

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, where according to historical records mining has occurred over a strike length of approximately 550 m to a maximum depth of approximately 350 m. Mining at Las Chispas has 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.

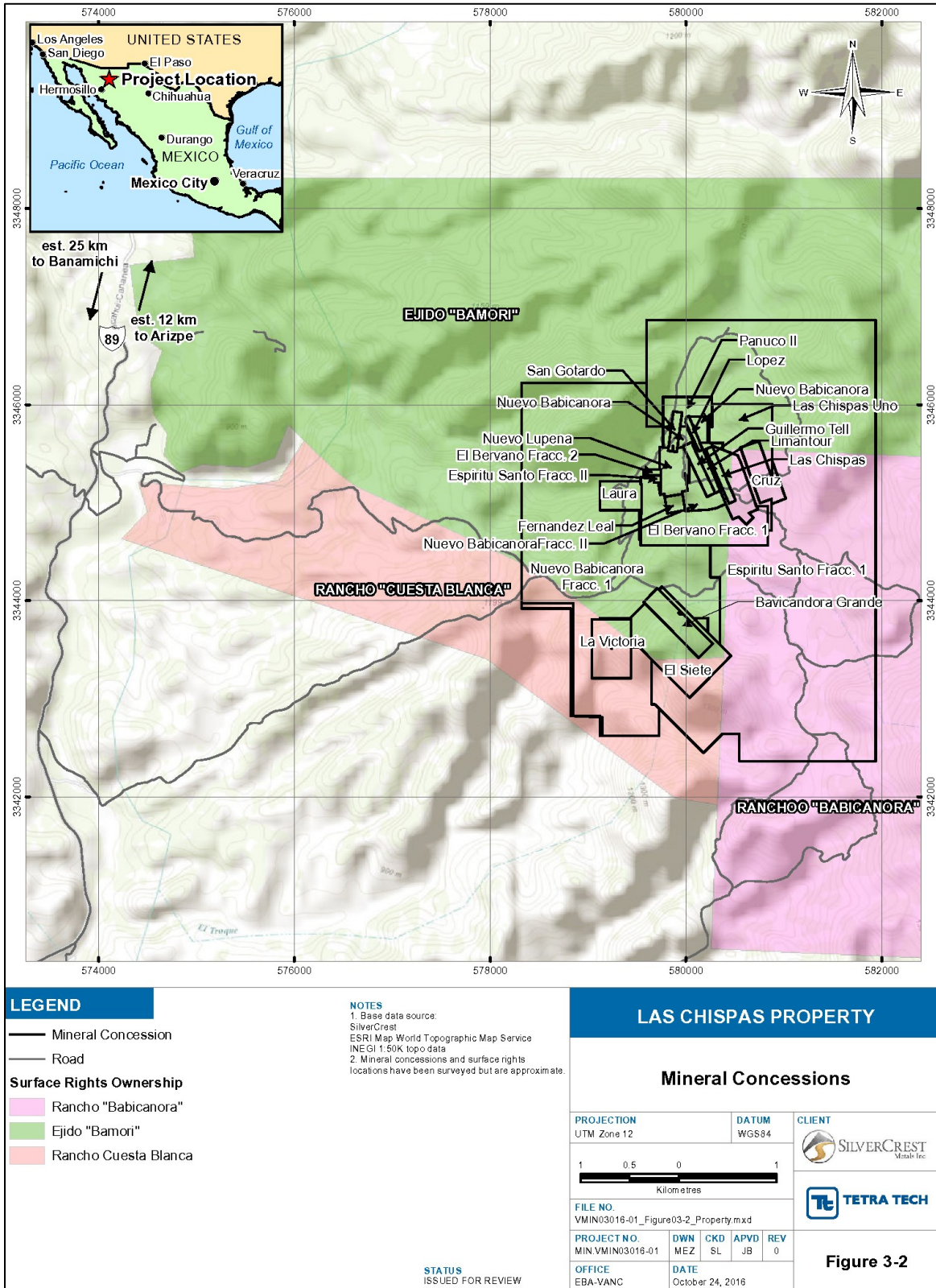
SilverCrest has gained access to many of the historical workings through extensive mine rehabilitation of approximately 6 km of a known 11.5 km of underground development. Further rehabilitation is programed for at least the remainder of 2016.

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 11 km to the north. The Mercedes Mine operated previously by Yamana, and now Premier Gold, is located 32 km northwest of Las Chispas.

The Property is comprised of 21 mineral concessions totalling 1,377.50 hectares which are under option to SilverCrest through settled agreements with four concession holders. Agreements for land access and exploration activities on the mineral concessions are in place with the local Ejido (Ejido Bamori), and two private property owners. The map shown in Figure 1 shows the Property layout including mineral concessions and surface rights ownership.

The mineral deposits are classified as low-moderate sulphidation epithermal veins, stockwork and breccia zones, where silver 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 results of leaching, concentrating and redistributing the primary silver sulphides.

**Figure 1: Las Chispas Property and mineral concessions map**





The deposits have been emplaced through a felsic 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 totalling 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, totalling 1,842.5 m from the road to the west and off of the main mineralized trends. The program returned negative results and Minefinders dropped the property in 2012.

SilverCrest Mines Inc. (now 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 La Compañía Miñera La Llamarada S.A. de C.V. pursuant to an arrangement agreement between SilverCrest, SilverCrest Mines Inc., and First Majestic Silver Corp. After October 2015, SilverCrest obtained the rights to four (4) additional mineral concessions.

Since February of 2016, SilverCrest has been conducting an ongoing exploration program which has included collection of more than 5,000 underground chip samples, 44 underground channel samples, 67 underground historical muck samples. Of these, results are available for 2,055 chips, and all 67 historical muck samples. A total of 301 underground chip samples graded in excess of 150 gpt AgEq, which together have an average grade of 4.3 grams per tonne Au and 332 grams per tonne Ag. Select highlights from the underground sampling results available at the effective date of this report are shown in Table 1. On surface, a total of 1.2 square kilometres has been mapped which has included collection of more than 50 outcrop samples and 493 surface dump samples.

Phase I core drilling of 22 holes totalling 6,558.1 metres and 4,332 samples targeted the Las Chispas Vein, William Tell Vein and the La Victoria prospect. The location of the 2011 Minefinders drilling and the 2016 SilverCrest drilling is shown in Figure 2. Select highlights of the Phase I drilling results are shown in Table 2.

**Table 1: Select Highlights from Underground Sample Results >400 grams per tonne AgEq\***

Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*
Las Chispas - 400 Level	Chip	2	2.10	462	616
	Chip	2	2.43	484	667
	Chip	0.7	2.89	476	692
	Chip	0.7	2.90	476	708
Las Chispas - 600 Level	Chip	1.4	2.65	541	739
Las Chispas Vein	Chip	0.7	3.71	780	1,058
	Chip	1.1	6.35	688	1,164
	Chip	1	6.52	797	1,286
	Chip	0.5	5.85	874	1,312
	Chip	2.2	1.09	1,260	1,341
	Chip	2.2	0.05	1,340	1,343
	Chip	1.6	6.53	896	1,385
	Chip				

Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*	
Las Chispas - 300 Level	Chip	0.6	7.99	867	1,466	
	Chip	1.1	2.93	1,270	1,489	
	Chip	1.2	1.94	1,380	1,525	
	Chip	0.4	6.50	1,080	1,567	
	Chip	1.2	8.43	975	1,607	
Las Chispas - 330 Level	Chip	1.4	7.04	1,140	1,668	
	Chip	0.6	8.97	1,090	1,762	
	Chip	0.3	11.25	1,140	1,983	
	Chip	0.8	10.55	1,440	2,231	
William Tell 600 level	Chip	1.2	5.80	84	548	
	Chip	0.8	7.90	560	1,192	
	Chip	0.9	24.50	780	2,617	
	Chip	1.1	7.50	116	678	
	Chip	0.7	6.00	419	869	
	Chip	1.1	7.40	284	842	
	Chip	0.5	2.50	453.9	640	
	Chip	0.6	8.50	345	984	
	Chip	0.8	7.90	560	1,150	
	William Tell North - 220 Level	Chip	0.7	7.80	1,160	1,742
		Chip	0.9	5.20	385	776
Chip		0.7	11.10	222	1,058	
Chip		1.2	8.40	94.9	722	
Chip		0.5	10.50	114	901	
Chip		0.2	6.70	117	622	
Chip		0.5	1.90	421	562	
Chip		0.6	4.40	423	753	
William Tell North - 450 Level	Chip	1.5	0.16	2,170	2,182	
	Chip	4.2	14.15	225	1,286	
	Chip	3	6.62	88	584	
	Chip	2	14.25	293	1,362	
William Tell South - 600 Level	Chip	1.8	3.40	245	501	
	Chip	0.8	2.20	372	539	
William Tell South - 650 level	Chip	0.94	1.78	477	610	
	Chip	0.68	7.41	1,109	1,664	
	<i>Includes</i>	0.37	13.40	1,560	2,565	
	<i>Includes</i>	0.31	0.26	571	590	
	Chip	0.98	1.20	969	1,059	
	Chip	0.93	10.85	1,895	2,708	
	Chip	1.12	9.47	1,910	2,620	
	Chip	0.55	4.27	686	1,006	
	Chip	0.55	32.50	1,665	4,102	
	Chip	0.33	23.60	2,730	4,500	

Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*
	Chip	2.25	1.93	672	816
	<i>Includes</i>	0.2	16.65	1,570	2,818
	<i>Includes</i>	1.1	0.75	1,000	1,056
	Chip	0.4	8.64	576	1,224
	Chip	1.3	5.13	307	692
	<i>Includes</i>	0.3	17.45	1,100	2,409
Varela 1	Chip	1.5	4.40	489	839
Varela 2	Chip	1.5	4.00	502	820
Babicanora	Chip	1.3	7.30	43	627
	Chip	1.2	5.40	164	596
	Chip	1.3	15.10	1,340	2,548
	Chip	1.5	4.10	136	464
	Chip	1.5	5.70	287	743
	Chip	1.5	5.40	50	482
	Chip	1.5	8.10	163	811
	Chip	1.0	0.90	329	401
	Dump	Grab	59.20	31	4,768

Note: all numbers are rounded.

\*AgEq based on 75:1 Ag:Au

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

**Table 2: Select Highlights from Phase I Drilling Results**

Hole No.	Area	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au gpt	Ag gpt	AgEq* gpt
LC-16-03	William Tell Vein	172	176	4	1.5	2.03	683	835
<i>includes</i>	William Tell Vein	173	175	2	0.8	3.81	1,102	1388
LC-16-05	Unnamed Vein	149	150	1	0.9	2.10	226	383
<i>and</i>	Las Chispas Vein	167	172	5	4.6	4.56	621	963
<i>includes</i>	Las Chispas Vein	171	172	1	0.8	18.55	2,460	3,851
LC-16-06	Las Chispas Vein	66	67	1	0.7	14.9	1,815	2,932
LC-16-08	Unnamed Vein	143	145	2	1.4	1.58	163	282
<i>and</i>	Las Chispas Vein	171	182	11	7.2	2.41	311	492
<i>includes</i>	Las Chispas Vein	171	176	5	3.3	2.25	276	444

Hole No.	Area	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au gpt	Ag gpt	AgEq* gpt
<i>includes</i>	Las Chispas Vein	181	182	1	0.7	14.4	1,900	2,980
LC-16-12	William Tell Vein	118	119	1	0.9	2.40	229	409
LC-16-13	William Tell Vein	168	172	4	3.2	1.08	141	222
<i>includes</i>	William Tell Vein	168	169	1	0.8	3.58	249	517
LC-16-13	New Vein	180	181	1	0.8	4.79	364	723
LC-16-15	William Tell Vein	197.5	199	1.5	1.3	1.94	352	497
LC-16-16	New Vein	93	94	1	0.9	6.57	395	888
LC-16-17	Las Chispas Vein	81	82	1	1	2.27	306	476
LC-16-18	Las Chispas Vein	80	81	1	1	1.55	706	822

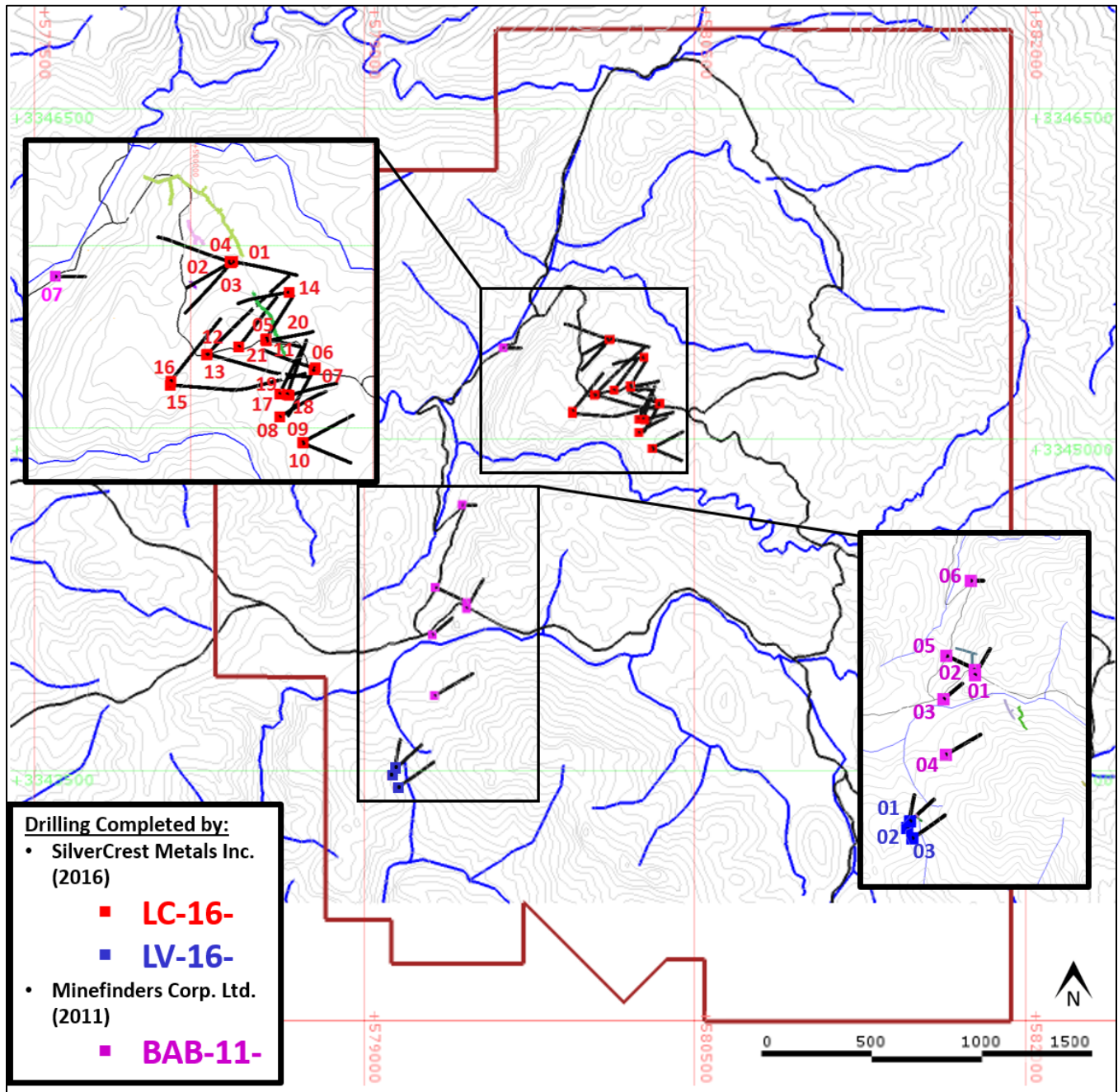
Note: all numbers are rounded.

\*AgEq based on 75:1 Ag:Au

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



Figure 2: Las Chispas Drilling Overview Map



SilverCrest has submitted an environmental impact statement (MIA) to the Mexican Government's Secretariat of Environment and Natural Resources (SEMARNAT) in application to permit underground drilling at Las Chispas. This permit application also includes a proposed program to extract a bulk sample up to 100,000 tonnes for off-site testwork. The approved permit was issued on September 15, 2016, and work should commence in Q4 2016.

Tetra Tech has recommended that, based on the exploration results received to date, the Las Chispas Property is extensive and merits further work. A Phase II program including additional underground channel sampling, dedicated metallurgical testwork on the historical insitu/muck/stockpiles and additional drilling has been recommended. A cost estimate for this program is included below. With success, a Phase III program could be recommended in the future.

<b>Item</b>	<b>Units</b>	<b>Cost Estimate (USD\$)</b>
Additional underground channel sampling and structural mapping	4,000 samples	250,000
Dedicated sampling and metallurgical testwork on historical insitu and muck material	50 samples + testwork	80,000
Drilling along Las Chispas Vein	3,000 metres (surface and u/g)	0.75M
Drilling along William Tell Vein	3,000 metres (surface and u/g)	0.75M
Drilling along Babicanora Vein	4,000 metres (surface and u/g)	1.0M
Admin and Labor		0.5M
<b>Total</b>		<b>\$3.33M</b>

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## **APPENDIX SECTIONS**

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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
CIM	Canadian Institute of Mining Metallurgy and Petroleum
Cu	copper
ETT	estimated true thickness
Fe	iron
gpt	grams per metric tonne
km	kilometre(s)
Llamarada	La Compañía Miñera La Llamarada S.A. de C.V.
m	metre(s)
NI 43-101	National Instrument 43-101
masl	metres above sea level
opt	troy ounces per short ton
Pb	lead
RC	reverse circulation
ROM	run-of-mine
Sb	antimony
SEMARNAT	Mexican Government's Secretariat of Environment and Natural Resources
SilverCrest	SilverCrest Metals Inc.
Tetra Tech	Tetra Tech EBA Inc.
U	uranium
UTM	Universal Transverse Mercator
QAQC	quality assurance and quality control
QP	Qualified Person
Zn	zinc

## 1.0 INTRODUCTION

Tetra Tech EBA Inc. (Tetra Tech) was retained by SilverCrest Metals Inc. (SilverCrest) to prepare a National Instrument 43-101 (NI 43-101) Qualifying Report (the Qualifying Report) for the Las Chispas Property (Las Chispas or the Property), located in the State of Sonora, Mexico. The effective date of this report is September 15, 2016.

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 6 km of historical underground development has been made accessible by an extensive underground rehabilitation program.

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.
- 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 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.
- The Las Chispas Vein: this is current term used by SilverCrest that encompasses the various mineral showings, underground developments and shafts which exist along a semi-continuous northwest trending structure.

In addition, reference to the William Tell Vein and the Babicanora Vein are also terms used by SilverCrest to encompass the various mineral showings, underground developments, and shafts which exist along these two additional semi-continuous northwest trending structures.

### 1.1 SITE VISIT

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A site visit was completed by Mr. James Barr, P.Geol., from Tuesday, August 30, 2016, to Thursday, September 1, 2016. During the site visit, Mr. Barr reviewed the Phase I drill core, observed numerous underground workings, reviewed SilverCrest sample collection and quality assurance and quality control (QAQC) protocol and collected numerous independent verification samples. Conversations with onsite SilverCrest technical personnel including Pascual Martinez (Senior Project Geologist), Maria Lopez (Logistics Manager) and Stephany (Rosy) Fier (Exploration Manager and Mining Engineer) covered topics relating to geological interpretation, 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. James Barr, P.Geol, Senior Geologist and Team Lead with Tetra Tech.



## 1.2 REPORTING OF GRADES BY SILVER EQUIVALENT

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Throughout the report, reference is made to silver equivalent (AgEq) grade to aid in assessing the polymetallic nature of the mineralization. For the purpose of this report, the calculation uses trailing three year metal prices of \$17.3 per ounce silver and \$1,300 per ounce gold. Metallurgical recovery is assumed equal for the metals. These parameters result in a silver to gold ration of 75:1.

## 2.0 RELIANCE ON OTHER EXPERTS

Information regarding mineral tenure and ownership of surface rights described in Section 3.0 was provided to Tetra Tech by SilverCrest, and is based on information provided by their Mexican legal counsel. Information includes maps and copies of Property transactions and/or agreements. Tetra Tech has not sought legal verification of the information, but believes the information to be true.

## 3.0 PROPERTY DESCRIPTION AND LOCATION

The Property is located 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.

Other nearby communities include Banamichi which is located 25 linear km to the southwest, and Arizpe which is located approximately 10 linear km to the northeast. The area is covered by the 1:50,000 topographic mapsheet "Banamichi" H12-B83.

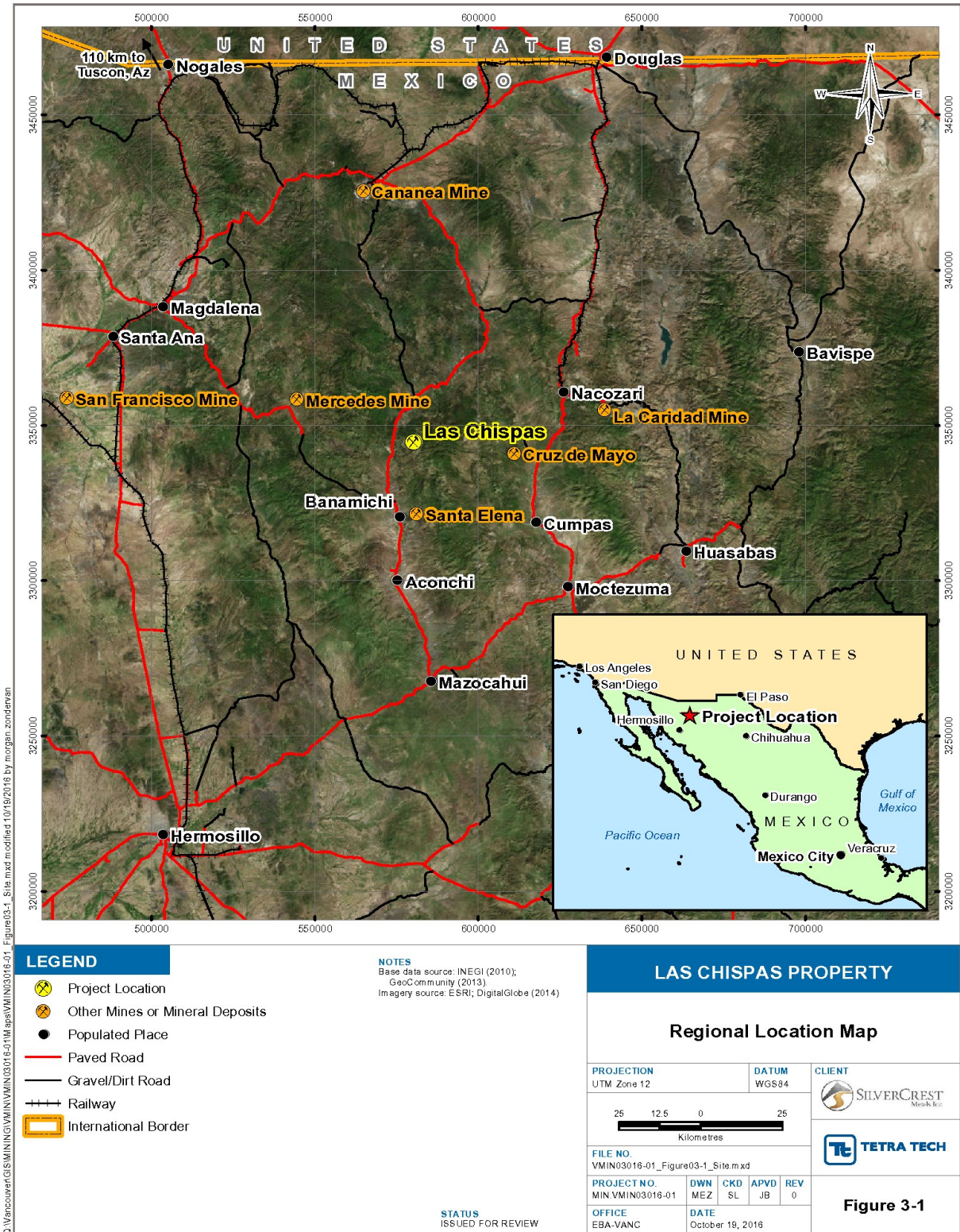
Few remnants exist on the Property which expose the active mining history and community development which once existed in this district. There are numerous historic mine portals and shafts which are partially overgrown with vegetation.

## 3.1 MINERAL TENURE

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Las Chispas is comprised of 21 mineral concessions, totalling 1,377.50 hectares, shown in Figure 3-2. La Compañía Miñera La Lllamarada S.A. de C.V. (Lllamarada), which is a fully owned subsidiary of SilverCrest registered in the State of Sonora, has established option agreements to purchase the concessions from four concession holders. The concessions are listed in Table 3-1.

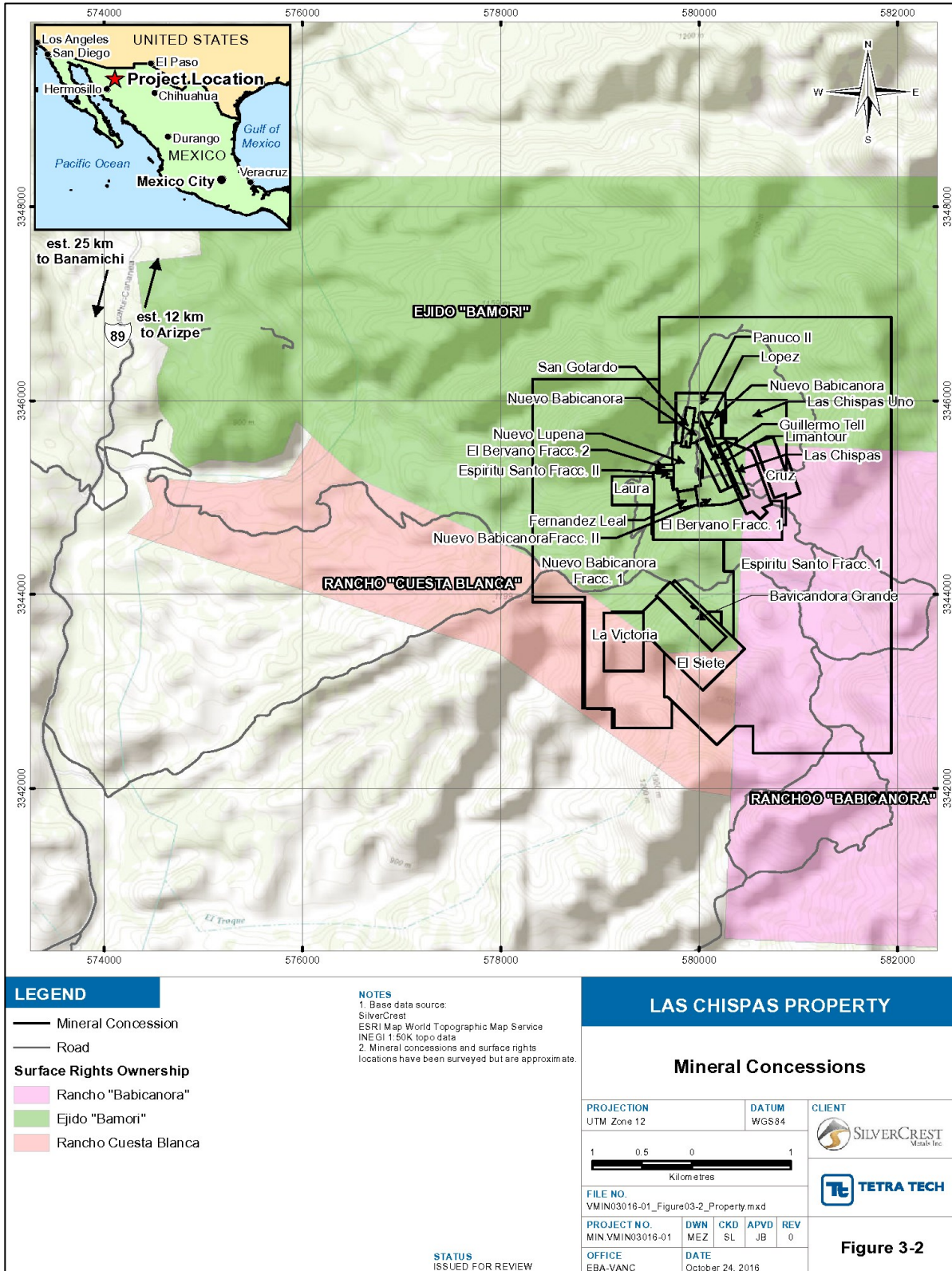
Figure 3-1: Location of the Las Chispas Property



Q:\Vancouver\GISE\MINING\VMIN03016-01\_Figure03-1\_Site.mxd modified 10/19/2016 by morgau.zondervan



**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) Local Mexican company
EL BERVANO FRACCION 2	212028	8/25/2000	8/24/2050	0.9966	(3) Local Mexican company
LAS CHISPAS UNO	188661	11/29/1990	11/28/2040	33.711	(3) Local Mexican company
EL SIETE	184913	12/6/1989	12/5/2039	43.239	(3) Local Mexican company
BABICANORA GRANDE	159377	10/29/1973	10/28/2023	16.00	(3) Local Mexican company
FERNANDEZ LEAL	190472	4/29/1991	4/28/2041	3.1292	(3) Local Mexican company
GUILLERMO TELL	191051	4/29/1991	4/28/2041	5.6521	(3) Local Mexican company
LIMANTOUR	191060	4/29/1991	4/28/2041	4.5537	(3) Local Mexican company
SAN GOTARDO	210776	11/26/1999	11/25/2049	3.6171	(3) Local Mexican company
LAS CHISPAS	156924	5/12/1972	5/11/2022	4.47	(3) Local Mexican company
ESPIRITU SANTO FRACC. 1	217589	8/6/2002	8/5/2052	733.3232	(3) Local Mexican company
ESPIRITU SANTO FRACC. II	217590	8/6/2002	8/5/2052	0.877	(3) Local Mexican company
LA CRUZ	223784	2/15/2005	2/14/2055	14.436	(3) Local Mexican company
LOPEZ	190855	4/29/1991	4/28/2041	1.72	(3) Local Mexican company
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) Gutierrez-Perez-Ramirez
PANUCO II	193297	Pending	Pending	12.93	(1) Gutierrez-Perez-Ramirez
LA VICTORIA	216994	6/5/2002	6/4/2052	24.0000	(4) Morales-Fregoso
<b>TOTAL (21)</b>				<b>1,377.50</b>	

Taxes are based on the surface area of each concession and are due in January and July of each year at a total annual cost of approximately US\$75,000. All tax payments 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: Adelaido Gutierrez Arce (34%), Luis Francisco Perez Agosttini (33%) y Graciela Ramírez Santos (33%)**

Llamarada 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, third payment of \$30,000 due on December 11, 2017, and final payment of \$100,000 due on December 11, 2018.

PANUCO II was cancelled in 1999, but was not published by the Mine Registry; therefore, the concession is currently being retrieved and restated. At the time of cancellation, the registered owner was Gutierrez. 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%)**

Llamarada 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, third payment of \$60,000 due May 20, 2018, fourth payment of \$100,000 due May 20, 2019, and final payment of \$350,000 due May 20, 2020.

#### **Concession Holder 3: Local Mexican Company**

Llamarada 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, and final payment of \$2,225,000 due June 3, 2018. Llamarada has also agreed to issue a number of SilverCrest Shares equal to \$500,000 by June 3, 2018.

The LOPEZ concession is 66.7% owned and optioned to SilverCrest by a local Mexican company and the remaining 33.3% is owned and not optioned to SilverCrest by local Mexican family.

#### **Concession Holder 4: 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, and third of \$100,000 due June 15, 2019.

## 3.2 LAND ACCESS AND OWNERSHIP AGREEMENTS

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The land underlying the Las Chispas mineral concessions and road access are controlled by three entities.

### **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 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.

### **Rancho Cuesta Blanca**

On June 20, 2016, Lllamarada signed a 20-year lease agreement with Francisco Bracamonte for surface access and usage on the Cuesta Blanca Ranch property. Compensation for exploration activities will be paid at a rate of MXN\$ 700 per hectare, up to total of 173.12 hectares. After exploration and announcement of mine construction/production, compensation will be paid on scaled timeframe at 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.

### **Rancho Babicanora**

On November 17, 2015, Lllamarada signed a two-year lease letter with Blanco Imelda Rojo Lopez to conduct exploration activities on the Babicanora Ranch. The buildings on the ranch are currently used by SilverCrest for processing and storage of exploration samples. The terms of the agreement include monthly rent of buildings at cost of MXN\$ 6,000.

## **3.3 ROYALTIES**

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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**

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### **4.1 CLIMATE**

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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**

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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 sub-vertical 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**

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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**

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### **4.4.1 Water Supply**

Current water requirements during exploration is minimal, where diamond drilling requires the greatest capacity. Some wells have been established to supply local ranches. Hydrogeological testing has not yet been conducted to determine depth to water table; historical underground workings have been noted to be dry, with some locally perched water noted in a few internal shafts and stopes.

### **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.

### **4.4.3 Infrastructure**

No infrastructure from the historical mining industry remains on the Property except for roads and a few eroding rock foundations.

### **4.4.4 Community Services**

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

## **5.0 HISTORY**

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Historical records indicated mining in the area of 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 2008. 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 and in the public domain. 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**

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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 mine was operated intermittently from the 1880's onwards by John (Juan) Pedrazzini, 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 (est. February 1907). In an article in the Mining and Scientific Press from 1897, it was noted that John Pedrazzini sold the El Carmen Mine for \$1,500,000. He was a former accountant of the Santa Maria Mining Company, and he reportedly received the (Las Chispas) mine as compensation for unpaid back wages. Antonio Pedrazzini (Photo 5-1), nephew of John, maintained an active role in the operation and management of the mine. From 1904, Edward Dufourcq was appointed as general manager of the mine. The Pedrazzini Co. was the first operator to drive an adit into the Las Chispas Vein, along what is currently known as the San Gotardo Tunnel or 600 level. Referenced historical levels, i.e., 600 level, are marked as the depth in feet from the Las Chispas shaft collar.

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 kilometres south of the Las Chispas Mine. Little is known about the historical production and operations of these companies; however, it is understood that a small mill was installed at El Carmen to process ores of El Carmen and Granaditas in a similar manner to the San Gotardo (Las Chispas) mill (Russell, 1907).

The San Gotardo Mill, operated by Pedrazzini, was located at the northern portal to the 600 level of the Las Chispas and William Tell Veins, and consisted of a 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 (tank) 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 first developed the Babicanora Mine, the year is not known (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. In May of 1887, numerous deaths occurred in the Babicanora workings caused by a major earthquake that was documented with epicentre in the northeastern portion of the State of Sonora.

**Photo 5-1: Antonio Pedrazzini and Family at Las Chispas, Circa Early 1880'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 grades of 1.1 ounces per ton gold and 146.8 ounces per ton 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
Tons	3,286	3,064	3,540	12,000	21,890
Gold ounces per ton	1.5	1.4	1.0	1.0	1.1
Silver ounces per ton	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)

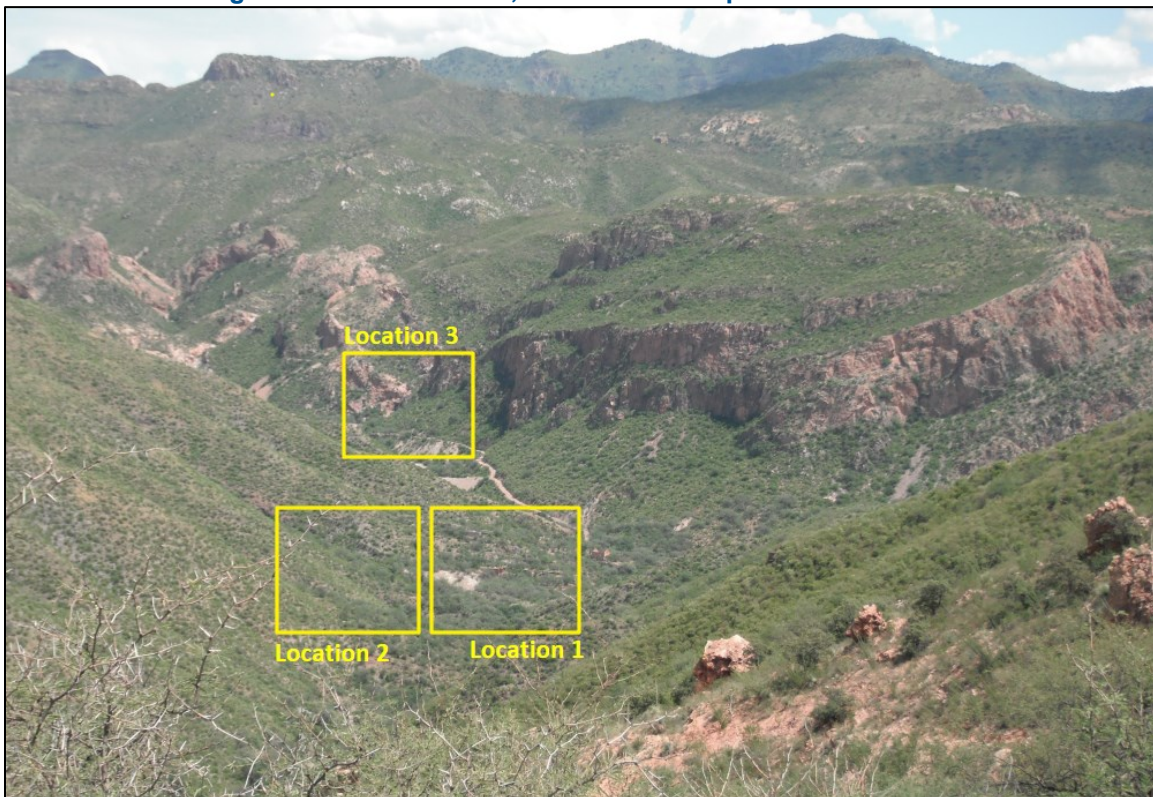


Some records suggest that small scale mining at Espiritu Santo and operation of a small mill at Babicanora occurred in 1935 (Mulchay, 1935). Espiritu Santo workings consist of a small inclined shaft approximately 80 cm wide which declines below a small drainage to two short ore drifts where grades up to 500 ounce per tonne silver were 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 ton gold and 79.2 to 490 ounces per ton 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 5-2 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 5-6 are from various locations around the historical operation. Photo 5-7 is a rendering of the current view to the Upper Babicanora portal.

**Photo 5-2: View Looking to the North Down to Main Valley where the Las Chispas Community and Processing Plants were Located, Photo Taken September 2016**

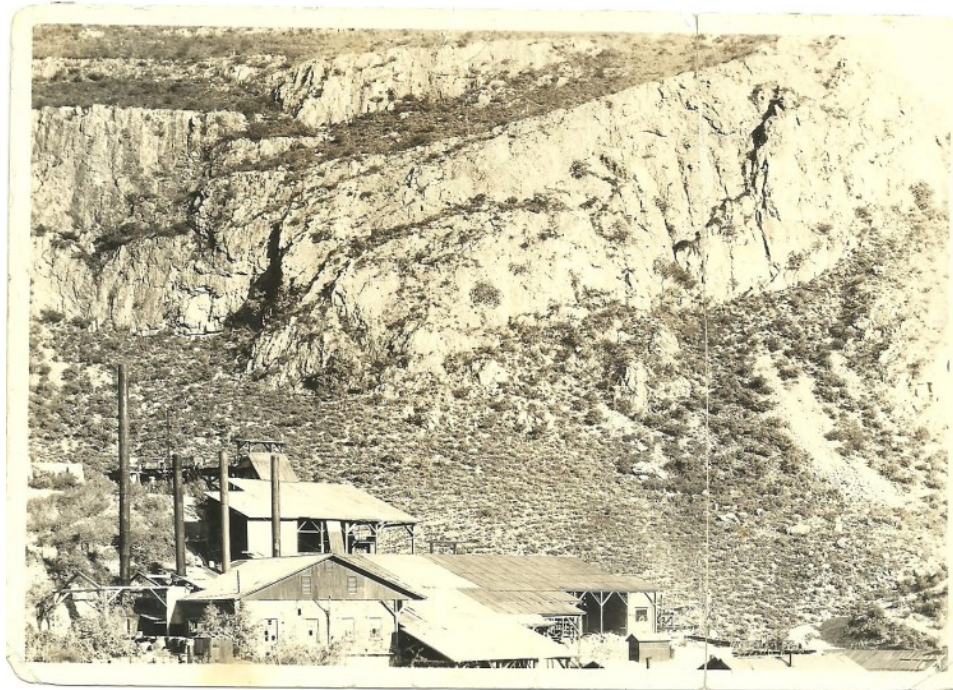




**Photo 5-3: Historical Photo of Former Las Chispas Community, shown as Location 1 in Photo 5-2 (Circa Mid-Late 1920's)**

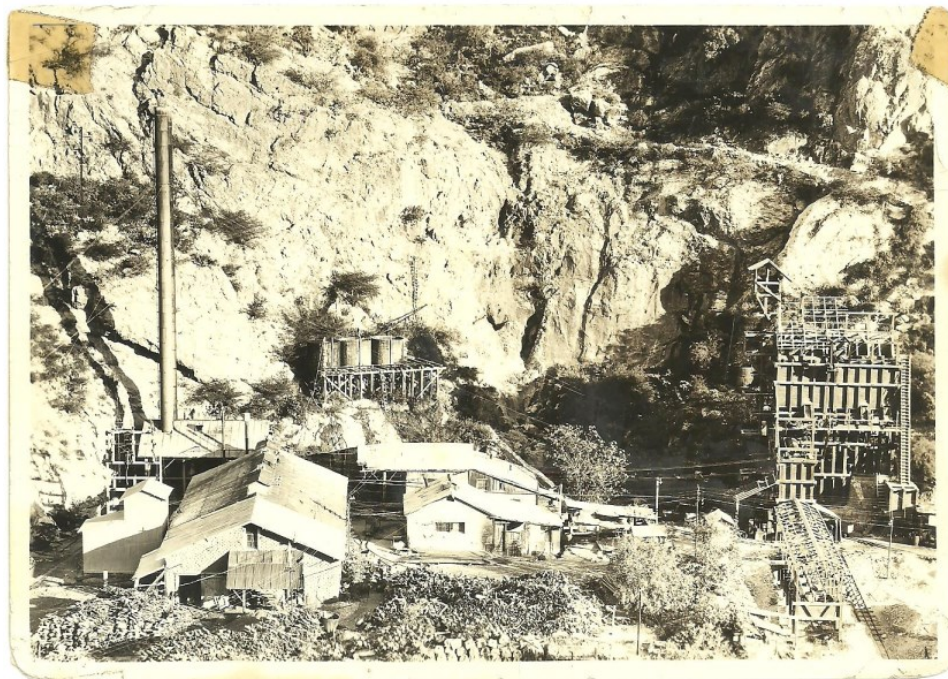


**Photo 5-4: Historic Photo of a Processing Facility at Northwest of Community, Identified as Location 2 in Photo 5-2, circa (mid-late 1920's)**

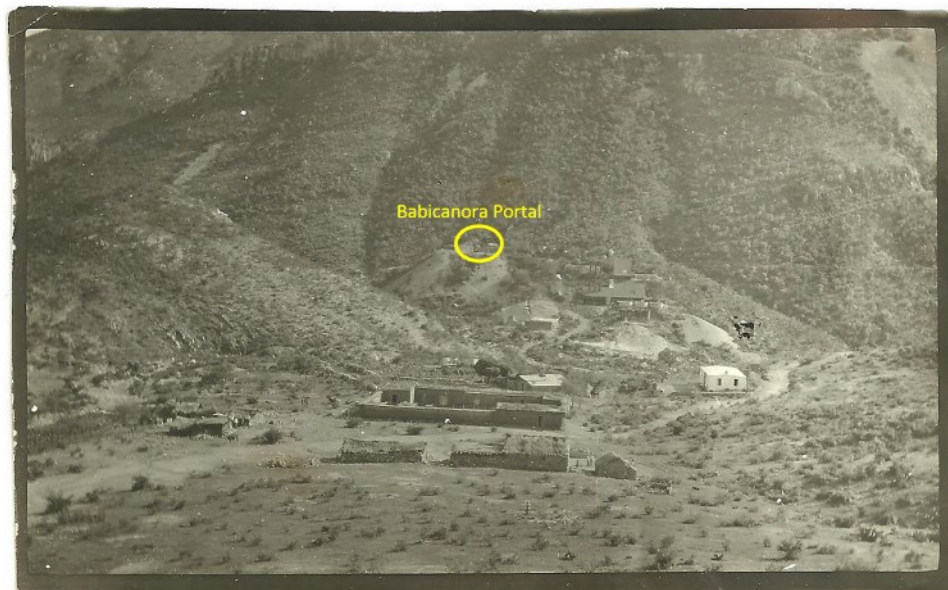




**Photo 5-5: Historic Photo of San Gotardo Mill at Location Identified as Location 3 in Photo 5-2, near San Gotardo Portal, circa (Mid-Late 1920's)**



**Photo 5-6: Photo of Historical Processing Facility at Babicanora, Year Unknown**



**Photo 5-7: Current Google Earth™ View of Babicanora Portal and Site of Historical Processing Facility, Red Line is GPS Track during QP Site Visit**

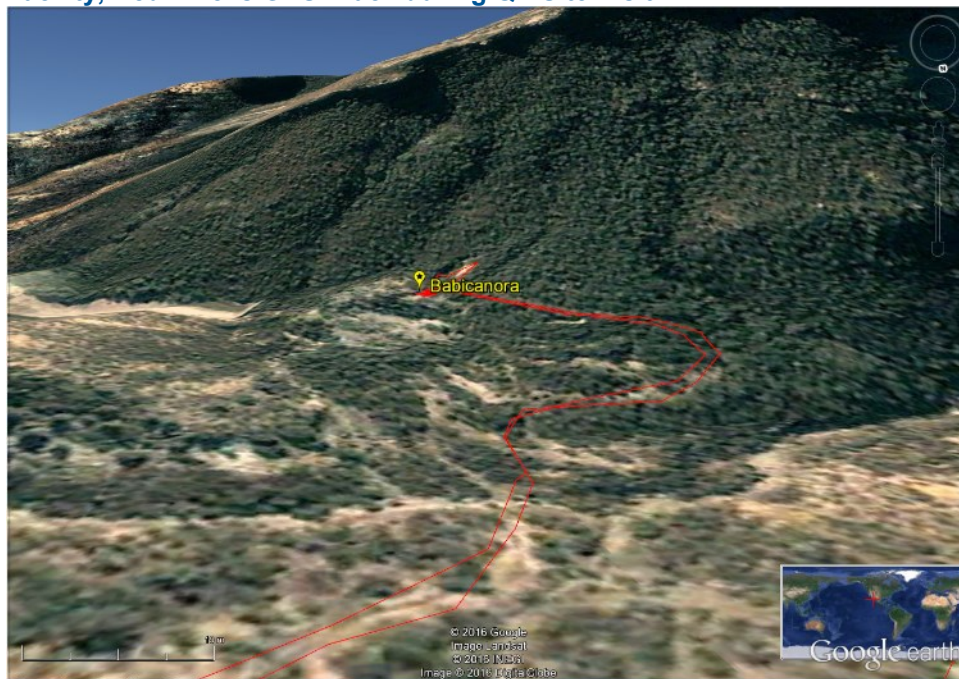




Figure 5-1: Long Section of the Historical Las Chispas Underground Development (circa 1921) and 2016 SilverCrest Pierce Points, Looking East

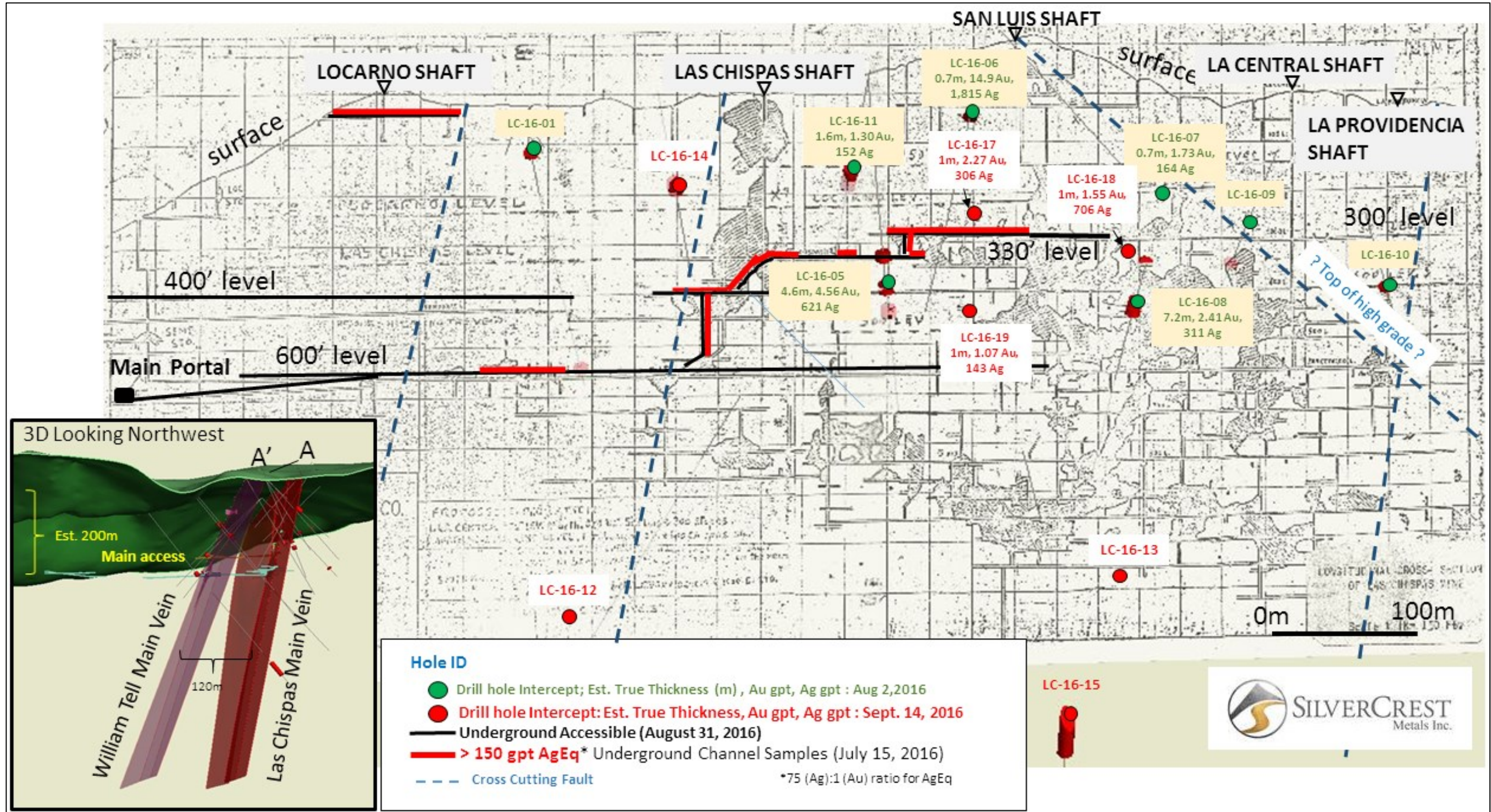
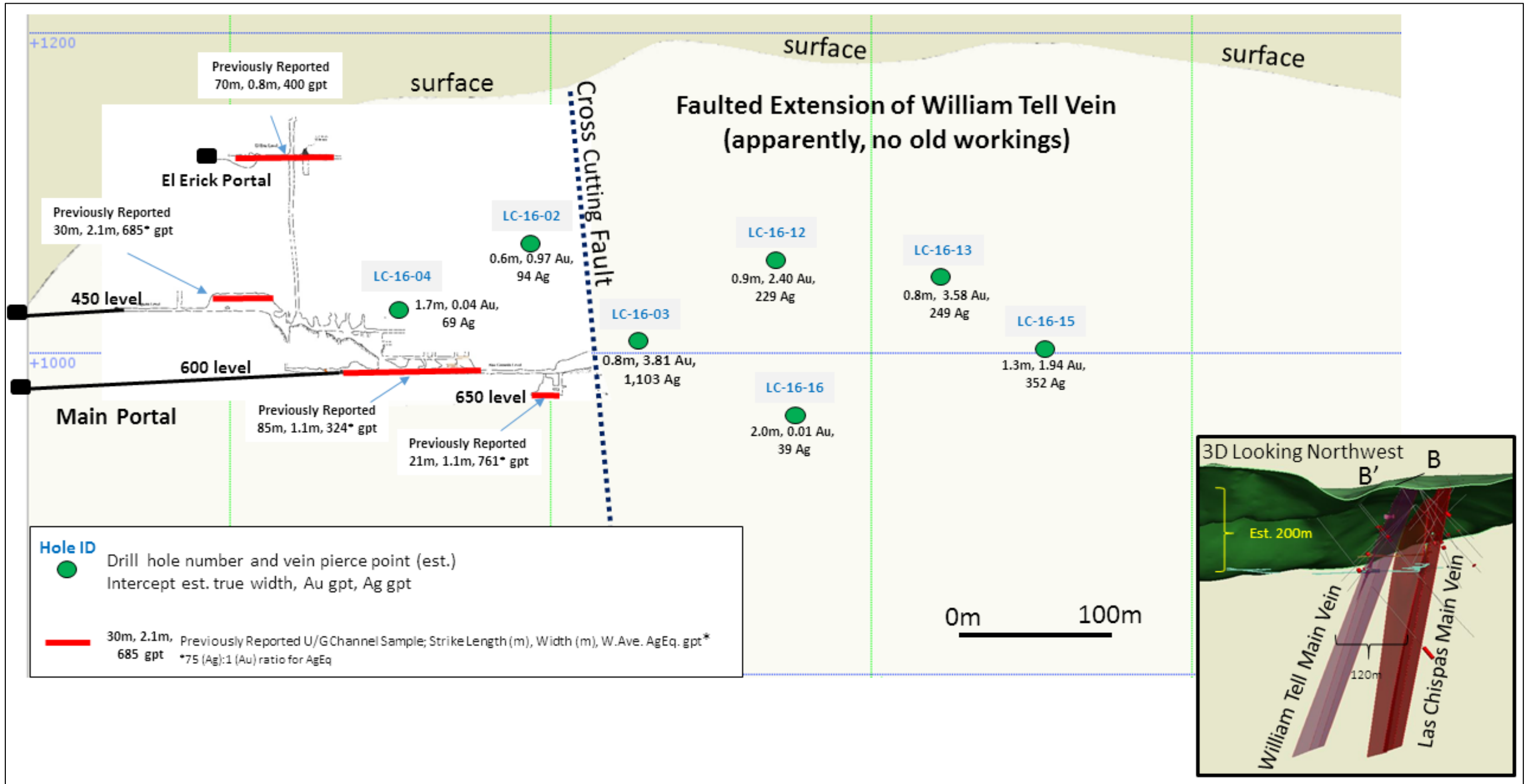




Figure 5-2: Long Section of the Historical William Tell Underground Development (circa 1920s) and 2016 SilverCrest Pierce Points, Looking East



## 5.2 MID-LATE 1900'S TO EARLY 2000'S

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No documented information is available for the Property during this period.

It is assumed that sometime between the mid-1930's and 2008, the 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)

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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 totalling 143 stream sediment and bulk leach extractable gold (BLEG) samples, 213 underground rock chip samples, and 1,352 surface rock chip. 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 drillhole 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 5-3 and 5-3.



Figure 5-3: Minefinders Rock Chip Sample Locations and Ag Results (after Turner, 2011).

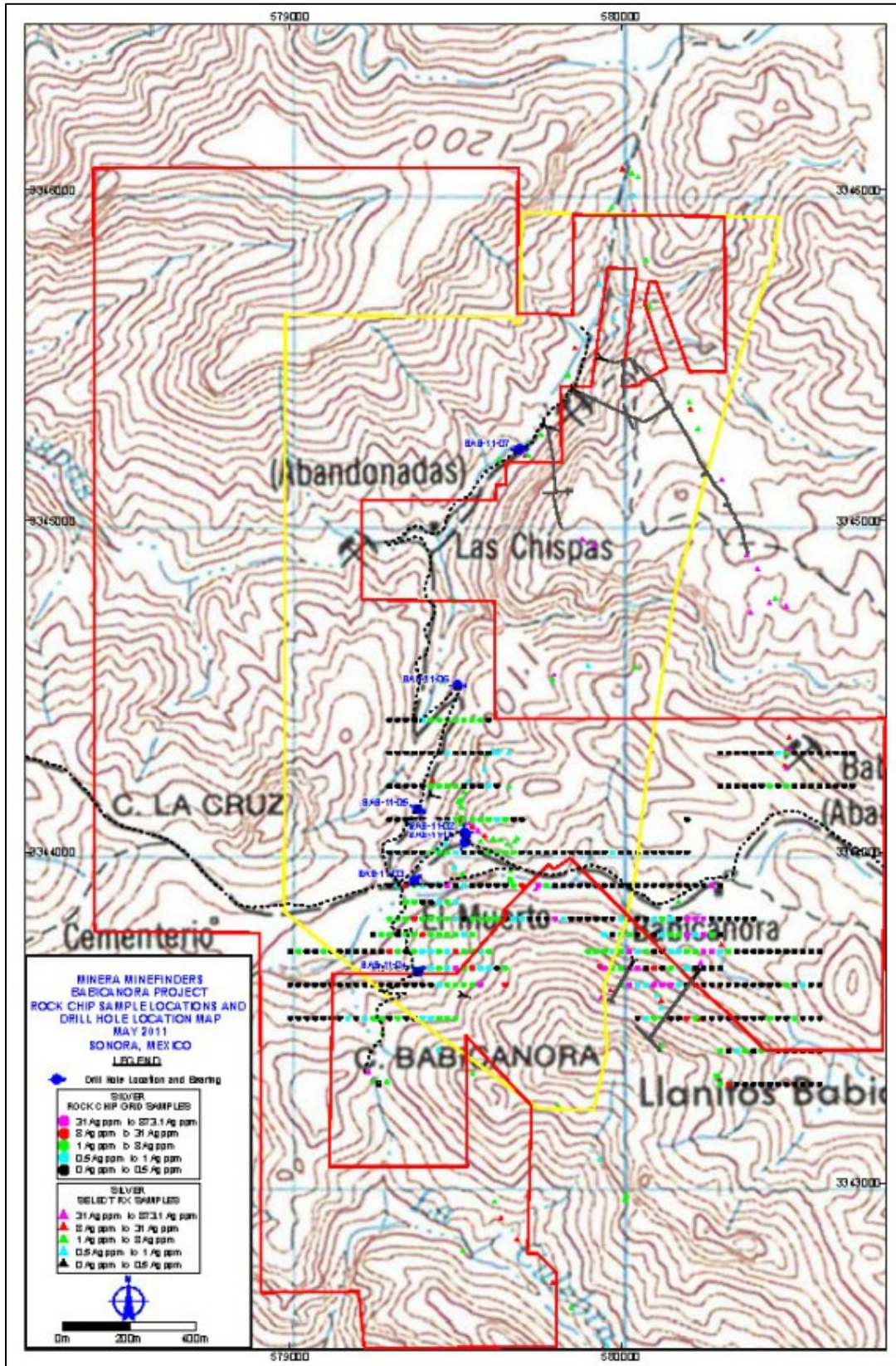
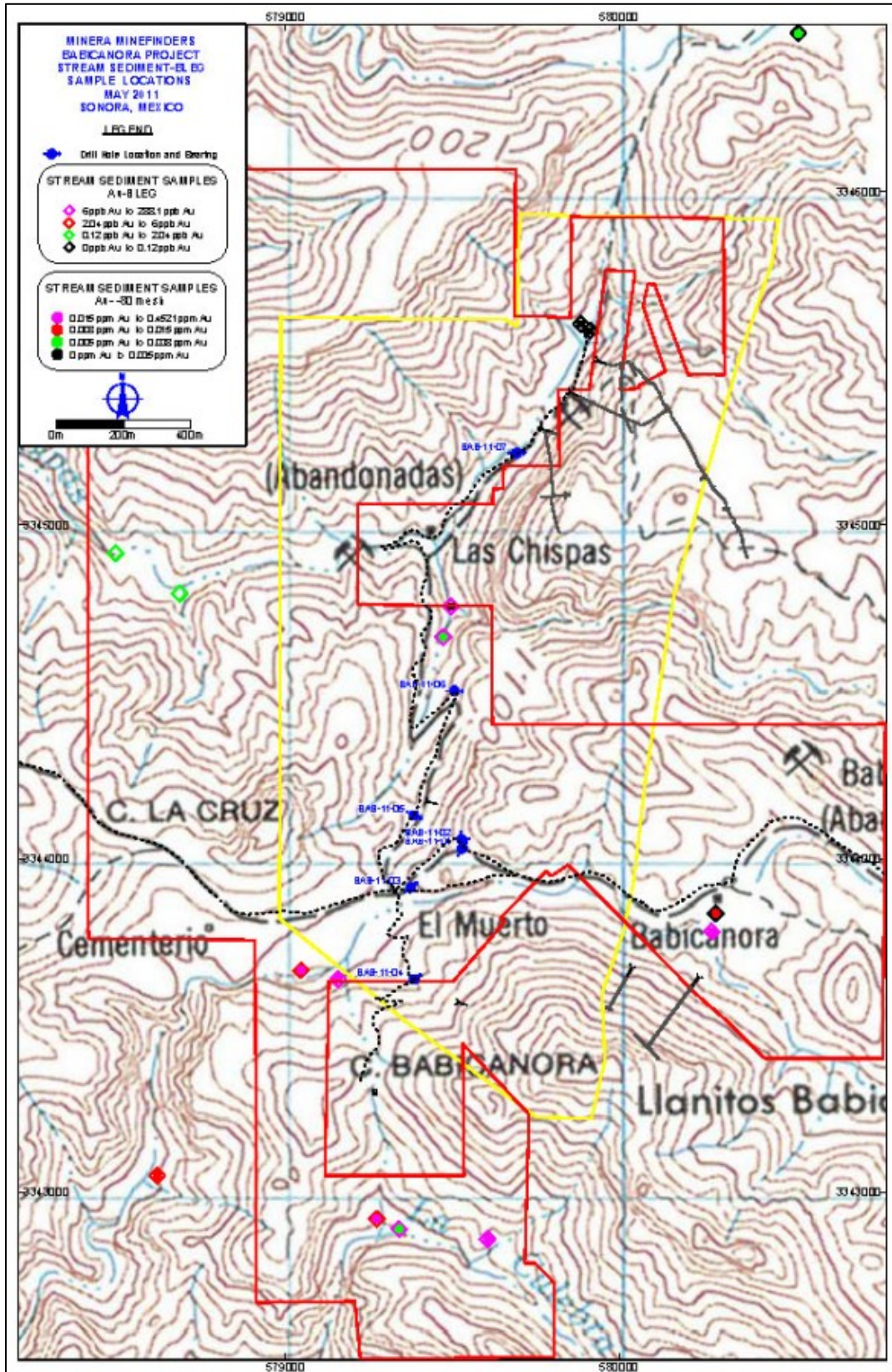




Figure 5-4: Minefinders Stream Sediment Sample Ag Results - BLEG and 80 Mesh (after Turner, 2011)





### 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 Ingenieria 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 dikes.

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 sulfidation Au-Ag epithermal quartz and calcite veins and stockwork within an Oligocene volcanic sequence consisting of volcanoclastic sediments interbedded with rhyolitic tuff and andesitic dikes/flow cut by dacitic dikes.

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 PRESENT

Following Minefinders' retreat, SilverCrest Mines Inc. (now 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 was able to 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 SilverCrest's subsidiary La Compañía Miñera La Lllamarada S.A. de C.V. pursuant to an arrangement agreement between SilverCrest, SilverCrest Mines Inc., and First Majestic Silver Corp. SilverCrest, a company spun out from the arrangement, was listed on the TSX Venture Exchange on October 9, 2015, and subsequently obtained rights to four (4) additional mineral concessions for a total of 21 concessions.

## 6.0 GEOLOGICAL SETTING AND MINERALIZATION

### 6.1 REGIONAL GEOLOGY

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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 from the USA-Mexican border to Guadalajara in the southeast, a distance of over 1,200 km.

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 terrains developing along the western fringes of the pre-existing Jurassic continental and marine sediments, and crystalline Cambrian basement rocks.

Volcanism is related to fractional crystallisation 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.

Ferrari et al (2007) summarises five main igneous deposits of the Sierra Madre Occidental:

1. Plutonic/volcanic rocks: Late Cretaceous –Paleocene.
2. Andesite and lesser Dacite-Rhyolite: Eocene (Lower Volcanic Complex).

3. Felsic dominant and silicic ignimbrites: Early Oligocene and Miocene (Upper Volcanic Complex).
4. Basaltic-andesitic flows: late stage of and after ignimbrite pulses.
5. Alkaline basalts and ignimbrites: Late Miocene-Pleistocene (Post-subduction volcanism).

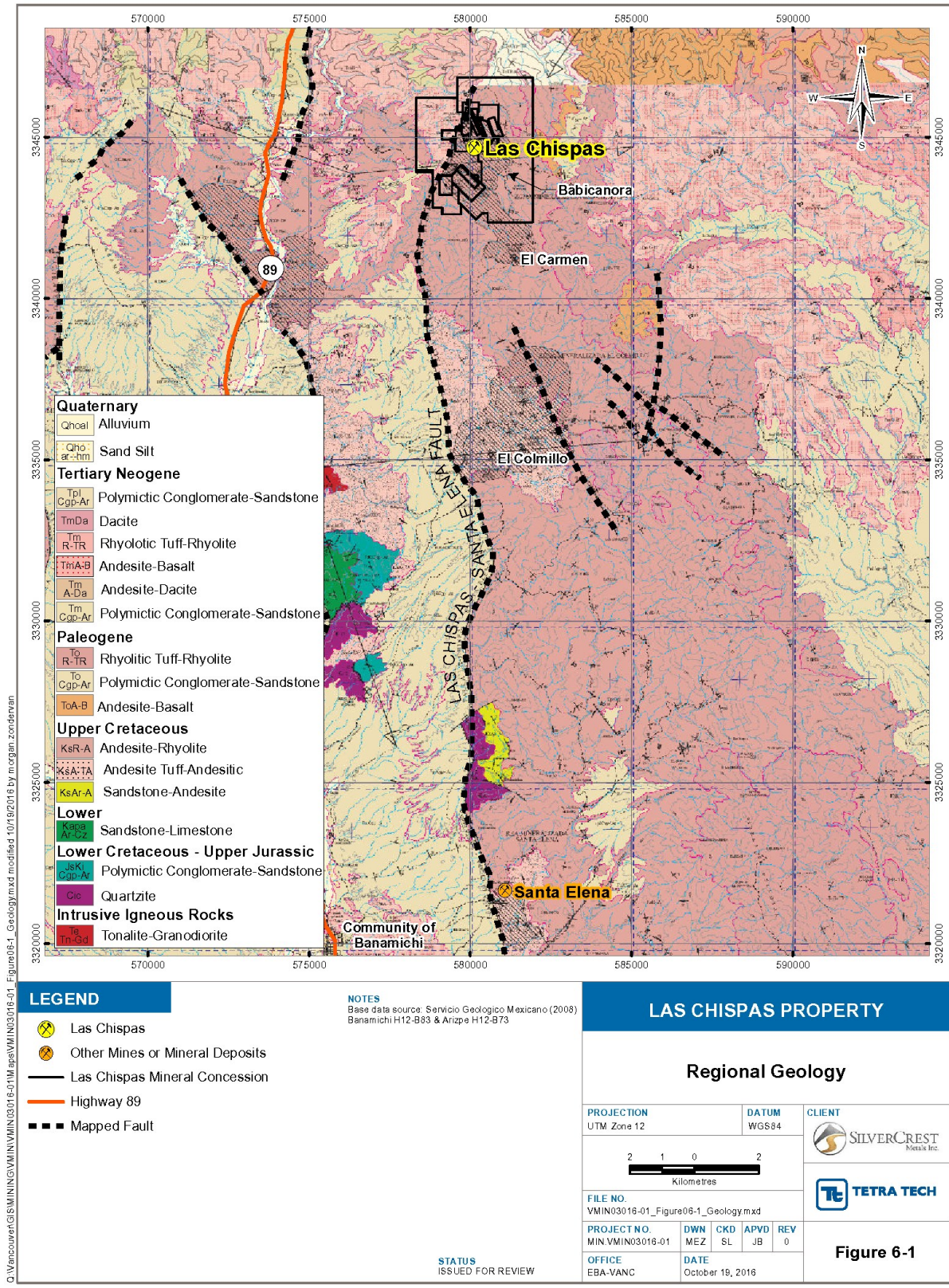
Mineralizing fluids is likely sourced from mid-Cenozoic intrusions. The structural separation along the faults formed conduits for mineral bearing solutions. The heat source for the mineralizing fluids was likely from the plutonic rocks that commonly outcrop in Sonora.

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 which exist in 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**

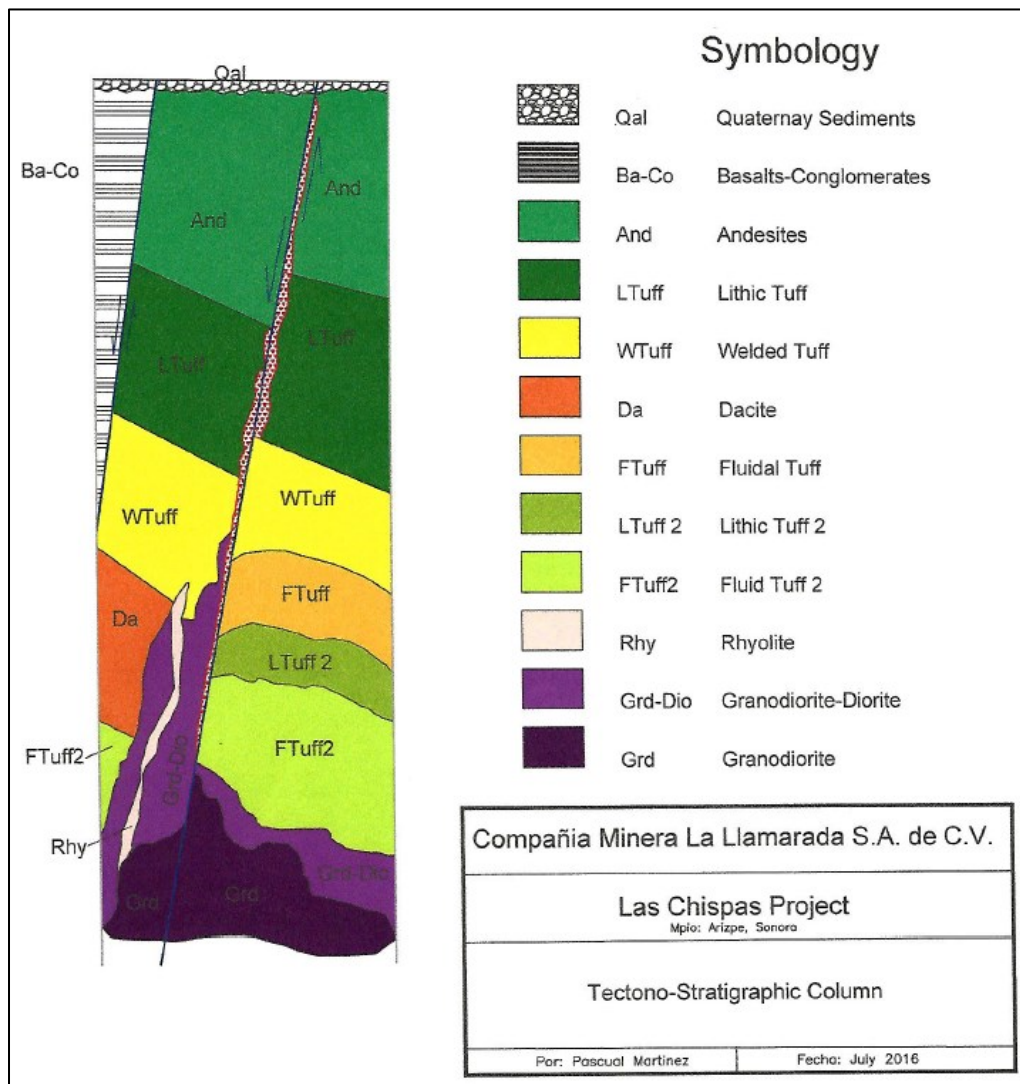


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## 6.2 LOCAL GEOLOGY

Host rocks in the Las Chispas District are generally pyroclastic, tuffs, and rhyolitic flows which are interpreted as the lower members of the Upper 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 local stratigraphy.

**Figure 6-2: Sample Stratigraphic Section for the Las Chispas and William Tell Vein Areas**

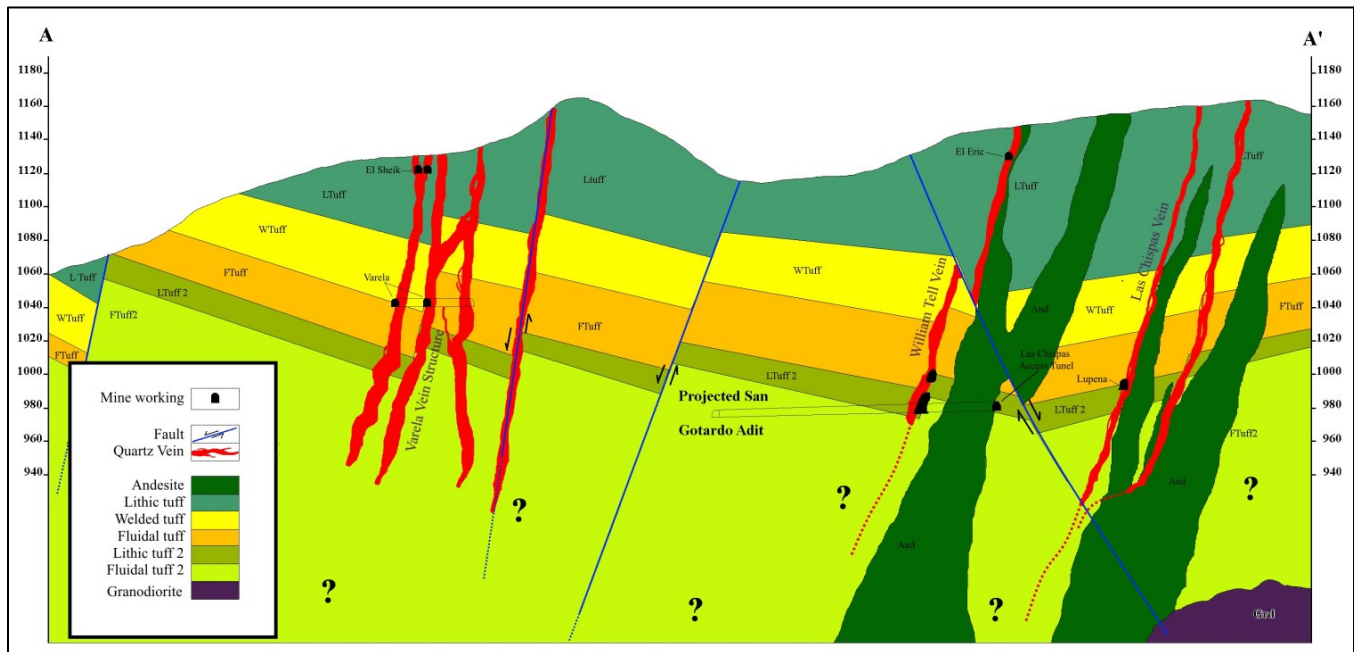


The volcanics are cut by several different types of intrusive dykes and appear to have some influence on the distribution of mineralization. Large rhyodacite intrusives cross-cut many of the local Oligocene volcanic sequence as NW trending dikes; however, dikes of andesitic, diorite (earliest/oldest), rhyolitic (youngest), and granodiorite composition have also been noted in drill core. Early dikes 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 across the Property which is cross-cut nearly perpendicular to the fold axis by the Las Chispas Vein (Mulchay, 1935). Figure 6-3 shows a typical section looking towards the northwest through the Las Chispas Property.

**Figure 6-3: Typical Geological Cross-Section through the Las Chispas Property, looking to the Northwest**



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. 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 all of these structures; however, based on the historical records 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 still remains insitu today. These remaining deposits along with high grade vein splays and fault-displaced unmined veins are the main targets of SilverCrest exploration.

### Mineralization

Historical reporting has identified economic mineralization in the form of silver sulfides and sulfosalts, as primary silver mineral species, present in association with pyrite. Secondary silver enrichment is indicated by the gradation from chlorargyrite near surface to pyrargyrite at depth. Dufourcq (1910) attributes the presence of large silver sulphide masses from the 200 level down to the 900 level to secondary mineralization deposited in a variable, or changing, groundwater elevations or possibly late hydrothermal pulses. Horizontal zones of barren and completely leached zones were noted to occur with high grade silver sulphides/antimonides. Modern mineralogical evaluation has not yet been undertaken by SilverCrest; however, the Las Chispas district has gained notoriety for museum quality specimens of argentite/acanthite, polybasite, pyrargyrite, and stephanite (Turner, 2011). Other sulphide species noted to occur include minor chalcopyrite, sphalerite, and galena; however, base metal mineralization appears low based on sample analysis completed to date by SilverCrest.

Gangue minerals, from visual inspection of core and underground, include calcite, pyrite, goethite, adularia, chlorite, sericite, epidote, barite, manganese oxides (e.g., pyrolusite), and rhodonite. Adularia and manganese oxides are noted to occur within quartz veining and cavities. Amethyst and fluorite have been reported in many veins in the Las Chispas District. Abundant limonite +/- jarosite is formed on the walls of underground workings, commonly in association with goethite and pyritic alteration in proximity to dikes.

Styles of mineralization present on the Property include laminated veins (Photo 6-1), stockwork and quartz-calcite filled hydro-brecciated structures (Photos 6-2 and 6-3). Presence of epithermal textures, such as bladed calcite (replaced by quartz), miarolitic cavities, and chalcedony/crustiform banding mapped in underground suggest multiple phases of fluid pulses have contributed to the mineral deposits.

Various opinions exist regarding lithologic control on concentration and silver tenure in sulphide/antimonide mineralization; however, the concept is not yet proven to be a consistently controlling factor.

Generally, it appears that epithermal mineralization is higher in the system (closer to the paleo surface) on the west side (i.e., La Victoria Mine) of the district versus the east side (El Carmen 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 6-1: 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 metres)**



**Photo 6-2: Breccia Style Mineralization noted along Las Chispas Vein  
(SilverCrest sample 617113, 0.09 gpt Au, 8.2 gpt Ag over 1.10 metres)**



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



## Geochemistry

Historic production at Las Chispas suggested a 100 (Ag) to 1 (Au) ratio for high grade mineralization. Geochemistry from underground samples and core samples generally show the mineralization to be dominated by Ag, Au, Sb, and Cu. Halo minerals proximal to mineralization appear to be Mn, Ca, Fe, Ba, and S. Higher phosphate levels appears to define the dykes from surrounding volcanic host rocks. Cross-cutting structural intersections form ore shoots of high grade mineralization. SilverCrest underground channel sampling of these ore shoots indicate grades up to 32 gpt Au and over 2,000 gpt Ag.

Mineralization within the Babicanora area appears to be a gold-dominated system whereas the Las Chispas Vein and the William Tell Vein appear to be silver-dominated, based on the sampling completed to date.

## Alteration

Alteration of the host rocks from hydrothermal activity is locally propylitic with formation of chlorite, calcite, and disseminated pyrite. Epidote is noted in core proximal to cross-cutting dykes along with pervasive goethite and cubic pyrite mineralization. Weak to moderate sericite alteration along rims of feldspars and/or volcanic fragments in breccias is noted within wallrock immediately adjacent to dykes and some veins.

Generally, the host rocks within the three main workings are above the water table. Oxidation of sulphides is noted from near surface to depths between 50 m and 150 m and presence of secondary minerals are noted from the 200 level to 900 level (historically and approximately 60 m to 275 m depth from surface). Hematite mineralization occurs as haloes around small veins due to percolated meteoric water along small faults and fractures. Strong and pervasive near surface oxidation is noted to occur at La Victoria, where host rocks have experienced significant faulting, advanced weathering to limonite, hematite, and clays.

## Structural Geology

Mapping and interpretation of the structural controls on mineralization and post-mineral displacement is ongoing by SilverCrest (Figure 6-4). Current understanding suggests that mineralized structures in the vicinity of the historic workings are consistently oriented along a northwest-southeast trend. Russell (1908) indicates that a total of 14 veins were mapped by Pedrazzini along this trend near the Las Chispas Mine.

The Las Chispas Vein and the William Tell Vein trend on strike of approximately 150 to 170° (true north) and are inclined at approximately 65 to 75° to the southwest. A second trend strikes roughly N-S and is inclined at approximately 75° to the west. This trend is noted in the Varela workings and possibly in the Lupena workings. A third trend, which was noted by stockwork near the portal to Lupena, strikes 220° and with approximate inclination of 85°. Mapping by SilverCrest in the Babicanora area has also identified NE trending structures which may represent block displacement and formation of graben structure surrounding the main Babicanora workings.

A NE trending fault is interpreted by SilverCrest to truncate the William Tell workings displacing mineralization. The fault is interpreted to be left lateral with displacement of up to 65 m. Exact orientation of the structure has not been confirmed.

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.

The mineralized structures are terminated against the 030° (TN) trending regional Santa Elena-Las Chispas 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. The main production water well at the Santa Elena mine is located proximal to this fault.

### **6.2.1 Las Chispas Vein**

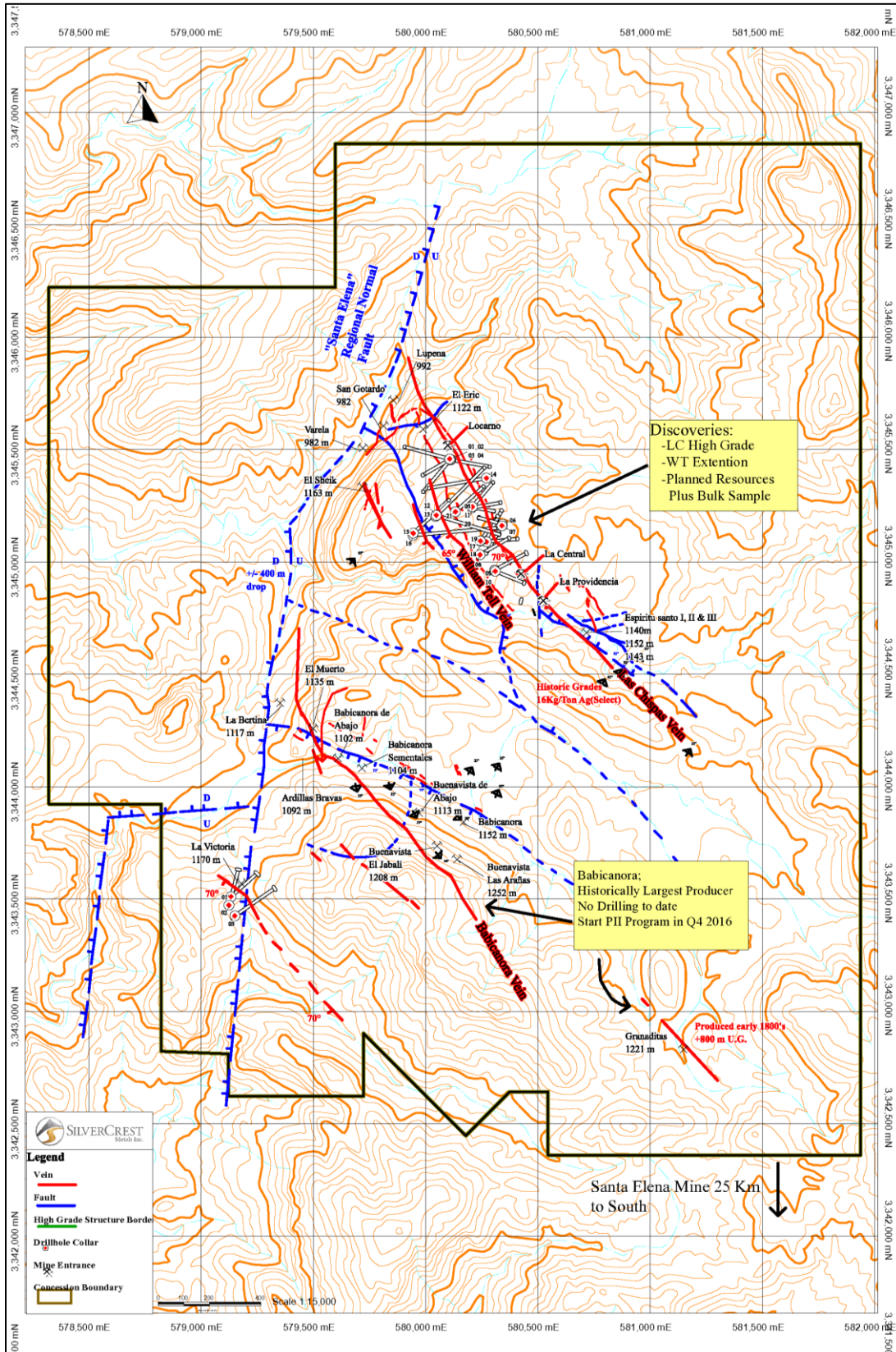
The Las Chispas Vein may be the most extensively mined structure on the Property. It is described as an undulating and dilating quartz stockwork and breccia zone with noted mineralized zone widths (true) underground and in drill core of 0.5 m to 7 m wide which typically encompass narrow veins of quartz and calcite. General orientation of the structural zone is along strike of 150° (TN), with inclination of approximately 75° to the southwest.

Mining along this structure is well documented by the historical longitudinal section published by Minas Pedrazzini G&S Mining Co., Circa December 31, 1921. The historical mine continued laterally for approximately 525 m and was divided into numerous operating areas, which may have been independently operated at some point in history. By 1921, it is believed that Pedrazzini maintained control of all of the areas. A series of shafts built along the vein allowed for access to these different areas. The historical shafts used to access the Las Chispas structure include, from south to north; La Providencia, La Central, San Luis, Las Chispas, and Locarno (Figure 5-1).

At some point during the historical mining activities, the various areas were connected via working levels, the most extensive of which is the San Gotardo level. This level is also referred to as the 600 level which is in reference to being 600 feet below the Las Chispas Shaft surface collar. The portal of this level has been surveyed by SilverCrest at approximately 982 masl. The level spans the entire length of the historical workings and connects to the main access adit from the north. Other working levels, from highest to lowest in elevation include San Luis Level, 100 level, 150 level, 200 level (Locarno Level, also known as the Lupena level), 300 level, Las Chispas Level, 400 level, Sempione level/Las Chispas 2 level, 500 level and 600 level (San Gotardo). Additional levels down to 1100 level exist below San Gotardo in the Las Chispas, San Luis, La Central, and La Providencia mining areas, for total mining depth of 1,100 vertical feet, or approximately 335 vertical metres from surface. The deepest workings, based on the historical long sections (Figure 5-1) appear to be located in San Luis and/or La Central areas. A detailed account of mineral distribution and presence of ore shoots is documented by Montijo Jr. (1920).

Recent mapping by SilverCrest, confirms the location and extent of mining indicated on the historical longitudinal section as being representative and accurate. At the date of the QP site visit, access, and mine rehabilitation had been completed to the western boundary of the main San Luis stopes on the 300 level. Access to levels below 600 level is underway.

**Figure 6-4: Major Structures Mapped on the Las Chispas Property**





**Figure 6-5: Property Geology (Minefinders, 2011)**



## 6.2.2 William Tell Vein

The William Tell Vein was originally named Guillermo Tell and for simplicity has been renamed by SilverCrest. The zone is located approximately 100 m to the west, and is oriented roughly subparallel to, the Las Chispas Vein. The zone is characterized as a quartz stockwork zone in the footwall of a continuous NE-SW trending controlling fault. A fault delineates the hangingwall contact, and is comprised of localized argillic alteration. Locally, minor malachite is visible on the hangingwall in some areas.

Very little historical documentation of the mining activity along this structure is available. The northern portion of historical workings can be accessed from the same adit that connects with the San Gotardo level within the Las Chispas Vein. Underground mapping by SilverCrest indicates that mining from the main San Gotardo adit terminated against a cross-cutting fault, which SilverCrest interprets to have approximately 65 m of left lateral displacement, based on drilling results. This same amount of displacement is not noted in the Las Chispas structure at the interpreted point of intersection. Mining activity along this structure south of the interpreted fault cannot be confirmed; however, no voids were intersected by SilverCrest drilling where the structure was interpreted to be intersected and no surface workings are noted. 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, or small stope, from the lower working level exists, however, was obstructed by caved in rock at the time of the site visit and not accessible. The vertical extent of this shaft/stope cannot be confirmed, but based on the historical long section (Figure 5-2) is not believed to be significant.

Historical working levels along the William Tell Vein, include the El Erick in the upper portion, equivalent to the 200 level workings (Figure 5-2).

## 6.2.3 Babicanora Vein

Historically, the Babicanora Vein and surrounding area was considered the largest mineralized system in the Las Chispas District. Mineralization appears to be in several discrete veins with associated stockwork and breccias. The strike length of the surface exposures of mineralization and old workings is approximately 2.5 km with an alteration width of 1 km. The workings are reported to be as much as 450 feet deep (Dahlgren, 1883).

Underground workings along the Babicanora Vein are located to the southwest portion of the Property, and is currently accessed by several adits and one main portal/adit; called the Upper and the Lower Workings (Figure 6-4). Mineralization is characterized as quartz veins, stockwork, and breccias. The structural zone is oriented along strike between 140° - 150° with inclination of approximately 70° to the southwest. Historically, the Babicanora Mine was considered gold-dominated with stoping from the main adit level (1,152 masl) to the surface a distance of approximately 150 m. Depth of underground workings is currently unknown.

Within the Babicanora Lower Workings, is the main adit approximately 4 m wide by 4 m high and approximately 230 m long. At the end of this adit there are five historical drawpoints which still exist and which are currently full of material. SilverCrest has removed a large volume of this material from these drawpoints in an effort to gain access to historical stopes for mapping and sampling purposes. This has resulted in the creation of a large stockpile of historical ROM material along the main Babicanora adit. The drawpoints remain largely obstructed by ROM material in the form of backfill. SilverCrest collected 21 grab samples in the Babicanora main adit workings (Upper) in July, 2016, and August, 2016, with average grades of 1.9 gpt Au and 126.1 gpt Ag.

The Buena Vista El Jabali and Las Aranas Upper workings are comprised of two small adits located approximately 60 m and 100 m, respectively, up dip from the Babicanora Lower workings.

The Buena Vista Abajo and Sementales workings are located approximately 175 m to the northwest and 50 m down dip of the Babicanora Lower workings.

The La Bertina workings (historically named El Muerto) occur northwest of the Babicanora Lower workings approximately 700 m from the main adit, and are along a similar trend to the Babicanora Vein.

To date, SilverCrest has defined 7 near parallel veins in the Babicanora area. This structure trend is approximately 2.5 km long and 1.0 km wide (Figure 6-4).

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

### **La Victoria Structure**

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, and trending 320° with inclination of approximately 70 degrees to the northeast. SilverCrest has constructed new overhead reinforcement due to the highly oxidized and soft nature of the host rock, comprised of strongly clay altered breccia. SilverCrest recent 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 ton 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**

The Espiritu Santo workings are developed to the southeast of the Las Chispas Vein and the William Tell Vein. Two adits are accessible, leading from and below a local drainage (arroyo).

Two structural trends appear to have been mined in the workings, with an approximate orientation on an upper level of 150° strike and inclination of 60° to the southwest and on the lower level a 290° strike with inclination of 48° to the northeast. The latter mineralization is as stockwork within the footwall and parallel to the volcanic bedding contact. Historic selective underground sampling shows grades at Espiritu Santo as high as 500 ounce per ton silver (Mulchay). This target is proposed for initial drilling in the Phase II program.

### **La Varela Veins (includes El Sheik)**

The La Varela workings are located approximately 300 m to the west of the William Tell Vein. The workings are oriented along strike 170° and are near vertical. Mineralization is dominant in the southern part of the two noted veins. SilverCrest has rehabilitated the existing underground workings (est. 400 m) with ongoing mapping and sampling.

### **Granaditas Vein**

The Granaditas Vein is located to the southeast of Babicanora and appears to be an extension of this mineralized system (Figure 6-4). 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. SilverCrest has located several adits, shafts, and dumps in the area. Mapping and sampling is ongoing.



## Un-named Vein

A target exists to the west of the William Tell Vein and along a similar trend. SilverCrest drill hole LC16-16 is interpreted to have intersected a new vein between 93 m and 94 m downhole, grading 6.57 gpt Au and 395 gpt Ag, with low concentrations of base metals.

## Adrillas Bravas

The Adrillas Bravas workings occur to the west of the Babicanora main adit, roughly between the La Bertina and Babicanora Lower workings.

## Others

Mention of other veins in Russell (1908) that were explored but insufficiently developed by Pedrazzini include the Dolores, San Miguel, El Dorado and Puertecitos, and Granaditas veins.

## 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.

These deposits form in predominantly brittle and/or porous subaerial felsic volcanic complexes in extensional and strike-slip structural regimes. Local groundwater dilutes, and cools, upwelling magmatic derived hydrothermal brines within extensional and transpressional fractures. Mineralization is typically deposited as multizoned veins, stockwork and breccia due to episodic events. Deposit formation occurs in near surface environments, typically between 200 m and 400 m, and down to one kilometre depth from surface, and within temperature gradients of between 200°C and 600°C. Indicative textures of mid to high level deposits can include miarolitic cavities, comb structure, drusy/crustiform, or colloform banding, and platy/bladed calcite. Minerals with silver and gold tenure can precipitate as deposits within these conditions depending on the concentration of the metals in the brines, with sudden changes to local pressure gradients, and with sudden changes to local pH conditions.

Deposit alteration is generally weak, due to near neutral pH of the diluted hydrothermal fluids. Silicification is generally pervasive in proximity to mineralization followed by sericite-illite- kaolinite assemblages. Advanced argillic alteration (kaolinite-alunite) may form along the tops of mineralized zones. Propylitic alteration, including pyrite and epidote, are formed within alteration haloes laterally surrounding the mineral deposits at depth.

## 8.0 EXPLORATION

SilverCrest exploration began in February 2016 with a primary focus on the Las Chispas, William Tell and Babicanora Veins.

### 8.1 UNDERGROUND EXPLORATION

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Initial access to the historical workings and commencement of the underground rehabilitation program began in February 2016. Rehabilitation has included 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. At the effective date, SilverCrest has estimated that approximately 6 km of 11.5 km of underground workings have been rehabilitated.

An ongoing underground sampling program began in February of 2016 in sequence with the underground mine rehabilitation. Collection of a series of select chip samples was followed by a systematic and continuous chip sampling program along the underground development. Chip samples were collected perpendicular to mineralization as transverse samples and as longitudinal samples along footwall or hanging wall contacts through stopes. A total in excess of 5,000 chip samples with 2,055 analytical results had been completed at the effective date of this report. Of these, 301 sample results graded above a cutoff of 150 gpt AgEq with averages of 4.35 gpt Au and 331 gpt Ag or 658 gpt AgEq. At the time of the QP site visit, detailed channel samples were starting to be collected at a ratio of one saw sample to ten chip samples for verification purposes. A total of 44 samples had been collected, no results were available. In addition, a total of 67 underground muck samples had been collected with analytical results available.

Tables 8-1 to 8-3 list some of the significant samples collected from underground.

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

Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*
Las Chispas Vein	Backfill	Grab	0.40	69	101
	Chip	1.7	0.80	117	177
	Chip	1.1	0.90	119	185
	Chip	0.9	1.80	314	458
	Chip	1	1.20	377	473
Las Chispas - 400 Level	Chip	0.7	2.40	304	484
	Chip	0.5	2.20	333	498
	Chip	2	2.10	462	616
	Chip	2	2.43	484	667
	Chip	0.7	2.89	476	692
Las Chispas - 600 Level	Chip	0.7	2.90	476	708
	Chip	1.4	2.65	541	739
Las Chispas Vein	Chip	1.4	2.70	541	757
	Chip	2	4.28	544	865
	Chip	0.7	3.71	780	1,058
	Chip	1.1	6.35	688	1,164
	Chip	1	6.52	797	1,286
	Chip	0.5	5.85	874	1,312
	Chip	2.2	1.09	1,260	1,341
	Chip	2.2	0.05	1,340	1,343
	Chip	1.6	6.53	896	1,385
	Chip	0.6	7.99	867	1,466
Las Chispas - 300 Level	Chip	1.1	2.93	1,270	1,489
	Chip	1.2	1.94	1,380	1,525
	Chip	0.4	6.50	1,080	1,567
	Chip	1.2	8.43	975	1,607
Las Chispas - 330 Level	Chip	1.4	7.04	1,140	1,668

Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*
	Chip	0.6	8.97	1,090	1,762
	Chip	0.3	11.25	1,140	1,983
	Chip	0.8	10.55	1,440	2,231

\*AgEq based on 75:1 Ag:Au

**Table 8-2: William Tell Vein – Significant Results**

Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*
William Tell 600 level	Chip	1.2	5.80	84	548
	Chip	0.8	7.90	560	1,192
	Chip	0.9	24.50	780	2,617
	Chip	0.5	2.00	193	341
	Chip	0.9	2.40	126	304
	Chip	1.1	7.50	116	678
	Chip	0.6	0.10	356	361
	Chip	0.7	6.00	419	869
	Chip	0.7	2.20	188	350
	Chip	1.1	7.40	284	842
	Chip	0.8	3.70	160	433
	Chip	1.2	1.80	225	359
	Chip	0.5	2.50	453.9	640
	Chip	1.2	0.70	267	316
	William Tell North - 220 Level	Chip	1.2	1.30	327
Chip		0.6	8.50	345	984
Chip		1.6	1.50	441	553
Chip		1.2	5.80	84	517
Chip		0.8	7.90	560	1,150
Chip		0.7	7.80	1,160	1,742
Chip		1.4	3.10	207	436
Chip		0.9	5.20	385	776
Chip		0.7	11.10	222	1,058
Chip		1.2	8.40	94.9	722
William Tell North - 450 Level	Chip	0.5	10.50	114	901
	Chip	0.2	6.70	117	622
	Chip	0.5	1.90	421	562
	Chip	0.6	4.40	423	753
	Chip	1.5	0.16	2,170	2,182
	Chip	4.2	14.15	225	1,286
William Tell South - 600 Level	Chip	3	6.62	88	584
	Chip	2	14.25	293	1,362
	Chip	0.6	1.40	262	368
	Chip	1.8	3.40	245	501
	Chip	0.8	2.20	372	539



Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*
William Tell South - 650 level	Chip	0.94	1.78	477	610
	Chip	0.68	7.41	1,109	1,664
	<i>Includes</i>	0.37	13.40	1,560	2,565
	<i>Includes</i>	0.31	0.26	571	590
	Chip	0.98	1.20	969	1,059
	Chip	0.93	10.85	1,895	2,708
	Chip	1.12	9.47	1,910	2,620
	Chip	0.55	4.27	686	1,006
	Chip	0.55	32.50	1,665	4,102
	Chip	0.33	23.60	2,730	4,500
	Chip	2.25	1.93	672	816
	<i>Includes</i>	0.2	16.65	1,570	2,818
	<i>Includes</i>	1.1	0.75	1,000	1,056
	Chip	0.4	8.64	576	1,224
	Chip	1.3	5.13	307	692
	<i>Includes</i>	0.3	17.45	1,100	2,409

\*AgEq based on 75:1 Ag:Au

**Table 8-3: Other Significant Results**

Mineralized Zone	Sample Type	Width (m)	Au gpt	Ag gpt	AgEq gpt*
Varela 1	Chip	1.5	4.40	489	839
Varela 2	Chip	1.5	4.00	502	820
Babicanora	Chip	1.3	7.30	43	627
	Chip	1.3	4.10	38	366
	Chip	1.2	5.40	164	596
	Chip	1.3	15.10	1,340	2,548
	Chip	1.5	4.10	136	464
	Chip	1.5	5.70	287	743
	Chip	1.5	5.40	50	482
	Chip	1.5	2.30	77	261
	Chip	1.5	2.50	55	255
	Chip	1.5	8.10	163	811
	Chip	1.5	2.30	89	273
	Chip	1.2	1.00	262	342
	Chip	1.0	0.90	329	401
	Dump	Grab	59.20	31	4,768

\*AgEq based on 75:1 Ag:Au

## 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 1.2 square kilometres has been remapped by SilverCrest geologists. Surface dump trenching and sampling is ongoing in easily accessible areas. Analytical

results received as of the effective date total 493 surface dump samples with grades of 1.04 gpt Au and 78 gpt Ag, or 156 gpt 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.

## 9.0 DRILLING

### 9.1 PROGRAM OVERVIEW

SilverCrest completed a Phase I surface drill program totalling approximately 6,558.1 m in 22 core holes starting in March of 2016 and continuing through the summer. A combined 19 holes were drilled in and around the Las Chispas Vein and the William Tell Vein, and an additional three holes in the La Victoria area located near Babicanora. Historical documentation indicates that the production that occurred between 1880 and 1930 was primarily from these three areas. 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 William Tell Vein is parallel to the Las Chispas Vein at approximately 120 m distance at its midpoint. Historical workings for the William Tell Vein appear to advance along strike before terminating at a cross cutting fault. This fault was also observed to cross cuts the Las Chispas Vein beyond which higher grades and continuity were identified. SilverCrest has interpreted this fault bound corridor as a potential control on mineralization in both vein systems.

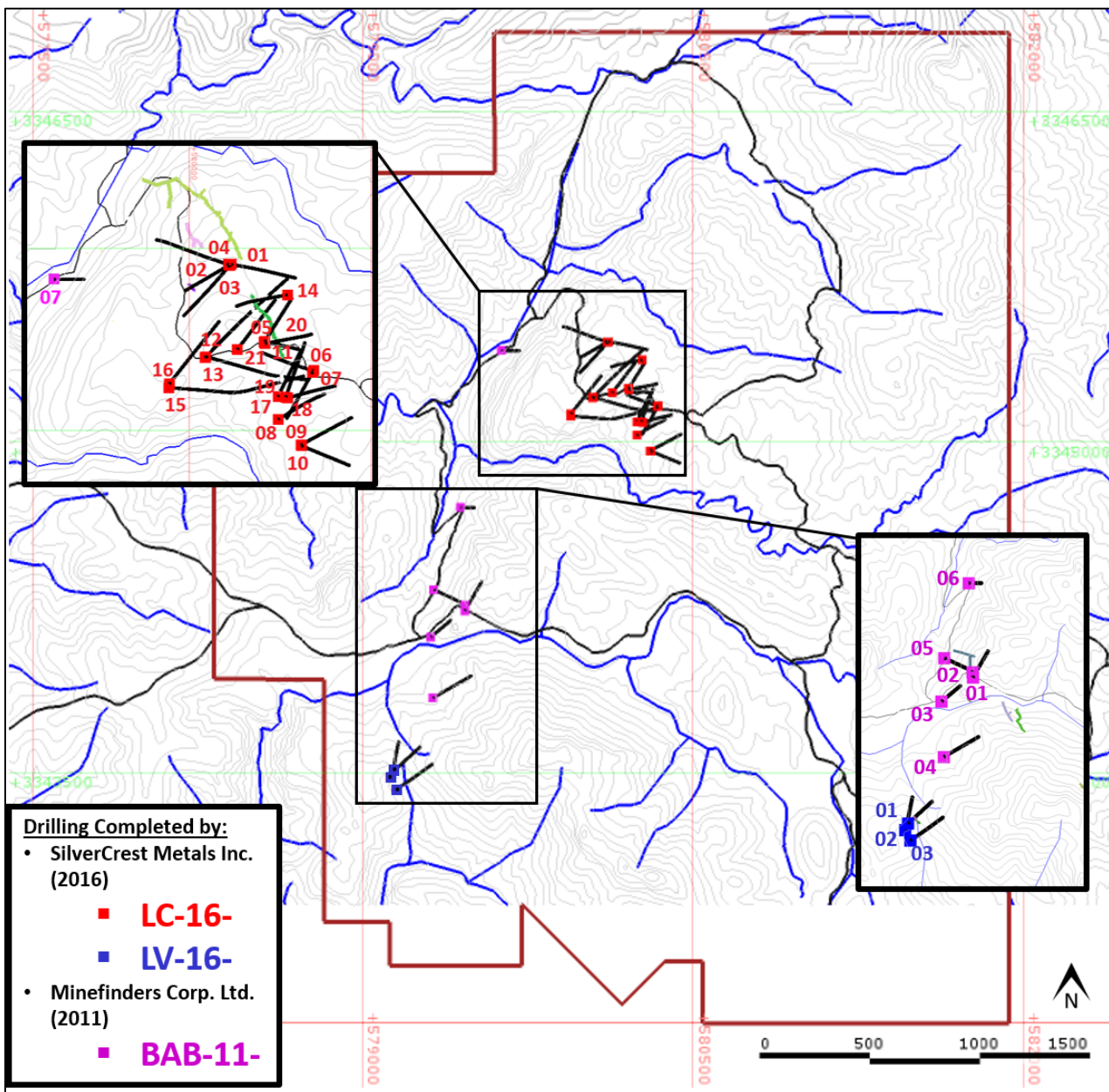
A summary of drilling is provided in Table 9-1 and Figure 9-1. Collar locations were surveyed using a handheld GPS unit. Drilling was completed by Geoexplore using an HQ coring rig. All holes were surveyed as single shot measurements with a Flex-it® tool. Collar locations have been professionally surveyed by local contractor.

**Table 9-1: Summary of 2016 SilverCrest Phase I Drill Holes**

Hole	Prospect	Grid	UTM_E	UTM_N	Elevation	Azimuth	Dip	Length_ (m)
LC-16-01	Las Chispas	WGS84	580112	3343454	1144	100	-45	251.1
LC-16-02	Las Chispas	WGS84	580109	3345456	1114	240	-45	201.1
LC-16-03	William Tell	WGS84	580110	3345455	1114	220	-45	269.4
LC-16-04	Las Chispas	WGS84	580107	3345458	1114	285	-45	296.9
LC-16-05	Las Chispas	WGS84	580205	3345243	1179	100	-65	239.4
LC-16-06	Las Chispas	WGS84	580342	3345168	1202	285	-65	263.3
LC-16-07	Las Chispas	WGS84	580340	3345161	1204	210	-45	205.4
LC-16-08	Las Chispas	WGS84	580242	3345032	1183	60	-60	301.4
LC-16-09	Las Chispas	WGS84	580307	3344964	1181	62	-50	248.3
LC-16-10	Las Chispas	WGS84	580310	3344958	1182	112	-52	226.9
LC-16-11	Las Chispas	WGS84	580206	3345241	1177	80	-45	184.0
LC-16-12	William Tell	WGS84	580044	3345203	1173	45	-50	478.8
LC-16-13	Las Chispas	WGS84	580047	3345207	1173	107	-46	418.9
LC-16-14	Las Chispas	WGS84	580270	3345373	1163	260	-45	165.3
LC-16-14B	Las Chispas	WGS84	580270	3345373	1163	260	-45	204.9
LC-16-15	Las Chispas	WGS84	579943	3345118	1180	85	-50	596.0
LC-16-16	William Tell	WGS84	579945	3345128	1188	47	-48	327.0

Hole	Prospect	Grid	UTM_E	UTM_N	Elevation	Azimuth	Dip	Length_ (m)
LC-16-17	Las Chispas	WGS84	580265	3345092	1203	28	-48	236.1
LC-16-18	Las Chispas	WGS84	580271	3345090	1196	85	-57	254.4
LC-16-19	Las Chispas	WGS84	580244	3345093	1190	35	-58	258.3
LV-16-01	La Victoria	WGS84	579133	3343510	1171	48	-55	272.6
LV-16-02	La Victoria	WGS84	579124	3343473	1180	15	-57	303.4
LV-16-03	La Victoria	WGS84	579151	3343425	1173	55	-55	355.2
<b>Total</b>								<b>6,558.1</b>

**Figure 9-1: Map of the Phase I Drilling Program**





## 9.2 RESULTS

A total of 4,332 core samples were collected and assayed during the Phase I program. All drill holes intercepted quartz stockwork veinlets, veining and/or breccia along with variable amounts of Au and Ag mineralization. The results appear to confirm the historic mineralized structure and suggest that relatively unexplored and unmined areas exist proximal to the historic workings. Significant intercepts from Phase I drilling are listed in Table 9-2.

### Las Chispas

Drill hole LC-16-01 intersected the Las Chispas Vein outside the interpreted high grade corridor and was low grade. Hole LC16-05 intercepted 4.6 m (true) at 4.56 gpt gold and 622 gpt silver, or 963 gpt AgEq, in a breccia (Table 9-2). The intersection is near the location of an underground channel sampling grading 1,163 gpt AgEq over 8 m in vein strike length and 1 m width.

Drill holes LC-16-05, LC-16-08, and LC-16-11 intercepted a new continuous unnamed vein interpreted as being parallel to the Las Chispas Main Vein. A weighted average from the combined intersections was 1.3 m grading 1.32 gpt Au, 153 gpt Ag or 252 gpt AgEq. Hole LC-16-08 also intersected a 7.2 m wide vein grading 2.41 gpt Au and 312 gpt Ag.

Holes LC-16-09 and LC-16-10 intercepted quartz stockwork including anomalous but low gold and silver values. Deep intercepts of quartz veining and stockwork were encountered in holes LC16-12, LC-16-13, LC-16-14, and LC-16-15 with grades typically less than 150 gpt AgEq. The results indicate the precious metal zone extends beneath the Las Chispas Vein to at least 300 m in depth, but more drilling is required to further characterize the mineralization.

### William Tell

Four of the seven William Tell drill hole intersections located within the potential high grade corridor intersected grades greater than 400 gpt AgEq over estimated true widths of 0.8 to 1.5 m (Table 9-2). Significant results include 1.5 m wide grading 2.03 gpt Au and 683 gpt Ag or 835 gpt AgEq including 0.75 m grading 3.8 gpt Au and 1,102 gpt Ag in hole LC-16-03. The significant intersections are interpreted by SilverCrest geologists to represent the faulted extension of the William Tell Vein, although more drilling will likely be required in order to confirm.

Two previously unmapped veins were intercepted in drill holes LC-16-13 and LC-16-16 at the William Tell Vein which reported grades of 888 gpt AgEq and 723 gpt AgEq over estimated true widths of 0.9 m and 0.8 m, respectively (see Table 9-2 below). These intercepts are new vein discoveries and are interpreted to be in the footwall and hanging wall, respectively.

### La Victoria

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.

**Table 9-2: Significant Intercepts from Phase I Drilling**

Hole No.	Area	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au gpt	Ag gpt	AgEq* gpt
LC-16-02	William Tell Vein	94	95	1	0.5	0.97	20	94

Hole No.	Area	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au gpt	Ag gpt	AgEq* gpt
LC-16-03	William Tell Vein	172	176	4	1.5	2.03	683	835
includes	William Tell Vein	173	175	2	0.8	3.81	1,102	1388
LC-16-04	William Tell Vein	201	205	4	1.7	0.04	69	72
LC-16-05	Unnamed Vein	149	150	1	0.9	2.10	226	383
	Las Chispas Vein	167	172	5	4.6	4.56	621	963
includes	Las Chispas Vein	171	172	1	0.8	18.55	2,460	3,851
LC-16-06	Las Chispas Vein	66	67	1	0.7	14.9	1,815	2,932
LC-16-07	Las Chispas Vein	144	145	1	0.7	1.73	164	293
LC-16-08	Unnamed Vein	143	145	2	1.4	1.58	163	282
	Las Chispas Vein	171	182	11	7.2	2.41	311	492
includes	Las Chispas Vein	171	176	5	3.3	2.25	276	444
includes	Las Chispas Vein	181	182	1	0.7	14.4	1,900	2,980
LC-16-11	Unnamed Vein	95	96	1	0.9	1.32	198	297
	Las Chispas Vein	108	110	2	1.6	1.30	152	251
LC-16-12	William Tell Vein	118	119	1	0.9	2.40	229	409
LC-16-13	William Tell Vein	168	172	4	3.2	1.08	141	222
includes	William Tell Vein	168	169	1	0.8	3.58	249	517
Includes	William Tell Vein	171	172	1	0.8	0.23	249	266
LC-16-13	New Vein	180	181	1	0.8	4.79	364	723
LC-16-15	William Tell Vein	197.5	199	1.5	1.3	1.94	352	497
LC-16-16	New Vein	93	94	1	0.9	6.57	395	888
LC-16-16	William Tell Vein	270	272	2	1.8	0.01	39	40

Hole No.	Area	From (m)	To (m)	Drilled Thickness (m)	Est. True Thickness (m)**	Au gpt	Ag gpt	AgEq* gpt
LC-16-17	Las Chispas Vein	81	82	1	1	2.27	306	476
LC-16-18	Las Chispas Vein	80	81	1	1	1.55	706	822
LC-16-18	Adjacent Footwall Vein	118	119	1	1	0.92	113	182
LC-16-19	Las Chispas Vein	167	168	1	1	1.07	143	223
LC-16-19	Adjacent Footwall Vein	186	189	3	3	0.30	68	91

Note: all numbers are rounded.

\*AgEq based on 75:1 Ag:Au

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

All samples were assayed by ALS Chemex in Hermosillo, Mexico, and North Vancouver, BC. Gold grades are reported from fire assay, and silver grades >100 gpt were reanalyzed using aqua regia digestion with ICP-AES finish.

## 10.0 SAMPLE PREPARATION, ANALYSES, 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 insitu muck from draw points and/or placed/remobilized muck within underground development.
3. Drill Core Sampling as hand split core and/or wet saw cut core.
4. Surface dump trenching and sampling.

The sample collection approaches being conducted by SilverCrest are described below.

### 10.1 UNDERGROUND CHIP SAMPLE COLLECTION APPROACH

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

- Underground continuous chip samples were being marked by a geologist according to lithology/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 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 Project 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**

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The following describes SilverCrest's approach to underground muck and/or stockpile sample collection:

- Samples have been conducted at random within the existing 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 understood to be 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 the Senior Project Geologist and the 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**

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

- The drill holes were logged by project geologists, and reviewed by the Senior Project Geologist;
- Sample intervals were laid out for the entire hole, roughly adhering to minimum 1 m sample lengths in mineralized material up to a maximum of 3 m (more generally 2 m) in unmineralized rock;
- Each sample interval has been either split using a hand splitter or cut by wet core saw perpendicular to veining as much as possible to leave a 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 the Senior Project Geologist and the 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 corebox, and that sample tags were stapled to the core boxes in sequential order.

## **10.4 SURFACE DUMP TRENCHING AND SAMPLING**

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The method for collection of samples from surface dumps was not reviewed. It is assumed to be similar to the approach of the underground muck/stockpile collection.

## **11.0 DATA VERIFICATION**

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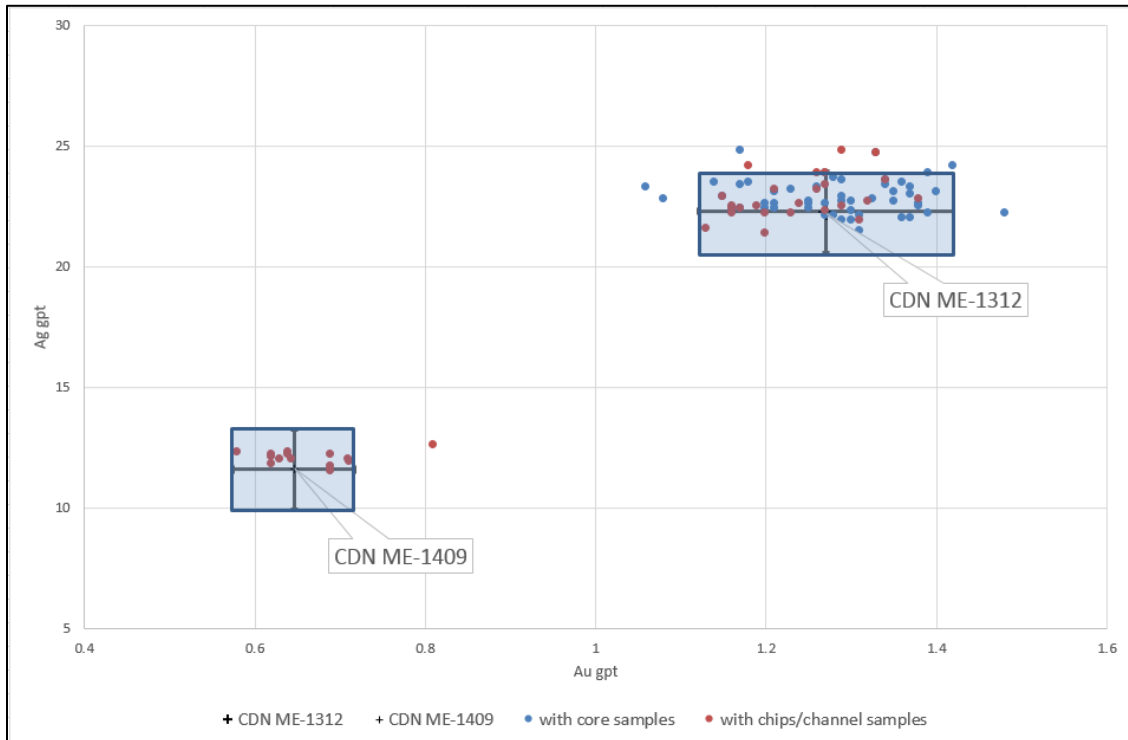
### **11.1 SILVERCREST INTERNAL QAQC APPROACH**

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

For review and assurance of analytical accuracy in the lab, insertion of CRMs are made at an interval of 1:50. The CRMs being used by SilverCrest alternate between CDN ME-1312 and CDN ME-1409. A total of 99 CRM samples were noted in the database reviewed by Tetra Tech. 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 11-1.

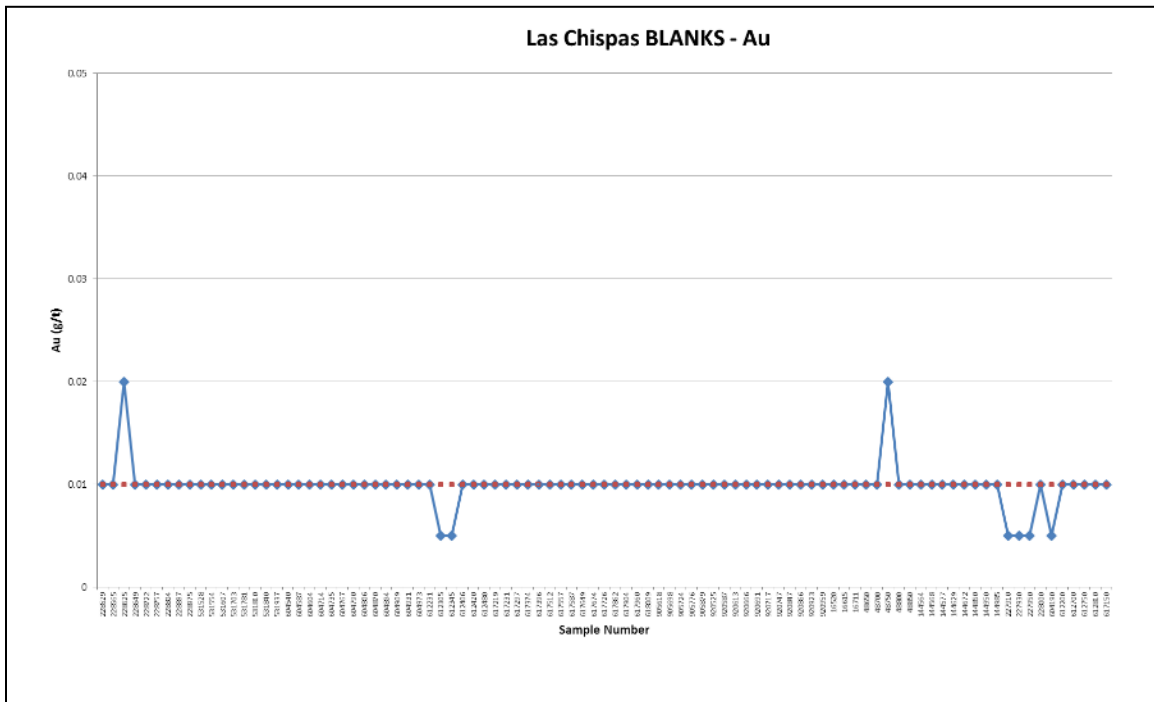
**Figure 11-1: Scatter Plot of CRM Results, showing two distinct CRM populations, and point deviation around CDN ME-1312 greater than two standard deviations (SD)**



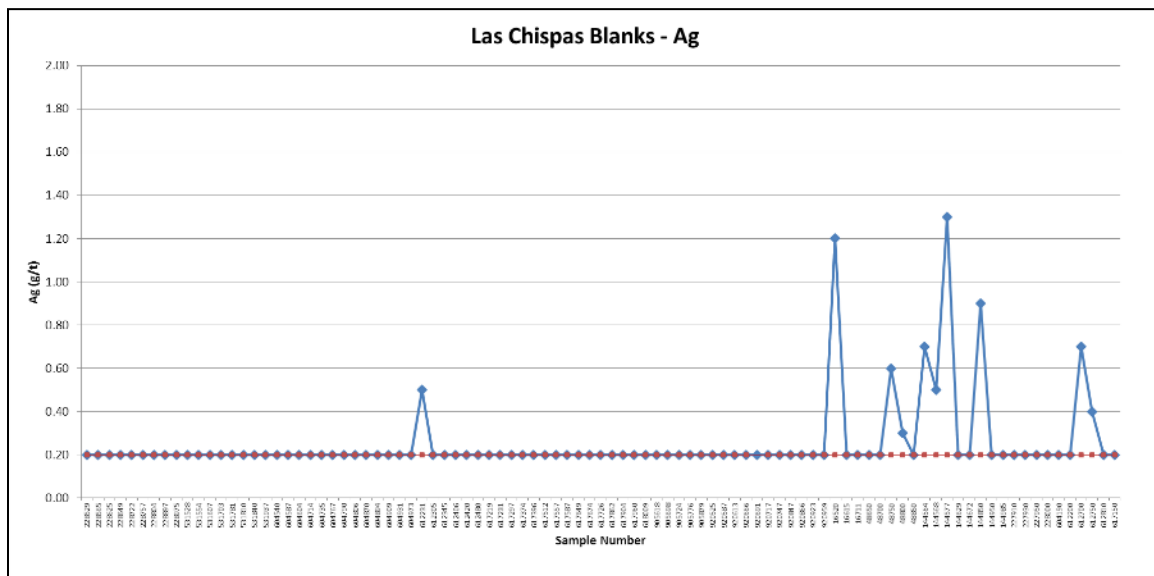
For monitoring of in situ contamination or contamination of sample crushing, grinding and sorting equipment, SilverCrest is inserting a benign rock sample at an interval of 1:50. The material being used for blanks is collected from a nearby silica cap. A total of 101 blank insertions were noted in the database reviewed by Tetra Tech. Of these, only one is located adjacent a sample with >50 gpt Ag. The analytical results for the blank samples are shown in Figures 11-2 and 11-3.

A high level review of the sample insertions (CRMs and blanks) in the SilverCrest database indicated the following:

**Figure 11-2: Analytical results for gold grades from QAQC blank sample insertions**



**Figure 11-3: Analytical results for silver grades from QAQC blank sample insertions**



## 11.2 INDEPENDENT QUALIFIED PERSON DATA VERIFICATION

### 11.2.1 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, Tetra Tech 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.

Tetra Tech 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 QP for analysis. Table 11-1 lists the two samples with comparison between the analytical results reported by SilverCrest and the results of Tetra Tech's independent sample analysis.

**Table 11-1: List of Verification Samples Collected by Tetra Tech 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%

### 11.2.2 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 Tetra Tech's independent 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 Tetra Tech 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 Tetra Tech Verification Samples 500460-500462 (SilverCrest samples 604951 to 604953, 169 to 172m)**



**Photo 11-2: Photo of Mineralized Zone in Hole LC-16-08; No Verification Samples Collected by Tetra Tech**



### 11.2.3 Underground Stockpile Samples

Historical muck that has been stockpiled by SilverCrest in the Upper Babicanora workings, 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 Tetra Tech's independent sample analysis are listed in Table 11-3. The results for Tetra Tech samples 500468 and 500469 have been averaged according to 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 11.2.4.

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

Location	Source	Sample ID	Comment	Au (gpt)	Ag (gpt)	Cu (ppm)	Pb (ppm)	Zn (ppm)
Babicanora Drawpoint	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%

### 11.2.4 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, Tetra Tech 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 Tetra Tech Sample 500459**

Size Fraction	Mass (g)	Percentage	Au (gpt)	Ag (gpt)	Zn (ppm)	Pb (ppm)	Cu (ppm)	Al (pct)	Fe (pct)	Mn
+12.5mm	896	25%	4.65	286	173	89	99	0.93	1.46	363
-12.5mm, +150um	2,275	64%	6.40	398	184	124	64	1.70	1.73	706
-150um	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%								

### 11.2.5 Bulk Density Testwork

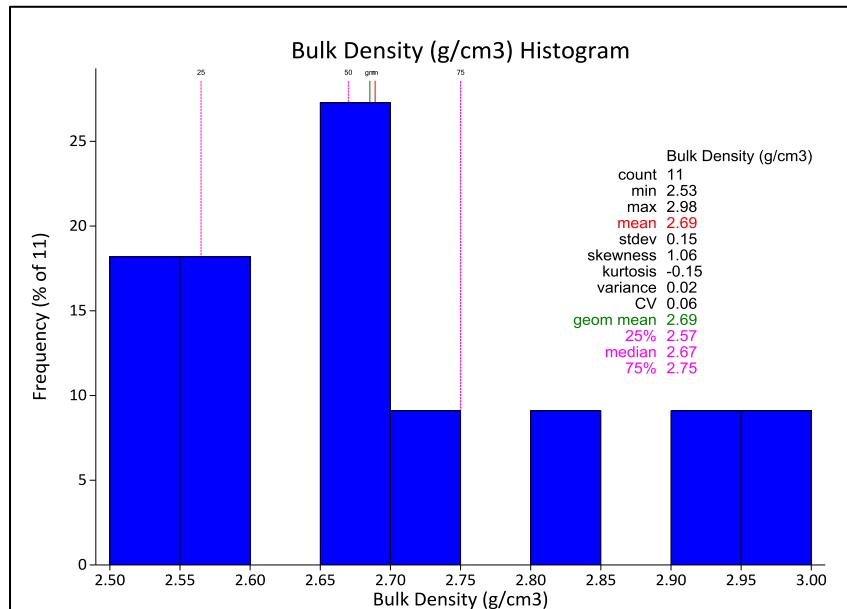
Tetra Tech requested that bulk density measurement using wax coating (OA-GRA09a) be performed on all samples except 500459. The results of the measurements are shown in Table 11-5, and show a mean value of 2.69 g/cm<sup>3</sup>. A histogram is provided in Figure 11-6 as a visual display of the distribution.

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

Sample ID	Sample Weight (kg)	Bulk Density (g/cm3)
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 11-6: 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.

### 11.2.6 Tetra Tech Verification Samples, Laboratory Analysis

All Tetra Tech independent samples collected from the Las Chispas site were delivered to the ALS Chemex preparation facility in Hermosillo, Sonora, by the 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% <2mm, then mixed and split with a riffle splitter;
- A split from all samples were then pulverized to 85% <75  $\mu$ m;
- 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 (30g, Au AA25);
- Ore grade analysis is conducted on samples which return results at ICP-MS upper detection limits, according to 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).

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

### **12.1 PERMITTING**

Las Chispas will require ongoing exploration permits to continue with drilling and exploration activities. SilverCrest Metals currently holds an exploration permit for surface drilling which will need to be extended as of April 7, 2017.

### **12.2 ENVIRONMENTAL IMPACT STATEMENT FOR EXPLORATION AND BULK SAMPLING**

Submission of an environmental impact statement (MIA) to the Mexican Government's Secretariat of Environment and Natural Resources (SEMARNAT) has been completed along with application to permit underground drilling. The permit was approved on September 15, 2016. This program is expected to start in the last quarter of 2016. This permit application also includes a proposed program to extract a bulk sample up to 100,000 tonnes for off-site testwork.

### **12.3 ENVIRONMENTAL LIABILITIES**

No known environmental liabilities exist on the Property from historical mining and processing operations, however, soil and water quality testing has not yet been conducted. Old waste dumps appear in large part to be overgrown. Deposits of tailings and/or process effluent were not identified by the QP during the site visit.

## **13.0 ADJACENT PROPERTIES**

No properties are known to exist immediately adjacent the Property which have relevance to this report.

The Santa Elena Mine, operated by First Majestic Silver Corp. is located approximately 22 km south-southwest of Las Chispas, and the Los Mercedes Mine, operated by Premier Gold Mines Ltd., is located approximately 33 km to the northwest.

## **14.0 CONCLUSIONS AND RECOMMENDATIONS**

Las Chispas contains numerous formerly producing silver and gold mines which are reported to have mined exceptionally high grade deposits. Many of the old workings are accessible today and are being rehabilitated by SilverCrest as part of an ongoing exploration program. The objective of the exploration program is to delineate potential resources which remain along three principal veins which are the Las Chispas Vein, the William Tell Vein and the Babicanora Vein.

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-medium sulphidation epithermal deposits hosted in lithic tuff and various volcanoclastic rocks. Drilling completed to date has proven successful in intersecting mineralization along the Las Chispas and William Tell veins in areas that have not

previously been mined. Variation in reported mineral grades has been noted from independent duplicate and verification sampling, where the error in reproduction of grades falls within a wide range.

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

To further the understanding of the mineralizing system and grade distribution with in the veins, a program including additional underground channel sampling, dedicated metallurgical testwork on the historical muck/stockpiles and additional drilling has been recommended. A cost estimate for this recommended program is included in Table 14-1. With success, a Phase III program could be recommended in the future.

**Table 14-1: Cost Estimate**

<b>Item</b>	<b>Units</b>	<b>Cost Estimate (USD\$)</b>
Additional underground channel sampling and structural mapping	4,000 samples	250,000
Dedicated sampling and metallurgical testwork on historical insitu and muck material	50 samples + testwork	80,000
Drilling along Las Chispas Vein	3,000 metres (surface and u/g)	0.75M
Drilling along William Tell Vein	3,000 metres (surface and u/g)	0.75M
Drilling along Babicanora Vein	4,000 metres (surface and u/g)	1.0M
Admin and Labor		0.5M
<b>Total</b>		<b>\$3.33M</b>

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## **APPENDIX A**

### **STATEMENT OF QUALIFICATIONS**

## James Barr, P.Geol.

### I, James Barr, P.Geol., of Kelowna, British Columbia, do hereby certify:

- I am Senior Geologist and Team Lead with Tetra Tech EBA Inc. with a business address at Suite 150 - 1715 Dickson Avenue, Kelowna, BC, V1Y 9G6.
- I am a registered Professional Geoscientist with the Association of Professional Engineers and Geoscientists of the province of British Columbia (#35150); since 2003 I have worked as an exploration and resource geologist for numerous precious and base metal projects in Canada, Africa and Mexico.
- I graduated from the University of Waterloo in 2003 with a B.Sc. (Honours) in Environmental Science, Earth Science and Chemistry.
- This certificate applies to the technical report entitled Technical Report on the Las Chispas Property Sonora, Mexico with effective date of September 15, 2016 (the "Technical Report").
- I visited the Property that is the subject of the Technical Report from August 30, 2016, through to September 1, 2016.
- I am independent of SilverCrest Metals Inc., as defined by Section 1.5 of the Instrument.
- I have not any previous involvement with this project prior to the site visit and compilation of this Technical Report.
- 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 accordance with them.
- To the best of my knowledge, information, and belief, as of the date of this certificate 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 26<sup>th</sup> day of October, 2016 at Kelowna, British Columbia.**

*Original signed and sealed by  
P. James F. Barr*

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James Barr, P.Geol.  
Senior Geologist and Team Lead - Geology  
Tetra Tech EBA Inc.