

Defiance Silver Corp. Technical Report, San Acacio Deposit, Zacatecas, Mexico Dated: April 16, 2012 Resource Data Cut-off Date: April 13, 2010



Prepared by

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Glossary

Abbreviations, Symbols, and Acronyms

AGP Mining Consultants Inc.	AGP
AGP Mining Consultants Inc.	AGP
Anglesite	PbSO ₄
Argentite	
Canadian Institute of Mining	
Cerargyrite	AgCl
Cerussite	PbCO ₃
Chalcopyrite	CuFeS ₂
Consejo Recursos Minerales	CRM
Defiance Silver Corp	Defiance
Eprocyce Drilling Company	Eprocyce
Federal Official Gazette	
Foreign Investment Law	FIL
Freibergite	(Ag, Cu, Fe) ₁₂ (Sb, As) ₄ S ₁₃
Galena	
Ground Penetrating Radar	GPR



DEFIANCE SILVER CORP. Technical Report, San Acacio Deposit, Zacatecas, Mexico



Instituto Nacional de Estadística, Geografía e Informática	INEGI
Microsoft Excel spreadsheets	XLS
Native Silver	Ag
Proustite	Ag ₃ AsS ₃
Quality Assurance/Quality Control	QA/QC
San Acacio project	San Acacio
Silver Equivalent	AgEq
Source Exploration Corp	Source
Specific Gravity	SG
Sphalerite	(Zn, Fe)S
Standard Reference Material	SRM
Standard Reference Materials	SRM
Standard Resources Inc	Silver Standard
Sterling Mining Company of Idaho	Sterling
Tecmin Servicios, S.A de C.V.	Tecmin
Three Dimensional	3D
Three Dimensional	3D
Transient Electromagnetic Method	TEM

Units of Measure

Billion tonnes (metric)	Bt
Degrees Celsius	°C
Degrees	٥
Grams per tonne (metric)	g/t
Grams	g
Hectares	ha
Inches	"
Kilograms	kg
Mega Pascal	MPa
Metre	m
Million ounces	Moz
Million tonnes	Mt
Million	M
Part per billion	ppb
Parts per million	ppm
Ton (2,000 lb – Imperial)	ton or st
Ton per day	ton/d or st/d
Tonne (1,000 kg – metric)	t
Tonnes per day	t/d





1 SUMMARY

Defiance Silver Corp. (Defiance) commissioned AGP Mining Consultants (AGP) to update the independent Mineral Resource Estimate and Technical Report for the San Acacio project (San Acacio). The property, located approximately at latitude 22° 49.438' north and longitude 102° 32.776' west, is situated within the Veta Grande mining camp, approximately 10 km north of the town centre of Zacatecas (Figure 4-1).

The area is undergoing renewed exploration activity as a result of the success of the San Roberto (or Cozamin) mine on the Mala Noche vein, operated by Capstone Mining Corp. 5 km to the southwest of San Acacio.

The Zacatecas mining district is located at the transition of the eastern flank of the southern Sierra Madre Occidental province and the northwestern limit of the Mesa Central physiographic province.

The basement rock units in the area include the metamorphic rocks of the Zacatecas Formation, of Upper Triassic age. Overlying these rocks are the volcano-sedimentary units of the Chilitos Formation of Upper Jurassic-Lower Cretaceous age. During the Tertiary age, a polymictic conglomerate known as the "Red Conglomerate" was discordantly deposited, and overlying this, andesitic to rhyolitic flows and tuffs were deposited. During the Oligocene-Miocene period, extensive deformation occurred, producing normal faulting which formed grabens and horsts bearing generally north-northeast/south-southwest. During this phase of deformation, most of the epigenetic mineral deposits were formed.

The Chilitos Formation hosts the Veta Grande Vein system. It is a volcano-sedimentary sequence comprising massive and pillowed lavas of basaltic-andesitic composition, with intercalations of sedimentary, volcaniclastic and calcareous rocks, metamorphosed to greenschist facies.

The San Acacio property covers 746.6 ha, and includes the southeastern portion of the Veta Grande vein system, as well as a number of other parallel to sub-parallel veins. The deposit is a low sulphidization epithermal silver-gold system.

Mineralization consists of veins originated by the filling of faults and fractures. The principal vein is the Veta Grande with a strike that varies from 45° north to 60° west, and a dip of 60° to 70° to the southwest, with a width of 0.5 to 10 m, which reaches more than 20 m in some places, due to fault slips in the footwall of the vein.





Ore minerals in the zone are anglesite (PbSO₄), cerussite (PbCO₃), native silver (Ag), argentite (Ag₂S), proustite (Ag₃AsS₃), galena (PbS), sphalerite ((Zn, Fe)S), freibergite ((Ag, Cu, Fe)₁₂(Sb, As)₄S₁₃), cerargyrite (AgCl) and chalcopyrite (CuFeS₂).

The gangue is composed of pyrite, quartz, calcite, hematite, limonite, and clay minerals. The Veta Grande pinches and swells, and splays into sigmoid loops. On the San Acacio property, the Veta Grande is known to extend to depths of at least 335 m, and approximately 7 km along the strike.

The underground workings on the portion of the Veta Grande controlled by Sr. Gutierrez located to the NW of the San Acacio property extend to a vertical depth of 335 m, and in the past accessed four separate veins of which the Veta Grande was the most important. In the vicinity of the San Genaro shaft on the San Acacio property, the underground workings are believed to extend to a maximum depth of 300 m below the surface with the average vertical depth between 200 m and 250 m as indicated on the historical long section. While Spanish colonials were able to mine the rich oxide portion of the veins, they lacked the technology to extract silver from sulphide ores at depth. The mines were closed during the Mexican Revolution. A number of summary reports from 1935 to the present describe the work done on the property by Pittsburgh-Vetagrande Co., American Metals Co., and James R. Berry, Cia. Minas de San Acacio, Minas de San Luis, S.A. de C.V., Silver Standard (1994-1996), Atlas Mining Co. and their subsidiary Minera Argentum S.A. de C.V. (2001), and the present underlying owner, the Amado Mesta family.

In 2008, Source acquired an option to purchase a 100 % interest in the San Acacio silver property from Sterling Mining Company of Idaho (Sterling) and its Mexican subsidiary, Sterling Mining de Mexico S.A. de C.V., subject to a series of cash payments, share allocations and work commitments.

Between 23 October 2009 and 28 February 2010, Source completed eight HQ-NQ-size diamond-drill holes totalling 3,414 m, re-surveyed portions of the underground excavations that are still accessible, and reviewed the surface topography over the most recent excavation. An additional three holes were completed from the Refugio adit between April 2010 and May 2010.

On October 28, 2010, Source announced that the option had been terminated. On October 24, 2011, Defiance's Mexican subsidiary Minera Santa Remy S.A de C.V. signed an agreement with Amado Mesta Howard, Minera San Acacio S.A. de C.V., and Calidad Estrategia Cencorp. S.A. de C.V. for the exploration, exploitation and purchase of a 100% interest in the concessions and other assets.

In a letter dated December 21, 2011, Source Exploration Corp (Source) authorized all persons, companies and service providers (Including their successors) to release any and all





data, reports and other information related to the San Acacio Project and commissioned by Source Exploration Corp or associates between 2006 and 2010, to Defiance Silver Corp (Defiance) or its legal representative.

With this permission obtained, and since Defiance has not yet performed any exploration work on the property, the resource stated in this report is re-stated from the original NI 43 101 Source report using a higher cut-off grade. The higher cut off was selected to reflect the emphasis of Defiance developing the deposit via an underground mining method with correspondingly higher cost structures than the mixed open pit/underground scenario that Source envisaged.

AGP performed data verification through a site visit, as well as the collection of independent character samples, and a database audit, prior to mineral resource estimation. AGP found numerous clerical errors in the Silver Standard database, and re-built 98% of the entire assay database from original assay certificates. The 2010 Source data was error-free, and the completed database is now usable for mineral resource estimation.

The historical SGs of 2.55 g/cm³ for vein material and 1.75 g/cm³ for the mineralized fill material were used in the resource. AGP believes that the specific gravity determinations constitute a good representation of the in situ bulk density of the vein and fill material, until Defiance can gather new density values from the on-going exploration program.

Mineral resources at San Acacio were classified using logic consistent with the CIM definitions referred to in NI 43-101 guidelines. At San Acacio, the mineralization, density and position of the drill holes satisfies sufficient criteria to be classified in the Indicated and Inferred categories, with special exceptions made for resources supported mainly by underground chip samples, which were downgraded to Inferred regardless of the data density. All Mineralized fill material has been classified as Inferred, due to uncertainty related to quantity, tenor, and location.

AGP concludes that at the 65 g/t Ag equivalent cut off base case, the geological resource model yielded a total Indicated resource of 1.15 Mt grading, at 95.8 g/t Ag and 0.20 g/t Au, containing 3.55 Moz of silver and 7,600 oz Au. Significant credit from zinc, lead, and copper is expected; however, the lack of assays results for these elements in the Silver Standard chip samples program prevented the interpolation of the grade. The Inferred Resource totalled 2.89 Mt grading, at 134 g/t Ag and 0.17 g/t Au, containing 12.45 Moz of silver and 16,170 oz Au. Eighty-two percent of the Inferred Resources are contained in vein material, supported mainly by historical underground chip samples, with the remaining 18% contained in mineralized fill material left by previous operators.





The silver equivalent formula is based on the same parameters used by Source in 2010. At that time, metal prices for the three year rolling average were US\$14.75/oz for silver and US\$885/oz for gold.

AGP also draws the following conclusions:

The 1995 Silver Standard drill program met industry standards <u>at the time the drilling was</u> <u>conducted</u>, and has no reason to believe otherwise.

For the 1995 Silver Standard and the 2004-2006 Sterling Mining underground chip sample program, AGP was unable to retrieve the original assay certificate and relied on the information plotted on level plans. AGP is of the opinion the data is of sufficient quality to support resource estimation in the Inferred category only for the area of the model supported mainly by underground chip samples.

For the 2009 and 2010 drill program, sample preparation, assay, and security procedures employed by Source at the San Acacio Deposit are appropriate for the style of mineralization and the commodities of interest, and are suitable to support mineral resource estimation:

- Preparation procedures are consistent with industry-standard methods, and suitable for the deposit style.
- A QA/QC program comprising blank, standard and duplicate samples has been used on the Project since the 2004 drill program. QA/QC submission rates meet industry-accepted standards of insertion rates.
- Current sample storage procedures and storage areas are consistent with industry standards.

The mineralized fill volume was difficult to create with any sense of precision, mainly due to the lack of record-keeping by the historical mine operators in the early 1900s. Data used in the construction of the fill volume was sourced from a historical long section and surface examination in the area of old workings. The excavated material still represents the greatest risk to the resource for all material above the Purísima level.

In the model, the surveyed location of the San Genaro shaft is 122 m southeast of the location indicated on the silver standard plan. AGP suspects a rotation issue related to the azimuth of the Purísima adit. It is expected that once corrected, the resulting shift of the Purísima Level should not affect the overall tonnage and grade of the resource, but will most certainly shift a series of blocks in the resource estimate by about 120 m southeast, for an area of the model that is influenced by the Purísima and Rodadillos underground chip samples.





The authors are not aware of any other information on the properties, which would affect their interpretation or conclusions regarding the subject properties.

1.1 Main Recommendations

In order expand the resources and improve the quality of the data set, AGP recommends the following:

- To support Defiance Silver's longer term goal to expand production from the previously mentioned rates, drilling below the current Indicated resource to depths of 200 m below the Purísima adit is recommended. All in cost for this phase I diamond drilling is estimated at \$481,250
- The second phase drill program will also intersect the Veta Navidad target, with the aim of possibly expanding that resource. Estimated cost for this program is \$424,375
- Collection of SG data should be incorporated in the future drill program using a purchased SG scale and training existing staff adequately.
- With additional drilling, future resource models should revisit the exact location of the Purísima and Rodadillos levels
- As part of the next drill campaign, AGP recommends the implementation of a comprehensive geotechnical data-collection program.





2 INTRODUCTION AND TERMS OF REFERENCE

This report describes the results of the first National Instrument 43-101 (NI 43-101) compliant mineral resource estimation of the San Acacio Deposit for Defiance Silver Corp. based in Vancouver, British Columbia Canada. The report complies with standards set out in NI 43-101 by the Canadian Securities Commission form F1.

- In a letter dated December 21, 2011, Source Exploration Corp (Source) authorized all persons, companies and service providers (Including their successors) to release any and all data, report and other information related to the San Acacio Project and commissioned by Source Exploration Corp or associates between 2006 and 2010, to Defiance Silver Corp (Defiance) or its legal representative.
- With permission given, much of the information contained herein was extracted from the NI 43-101 compliant report titled "Mineral Resource Estimate and NI 43-101 Technical Report, San Acacio Project, Zacatecas, Mexico" author by Pierre Desautels of PEG Mining Consultants Inc. and dated, May 21, 2010 (the "Source Report"), with edits and comments from AGP where appropriate.

Since Defiance Silver did not yet carry out any exploration activity on the property, the resource statement in this report remains the same as that which was stated in the Source Report.

Much of the text in the original report was sourced from the following:

- drill report titled "2009-2010 Preliminary Diamond Drilling Report, October 2009 to February 2010," by Sonny Bernales, P. Geo., of Sunshine Geological Services, dated April 20, 2010.
- NI 43-101 report titled "Technical Report San Acacio Silver Property, State of Zacatecas, Republic of Mexico" by B. J. Price, M.Sc., P.Geo., of B.J. Price Geological Consultants Inc., dated February 25, 2008 (the "Price Report")
- internal report titled "San Acacio Work Summary, Zacatecas, Mexico," by Ken Konkin, P. Geo., of Silver Standard, dated February 1996 (the "Konkin Report").

This report was prepared at the request of Mr. Bruce Winfield, President and Chief Executive Officer of Defiance Silver Corp. This report is under the direct supervision of:

 Pierre Desautels, P.Geo. – Principal Resource Geologist with AGP Mining Consultants Inc. is the sole qualified person for this report. Mr. Desautels is a registered Professional Geoscientist in the Province of Ontario. Mr. Desautels directed the review of the historical data compilation, the 2009-2010 digital data,





and the 2010 NI 43-101 resource estimate and authored the corresponding NI 43-101 compliant report for Source. Mr. Desautels is responsible for the overall technical report. Mr. Desautels also visited the project site from January 25 to January 29, 2010, to review drill core logging and sampling procedures, collect representative character samples, verify drill hole collar locations, and gain knowledge of the geological setting of the deposit. According to the Source press release, only two underground drill holes were completed following completion of the resource estimate. Internal documents revealed a third underground hole was started but abandoned before reaching target and was not press released. The option for San Acacio was terminated on October 28, 2010, and no further work was conducted on the property by Source or Defiance. The QP therefore considered the site visit to be current.

 Andy Holloway, P.Eng. Principal Process Engineer with AGP Mining Consultants Inc. Mr. Holloway is a registered Professional Engineer in the Province of Ontario. Mr. Holloway provided the review of the metallurgical programs as described in Section 16 of the original 2010 NI 43-101 Source report.

The following individual provided the regional, local geological and historical information on the San Acacio Deposit, along with the text related to the drill program that was conducted by Source:

• Sonny Bernales, P.Geo. Independent consulting geologist and principal of Sunshine Geological Services, is a registered Professional Geoscientist in the Province of British Columbia. Mr. Bernales has been actively involved since 1978 with projects in various stages of exploration in Philippines, Burma (or Myanmar), Indonesia, South Korea, Mexico and more recently, Canada. Mr. Bernales was responsible for logistics and supervision of all exploration activity conducted by Source on the property. He contributed to Sections 4 through 13 of the original Source report.

Information, conclusions, and recommendations contained herein are based on a field examination, including a study of relevant and available technical data, and discussions with Mr. Bernales and Mr. Robertson of Source. Additionally, individuals such as Mr. Piero Suttie provided invaluable information on the mining history of the district, former production records, and mining methods used at various mining operations on the San Acacio deposit.

All units used in this report are metric unless otherwise stated; grid references are based on the UTM NAD 27 Mexico coordinate system.

All monetary amounts are provided in United States dollars unless otherwise noted.





The sections on Mining Operations, Process Metal Recoveries, Markets, Contracts, Environmental Considerations, Other Relevant Data and Information, Taxes, Capital and Operating Cost Estimates, Economic Analysis, Payback, and Mine Life, are not applicable to this report. All Illustrations are embedded within the body of the report.





3 RELIANCE ON OTHER EXPERTS

AGP has followed standard professional procedures in preparing the content of this resource estimation report. Data used in this report has been verified where possible, and this report is based upon information believed to be accurate at the time of completion.

With the exception of ensuring the concession expiry date on the *Dirección General de Minas (México) and Subdirección de Minas (Zacatecas)* website was current and the expiry date posted on the web site also corresponded with the expiry date listed in an official document issued by the Secretaría de Economía, Coordinación General de Minería dated December 05, 2005, AGP has not verified the legal status or legal title to any claims, or to the legality of any underlying agreements for the subject properties regarding mineral rights, surface rights, permitting, and environmental issues in sections of this technical report; AGP has relied on information gathered during the site visit and supplied by Mr. Bruce Winfield President and CEO of Defiance Silver who reviewed and approved the content of section 4 of this report on April 2, 2012 .

The author has also relied on several sources of information on the property, some of which are partially based on historical records, maps, and sections that were provided by Source, Defiance Silver (Defiance) and by geologists employed by Piero Sutti, S.A de C.V., a private Mexican mining company that was providing contract services to Source, which has had previous involvement with property. AGP would like to caution the reader that not all historical records could be verified. To the extent possible, AGP favours more recent digital geological and assay data, typically provided by Source, Defiance or ALS Chemex of Vancouver.





4 **PROPERTY DESCRIPTION AND LOCATION**

The San Acacio Project is located about 7 km north of the City of Zacatecas, the capital city of the State of Zacatecas (Figure 4-1). The location of the San Genaro Shaft, approximately in the centre of the property, is located at UTM 751,182 East and 2,526,036 North (Universal Transverse Mercator, North American Datum 1927 Mexico, zone 13Q) at latitude 22° 49.438' North and longitude 102° 32.776' West.











The San Acacio property comprises ten mineral titles covering 746.6 ha, as listed in Table 4-1.

Concession Name	Туре	Title No.	Title Date*	Expiry Date*	Area (ha)
San Acacio	Exploitation	164874	11/07/1979	10/07/2029	56.0
Socavón de Purísima	Exploitation	164875	11/07/1979	10/07/2029	16.3
San Jose de Rocha	Exploitation	166920	25/07/1980	05/08/2030	18.0
Ampl. San José de Rocha	Exploitation	164876	11/07/1979	10/07/2029	12.0
Almadén	Exploitation	164877	11/07/1979	10/07/2029	4.4
Tahures	Exploitation	150866	16/01/1969	15/01/2019	49.9
San Acacio Dos	Exploitation	168779	22/07/1981	02/08/2031	203.3
San Acacio Tres	Exploitation	164880	11/07/1979	10/07/2029	23.2
La Contracuña II	Exploitation	188361	22/11/1990	21/11/2040	19.4
San Acacio Cuatro	Exploitation	212909	12/02/2001	12/02/2051	344.1
Total (ha)					746.6

 Table 4-1:
 List of Mineral Concessions at San Acacio Property

Note: *day/month/year

The mineral concessions shown in Figure 4-2 of this report reflect those displayed on a map downloaded from the website of *Dirección General de Minas (México) and Subdirección de Minas (Zacatecas).* AGP compared the name and expiry date against an official document issued by the Secretaría de Economía; Coordinación General de Minería dated December 05, 2005, and found them to be in good standing.

AGP did not carry any other legal verification, title opinion or status of land ownership in regards to the San Acacio deposit.













4.1 Mexican Mining Law

Minera Santa Remy S.A. de C.V., a Mexican company indirectly owned by Defiance Silver Corp through Defiance's subsidiary DefCap (BVI) Inc. through a legal agreement with Amado Mesta Howard, Minera San Acacio, SA de C.V. and Calidad Estrategia Cencorp S.A. de C.V dated October 24, 2011, obtained the exclusive right to explore and exploit the mining concessions for a certain period of time and an option to acquire the mining concessions and other assets (the "Concessions Agreement").

Avalos y Abogados S.C. has provided a formal title opinion concerning the mining concessions to Defiance Silver Corp on April 16, 2012.

Article 27 of the Mexican Constitution sets forth that the lands and waters within the national territory originally belong to the Mexican United States (Mexico), which has the right to transfer title thereto to private persons in order to constitute private property. Article 27 also provides that the Nation has direct ownership of mineral deposits within the national territory, which cannot be transferred. The use and exploitation of such national resources by private parties is only permitted pursuant to concessions granted by the Federal Executive Branch, through its corresponding government agencies, pursuant to applicable laws and regulations.

The Mining Law is a federal statute that governs the grant, use, cancellation, and expiration of mining concessions. The Law was originally published in the Federal Official Gazette (FOG) on June 26, 1992, and was amended on December 24, 1996, on April 28, 2005, and on June 26, 2006.

Under the current legal framework, mining concessions may only be granted to Mexican nationals and companies, ejidos, agrarian communities and communes, and Indian communities. In the case of companies, they must be domiciled in Mexico, and include in their charter and bylaws the exploration or exploitation of minerals and substances subject to the Law. Foreign participation in the ownership of such companies must comply with the provisions of the Foreign Investment Law (FIL), which does not impose any limitations with respect to mining, except on radioactive materials. The FIL allows 100% foreign-owned Mexican firms to obtain concessions.

Through its Mexican subsidiary Minera Santa Remy, S.A. de C.V., Defiance Silver Corp. has the right to explore and exploit the San Acacio concessions and other assets and an option to acquire a 100% interest in them.

Pursuant to the amendment of the Law of April 28, 2005, there is currently no distinction between the exploration and exploitation of mining concessions. Therefore, the Law currently provides the existence of mining concessions, which allow the owner to perform





exploration works on the ground with the purpose of identifying mineral deposits and quantifying and evaluating economically usable reserves and accordingly perform work to prepare and develop areas containing mineral deposits, and exploitation works to detach and extract mineral products from such deposits. Mining concessions have a duration of 50 years from the date of their recording in the Public Registry of Mining. They may be extended for an equal term if the holder does not cause cancellation of the concession by any act or omission sanctioned by the Mining Law; and the holder requests an extension within five years prior to the expiration date.

As part of the requirements to maintain a concession in good standing, concession-holders are required to pay mining duties during the life of the concession. Mining duties are payable to the federal government in January and July of each calendar year. The amount of mining duties is assessed based upon the size of the mining lot and must be paid in Mexican pesos. A concession-holder's failure to pay mining duties may result in the cancellation of the mining concession.

The bi-annual fee is calculated using two elements, a per-hectare escalating basis, and the amount of time that has passed since granting of the concession.

AGP is aware that all fees pertaining to the mining concessions have been paid by Defiance on January 26, 2012.

4.2 Previous Agreement

Source Exploration Corp previously had an agreement with Amado Mesta Howard and Minera San Acacio S.A. de C.V. for the exploration, exploitation and purchase of the San Acacio concessions; however, in a news release on October 28, 2010, Source announced that the option had been terminated.

4.2.1 MINERA SANTA REMY S.A. DE C.V. AGREEMENT

Defiance's Mexican subsidiary Minera Santa Remy S.A de C.V. has an agreement with Amado Mesta Howard, Minera San Acacio S.A. de C.V., and Calidad Estrategia Cencorp S.A. de C.V. dated October 24, 2011, for the exploration, exploitation and purchase of a 100% interest in the concessions and other assets.

Under terms of the agreement, Minera Santa Remy S.A. de C.V. must make the following payments:

1) On signing US\$25,000 (paid)

2) On or before 90 days on signing of trust agreement US\$250,000





Or

3)	pay for 90 day extensionUS\$50,000	(paid)
4)	On or before 180 days on signing trust agreementUS\$200,000	
5)	On or before 1 st anniversary of 2) or 4)US\$5,500,000	

Additionally, a 2.5% net smelter royalty is payable on any production from the San Acacio concessions. However, Minera Santa Remy may purchase the royalty for a period of five years from the date of the purchase of the concessions for the price of US\$2,500,000. Subsequent to the initial five year term, the purchase price for the NSR will escalate in accordance with the Mexican National Consumer Price Index. A minimum annual royalty of US\$125,000 is payable beginning on the first anniversary of signing the trust agreement until such time as a production has reached a level for a period of six consecutive months that would generate a royalty equal to US\$125,000 annually.

The option agreement also gives Minera Santa Remy the option until the first anniversary of signing of the trust agreement to:

- purchase the Purísima surface rights covering 12 ha for a price of US\$10,000
- purchase the Tailings surface rights covering 12 ha including approximately 300,000 tonnes of tailings for the price of US\$1/t of the verified quantity of tailings

4.3 Surface Rights

While mining concessions grant to their holders the right to carry out exploration and exploitation works within the relevant mining lots, the right to enter or use the surface land is subject to the consent of the owner of the land. Depending on the specific requirements of the mining project, the location of the surface land, and its relevance for the mining works and activities to be performed, agreements between the owners of the surface land and concession-holders may take the form of a simple letter agreement providing for limited land use rights, lease agreements, purchase agreements or more formal arrangements, some of which are contemplated under the Mining Law and the Mining Regulations.

A significant portion of the Mexican territory is held by ejidos, agrarian communities with legal personality and patrimony that have been endowed by the government of Mexico with lands. The Mexican government retains the ownership of the ejido land and provides that the communities hold and use it under specific rules contemplated in the Agrarian Federal Law of 1992 and its regulations. Through a certain process established by said Law the ejido members are able to become owners of the land that comprises their ejido.





Among the land use arrangements with the owners of the surface, including the ejidos, contemplated by the Mining Law, are the temporary occupation agreement, which is a type of lease arrangement where, in return for the payment of an annual rent determined by the authority, the concession-holder obtains the right to use the surface land for the duration of the mining project, or the expropriation of land, pursuant to which the surface land owned by a third party (including the ejido) is expropriated in favour of the concession-holder, in return for the payment of a monetary compensation.

The existence of the ejido system in Mexico poses some unique challenges for mining projects that should be carefully addressed.

Several entities and groups have surface rights claims over the San Acacio property, namely Francisco Gutierrez Castorena, H. Ayuntamiento Vetagrande (the municipality of Vetagrande), Pequeños Propietarios (several small land owners, some of which act together as the group Estacion Nacional de Cria General Panfilo Natera and others who act individually), and Ejido Sauceda de la Borda. Refer to Figure 4-3 for the locations of each claimant. The surface land boundaries are not clearly defined; therefore, the boundaries shown in the map should not be relied upon as a legal document.

Representatives of Minera Santa Remy S.A. de C.V. have initiated contact with the H Ayuntamineto Vetagrande to negotiate an access agreement to the surface rights that they control as well as assistance in negotiating with the other groups. However to date no agreements have been finalized for access to the lands controlled by the various groups referred to above. These agreements are necessary for Defiance to conduct any surface exploration activities.

The author is not aware of any environmental liability associated with the San Acacio property, with the exception of surface right described above, which until resolved will handicap Defiance to optimally position a surface drill rig, the author is not aware of any other risks that may affect access or title.







Figure 4-3: Surface Rights Claimants





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

5.1 Accessibility

Access to the property from the City of Zacatecas is by paved road heading north past the La Bufa turnoff to Veta Grande. The property is located about a kilometre east-southeast of the village of Veta Grande. From Veta Grande, a dirt road leads to the property and to several old shafts and adits located at the site. From the east, access is by paved roads leading from Zacatecas to the village of Sauceda de la Borda. A gravel road connecting this village with Veta Grande passes directly in front of portal of the Purísima adit.

From other areas of Mexico, the City of Zacatecas can easily be reached by paved highways. Several flights per day from Mexico City and from other cities are available. Aero-Mexico has three-times-a-week flights direct from Los Angeles, California to Zacatecas. In addition to excellent highways and international airport, Zacatecas is also served by railroad. The City of Zacatecas has a population of 118,562 (2005 – from Wikipedia).

Regionally, the Zacatecas state is located in the northern region of Mexico and is bounded to the north by the state of Coahuila, to the south by Aguascalientes, to the northwest by Durango and to the southwest by Jalisco and Nayarit.

5.2 Physiography, Climate, and Vegetation

Zacatecas is situated within the Central Mexican Plateau, also known as Mexican Altiplano. The Central Mexican Plateau is bounded to the east by Sierra Madre Oriental and to the west by the Sierra Madre Occidental. The central plateau has an average elevation of about 2,300 m. The state is somewhat mountainous, being traversed in the west by lateral ranges of the Sierra Madre Occidental, and by numerous isolated ranges in other parts – Mazapil, Norillos, Guadalupe and others. There are no large rivers, only the small head-streams of the Aguanaval in the north and of the Guazamota, Bolaños, and Juchipila in the west, the last three being tributaries of the Rio Grande de Santiago.





The property lies between 2,375 m to 2,700 m elevation above mean sea level in a somewhat mountainous terrain within the plateau.

Vegetation at the property includes various species of cactus, and thorny bushes, and grasses as seen in Photo 1 looking west toward the town of Veta Grande.



Photo 1: Typical vegetation cover at San Acacio

5.3 Climate

The climate is dry and mostly falls in the semi-arid steppe type, although moisture from the Pacific does influence the state in summer, particularly western sections.

Because of the relatively high elevation, summers are warm and winters may be cold with small amounts of snow possible at higher elevations. Exploration work can be continued year-round. Seventy five percent of the Zacatecas state has a dry and semi dry climate with a temperature of about 18°C and annual precipitation of 800 mm. In some areas in the south of the state, the influence of the Occidental Sierra Madre results in a pleasant sub humid climate with annual precipitation higher than 1,000 mm.

5.4 Infrastructure and Surface Right

The region has a long history of mining and therefore the author believes that mining personnel could be sourced locally. While electrical power and water is available nearby, the author is not qualified to comment as to the adequacy of this resource to support an underground or open pit mining operation.

As stated in the previous section, Defiance through its subsidiary representatives of Minera Santa Remy S.A. de C.V. has initiated contact with the various land owners to access agreement to the surface rights. To date no agreements have been finalized.





6 HISTORY

This section has been sourced from the Price Report and is reproduced here for readability. AGP would like to point out that some of the information provided in this section is anecdotal, cannot be verified, and has been included here purely as a record.

Zacatecas State has a long mining history beginning prior to colonial times. The historic colonial city was settled by the Spanish in the mid-1500s. Its early prosperity was built on the discovery of silver in 1546 by a Basque noble, Captain Juan de Tolosa, and the opening of the San Bernabe and Albarada Silver Mines. By 1588, the initial settlement had become known as the Very Noble and Loyal Village of Our Lady of Zacatecas, because of the large quantities of silver shipped from the region to Spain. The silver was used to finance Spain's exploration campaigns, not only in Mexico and Central and South America, but also around the world. During the sixteenth century, preachers from Zacatecas accounted for 60% of the value of all Mexican exports, making it one of Mexico's wealthiest and largest cities.

Zacatecas State continues to be the largest source of silver in Mexico, and is the reason Mexico remains the world's largest silver producer. The silver mine at El Bote was operational for over 200 years. The Zacatecas Silver Belt is one of the most prolific silver producing areas in the world, hosting the Fresnillo and Zacatecas silver mines which, combined, have produced over 1.5 Boz of silver (source: Western Silver Ann Report 2003).

The principal vein clusters in the Zacatecas district include Mala Noche, La Cantera, Veta Grande, San Acacio, Quebradilla, San Rafael, Panuco and El Bote. Complete history and production records are not available for the Veta Grande area. A number of companies and individuals share ownership of various mines along the Veta Grande trend. However, a crude estimate of past production made from all the various levels and vein widths, shows that approximately 750,000 to 1 Mt of ore was mined with grades exceeding 1 kg/t Ag (Atlas Mining SEC filings). The Spaniards mined ore that exceeded 1 kg/t Ag (32 oz/t Ag); the remaining vein material was typically discarded as waste and was backfilled into the workings.

Mining halted between 1910 and 1914, due the Mexican Revolution. While unoccupied, the workings became inaccessible because of flooding and cave-ins. Foreign companies arriving later implemented exploration, drainage, and rehabilitation programs in the mines, which at that time, were mainly exploited for lead, zinc, and copper. Exploitation occurred in the area during 1936 to 1948, when labour problems, lack of electric power, and low metal prices finally forced the mines to close.





6.1 History of the San Acacio Mine

The history of the San Acacio mine prior to 1992 is not known in detail. Martin Suttie is a Zacatecas based geologist and (as revealed in personal communication) has collected a number of past reports in Spanish and English, which allowed piecing together some of the local history of the Zacatecas Silver camp.

1548 to 1765

In the colonial period, the Spaniards mined only oxide ores from the high grade shoots, leaving behind most of the sulphide mineralization, partly as backfill. An estimate was made by Minera Teck of 750,000 to 1 Mt mined grading of 1 kg/t Ag or better, based on vein widths and stopes.

1765 to 1782

The Esperanza area was worked by the Frenchman Jose de la Borda, who was reported to have taken out four million pesos' worth of ore each year.

Late 1800s

An English company held the property and drove the 2 km-long Purísima tunnel for access and drainage. A small amount of material was mined.

1835 to 1870

Various rich bonanzas were mined intermittently.

1870 to 1911

Intermittent production; the Mexican revolution (1910) put a stop to most mining in Zacatecas, as heavy fighting occurred on the local hills.

1920 to 1922

Compañia Dos Estrellas based in Mexico City (Tomas Skewes Saunders, Consultant Engineer) inspected the property. Mr. Skewes Saunders examined the accessible parts of the property in 1920 to 1922, although the lower workings were below water level.

1923

The western part of the Veta Grande vein system (on ground to the west of San Acacio and now owned by others) was mined by the Pittsburgh Vetagrande Company, who erected a 750 st/d cyanide plant for silica-rich ores, and American Metals Co., who later built a 150 st/d plant for flotation of complex lead-zinc ores. Both plants were successful until the tenor of the mineralization dropped at depth (oxide to sulphide transition).





1935

AGP translated from Spanish a report titled "Mina San Acacio Report, Veta Grande, Zacatecas, Mexico." The report was authored by T. Skewes Saunders, consulting Engineer for Dr. Roy B. Dean and is dated March 1935. At that time, the property appeared to be owned by the Mesta family of Zacatecas, and was operated under the supervision of James Berry, an English engineer for Compañia Minera San Bartolo, SA.

In his report, Mr. Saunders describes the work done by Berry and Associates, which consisted of rehabilitating the El Refugio tunnel and opening, raises and crosscuts. On the Purísima Level, access was gained to more than 1,800 m, but at the time the report was written, the Veta Grande Vein was not yet reached. Shafts and old workings were cleaned at five or six well-selected sites, to allow access for sampling and mapping from 15 to 35 m below the surface exposure.

Geologist Sr. Ezequiel Ordoñez, a respected and experienced individual who had been in charge of the Geological Institute, provided much of the geological information.

The 1935 report estimated a mineral reserve. The methodology used for the estimation is considered primitive by today's standards. It will not be reproduced in this report, as it is deemed no longer relevant, since the deposit has been exploited since that time.

1936 to 1945

Cia. Fresnillo, who operated the adjacent property, mined some dumps from San Acacio. Reportedly, about 100 t/d were treated.

1953

Sr. Julio and José Romo offered the property to Asarco, (American Smelting and Refining Co.).

1960s

The Amado Mesta family built a 100 t/d flotation plant to process dumps and some backfill material from San Acacio.

1974

The Amado Mesta family incorporated Minera San Acacio and built a larger plant (250 t/d), again to process dumps and surface material. No fresh vein material was mined or milled. Mr. Mesta made available production records from 1968 to 2009.

1977

S. Pastor reviewed the property for Compañia Sedemex. Compañia de Minas San Acacio S.A. de C.V., under the supervision of Engineer Alfredo Sandoval owned it that time. Levels 100, 160, and 250 were available for inspection. Compañia Fresnillo owned the adjacent Veta Grande property to the west. Inco (International Nickel) had expressed an interest in the





property; however, the two to three owners were not interested in consolidating ownership into one company. The underlying claims were held by the Mesta Howard family and associates, who had 50 to 60 people working at the mine and mill. The Guillermo winze was being de-watered, but apparently, this was not completely successful, although about 1,000 tonnes of silver ore was mined.

1988

Minas de San Luis S.A de C.V. evaluated the San Acacio mine, estimating that 1.6 Mt had been extracted, with an average grade of 205 g/t Ag and 0.28 g/t Au (6 oz/t Ag and 0.0082 oz/t Au). A detailed study, complete with good quality maps, was done by the company (Atlas Mining materials). Minor small-scale intermittent mining has continued (Konkin 1996).

Very little is known regarding any exploration program prior to 1995.

1994 to 1997

Minera San Acacio, S.A de C.V., processed backfill material from stopes at or near surface for silica flux. The company crushed the siliceous vein material to -¾-inch mesh, and shipped the ore directly to San Luis Potosí. At that time, the ore graded 180 g/t Ag and 1 g/t to 2 g/t Au. Approximately 80 tonnes of ore were shipped per week, or about 300 tonnes per month. Local illegal "high-graders" from the surrounding villages occasionally work in the various backfilled stopes along the surface, using explosives to break up vein material in order to hand-cob high-grade silver mineralization, and piles of high-grade material are sometimes seen at the surface, indicating the grades at depth. AGP observed these piles of high-grade material during their site visit. The property was optioned by Silver Standard Resources Inc. in 1994, and was held and explored by them until 1997.

The following account of work done in 1995 is condensed from Konkin (1996): Silver Standard's initial exploration and evaluation of the San Acacio property included:

- Marking of a base line over 6 km in length, and over 66 km of cross-lines
- Conducting surface rock and soil sampling, and a surface geophysical survey over a widely-spaced picketed grid (geophysical work was discontinued due to excessive conductive cultural contamination)
- Five bulldozer trenches varying from 160 to 215 m in length, and several kilometer of road construction (trenching in the south-eastern extension of the Veta Grande system encountered only weak mineralization in Quartz Carbonate rich matrix). Surface sampling in the northwestern portion of Veta Grande yielded up to 267 g/t Ag from an open stope backfill sample. Konkin reported the silver values encountered in the surface sampling program substantiated the reported 180 g/t mineralized fill material mined by Minera San Acacio however much of the surface fill and waste rock averaged between 100 to 110 g/t Ag.





• Underground rehabilitation efforts along the Purísima, Rodadillos, San Rafael, Refugio, Mercedes, El Aguilón, and '77' workings (partial access was gained to these levels, but access to the Veta Grande system within the Mercedes and El Aguilón workings remains closed due to excessive caving).

Konkin reported results from the mapping and sampling program which were generally poor. The vein systems encountered underground were found to be well mineralized, but the silver values were disappointing. In the Refugio Level, 37 rock-chip samples were collected averaging 63.3 g/t Ag.

On the Rodadillos Level, although impressive silver values were encountered, Konkin described the overall silver values in the "low- to medium-grade category." The vein in the Rodadillos Level is not exposed well enough to sample the true width, estimated by Konkin to be over 10 m in width.

On the San Rafael Level, Konkin reported silver grade of less than 103 g/t Ag with only one sample exceeding that value.

The Purísima Level, occurring at the water table, was the most extensively worked level on the project. In places, brickwork and timbering covered the full vein expression, hampering sampling and mapping efforts. High grade silver values were reported by Konkin in the western portion of the Veta Grande, in the San Guillermo cross cuts and in the eastern end of the deposit.

Access to the Mercedes and El Aguilón levels were abandoned due to poor ground conditions.

Limited access to the first level of the '77' workings was gained. The vein system in that area is described by Konkin to be brecciated and range from 1.5 m to 12 m in width, but bearing low-grade silver values.

The first phase of surface and underground exploration seemed encouraging enough to Silver Standard to warrant a drill program.

A short percussion drill hole program was attempted, but most of the holes failed to reach the intended targets, due to the holes collapsing within the backfill material. The program was cancelled after the ninth hole was abandoned. The deepest hole completed was only 33 m deep. The holes averaged only 16 m, and for the most part only intersected rubble and backfill. Recoveries were not good. The best values obtained indicated low-grade material averaging 60 g/t Ag. It was later noted (R. Tschauder, personal communication) that the percussion holes were drilled parallel with the vein structure

A diamond drilling program in late August 1995 was designed to test the potential for a near surface open-pit deposit, and to test the down dip and lateral extension of the Veta Grande





vein system for potential high-grade silver mineralization. A condensed description of the program is located in Section 10.1 of this report.

Silver Standard historical estimates include a computer-generated polygonal resource estimate, created after the drilling program of 1995 that included high-grade silver veins and backfill material. The historical resource reported by Silver Standard was 2.4 Mt averaging 182.5 g/t Ag undiluted and in situ.

AGP, Source and Defiance do not treat the geologic historical resource estimates discussed in this section as current mineral resources or reserves. These estimates are historical in nature and are non-compliant with NI 43-101. They are discussed here purely for record. These estimates are no longer relevant as they are being replaced by the NI 43-101 Mineral Resource estimate presented in this report.

Late 1997 or Early 1998

Minera Argentum S.A de C.V., a subsidiary of Atlas Mining Inc. (a US SEC reporting issuer), signed a three-year option on the property. Minera Argentum worked in Mexico under the direction of Richard Tschauder and Gabriel Arredondo. Olympic Silver Resources, a Nevada company, optioned the San Acacio property. Minera Argentum, a subsidiary of Atlas Mining Inc., purchased the majority interest in Olympic Silver. Atlas planned to raise US\$1 million to start production and expand the mine in 1999, but the financing apparently failed, and the property was relinquished in 2001 (according to the SEC filings for Atlas).

2003 to 2004

Jim Williams, an independent consultant based in the UK for Orca Gold International Ltd. (now Minco Plc), inspected the property. In 2004, Sterling Mining negotiated an agreement for the property.

December 2008 to October 2010

As stated in Source's press release dated December 3, 2008, Source, through its 100% owned subsidiary, closed a transaction with Sterling and its Mexican subsidiary, Sterling Mining de Mexico S.A. de C.V. to purchase Sterling's remaining interest in the San Acacio silver property through an earn-in agreement with Sterling to acquire the San Acacio deposit. On October 28, 2010, Source announced that the option had been terminated. Source conducted surface diamond drilling, rehabilitated the Refugio level and conducted a limited underground drill program.

October 2011 to Present

Defiance's Mexican subsidiary Minera Santa Remy S.A de C.V. has an agreement with Amado Mesta Howard, Minera San Acacio S.A. de C.V., and Calidad Estrategia Cencorp S.A. de C.V. dated October 24, 2011, for the exploration, exploitation and purchase of a 100% interest in





the San Acacio mineral concessions and other assets. To date, no exploration work has been conducted on the property by Defiance.




7 **GEOLOGICAL SETTING & MINERALIZATION**

7.1 Regional Geology

The following information is reproduced from a technical report on the San Acacio, dated 20 June 2007 (amended and effective date 25 February 2008), which was condensed from Ponce and Clark (1988).

The Zacatecas mining district is located in the east central part of the state of Zacatecas in north-central Mexico, and covers approximately 700 km², located at the transition of the eastern flank of the southern Sierra Madre Occidental province and the north-western limit of the Mesa Central physiographic province. The Sierra Madre Occidental province, one of the most extensive volcanic fields of the world, is a massive pile of nearly horizontal volcanic rocks that underlies a vast plateau, composed largely of siliceous volcanic rocks of the upper volcanic series that rest discordantly either on the lower volcanic series, which are composed mainly of intermediate lavas, or on metamorphic rocks of Precambrian or Palaeozoic age and igneous or sedimentary rocks of the Mesozoic era (the Pimienta series). The lithologic units are described briefly from oldest to youngest and shown in Figure 7-1:

- **Pimienta Metasediments** (Triassic T3pm), the oldest rocks in the area, are divided into two members:
 - The lower member contains phyllites with conformable lenticular bodies of metaconglomerates, metaquartzite, and marble and an intraformational conglomerate in the middle part.
 - The upper member consists of very fine-grained dense metaquartzite. The metamorphic grade corresponds to greenschist facies. The Pimienta metasediments are best exposed in deep arroyos of the west-central portion of the Zacatecas area and in road cuts, along highways leading to Fresnillo and Guadalajara. They are also present in relict outcrops overlying the Zacatecas microdiorite and as xenoliths within it.
- Zacatecas Microdiorite (Kzm) is an aphanitic to medium-grained, phaneritic, hypabyssal rock, with a subordinate porphyritic texture. Small irregular, medium- to coarse-grained gabbroic bodies are present in the unit. Characteristic deuteric or hydrothermal alteration is common. The microdiorite occurs as a large composite laccolith that crops out in the northern half of the Zacatecas district. The Zacatecas microdiorite is commonly referred to as the "green rock" of Zacatecas, but its origin was not understood until Ranson suggested an intrusive origin with an isotopic age of 74.3 Ma (Late Cretaceous), using K-Ar methods.





• **Chilitos Formation** pillow lavas, in the nearby Fresnillo district and to the south at San Nicolas, have an Early Cretaceous age. This unit discordantly overlies the Zacatecas or Pimienta Formation, and includes andesitic marine lavas with pillows, alternating with shale's and limestone lenses.

Tertiary Units

- **Red Conglomerate** (Tpec) is a sequence of bedded fluvial deposits of conglomerate, that exhibit a reddish matrix. This "polygenetic" conglomerate is composed of gravel and sand-sized fragments. Some intercalations of volcaniclastic and epiclastic materials, red sandstones, and red siltstones or claystones are also present. The age of this unit is Paleocene, and it is widespread in this part of Mexico.
- **Quintero Latite** (Teql) is one of the less voluminous units and is exposed only in the southern portion of the area. The latite is a grayish and pinkish to purple-brown, aphanitic rock, with scarce potash feldspar.
- **Guadalupe Formation** (Teg) is the oldest accumulation of silicic pyroclastic rocks, and is informally assigned formational status. This unit comprises pink-gray, vitriccrystal, welded, rhyolitic, ash-flow tuffs containing 3% to 8% phenocrysts. Quartz phenocrysts are abundant, whereas potassium feldspar crystals, 1 to 2 mm in size, are rare. The aphanitic matrix is silicified and devitrified. Outcrops are concentrated in the eastern flank of the Sierra de Zacatecas."







Figure 7-1: Regional Geology of the Zacatecas Area





7.2 District Geology

The Zacatecas Mining District is located within the physiographical provinces of the Western Sierra Madre and the Central Plateau.

The basement rock units in the area include the metamorphic rocks of the Zacatecas Formation, of the Upper Triassic Age. Overlying these rocks are the volcano-sedimentary units of the Chilitos Formation, of the Upper Jurassic-Lower Cretaceous Age. During the Tertiary, a polymictic conglomerate known as the "Zacatecas Red Conglomerate" was discordantly deposited and, overlying this, andesitic to rhyolitic flows and tuffs were deposited. Small stocks and plugs of rhyolitic to andesitic composition intrude all units.

The Zacatecas Formation comprises a sequence of sericitized phyllites and metamorphosed shale's, sandstones, conglomerates and limestone's. These rocks are host to some veins such as those of the El Bote vein system and the deeper portions of the Mala Noche vein system.

The Chilitos Formation, of the Upper Jurassic-Lower Cretaceous Age, is a volcanosedimentary sequence made up of massive and pillowed lavas of basaltic-andesitic composition with intercalations of sedimentary, volcaniclastic and calcareous rocks, metamorphosed to greenschist facies. This sequence is locally thrust over the Zacatecas Formation, and is the main host rock for mineral systems in several mining districts in the region, including Zacatecas and Fresnillo.

Extensive deformation during the Oligocene-Miocene period produced normal faulting, forming grabens and horsts bearing generally north-northeast/south-southwest. During this phase of deformation, most of the epigenetic mineral deposits were formed.

Figure 7-2 depicts a generalized stratigraphic column for the Zacatecas District. A map of the various vein systems present in the district is shown in Figure 7-3.

Except for the El Orito vein system, most of the known silver-bearing (also with lead, zinc, copper and gold) vein systems in the immediate vicinity of the City of Zacatecas trend NW-SE (namely, from north to south, Veta Grande, Mala Noche and El Bote-Cantera). The El Orito vein system strikes almost exactly N-S. The NW-SE is more extensive and economically important.







Figure 7-2: Generalized Stratigraphic Column for Zacatecas (from CRM Monograph on Zacatecas)





Figure 7-3: Zacatecas District Vein System







The silver-base metals system is formed by remarkably long veins with an orientation of N 45° to 85° W, and dips of 50° to 70° SW and 64° to 75° NE. The vein branches occasionally display a horsetail structure, while others form zones of sheeted, essentially parallel, stringers of variable thickness. The lengths of the main veins vary from 4 to 16 km, with widths of 1 to 30 m. The veins usually have a branching form, both in horizontal as well as vertical section. The branches merge and split repeatedly, but intersections are rare. Sometimes the branches join with the main vein to form ellipsoidal forms, but more commonly the branches diverge and pinch out. In addition, the veins may double up, run parallel, and either split again or become wider than what was formerly the main vein. These splits are important, since deviation from the general strike and dip occurs in these places, and the result is a widening of the vein.

Towards the end of the structure, both in horizontal and vertical dimensions, the vein tends to die out in numerous long and more persistent branches, all of them approximately of the same thickness. These vein systems are hosted mainly by the Chilitos Formation, which shows widespread propylitization, and less by the older Pimienta metasediment and the Red Conglomerate that has been bleached intensely. The Cantera Vein also crosses some of the rhyolitic subvolcanic bodies.

Figure 7-4 shows a geological map of the Zacatecas District.







Figure 7-4: Geology of the Zacatecas District





7.3 Property Geology

The San Acacio deposit is predominantly underlain by early Cretaceous Chilitos formation composed of submarine and andesite including pillowed porphyritic, massive and brecciated forms which are intercalated with various sediments such as argillaceous shale and siltstone and minor greywacke.

Outcrop exposure on the property is limited to steeper slopes, ridges and creeks. The surface Geology map presented in Figure 7-5 is reproduced from Konkin (1996) which originated from a surface geology map first published by Compania Fresnillo S.A. de C.V. in 1985.

Konkin reported the forms of andesite most frequently encountered in drill core are porphyritic to massive andesites. Mapping by Fresnillo indicate much of the andesite occurring on the property is a pillow andesite. In drill core Konkin noted blotchy concentric epidote alteration contacts that may be interpreted as pillow structures; however, they are sporadically and randomly distributed throughout the porphyritic to massive andesite and in Konkin's opinion may only represent an irregular epidote alteration pattern following an irregular, moderate to tight spaced fracture or joint pattern. For ease of mapping, Konkin identified the andesite as massive to porphyritic units that may contain pillow structures.

Early Cretaceous porphyritic andesite (Kpa) is composed of fine grained medium to dark green ground mass with up to 7% to 10%, 1 mm to 3 mm feldspar and 3% to 5%, 1 mm to 2 mm chlorite altered mafic phenocrysts. This unit is variably altered by weak to moderate epidote and chlorite alteration. Barren quartz-calcite veinlets and stringers up to 10% to 15% brecciate the unit.

The massive andesite (Ka) is the same unit described above without the porphyritic phenocrysts. The andesite contains 15% to 2% disseminated fine-grained pyrite and can be weakly silicified by intrusion of up to 10% to 15% quartz-calcite veinlets and stringers. Minor K-spar is associated with the quartz and epidote veinlet-stringer zones.

The andesites are more intensely altered proximal to the major vein structures encountered and since the alteration typically obscures the original fabric, these rocks are defined by Konkin as altered equivalent of the massive to porphyritic andesites. Moderate to very strong clay alteration is indicative of this pale to medium grey-green, leached unit. Konkin observed that often the contact zones with the vein systems are intense clay gouge zones evident of severe shearing. The altered andesite is often well brecciated and locally weakly to moderately silicified adjacent to the vein contact. Stringer zones containing up to 10% to 15% quartz +/- amethyst +/- carbonate veinlets and stringers, carry up to 5% to 7% combined pyrite, sphalerite and galena. The alteration reported by Konkin is readily visible in the field where some of the vein material was excavated.





The clastic sediment members of the Chilitos Formation (Ks) include argillaceous shale and siltstone with sandstone and greywacke. The clastic sediments are typically encountered in the footwall of the Veta Grande system. Massive to finely laminated argilitic shale grading to siltstone is intercalated with the andesitic units particularly in the central region of the property. Grading conformably from a siltstone, rare minor amounts of fine-grained sandstone occurs. The Argilic clastics are brittle and well fractured and brecciated by quartz-carbonate stringers zones.

Several late stage tertiary extrusive and intrusive dykes cut the overlying geology and in Konkin's opinion they are typically less than one to three meters wide and have little economic impact on the project.







Figure 7-5: Property Geology Map



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7.4 Mineralization

The San Acacio mine, for which Defiance has an option to explore, exploit, and purchase a 100% interest, and described below, is situated on the south-eastern half of the Veta Grande vein system. The Veta Grande mineralization is of the first type, the Ag-type (Pb, Zn, Cu, Au), as described by the Consejo Recursos Minerales (CRM, now the Mexican Geological Survey) as follows:

"Veta Grande System is located 6 km to the North of Zacatecas. It is one of the richest zones in the district and the fame of its fabulous riches can be traced back to pre-Columbian times. In the sixteenth century the Spaniards obtained enormous amounts of silver from the veins in the district. Mineralization consists of veins originated by the filling of faults and fractures which are hosted in the volcanic rocks of the Chilitos Formation (or Zacatecas greenstone or andesite). The principal vein is Veta Grande, which has been explored for only 5 km, with a strike that varies from N 45° to 60° W, and a dip of 60° to 70° to the SW, with an economic potency (width) of 0.5 to 10 m and which in some places reaches more than 20 m due to land slips in the (footwall) of the vein. Ore minerals in the zones are anglesite, cerussite, native silver, argentite, proustite, galena, sphalerite and chalcopyrite. The gangue is constituted of pyrite, quartz, calcite, hematite, limonite and clayey minerals. There are other important veins in the zone, such as San Herculano, El Salto, La Flor, Tahures, Blanca, San Borja, Plomosa, El Palenque, El Churro, Carcelera, and others."

The mineralized vein system is further described by Atlas (2002):

"The veins are silica-carbonate fissure fillings containing pyrite, anglesite, cerussite, native silver, argentite, freibergite, proustite, galena, sphalerite, cerargyrite and rare chalcopyrite in a gangue of chalcedony, quartz, amethyst and calcite. The veins all strike northwest and dip about 70 degrees to the southwest. Veta Grande is the prominent structure, and is two to thirty m wide, averaging 10 m in width. The Veta Grande pinches and swells, and splays into sigmoid loops, some of which are likely identified as separate veins in the Silver Standard work. On the portion of the Veta Grande controlled by Sr. Gutierrez located to the NW of the San Acacio property, the Veta Grande is known to extend to depths of at least 335 m (Tiro Central), and approximately 7 km along strike." In the vicinity of the San Genaro shaft on the San Acacio property, the underground workings are believed to extend to a maximum depth of 300 m below the surface with the average vertical depth between 200 m and 250 m as indicated on the historical long section. "Strike length on the Veta Grande has been determined by walking the outcrop of the vein, and by the extent of the soils anomaly defined by Silver Standard. Total vein strike length is estimated at 17 km, with much of this strike length off the property to the northwest. To the southeast, the vein changes in character from a silica-dominant gangue to a carbonate dominant one, while to the northwest, the vein becomes more sulphide rich. This relationship, combined with similar observations on the La





Cantera and Mala Noche systems suggests the district is tilted to the east, such that progressively shallower levels of the vein are exposed, going to the east and deeper levels are exposed going to the west. This simple pattern is likely modified by post mineral faulting, as is known to exist in the vicinity of the Intermediate Shaft."

The separate vein system, found by Silver Standard in 1995 to 1996, is well described by Konkin (with minor edits from AGP) as follows:

The silicate-carbonate, fissure filling, composite vein system hosts high-grade silver mineralization associated with base metal sulphides and oxides. Ore minerals include anglesite, cerussite, native silver, argentite, freibergite, proustite, galena, sphalerite, and chalcopyrite (rare). The gangue mineralization is a series of multiple pulses of quartz, chalcedony, amethyst, and carbonates (predominately late-stage calcite). Pyrite is the most abundant sulphide.

Four individual veins comprise the Veta Grande System including Veta Grande, Veta Grande Intermedio, Veta Chica, and Veta Blanca. These veins are all sub-parallel and trend southeast, dipping between 58° to 70° to the southwest.

Veta Grande is the prominent vein structure, varying in width from 2 m up to 30 m in true width, but averaging 10 m in width. Veta Grande exhibits pinch and swell features and intermittently splays into branches.

- Workings on the Veta Grande vein occur over a distance of 1000 m along the strike and to an average vertical depth of 200 m to 250 m on the San Acacio portion and a vertical depth of 335 m on the Gutierrez portion of the vein. In the vicinity of the Intermedio Shaft, Veta Grande pinches down significantly.
- Veta Grande Intermedio is the most prominent vein at this location. The extension of Veta Grande Intermedio continues southeast to the El Aguilón, '77' and Restauración shafts. A significant increase in carbonate gangue and a depletion of quartz, chalcedony, and amethyst gangue is noted throughout this southeast extension. Higher-grade silver mineralization is associated with quartz and amethyst rather than carbonate gangue and is referred to in the model as the Veta Grande East wireframe.
- Veta Chica contains mineralization similar to that of Veta Grande, and is located southwest of Veta Grande, in a sub-parallel orientation. Veta Chica is quite narrow, only 0.5 to 1.5 m wide, and fails to outcrop on the surface. This vein is best exposed along the Purísima level workings, in the San Genaro and San Guillermo cross-cuts, respectively 55 and 30 m southwest of Veta Grande. This vein may have been intersected in the 2010 drilling by Source and labelled as Veta Grande in the log and may be responsible for the bend observed in the wireframe model at depth.





Veta Blanca is believed to have been encountered by diamond drill hole SAD 95-23. This vein is not accessible through any of the underground workings, as the access is blocked by cave and waste backfill material. As with Veta Chica, Veta Blanca also fails to outcrop on the property, and is thought to be sub-parallel to Veta Grande. According to accounts from retired miners living in the area, Veta Blanca was a wide rich vein approximately 30 m to 40 m southwest of Veta Chica. The backfilled stope that was encountered in SAD 95-23 was approximately 8 m in true width. Unfortunately, no backfill material was recovered. The footwall zone contains a quartz-amethyst stringer zone carrying appreciable silver values." Since the drilling revealed only one intercept, AGP has not designated this zone as part of the resource estimate, nor was it accounted for in the mineralized fill wireframe. AGP recommends that Defiance drill define this area of the model, to investigate the mineralization of the Veta Blanca Vein in the immediate hanging wall of the Veta Grande as shown on historical geological maps of the Purísima level in the area of section 5790 NE.





8 **DEPOSIT TYPES**

The Veta Grande and accessory veins at the San Acacio property are classic epithermal silvergold (low sulphidization) deposits in a number of parallel veins. These deposits form at shallow depth, <1 km, and are hosted mainly by volcanic rocks. Typical epithermal deposits occur in veins, irregular branching fissures, or breccia pipes. Colloform and replacement textures are sometimes recognized, but the majority of epithermal deposits are characterized by open space filling textures (crustification, comb structures, symmetrical banding).

There is no documented mineralization in the wall rock of the Veta Grade Vein. In colonial times, only the richest portions of the oxidized veins were mined. Later mining of sulphide mineralization did occur, in which some material, which is well mineralized by today's standards, was discarded and used as backfill.

The Veta Grande veins are predominantly silver bearing, with minor gold and base metals. However, the San Roberto Vein about 3 km to the southwest and part of the Mala Noche vein system, being mined at present by Capstone Mining Corp. has economic copper grades at depth and historic silver grades near surface. The various veins in the Veta Grande vein system may or may not be related to the same mineralizing event as the San Roberto Vein. Other veins being explored in the area are the Calicanto and Buenaventura veins, which are also classic silver-gold epithermal veins.





9 **EXPLORATION**

9.1 Sterling Mining Company Work Program (2004-2006)

In 2003, Jim Williams, an independent consultant based in the UK, inspected the property for Orca Gold International Ltd. (now Minco PLC). Orca failed to complete the option. Williams later became a director of Sterling, and renegotiated an agreement for Sterling on the property. Sterling acquired the property in 2004, and explored the San Acacio mine. A small amount of surface dumps and feed material for their Barones silver-leach plant were also mined. R. Von Boeck supervised much of the work.

9.1.1 SURFACE WORK

The surface-trace of the northwestern portion of the Veta Grande Vein was surveyed to determine a more accurate width and the position of the more accessible areas for mining fill material. A detailed sampling program was initiated at the San Acacio mine. On the surface, approximately 900 m of exposed vein was surveyed and was sampled with the aid of a small excavator, as shown in Photo 2. Samples were collected from the fill material, as well as the footwall and hanging wall of the low-grade portions of the vein left in place by the old mining.

The vein and backfill sampled in the trenches averaged 149 g/t Ag over 12.33 m. Sterling personnel conducted the sampling program using a backhoe to dig to depths of up to 3 m. Samples were taken along both the bottom and the sides of the trenches, in order to ensure a representative sample free of surface



Photo 2: Sterling Mining/Source surface trench samples

contamination. The goal of this program was to verify previous surface sampling, and to investigate the near-surface material as a feed source for Sterling's nearby Barones leach plant.





The average width of the vein is 12.33 m. The trenches were placed across the vein at an average spacing of about 25 m. A total of 41 Trenches were sampled, over a strike length of 900 m.

The best four trenches from the 2006 program (amongst others of lower value) were as follows:

- 377 g/t Ag over 10.85 m
- 376 g/t Ag over 13.93 m
- 386 g/t Ag over 22 m
- 472 g/t Ag over 5.15 m.

All assay samples were transported directly to the BSI Inspectorate laboratory in Durango. The samples were analyzed using fire assay with a gravimetric finish. Samples were also analyzed for copper, zinc, and lead values for metallurgical use only.

Please note that following the sampling program, mining of surface material by Sterling (permissible under the option agreement), has probably removed some of the higher-grade material sampled. Therefore, these trench samples may no longer be as relevant as they were previously. Additionally no data from the trench sampling was used by AGP in the grade interpolation of the current resource estimate.

9.1.2 UNDERGROUND WORK

In 2006, under the supervision of R. Von Boeck, a small crew started cleaning the Purísima crosscut to allow the standing water to drain. This was done to attempt to access to mine workings, which are 1,800 m from the portal and roughly 230 m below the surface exposures. Access was gained for the initial 1,600 m, beyond which the Purísima Level is badly caved and unsafe to work. Thus, access was not gained to the Veta Grande system by the Purísima adit. However, access was gained to the El Refugio adit and the Intermedio shaft and associated workings, which were sampled. Unfortunately, the Refugio tunnel only allows access to lower-grade portions of the vein, while the Silver Standard mineralized zone lies well to the west, and cannot be reached from the Refugio workings (according to R. Tschauder, in a personal communication to B. J. Price).

Several of the shafts in the vicinity of the Intermedio shaft were examined by the sampling/cleaning crews, which determined that there were several levels between the surface and the level of the El Refugio adit. Access ladders were installed in some of these shafts, with most of the sampling confined to the underground workings in the Intermedio shaft, El Refugio Level, three sublevels above El Refugio Level and a lower level named Level 23.





There are from 60 m to 80 m of surface pillar along +300 m of the exposure of the Veta Grande Vein. Sampling in the three sub-levels and the Intermedio shafts returned low-grade samples. In total, approximately 300 underground samples cover some of the previous sampling by Silver Standard, in addition to lose material coming down from ore passes. Both the Refugio crosscut and the drift were surveyed, to determine the elevations for grading and rail installation.

Underground sampling consisted of chip samples collected from the wall and back of the various mine openings. Sample length, although not specifically indicated on the maps measured between 1.5 m to 2.0 m in length.

In AGP's opinion, the underground sampling program carried out by Sterling Mining was of high quality, as shown in Photo 3. Samples collected by Sterling Mining on the El Refugio Level compared well with the 1996 sampling program conducted by Silver Standard.

Samples from the underground sampling program were sent to the BSI Inspectorate lab (Durango, Mexico) as well as the Arellano Lab in Zacatecas. The samples taken were split into two portions with a



Photo 3: Sterling Mining and Source underground chip sample program (site visit 2010)

Jones splitter, with one portion shipped to each lab. The assay results from BSI Inspectorate were plotted on a series of maps produced by the surveyor.

9.1.3 TREATMENT OF UNDERGROUND SAMPLING FROM SILVER STANDARD AND STERLING MINING

Sampling maps from both Silver standard (1995) and Sterling Mining (2004-2005) were georeference by AGP and samples were entered as point data in the Gemcom software for use in the resource model. Figure 9-1 illustrates the position of the samples digitized from the original maps reproduced in Appendix A of this report. Table 9-1 list the 59 most significant samples above 100 g/t Ag out of a total of 457 samples.





Level	LOCATIONX	LOCATIONY	LOCATIONZ	SAMPLENB	Ag
Leve23	752206.76	2525849.29	2487.00	823	116.00
Leve23	752209.89	2525850.42	2487.00	843	353.00
Leve23	752198.61	2525850.77	2487.00	830	218.00
Leve23	752192.74	2525856.57	2487.00	834	150.00
Level23	752197.69	2525852.22	2487.00	33	192.00
Level23	752198.76	2525853.49	2487.00	32	130.00
Purisima	752021.26	2525908.31	2374.00	30	405.00
Purisima	752007.04	2525916.69	2374.00	37	126.00
Purisima	752044.55	2525925.19	2374.00	5	125.00
Purisima	751833.81	2526109.82	2374.00	557067	104.50
Purisima	751799.19	2526156.95	2374.00	557127	185.50
Purisima	752019.33	2525907.47	2374.00	29	435.00
Purisima	751780.32	2526165.43	2374.00	557140	200.00
Purisima	752017.81	2525902.82	2374.00	24	730.00
Purisima	751778.51	2526166.69	2374.00	557141	200.00
Purisima	751774.23	2526181.72	2374.00	557155	200.00
Purisima	752114.97	2525835.45	2374.00	557225	109.00
Purisima	752107.47	2525828.70	2374.00	557231	230.00
Purisima	752110.94	2525832.89	2374.00	557229	197.00
Purisima	751784.80	2526161.64	2374.00	557137	115.20
Purisima	752015.83	2525899.99	2374.00	26	494.00
Purisima	752019.09	2525904.07	2374.00	22	381.00
Purisima	752109.27	2525834.57	2374.00	557227	108.00
Purisima	752015.25	2525906.57	2374.00	34	655.00
Refugio	752241.30	2525843.16	2510.00	14	113.00
Refugio	752160.17	2525887.00	2510.00	804-847	143.50
Refugio	752159.29	2525885.94	2510.00	803	192.00
Refugio	752157.94	2525884.35	2510.00	802	385.00
Refugio	752297.51	2525801.28	2510.00	778	131.00
Refugio	752242.57	2525845.66	2510.00	12	119.00
Refugio	752242.45	2525843.92	2510.00	13	299.00
Refugio	752211.82	2525865.64	2510.00	17	132.00
Refugio	752187.25	2525869.31	2510.00	22	215.00
Refugio	752158.78	2525885.01	2510.00	26	213.00
Refugio	752236.65	2525846.80	2510.00	807	116.00

 Table 9-1:
 Underground Samples above 100 g/t Ag





Level	LOCATIONX	LOCATIONY	LOCATIONZ	SAMPLENB	Ag
Rodadillo	751772.90	2526199.66	2440.00	364	243.00
Rodadillo	751798.25	2526179.15	2440.00	391	195.00
Rodadillo	751926.47	2526056.21	2440.00	518	162.50
Rodadillo	751923.13	2526054.54	2440.00	513	189.50
Rodadillo	751925.98	2526050.52	2440.00	515	153.00
Rodadillo	751908.99	2526069.07	2440.00	503	146.00
Rodadillo	751852.07	2526127.26	2440.00	443	267.00
Rodadillo	751845.31	2526129.08	2440.00	436	333.00
Rodadillo	751841.03	2526139.47	2440.00	429	142.50
Rodadillo	751834.62	2526149.80	2440.00	420	147.00
Rodadillo	751830.13	2526153.79	2440.00	416	134.50
Rodadillo	751767.64	2526199.66	2440.00	367	1297.00
Rodadillo	751825.52	2526161.87	2440.00	411	129.00
Rodadillo	751766.38	2526207.05	2440.00	357	185.00
Rodadillo	751792.68	2526185.53	2440.00	384	138.00
Rodadillo	751789.45	2526180.10	2440.00	387	507.00
Rodadillo	751788.66	2526187.92	2440.00	380	104.00
Rodadillo	751779.15	2526191.43	2440.00	373	184.50
Rodadillo	751775.54	2526191.93	2440.00	371	108.50
Rodadillo	751776.55	2526196.63	2440.00	369	285.00
Rodadillo	751775.08	2526194.91	2440.00	368	212.00
Rodadillo	751769.28	2526199.11	2440.00	366	175.00
Rodadillo	751769.24	2526203.82	2440.00	361	233.00
Rodadillo	751828.98	2526151.11	2440.00	418	127.00















9.2 Source Exploration Work Program (2006-2007)

From October 5, 2006 until February 28, 2007, the following activities were initiated at the San Acacio project for Source, under the supervision of Mr. Tschauder, Consulting Geologist and former manager of Hecla Mining Company of Coeur D'Alene, Idaho:

- obtaining surface use permits
- reopening the Refugio adit in order to sample the mine
- sampling trenches dug by Sterling Mining prior to October 2006
- building maps and sections
- interpretation of results
- re-examination of the Silver Standard core
- collecting and processing material for a standard sample
- paying property taxes

9.2.1 SAN ACACIO MINE WORKINGS, MILL, TAILINGS, AND DUMPS

The San Genaro shaft (2.5 m x 4 m) was one of the main productive shafts in use until the early 1900s, when the hoisting equipment was removed. The condition of the shaft is now unknown. It reaches the San Rafael Level (Level 160) and the Purísima Level (200 m). The Refugio level is also open to the San Genaro shaft and Intermedio shaft. Access to the Refugio workings was gained by Source as part of the sampling program.

The lowest access is the Purísima tunnel which is 1,800 m in length and 2.5 m x 2.5 m in cross section. This access level is open for about 1,600 m (out of the total 1,800 m length), beyond which point the adit is unsafe and flooded.

Numerous other shafts originally accessed the veins, as shown from old maps and sections. The position of some of the shafts is known, but their conditions are not.

The Amado Mesta Mill was a fully-operational 100 or 250 t/d mill on the property; all equipment was removed and only ruins remain. A small tailings pile of approximately 1 Mt was been sampled by Source in February 2010. The average of six grab samples indicated 90.6 g/t Ag, 0.120 g/t Au, 0.01% Cu, 0.124% Pb and 0.56% Zn.

Most of the dumps are from shafts and crosscuts, and have no mineralization. During the +20 years that the mill was in operation, most of the mineralized dumps that were accessible have been removed and processed elsewhere. What remains are partially mineralized dumps or waste, generally of low grade (Price 2008).





9.2.2 EXPLORATION

Previous underground workings provide access in three dimensions to the mineralized system. The Refugio tunnel was rehabilitated by Sterling in 2006, under the supervision of R. von Boeck, to provide access for bulk sampling of stopes that were mined by hand during the Spanish colonial period and later. A total of 189 rock chip samples were taken from in situ vein material and backfilled stopes by Sterling under the direction of Gustavo Fermat, Engineer, and of R. Tschauder of Sterling. This sampling was necessary in order to obtain close-spaced samples of vein material and to verify grades on the sulphide vein in that area. Samples collected were of the entire vein width, whereas earlier sampling was haphazard. The samples collected tended to verify earlier sampling programs.

Silver Standard conducted a core-drilling program over part of the vein in 1995. This core had been stored in wooden boxes near the San Genaro shaft, where it was exposed to the elements. This core was re-examined in order to verify the quality of Silver Standard's work, to check on the quality of the core itself, and to re-box the core for storage in a more protected environment. The core was found to be generally in good condition, except for three holes, from which there was some significant spillage of material.

Price noted that the Silver Standard logging was adequate and re-logging was not deemed necessary at this time. Core recovery was generally good in virgin ground, but dipped to below 50% in some cases in the back filled material.

Source re-sampled some of the trenches previously dug by Sterling in an area that were not subsequently mined by Sterling. Samples were taken along both the bottom and the sides of the trenches, in order to ensure a representative sample free of surface contamination. The goal of this program was to verify the previous surface sampling and to provide additional data for an eventual current resource study while the re-sampling program is not comparable to the original Sterling program, the trenches that are left returned silver grades averaging 151 g/t and 0.150 g/t Au. None of the trench data was used in the grade interpolation of the resource estimate.

The underground sampling initiated by Sterling and completed by Source investigated the Refugio Level and the 23 Level below, the Intermedio Shaft, and three sublevels accessed from the shaft. In general, the results were not encouraging. The underground sampling program corroborated the previous sampling program, which was undertaken by Silver Standard Ltd. and reported by Konkin in 1996.

9.3 Defiance Silver Exploration Work Program

As of the date of this report, Defiance Silver has not conducted any exploration activity on the property.





10 DRILLING

10.1 Silver Standard Drill Program (1995-1996)

A total of 32 diamond drill holes were completed by late November 1996 and 4060.87 m of BQ, NQ and HQ diameter bore holes were logged, split, and sampled. These rather short holes were not surveyed for downhole orientation. The 1995 drill program from Silver Standard is relevant to this study, since the results from this program form the basis of the resource estimate by AGP.

10.1.1 1995 SURFACE PERCUSSION DRILL PROGRAM

Although the percussion drilling program is well-described by Konkin, only a brief summary is provided here, as the program was generally unsuccessful. Sixteen drill sites were spotted, and a total of nine holes were attempted, for a total length of 148 m. The program was cancelled due to drilling problems. Table 10-1 shows a summary of the results.

Hole No.	Depth (ft)	Samples	Avg. Grade (Ag g/t)	Avg. Grade (Ag oz/ton)*
SAP 95-01	88.56	554551-559	63.5	1.85
SAP 95-02	108.24	55460-570	39.7	1.16
SAP 95-03	92.824	554571-580	22.1	0.64
SAP 95-04	26.24	554581-583	110.6	3.22
SAP 95-05	16.4	554584-585	92.2	2.69
SAP 95-06	26.24	554586-588	94.0	2.74
SAP 95-07	49.2	554589-593	55.1	1.60
SAP 95-08	39.36	554594-597	49.3	1.44
SAP 95-09	37.72	554598-601	152.5	4.45

 Table 10-1:
 1995 Percussion Drilling Program (Silver Standard Mines)

Note: *as reported by Silver Standard. *oz/t = ounces per ton. Conversion is 34.285 g/t = 1 oz/st (Ton = short ton, Tonne = metric tonne) 1 m = 3.28 ft.

All holes were drilled from surface. The deepest percussion hole completed was only 33 m deep and the holes averaged only 16 m, mostly intersecting only rubble and backfill. The holes ranged from medium- to low-grade material ranging from 22.1 to 152.5 ppm Ag. The percussion drill holes averaged 60 ppm Ag (60 g/t, or 1.75 oz/st Ag). Little importance should be attached to these holes, which were shallow, and were drilled essentially parallel with the structure (vertical holes). The percussion holes were not used in the resource estimation.





10.2 1995 Diamond Drilling Program

The following account of the Silver Standard diamond-drilling program from Konkin (1996) is summarized below.

During 1995, due to the failure of the percussion drill hole program, a diamond drill hole program was recommended. Pad site construction began during late July 1995, when a caterpillar bulldozer was contracted from Robles Constructores de Zacatecas S.A de C.V. On August 18, 1995, Britton Hermanos Perforaciones de Mexico S.A de C.V. was contracted to drill 32 BQ, NQ and HQ diameter drill holes, using a Longyear Super 38 drill rig. Water for drilling was provided via two water trucks, hired from Robles Construction in Zacatecas and from Steen Equipment Rental of Hermosillo.

Numerous stopes and underground workings slowed drilling, as size-downs and bit changes were common procedures. The ground condition was usually poor within the altered hanging wall and footwall zones of the various veins encountered. A total of 4,061 m of drilling was completed by November 17, 1995. Four distinctly separate sub-parallels to parallel veins were identified by Silver Standard: Veta Blanca, Veta Chica, Veta Grande, and Veta Grande Intermedio. The core samples were logged and split on–site and trucked to Hermosillo for analysis.

While logging and sampling core, it was noted that much of the backfilled stope material and intensely oxidized, sheared vein material failed to core well, and recovery rates were often poor. After the program was completed, the drill core was checked and re-sampled in mineralized areas with less than 50% recovery. The results from the second half of the core samples were averaged with the results of the first half, and the new value was obtained for the sample intervals. These new averaged values have been incorporated into the Silver Standard drill logs and retained in this study by AGP.

Silver Standard conducted the majority of drilling between the Intermedio shaft and the northwestern limit of the property. This 1,000 m strike length of the Veta Grande system was tested up to a depth of 420 m from surface. The southeast portion of the Veta Grande system, between El Aguilón and Restauración shafts, a strike length of approximately 500 m, was drill tested by three widely spaced diamond drill holes to a depth of 100 m from the surface, (Konkin, 1996).

Silver Standard started drilling on the northwest extremity of the property. Drilling targeted the Veta Grande Vein along 100 m centres during the first pass. The second pass included 50 m infill drilling and 25 m set-back drilling on the existing holes, to create sections.

Konkin reported that from the northwest extremity of the property, Veta Grande is well mined along surface. A ten to fifteen meter wide surface stope was intermittently mined south-easterly for approximately 650 m, and has been backfilled with low-grade material to





unknown depths. This open cut terminates in the vicinity of San Acacio shaft. Parts of the vein system and backfill material are visible along surface, but contain low to medium grades of less than 200 g/t of silver. This strike length was drill tested to a depth of 25 to 80 vertical metres from surface. This area yields the best grades intersected on the property to-date.

The Silver Standard drilling indicated that the exploited or stoped portion of the vein is exclusively the hanging wall portion of the vein or near it, leaving the sulphide- and silicaterich footwall zone, which at the time that it was mined contained less recoverable silver than the mined oxide portion of the vein.

As drilling progressed southeast of the San Acacio shaft, Konkin reported that the surface expression became faint, suggesting a downward rake to the ore horizon, although this has not yet been confirmed.

Deeper holes were drilled between the San Acacio and Intermedio shafts. These two holes, SAD 95-23 and SAD 95-27, intercepted several vein structures up to 210 m from surface. Drill hole SAD 95-27 intersected the vein 25 m under the Refugio level. Drill hole SAD 95-23 intersected several stopes and sub parallel veins approximately 210 m from the surface, near the Purísima Level.

Konkin reported that drilling results obtained from the vein system east of the Intermedio shaft were very disappointing. The surficial expression of the vein, from the Intermedio shaft southeast to Restauración shaft, is very weak and sporadic. The drilling in this south-eastern extension of the Veta Grande system was designed to intersect the vein material, at least 70 m from surface. Holes drilled near the Aguilón, '77' and Restauración shafts intersected the vein system at 70 m, 80 m, and 100 m, respectively, from surface. The amount of carbonate gangue was found to be significantly higher, while the quartz, amethyst and chalcedony is greatly reduced, and barite is also much more common than in the northwestern extension of the vein. The stringer and veinlet systems that are commonly encountered below the footwall contact of the vein system are much wider, particularly in the vicinity of the '77' and Restauración shafts, but carry very low silver grades.

Within the northwestern extension of the vein system, from the San Acacio shaft, the entire country rock is a brecciated, massive to porphyritic, clay-altered andesitic unit. Southeast of the San Acacio shaft, to the Restauración shaft, the footwall is generally an argillaceous siltstone with minor sandstone, while the hanging wall, as in the northwestern extension, is a clay-altered andesitic unit.

Konkin reported that the deepest Silver Standard drill hole intersected the Veta Grande system 420 m from surface, almost 100 m below the deepest known workings within the San Acacio mine complex. Due to the poor results obtained from the one deep hole, SAD 95-38, it appears that the silver mineralization is probably limited to the 350-m vertical mark from surface. Source and Defiance disagree with this conclusion and believe the Veta Grande





zones are in three to four shoots that extend much lower than the Purísima Level. Table 10-2 lists the drill hole collar location azimuth and dip for the 1995 Silver Standard program.

HOLE-ID	LOCATIONX	LOCATIONY	LOCATIONZ	AZIMUTH	DIP	LENGTH
SAD95-10	751507.37	2526361.19	2541.86	34	-55	51.2
SAD95-11	751607.96	2526271.12	2578.17	34	-55	92.35
SAD95-12	751697.82	2526231.71	2571.08	35	-55	67.05
SAD95-13	751765.56	2526171.25	2558.34	33	-55	76.2
SAD95-14	751837.3	2526110.41	2586.06	31	-55	79.85
SAD95-15	751891.51	2526038.24	2578.23	33	-55	89.3
SAD95-16	751892.79	2526005.86	2577.36	42	-55	114.3
SAD95-17	751989.26	2525976.11	2579	33	-55	66.14
SAD95-18	752043.14	2525937.88	2599.9	33	-55	79.8
SAD95-19	752131.25	2525889.59	2597.2	35	-55	76.8
SAD95-20	752249.33	2525827.71	2604.52	35	-55	59.7
SAD95-21	752309.98	2525771.22	2612.48	35	-60	100.88
SAD95-22	752406.4	2525724.42	2586.54	35	-60	56.82
SAD95-23	751928.03	2525800.29	2625.97	56	-60	313
SAD95-23A	751928.03	2525800.79	2625.97	56	-60	294.8
SAD95-23B	751928.03	2525801.29	2625.97	56	-60	313
SAD95-24	752670.9	2525458.12	2582.51	35	-65	148.4
SAD95-25	752874.94	2525321.27	2573.55	35	-60	157.58
SAD95-26	752996.59	2525189.8	2557.19	40	-65	196.9
SAD95-27	752214.94	2525762.25	2631.71	35	-65	205.1
SAD95-28	751993.56	2525934.54	2593.33	35	-65	170
SAD95-29	751946.12	2526000.96	2562.02	35	-60	120.7
SAD95-30	751858.63	2526075	2588.18	35	-55	172.5
SAD95-31	751819.65	2526095.55	2589.22	36	-60	138.3
SAD95-32	751804.67	2526130.19	2575.2	35	-55	107.8
SAD95-33	751760.6	2526149.07	2560.07	35	-60	108.5
SAD95-34	751725.48	2526188.06	2571.42	35	-55	92
SAD95-35	751685.47	2526213.88	2578.29	35	-60	117.6
SAD95-36	751648.07	2526242.89	2582.64	35	-55	104.2
SAD95-37	751594.8	2526254.17	2578.29	35	-60	132.8
SAD95-38	751419.78	2525949.06	2619.42	32	-65	672.1
SAD95-39	751926	2526056	2570	34	-50	64.3

Table 10-2: Silver Standard DDH Location, Azimuth and Dip





10.3 Source 2009 – 2010 Diamond Drilling Program

Between 23 October 2009 and 28 February 2010, Source drilled a total of eight (8) HQ-NQsize diamond-drill holes, totalling 3,413.8 m, using one drill rig. The first hole, SA-09-04, was abandoned because of broken ground conditions and equipment malfunctions; hence, only eight holes were actually completed. For the locations, azimuth, dip and depths of the individual drill hole, refer to Table 10-3 and Figure 10-1.

Hole-ID	UTM East	UTM North	Azimuth	Dip	Length	Start Date	End Date
SA-09-04	751282	2526150	40	-52	92.90	23 Oct-09	06-Nov-09
SA-09-04A	751282	2526150	40	-52	458.80	10-Nov-09	21-Nov-09
SA-09-05	751282	2526150	40	-62	454.20	21-Nov-09	05-Dec-09
SA-09-06	751282	2526150	40	-72	499.20	06-Dec-09	17-Dec-09
SA-10-07	751694	2526053	35	-73	381.50	05-Jan-10	13-Jan-10
SA-10-08	751709	2526000	64	-77	484.50	14-Jan-10	26-Jan-10
SA-10-09	751709	2526000	64	-81	437.85	26-Jan-10	06-Feb-10
SA-10-10	751709	2526000	79	-79	444.55	06-Feb-10	20-Feb-10
SA-10-11	751328	2526120	35	-52	253.30	20-Feb-10	28-Feb-10
			3,413.80				

 Table 10-3:
 Source 2009-2010 DDH Location, Azimuth, and Dip Information

Diamond drill hole locations are expressed in UTM NAD 27, Mexico, and were marked using GPS, Garmin Model 60CSx.















10.3.1 SIGNIFICANT ASSAYS RECEIVED FOR 2009/2010 DRILLING PROGRAM

Table 10-4 shows the significant assays received for the 2009/2010 drilling program. All intersections presented in this section are reported by Source as core length and not true width.

With the exception of drill holes SADD-09-06, SADD-10-07, 08, 09 and 10, the core length to true length ratio average 0.72 for both Source 2009/2010 and Silver Standard 1995 drilling. This value indicates that most holes were drilled more or less perpendicular to the vein. Due to restrictions on collar location hole SADD-09-06, SADD-10-07, 08, 09 and 10 were drill at a more oblique angle. The core length to true width ratio average 0.46 which is still considered acceptable by the author.

Hole ID	From (m)	To (m)	Width (m)	Ag g/t	Au g/t	Cu %	Pb %	Zn %	Vein Structure
SA-09-04A	243.00	243.30	0.30	3.090	0.572	0.03	0.92	3.270	Veta Natividad
SA-09-04A	243.30	244.30	1.00	73.3	0.02	0.01	0.02	0.047	Veta Natividad
SA-09-05	225.50	226.90	1.40	139	0.09	0.00	0.01	0.02	Veta Natividad
SA-09-06	249.65	250.00	0.35	565	0.26	0.01	0.29	0.76	Veta Natividad - HW
SA-10-09	314.85	316.05	1.20	239	0.42	0.12	1.33	4.1	Veta Grande - HW
SA-10-09	382.25	383.00	0.75	160	0.21	0.01	0.11	0.42	Veta Grande
SA-10-09	383.00	383.90	0.90	131	0.20	0.01	0.15	0.17	Veta Grande
SA-10-10	271.20	271.60	0.40	65.4	0.54	0.07	3.64	1.4	-
SA-10-10	395.98	397.15	1.17	60.2	0.16	0.01	0.12	0.35	Veta Grande
SA-10-11	246.95	247.45	0.50	205	0.16	0.10	0.03	0.10	Veta Natividad
SA-10-11	248.40	248.60	0.20	787	0.28	0.87	1.12	0.87	Veta Natividad
SA-10-11	249.05	249.22	0.17	308	0.14	0.43	0.08	0.43	Veta Natividad

Table 10-4: Significant Assays Received for the 2009 – 2010 Drilling Program





Properly marked and labelled casings were left on the ground. Photo 4 depicts the diamond drill at site.

Source initially engaged the services of Eprocyce Drilling Company (Eprocyce). Eprocyce started hole SA-09-04, but failed to complete it. Source subsequently engaged the services of Tecmin Servicios, S.A. de C.V.¹ (Tecmin), a Fresnillo-based drilling contractor.



Photo 4: Source diamond drill at site

Tecmin used Long Year 38 for the drilling program. Tecmin successfully completed all the holes drilled by the company.

10.4 Source 2010 Underground Diamond Drilling Program

During spring 2010 Source extended the Refugio adit by 49 m and built two drill stations. A program of 10 holes was laid out but only three were drilled. The NQ-size holes targeted the Veta Grande at depth below the Refugio level. A TEC 1000 drill rig was used for the program. Hole 01 and 02 was completed but hole 03 was abandon prematurely due to ground problems and mechanical breakdown of the rig. Table 10-5 lists the drill hole collars of these holes.

Hole-ID	UTM East	UTM North	Elevation	Azimuth	Dip	Length	Start Date	End Date
SA-UG-01	752211	2525694	2510	349	-63	220.55	10-Apr-10	21-Apr-10
SA-UG-02	752211	2525694	2510	308	-40	373.10	24-Apr-10	20-May-10
SA-UG-03	752211	2525694	2510	301	-43	132.95	21-May-10	27-May-10

Table 10-5: DDH Location, Azimuth, and Dip Information

10.4.1 SIGNIFICANT ASSAYS RECEIVED FOR 2010 UNDERGROUND DRILLING PROGRAM

Underground hole SA-UG-01 intersected a vein (possibly Veta Grande or the hanging wall structures Veta Chica or Veta Blanca) between 181.70 to 186.35 m; however, assay results indicated only minor silver values. Anomalous silver values between 60.5 to 168.0 g/t were present in the hanging wall andesite. These were typically associated with quartz stringers and consisted mostly of single assays.

Hole SA-UG-02 intersected minor single intercept quartz veins in the hanging wall of the Veta Grande Vein grading between 64.20 to 162 g/t. A spectacular intercept between 183.05 and



¹ Tecmin Servicios, S.A de C.V., Paseo del Mineral #18, Col. Emiliano, Zacatecas, C.P. 99010, Fresnillo, Zacatecas, México. Tel. 52+(492)921 3421.



193.70 graded 1,094 g/t Ag. The Veta Grande vein was intersected between 294.70 to 314.00 m. At that particular location, the Veta Grande vein did not return any silver assay grading in excess of 1 g/t. A large quartz breccia vein seen on the footwall of the Veta Grande vein, between 327.10 to 341.40 m returned 88.3 g/t Ag over a core length of 7.8 m between 333.60 and 341.40 m.

Table 10-6 lists the most significant intersections in Hole UG-02 and UG-03. Due to restrictions on collar location, Source attempted to reach one of the proposed ore shoots at depth below the Refugio level and for that reason, hole SA-10-01 was drilled at a more oblique angle. The core length to true width ratio averaged 0.51, which is still considered acceptable by the author. For hole SA-UG-02, Source did not have enough distance in the footwall of the zone to reach the Veta Grande Vein with an acceptable angle at the targeted depth. The core length to true width ratio is 0.16 indicating an intercept somewhat parallel to the mineralize horizon.

None of the underground drill holes are used in the resource since they post-date the data cut-off date.

Hole ID	From (m)	To (m)	Width (m)	Ag g/t	Au g/t	Cu %	Pb %	Zn %	Vein Structure
SA-UG-01	113.3	113.8	0.50	183.0	0.17	tr	0.39	0.66	Hanging Wall
	118.6	120.0	1.40	74.0	0.09	0.01	0.03	0.07	Hanging Wall
	120.0	122.6	2.55	84.8	0.05	0.01	0.03	0.09	Hanging Wall
	136.1	137.0	0.90	76.8	0.03	0.01	0.12	0.05	Hanging Wall
	137.0	137.95	0.95	93.20	0.05	0.01	0.02	0.06	Hanging Wall
	148.8	149.62	0.82	168.0	0.38	tr	0.08	0.11	Hanging Wall
	163.4	163.65	0.25	60.50	0.53	tr	0.19	0.05	Hanging Wall
SA-UG-02	183.05	193.70	0.65	1094.0	0.11	Tr	Tr	0.05	Hanging Wall
	238.15	238.40	0.25	159.0	0.12	0.01	0.05	0.11	Hanging Wall
	252.75	253.90	1.15	64.20	0.07	0.01	0.05	0.16	Hanging Wall
	257.90	259.20	1.30	68.70	0.37	0.02	0.11	0.46	Hanging Wall
	259.20	259.65	0.45	162.00	0.20	0.02	0.21	0.63	Hanging Wall
	333.60	334.75	1.15	75.90	0.14	0.01	0.08	0.67	Footwall
	334.75	336.05	1.30	171.00	0.19	0.01	0.20	0.67	Footwall
	336.05	337.15	1.10	99.80	0.13	0.01	0.10	0.68	Footwall
	337.15	338.25	1.10	52.20	0.10	Tr	0.06	0.88	Footwall
	338.25	339.40	1.15	90.20	0.10	Tr	0.06	0.91	Footwall
	339.40	340.55	1.15	53.80	0.08	Tr	0.06	0.82	Footwall
	340.55	341.40	0.85	54.40	0.07	Tr	0.04	0.24	Footwall

 Table 10-6:
 Significant Assays Received for the 2010 Underground Drill Program





11 SAMPLING PREPARATION, ANALYSES, AND SECURITY

Very little is known regarding the sampling methodology employed by Silver Standard in 1995. Core samples were split using a manual splitter and were likely shipped to Durango. Most of the original assays certificates were recovered from the ALS Chemex archives in Vancouver, a commercial laboratory independent of the issuer and vendor. AGP assumes that the core handling methodology used by Silver Standard met industry standards at the time the drilling was conducted, and has no reason to believe otherwise.

More information is available for the Sterling Mining and Source 2005-2007 work programs.

Trench samples were cut from the bottom of the trenches using points (chisels) across a portion of the vein. Several samples were taken from each trench, to cover the entire width of the vein. About 6 kg to 10 kg were collected for each sample. The fragments of each sample were broken by hand into smaller pieces with a four-pound hammer, and then quartered and split into two samples using a Jones splitter. The two samples were bagged in two separate sample bags. One sample was sent to the lab for assaying, and another was retained and archived for future reference.

Samples taken from underground were chip sampled onto plastic sheet over the stated widths, from previously-cleaned vein surface, with sampling points (chisels). About 6 kg of sample was collected from each location. The samples were quartered and split into two samples of about 3 kg each, and bagged. One sample was sent to the lab for assaying. Another was retained and archived for reference. Samples from the underground sampling program were sent to the ISO 9001 certified BSI Inspectorate lab (Durango, Mexico) as well as the Arellano Lab in Zacatecas (certification unknown). Both laboratories are commercial and independent of the issuer and vendor. The samples taken were split into two portions with a Jones splitter, with one portion shipped to each lab. The assay results from BSI Inspectorate were plotted on a series of maps produced by the surveyor. AGP was unable to retrieve original sample certificates for the underground chip sample program and relied on the information plotted on the level plans.

11.1 Source 2010 Core Sampling, Laboratory Analysis, and Core Storage

Source adhered to industry standard protocols for all samples collected during the San Acacio exploration programs. Drill core is transported directly from the drill site by pick-up truck to the core facility. This core facility is located at the Barones mill, 6 km south of the town of Veta Grande, near the Cozamin mine, which is owned by Capstone. Source records the core recovery, which is followed by the core logging process. No geotechnical logging was carried out by Source. AGP was informed that in April 2010, Source moved the core logging facility to the San Genaro shaft surface installation.




Once all samples were marked out by a geologist, the mineralized core intervals were split in the field, using an electric-powered core saw, with half of the split core being sent to the lab and half kept in the core box as a representative sample of the interval. The cores were stored in a building fitted with metal doors, which were properly locked. Core logging and core cutting were also done inside the storage building. Unauthorized personnel and third parties were not allowed inside the core-storage building. Samples were sealed in bags, tabulated, and prepared for shipment.

A total of 327 samples were collected from the six diamond drill holes using these methods. The chain of custody for the samples was monitored along the entire route, from the field site to the analytical laboratory.

AGP visited the core logging facility, and found it to be well-lit, organized, and secured.

11.2 Sample Preparation, Analyses, and Security

Price (2007) described sample preparation for Sterling Mining to the end of the 2007 work program. All assay samples were transported directly to the BSI Inspectorate laboratory in Durango. BSI Inspectorate is an internationally accredited laboratory independent of the issuer and vendor. The samples were crushed and pulverized by standard laboratory methods, and analyzed using fire assay with a gravimetric finish.

Source prepared standard reference material (SRM) in 2007, to be used for quality assurance and quality control (QA/QC) in their drill programs. The high grade SRM prepared at the inspectorate labs in Durango and Reno Nevada was never used, and was replaced by purchased SRM from the CDN Laboratory in the 2010 drill program.

Source also collected blank material from the basalts of the Trans-Mexican Volcanic field, to be used in their QA/QC protocols.

11.3 Source 2010 Sample Preparation, Analyses, and Security

All samples collected by Source in 2009 and 2010 were picked up directly by SGS laboratory personnel from Zacatecas. The ISO/IEC 10725 accredited SGS laboratory is located in the city Durango, State of Durango, Mexico² and is independent of the issuer and vendor. All samples were sent for silver, gold, copper, lead, and zinc analyses. Table 11-1 lists the laboratory analytical procedures and methods used by SGS for the Source 2010 drill program.



² SGS Mineral Services, 2A Calle de Selenio y Aluminio, Ciudad Industrial, 34208, Durango, Durango, México



SGS Method Code	Description
PRP89	Sample Preparation: Dry, <3 kg at 95° C, crush to 75% passing 2 mm, split 250 g, and pulverize to 85% passing 75 μm
AAS12E	Ag by Aqua Regia digest, AA finish Limits 0.2 to 100 g/t
FAG313	Ore Grade (> 100 ppm) Ag by lead collection fire assay, gravimetric finish on a 30 gram sample Lower limit 10 g/t
FAA313	Gold by lead collection fire assay, AAS finish on a 30 gram sample Au 5 ppb – 10,000 ppb
ICP14B	Three elements by Aqua Regia digest, ICP-OES finish Cu 0.5 ppm - 1% Pb 2 ppm - 1% Zn 0.5 ppm - 1%
ICP40B	Three elements by four acid digest, ICP-OES finish Cu 0.5 ppm - 1% Pb 2 ppm - 1% Zn 0.5 ppm - 1%
ICP90Q	Ore grade analysis using sodium peroxide fusion, ICP-OES finish for Cu, Pb and Zn Cu 0.01 % Pb 0.01 % Zn 0.01 %

Table 11-1: SGS – Laboratory Procedures and Analytical Method

11.4 QA/QC Program

Resource estimations are only as good as the data used to create the estimate. The mandate of a QA/QC program is to:

- demonstrate that sampling and analytical variances are small, relative to the geological variance
- provide assurance (confidence) that the accuracy of the data underlying the resource model can be confirmed, within reasonable limits
- monitor the accuracy, precision, and contamination of assay results
- prevent large errors in the database.

As a result, a properly designed QA/QC program will provide strong confidence in the data used to generate resource estimations.

As part of the sampling procedure in 2009 and 2010, Source used one of three standard reference materials (SRM), namely CDN-BL-4, CDN-HZ-3, and CDN-ME-6, obtained from CDN Resource Laboratories Ltd. of Delta BC, Canada.

CDN laboratory has been preparing site-specific ore assay standards since 1991, and off-the-shelf standards since 1998. Standards are prepared from appropriate geological materials. The ore is ground and then screened through a 200-mesh sieve. The -200 material (<75 μ m)





is thoroughly blended. A minimum of 120 sub-samples are sent to Canadian and international commercial laboratories for round-robin analysis; Smee & Associates Consulting Ltd. provides statistical work.

The purchased SRM were inserted into the sample stream about once for every 10 samples. In addition, fresh unaltered, un-mineralized basalt was also inserted as field blanks. Out of the 522 samples generated from the ten diamond drill holes, 52% or 9.96% were standard or blank samples (Table 11-2).

Туре	Total	Percentage of All Samples
Total Samples	522	-
Total QA/QC Samples	52	9.96%

This QA/QC program was in addition to the internal QA/QC program routinely done by SGS Laboratory. Any failures in the standards or blanks were evaluated in the field for any field related errors, and selected failed batches were re-assayed by SGS Labs, to determine the validity of the original assays.

AGP validated the QA/QC program conducted by Source.

Standard Reference Material

An ideal standard reference material has a matrix identical to the samples being assayed, has extremely low heterogeneity, has a grade range, and has a reputation for being reliably prepared and accurately characterized. As a result, the laboratory used by Source should be able to replicate the grade of a standard, assuming that the analytical procedure is the same as what was used to in the round-robin assays of the SRM.

Out of the 25 SRM samples submitted by Source, six samples fail ± 3 standard deviation for Silver. The CDN-HZ-3 lower grade silver standard performed best, with only two failures at the ± 2 standard deviation, with one failure replicated at the ± 3 standard deviation. The higher-grade CDN-ME-6 exhibited three sequential failures at ± 2 standard deviation, with one of them also failing at ± 3 standard deviation. In the underground drilling the CDN-ME-6 exhibited four sequential failures at ± 2 standard deviation deviation. These two sample batches should be investigated by Defiance since it is not known if Source re-submitted the batches.

The CDN-HZ-3 low-grade gold standard performed better than the CDN-ME-6. The highergrade CDN-ME-6 had multiple failures and is considered by AGP to be unreliable.





For the base metal assays, the SRM assays showed poor performance, which is believed to be related to the analytical procedure used by Source. Source routinely used an Aqua Regia digest with ICP-OES, while the CDN standard used a four-acid digestion. AGP recommends that Defiance to use the four-acid digest ICP40B code for future drill programs.

Blank

Blank samples are randomly inserted in the sample stream to monitor for contamination or sample swap, during the sample preparation at the laboratory. AGP evaluated the sample results for the 21-blanks sample inserted by Source. Only one failure for silver was reported, where the tenor of the blank exceeded twice the detection limit. No failure was observed for gold, copper, and lead. For zinc, all blank samples exceeded twice the detection fail limit, indicating that the basalt used for blank material cannot be used for Zinc.

Field Duplicate

Field duplicates are samples with similar spatial relationships, used to assess the variability within the sample and the laboratory.

No field duplicates were inserted by Source as part of the 2010 QA/QC protocol. Although the drill program was small, AGP recommends incorporating this QA/QC protocol in future drill programs, in the form of ¼-core samples inserted in the sample stream.

Secondary Laboratory Submission

Source submitted 22 pulp samples assayed by SGS to a secondary laboratory, ALS Chemex in Vancouver, in order to evaluate the accuracy of the analysis performed by the primary laboratory. AGP plotted the results of ALS Chemex against the SGS analysis, and found the analytical precision of SGS Laboratory to be excellent. The R square value of the trend line, plotted on a scattered graph, shows values between 0.990 and 0.999 for all elements, indicating an overall correlation approaching 1:1 between the two laboratories.

Other Recommendations

A selection of pulps and coarse rejects can be re-inserted into the sample stream to be used as duplicate samples. This additional QA/QC protocol is intended to validate the laboratory precision to within $\pm 20\%$ for coarse reject and $\pm 10\%$ for pulps. On a drill program of short duration, the blind submission of pulps and coarse rejects is not always possible since the program is completed before the rejects are returned from the lab. On longer programs, AGP recommends implementing this protocol.

AGP also recommends that Defiance record the performance of the QA/QC blank and standard assays, in the form of charts enabling the field personnel to monitor the program over a given time period.





11.5 Discussion

In AGP's opinion, the sample preparation, assay, and security procedures employed by Source at the San Acacio Deposit are appropriate for the style of mineralization and the commodities of interest, and are suitable to support mineral resource estimation:

- preparation procedures are consistent with industry-standard methods, and suitable for the deposit style
- a QA/QC program comprising blank, standard and duplicate samples has been used on the Project since the 2004 drill program; QA/QC submission rates meet industryaccepted standards of insertion rates
- current sample storage procedures and storage areas are consistent with industry standards.

As stated earlier, in regards to the 1995 drill program, AGP was unable to find any information in regards to the QA/QC program (if any) that was implemented by Silver Standard. In AGP's experience, it is quite rare that a comprehensive QA/QC program was in place while the drilling was conducted in 1995. Typical QA/QC programs at that time consisted of re-submitting pulps to a second laboratory however it is not known if that was done for the Silver Standard drill results. AGP assumes the core handling methodology and QA/QC protocols used by Silver Standard met industry standards <u>at the time the drilling was conducted</u>, and has no reason to believe otherwise. For the underground chip sample program conducted by Silver Standard (1995) and Sterling Mining (2004-2006), AGP was unable to retrieve original sample certificates and relied on the information plotted on the level plans. AGP is of the opinion the data is of sufficient quality to support a resource estimation in the Inferred category only for the area of the model supported mainly by chip samples.





12 DATA VERIFICATION

Between January 25 and 29, 2010, Mr. Pierre Desautels visited the San Acacio deposit, accompanied by Gordon Zurowski of AGP Mining, Brian Robertson, President and CEO of Source and Sonny Bernales, independent consulting geologist and principal of Sunshine Geological Services. One diamond drill rig was active during the site visit; therefore, core logging and sampling procedures could be observed.

The 2010 site visit entailed a review of the following:

- overview of the geology and exploration history of the San Acacio geology (presented by Sonny Bernales and Brian Robertson of Source)
- current exploration program design (drill hole orientation, depth, number of holes, etc.)
- surveying (topography and drill collar)
- visit to the Refugio Level and Purísima adit
- visit to historical surface trenches, and a review of the surface exposure of the Veta Grande vein
- visit of the core logging facility
- discussion of the sample transportation and sample chain of custody and security
- core recovery
- QA/QC program (insertion of standards, blanks, duplicates, etc.)
- review of the diamond drill core, core-logging sheets and core logging procedures. This review included commentary on typical lithologies, alteration and mineralization styles, and contact relationships at the various lithological boundaries.

During the 2010 visit, AGP collected 1 quarter core character samples and five check samples of various outcrop and underground muck piles. AGP retained full custody of the sample from the San Acacio project site to the town of Guadalupe, Mexico where the samples were shipped to Activation Laboratories Ltd., at 1428 Sandhill Drive, Ancaster, Ontario, via DHL courier service. This sample analysis allowed an independent laboratory, not previously used by Source, to confirm the presence of silver and gold in the deposit, and to verify claims of high-grade values encountered in mineralized fill, tailings, and mine waste material. The samples were analysed for silver and gold using fire assay with gravimetric finish on a 29.16 g charge (Code 1A3-Ag). Copper, lead, zinc, and iron sample were analysed with a 4 acid digestion ICP method (Code 8 - 4 acid ICP-OES).





Table 12-1 shows the grade comparison between the AGP quarter core character sample and the Source laboratory result for the same sample. The silver grade is much higher in the AGP sample than what was reported by Source. While not indicative of all samples, this assay shows high variability on closely spaced samples, which should translate to a moderate to high nugget component on the variography. From the assay results shown in Table 12-1 and Table 12-2 AGP confirmed the presence of silver and gold on the property. Additionally, the general range of values reported by Source for the mineralized fill material correspond well with those reported by the various chip, muck, and grab samples collected by AGP.

	AGP	Source	Difference (AGP-Source)
Sample Number	929	0150	
Gold (g/t)	<0.03	0.195	-0.180
Silver (g/t)	86	15.9	70.1
Copper (%)	0.003	0.015	-0.012
Zinc (%)	0.411	0.264	0.147
Lead (%)	0.021	0.042	-0.021
Iron (%)	6.71	n/a	n/a

Table 12-1: AGP Character Sample Results

Table 12-2 shows the other character samples collected on various outcrops and muck piles that do not have a Source sample equivalent.

Sample Description	Sample No.	Au (g/t)	Ag (g/t)	Cu (%)	Zn (%)	Pb (%)	Fe (%)
Tailing sample	922	<0.03	63	<0.001	0.133	0.065	4.23
Vein at 425 m inside Purísima adit - FW of Veta Grande	923	<0.03	4	0.003	0.007	<0.003	6.7
Refugio Level backfill from Veta Grande stope	924	<0.03	45	0.001	0.137	0.018	6.64
Refugio Level Veta Grande cave material from open Stope	925	1.5	494	0.024	0.21	0.148	2.29
Refugio Level Veta Grande duplicate chip sample M9	926	<0.03	143	<0.001	0.063	0.027	4.11
Grab sample of the fine material on wall of Veta Grande Pit	927	<0.03	86	0.003	0.411	0.021	6.71
Outcrop sample from bottom of Veta Grande trench	928	0.46	290	0.028	1.14	3.74	2.34

Table 12-2: Other Character Samples Collected

Source used sample tags purchased from ALS Chemex. The tag system consists of three parts, where the main part was inserted in the sample bag, another part was stapled to the





core box, and the third part was retained. Source used two purchased standard reference material and one purchased blank. The laboratory supplied blank material was not used by Source since it was replaced by barren basalt in order to submit a blind sample to the analytical laboratory and also to evaluate contamination originating from the crushing of the samples. The insertion of standard, coarse blank and coarse duplicate in the form of quarter-core samples in the sampling chain that was observed during the core logging facility visit was consistent with Source description of the QA/QC protocol.

Geologists responsible for logging the core can roughly estimate the (high/low) grade of the core in the field by the presence of sulphide and the degree of brecciation and silicification of the vein material. The core flanking the vein material was not continuously sampled. Intervals bearing no visual sulphide mineralization were commonly skipped.

During the validation of the lab results, AGP noted a few Source samples were not bracketed with a shoulder waste sample. The altered andesite typically bears low- to medium-grade. AGP recommends Defiance to ensure all altered andesite be sampled, and that at least one shoulder sample be taken on either side of the mineralized horizon in the fresh andesite.

Ing. Jose Antonio Becerra was the geologist in charge of logging the core during the site visit. Logs were entered on a paper notebook to be transcribed later on in digital format.

In proximity to the top and bottom contact of the Veta Grande, the core is progressively altered until a fault is encountered. The vein typically starts (or ends) at the contact, with a fault located either on the foot wall or the hanging wall. High-grade vein material is typically brecciated and highly silicified, often seen with amethyst. The transition from vein material to the altered andesite is typically short and non-gradational. From the altered andesite to the fresh andesite, the contact is typically gradational. Core recovery is poor in the brecciated vein sections.

Photographs (Photos 5 to 10) taken during the site visit, are shown below.







Photo 5: Oxidized Veta Grande vein in hole SAD10-08



Photo 6: Purísima adit entrance



Photo 7: Veta Grande surface trench looking NW from UTM 2526337N and 751585E



Photo 8: Refugio Level caved stope - 494 g/t Ag



Photo 9: Brecciated quartz vein material - 16 g/t Ag







12.1.1 DATABASE VALIDATION

Silver Standard Assays

Prior to the resource evaluation, AGP carried out an internal validation of the drill holes in San Acacio's Source database. Holes were selected for validation according to the following criteria:

- highest silver grade
- highest overall average
- distribution in the deposit

Source requested the certificate matching these holes from the laboratory. The request was forwarded to Silver Standard, who authorized ALS Chemex to issue the certificates directly to AGP. A total of 33 Silver Standard holes were either partially or completely validated, amounting to 833 individual samples out of a total of 1,277 that were checked either using the original signed PDF copy of the certificate, or against the electronic version of the certificate provided by the issuing laboratory. The validation rate amounted to 64% of the entire assay database or 83% of all assays collected by Silver Standard.

Numerous errors were found in the Silver Standard assays imported into GEMS from the Excel spreadsheets. The review revealed that these errors were clerical, owing to the transcription of the hand-written paper logs into electronic format.

Due to the high error rate, AGP elected to re-build the entire assay database from the certificates. For assay intervals where the certificates were not available, the original values from the Excel spreadsheet were spot checked against the paper log and retained.

Source Exploration Assays

The Source assay database was validated against the electronic version of the laboratory certificates that were provided by Source Exploration. A total of 294 individual samples, 100% of all assays collected by Source, were validated. One error was found for the gold assays, and none for silver.

Copper had 10 samples (3.40%) containing the zinc laboratory value instead of the copper value. The zinc assays had no errors and the lead assays had two errors related to the detection limit. All errors were corrected in the Gemcom assay database.

Overall, the re-constructed assay database now consists of 1,111 assays originating from laboratory certificates, along with 142 original values where the laboratory certificates were not available for review, and 24 assays were recovered from the paper logs.





None of the underground drill holes were validated since they postdate the closure of the database used in the resource estimate.

12.1.2 COLLAR COORDINATE VALIDATION

Collar coordinates were validated with the aid of a hand-held Garmin GPS map model 60CSx. A series of collars were randomly selected, and the GPS position was recorded. The difference with the Gems database was calculated in an X-Y 2D plane, using the following formula:

$$X - Y$$
 difference = $\sqrt{(\Delta East)^2 + (\Delta North)^2}$

As shown on Table 12-3, results indicated an average difference in the X-Y plane of 12 m for the six hole collars, and -3.2 m in the Z-plane. The calculated differences in the X-Y plane are well within the accuracy of the hand held GPS unit used. This margin of error is typically influenced by the number of satellites seen at the time and day of measurement. Elevation difference is surprisingly good, as the hand held GPS's are notoriously inaccurate in measuring elevation.

	Field GPS Reading			Gemcom Database Entry			Differe	ence	
	East	North	El.	East	North	El.	X-Y Plane	Z Plane	Comment
SAD95-38	751416	2525943	2616	751419.78	2525949.06	2619.42	7.14	3.42	No casing – approx. location
SAD95-10	751481	2526350	2550	751507.37	2526361.19	2541.86	28.65	-8.14	No casing – approx. location
SAD95-12	751686	2526231	2577	751697.82	2526231.71	2571.08	11.84	-5.92	No casing – approx. location
SAD95-11	751598	2526270	2579	751607.96	2526271.12	2578.17	10.02	-0.83	No casing – approx. location
SADD09-4a	751291	2526153	2630	751282	2526150	2625	9.49	-5	Casing
SADD-10-08	751708	2526004	2605	751709	2526009	2602	5.10	-3	Approx. 6 m from casing
Average Diffe	rence		12.03	-3.2					

Table 12-3: Collar Coordinate Verification

12.1.3 DOWN-HOLE SURVEY VALIDATION

The down-hole survey data consisted mostly of acid test for the Silver Standard drill, and Reflex log for Source exploration drilling. The Silver Standard down-hole survey was validated against the value recorded on the paper logs. The Source down-hole survey data was read directly from the instrument, and not validated by AGP.





12.1.4 LITHOLOGY

The database provided by Source in XLS format contained a simplified interpretation of the main lithologies. AGP elected to rebuild the database by re-typing the lithology summary from the original paper logs. The information was verified and supplemented with additional intervals from the detailed logs.

12.2 Discussion

Considering the entire assay database was re-constructed by AGP from the original laboratory certificates, it is AGP's opinion the data verification programs undertaken on the data collected from the project support the geological interpretations and therefore the data is deemed to be adequate to support mineral resource estimation.

For portions in the model mostly supported by underground samples, the data quality is deemed sufficient to support mineral resource estimation in the Inferred category only.





13 MINERAL PROCESSING AND METALLURGICAL TESTING

No metallurgical testing of San Acacio mineralization has been conducted as part of this technical report. However, the results of historical testwork (1999 to 2004) and reports of past mine production (1968 to 2009) have been reviewed to provide preliminary indications of metallurgical performance. The reports detailing this historical work have been reviewed by AGP and while the authors are unable to completely verify any of the underlying data, no reason to question the validity of results can be ascertained. The work is summarized below.

13.1 Atlas Mining Testwork

In 1999, Herbert Osborne of HC Osborne & Associates was retained by Atlas Mining Company to assist with a metallurgical evaluation of San Acacio ores. The work is described in the RJ Tschauder Prefeasibility Document (1999) and the BJ Price Technical Report (2007).

Four samples (M1-M4) were collected for metallurgical testing. Each sample is reported to have weighed 180 kg to 200 kg with descriptions as listed in Table 13-1. The samples were selected to represent various types of oxidized material from the upper levels of the San Acacio vein system and as such are thought to provide a reasonable insight as to the likely metallurgical performance of these upper areas of the mine.

An ICP scan of material from each sample provided a range of elemental analyses as shown in Table 13-2.

As one would expect, the lead and zinc content of the M1 (sulphide) sample is significantly higher than the oxide samples (M2-M4). Deleterious elements such as Cadmium and Arsenic are also noted to be somewhat higher in the sulphide sample, but not necessarily indicative of penalty concentrations in the final products.

Precious metal head grades were measured in triplicate using fire assay. Cyanide soluble silver and gold was also determined, with the difference in grade used to predict metallurgical extraction by cyanidation. The reports do not specifically state the size distribution of samples submitted for neither cyanidation nor the leach duration. Although no mention is made of comminution (grinding) over and above the initial crushing to 80% passing 1", AGP has assumed that the samples underwent typical fire assay preparation (pulverization) prior to cyanidation testing and were thus well liberated. This would tie in well with the later work by Sterling Mining Co. from 2004 (

Table 13-3).





Table 13-1: 1999 Metallurgical Samples, Sample Description

Sample	Description								
M1	Sulphide material from the Veta Grande vein on the Contracuña claim								
M2	Backfill material as sampled on the surface. The sample is a composite of one bucket from the Esperanza area, one bucket from the San Jose Area, 3 buckets from Contracuña, 1 bucket from the Almadén area and 2 buckets from San Gerardo.								
M3	A six bucket sample taken from the accessible backfill on the San Refugio level								
M4	Eight buckets taken from the vein on the surface at the Esperanza shaft								

Table 13-2: 1999 Metallurgical Samples, ICP Scan

Sample	Ag	As	Cd	Cu	Fe	Hg	Mn	Pb	Sb	Se	Zn
M1	175.2	498	121.1	225	58,500	3	1,451	4,185	36	6	11,328
M2	196.1	167	32.8	134	53,500	4	1,923	1,634	17	25	3,916
M3	135.8	198	31.9	176	58,000	2	2,013	1,858	30	28	3,284
M4	164.3	62	5.7	49	38,300	<1	1,542	240	8	58	702

Table 13-3: 1999 Metallurgical Samples, Head Assay

Sample	Fire Assay (oz/t Au)	Fire Assay (oz/t Ag)	CN Recoverable (oz/t Au)	CN Recoverable (oz/t Ag)	Recovery (Ag %)
M1A	0.017	4.64	0.010	3.36	72.4
M1B	0.018	4.93	0.011	3.28	66.5
M1C	0.018	4.96	0.010	3.27	65.9
M2A	0.006	5.87	0.004	4.93	84.0
M2B	0.006	5.82	0.004	4.90	84.2
M2C	0.006	6.38	0.004	4.65	72.9
M3A	0.005	4.09	0.002	2.95	72.1
M3B	0.005	4.44	0.002	2.99	67.3
M3C	0.005	4.32	0.002	2.79	64.6
M4A	-	4.94	-	3.99	80.8
M4B	-	5.06	-	3.97	78.5
M4C	-	4.96	-	3.87	78.0

A typical head grade vs. recovery relationship is apparent from these results, with higher silver recovery indicated at the higher head values.





13.2 Sterling Mining Co.

The Price report details a small program of metallurgical testwork undertaken by consultants under contract to Sterling Mining Company (Sterling) in 2004. Column leaching tests on coarsely crushed samples of oxidized ore reportedly gave extractions of only 21.8% Ag and this was attributed to the poor leaching characteristics of the coarse fractions. Subsequent work on finely ground samples (no grind size reported) improved the extraction rate to 86.7% for silver and 87.3% for gold.

Subsequent news releases by Sterling in 2005 report that thiosulphate batch leaching tests of grab samples taken from San Acacio dumps and backfill material returned an average head grade of 7.07 oz/st and recoveries ranging from 57% to 79%. Six hundred tons of similar material was subsequently processed at the Barones Plant (thiosulphate VAT leaching) which resulted in a silver recovery of 67% at a 5.4 oz/st head grade.

13.3 Barones Historical Data

Historical production statistics from the Barones processing facility have been obtained and are shown in Table 13-4. The reader is cautioned that the validity of this data has not been ascertained by AGP and it may have originated from multiple sources of feed, not just San Acacio.

	Ore	Head G	Grades	Feed (kg)		Product (kg)		Smelter		
Year	(t)	Ag kg/t	Au g/t	Ag	Au	Ag	Au	Ag	Au	Origin
1968	5,716	0.348	0.5	1,989	2.858	1,595.40	-	80.2	0.0	Backfill
1969	5,504	0.349	0.50	1,921	2.752	1,534.30	-	79.9	0.0	Backfill
1970	15,276	0.298	0.48	4,552	7.332	3,566.50	-	78.4	0.0	Backfill
1971	16,234	0.242	0.41	3,929	6.656	3,046.30	-	77.5	0.0	Dump
1972	17,077	0.184	0.29	3,142	4,952	2,247.60	2.557	71.5	51.6	Dump
1973	18,899	0.171	0.25	3,232	4.725	2,297.70	2.738	71.1	58.0	Dump
1974	16,348	0.171	0.25	2,796	4.087	1,835.20	2.175	65.7	53.2	Dump
1975	14,267	0.191	0.31	2,725	4.423	1,785.90	1.848	65.5	41.8	Dump
1976	13,707	0.164	0.53	2,248	7.265	1,458.70	3.772	64.9	51.9	Dump
1977	10,190	0.166	0.55	1,692	5.605	1,083.30	3.494	64.0	62.3	Dump
1978	11,155	0.173	0.63	1,930	7.028	1,310.40	3.933	67.9	56.0	Dump
1979	7,297	0.142	0.36	1,036	2.627	644.30	1.202	62.2	45.8	Dump
1980	2,835	0.154	0.41	437	1.163	258.50	0.422	59.2	36.3	Dump
1981	995	0.104	0.50	103	0.498	54.70	0.194	52.9	39.0	Dump
1982	3,751	0.211	0.47	791	1.763	540.30	0.358	68.3	20.3	Dump
1983	5,726	0.189	0.55	1,082	3.149	839.80	0.891	77.6	28.3	Dump
1984	-	-	-	-	-	-	-	-	-	-
1985	6,371	0.170	0.60	1,083	3.823	639.40	0.694	59.0	18.2	Dump

Table 13-4: Historical Production Statistics







Year	Ore	Head G	irades	Feed	Feed (kg) Pr		Product (kg)		Smelter Recovery	
1986	6,110	0.146	0.40	892	2.444	689.80	1.205	77.3	49.3	Dump
1987	-	-	-	-	-	-	-	-	-	-
1988	9,598	0.217	0.30	2,083	2.879	1,490.80	1.372	71.6	47.7	Dump
1989	1,447	0.205	0.00	297	0	213.60	0	72.0	0.0	Dump

Recoveries of between 52.9% and 80.2% are recorded for silver from dump and backfill material. The process conditions under which these results were achieved cannot be directly verified, but during this period, the Barones plant operated a cyanide vat leach and flotation which treated a wide variety of ores.





14 MINERAL RESOURCE ESTIMATES

Effective April 13, 2010, PEG produced a resource estimate of the San Acacio project for Source Exploration. The author of this report directed the 2010 review by PEG of the historical data compilation, the 2009-2010 digital data compilation, and also conducted the 2010 NI 43-101 resource estimate and authored the corresponding NI 43-101 compliant report for Source. Since that time, only three underground drill holes were added to the database. Hole SA-UG-01 and SA-UG-02 intersected the Veta Grande vein below the extent of the mineralized model and results from both holes did not return any high grade values. Hole SA-UG-03 was abandoned prematurely. Since the new data does not present a material change to the resource, AGP considered the PEG resource effective April 13, 2010, to be still current at the date of this report and therefore an updated resource was not estimated. The resource presented in this section was reproduced completely from the Source report dated May 21, 2010, and is merely is re-stated in this section for Defiance Silver.

Gemcom software GEMS 6.2.3.2[™] was used for the resource estimate, along with Sage 2001 for the variography. The metals of interest at the San Acacio project are silver, and gold with zinc, lead, and copper credits. The Silver Standard 1996 underground chip samples data were only assayed for silver and gold (and no base metals). The chip samples are clustered in the underground workings and thus affect approximately 20% of the resource estimate. However, since they constitute over 50% of the composites, the resource model was not interpolated for zinc, lead, or copper. As the project advances, and the reliance on chip samples diminishes, AGP recommends interpolating all other elements where a processing credit is likely to provide economic benefits to the project.

Source provided a digital drill hole database in a series of Microsoft Excel spreadsheets (XLS) consisting of collar, survey, lithology and assay. The Mexican government provided topographical information in ArcView shape files. This data was supplemented in the area surrounding the Veta Grande vein by a detail topographic survey conducted in March 2010. Additional information provided was in the form of high-resolution scan images of four underground levels and sampling plans. A vertical longitudinal projection of the historical workings provided information regarding the mined out portion of the deposit. Source also provided various reports, some dating back to 1939. The digital drill hole database included all holes drilled by Silver Standard in 1996, and holes drilled by Source Exploration to the end of March 2010. Surface trenches were used to guide the geological interpretation of the model, but grades from the trench-sampling program were not used in the interpolation, since a statistical analysis of the data indicated that they would likely introduce a high bias in the estimation.

Excluding the three underground drill holes completed by Source in 2010, the drill database includes 41 diamond drill holes, totalling 8,147 m of core drilling, supplemented by a total of





457 underground chip samples. During the 2009 to 2010 drill campaign, Source drilled nine surface holes totalling 3,007 m amounting to 22% of the total number of holes or 43% of the total meterage. As stated earlier, the three underground holes drilled by Source in 2010 are excluded from this resource estimate since they were drill after the data cut-off date. Source targeted the down dip extension of the mineralized vein below the Purísima Level.

Table 14-1 shows a summary of the number of holes and chip samples used in the resource estimate.

	No. in Database	No. Used in Resources	No. of Composites	% of Total Composite in Database	Use
Source 2009/10 Drilling	9	9	43	7	Geology, grade, and resource classification
Silver Standard 1997 Drilling	32	32	232	40	Geology, grade, and resource classification
Underground Chip Samples	457	302	302	52	Geology, grade (resource downgrade to inferred)
Trench Samples	42	-	-	-	Used in geology model only
Source Underground 2010 Drilling	3	-	-	-	Drilled after data cut-off
Total in Digital Database			577	100	

Table 14-1:Summary of Holes and Chip Samples in the Source Database for the Vein Grade
Models

14.1 Geological Interpretation

The 3D wireframes developed to control the grade interpolation of the resource model were based primarily upon lithologies and partially on silver grades.

The geological wireframe was constructed using all drill hole intercepts within the quartz breccia zone. During the construction of the wireframe, continuous zones of mineralization within the altered andesite where silver grade exceeded 25 g/t were also incorporated in the model. An exception was made to include lower grade intercepts to allow zonal continuity. The vein contacts were drawn on set vertical cross sections spaced 30 m apart. The wireframe construction was carried out in multiple steps as follows:

- The surface expression of the Veta Grande as surveyed by Source was digitized on a plan view, and the contacts were elevated to the topographical surface.
- Polylines describing the upper and lower contacts of the zones were digitized on the sections using the Quartz Breccia zone as the primary guiding principle, allowing the contact of the zone to drift in the foot wall or hanging wall of the altered andesite if a grade of 25 g/t Ag could be maintained.





- The geological maps for the Purísima, Rodadillos, Level 23, and Refugio level were geo-referenced in GEMS, and the geological interpretation was digitized from these plans. As stated earlier, the Purísima and Refugio levels position may be out by approximately 120 m. Source Exploration was conducting a confirmation survey of the Purísima adit at the time the resource estimation was completed. The San Rafael level could not be geo-referenced since the scan image of the level plan was located on a different grid system.
- The digitized level plan polylines were extended to complement the sectional interpretation of the zone.
- Both sets of plan and section polylines were used to construct the wireframes.
- The model was validated in 3D against the drill holes, and adjusted if necessary.

The topography surface was constructed using the elevated contour lines originating from a 1:50,000 scale map, using the UTM NAD27 Mexico coordinate system. The map, dated August 1995 and issued by the Instituto Nacional de Estadística, Geografía e Informática (INEGI), is map number F13B58, available on the internet at <u>www.inegi.gob.mx</u>. Source conducted a detail survey of the surface expression of the Veta Grande vein, in order to incorporate the most recent mining activity that took place in various trenches and pits since the publication of the map. The elevated contour lines from the government-issued maps were clipped in the area surrounding the Source Exploration-surveyed maps, and the two sets of contour lines were merged to create the final topographical surface. Overburden thickness is very thin over the deposit and a bedrock surface was not modelled.

The mineralized fill volume was difficult to create with any sense of precision, mainly due to the lack of record-keeping by the historical mine operators in the early 1900s. The mineralized fill model was estimated by modelling a continuous "master" filled wireframe over the entire Veta Grande vein, which was then clipped with a series of clipping polylines, corresponding to the interpreted mined-out areas.

The fill model was constructed as follows:

- A series of polylines were digitized on section using intercept with the underground openings as recorded in the drill logs. This information provided the general position and thickness of the excavated stopes. It was observed that the stope, fill, and voids were located mostly on the hanging wall side of the mineralized zone.
- The sectional polylines were extended as far as the long sections indicated that mining took place.
- A second series of polylines were digitized from the geo-referenced level plans. For each plan, a polyline was drawn joining all underground cross-cuts where fill was indicated. This polyline was interpreted as the foot wall side of the stope. The hanging wall polyline was mostly derived from the information gathered by the drill





hole intercepts but also from information provided by long cross-cuts driven well into the hanging wall of the zone.

- The polylines drawn on plans were extended to reach the limit of the sectional interpretation.
- The 3D "master" fill wireframe was created using both sets of plans and sections, was validated, and then adjusted if necessary.
- A series of polylines representing the mined out areas was drawn on a vertical longitudinal section. The information for the excavated areas was sourced from a historical long section, which was scanned and digitized from surface reconnaissance work conducted by Source and by the position of filled cross-cuts as shown on the level plans.
- The long sectional polylines describing the stoped out areas were converted to clipping polygons, and the "master" fill solid was clipped to generate the final filled stopes.

While this work gives an approximate volume for the historical stopes, AGP realizes that there are questions related to the position of the fill volume, its size (thickness and width), and its shape, that will probably never be answered with any degree of accuracy. Geophysical instruments such as such as ground penetrating radar (GPR), micro-gravity, multi-electrode resistivity, micro-seismic tomography, transient electromagnetic method (TEM), and cross-hole radio-wave tomography that rely on the density of the material, may give a better 3D representation of the voids versus the fill. This type of survey might be able to define the old working with greater accuracy and could be attempted by Defiance. The final wireframes consisted of six mineralized solids along with ten excavated areas believed to be filled with mineralized material, as shown in Table 14-2 and Figure 14-1.

Mineralization Volume Clipped to Fill and Topography	(m³)
Veta Grade Main Zone	2,266,022
Veta Grande East	669,152
Veta Natividad	72,406
Veta Grande Deep Extension	193,315
Veta Grande Deep Hanging Wall	9,006
Veta Grande Hanging Wall	35,682
Total Mineralized Volume	3,245,583
Estimated Fill Volume	
Internal Fill	20,569
Block 01	7,373
Block 02	39,264

Table 14-2: Wireframe Final Volumes for the San Acacio Mode	Table 14-2:	Wireframe Final Volumes for the San Acacio Model
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Mineralization Volume Clipped to Fill and Topography	(m³)
Block 03	382,188
Block 04	8,109
Block 05	4,093
Block 06	23,670
Block 07	45,625
Block 08	8,860
Block 09	2,523
Total Fill Volume	542,274









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14.2 Exploratory Data Analysis

Exploratory data analysis is the application of various statistical tools to characterize the statistical behaviour or grade distributions of the data set. In this case, the objective is to understand the population distribution of the grade elements in the various units using such tools as histograms, descriptive statistics, and probability plots.

14.2.1 Assays

AGP evaluated the raw assay statistics grouping all assays intersecting the Veta Grande and Veta Natividad veins. Statistical analysis compared the trench and chip samples with the drill core assays, to verify whether a different sample type could be used in the resource interpolation.

Figure 7-2 shows the summary results of the population distribution. The trench samples would likely produce a high bias in the interpolation. The chip samples tend to return higher values in the first 30th percentile of the distribution below 12 g/t Ag when compared to the drill core assays. The mean value between the drill core assays and the chip samples is virtually the same. At the median, the chip samples indicate slightly higher silver tenor. This trend is reversed for assays above the 75th percentile of the distribution. AGP concludes from these results that the chip samples will not bias the interpolation significantly, as long as the cut off selected for the resource exceeds 30 g/t Ag.

Frequency distribution shows a textbook—style log normal distribution with 90% of the silver values below 200 g/t. Gold distribution is also log normal, but is not as clean, showing few spikes throughout the distribution. Ninety percent of the gold values are below 0.53 g/t. Table 14-3 provides descriptive statistics for the chip and drill hole samples for gold and silver. Copper, lead, and zinc statistics represent data from the drill core only. Appendix A includes the complete raw assay statistics.

Correlation tables for drill core assays show poor correlation between all elements. The highest correlation factor, R-square, ranging between 0.32 and 0.37, is between gold, lead, and zinc. Copper and zinc also show a correlation R-square of 0.35. The low correlation factor typically indicates that each element will need a different set of interpolation parameters, since one element cannot be used reliably to predict the other. It may also indicate that the zone could be separated in more than one mineralogical domain; however, due to the low sample density on the San Acacio project, this cannot be confirmed.







Figure 14-2: Silver Distribution by Data Type





	DDH and CHIP		DDH Only		
	Au (g/t)	Ag (g/t)	Cu (%)	Pb (%)	Zn (%)
Valid Cases	602	602	348	348	348
Mean	0.194	79.9	0.014	0.182	0.483
Std. Error of Mean	0.011	7.3	0.001	0.034	0.061
Variance	0.071	31,796.2	0.001	0.397	1.295
Std. Deviation	0.267	178.3	0.024	0.630	1.138
Variation Coefficient	1.375	2.2	1.728	3.457	2.354
Rel. V. Coefficient (%)	5.604	9.1	9.261	18.533	12.619
Minimum	0.000	0.2	0.000	0.000	0.003
Maximum	1.960	3,090.0	0.285	8.840	11.600
Sum	117.047	48,117.5	4.837	63.393	168.231
1 st percentile	0.000	0.4	0.001	0.000	0.004
5 th percentile	0.005	2.0	0.001	0.001	0.008
10 th percentile	0.005	4.4	0.003	0.001	0.014
25 th percentile	0.015	11.3	0.004	0.007	0.041
Median	0.100	31.8	0.008	0.025	0.098
75 th percentile	0.260	82.2	0.013	0.108	0.426
90 th percentile	0.529	194.3	0.027	0.362	1.237
95 th percentile	0.679	277.4	0.046	0.776	2.293
99 th percentile	1.419	727.8	0.120	2.666	5.999

Table 14-3: Descriptive Raw Assays Statistics

Contact plot studies conducted on the assays within the Veta Grande wireframe shows that the 3D mesh captures most of the mineralization, leaving very little high-grade material outside the wireframe. It also shows that the grade distribution is not gradational near the contacts. This allows the interpolation parameter to treat all boundaries between the mineralization and the foot wall and hanging wall assays as sharp in the model.

14.2.2 CAPPING

A combination of decile analysis and a review of probability plots were used to determine the potential risk of grade distortion from higher-grade assays. A decile is any of the nine values that divide the sorted data into ten equal parts so that each part represents one tenth of the sample or population. In a mining project, high-grade outliers can contribute excessively to the total metal content of the deposit.

Typically, in a decile analysis, capping is warranted if:

• the last decile has more than 40% metal





- the last decile contains more than 2.3 times the metal quantity contained in the one before last
- the last centile contains more than 10% metal
- the last centile contains more than 1.75 times the metal quantity contained in the one before last

The decile analysis results shown in Figure 14-3 indicated that grade capping was warranted for both silver and gold assays.

In the "Applied Mineral Inventory Estimation" (Cambridge University Press, 2002), Alistair Sinclair stated that in a geologic context, outliers represent a separate grade population characterized by its own continuity; generally, the physical continuity of high grade is much less than that of the more prevalent low grades. Thus, serious overestimation of both tonnage and average grade above a cut-off grade can result if a general model, normally dominated by the lower, more continuous grades, is applied to very high-grade values. The problem is acute when the high grades are isolated in a field of lower values.

After conducting a careful examination of the data set, AGP elected to use a two-fold approach:

- 1. Apply a hard cap on the raw assay prior to compositing
- 2. Impose a sample search restriction on "mild" outliers.

The grade-capping strategy employed has the benefit of limiting the grade distortion from the extreme outliers, while restricting the range of influence of the high-grade "mild" outliers under the presumption that true outliers generally have restricted physical continuity and do not extend much beyond the block within which they are located (Sinclair). In essence, the high grade values are acknowledged in the model but their spatial influences are limited.

Table 14-4 shows a summary of the treatment of the high-grade outliers during the interpolation. The distance used for the search restriction was set to 10 m x 10 m x 10 m for Pass 1, and increased to 15 m x 15 m x 15 m on subsequent passes, restricting the selection of the samples above 300 g/t Ag and 0.7 g/t Au thresholds to a 1½-block distance from the interpolated block. Appendix B shows the results from the decile analysis.









Table 14-4: High Grade Treatments

	Cap Value (g/t)	Search Restriction Grade Threshold (g/t)
Ag (g/t)	600	300
Au (g/t)	1.5	0.7





14.3 Composites

Sampling Length Statistics and Composites for Veins

Sampling intervals on the Veta Grande property average 1.36 m. Sampling at 1.0 m and 1.5 m intervals is common, creating a gap in the sampling length distribution of between 1.25 m and 1.5 m. The upper third quartile of the sampling length shows a value of 1.6 m. AGP elected to use a composite length of 2.0 m, generating about two data points per block in the 5 m x 5 m x 4 m block matrix selected, while allowing grade variations to be represented.

Assays below detectable limits used half the detection limit. Intervals reported as voids, stopes and fill in the drill logs were ignored during the compositing process, to be treated separately with the mineralized fill composites. Assays were length-weighted averaged and any grade capping was applied to the raw assay data prior to compositing. True gaps in sampling were composited at zero grade.

Composite intervals were created down from the collar of the holes toward the hole bottoms within the mineralized wireframes, leaving small remnants at the lower intersection of the wireframes. The compositing methodology restarted the compositing interval at each intersection with the wireframes. No composites were created outside the wireframes.

Once the composite file was created, the individual chip samples were added to the file. The chip samples were reviewed on plan, and samples that formed a continuous sampling line were converted to a sampling string imitating a flat drill hole. This is important since a maximum number of samples per hole are used as part of the interpolation criteria, and leaving all samples as individual entities prevents the interpolation run from de-clustering the data appropriately.

Composites for Mineralized Fill

Due to the narrow nature of the fill wireframe, composite intervals were manually created in a spreadsheet to approach 2-m composites widths, if the width of the wireframe allowed. The composites for the mineralized fill range from a low of 0.97 m to a maximum of 2.96 m with an average of 1.90 m. A total of 20 muck sample from the Refugio Level and Level 23 were also added to the sample set. Composite statistics are presented in Appendix C.

Table 14-5 shows the descriptive composite statistics. Complete composite statistics are provided in Appendix D.





	Vein Material		Mineral	ized Fill
	Ag (g/t)	Au (g/t)	Ag (g/t)	Au (g/t)
Valid Cases	577	577	53	53
Mean	78.5	0.215	208.5	0.197
Std. Error of Mean	5.6	0.011	29.3	0.041
Variance	18083.1	0.066	45414.8	0.087
Std. Deviation	134.5	0.257	213.1	0.295
Variation Coefficient	1.7	1.198	1.0	1.498
Rel. V. Coefficient (%)	7.1	4.987	14.0	20.573
Minimum	0.0	0.000	1.1	0.000
Maximum	1297.0	1.540	938.0	1.669
Sum	45267	124	11052	10
1 st percentile	0.5	0.000	-	-
5 th percentile	3.7	0.002	8.1	0.000
10 th percentile	6.2	0.003	21.1	0.000
25 th percentile	15.1	0.025	81.0	0.026
Median	36.2	0.134	149.0	0.086
75 th percentile	91.5	0.298	264.5	0.222
90 th percentile	190.9	0.570	533.5	0.513
95 th percentile	278.7	0.752	790.3	0.858
99 th percentile	746.7	1.335	-	-

Table 14-5: Descriptive Statistics for Composites (vein and fill)

14.4 Bulk Density

The historical specific gravity (SG) of 2.55 g/cm³ for vein material and 1.75 g/cm³ for the mineralized fill material was used in the resource. AGP does not have access to documentation regarding the procedure or the number of samples used to derive these figures. The vein material is an altered andesite and/or quartz breccia. The textbook density of andesite is 2.77 g/cm³ and quartz is 2.64 g/cm³. Considering the degree of alteration and the poor recovery encountered in the drill hole, AGP consider that the 2.55 g/cm³ assigned to the vein material is a good approximation of the true density, until Defiance can gather new density values from the on-going exploration program. The 1.75 g/cm³ SG for the mineralized fill accounts for the swell factor of the fill and is considered by AGP to be adequate.





14.5 Spatial Analysis

14.5.1 VARIOGRAPHY

Geostatisticians use a variety of tools to describe the pattern of spatial continuity, or strength of the spatial similarity of a variable with separation distance and direction. The correlogram measures the correlation between data values as a function of their separation distance and direction. If we compare samples that are close together, it is common to observe that their values are quite similar, and the correlation coefficient for closely spaced samples is near 1.0. As the separation between samples increases, there is likely to be less similarity in the values, and the correlogram tends to decrease toward 0.0. The distance at which the correlogram reaches zero is called the "range of correlation," or simply the "range." The range of the correlogram corresponds roughly to the more qualitative notion of the "range of influence" of a sample; it is the distance over which sample values show some persistence or correlation. The shape of the correlogram describes the pattern of spatial continuity. A very rapid decrease near the origin indicates short scale variability. A more gradual decrease moving away from the origin suggests longer-scale continuity.

Variography was conducted for the Veta Grande vein using Sage 2001 software. Directional sample correlograms were calculated for silver and gold in these single statistical domains along horizontal azimuths of 0, 30, 60, 90, 120, 150, 180, 210, 240, 270, 300, and 330 degrees. For each azimuth, a series of sample correlograms were also calculated at 15° dip increments. Lastly, a correlogram was calculated in the vertical direction. Using the complete suite of correlograms, an algorithm determined the best-fit model. This model is described by the nugget (C_0) which was derived using down hole variograms; one or two nested structure variance contribution (C_1 , C_2), ranges for the variance parameters, the algorithm then fits an ellipsoid to all ranges from the directional models for each structure. The lengths and orientations of the axes of the ellipsoids give the final models of anisotropy.

All anisotropy models generated by SAGE 2001 were visually inspected in Gems to compare output with the expected geological controls on the mineralization.

Table 14-6 shows a summary of the variography results for the domains that returned a conclusive variogram. The traditional exponential range in the tables is defined as Gam (3R) = 0.95 * Sill as defined by the first edition of GSLIB (Deutsch and Journel). Traditionally, the order and rotation parameters are derived from the variography.





	Component	Increment	Cumulative	Rotation	Rotation Angle	Range 1	Range 2	Range 3
Silver	Nugget CO	0.4	0.4	-	-	-	-	-
	Exponential C1	0.425	0.825	ZXZ	-39, -65, 111	6.3	8.2	2.4
	Exponential C2	0.175	1	ZXZ	39, 78, -16	21.4	75.3	456.9
Gold	Nugget CO	0.40	0.4	-	-	-	-	-
	Exponential C1	0.405	0.805	ZXZ	-36, 30, 89	2.2	3.0	10.5
	Exponential C2	0.195	1	ZXZ	70, 35, 26	58.2	19.2	165.6

Table 14-6:Variogram Parameters

In general terms, the variogram models were difficult to generate, due to the location of the data points clustered in two areas. The Silver Standard drill defines an area covering the upper portion of the deposit and the area supported by chip samples in the deeper portion of the deposit above the Purísima level. Despite these difficulties, reasonable variograms were obtained for the Veta Grande Vein, showing a preferred northwest orientation between 315° to 325° in azimuth, with a relatively steep dip to the south of approximately - 70°. The combined C1 and C0 component axis oriented more or less with the mineralized zone when plotted in GEMS.

The same kriging parameters were used for all the satellite zones and the Veta Natividad vein.

14.5.2 SEARCH ELLIPSOID DIMENSION AND ORIENTATION

The variogram is the key function in geostatistics, as it will be used to fit a model of the temporal/spatial correlation of the observed phenomenon, and ultimately sets the weights that will be applied to the samples during the grade interpolation. While it is common to use the variogram model *as a guide* to set the search ellipsoids' range and attitude, the geologist modeling the deposit must consider the strike and dip of the mineralized horizon, and the drill hole spacing and distribution. AGP used the result of the variography as one of the guiding principles for setting the sample-search ellipsoid-dimension.

The first pass was sized to reach at least the next drill section spacing, along the main axis of the mineralization as expressed by the variograms. A second and third multiplier was used to set the subsequent search dimension for Pass 2 and Pass 3, leaving the ratio between the X Y and Z axis consistent with the results of the variography. The maximum range of the third pass search ellipsoid was set to approximate 95% of the sill value on the best exponential "traditional" variogram.

Due to the undulating nature of the deposit, three sub-domains were delineated. The subdomains allowed for the rotation of the search ellipsoid, in order to optimize the sample





search with the orientation of the vein, without resorting to any unfolding methodology as shown in Figure 14-4.

Table 14-7 lists the final values used in the resource model for the range of the major, semimajor, and minor axis. Table 14-9 lists the search ellipsoids axis orientations. Variography summary and search ellipsoid orientation are available in Appendix D.



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Figure 14-4: Sub-Domains Definition







Sample Search Ellipsoid – Range	Pass 1	Multiplier	Pass 2	Multiplier	Pass 3
Vein Material					
Range X	34	1.7	58	1.8	104
Range Y	30	1.7	51	1.8	92
Range Z	12	1.7	20	1.8	37
Mineralized Fill					
Range X	100	-	-	-	-
Range Y	90	-	-	-	-
Range Z	30	-	-	-	-

 Table 14-7:
 Ellipsoid Sample Search Parameters – Range

Table 14-8: Ellipsoid Sample Search Parameters – Orientation

Sample Search Ellipsoid – Orientation	Sub-Domain 1	Sub-Domain 2	Sub-Domain 3
Vein Material (Anisotropy angles are defined by Rotation ZXZ)			
Rotation about Z from X towards Y	-38	-38	-38
Rotation about X from Y towards Z	60	68	79
Rotation about Z from X towards Y	10	10	10
Mineralized Fill (Anisotropy angles are defined by Rotation ZXZ)			
Rotation about Z from X towards Y	-38	-	-
Rotation about X from Y towards Z	75	-	-
Rotation about Z from X towards Y	10	-	-

14.6 Resource Block Model

The block model was constructed using Gemcom's GEMS version $6.2.3.3^{\text{TM}}$ software. A 5 x 5 x 4 m block size was selected based on mining selectivity considerations and the density of the dataset.

The block model was defined on the project coordinate system (UTM - NAD 27 Mexico) with no rotation. Table 14-9 lists the upper southeast corner of the model, and is defined on the block edge.

The rock type model was coded by combining the geology model code with the sub-domain code, controlling the search ellipsoid orientation. The 100 series code represents the Upper Sill and the 200 series represents the Lower Sill. The sub-domains were simply assigned a code of 1 to 3. A block-model manipulation-script calculated the final rock type code by adding the sub-domain code to the main geology code.





Table 14-9:	Block Model Definition	(block edge)
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Vein and Fill Model	Parameters
Easting	751,000
Northing	2,525,000
Top Elevation	2760
Rotation Angle	0
Block Size (X, Y, Z)	5 x 5 x 4
Number of Blocks in the X Direction	440
Number of Blocks in the Y Direction	320
Number of Blocks in the Z direction	190

14.7 Interpolation Plan

The resource model was created in GEMS using a multi-folder set-up, allowing blocks to carry a grade value from more than one source, and also to correctly assign the tonnage and grade for the vein and fill material. The vein folder was interpolated using ordinary kriging, with inverse distance square and nearest neighbour check models. The mineralized fill folder was interpolated using a single inverse distance square model, to handle localized grade variations.

14.7.1 VEIN MODEL

The interpolation was carried out in a multi-pass approach, with an increasing search dimension coupled with decreasing sample restriction, interpolating only the blocks that were not interpolated in the earlier pass.

- Pass 1 uses an ellipsoid search with six samples minimum, and 15 maximum. A maximum of five samples per hole was imposed on the data selection forcing a minimum of two holes.
- Pass 2 uses an ellipsoid search with 4 samples minimum, and a 15 maximum. A maximum of three samples per hole was imposed on the data selection, forcing a minimum of two holes.
- Pass 3 uses an ellipsoid search with 2 samples minimum, and 15 maximum. A maximum of three samples per hole was imposed on the data selection, allowing a block to be interpolated by a single hole.

In this particular context, a "hole" means a drill hole, a single chip sample, or a chip sample string representing a "flat" drill hole.




All sub-domain boundaries within each sill were treated as soft boundaries, allowing samples from one sub-domain to be used in the interpolation of the adjacent sub-domain. AGP believes this is the correct methodology, since the sub-domains were only used to control the orientation of the sample search ellipsoids, and do not correspond to any known lithological contact or fault. No blocks were interpolated outside the wireframe.

14.7.2 MINERALIZED FILL MODEL

The mineralized fill model was first initialized to a grade of 200 g/t Ag and 0.23 g/t Au. These values correspond to the mean grade of 44 samples collected from drill core assays by Silver Standard and also from grab samples collected from the Refugio and Level 23 by Source in 2010. The fill has been historically mined between 1968 and 1970. Total reported production from the mineralized fill amounted to 24,495 tonnes at a grading of 319 g/t Ag and 0.49 g/t Au. AGP would like to remind the reader that historical production records do not necessarily indicate future production, and are provided here purely for a record.

Fill material grade should represent the grade in the immediate area where the material was originally mined. Therefore, AGP elected to use an inverse distance interpolation method in order to handle localized grade variations. As a result of this methodology, approximately 65% of the back fill model grades were calculated using the inverse distance interpolation (35% were assigned the background value of 200 g/t Ag and 0.23 g/t Au).

The interpolation was carried out in a single pass using an ellipsoid search with two samples minimum, 15 maximum, and a maximum of three samples per hole imposed on the data selection, allowing a block to be interpolated by a single hole. As with the vein model, in this particular context, a "hole" means a drill hole, a single chip sample, or a chip sample string representing a "flat" drill hole.

To account for probable mineralized fill voids, AGP applied a 10% void factor reduction to the fill tonnage.

Figure 14-5 illustrates the location of the mineralized fill in relation to the vein.



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Figure 14-5: Mineralized Fill Stopes – Isometric Looking NE







14.8 Mineral Resource Classification

Several factors are considered in the definition of a resource classification:

- Canadian Institute of Mining (CIM) requirements and guidelines
- experience with similar deposits
- spatial continuity
- confidence limit analysis
- geology

No environmental, permitting, legal, title, taxation, socio-economic, marketing, or other relevant issues are known to the author that may currently affect the estimate of mineral resources. Mineral reserves can only be estimated on the basis of an economic evaluation that is used in a pre-feasibility or feasibility study of a mineral project. Thus, no reserves have been estimated. As per NI 43-101, mineral resources, which are not mineral reserves, do not have demonstrated economic viability.

Two confidence categories exist in the model. The usual CIM guidelines of Indicated and Inferred classes are Coded 2, and 3 respectively. A special Code 4 exists in the model, to differentiate the resources supported primarily by underground chip samples that were downgraded from the Indicated to the Inferred category.

Typically, confidence level for a grade in the block model is reduced with the increase in the search ellipsoid size, along with the diminishing restriction on the number of samples used for the grade interpolation. This is essentially controlled via the pass number of the interpolation plan described in the previous section. A common technique is to categorize a model based on the pass number and distance to the closest sample.

Variograms indicated that at 90% of the sill value, the range is close to 40 m on strike, and close to 47 m in the down-dip direction. At 60% of the sill value, range is relatively short, showing approximately 10 m to 15 m. For classification purposes, AGP chose a distance to the closest sample of less than 40 m for the Indicated category, and a distance of up to 105 m to set the Inferred category.

Resource classification was also affected by the pass number, where a block would not be classified as Indicated if the interpolation used only one hole, unless the distance to the closest sample was less than 15 m.

A large area of the resource model that was supported mainly by underground chip sample was downgraded to Inferred, for the following reasons:





- Chip samples are typically not of as a good quality as drill core samples, due to bias that can be introduced in the sampling process. In this particular case, due to the poor recovery in the drill core, one can argue that the chip samples may give a more representative grade.
- No original assays certificates for the chip sample program were found to validate the grade of the samples.
- The sample string does not always completely cut across the vein possibly missing higher or lower grade material.
- There is a known issue discussed in Section 18-1 of this report, with the location of the Purísima and Rodadillos Levels. This was investigated by Source at the time the resource was completed.
- There are chip samples missing on the San Rafael Level that were not included in the dataset, because the level could not be geo-referenced with the other level plan, as stated earlier. Additional chip samples also exist in three sub-levels above the Refugio Level, and in a raise from connecting the Refugio Level to surface. These samples were made available beyond the data cut-off date.

For the mineralized fill material, all tonnages were classified as Inferred, since location, thickness, and total volume have been estimated from historical records.

Table 14-10 shows a summary of the classification parameters used for the San Acacio resource statement.

Sill	Measured	Indicated	Inferred
Vein material outside the area supported mainly by chip samples	Not used	 < 15 m distance to closest composite, with blocks interpolated from 1 or more holes. (Pass 1, 2 or 3) OR < 40 m distance to closest composite, with blocks interpolated with a minimum of 2 or more holes (Pass 1) 	>= 40 m and < 105 m distance to closest composite, with blocks interpolated from 1 or more holes. (Pass 1, 2 or 3)
Vein material supported mainly by chip samples	Not used	Not used	 >= 40 m and < 105 m distance to closest composite, with blocks interpolated from 1 or more holes. (Pass 1, 2 or 3) or Blocks that were downgraded from the indicated category
Mineralized fill	Not used	Not used	All blocks, regardless of data density or interpolation parameters

Table 14-10: Classification Parameters





Based on the criteria outlined in Table 14-10, approximately 17% of the blocks estimated in the San Acacio Model are Indicated resources. Inferred resources supported mainly by drill core assays accounted for 47% of the total volume. Inferred resources supported mainly by underground chip samples accounted for 17% of the total volume. The remaining 18% of the volume was either mineralized fill (14%) or un-interpolated blocks bearing no grade (4%). No resources were classified as measured.

14.9 Mineral Resource Tabulation

With a data cut-off date of April 13, 2010, AGP is re-stating the mineral resources for the San Acacio Silver project utilizing approximately 371 m diamond drill hole assays, supplemented by 275 underground chip samples. The resource effective date is now April 16, 2012.

The resource estimate takes into account all drilling information for the San Acacio project available up to March 25, 2010. Underground chip samples were entered for the Refugio, Level 23, Rodadillos, and Purísima Levels. Chip samples for the San Rafael Level could not be geo-referenced and additional samples in the sub-levels above the Refugio Level are known to exist; however, these did not make the data cut-off date.

The San Acacio resource estimate comprises Indicated and Inferred resources reported as silver and gold mineralization with a silver equivalent base case cut-off grade of 65 g/t instead of the 45 g/t reported by Source. The higher cut-off was selected to reflect the emphasis of Defiance developing the deposit via an underground mining method with correspondingly higher cost structures than the mixed open pit/underground scenario that Source envisaged.

The silver equivalent (AgEq) is calculated as the sum of the silver content plus 60 times the gold content, based on the same parameter used by Source. The calculation used a 2010 three-year average price of US\$14.75/oz for silver and US\$885/oz for gold. Metallurgical recoveries were not taken into account in the calculation. Using the 2012 three-year average price would probably lower the cut-off significantly.

The base-case cut-off grade chosen was determined by considering the characteristics of the deposit, the envisioned mining method, and cut-offs used at other similar deposits in Mexico.

Table 14-11 shows a summary of the result of the resource estimate at the San Acacio project. The total Indicated resource is 1.15 Mt grading at 95.8 g/t Ag and 0.20 g/t Au containing 3.55 Moz of silver and 7,600 oz Au. Credit from zinc, lead, and copper is expected; however, grade could not be interpolated due lack of assay results for these elements in the Silver Standard chip samples program. Table 14-12 shows resources at various cut-offs with the 65 g/t Ag base case underlined.





Table 14-11: San Acacio Project – Resource Estimate at a 65 g/t AgEq Cut-off

Resource Category	Tonnage (Mt)	Ag (g/t)	Au (g/t)	Ag Eq. (g/t)	Ag (Moz)	Au Oz	Ag Eq. (Moz)
Total Indicated	1.15	95.8	0.20	108.03	3.55	7,600	4.01
Inferred (drill and chip sample supported)	2.16	100.0	0.16	109.73	6.94	11,300	7.64
Inferred – Mineralized Fill	0.72	236.7	0.21	249.2	5.49	4,800	5.78
Total Inferred	2.89	134.1	0.17	144.6	12.45	16,170	13.4

Note: Rounding of tonnes may result in apparent differences between tonnes, grade, and contained metal. AgEq calculation based on the 2010 Source parameter of US\$14.75/oz for silver and US\$885/oz for gold

Table 14-12: San Acacio Project – Silver Equivalent Cut-offs – Base Case Underlined

Mineral Resource Class	AgEq Cut- off (g/t)	Tonnage (Mt)	Ag Grade (g/t)	Contained Ag (Moz)	Au Grade (g/t)	Contained Au (oz)	AgEq Grade (g/t)	Contained AgEq (Moz)
Indicated	105	0.53	122.1	2.08	0.22	3,700	135.24	2.30
	85	0.86	106.6	2.93	0.22	6,000	119.65	3.29
	<u>65</u>	<u>1.15</u>	<u>95.8</u>	<u>3.55</u>	<u>0.20</u>	<u>7,600</u>	<u>108.03</u>	<u>4.01</u>
	45	1.49	84.9	4.05	0.19	9,000	96.14	4.59
	30	1.66	79.3	4.22	0.18	9,700	90.22	4.81
	15	1.70	77.8	4.25	0.18	9,800	88.53	4.84
Drill and Chip Supported Inferred	105	0.97	133.7	4.15	0.17	5,100	143.61	4.46
	85	1.47	116.8	5.51	0.16	7,700	126.62	5.97
	<u>65</u>	<u>2.16</u>	<u>100.0</u>	<u>6.96</u>	<u>0.16</u>	<u>11,300</u>	<u>109.73</u>	<u>7.64</u>
	45	3.44	80.0	8.84	0.16	17,400	89.49	9.89
	30	5.04	63.8	10.33	0.15	24,600	72.91	11.80
	15	5.80	57.8	10.78	0.15	27,100	66.52	12.41
Mineralize Fill Inferred	105	0.70	241.5	5.43	0.21	4,700	254.16	5.72
	85	0.71	239.2	5.46	0.21	4,800	251.83	5.75
	<u>65</u>	<u>0.72</u>	<u>236.7</u>	<u>5.49</u>	<u>0.21</u>	<u>4,800</u>	<u>249.24</u>	<u>5.78</u>
	45	0.74	232.6	5.51	0.20	4,800	244.82	5.80
	30	0.82	214.4	5.62	0.18	4,800	225.50	5.91
	15	0.82	213.3	5.62	0.18	4,800	224.37	5.91





14.10 Block Model Validation

The San Acacio grade models were validated by four methods:

- visual comparison of colour-coded block model grades with composite grades on section plots
- comparison of the global mean block grades for ordinary kriging, inverse distance, nearest neighbour models, composite, and raw assay grades
- comparison using grade profiles to investigate local bias in the estimate
- naive cross validation test with composite grade versus block model grade

14.10.1 VISUAL COMPARISON

The visual comparisons of block model grades with composite grades show a reasonable correlation between values. No significant discrepancies were apparent from the sections reviewed. The orientations of the estimated grades on sections follow more or less the projection angles defined by the search ellipsoid. Reducing the minor axis dimension of the search ellipsoid, in order to avoid blending the assays across the vein structure, may marginally improve the grade interpolation, and should be considered in future resource estimates. Representative drill sections are shown in Appendix E.

14.10.2 GLOBAL COMPARISONS

Table 14-13 shows the grade statistics for the raw assays, composites, ordinary kriging, nearest neighbour and inverse distance models. Figure 14-6 shows the differences. Statistics for the silver composite mean grade compare well to raw assay grade, with a normal reduction in value partly due to the addition of zero grade assigned to the un-sample intervals during the compositing process, and also due to smoothing related to volume variance. Gold saw an increase in grade between the raw assay and composite that was investigated. The abnormality is related to a number of high-grade gold assays, without a drill core assay equivalent, in the chip samples added to the composite file. The block model mean grade, when compared against the composites, shows a normal reduction in values for all elements. More importantly, the grade of the nearest neighbour, inverse distance and ordinary Kriging at 0.00 cut-off, are all very close to each other, showing that no global bias was introduced from the interpolation method used.





Table 14-13:	Global Comparisons	 – Grade at 0.00 	Cut-off
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Methodology	Ag (g/t)	Au (g/t)
Raw Assays	79.9	0.194
Composite	72.9	0.214
Nearest Neighbour	57.2	0.132
Inverse Distance	57.0	0.139
Ordinary Kriging	56.8	0.141

Figure 14-6: San Acacio – Global Grade Comparison @ 0.00 Cut-off



14.10.3 LOCAL COMPARISONS – GRADE PROFILE

The comparison of the grade profiles (swath plots) of the raw assay, composites and estimated grade allows for a visual verification of an over- or under-estimation of the block grades at the global and local scales. A qualitative assessment of the smoothing and variability of the estimates can also be observed from the plots. The output consists of three swath plots generated at 35 m intervals in the X direction, 24 m in the Y direction and 20 m vertically for silver and gold.

The kriged estimate should be smoother than the nearest neighbour estimate, thus the nearest neighbour estimate should fluctuate around the kriged estimate on the plots or display a slightly higher grade. The composite line is generally located between the assay and the interpolated grade. A model with good composite distribution should show very few crossovers between the composite and the interpolated grade line on the plots. In the fringes of the deposits, as composite data points become sparse, crossovers are often





unavoidable. The swath size also controls this effect to a certain extent; if the swaths are too small then fewer composites will be encountered which usually results in a very erratic line on the plots.

Due to the orientation of the San Acacio deposit, the swath plot in the X-axis and Z-axis should show the best results for this model.

In general, the swath plots show good agreement, with all three methodologies showing no major local bias. The resource model appears to return higher grade at higher elevation; however, the deposit is also better drill defined in the upper section. Therefore, the trend observed may be an artefact of the drilling density. The Z-axis shows a minor crossover between 2,550 m and 2,555 m, which could not be identified visually on plan view. Grade profiles for silver are presented in Figure 14-7 to Figure 14-9, and gold grade profiles are included in Appendix F.









Figure 14-8: Y Axis Swath Plots



Figure 14-9: Z Axis Swath Plots



14.10.4 NAÏVE CROSS-VALIDATION TEST

A comparison of the average grade of the composites within a block, with the estimated grade of that block, provides an assessment of the estimation process close to measured data. Pairing of these grades on a scattered plot gives a statistical valuation of the estimates. This methodology differs from "Jack Knifing" which replaces a composite with a pseudo block





at the same location. Jack knifing evaluates, and compares the estimated grade of the pseudo-block against that of the composite grade.

It is anticipated that the estimated block grades should be similar to the composited grades within the block, but without being of exactly the same value. This is especially true with precious metal deposits, where grades bear a high nugget component, and when using ordinary Kriging, where the weights applied to the composite points are controlled by the spatial distribution in the data.

A high correlation coefficient will indicate satisfactory results in the interpolation process, while a medium to low correlation coefficient will indicate larger differences in the estimates, and would suggest a further review of the interpolation process, or it might be simply related to a low data density. Results from the pairing of the composited and estimated grades within blocks pierced by a drill hole are presented in Figure 14-10. The R² value is moderate at 0.625.



Figure 14-10: Naive Cross Validation Test Results

The regression residuals are the differences on a case-by-case basis between the actual Y values and the values calculated by the best-fit equation. These can be evaluated for normality and randomness. The frequency distribution of the residual shows the ordinary krige grade appears to return a lower grade than the composite at the composite location. Figure 14-11 shows the X-chart residual distribution of silver. The chart shows that the distribution of the residuals is scattered more or less equally on both sides of the X-axis, for silver grade above 35 g/t. Below 30 g/t Ag, the interpolation seems to be affected by the single points chip samples. It is expected that the cross-validation test results will improve as Source diminishes the reliance on chip samples with additional drilling.













15 MINERAL RESERVE ESTIMATES





16 MINING METHODS





17 RECOVERY METHODS





18 PROJECT INFRASTRUCTURE





19 MARKET STUDIES AND CONTRACTS





20 ENVIRONMENTAL STUDIES, PERMITTING, AND SOCIAL OR COMMUNITY IMPACT





21 CAPITAL AND OPERATING COSTS





22 ECONOMIC ANALYSIS





23 ADJACENT PROPERTIES

The San Acacio property is surrounded with other mining properties. Figure 23-1 shows the owners of the mineral claims as of February 2010. Of the 14 companies holding concessions in the Zacatecas district, four are larger international companies with operating mines or advanced exploration projects.

Cozamin/Capstone Mining Corp., on the Mala Noche vein system is the closest producer. The Cozamin Mine is a polymetallic (copper, silver, lead, zinc) mine located 3.8 km northnorthwest of Zacatecas City, and 5 km southwest of the town of Veta Grande. Capstone is mining the Mala Noche vein by either long hole stoping, or cut-and-fill. As of December 31, 2010, Capstone reported on their website a proven and probable reserve of 8.3 Mt grading 1.40% Cu, 1.72% Zn, 0.37% Pb, 57.4 g/t Ag and 0.17 g/t Au. The QP notes the deposit type is different than the San Acacio deposit. The QP has been unable to verify the information and further notes the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report

Arian Silver Corporation's Calicanto Property consists of three contiguous mining concessions, totalling approximately 45.12 ha. It is located, approximately 6 km South of San Acacio. The veins on the Calicanto Property consist of silicified and brecciated andesite, containing disseminated sulphide, predominantly pyrite. Other sulphides include sphalerite, galena, chalcopyrite, proustite, pyrargyrite and occasional native silver. Mineralisation on the Calicanto Property is typical of low-sulphidation epithermal deposits common in Mexico and other parts of the world. As of April 2007, Arian was conducting underground sampling and drilling.

Oro Mining owns a number of properties in the Zacatecas district. Their main project is the El Compas Mine located South of Zacatecas. Oro reported on their web site that between 2003 and 2007, the mine produced 55,100 tonnes at 7.99 g/t Au and 96.6 g/t Ag. In 2010, Oro reported results from a NI 43-101 Resource Estimate of 524,000 Indicated tonnes grading 4.38 g/t Au and 65.5 g/t Ag and 419,000 Inferred tonnes grading 3.98 g/t Au and 47.5 g/t Ag. The QP notes the deposit type is similar to the San Acacio deposit. The QP has been unable to verify the information and further notes the information is not necessarily indicative of the mineralization on the property that is the subject of the technical report.



DEFIANCE SILVER CORP. Technical Report, San Acacio Deposit, Zacatecas, Mexico





Figure 23-1: Mining Concessions and Neighbouring Properties

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24 OTHER RELEVANT DATA AND INFORMATION

24.1 Purísima Level Location

The Purísima Level used for this resource estimate was geo-referenced using the surveyed coordinate of the Purísima adit portal entrance as a base. Once the level was digitized in GEMS, AGP noted (Figure 24-1) that the actual surveyed location of the San Genaro shaft is 122 m southeast of the location indicated on the Silver Standard plan. A survey error in relation to the azimuth of the Purísima adit was suspected, and PEG requested Source to resurvey the adit. It is not certain if this work has been completed.

It is expected that once corrected, the resulting shift of the Purísima Level should not affect the overall tonnage and grade of the resource, but will most certainly shift a series of blocks in the resource estimate by about 120 m southeast, for an area of the model that is influenced by the Purísima and Rodadillos underground chip samples.







Figure 24-1: Purísima Level Location







25 INTERPRETATION AND CONCLUSIONS

The San Acacio project is located at approximately latitude 22° 49.438' north, and longitude 102° 32.776' west, and is situated within the Veta Grande vein system, approximately 10 km north from of the town centre of Zacatecas, Mexico, and about 1 km east-southeast of the village of Veta Grande. The property can be accessed through an extensive network of paved and/or gravel roads.

The San Acacio property comprises ten mineral titles, covering 746.6 ha, located in the Zacatecas mining district, which is located at the transition of the eastern flank of the southern Sierra Madre Occidental province and the north-western limit of the Mesa Central physiographic province.

The Chilitos Formation is host to the Veta Grande Vein system. It is a volcano-sedimentary sequence made up of massive and pillowed lavas of basaltic-andesitic composition, with intercalations of sedimentary, volcaniclastic and calcareous rocks, metamorphosed to greenschist facies. The deposit is a classic low sulphidization epithermal silver-gold system.

Mineralization consists of veins originating in the filling of faults and fractures. The principal vein is the Veta Grande whose strike varies from 45° north to 60° west, with a dip of 60° to 70° to the southwest, and has a width of 0.5 to 10 m, reaching more than 20 m in some places, due to land slips in the foot wall of the vein.

The underground workings on the portion of the Veta Grande controlled by Sr. Gutierrez located to the NW of the San Acacio property extend to a vertical depth of 335 m, and in the past accessed four separate veins, of which the Veta Grande was the most important. In the vicinity of the San Genaro shaft on the San Acacio property, the underground workings are believed to extend to a maximum depth of 300 m below the surface with the average vertical depth between 200 m and 250 m as indicated on the historical long section.

. While Spanish colonials were able to mine the rich oxide portion of the veins, they lacked the technology to extract silver from sulphide ores at depth. The mines were closed during the Mexican Revolution. A number of summary reports from 1935 to the present describe the work done on the property by Pittsburgh-Vetagrande Co., American Metals Co., James R. Berry, Cia. Minas de San Acacio, Minas de San Luis, S.A. de C.V., Silver Standard (1994 to 1996), Atlas Mining Co. and their subsidiary Minera Argentum S.A. de C.V. (2001), and the present underlying owner, the Amado Mesta family. In 2008 Source acquired an option to purchase a 100% interest of the San Acacio silver property from Sterling and its Mexican subsidiary Sterling Mining de Mexico S.A. de C.V., subject to a series of cash payments, share allocations, and work commitments. Most recently in October 2011, Defiance Silver Corp





acquired an option to explore, exploit, and purchase a 100% interest in the San Acacio assets from the Amado Mesta family.

The San Acacio Mine is known to have been mined more recently by a reusing mining method, whereby the ore was drilled and blasted using dynamite. The broken muck was hand-sorted in the stope, extracting only the highest-grade material by wheelbarrow, and leaving the lower-grade material behind as fill. This mineralized fill now forms a portion of the Inferred resources at San Acacio.

A total of 32 diamond drill holes were completed by late November 1995 by Silver Standard, and 4060.87 m of BQ, NQ and HQ diameter core holes were logged, split, and sampled. The 1995 drill program from Silver Standard is relevant to this study, since many of the results from this program form the basis of the resource estimate.

Between 23 October 2009 and 28 February 2010, Source completed a total of eight HQ-NQ-size diamond-drill holes totalling 3,414 m. Source also re-surveyed portions of the underground excavations that are still accessible and conducted detailed topography over the most recent surface excavations done since Sterling Mining. The diamond drill program carried out at the San Acacio property by Source established the downward extension of the Veta Grande Vein to depth, and identified other parallel structures. An additional 3 underground drill holes were completed by Source after the data cut-off date and were not included in this resource.

AGP performed data verification through a site visit, as well as the collection of independent character samples, and a database audit, prior to mineral resource estimation. AGP found numerous clerical errors in the Silver Standard database, and re-built 98% of the entire assay database from original assay certificates. The 2010 Source data was error-free, and the completed database is now usable for mineral resource estimation.

The historical SGs of 2.55 g/cm³ for vein material and 1.75 g/cm³ for the mineralized fill material were used in the resource. AGP believes that the specific gravity determinations constitute a good representation of the in situ bulk density of the vein and fill material, until Defiance can gather new density values from the on-going exploration program.

Mineral resources at San Acacio were classified using logic consistent with the CIM definitions referred to in NI 43-101 guidelines. At San Acacio, the mineralization, density and position of the drill holes satisfies sufficient criteria to be classified in the Indicated and Inferred categories, with special exceptions made for resources supported mainly by underground chip samples, which were downgraded to Inferred regardless of the data density. All Mineralized fill material has been classified as Inferred, due to uncertainty related to quantity, tenor, and location.





AGP concludes that at the 65 g/t Ag equivalent cut off base case, the geological resource model yielded a total Indicated resource of 1.15 Mt grading, at 95.8 g/t Ag and 0.20 g/t Au, containing 3.55 Moz of silver and 7,600 oz Au. Significant credit from zinc, lead, and copper is expected; however, the lack of assay results for these elements in the Silver Standard chip samples program prevented the interpolation of the grade. The Inferred resource totalled 2.89 Mt grading, at 134 g/t Ag and 0.17 g/t Au, containing 12.45 Moz of silver and 16,170 oz Au. Eighty-two percent of the Inferred resources are contained in vein material, supported mainly by historical underground chip samples, with the remaining 18% contained in mineralized fill material left by previous operators.

AGP also draws the following conclusions:

The 1995 Silver Standard drill program met industry standards <u>at the time the drilling was</u> <u>conducted</u>, and has no reason to believe otherwise.

For the 1995 Silver Standard and the 2004 to 2006 Sterling Mining underground chip sample program, AGP was unable to retrieve the original assay certificates and relied on the information plotted on level plans. This is a risk to the project however AGP is of the opinion the data is of sufficient quality to support resource estimation in the Inferred category only for the area of the model supported mainly by underground chip samples.

For the 2009 and 2010 drill program, sample preparation, assay, and security procedures employed by Source at the San Acacio Deposit are appropriate for the style of mineralization and the commodities of interest, and are suitable to support mineral resource estimation:

- Preparation procedures are consistent with industry-standard methods, and suitable for the deposit style.
- A QA/QC program comprising blank, standard and duplicate samples has been used on the Project since the 2004 drill program. QA/QC submission rates meet industryaccepted standards of insertion rates.
- Current sample storage procedures and storage areas are consistent with industry standards.

The mineralized fill volume was difficult to create with any sense of precision, mainly due to lack of record-keeping by the historical mine operators in the early 1900s. Data use in the construction of the fill volume was sourced from a historical long section that may or may not be complete and surface examination in the area of old workings. The excavated material still represents the greatest risk to the resource for all material above the Purísima level and in AGP's opinion there is very little that can be done to significantly mitigate this risk

As discussed in section 24 of this report, the Purísima Level used for this resource estimate was geo-referenced using the surveyed coordinate of the Purísima adit portal entrance as a base.




Once the level was digitized in GEMS, AGP noted that the actual surveyed location of the San Genaro shaft is 122 m southeast of the location indicated on the Silver Standard plan. A survey error in relation to the azimuth of the Purísima adit was suspected, and PEG requested Source to re-survey the adit. It is not certain if this work has been completed.

It is expected that once corrected, the resulting shift of the Purísima Level should not affect the overall tonnage and grade of the resource, but will most certainly shift a series of blocks in the resource estimate by about 120 m southeast, for an area of the model that is influenced by the Purísima and Rodadillos underground chip samples.

The authors are not aware of any other information on the properties, which would affect their interpretation or conclusions regarding the subject properties.





26 RECOMMENDATIONS

In order to expand the resource and improve the data set, AGP recommends the following:

- To support Defiance Silver's longer term goal to expand the resource, drilling below the current Indicated resource to depths of 200 m below the Purísima adit is recommended. This is to determine if sufficient material of suitable grade is available for a possible underground mining scenario. This can be accomplished with a two phase program, the first phase consisting of 2,150 m drilling beneath the San Jose and Guadalupe stopes and a second phase of up to 2,625 m beneath the Almaden Stope.
- The second phase drill program will also intersect the Veta Navidad target, with the aim of possibly expanding that resource.
- Defiance should seek to eliminate the reliance on chip samples bearing only silver and gold assays in order to allow the interpolation of copper, lead, and zinc in future models. Until this can be accomplished via diamond drilling or re-sampling the headings, chip samples from the Intermedio Shaft and the three sub levels above the El Refugio Level should be incorporated in the future revision of the resource model.
- Collection of SG data should be incorporated in the future drill program. SG determination should be carried out automatically at a rate of one sample every 5 m. The SG data collection should also incorporate waste rocks. This work can be done in-house with the purchase of a specific gravity scale for less than \$500.
- With additional drilling, future resource models should revisit the exact location of the Purísima and Rodadillos levels. Every effort should be made to geo-reference the San Rafael Level and to incorporate its location with the remaining information in the GEMS database.
- As part of the next drill campaign, AGP recommends the implementation of a comprehensive geotechnical data-collection program. Guidance regarding the proper collection methodologies should be sought from a specialized firm, to ensure the data will be usable in a preliminary economic assessment study. Collection of geotechnical information can be done in-house with appropriate training from a geotechnical consulting group.

Following the site visit, an audit of the project database, and review of the QA/QC program, AGP recommends the following:





- Defiance should change the laboratory procedure that was used by Source for the base metal assay to a four-acid digestion.
- Defiance should introduce control charts sorted by dates, which can be used to locate deteriorating trends in the analytical procedures even though the QA/QC results may be above the fail mark.
- Coarse rejects and pulps from earlier assays should be inserted in the sample stream with a new tag number, in order to incorporate a blind course and pulp duplicate procedure to the QA/QC protocol. This recommendation assumes rejects and pulp samples are shipped back from the laboratory in a timely fashion. This additional protocol is optional, and should be considered on larger drill programs. Obviously, the additional cost of adding this procedure to the QA/QC program should be weighed against the benefit obtained.

26.1 Proposed Budget

The estimated cost of drilling at the San Acacio project is approximately \$175/m. These costs include direct drilling costs, drill supervision and assaying.

Drill collar locations for both phases of drilling are shown in Table 26-1 and illustrated in Figure 26-1. The first phase of drilling includes three, three-hole sections for a total of nine drill holes beneath the eastern part of the current resource. These holes are designed to expand the resource down dip, beneath the old stopes. Cost of this first phase is estimated at \$481,250. An additional geological technician will probably be needed for the geotechnical and specific gravity data collection. Cost for this extra person is estimated at \$8000 for the duration of the drill program.

The second phase of drilling consists of another set of three, 3-hole sections drilled beneath the western part of the current resource. These holes are also designed to expand the current resource down dip. Cost of this second phase is estimated at \$424,375.

The drill collar locations are contingent on surface rights being granted to Defiance.

Hole	Northing	Easting	Bearing	Inclination	Depth (m)
PHASE I					
DEF12-1	2,526,067	751,825	30	-75	185
DEF12-2	2,526,067	751,825	30	-80	230
DEF12-3	2,526,067	751,825	30	-90	290
DEF12-4	2,525,977	751,885	30	-72	255
DEF12-5	2,525,977	751,885	30	-81	280

Table 26-1: 2012 Proposed Diamond Drilling





Hole	Northing	Easting	Bearing	Inclination	Depth (m)
DEF12-6	2,525,977	751,885	30	-90	355
DEF12-7	2,526,110	751,767	30	-73	220
DEF12-8	2,526,110	751,767	30	-80	260
DEF12-9	2,526,110	751,767	30	-90	320
Total Phase I					2750
PHASE II					
DEF12-10	2,526,249	751,469	30	-70	270
DEF12-11	2,526,249	751,469	30	-80	350
DEF12-12	2,526,249	751,469	30	-87	390
DEF12-13	2,526,206	751,559	30	-77	255
DEF12-14	2,526,206	751,559	30	-83	300
DEF12-15	2,526,206	751,559	30	-90	365
DEF12-16	2,526,394	751,444	30	-70	115
DEF12-17	2,526,394	751,444	30	-81	160
DEF12-18	2,526,394	751,444	30	-90	220
Total Phase II					2425















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28 CERTIFICATE OF QUALIFIED PERSON

28.1 Pierre Desautels, P.Geo.

I, Joseph Rosaire Pierre Desautels, P.Geo., of Barrie, Ontario do hereby certify that as the sole qualified person (QP) of this Technical Report, San Acacio Deposit, Zacatecas, Mexico, dated 16 April 2012; I hereby make the following statements:

- I am a Principal Geologist with AGP Mining Consultants Inc., with a business address at 92 Caplan Avenue, Suite 610, Barrie, Ontario, L4N 0Z7.
- I am a graduate of Ottawa University (B.Sc. Hons., 1978).
- I am a member in good standing of the Association of Professional Geoscientists of Ontario, Registration #1362.
- I have practiced my profession in the mining industry continuously since graduation.
- I have read the definition of "qualified person" set out in National Instrument 43-101 (NI 43-101) and certify that, by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purpose of NI 43-101.
- My relevant experience with respect to resource modelling includes 30 years' experience in the mining sector covering database, mine geology, grade control and resource modelling. I was involved in numerous projects around the world in both base metals and precious metals deposits.
- I visited the project site from January 25 to January 29, 2010 for a period of 4 days.
- I am responsible for the entire technical report titled "Technical Report, San Acacio Deposit, Zacatecas, Mexico, dated 16 April 2012 with exceptions made for the portion of the report that are outside my area of expertise and where I relied on the opinion of other experts as stated in section 3 of this report. I have no prior involvement with the property that is the subject of the Technical Report except as noted in this report.
- As of the date of this Certificate, to my knowledge, information and belief, this technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.
- I am independent of the Issuer and the vendor (Amado Mesta Howard, Minera San Acacio S.A. and Calidad Estrategica Cencorp S.A) as defined by Section 1.5 of the Instrument.





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

Signed and dated this 16th day of April 2012, at Barrie, Ontario.

"Original Signed and Sealed" Pierre Desautels, P.Geo





APPENDIX A

RAW ASSAYS STATISTICS



Descriptive Statistics [Subset]Data Point FilterTrench - Veta Grande

	AU_PPM	AG_PPM
Valid cases	174	174
Mean	0.185	161.397
Std. error of mean	0.041	14.803
Variance	0.299	38125.917
Std. Deviation	0.547	195.259
Variation Coefficient	2.957	1.210
rel. V.coefficient(%)	22.419	9.172
Skew	6.221	3.122
Kurtosis	44.637	12.961
Minimum	0.000	4.000
Maximum	5.070	1337.000
Range	5.070	1333.000
Sum	32.165	28083.000
1st percentile	0.004	4.750
5th percentile	0.005	9.750
10th percentile	0.005	25.000
25th percentile	0.010	51.750
Median	0.045	93.500
75th percentile	0.130	204.000
90th percentile	0.310	369.500
95th percentile	0.867	555.250
99th percentile	3.787	1280.000
Geom. mean		93.533

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Descriptive Statistics [Subset]Data Point FilterChip - Veta Grande

	AU_PPM	AG_PPM
Valid cases	254	254
Mean	0.268	74.456
Std. error of mean	0.015	7.859
Variance	0.059	15686.306
Std. Deviation	0.242	125.245
Variation Coefficient	0.905	1.682
rel. V.coefficient(%)	5.679	10.555
Skew	1.702	5.338
Kurtosis	4.010	40.127
Minimum	0.000	2.600
Maximum	1.490	1297.000
Range	1.490	1294.400
Sum	68.031	18911.800
1st percentile	0.000	4.220
5th percentile	0.010	6.400
10th percentile	0.030	9.100
25th percentile	0.099	16.400
Median	0.198	37.000
75th percentile	0.391	75.200
90th percentile	0.580	187.500
95th percentile	0.770	249.000
99th percentile	1.200	688.750
Geom. mean		37.448

Descriptive Statistics [Subset]Data Point FilterDDH - VetaG (No stope void or backfill)

	AU_PPM	AG_PPM
Valid cases	315	315
Mean	0.151	75.143
Std. error of mean	0.016	7.467
Variance	0.080	17563.249
Std. Deviation	0.282	132.526
Variation Coefficient	1.877	1.764
rel. V.coefficient(%)	10.573	9.937
Skew	3.621	4.915
Kurtosis	15.834	34.066
Minimum	0.000	0.200
Maximum	1.960	1290.000
Range	1.960	1289.800
Sum	47.410	23669.950
1st percentile	0.000	0.232
5th percentile	0.005	1.360
10th percentile	0.005	2.320
25th percentile	0.005	7.200
Median	0.035	29.200
75th percentile	0.158	85.200
90th percentile	0.442	195.000
95th percentile	0.644	278.800
99th percentile	1.733	764.240
Geom. mean		24.953

Descriptive Statistics [Subset]Data Point FilterALL - VetaG (No stope void or backfill)

	AU_PPM	AG_PPM
Valid cases	743	743
Mean	0.199	95.107
Std. error of mean	0.013	5.566
Variance	0.126	23015.851
Std. Deviation	0.355	151.710
Variation Coefficient	1.788	1.595
rel. V.coefficient(%)	6.559	5.852
Skew	6.115	4.241
Kurtosis	61.189	24.860
Minimum	0.000	0.200
Maximum	5.070	1337.000
Range	5.070	1336.800
Sum	147.606	70664.750
1st percentile	0.000	0.600
5th percentile	0.005	2.640
10th percentile	0.005	5.800
25th percentile	0.015	15.600
Median	0.090	44.000
75th percentile	0.235	108.000
90th percentile	0.513	233.000
95th percentile	0.690	350.800
99th percentile	1.669	771.840
Geom. mean		39.064

WinSTAT

Descriptive Statistics [Subset]Data Point FilterCHIP and DDH - VetaG and VetaN (No stope void or backfill)

	AU_PPM	AG_PPM
Valid cases	601	601
Mean	0.195	79.813
Std. error of mean	0.011	7.279
Variance	0.072	31840.947
Std. Deviation	0.268	178.440
Variation Coefficient	1.375	2.236
rel. V.coefficient(%)	5.609	9.120
Skew	2.747	9.862
Kurtosis	10.549	142.837
Minimum	0.000	0.200
Maximum	1.960	3090.000
Range	1.960	3089.800
Sum	116.932	47967.550
1st percentile	0.000	0.404
5th percentile	0.005	2.000
10th percentile	0.005	4.420
25th percentile	0.015	11.300
Median	0.100	31.500
75th percentile	0.260	81.300
90th percentile	0.529	194.500
95th percentile	0.680	277.600
99th percentile	1.419	728.500
Geom. mean		29.181

Means [Subset]

Data Filter

ALL - VetaG and VetaN (No stope void or backfill)

Variable: AU_PPM grouped by: TYPE

	95%							
	Ν	Mean	Conf. (±)	Std.Error	Std.Dev.			
CHIP	254	0.268	0.030	0.015	0.242			
DDH	347	0.141	0.029	0.015	0.273			
TRENCH	174	0.185	0.082	0.041	0.547			
Entire sample	775	0.192	0.025	0.013	0.350			



Means [Subset]



ALL - VetaG and VetaN (No stope void or backfill)

Variable: AG_PPM grouped by: TYPE

	95%						
	N	Mean	Conf. (±)	Std.Error	Std.Dev.		
CHIP	254	74.456	15.477	7.859	125.245		
DDH	347	83.734	22.075	11.223	209.067		
TRENCH	174	161.397	29.217	14.803	195.259		
Entire sample	775	98.130	13.072	6.659	185.378		



Box & Whisker [Subset]



	Min	5%	25%	Median	75%	95%	Мах
CHIP	2.600	6.400	16.400	37.000	75.200	249.000	1297.000
DDH	0.200	1.200	7.000	28.000	83.600	286.200	3090.000
TRENCH	4.000	9.750	51.750	93.500	204.000	555.250	1337.000

Box & Whisker [Subset]



	Min	5%	25%	Median	75%	95%	Max
CHIP	0.000	0.010	0.099	0.198	0.391	0.770	1.490
DDH	0.000	0.005	0.005	0.030	0.145	0.625	1.960
TRENCH	0.000	0.005	0.010	0.045	0.130	0.867	5.070

WinSTAT

214.154

11.133

Means [Subset] Data Point Filter

DDH - VetaG and VetaN

370

Variable: AG_PPM grouped by: LITHO

			95%		
	Ν	Mean	Conf. (±)	Std.Error	Std.Dev.
Alt Ka	79	72.861	36.186	18.176	161.552
Backfill	17	246.882	122.187	57.636	237.639
Flt	2	128.900	771.000	77.100	109.036
Ka	27	46.415	27.140	13.203	68.604
Qtz	4	30.200	43.536	13.680	27.360
QzBx	181	105.057	38.596	19.560	263.147
SphStr	28	40.502	19.224	9.369	49.577
sphstr	26	58.404	36.713	17.826	90.894
Stope	4	152.925	306.536	96.321	192.641
Stope?	2	492.500	985.000	98.500	139.300
Void	0				

21.893





94.188



Box & Whisker [Subset] Data Filter DDH - VetaG and VetaN

	Min	5%	25%	Median	75%	95%	Max
Alt Ka	0.200	0.800	5.600	19.000	82.600	282.000	1290.000
Backfill	5.200		77.900	167.000	328.000		938.000
Flt	51.800			128.900			206.000
Ka	0.400	0.480	3.100	22.400	60.200	257.600	274.000
Qtz	15.400		15.550	17.100	57.950		71.200
QzBx	0.700	1.610	7.700	34.000	109.750	367.000	3090.000
SphStr	0.400	0.490	6.600	20.200	52.937	170.550	180.000
sphstr	0.200	0.340	11.000	24.800	72.300	347.550	350.000
Stope	8.400		9.000	93.150	356.625		417.000
Stope?	394.000			492.500			591.000
Void							



APPENDIX B

CAPPING STATISTICS



Source Exploration - San Acacio Capping Sensitivity

				-					
								Percent	PEG
				Average		Number	Percent	Metal	Suggested
Lenses or zone	Method	Rec	Cap_Level	Grade	Total Samples	Capped	capped	Capped	level
Veta Grande	Uncapped		99999	75.14	315	0	-	0.00	
SILVER	Hist Prob		600	70.84	315	3	0.95	7.31	
	Capping Chart		500	69.75	315	4	1.27	8.91	600 Can
	Decile @98 perc. Avg	с	433	68.83	315	6	1.90	10.21	000 Cap
	Decile @99 perc. Avg		925	73.56	315	2	0.63	2.99	300 SR
	Cap at		601	70.85	315	3	0.95	7.29	
	Mild outliers at 300		300	64.96	315	13	4.13	15.48	
Veta Grande	Uncapped		99999	0.15	315	0	-	(0.00)	
GOLD	Hist Prob		0.8	0.13	315	9	2.86	9.90	
	Capping Chart		1.8	0.15	315	2	0.63	0.30	1 5 Can
	Decile @98 perc. Avg	С	1.13	0.14	315	7	2.22	5.33	1.5 Cup
	Decile @99 perc. Avg		1.778	0.15	315	2	0.63	0.35	0.7 SR
	Cap at		1.5	0.15	315	4	1.27	1.48	
	Mild outliers (2*sigma)		0.7	0.13	315	14	4.44	11.96	

 Rec is the recommendation based on the Decile analysis

 C
 Capping recommended Last decile and last centile have more than their share of metal

 M
 Marginal - OK in the decile however the last centile has more than its share on metal

 NC
 No capping recommended

Decile analysis Report and Capping study

Decile Analysis Vote C = AC (a/t) from DDH (Eval Stopes and be

Deche Allarysis Veta O - AO (g/t) it olli DDH (Exci Stopes and Da								
				Element		Total		
From	То	Count	Mean	Min	Max	Metal	Percent	Capping Note
Decile								
0	10	31	1.261	0.200	2.200	51.87	0.15	
10	20	32	4.206	2.400	5.800	173.29	0.49	
20	30	31	7.677	5.800	10.000	296.20	0.83	
30	40	32	14.609	10.200	19.000	605.04	1.70	
40	50	31	24.213	19.000	29.000	996.53	2.81	
50	60	32	35.400	29.200	43.600	1,599.62	4.50	
60	70	31	56.473	44.400	65.800	2,155.40	6.07	
70	80	32	87.506	65.800	113.000	4,516.76	12.72	
80	90	31	150.274	113.000	192.500	6,415.76	18.07	
90	100	32	365.563	195.000	1,290.000	18,703.66	52.67	>40 >2.3x >50 <3x
Percentile								
90	91	3	196.667	195.000	200.000	739.50	2.08	
91	92	3	216.000	206.000	223.000	728.70	2.05	
92	93	3	232.000	230.000	233.000	1,236.08	3.48	
93	94	4	250.250	246.000	254.000	1,351.64	3.81	
94	95	3	269.333	260.000	274.000	1,051.20	2.96	
95	96	3	283.000	278.000	289.000	1,935.46	5.45	
96	97	3	340.333	339.000	343.000	2,045.79	5.76	
97	98	3	361.333	350.000	367.000	1,416.54	3.99	
98	99	3	433.667	416.000	446.000	1,775.90	5.00	
99	100	4	925.000	545.000	1,290.000	6,422.85	18.09	>10>1.75x>15>2x
Total								
0	100	315	75.143	0.200	1,290.000	35,514.13	100.00	
Interpretation no	-							

Interpretation notes:

Capping is warranted i

the last decile has more than 40 percent of metal; or,

the last decile contains more than 2.3 times the metal quantity contained in the one before last; or,

the last centile contains more than 10 percent of metal; or,

the last centile contains more than 1.75 times the metal quantity contained in the one before last.

---- Exception will be made if all following conditions are met:

the last decile has more than 50 percent metal; and,

the last decile contains more than 3 times the metal quantity contained in the one before last; and,

the last centile contains more than 15 percent of the metal; and,

the last centile contains more than 2 times the metal quantity contained in the one before last.



Veta G - AG (g/t) from DDH (Excl Stopes and backfill)

Veta G - AG (g/t) from DDH (Excl Stopes and backfill)

Capping Study Report

Element Ba	sic Statistic	s						
Count	315	Min	0.200	Average	75.14	43	Max	1290.000
Variance	7563.249	Std Deviation	132.526	First Quart	ile 7.2	. 00	Third Quartile	83.600
Cap Leve	l Bins	Average Grade	Numbe	er capped	Percent N	lb capped	Percent Me	tal capped
126	1 65	75.053		1		0.317		0.171
122	9 30	74.950		1		0.317		0.366
119	6.95	74.847		1		0.317		0.561
116	4.60	74.745		1		0.317		0.756
113	2.25	74.642		1		0.317		0.951
109	9.90	74.539		1		0.317		1.145
106	7.55	74.437		1		0.317		1.340
103	5.20	74.258		2		0.635		1.676
100	2.85	74.053		2		0.635		2.062
97	0.50	73.847		2		0.635		2.449
93	8.15	73.642		2		0.635		2.835
90:	5.80	73.437		2		0.635		3.221
87.	3.45	73.231		2		0.635		3.607
84	1.10	73.026		2		0.635		3.993
80	8.75	72.820		2		0.635		4.380
77	6.40	72.521		3		0.952		4.828
744	4.05	72.213		3		0.952		5.283
71	1.70	71.905		3		0.952		5.737
67	9.35	71.597		3		0.952		6.192
64	7.00	71.289		3		0.952		6.647
614	4.65	70.981		3		0.952		7.101
58	2.30	70.673		3		0.952		7.556
54	9.95	70.364		3		0.952		8.010
51	7.60	69.969		4		1.270		8.583
48	5.25	69.559		4		1.270		9.177
452	2.90	69.148		4		1.270		9.771
420	0.55	68.598		6		1.905		10.529
38	8.20	67.893		7		2.222		11.477
35:	5.85	67.103		9		2.857		12.527
32	3.50	65.935		13		4.127		14.116
29	1.15	64.600		13		4.127		15.988
25	8.80	62.934		19		6.032		18.421
220	6.45	60.627		26		8.254		21.719
194	4.10	57.724		32		10.159		25.765
16	1.75	54.176		40		12.698		30.593
12	9.40	48.964		57		18.095		37.477
9	7.05	42.375		72		22.857		46.103
64	4.70	33.827		100		31.746		57.521
32	2.35	21.355		150		47.619		73.502
	0.00	0.000		315		100.000		100.000





Decile analysis Report and Capping study

Decile Analysis Veta G -AU (g/t) from DDH (excl stope and Back								
			Element		Total	Total		
From	То	Count	Mean	Min	Max	Metal	Percent	Capping Note
Decile								
0	10	31	0.003	0.000	0.005	0.13	0.21	
10	20	32	0.005	0.005	0.005	0.23	0.37	
20	30	31	0.006	0.005	0.010	0.27	0.43	
30	40	32	0.015	0.010	0.020	0.70	1.11	
40	50	31	0.027	0.020	0.034	1.09	1.73	
50	60	32	0.050	0.035	0.073	2.12	3.37	
60	70	31	0.098	0.075	0.120	3.79	6.02	
70	80	32	0.159	0.120	0.200	6.43	10.24	
80	90	31	0.301	0.200	0.440	13.81	21.97	
90	100	32	0.830	0.440	1.960	34.28	54.55	>40 >2.3x >50 <3x
Percentile								
90	91	3	0.447	0.440	0.455	2.15	3.42	
91	92	3	0.488	0.475	0.510	1.96	3.12	
92	93	3	0.560	0.515	0.584	1.87	2.98	
93	94	4	0.603	0.593	0.615	4.26	6.78	
94	95	3	0.623	0.620	0.625	2.31	3.67	
95	96	3	0.672	0.635	0.700	3.33	5.30	
96	97	3	0.733	0.720	0.755	2.41	3.84	
97	98	3	0.841	0.770	0.950	3.26	5.18	
98	99	3	1.317	1.140	1.420	5.84	9.29	
99	100	4	1.778	1.540	1.960	6.89	10.96	>10 <1.75x <15 <2x
Total								
0	100	315	0.151	0.000	1.960	62.84	100.00	
Interpretation no	stoc:							

Interpretation notes:

Capping is warranted i

the last decile has more than 40 percent of metal; or,

the last decile contains more than 2.3 times the metal quantity contained in the one before last; or,

the last centile contains more than 10 percent of metal; or,

the last centile contains more than 1.75 times the metal quantity contained in the one before last.

---- Exception will be made if all following conditions are met:

the last decile has more than 50 percent metal; and,

the last decile contains more than 3 times the metal quantity contained in the one before last; and,

the last centile contains more than 15 percent of the metal; and,

the last centile contains more than 2 times the metal quantity contained in the one before last.



Veta G -AU (g/t) from DDH (excl stope and Backfill)

Veta G -AU (g/t) from DDH (excl stope and Backfill)

Capping Study Report

Element Basic Statistics								
Count	315	Min	0.000	Average	0	.151	Max	1.960
Variance	0.080	Std Deviation	0.282	First Quar	tile 0	.005	Third Quartile	0.157
Cap Level	Bins	Average Grade	Numb	er capped	Percent	Nb capped	d Percent Meta	I capped
30	90	0.151		0		0.000		0.000
3.8	80	0.151		0		0.000		0.000
3.7	70	0.151		0		0.000		0.000
3.0	50	0.151		0		0.000		0.000
3.5	50	0.151		0		0.000		0.000
3.4	40	0.151		0		0.000		0.000
3.3	30	0.151		0		0.000		0.000
3.2	20	0.151		0		0.000		0.000
3.1	10	0.151		0		0.000		0.000
3.0	00	0.151		0		0.000		0.000
2.9	9 0	0.151		0		0.000		0.000
2.8	80	0.151		0		0.000		0.000
2.7	70	0.151		0		0.000		0.000
2.0	50	0.151		0		0.000		0.000
2.5	50	0.151		0		0.000		0.000
2.4	40	0.151		0		0.000		0.000
2.3	30	0.151		0		0.000		0.000
2.2	20	0.151		0		0.000		0.000
2.1	10	0.151		0		0.000		0.000
2.0	00	0.151		0		0.000		0.000
1.9	9 0	0.150		1		0.317		0.105
1.8	80	0.150		2		0.635		0.302
1.7	70	0.149		3		0.952		0.633
1.0	50	0.148		3		0.952		1.007
1.5	50	0.147		4		1.270		1.484
1.4	40	0.146		5		1.587		2.165
1.3	30	0.144		6		1.905		3.312
1.2	20	0.142		6		1.905		4.490
1.1	10	0.140		7		2.222		5.724
1.0	00	0.138		7		2.222		7.045
0.9	9 0	0.135		8		2.540		8.438
0.8	80	0.133		9		2.857		9.905
0.7	70	0.129		14		4.444		11.956
0.0	50	0.124		22		6.984		15.207
0.5	50	0.116		27		8.571		20.426
0.4	40	0.106		36		11.429		27.136
0.3	30	0.094		46		14.603		36.390
0.2	20	0.077		64		20.317		48.306
0.1	10	0.050		113		35.873		66.366
0.0	00	0.000		315		100.000	1	.00.000







APPENDIX C

COMPOSITE STATISTICS



Descriptive Statistics

Combination Chip and DDH

	AG_PPM	AU_PPM
Valid cases	577	577
Mean	78.5	0.215
Std. error of mean	5.6	0.011
Variance	18083.1	0.066
Std. Deviation	134.5	0.257
Variation Coefficient	1.7	1.198
rel. V.coefficient(%)	7.1	4.987
Skew	5.0	2.048
Kurtosis	34.2	5.206
Minimum	0.0	0.000
Maximum	1297.0	1.540
Range	1297.0	1.540
Sum	45267.2	123.937
1st percentile	0.5	0.000
5th percentile	3.7	0.002
10th percentile	6.2	0.003
25th percentile	15.1	0.025
Median	36.2	0.134
75th percentile	91.5	0.298
90th percentile	190.9	0.570
95th percentile	278.7	0.752
99th percentile	746.7	1.335
Geom. mean		

Means

Variable: AG_PPM grouped by: TYPE



Means

Variable: AU_PPM grouped by: TYPE



Box & Whisker



	Min	5%	25%	Median	75%	95%	Max
CHIP	2.60	6.43	16.30	36.20	72.20	241.50	1297.00
DDH	0.00	1.61	10.64	36.60	102.61	324.11	1290.00
Box & Whisker



	Min	5%	25%	Median	75%	95%	Max
CHIP	0.000	0.015	0.105	0.210	0.410	0.804	1.490
DDH	0.000	0.002	0.008	0.039	0.168	0.639	1.540



Percentage of metal in remnant - All Zones 2m. Composites - Ag_ppm values



APPENDIX D

VARIOGRAPHY SUMMARY



Veta Grande AG

OK interpolation									
			To reach next hole						
	From Vario	Multiplier	Pass1	Multiplier	Pass 2	Multiplier	Pass 3		
Range X	85	0.4	34	1.7	58	1.8	104		
Range Y	75	0.4	30	1.7	51	1.8	92		
Range Z	30	0.4	12	1.7	20	1.8	37		

Search Ellipsoids	Sub1	Sub2	Sub3
Rotation Z	-38	-38	-38
Rotation X	60	68	79
Rotation Z	10	10	10

On Strike

Across

200.0



Down Dip







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APPENDIX E

DRILL SECTIONS





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APPENDIX F Swath Plots













