

# Cerro Caliche

## Project Development Report Update



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## **QUALIFIED PERSON / LEGAL CAUTIONS**

All scientific or technical information contained in this report has been reviewed and approved by Stephen Kenwood, P.Geo., a Director of Sonoro Gold Corp., who is a "Qualified Person" as defined in National Instrument 43-101 of the Canadian Securities Administrators.

Forward-Looking Statement Cautions: This report contains certain "forward-looking statements" within the meaning of Canadian securities legislation, relating to, among other things, the Company's plans for the drilling of the above-described Cerro Caliche Concessions, located in the municipality of Cucurpe, Sonora, Mexico, and the Company's future exploration plans for those properties. Although the Company believes that such statements are reasonable based on current circumstances, it can give no assurance that such expectations will prove to be correct. Forward-looking statements are statements that are not historical facts; they are generally, but not always, identified by the words "expects," "plans," "anticipates," "believes," "intends," "estimates," "projects," "aims," "potential," "goal," "objective," "prospective," and similar expressions, or that events or conditions "will," "would," "may," "can," "could" or "should" occur, or are those statements, which, by their nature, refer to future events. The Company cautions that forward-looking statements are based on the beliefs, estimates and opinions of the Company's management on the date the statements are made and they involve a number of risks and uncertainties, including the possibility of unfavorable interim exploration results, the lack of sufficient future financing to carry out exploration plans, and unanticipated changes in the legal, regulatory and permitting requirements for the Company's exploration programs. There can be no assurance that such statements will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking statements. The Company disclaims any intention or obligation to update or revise any forward-looking statements, whether as a result of new information, future events or otherwise, except as required by law or the policies of the TSX Venture Exchange. Readers are encouraged to review the Company's complete public disclosure record on SEDAR at www.sedar.com.

## 1. Overview

On May 25, 2020, Sonoro Gold Corp. ("Sonoro" or the "Company") issued a Project Development Report on the Company's Cerro Caliche gold project, located in Sonora State, Mexico. The report was authored by Sonoro's VP of Exploration, Melvin Herdrick, and VP of Operations, Jorge Diaz with the objective of identifying the key considerations for enhancing the value of the Cerro Caliche project's gold-silver deposit. The report also assessed the regional and property geology as well as the related potential for increased size and grade of the mineralization. Furthermore, the report discussed the geologic concepts used to develop an exploration model that would ensure more cost-effective and successful exploration activities. This model would become a key component in the Company's strategy to build a leading gold exploration and development company. Future exploration would focus on defining a resource sufficient to support an open-pit, heap leach mine with revenues used to fund the Company's growth with minimal dilution to the shareholders.

This report serves as an update to the original Project Development Report. It includes an update of the project's geology, revisits the description of gold-silver Low Sulphidation Epithermal Vein Systems (LSEVS) and reviews the geological tools developed to understand the potential multiple mineralized structures laying within the property. This update also includes the results from exploration work completed between June 2020 to November 2021 as well as the positive results from a Preliminary Economic Assessment ("PEA") dated October 31, 2021 on the Cerro Caliche project demonstrating the potential viability of the proposed mine with a conceptual production rate of 15,000 tonnes per day (tpd).

## 2. Geology & Mineralization

#### 2.1 Regional Geology

In the northern Mexican state of Sonora during the Jurassic period 144-201 million years ago ("Ma"), a narrow north-west trending, water-filled embayment opened west of the Chihuahua trough called the Arivechi-Cucurpe Seaway. A similar opening and marine flooding of the same embayment occurred during the preceding Triassic period and, after a hiatus of at least 10 Ma following the Jurassic, the embayment was re-flooded during the Cretaceous period. Each of the three episodes resulted in the deposition of thick layers of rock fragments known as clastic sedimentary rock accumulations. The lower part of the Cucurpe formation was derived dominantly from Middle Jurassic volcanic-sedimentary material. The upper part of the Cucurpe formation was largely derived from volcanic material produced at the time of eruption or syneruptive material and is equivalent to the Ko Vaya volcanic suite of southern Arizona and northern Sonora. These Jurassic period geological formations consist mostly of clastic sedimentary rocks and they form the "Cucurpe Group" rock units.

The Cucurpe Group rock units' formation occurred during the late Jurassic Period, roughly 144 Ma to 163 Ma, when the previously mentioned Arivechi-Cucurpe Seaway received clastic grains which accumulated within its marine environment in layers creating a lithic formation from 600 meters to more than 1,000 meters thick. Volcanic material is a significant part of this marine accumulation in addition to limited limestone beds. These sedimentary rocks include thinly bedded shales, mudstone, and tuffaceous siltstone which in part are derived from dense pyroclastic flows, in addition to sandstone and pebble conglomerate beds and limestone. The formation of the region's intercontinental basins occurred in the Triassic geologic periods first with the Barranca Group, then the Cucurpe group and later during the Cretaceous period with the Bisbee Group rocks which are located close to the Cerro Caliche area. The Cucurpe group sedimentary rock units are the oldest rock types in the Cerro Caliche area and outcrop across the entire area of Cerro Caliche.

### 2.2 Tectonic Setting

The volcanism which supplied most of the Cucurpe clastic material occurred between roughly 22 Ma and 30 Ma years ago, during what is known as the Tertiary period, which consisted of a series of massive volcanic eruptions. As larger volcanoes erupted, their underlying magma chambers were expelled outward and the internal support that the magma once provided disappeared causing the volcano's sides to collapse and form usually circular to oval depressions termed calderas. Additional smaller volcanoes formed within these calderas or emerged from fissure related vents. These volcanic eruptions resulted in pyroclastic depositions of intermediate composition or felsic magma forming lava, pumice, and ash.

The Cucurpe area was affected by the major geological volcanic and igneous event in a belt about 200 kilometers ("km") wide called the Sierra Madre Occidental ("SMO") volcanic province. The SMO begins near Agua Prieta at the United States/Mexico border and continues to Central Mexico some 1,200 km southeasterly and encompasses the largest known field of felsic ignimbrites on earth. The SMO also hosts one of the world's largest concentrations of precious metal mineral deposits now with estimated past and present resources of 100 to 120 million ounces of gold, even though roughly less than 25% has been explored. Cerro Caliche is one of about 50 known past and present epithermal gold-silver deposits in or adjacent to the Sierra Madre geological environment.

The early stages of Sierra Madre volcanism produced smaller individual volcanic fields that commonly had associated mineralization. The age of this mineralization throughout the belt ranges from around 40 Ma through 26 Ma. Towards the end of the productive mineralization period, in the area around Cerro Caliche, the age of mineralization is approximately 26-27 Ma, concurrent with ongoing movement of the underlying crust which resulted in surficial extension faulting and coincident thinning in areas associated with mineralization at the northwestern margins of the SMO.

This extensional faulting resulted in the creation of thin domino-like fault blocks in the Cerro Caliche area and others that provided many hydrothermal fluid pathways with repeated small fault movements to allow quartz veins to develop and re-fracture in forming near surface epithermal gold-silver deposition. In the main area of the SMO flows and volcaniclastic deposits were expelled over the large SMO area. A still younger extension event with non-mineralized faulting resulted in "Basin and Range" style of topography now seen in the region.

The earlier phase extension, between 35 Ma and 26 Ma, resulted in volcanism and faulting with the frequently repeated northwest orientation of many other epithermal gold deposits in the region. These include Ocampo, Santa Eulalia, Fresnillo and Guanajuato districts together with Cerro Caliche and the nearby Mercedes Mine. This suggests that they are all part of the same metallogenic process that was responsible for western Mexico's immense endowment of precious and base-metal deposits.



Figure 1: Location Map

### 2.3 Local Property Geology

According to maps published by the Mexican Geological Survey, the Cerro Caliche project area is mostly covered by Jurassic to Cretaceous-aged sedimentary rocks that are derived from various volcanic and sedimentary events during these periods. Cretaceous metasediments occur north of Cerro Caliche and possibly in the area of the Cerro Prieto mine adjacent to the west of Cerro Caliche. Thrust faulting or large plate faulting has been mapped in the area and the upper plate of one fault may carry the Cretaceous rock unit, Bisbee Group, that is lithologicaly very similar to the older Cucurpe Group into the area but may not be separated as such. The Location Map is shown in Figure 1 above.

Sonoro's geologic mapping combined with prior mapping has established intrusives of several different ages and they also represent compositionally different intrusive rock units at Cerro Caliche. Part of the intrusive units could be related evolutionary sequences. More specifically, in the southern and western portions of the project area outcropping occurrences of intrusive diorite-granodiorite are mapped. Much of the intrusive rock exposed contains medium-sized grains as uniformly sized or equigranular character suggesting mid-level emplacement. Beginning near the El Colorado vein area and continuing easterly through to the Abejas and Espanola mine zones, felsic quartz bearing porphyritic intrusives are present and mapped as cutting, following, and being cut by younger Tertiary age structures, and these intrusives are concluded to be hypabyssal or near surface emplaced intrusions, possibly connected to the surface flows.

Figure 2 illustrates the northwest alignment of most vein zones on the property with slightly earlier rhyolitic intrusives following along these vein trends. Two different intrusives are shown, the older greenish colored intrusive andesite, and the younger pink PQP rhyolitic units. Veins crosscut all rock units while the PQP are deflected and generally follow the andesite unit boundary. Locally northeasterly trending veins are also common.



Figure 2: Central Area Geological Map, Nov. 2021

The central portion of the project area is underlain by the sedimentary clastic or rock fragment derived layered rocks, comprising of quartzites, siltites, feldspar-rich meta-arkoses, limestone and meta-greywackes, with some sedimentary rocks formed in a deeper marine environment. The peak of Cerro Caliche is made up of densely silicified to porous rhyolitic sills, which are layer-like bodies of felsic or high silica magma that have intruded the clastic strata and formed related volcanic flows that cover the older rock units.

The Cerro Caliche property contains Low Sulphidation Epithermal (LSE) gold-silver deposits in and around northwestern oriented vein-structural zones containing precious metals within veins, veinlets, and fractures. Gold mineralization is usually coincident with low to moderate silver content, although silver may be absent in some areas it is often present in areas of higher elevations. Lead and zinc are also usually present with gold mineralization and can reach levels of over one percent in areas of lower elevations. Low sulphidation describes the low sulfur content of the brines which transport the gold as well as low sulfide content in and around the veins. The gold and silver found in LSE deposits originate from the same magma chambers of the subducting plate derived diorite and granodiorite intrusives. Deep within the magma forming process area, reduced intrusives (low magnetite) can collect water at high temperatures forming a separate immiscible liquid aside or inside the magma before and during the crystallization process. As such, the gold and silver are concentrated into the water-based liquid and expelled into the

near surface environment. Boiling is a very efficient precipitation triggering process in hydrothermal systems for gold, silver, quartz, sulfides and other minerals.

Boiling zones can continue from the surface at the time of mineralization, down to 1,000 meters below the surface water table. Cerro Caliche appears to have had more than 30 vein depositing geothermal structures active during the time of mineralization. As illustrated in Figure 3, an LSE mineralized hydrothermal system is developed in an open conduit with continuous fluid and vapor flow. Higher grade gold deposition often occurs at the mid-level parts of the system where boiling and gold deposition is most active and solutions demonstrate higher metal content. Lower gold grades can occur in rocks hosting the system's upper levels by spreading out into porous layers, or well fractured areas along the sides of larger veins with susceptible well-fractured rock units containing high porosity layers or structural zones or more likely in open fault fissures resulting in the classic epithermal ribbon-like open space filling quartz veins.

A higher-grade gold deposit can be found 9 km southeast of Cerro Caliche at the Mercedes gold mine. Historical mining in the shallow workings of the Mercedes deposit stopped in 1930 when gold grades became too low to support operations. In 2011, however, a drilling program by Yamana Gold discovered a new higher-grade gold vein shoot approximately 15 meters below the historic workings. Subsequent drilling to 900 meters intercepted bonanza higher grade zones and grade shoots in the vein averaging 8.7 grams of gold per tonne ("g/t Au") and 95 g/t Ag. The LSE veins at Mercedes appear identical to the veins at Cerro Caliche and extensional faulting trends at both Mercedes and Cerro Caliche suggest both deposits are situated within the same mineralization system. Mineralization at Cerro Caliche is also comparable with other LSE mineralized systems identified elsewhere in the Sierra Madre and Altiplano provinces of Mexico.

# The reader is cautioned that information about nearby properties, including Mercedes Mine, is not necessarily indicative of mineralization on the Cerro Caliche property.

Cerro Caliche contains many structurally controlled zones of gold-silver mineralization that occur as broad zones of stockwork ranging to parallel sheeted veins-veinlets as envelopes around the larger mapable veins where gold-bearing veins cut or pass-through diorite, granodiorite, quartzite, siltite and rhyolitic rocks. Cerro Caliche's gold mineralized zones of potentially viable deposits are considered bulk mineable with multiple small veins irregularly grouped as stockworks existing outside planar mineralized structures. This is different from the Mercedes deposit where veins are entirely within andesitic rock with little or no stockwork.

Historical mapping and geochemical sampling completed at Cerro Caliche shows the epithermal system is coincident with widespread altered and mineralized zones covering an area of over 10 square kilometers ("km<sup>2</sup>"). The dominant structural controls are NA340 to NA360 (northwest-southeast), with a secondary cluster at NA300 to NA310 consisting of both high-angle and low angle structural zones that often contain variably broken, angular fragments of rock in quartz matrix called breccia, to form quartz veins. Gold concentrations show the highest gold content within these discrete structural zones and within broader zones of parallel structures consisting of a series of parallel quartz veins termed sheeted quartz veining.

The Cerro Caliche Project contains three gold mineralization types:

- 1. Stockwork or sheeted veining with vein zones of gold-silver mineralization.
- 2. High-grade, planar, precious and base metal mineralized structural zones or veins.
- 3. Disseminated precious-metal mineralization in porous volcanic rocks.



### 2.4 Model of Low Sulphidation Epithermal Vein System

Figure 3: Model of Low Sulphidation Epithermal Vein System

In general, gold-silver LSE systems form in the uppermost parts of the earth's crust, beginning approximately 100 meters below the water table and contain gold and/or silver minerals in structurally controlled veins, breccias and disseminated in variable host rock volumes. Epithermal gold-silver deposits have distinctive textural features such as rhythmical fine quartz and possible carbonate banding in association with metals deposition. The veins can contain high to low metal grades and large LSE gold-silver deposits can range in size from hundreds of thousands to greater than one billion metric tons of mineralization with gold contents ranging from near 0.1 to over 100 g/t Au and silver contents of less than one to several thousand g/t Ag.

Figure 3 is a cross section of an LSE vein showing typical vertical changes of mineralization due to boiling along the vein's vertical course. In this illustration, the vein shows a higher angle character compared to those identified within the Cerro Caliche system where veins typically show very low angles. The boiling zone, or "favorable zone" shown in Figure 3, begins at about 100-500 meters below the original surface, possibly extending 500-800 meters deeper within the vein.

Figure 4 below illustrates a typical longitudinal section following an LSE vein plotted along the length of a vein at the operating San Dimas M mine in the Tayoltita district, San Dimas, Durango, Mexico. This long section in the plane of the vein shows the extent to which these systems can develop, and the district is a multi-vein district also. It illustrates the concept of a "Permissive Zone" or "Favorable Horizon" within which the veins exist.

![](_page_10_Figure_2.jpeg)

Figure 4: San Dimas Mine LSE Vein

This section shows post-mineralization tilting so that the originally horizontal "Favorable Zone" is now tipped about 30 degrees. When mineralization occurred (circa 30 Ma), the paleo surface was horizontal allowing the gold enriched hydrothermal fluids to move generally upward filling and mineralizing the fissure. Hydrothermal fluid boiling is a normal in-vein elevation response to dropping confining pressures as the moderate temperature (300-200° C) fluids move upward toward the surface. The chemical changes with loss of gasses that occur due to boiling is the principal way in which Au and Ag metals are deposited in an LSE deposit.

Figure 5 below illustrates a three-dimensional plan map of Cerro Caliche's broad gold mineralization area measuring over 4 km by 3 km. The figure demonstrates the widespread nature of the gold mineralization contained within hundreds of parallel northwest trending quartz veins and over 60 km of mapped and sampled vein tracks of outcrop. Channel samples collected from lower to higher elevation areas returned results of over 1 g/t Au, many with higher grades of 4 g/t Au to 25 g/t Au with one low elevation sample returning 97 g/t Au. The positioning of these sample results from 1,100 to 1,670 meters above sea level ("MASL"), illustrates the possible position and extension of structures in Cerro Caliche's "favorable zone."

![](_page_11_Figure_0.jpeg)

Figure 5: Surface Channel Samples of Higher Grade

The large area covered by veins and associated mineralization indicates a portion of a major gold-silver hydrothermal system underlies the property generating intrusives. Exploration at deeper levels continues at Cerro Caliche to test for higher-grade gold zones and potential deeper bonanza-style mineralization.

## 3. Method in the Evaluation of Exploration Zones

### 3.1 Grade/Thickness Maps from drill data

Data used in the numerical representation of mineralized zones used drill intercepts from both core drilling and RC drilling along with drill plan mapping. The construction of planar-Isopach "gold equivalent\*thickness" and longitudinal "gold equivalent thickness" models of mineralization were derived from drill hole assay data. As Cerro Caliche's mineralization is dominated by leachable gold with additional minor leachable silver content value, the concept of "gold equivalent" was used to calculate a plottable value. This procedure includes the proportional addition of silver's value equated to gold reported from the mineralization assays. The factor used for conversion required 218 grams of silver to be equivalent to one gram of gold to calculate the "gold equivalent" value of any given silver-gold value in the database. The high discount of silver to 218 grams to be equivalent to one gram of gold was determined by the column leach test results showing average concurrent leaching recovery of 27 percent.

### **3.2** Grade/Thickness Isopach – Determination

The iso-gold equivalent-interval thickness contours were determined from the gold equivalent\*thickness parameter where "gold equivalent" was derived from the gold and silver assay values average of the sample interval in each of the exploration drill holes in the existing database. The numbers do not represent any type of quantification measure of mineralized material other than gram meters, since the values are the product of meters multiplied by gold equivalent grades, with no implication whatsoever of tonnage nor metal content. The objective was to develop a visual graphic to help identify areas of stronger mineralization and conversely areas of more widespread mineralization.

### 3.3 Isopach Model Construction

The obtained (gold equivalent\*thickness) number value is plotted at the geographical surface location of the corresponding exploration hole, generating the iso-value curves. The data consists of contoured drill hole points plotted in gram\*meters greater than 0.15 g/t AuEq. Figure 6 illustrates the resulting isopachs which are biased by geological interpretation of the structurally controlled nature of the mineralization. It should be noted that the plots imply the contours are closed off at the northwest and southeast ends of the linear vein zone trends. This is due to a lack of drill data. The contours remain open in both directions and future drilling will target extending many of these zones to the northwest and southeast.

![](_page_12_Figure_2.jpeg)

Figure 6: Gold equivalent x Thickness Isopach Map

### 3.4 Gold equivalent x Thickness (g-t) a 3D Longitudinal Section Model

The grade\*thickness 3D longitudinal modeling approach can be used for guidance in exploration in the mining industry. As explained in the previous section, the "gold equivalent\*thickness" value is derived from the average of drill intercept gold and silver values of all exploration drill holes in the existing database. It is important to indicate that the 3D longitudinal sections *represent mineralized zones only*, and *do not represent any type of quantification* of mineralization, since the plotted values are the product of drill intercept meters multiplied by calculated gold equivalent, *with no implication whatsoever of tonnage nor metal content*. The images generated are simply longitudinal 3D sections showing the

product from multiplying the thickness of the mineralized intercept, times its average gold equivalent value.

These diagrams are useful when the mineralized zone is "structurally controlled", semi tabular, such as a vein, whether it be vertical or inclined or tabular.

#### Ranges of "equivalent grade" plotted in the Section

Four "ge" domains were defined to be used for the graphical representation in the sections. These were:

- 1) 0.5
- 2) 0.7
- 3) 1.0
- 4) 2.0

#### **Construction of the Model**

For each exploration hole in the database, the qualifying mineralization intervals for each "**ge**" range were identified, then an average "**ge**" value was calculated for each one of those mineralization intervals. The formula used to calculate the average "gold equivalent\*thickness" value of each hole in the data base was:

Average **gold\*equivalent**" = [(Sum (**ge**\*width) of each sample) x (Sum of sample interval width)].

The result from this calculation was used as the ge\*t product representing the mineralized interval of each hole and that data was entered into Leapfrog to construct the 3D ge\*t models of all the currently drilled zones in the area of the project.

![](_page_13_Picture_12.jpeg)

Figure 7: Gold Equivalent x Thickness 3D Zones Rotated to Plan View

Figure 8 provides a general view of the maps or diagrams generated with these techniques. These figures show a longitudinal section and a plan view of the various 3D ge\*t zones, modeled with the different colors representing the three ge\*t" selected range intervals. Figure 7 is a longitudinal 3D section of the Buena Suerte zone showing the mineralized 3D zones. Note the enlarged area around El Colorado due to extension of the horizontal vein zone. Figure 8 also shows the positions of the existing mineralized zones.

## 4. PEA Related Studies

An important milestone in Cerro Caliche's development was the successful completion of an NI 43-101 technical report on the proposed heap leach mining operation. On September 15, 2021, the Company announced the results of an independent PEA prepared in accordance with the requirements of National Instrument 43-101 by D.E.N.M. Engineering Ltd. ("D.E.N.M."), with an updated resource estimation completed by Micon International Ltd. ("Micon") and metallurgical testing completed by McClelland Laboratories Inc. ("McClelland"). The following subsections provide a summary of the work and studies included in the technical report.

Commencing in 2018 and continuing through 2021, Sonoro conducted highly successful technical investigation, drilling and engineering programs that have identified substantial size and characteristics of the mineral resource. The following subsections provide a summary of the work and studies.

### 4.1 Drilling

Sonoro has carried out extensive drilling at Cerro Caliche since acquiring the project in 2018, with the completion of three different drill campaigns of both diamond bit core drilling (DD) and Reverse Circulation (RC) down hole percussion drilling. In general, all drilling has been shallow, angle drill holeswith good recoveries. When combined with historical data, exploration at Cerro Caliche totals over 47,500 meters, 433 drill holes and 9,704 surface samples:

- a. During its three drilling campaigns, the Company completed 34,550 meters of drilling, 2,985 surface samples and 314 drill holes. Of the drill holes, 266 RC drill holes were completed for 28,535 meters and 48 DD drill holes were completed for 6,015 meters including both HQ and PQ size.
- b. Drilling programs completed by prior operators total 13,007 meters, 4,338 surface samples and 119 drill holes. Drilling data has been obtained by Sonoro and conformed to NI 43-101 technical standards.

Addendum: The Company commenced its fourth drilling campaign in November 2021 and as of the date of this report, has completed an additional 2,502 meters of drilling, 22 drill holes and 397 surface samples. The drilling campaign is discussed in detail below.

### 4.2 Metallurgical Studies

Internal and independent metallurgical gold-silver testing was completed during 2020-2021. Internal testing was conducted on surface mineralized rock under the direction of Sonoro's mining engineer and VP Operations, Jorge Diaz and Professional Metallurgist Sandra Orona. That material was crushed to pass 3/4-inch size mesh and was leached for 90 days. The test results indicated that the gold and silver content was amenable to cyanide leaching with a recovery range of 72% at 80% passing –  $\frac{1}{2}$ ". Independent testing was completed by McClelland Laboratories of Sparks, Nevada on 4,700 kilograms of mineralized material derived from ten 85-mm diameter PQ drill holes. The mineralization analyzed in the metallurgical tests derived from five major gold mineralized zones at Cerro Caliche including Japoneses, Cuervos, El Colorado, Cabeza Blanca and Buena Suerte with both stock work and vein breccia material types. On March 3, 2021, the Company announced the results of 43 bottle roll tests over 96-hours at a coarse sizing of 80% - 1.7

mm feed size. Subsequent leach recoveries averaged 80.3% for gold and 27.2% for silver. These results were used in the formulation of the column leach tests which returned an average recovery rate of 74% for gold.

Column leach tests were conducted on each of nine composites at a minus 50 mm feed size and an 80% minus 12.5 mm feed size, to determine heap leach amenability and feed size sensitivity. Results announced on August 19, 2021, confirmed all nine composites were amenable to simulated heap leach cyanide treatment with the smaller 80% minus 12.5 mm feed size averaging 74% after approximately 90 days and the minus 50 mm feed size averaging 66% after approximately 100 days.

The metallurgical tests determined the heap leach characteristics of the project's oxide mineralization while quantifying estimated gold and silver recoveries from the various mineralized zones near surface and at depth. These tests also establish the optimal crushing sizes and associated process flow sheet development.

#### 4.3 Environmental

The Cerro Caliche Project is not included in any specially protected or federally designated ecological zones and has no outstanding environmental liabilities. A comprehensive geochemical characterization program was conducted to evaluate the environmental stability of the Project and the potential for acid rock drainage and metal leaching. The program indicated that neither the waste nor the mineralized material is expected to be acid generating and do not contain solubilize metals in amounts that exceed Mexican standards. The Company also conducted baseline studies over 7,000 hectares to determine the project's conservation status and assess the potential risks of environmental and social impact. Mining is one of the main three employment-generating activities in the area and the Cerro Caliche project is expected to substantially increase the number of direct jobs in the mining sector during its first year of operations.

## 5. Updated Mineral Resource Estimate

As part of the PEA, an updated NI 43-101 Mineral Resource Estimate was completed to incorporate geological data from the Company's recent drilling campaigns. The resource estimate was prepared by Micon International and is based on Sonoro's geological interpretation of the deposit that established six geological domains. The geological domains account for the two primary trends of Vein-Breccia structures which are surrounded by stockwork mineralization. These domains were analyzed for grade capping, variography and interpolated using ordinary kriging methods. Once the block model was completed it was classified into Measured, Indicated, and Inferred categories followed by a Lerchs-Grossman open pit optimization which resulted in the mineral resource statement presented in table 1.

		Toppos	Av	erage Grac	les	Metal Content			
Mining	Category	Category	Tonnes	Au-Eq	Au	Ag	Au-Eq	Au	Ag
Method		kt	g/t	g/t	g/t	(000s Oz)	(000s Oz)	(000s Oz)	
	Measured	12,844	0.39	0.37	3.79	163	155	1,566	
	Indicated	13,851	0.45	0.44	3.1	201	194	1,378	
Open Pit	M+I	26,695	0.42	0.41	3.43	364	349	2,944	
	Inferred	5,463	0.44	0.40	7.34	77	71	1,289	

Table 1: Statement of Mineral Resources for Cerro Caliche

#### 5.1 Prospects for Economic Extraction

The primary mineral of economic interest at Cerro Caliche is gold with silver of secondary importance and the resource has been constrained using economic assumptions of surface open pit scenarios. The economic analysis for the project uses a gold price of USD \$1,750 per ounce and a silver price of USD \$22 per ounce and estimates an after-tax NPV of USD \$41.5 million with an IRR of 32.4% and pre-tax NPV of USD \$68.7 million with an IRR of 52.7%. Life of Mine is seven-years with a capacity of 15,000 tpd producing a total 323,500 ounces of gold equivalent.

Economic Highlights:

- Pre-Tax NPV of USD \$68.7m with an IRR of 52.7%
- After-Tax NPV of USD \$41.5m with an IRR of 32.4%
- 7-Years LOM with Annual Production of 45,700 oz AuEq at 0.41 g/t AuEq
- Years 1 to 3 Annual Production of 56,500 oz AuEq at 0.51 g/t AuEq
- Initial CAPEX costs of USD \$32.2m, including USD \$3.8m in contingency
- OPEX costs of US\$1,227/oz AuEq and AISC of US\$1,351/oz AuEq
- 74% Gold Recovery and 27% Silver Recovery
- Payback period of 2.2 years

![](_page_16_Figure_11.jpeg)

	Resource by Class, Open Pit Design											
PIT	PIT	Resource	Mass	Αι	I	Ag						
No.	Name	Class	(Tonnes)	000' Oz	g/t	000' Oz	g/t					
		Measured	8,889,415	102	0.36	922	3.23					
1	Japoneses-Buena Vista	Indicated	6,372,413	69	0.34	481	2.35					
		Inferred	46,174	0	0.28	9	6.13					
		Measured	1,086,322	18	0.52	152	4.35					
2	Cuervos	Indicated	239,720	4	0.5	36	4.72					
		Inferred	362,414	4	0.33	35	2.98					
		Measured	0	0	-	0	-					
3	El Colorado	Indicated	611,969	18	0.92	50	2.56					
		Inferred	22,512	1	1.17	1	1.89					
		Measured	838,085	11	0.41	165	6.12					
4	Buena Suerte	Indicated	4,077,277	72	0.55	463	3.53					
		Inferred	360,928	5	0.45	23	2.02					
		Measured	0	0	-	0	-					
5	Veta de Oro	Indicated	0	0	-	0	-					
		Inferred	629,584	12	0.59	305	15.05					

Resources contained within the open pits is summarized in table below.

	Resource by Class, Open Pit Design										
PIT PIT Resource Mass Au											
No.	Name	Class	(Tonnes)	000' Oz	g/t	000' Oz	g/t				
		Measured	765,927	11	0.45	151	6.13				
6	Abejas	Indicated	404,491	6	0.45	89	6.82				
		Inferred	245,872	4	0.46	39	4.95				
		Measured	536,922	9	0.53	97	5.62				
7	Cabeza Blanca	Indicated	1,296,648	30	0.71	128	3.08				
		Inferred	481,294	7	0.45	52	3.36				
		Measured	0	0	-	0	-				
8	El Boludito	Indicated	184,580	2	0.38	12	1.96				
		Inferred	384	0	0.44	0	1.52				
		Measured	0	0	-	0	-				
9	Chinos NW	Indicated	826,129	8	0.32	106	3.99				
		Inferred	1,162,549	Au Ag   000' Oz g/t 000' Oz g/t   27 111 0.45 151 6.13   91 6 0.45 89 6.82   72 4 0.46 39 4.95   22 9 0.53 97 5.62   48 300 0.71 128 3.08   94 7 0.45 52 3.36   0 0 - 0 -   84 30 0.71 128 3.08   94 7 0.45 52 3.36   0 0 - 0 -   80 2 0.38 12 1.96   84 0 0.44 0 1.52   0 0 - 0 -   29 8 0.32 106 3.99   49 111 0.29 82 2.2   0 0							
		Measured	0	0	-	0	-				
10	El Rincon	Indicated	0	0	-	0	-				
		Inferred	2,011,163	Au Ag   s Au Ag   s) 000' Oz g/t 000' Oz g/t   ,927 11 0.45 151 6.13   ,491 6 0.45 89 6.82   ,872 4 0.46 39 4.95   ,922 9 0.53 97 5.62   ,648 30 0.71 128 3.08   ,294 7 0.45 52 3.36   0 0 - 0 -   ,580 2 0.38 12 1.96   384 0 0.44 0 1.52   0 0 - 0 -   ,549 111 0.29 82 2.2   0 0 - 0 -   0 0 - 0 -   ,549 111 0.29 82 2.2   0 0 - <t< td=""></t<>							
		Measured	0	0	-	0	-				
11	El Bellotoso	Indicated	0	0	-	0	-				
		Inferred	398,555	5	0.37	63	4.92				
Total	ALL	Total Measured	12,116,671	151	0.39	1,487	3.82				
Total	ALL	Total Indicated	14,013,227	210	0.47	1,365	3.03				
Total	ALL	Total M&I	26,129,898	361	0.43	2,852	3.4				
Total*	ALL	Total Inferred	5,721,429	76	0.41	1,308	7.11				

Table 2: Pit Resources by Class

![](_page_17_Figure_2.jpeg)

Figure 8: PEA Pits Location

#### **Longitudinal Sections**

![](_page_18_Figure_1.jpeg)

Figure 9: Longitudinal Sections Location 2021

![](_page_18_Figure_3.jpeg)

Figure 10: Longitudinal section A-A' as 2021

Shows areas with changes and open potential. Pit Limit is conceptual based on PEA information.

![](_page_19_Figure_0.jpeg)

Figure 11: Longitudinal Section B-B' 2021 Shows areas with changes and open potential.

![](_page_19_Figure_2.jpeg)

Figure 12: Longitudinal section C-C' 2021

Shows areas with changes and open potential. Pit Limit is conceptual based on PEA information.

![](_page_20_Figure_0.jpeg)

Figure 13: Longitudinal section D-D' 2021

Shows areas with changes and open potential. Pit Limit is conceptual based on PEA information.

### 5.2 Mineral Potential

The six geological domains used in the resource estimation are located relatively close to each other, dominated by the Japoneses area. The mineralization calculated occurs primarily along the following strike trends:

- 1,500 meters Los Japoneses-Cuervos trend
- 850 meters Buena Suerte trend
- 750 meters Guadalupe-Cabeza Blanca trend
- 300 meters Abejas trend
- 300 meters El Colorado trend

Additional mineralized trends outlined by geologic mapping, rock chip sampling, and widely spaced drill holes were excluded from the resource calculation due to lack of drilling density. However, Micon notes these large areas of omitted mineralization have the potential range from 19,250,000 to 34,370,000 in tonnage containing:

- 204,000 to 365,000 ounces of gold
- 1,683,000 to 3,005,000 ounces of silver

Sonoro has carried out an extensive analysis of the mineral potential in areas of the property that have not been included in Micon's pit shell resource estimations. Sonoro's estimations incorporate Micon's additional potential, augmented by geological mapping, surface sampling and scout drilling in regions of the property not analyzed by Micon. The locations of the mineralized structures are shown in Figure 14 and the accompanying Tables 3-5 reflect the potential for each target zone, based on the projected dimensions of each mineralized zone. With this data, Sonoro has estimated the number of drill holes required to fully investigate each zone and the proposed depths of these drill holes. Tables 3-5 show the estimations for the potential tonnage of mineralized material under three scenarios, namely, Conservative Potential, Base Case Potential and Possible Potential. The tables are separated into estimates for demonstrating mineralization in newly identified zones and the potential for additional mineralization in existing zones surrounding the pit shells illustrated in the PEA. The Authors estimate that, exclusive of the published pit contained resources in the Company's PEA, extensive exploration of these trends can possibly increase resources another 29,000,000 to 97,000,000 tonnes with grades potentially between 0.3 g/t to 0.55 g/t AuEq.

The potential tonnages and grades set forth in the analysis of geological potential are conceptual in nature, as there has been insufficient exploration to define such a mineral resource and it is uncertain if further exploration will result in those targets being delineated as a mineral resource. Potential estimates are separate from the published mineral resources stated above.

![](_page_21_Figure_2.jpeg)

Figure 14: Targeted mineralized zones for current and future drilling

Tables 3 to 5 below provide estimations of potential mineralization at 28 zones identified by geological mapping, surface sampling and limited drilling and are identified as Base Case Potential, Conservative Potential and Possible Potential.

New Zones									
7	15	Length	Width	Depth	Grade Range	Potential Range			
Zone	U	(m)	(m)	(m)	AuEq g/t	Tonnes			
Guadalupe	1	700	12	125	0.52 - 0.62	2,438,100 - 2,979,900			
La Española	2	600	12	100	0.45 - 0.55	1,671,840 - 2,043,360			
La Ventana	3	750	15	100	0.53 - 0.63	2,612,250 - 3,192,750			
San Quintín	4	800	15	100	0.3 2- 0.42	2,786,400 - 3,405,600			
Chinos Altos	5	600	15	100	0.37 - 0.47	2,089,800 - 2,554,200			
El Desprecio - El Tapiro	6	900	20	100	0.45 - 0.55	4,179,600 - 5,108,400			
La Magdalena	7	700	10	75	0.30 - 0.40	1,219,050 - 1,489,950			
El Bellotoso 2	8	1400	20	125	0.32 - 0.42	8,127,000 - 9,933,000			
El Bellotoso 3	9	1000	20	125	0.35 - 0.45	5,805,000 - 7,095,000			
Puerto del Pájaro	11	800	20	75	0.35 - 0.45	2,786,400 - 3,405,600			
La Colorada	13	800	10	75	0.45 - 0.55	1,393,200 - 1,702,800			
EL Zorrillo	14	800	15	75	0.45 - 0.55	2 089 800 - 2 554 200			
El Rincón	15	300	15	75	0.45 - 0.55	78,3675 - 95,7825			
					Sub-total	37,982,115 - 46,422,585			
El Pollotoco 1 Infill	17	800	aitions to E	125	0.49.059	6 260 400 7 662 600			
	1/	250	27	125	0.46 - 0.56	0,209,400 - 7,002,000			
	19	250	25	50	0.44 - 0.54	/25,625 - 886,875			
Abejas SE	20	200	30	50	0.40 - 0.50	696,600 - 851,400			
Cabeza Blanca NW	21	150	20	50	0.58 - 0.68	348,300 - 425,700			
Cabeza Blanca depth	22	600	20	50	0.59 - 0.69	1,393,200 - 1,702,800			
Buena Suerte NW	23	150	25	50	0.48 - 0.58	435,375 - 532,125			
Buena Suerte depth	24	500	25	80	0.48 - 0.58	2,322,000 - 2,838,000			
El Colorado	25	200	50	100	0.88 - 0.98	2,322,000 - 2,838,000			
Veta de Oro NW	26	600	20	100	0.54 - 0.64	2,786,400 - 3,405,600			
Veta de Oro depth	27	350	20	50	0.54 - 0.64	812,700 - 993,300			
	•		-		Sub-total	18,111,600 - 2,2136,400			

#### Table 3: Base Case Potential

**56,093,715 - 68,558,985** Table 3: Base Case Potential

Total

Table 4	4:	Conservative	Potential
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New Zones									
7000	10	Length	Width	Depth	Grade Range	Potential Range			
Zone	שו	(m)	(m)	(m)	AuEq g/t	Tonnes			
Guadalupe	1	600	12	75	0.52 - 0.62	1,253,880 - 1,532,520			
La Española	2	600	12	50	0.45 - 0.55	835,920 - 1,021,680			
La Ventana	3	750	10	50	0.53 - 0.63	870,750 - 1,064,250			
San Quintín	4	800	10	50	0.32 - 0.42	928,800 - 1,135,200			
Chinos Altos	5	600	15	50	0.37 - 0.47	1,044,900 - 1,277,100			
El Desprecio - El Tapiro	6	900	20	50	0.45 - 0.55	2,089,800 - 2,554,200			
La Magdalena	7	700	10	50	0.30 - 0.40	812,700 - 993,300			
El Bellotoso 2	8	1400	20	75	0.32 - 0.42	4,876,200 - 5,959,800			
El Bellotoso 3	9	1000	20	75	0.35 - 0.45	3,483,000 - 4,257,000			
Puerto del Pájaro	11	800	20	50	0.35 - 0.45	1,857,600 - 2,270,400			
La Colorada	13	800	10	25	0.45 - 0.55	464,400 - 567,600			
EL Zorrillo	14	800	10	25	0.45 - 0.55	464,400 - 567,600			
El Rincón	15	300	15	50	0.45 - 0.55	522,450 - 638,550			
					Sub-total	17,415,000 - 21,285,000			
		Additio	ons to Exi	isting Zoi	nes	I			
El Bellotoso 1 Infill	17	800	27	75	0.48 - 0.58	3,761,640 - 4,597,560			
Cuervos SE	19	250	25	30	0.44 -0.54	435,375 - 532,125			
Abejas SE	20	200	30	30	0.40 - 0.50	417,960 - 510,840			
Cabeza Blanca NW	21	150	20	30	0.59 - 0.69	208,980 - 255,420			
Cabeza Blanca depth	22	600	20	50	0.59 - 0.69	1,393,200 - 1,702,800			
Buena Suerte NW	23	150	25	30	0.48 - 0.58	261,225 - 319,275			
Buena Suerte depth	24	500	25	80	0.48 - 0.58	2,322,000 - 2,838,000			
El Colorado	25	200	50	75	0.88 - 0.98	1,741,500 - 2,128,500			
Veta de Oro NW	26	500	20	75	0.54 - 0.64	1,741,500 - 2,128,500			
Veta de Oro depth	27	350	20	25	0.54 - 0.64	406,350 - 496,650			
					Sub-Total	8,928,090 - 10,912,110			

Total 26,343,090 - 32,197,110

Table 4: Conservative Potential

New Zones								
7000		Length	Width	Depth	Grade Range	Potential Range		
20116		(m)	(m)	(m)	AuEq g/t	Tonnes		
Guadalupe	1	800	12	150	0.52 - 0.62	3,343,680 - 4,086,720		
La Española	2	600	12	125	0.45 - 0.55	2,089,800 - 2,554,200		
La Ventana	3	750	20	125	0.53 - 0.63	4,353,750 - 5,321,250		
San Quintín	4	800	20	125	0.32 - 0.42	4,644,000 - 5,676,000		
Chinos Altos	5	600	15	100	0.37 - 0.47	2,089,800 - 2,554,200		
El Desprecio - El Tapiro	6	900	20	125	0.45 - 0.55	5,224,500 - 6,385,500		
La Magdalena	7	700	10	100	0.30 - 0.40	1,625,400 - 1,986,600		
El Bellotoso 2	8	1400	20	150	0.32 - 0.42	9,752,400 - 11,919,600		
El Bellotoso 3	9	1000	20	150	0.35 - 0.45	6,966,000 - 8,514,000		
El Bellotoso 4	10	800	20	150	0.35 - 0.45	5,572,800 - 6,811,200		
Puerto del Pájaro	11	800	20	100	0.35 - 0.45	3,715,200 - 4,540,800		
El Quínce	12	500	20	75	0.45 - 0.55	1,741,500 - 2,128,500		
La Colorada	13	1000	10	100	0.45 - 0.55	2,322,000 - 2,838,000		
EL Zorrillo	14	1000	20	100	0.45 - 0.55	4,644,000 - 5,676,000		
El Rincón	15	300	15	100	0.45 - 0.55	1,044,900 - 1,277,100		
El Puerto	16	1000	10	75	0.45 - 0.55	1,741,500 - 2,128,500		
					Sub-total	60,871,230 - 74,398,170		
		Add	litions to	Existing	Zones			
El Bellotoso 1 Infill	17	800	27	125	0.48 - 0.58	6,269,400 – 7,662,600		
El Bellotoso 1 depth	18	1200	20	50	0.48 - 0.58	2,786,400 – 3,405,600		
Cuervos SE	19	250	25	75	0.44 - 0.54	1,088,438 - 1,330,313		
Abejas SE	20	200	30	75	0.40 - 0.50	1,044,900 - 1,277,100		
Cabeza Blanca NW	21	150	20	75	0.59 - 0.69	522,450 - 638,550		
Cabeza Blanca depth	22	600	20	75	0.59 - 0.69	2,089,800 - 2,554,200		
Buena Suerte NW	23	150	25	75	0.48 - 0.58	653.063 - 798.188		

100

125

150

75

75

25

50

20

20

15

0.48 - 0.58

0.88 - 0.98

0.54 - 0.64

0.54 - 0.64

0.40 - 0.50

Sub-total

Total

24

25

26

27

28

500

200

700

350

250

Buena Suerte depth

El Colorado

Veta de Oro NW

Veta de Oro depth

Abejas NW

#### **Table 5: Possible Potential**

Table 5: Possible Potential

2,902,500 - 3,547,500

2,902,500 - 3,547,500

4,876,200 - 5,959,800

1,219,050 - 1,489,950

27,007,763 - 33,009,488

87,878,993 - 10,7407,658

653,063 - 798,188

## 6. Phase IV Exploration

Sonoro commenced its fourth exploration program in November 2021 with a 10,000-meter drilling campaign designed to expand the project's oxide gold mineralization and test multiple higher-grade targets recently identified by a surface sampling program. The new drill targets recently became accessible with the construction of several new access roads, exposing new vein systems and extending the project's existing drilled mineralized zones by up to 750 meters. A surface sampling program conducted on the new extension demonstrated linear structural corridors of anomalous gold, silver, and base metal mineralization and identified high-priority window targets where multiple assay results returned grades between 2.5 and 14.3 g/t Au.

The drilling campaign is proceeding alongside the proposed development of the heap leach mine as increasing the size and grade of the resource could potentially extend the mine life and improve the overall economics of the project.

#### 6.1 Exploration targets

The six-month drilling program is expected to run from November 2021 to April 2022. Prior sampling and drilling results, combined with the working mineralization model, have identified multiple drill target designed to extend the mineralization trend near surface and test potential higher grade gold zones.

Figure 15 shows the proposed drill holes for the upcoming program although locations may change as drilling and sampling results may impact drilling sequence, location and priority.

![](_page_25_Figure_6.jpeg)

Figure 15: Proposed Drill Holes

The Company plans 705-meters of infill and expansion drilling at El Colorado (A) and a further 1,230 meters of drilling is planned along the El Colorado/La Ventana Corridor (B) where surface assay results confirmed a 600-meter extension to the southeast from El Colorado to La Ventana. Three oxide gold mineralized "windows" within the El Colorado/La Ventana Corridor returned assay results from 39 samples averaging 0.63 g/t Au and results from 51 samples averaging 0.76 g/t Au. Another seven samples returned grades between 4.4 g/t Au and 9.9 g/t Au.

To the east of El Colorado at the Buena Suerte mineralized zone, the Company plans 1,215 meters of infill and extension drilling at the north and south ends of Buena Suerte (C). An additional 1,800-meters of drilling is targeted along the Buena Suerte/San Quintín Corridor (D) to the south of Buena Suerte. Surface sampling confirmed a 750-meter southern extension of the Buena Suerte/San Quintin Corridor where two windows of oxide gold mineralization were identified also suggesting the potential for higher-grade and near surface mineralization. Assay results from 61 samples averaged 0.65 g/t Au and another 11 samples returned grades between 2.5 and 14.5 g/t Au.

Another 1,110-meters of expansion drilling is planned at El Rincón (E) to connect with the northwest extension of the Veta de Oro gold mineralized zone located over 500-meters to the southeast along the same structure. An additional 1,290-meters of drilling is planned at Cuervos (F), located at the southernmost extension of the Japoneses mineralized zones to expand the Cuervos zone toward the northwest and to the south and southwest. Drilling is planned to extend the Cabeza Blanca (G) vein zone to the north as well as at the Abejas/Chinos Altos Corridor (H) where the Company plans to investigate the horse tailed bifurcation of the Abejas (I) vein zone with four vein splays to the southwest into Chinos Altos.

Drilling will also focus on extending mineralization at two zones excluded from the updated resource estimate due to lack of required drilling density. The first is the Guadalupe zone (J), located parallel to the west side of Cabeza Blanca where the Company plans 300 meters of infill drilling to investigate the potential for the Guadalupe zone to coalesce with the Cabeza Blanca open pit.

The second excluded zone is La Española (K), where surface sampling identified the area as being within the recently defined La Magdalena/La Española Corridor. The Company plans to drill approximately 1,800 meters at La Española and another 190-meters at La Magdalena (L).

Exploration activities are concentrated on the multiple, structurally controlled vein and veinlet zones of gold-silver mineralization where gold-bearing veins cut or pass through diorite, granodiorite, siltstone, arenite and rhyolite rocks. The longitudinal cross sections shown below illustrate the more pervasive character of mineralization. It should be noted however that many areas without mineralization have yet to be explored and drilled. They also illustrate the locally inferred position of the "Favorable Zone" that defines the limits of gold and silver deposition in this kind of system.

The boiling zone, or "Favorable Zone," in Cerro Caliche begins at about 1,100 masl extending vertically up to 1,400 masl. The lengths of the trends are not completely shown in the images, due to issues of image size. But in the planar views, they extend to the boundaries of the property.

Figures 18 and 19 illustrate the Buena Suerte zone/trend and Cabeza Blanca-El Colorado zone/trend, along Section C-C & D-D as shown in Figure 16 along with the gold equivalent\*thickness color code and the limit of the favorable zone interpreted from existing surface sampling and geologic mapping.

Figures 20 illustrates the newly established mineralized zone/trends along Section F-F at Guadalupe oriented toward the Colorado zone to the south. Figure 21 illustrates Section G-G along the newly established zone/trend at Espanola, currently being extended north with drilling.

![](_page_27_Figure_0.jpeg)

Figure 16: Transversal 3D E-E' Cross Section. Pit Limit is conceptual based on PEA

![](_page_27_Figure_2.jpeg)

Figure 17: Longitudinal sections Grade x Thickness 3D Location in Plan View.

![](_page_28_Figure_0.jpeg)

Figure 18: Longitudinal 3D Section of the Buena Suerte - San Quintín Corridor. Pit Limit is Conceptual Based on PEA

![](_page_28_Figure_2.jpeg)

Figure 19: Longitudinal 3D Section of the Cabeza Blanca - El Colorado Corridor

![](_page_29_Figure_0.jpeg)

Figure 20: Longitudinal 3D Section of the Guadalupe- El Colorado Corridor. Pit Limit is conceptual based on PEA

![](_page_29_Figure_2.jpeg)

Figure 21: Longitudinal 3D Section of La Española Corridor

#### 6.2 Mineralization Targets

According to existing mineral industry models, characteristics of a Low Sulphidation Epithermal Mineralization model can be summarized as follows:

- a) mineralization zones can extend several hundreds of meters along strike;
- b) have a technically identified "favorable zone" in vertical direction; and
- c) metals relative occurrence vary in relation to depth.

#### Estimation of the Cerro Caliche target potential

Mineralization potential projections for each zone evaluated at Cerro Caliche were constructed assuming continuation of the measured gold equivalent\*thickness parameters derived from all drilling data available in the existing database.

The potential projected length of each zone was defined with existing drilling and/or existing geologic mapping and surface samplings that indicate the continuation beyond the limits of current drilling. Most of the studied gold mineralized zones extended to or near the boundaries of the property.

Table 6 includes the number of drill holes and meters allocated to each mineralized zone, The locations, sequencing, and configuration of the holes may be modified as assay results are received. Drill hole lengths are designed for an average length of 100 - 110 meters within a range of 70 to 140 meters per hole.

Name of Referenced Zone	Zone Included	Planned Drill Holes	Meters
La Ventana	La Ventana, San Quintín	32	3,000
Veta de Oro	Veta de Oro, Abejas, El Rincón	10	1,200
Cuervos	Cuervos, Japoneses	14	1,200
La Española	La Española, La Magdalena	15	1,200
Cabeza Blanca	Cabeza Blanca, Guadalupe, El Colorado	10	1,100
Buena Suerte	Buena Suerte, El Quínce	10	1,000
Chinos Altos	Chinos Altos	8	1,000
El Desprecio	El Desprecio	4	300

#### Table 6: Geological Zones targeted in the 2021-2022 Drilling Plan

Table 6: Mineralization Targets

The Authors of this report are of the professional opinion that based on a detailed review of the project, data, and related experience within the district and northwest Mexico, additional drilling in the project may potentially define additional tonnage in the existing mineralized zones that continue within these trends along strike and to depth. The Authors' "*estimate that, exclusive of the published pit contained resources, extensive exploration of these trends can possibly increase resources another 29,000,000 to 97,000,000 tonnes with grades potentially between 0.3 g/t to 0.55 g/t AuEq."* 

The potential tonnages and grades set forth in the analysis of geological potential are conceptual in nature, as there has been insufficient exploration to define a mineral resource and it is uncertain if further exploration will result in the target being delineated as a mineral resource. Potential estimates are separate from the mineral resources stated above.

#### 6.3 Drilling Results

As of the date of this report, the Company has completed 30-drill holes of a 10,000-meter drilling campaign and announced initial assay results from the first 24-drill holes. Results reflect drilling conducted at El Colorado and Guadalupe gold mineralized zones where assays returned multiple higher-grade gold intercepts within larger intervals of high-grade gold mineralization. Drilling is continuing at both zones.

Highlights are as follows:

- SCR-266 intercepted 9.14m averaging 1.04 g/t Au; including 1.52m averaging 2.28 g/t Au; including 1.53m averaging 3.01 g/t Au
- SCR-277 intercepted 22.86m averaging 1.55 g/t Au; including 6.10m averaging 5.18 g/t Au; including 3.05m averaging 9.10 g/t Au
- SCR-280 intercepted 3.05m averaging 19.56 g/t Au; including 1.53m averaging 37.90 g/t Au
- SCR-282 intercepted 4.57m averaging 2.43 g/t Au; including 1.53m averaging 4.54 g/t Au
- SCR-286 intercepted 27.43m averaging 5.36 g/t Au; including 4.57m averaging 7.16 g/t Au; including 4.57m averaging 22.09 g/t Au; including 1.53 meters averaging 46.50 g/t Au
- SCR-287 intercepted 4.57m averaging 2.18 g/t Au; including 1.52m averaging 4.70 g/t Au

#### El Colorado Zone

When combined with prior drilling results, the current Infill and expansion drilling at the higher-grade El Colorado gold mineralized zone, reveal the presence of blind (lack of surface exposure) irregular highergrade, low angle vein occurrences. These occurrences range from 10 to 70 meters below the present surface and may be included in future open pit cone determinations.

Drill hole SCR-286 intercepted high-grade gold mineralization at the deepest level of El Colorado's epithermal system drilled to date. Near the bottom of the hole, a 27.43 meter intercept averaged 5.36 g/t Au, including 4.57 meters averaging 7.16 g/t Au, and 4.57 meters of 22.09 g/t Au, including 1.53 meters averaging 46.5 g/t Au and 1.52 meters averaging 3.25 g/t Au. As drilling stopped at this last gold intercept, future close-in drilling is planned to test for potentially deeper extent of the drill hole's mineralization.

The high-grade SCR-286 intercept consists of vein and mega stock work located approximately 120 vertical meters lower than the resource pit cone used to calculate the zone's gold resource in the updated Mineral Resource Estimate. The intercept begins underneath a gulley 80 meters immediately southeast of the pit cone proposed for the north slope of the gulley, and approximately 75 meters below surface with the mineralization continuing southeast under the south slope of the gully. Mineralization at El Colorado remains open to the northwest, the southeast and to depth.

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![](_page_32_Figure_0.jpeg)

Figure 22: Interpretive Cross Section at El Colorado

#### **Guadalupe Zone**

At Guadalupe, SCR-277 intercepted 22.86 meters averaging 1.55 g/t Au, including 6.10 meters of 5.18 g/t Au and 3.05 meters of 9.10 g/t Au starting approximately 40 meters below surface. Located one kilometer north of SCR-286, the results suggest a continuation of the El Colorado vein system. At the deepest level to date within the Guadalupe's epithermal system, SCR-280 intercepted 3.05 meters averaging 19.56 g/t Au, including 1.53 meters averaging 37.90 g/t Au.

The higher-grade zone's repetitive character likely is due to a higher degree of shearing at the footwall of the Guadalupe vein structure. The footwall shows stronger shear character including mylonitic vein textures locally. As the zones have a horizontal character (with some low angle dips), a reverse faulting episode generated the necessary open space to permit near horizontal quartz veins to be deposited early in mineralization with later gold deposition. The possibility of these types of veins forming in other parts of the property is being reviewed but the entire structural zone around the Guadalupe vein structure may be permissive over more than 100 meters width.

The intercepts of higher-grade gold vein material at depth, may suggest the potential for underground gold mineralization in addition to the potential for the near-surface mineralization to be incorporated into the proposed Cabeza Blanca pit shell. Additional drilling is expected to add to the near-surface mineralization potential and drilling at depth will explore the underground potential.

Guadalupe was excluded from the updated Mineral Resource Estimate due to its lack of sufficient drilling density. The zone is located parallel to the west side of Cabeza Blanca. Some parts of the Guadalupe zone may be included with the Cabeza Blanca resource in future estimations.

![](_page_33_Figure_0.jpeg)

Figure 23: Interpretive Cross Section of Guadalupe

#### El Colorado/La Ventana - Guadalupe/Cabeza Blanca Corridors

Four "scout holes" drilled to the southeast along the extension of the El Colorado/La Ventana - Guadalupe/Cabeza Blanca structural corridors confirmed mineralization continues by approximately 400 meters to the south, for a total length of 1.5 kilometers. Drill hole SCR-265 at La Ventana intercepted 6.10 meters averaging 0.88 g/t Au, including 1.53 meters averaging 2.14 g/t Au and drill hole SCR-266 intercepted 9.14 meters averaging 1.04 g/t Au, including 1.52 meters averaging 2.28 g/t Au and 1.53 meters averaging 3.01 g/t Au. Assay results on an additional four drill holes are pending but the visual identification of quartz vein material in chip logs suggests a good potential for gold.

Drilling with programed inclined RC drill holes is focused on extending gold mineralization south of the existing mineralized zones where near surface extension drilling is focused on adding to the existing resource areas. Access into the newly extended corridor had been limited until recently constructed roads enabled the Company to undertake an extensive sampling and mapping program, providing higher-grade targets for the current drilling program.

The geology in the newly drilled southern extension is similar to the geology of known mineralized zones to the north. Higher-grade sampled vein zones extend along similar trends from the north into the extended corridor area, with the drill holes stepping out about 400 meters south. Host rock is a complex of dioritic to granodiorite intrusive with later crosscutting andesitic dikes, similar to host rock in the El Colorado gold mineralized area.

Drill hole lengths are variable ranging from approximately 70 meters to 140 meters. Intervals intercepted indicate the vein structural zones continue south beyond previously drilled holes with higher gold values. The true dips are currently unknown but true widths are expected to be 80% or more of reported widths. Gold/silver ratios remain low with elevated lead content indicating deeper epithermal modeled levels.

#### La Española Zone

Another area excluded from the Mineral Resource Estimate was La Española, located in the southeast region of the property. Six scout drill holes completed at La Española suggest lower grade mineralization in the northward extension of the vein zone. SCR-276 intercepted 4.58 meters averaging 0.77 g/t Au

including 1.53 meters averaging 1.89 g/t Au. This new data will be assessed in conjunction with the data from the prior drill holes to determine the potential for the zone.

Drilling continues to advance at Cerro Caliche with 30 drill holes completed to date. COVID related delays in the completion of laboratory analyses have created significant sample backlogs and delayed the announcements of drilling results. To expedite material information to shareholders, four of the drill holes listed below include only gold assays while silver assay results are pending. Full assay results from the four drill holes will be available on the Company's website once received.

Cerro Caliche Project, Holes Composites with Cut-off 0.15 g/t Au								
	_		From	То	Interval	Au	Ag	AuEq
Hole	Target			Meters		g/t	g/t	g/t
			0.00	6.10	6.10	0.876	2.30	0.887
SCR-265	La Ventana	including	4.57	6.10	1.53	2.137	5.20	2.161
		and	13.72	16.76	3.04	0.393	0.60	0.396
			36.58	45.72	9.14	1.044	17.10	1.123
SCR-266	La Ventana	including	36.58	38.10	1.52	2.279	1.80	2.287
		including	42.67	44.20	1.53	3.005	9.00	3.046
SCR-267	La Ventana		16.76	19.81	3.05	0.383	0.80	0.387
SCR-268	La Ventana		21.34	25.91	4.57	0.164	2.00	0.173
SCR-269	San Quintín		33.53	38.10	4.57	0.324	4.00	0.342
SCR-270	San Quintín		24.38	27.43	3.05	0.452	2.90	0.466
CCD 271			48.77	51.82	3.05	0.221	0.50	0.224
SCR-271	La Española	and	99.06	106.68	7.62	0.227	3.50	0.243
SCR-272	La Española		Dev	iated hole, d	did not cut t	he structure	9	
SCR-273	La Española		64.01	67.06	3.05	0.340	0.20	0.341
SCR-274	La Española		36.58	39.62	3.04	0.238	0.40	0.240
SCR-275	La Española		13.72	18.29	4.57	0.299	7.90	0.335
			9.14	13.72	4.58	0.194	0.20	0.195
		and	27.43	30.48	3.05	0.392	0.60	0.395
SCD 276		and	39.62	44.20	4.58	0.774	0.60	0.777
3CR-270	La Española	including	39.62	41.15	1.53	1.890	0.50	1.892
		and	141.73	144.78	3.05	0.733	11.00	0.784
		and	149.35	152.40	3.05	0.300	1.60	0.307
			57.91	80.77	22.86	1.548		
SCR-277	Guadalupe	including	60.96	67.06	6.10	5.180	PENI	DING
		including	60.96	64.01	3.05	9.103		
			57.91	60.96	3.05	1.585	1.30	1.591
		including	57.91	59.44	1.53	2.372	2.30	2.383
SCR-278	Guadalupe	and	67.06	70.10	3.04	0.293	6.30	0.321
		and	71.63	79.25	7.62	0.181	0.20	0.182
		and	80.77	85.34	4.57	0.250	0.40	0.252
SCR-279	Guadalupe		50.29	56.39	6.10	0.325	1.60	0.333

The following table provides the assay results for the complete list of reported drill holes:

Cerro Caliche Project, Holes Composites with Cut-off 0.15 g/t Au												
	Target		From	То	Interval	Au	Ag	AuEq				
Hole			Meters			g/t	g/t	g/t				
SCR-280	Guadalupe		0.00	9.14	9.14	0.747	1.70	0.754				
		including	3.05	4.57	1.52	2.516	6.50	2.546				
		and	24.38	27.43	3.05	0.179	2.10	0.189				
		and	57.91	62.48	4.57	0.519	1.50	0.526				
		and	80.77	83.82	3.05	0.188	0.20	0.189				
		and	106.68	109.73	3.05	0.372	0.40	0.374				
		and	112.78	117.35	4.57	0.202	2.20	0.212				
		and	124.97	128.02	3.05	19.559	7.30	19.593				
		including	126.49	128.02	1.53	37.900	14.00	37.964				
	San Quintín		0.00	16.76	16.76	0.256	0.70	0.259				
SCD 291		and	21.34	33.53	12.19	0.239	0.30	0.240				
SCR-281		and	73.15	76.20	3.05	0.964	0.90	0.968				
		including	73.15	74.68	1.53	1.680	1.40	1.686				
	San Quintín		16.76	22.86	6.10	0.255	2.50	0.266				
		and	45.72	54.86	9.14	0.340	0.70	0.343				
SCR-282		and	100.58	103.63	3.05	0.599	0.90	0.603				
		and	117.35	121.92	4.57	2.434	1.90	2.443				
		including	118.87	120.40	1.53	4.544	2.70	4.556				
	San Quintín		0.00	3.05	3.05	0.318	0.50	0.320				
SCR-283		and	19.81	25.91	6.10	0.838	1.20	0.843				
		including	22.86	24.38	1.52	2.957	3.00	2.971				
SCR-284	La Ventana			No Sig	nificant Val	ues						
SCR-285	La Ventana	4.57 7.62 3.05 0.243 PENDING										
	El Colorado		39.62	41.15	1.53	1.425	0.40	1.427				
SCR-286		and	50.29	53.34	3.05	0.220	1.80	0.228				
		and	83.82	111.25	27.43	5.360	3.40	5.376				
		including	86.87	91.44	4.57	7.161	6.30	7.190				
		including	96.01	100.58	4.57	22.087	8.00	22.123				
		including	96.01	97.54	1.53	46.50	16.00	46.573				
		including	109.73	111.25	1.52	3.250	1.50	3.257				
SCR-287	El Colorado		19.81	30.48	10.67	0.486						
		including	27.43	28.96	1.53	1.821						
		and	44.20	48.77	4.57	2.181						
		including	44.20	45.72	1.52	4.699	PENDING					
		and	71.63	74.68	3.05	0.451	-					
		and	77.72	86.87	9.15	0.231						
		and	91.44	94.49	3.05	0.237						
SCR-288	El Colorado		1.52	4.57	3.05	0.407	PENDING					
		and	30.48	35.05	4.57	0.253						

Table 7: Assay Results

Drill Collar Locations (NAD 1927 UTM Zone 12N)											
Drill Hole	Zone	Easting	Northing	Elevation	Depth (m)	Dip	Azimuth				
SCR-265	La Ventana	536,485	3,364,123	1,340	140.21	-50	270				
SCR-266	La Ventana	536,478	3,364,116	1,340	85.34	-45	210				
SCR-267	La Ventana	536,542	3,364,159	1,351	164.59	-45	225				
SCR-268	La Ventana	536,504	3,364,100	1,334	82.30	-50	190				
SCR-269	San Quintín	536,608	3,364,189	1,347	140.21	-45	225				
SCR-270	San Quintín	536,585	3,364,372	1,355	201.17	-45	280				
SCR-271	La Española	538,019	3,364,923	1,341	134.11	-50	70				
SCR-272	La Española	537,942	3,364,962	1,385	249.92	-45	80				
SCR-273	La Española	538,066	3,365,081	1,343	70.10	-45	270				
SCR-274	La Española	538,043	3,365,130	1,342	73.15	-50	270				
SCR-275	La Española	537,977	3,365,264	1,377	48.77	-45	235				
SCR-276	La Española	537,981	3,364,978	1,367	204.22	-40	90				
SCR-277	Guadalupe	535,961	3,365,059	1,417	88.39	-45	260				
SCR-278	Guadalupe	535,998	3,365,011	1,388	103.63	-45	260				
SCR-279	Guadalupe	536,020	3,364,896	1,358	88.39	-45	260				
SCR-280	Guadalupe	536,088	3,364,970	1,338	143.26	-45	260				
SCR-281	San Quintín	536,682	3,364,506	1,293	82.30	-45	70				
SCR-282	San Quintín	536,679	3,364,506	1,293	128.02	-45	255				
SCR-283	San Quintín	536,586	3,364,499	1,282	60.96	-45	230				
SCR-284	La Ventana	536,376	3,364,500	1,240	82.30	-45	255				
SCR-285	La Ventana	536,417	3,364,513	1,240	131.06	-45	255				
SCR-286	El Colorado	536,273	3,364,477	1,194	111.25	-45	220				
SCR-287	El Colorado	536,211	3,364,468	1,213	100.58	-90	0				
SCR-288	El Colorado	536,192	3,364,420	1,218	118.87	-50	210				

Drill collar locations, azimuths and dips for the drill holes included are provided in the table below.

Table 8: Drill Collar Locations

#### Quality Assurance/Quality Control ("QA/QC") Measures and Analytical Procedures

Drill samples are collected with an airstream cyclone and passed into a splitter that divides each sample into quarters. The quartered samples are then bagged and sealed with identification. The sample group has blanks, standards and duplicates inserted into the sample stream.

Bureau Veritas (BV) collects from the drill site the samples and transports them directly to the preparation laboratory in Hermosillo, Sonora. At the prep. laboratory, a split part of each sample (about 500 grams) is reduced through crushing, splitting and pulverization. Thirty grams of each pulverized sample is split apart in the Hermosillo laboratory and undergoes a "Fire Assay" for gold content by reducing the fire assay to a concentrated button of material that is dissolved in acids and the gold content determined by atomic absorption. About another 200 grams of each sample are sent by BV to their Vancouver, Canada laboratory and dissolved there in aqua regia for multi-element ICP analysis, including silver.

ALS-Chemex collects the samples and transports them directly to the preparation laboratory in Hermosillo, Sonora. At the laboratory, part of each sample is reduced through crushing, splitting and pulverization from which 200 grams is sent to the ALS-Chemex assay laboratory in Vancouver. Thirty grams undergoes fire assay for gold with the resulting concentrated button of material produced is dissolved in acids and the gold is determined by atomic absorption. Another quantity of the sample is dissolved in four acids for an ICP multi-element analysis.

No QA/QC issues were noted with the results received from either laboratory.

## 7. Conclusions and Recommendations

The Cerro Caliche property contains a broad area of near or at surface oxide gold-silver mineralization which was hydrothermally deposited into permissive highly fractured or porous rocks enhanced by repetitive structural preparation. Cerro Caliche appears to be part of the same broad hydrothermal event as the nearby Mercedes mine complex which is associated with the development of extensional structural regional events in Tertiary age around 26-28 Ma. Regionally, moderate to low temperature fluids moved upward from a broad underlying area of emplaced calc-alkaline magma, through steep extensional (open) structures that channeled the fluids that deposited the precious metals in quartz vein deposition sites in the style of the Sierra Madre's classical epithermal mineralized precious metals districts. The "boiling process" causes chemical changes to occur within 1,000 meters of the paleosurface (the surface as it existed during the Tertiary) and helps define the broad "favorable zone" for deposition for the precious and base metals within the veins.

Sonoro Gold has defined an at or near surface gold resource which has been verified by an independent PEA filed on October 29, 2021. The intent of the Phase IV drilling campaign is to increase the size and grade of resource potentially extending the mine life of the proposed heap leach mining operation and improving the overall economics of the project.

Following the commencement of the Cerro Caliche drilling campaigns in October 2018, there has been a substantial increase in the calculated size of the gold resource and in the estimations for the potential mineralization to be realized through current and future drilling, as follows:

- An NI 43-101 technical report dated July 2019 by Derrick Strickland, P.Geo. and Robert Sim, P.Geo., estimated an inferred resource of 11.47 Mt at an average grade of 0.545 g/t AuEq and 0.495 g/t Au.
- A Project Development Report dated May 2020 prepared by Sonoro's VP Exploration, Mel Herdrick, P.Geo. and VP Operations, Jorge Diaz, MSc., proposed a drilling program designed to test an additional exploration target of between 75,000,000 to 100,000,000 tonnes with grades potentially between 0.3 g/t to 0.5 g/t AuEq.
- A Preliminary Economic Assessment dated October 2021 prepared by D.E.N.M. Engineering Ltd. contained an updated NI 43-101 resource estimate of 12.1 Mt Measured at an average grade of 0.39 g/t Au; 14 Mt Indicated at an average grade of 0.47 g/t Au; and 5.7 Mt Inferred at an average grade of 0.41 g/t Au.
- The Authors of the report estimate extensive exploration of the project's mineralized trends can possibly increase resources another 29,000,000 to 97,000,000 tonnes with grades potentially between 0.3 g/t to 0.55 g/t AuEq.

The objective of future exploration is to increase the size and grade of three different mineralization:

- 1. Extend known gold vein mineralized zones along trend outlined by previous drilling;
- 2. Test higher-grade gold targets including porous geologic units and volcanic basal units of rhyolite flows-sills in known strata bound targets;
- 3. Investigate multiple untested but surface defined gold mineralized zones.

The potential tonnages and grades set forth in the analysis of geological potential are conceptual in nature, as there has been insufficient exploration to define such a mineral resource and it is uncertain if further exploration will result in those targets being delineated as a mineral resource. Potential estimates are separate from the published mineral resources stated above.