Independent Technical Report

Cerro Colorado Gold Mine

Sonora, Mexico

Goldgroup Mining Inc.
1055 Dunsmuir Street
Suite 2184
Vancouver, BC Canada
V7X 1L3

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Prepared By:

Caracle Creek International Consulting Inc.
Michelle Stone, Ph.D., P.Geo.

Office Locations

Toronto

34 King Street East, 9th Floor
Toronto, ON
Canada, M5C 2X8

Tel: +1.416.368.1801
Fax: +1.416.368.9794
CDNops@cciconline.com

Vancouver
409 Granville Street, Suite 1409
Vancouver, BC
Canada, V6C 1T2

Tel: +1.604.637.2050
Fax: +1.604.602.9496
CDNops@cciconline.com

Sudbury
25 Frood Road
Sudbury, ON
Canada, P3C 4Y9

Tel: +1.705.671.1801
TF: +1.866.671.1801
Fax: +1.705.671.3665
CDNops@cciconline.com

Johannesburg
7th Floor
The Mall Offices
11 Cradock Avenue, Rosebank
South Africa

Tel: +1.27.(0).11.880.0278
Fax: +1.27(0).11.447.4814
SAops@cciconline.com

www.cciconline.com

This report has been prepared by Caracle Creek International Consulting Inc. ("CCIC") on behalf of Goldgroup Mining Inc. (formerly Sierra Minerals Inc.)

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1.0 SUMMARY

Caracle Creek International Consulting Inc. (“CCIC”) was requested by Sierra Minerals Inc. (“Sierra”), now known as Goldgroup Mining Inc., (“Goldgroup”) to conduct a site visit and prepare an independent mineral resource estimate and a technical report (the “Report”) compliant with National Instrument 43-101 (“NI 43-101”), companion policy NI 43-101CP and Form 43-101F1 for their Cerro Colorado Property and mine in Sonora, Mexico. This Report is intended to provide a brief overview of the work programs completed by Sierra from 2005 through 2008 and the results of the resource estimate.

The Cerro Colorado Gold Mine is located in northern Sonora, Mexico. The Property consists of six concessions covering the area of the mine and 44 concessions in the immediate vicinity of the mine totalling 33,767.2 ha. Cerro Colorado is owned by Sierra through its Mexican operating company Granmin S.A. de C.V. (“Granmin Mexico”). Cyanide leaching at Cerro Colorado commenced in 2003 and has since produced approximately 43,000 ounces of gold to the end of 2008.

The geology on the Property is lithologically quite simple comprised of three major units, Proterozoic amphibolite to orthogneiss, Paleozoic (possibly Jurassic) layered dolomite/limestone (marble) with minor siltstone/arenite, that are both cut by a central Tertiary rhyolite dome. The rhyolite is generally massive although locally it occurs as rhyolite auto-breccia or is flow banded. Gold mineralization is mostly hosted by the rhyolite although some gold is found locally within dolomite layers on the west side of the dome.

The exploration model for Cerro Colorado that has been used by Sierra is that of the Kidston gold-silver deposit, Queensland, Australia (e.g., Baker and Andrew, 1991). The Kidston deposit was a significant gold occurrence and contained high grade resources. The mineralization was hosted within a trapezoid-shaped breccia pipe with surface dimensions of 1,100 m $\times$ 900m. Rhyolite dikes are spatially and temporally associated with the mineralization and brecciation. The breccia formed by collapse and did not reach the current land surface. At Kidston, mineralization that is not related to the breccia (stockwork in host rhyolite) was uneconomic. The breccias at Kidston coalesced at depth and formed a single mineralized system.

The open pits have been operational since 2003, with 2008 seeing an increase in production to 19,669 ounces. Three pits are currently operating: Harris, Breccia Central and Obra X. Exploration drill programs have been completed each year since 2006. Three hundred and five exploration holes have been drilled in and around the mine.

The 2006-2008 exploration programs have been successfully completed. The results of the exploration drilling have been combined with the production (blast hole) drilling to estimate the tonnes and grade of the Cerro Colorado Gold Mine. The initial mineral resource for the Cerro Colorado Gold Mine area is estimated to be approximately 107,000 Measured tonnes at 0.63 g/t Au, 9.6 million Indicated tonnes at 0.54 g/t Au and 5.6 million Inferred tonnes at 0.41 g/t Au. These mineral resources contain a total of 2,157 Measured ounces, 167,987 Indicated ounces and 74,177 Inferred ounces of gold. Mineral resources were calculated from blast hole and exploration drilling data only in the area of the mine. Mineral resources are not mineral reserves as the economic viability has not been demonstrated.

Table 1- 1: Estimated resources reported at a 0.25 g/t Au cut-off for the Cerro Colorado Gold Mine, January 31st, 2009 (base case). Tonnes are rounded to the nearest 1,000.

Classification	Tonnes (t)	Au (g/t)	Ounces Au
Measured	107,000	0.63	2,157
Indicated	9,599,000	0.54	167,987
Measured + Indicated	9,706,000	0.55	170,144
Inferred	5,599,000	0.41	74,177

Note: Ounces calculated using 31.103 grams per tonne.

The gold grades at Breccia Central appear to be higher than the surrounding area. However, additional drill testing and duplicate sampling is needed to confirm these higher grades. Careful planning of future drill programs is required because of the variable orientation of the thin, stacked gold-bearing veins that are characteristic of the Cerro Colorado Gold Mine.

The mine is attempting to expand its commercial production capacity from 20,000 to approximately 25,000 ounces. The expansion is expected to be completed during 2009. Exploration drilling should continue to infill and upgrade the Inferred resources to Indicated classification within the mine area.

The following work is recommended for the Cerro Colorado Gold Mine with particular focus on better defining and confirming resources estimated for the mine:

1. 10,000 metre infill drilling program appropriately oriented to cross-cut the dominant trend of the veining. The estimated cost for this work program is approximately CDN$1.2 million.
2. Submit existing sample pulps to confirm the higher grade gold values returned in the Breccia Central drilling with appropriate QAQC samples.
3. Continue density/specific gravity determinations as part of the routine monitoring of the quality of the mineralilzation for accurate tonnage estimation. This can be done by sampling holes defined in Item 1 and having the specific gravity calculated on a series of pulps at ALS Chemex. This method is appropriate for use at Cerro Colorado because the material is bulk mined.
4. Update QAQC procedures to include routine duplicate analysis at a secondary laboratory and the inclusion of blank samples to check for contamination. Property specific standard reference materials should be prepared and analyzed as part of the revised QAQC procedure.
5. Down hole directional surveys should be completed on all new drill holes and old holes should be checked if they are in good condition.

2.0 INTRODUCTION

CCIC was contracted by Sierra (now Goldgroup) to prepare an Independent Mineral Resource Estimate (the "Resource Estimate" or "Estimate") and Technical Report (the "Report"), compliant with National Instrument 43-101 ("NI 43-101"), companion policy NI 43-101CP and Form 43-101F1, for their Cerro Colorado Gold Mine project (the "Project") in the State of Sonora, Mexico. This Report is intended to provide an overview of the work programmes completed by Sierra from 2005 through 2008 and the results of the Estimate.

The author and Qualified Person for this Report, Michelle Stone, P.Geo., a Senior Geologist with CCIC, visited the Project on January 21st and 22nd, 2009. Ms. Stone was shown drill collar locations from the October 2007 to June 2008 drilling program, the major geologic units, the on-site laboratory, and sample storage facility. This Report is based on the following data as made available to CCIC by Sierra and public domain sources:

- An NI 43-101 Compliant Technical Report dated April 20, 2005 and completed by Kappes, Cassiday & Associates of Reno, Nevada.
- Reports and production data supplied by Sierra.
- Communication with Michael Farrant President and Chief Executive Officer of Sierra and Philip Davies, Chief Operating Officer of Sierra.

The Certificate of Qualifications for the author is provided in Appendix I.

2.1 Terminology and Unit Conversion

The Metric System is the primary system of measure used in this Report. Length is generally expressed in kilometres, metres and centimetres, volume is expressed as cubic metres, mass expressed as metric tonnes, and gold grades are expressed as "grams per tonne" and abbreviated as g/t Au.

Frequently used abbreviations and acronyms are:

3D	=	three dimensional
%	=	percent
°C	=	degrees Celcius

AA	=	atomic absorption
Ag	=	silver
API	=	American Petroleum Institute units
Au	=	gold
btu	=	British Thermal Units
CAT	=	Caterpillar
CCIC	=	Caracle Creek International Consulting Inc.
CDN	=	Canadian
CIM	=	Canadian Institute of Mining, Metallurgical, and Petroleum
cm	=	centimetre(s)
CN	=	sodium cyanide
FA	=	fire assay
Fresnillo	=	Compañia Fresnillo, S.A.
g	=	gram(s)
g/t	=	grams per tonne
Granmin Mexico	=	Granmin S.A. de C.V.
ha	=	hectares
HDPE	=	high-density polyurethane
ICP	=	inductively coupled plasma spectroscopy
ICPMS	=	inductively coupled plasma mass spectroscopy
IP	=	induced polarization
IPL	=	International Plasma Laboratory
km	=	kilometres(s)
m	=	metre(s)
m^2	=	metres squared
m^3	=	metres cubed
mm	=	millimetre(s)
MMI	=	Mexican Mining Investments
NAD	=	North American Datum
NI 43-101	=	National Instrument 43-101
NSR	=	net smelter return
oz	=	ounces
QAQC	=	quality assurance and quality control
RC	=	reverse circulation
ROM	=	run of mine
RTO	=	reverse take-over transaction
SG	=	specific gravity
Sierra	=	Sierra Minerals Inc.
t	=	metric tonne (1,000 kg)
Tormex	=	Contratista Tormex
tpd	=	tonnes per day
Treasury	=	Treasury Metals Inc.

US$	=	United States (American) dollars
UTM	=	Universal Transverse Mercator

Dollars are expressed in United States currency (US$) unless otherwise noted. Gold prices are stated in US$ per troy ounce (US$/oz). Unless otherwise mentioned, all Universal Transverse Mercator ("UTM") coordinates in this Report are provided in the datum of Mexico, NAD 27 Zone 12.

3.0 RELIANCE ON OTHER EXPERTS

CCIC has completed this Report in accordance with the methodology and format outlined in National Instrument 43-101, companion policy NI43-101CP and Form 43-101F1. The Resource Estimate has similarly been prepared and in accordance with the Best Practice Guidelines for the Estimation of Mineral Resources and Mineral Reserves (CIM, 2003).

This Report was prepared by competent and professional individuals from CCIC on behalf of Sierra and is directed solely for the development and presentation of data with recommendations to allow Sierra and current or potential partners to reach informed decisions. The information, conclusions and recommendations contained herein are based in part on the previous, 2007 Technical Report, a site visit by Michelle Stone in 2009 and data provided by Sierra.

All relevant information on the Project presented in this Report is based on data derived from reports written by geologists and/or engineers, whose professional status may or may not be known in relation to the NI 43-101 definition of a Qualified Person. CCIC has made every attempt to accurately convey the content of those files, but cannot guarantee the accuracy or validity of the work contained within those reports. However, CCIC believe that these reports were written for internal purposes only, with the objective of presenting the results of the work performed without any promotional or misleading intent. In this regard, the information presented therein should be considered reliable, unless otherwise stated, and may be used without any prejudice by Sierra. CCIC has therefore assumed that the reports listed in the References section of this Report are substantially accurate and complete.

CCIC has relied exclusively on information provided by Sierra regarding land tenure, underlying agreements and technical information not in the public domain, and all of these sources appear to be of sound quality. CCIC is unaware of any technical data other than that presented by Sierra or its agents. CCIC did not conduct an in-depth review of mineral title and ownership and the title ownership and status of claims as outlined in this Report was obtained from Sierra. While title documents and option/purchase agreements were reviewed for this study as provided by Sierra, it does not constitute, nor is it intended to represent, a legal, or any other opinion as to title. The author has reviewed the land tenure documents provided by Urias Romero y Asociados, S.C. (Sierra's Mexican legal consul) and accepts Sierra's opinion that the agreements are valid and that the current property titles are in good standing.

4.0 Property Description and Location

4.1 Location and Property Status

The Cerro Colorado property is located in the Trincheras municipality in the State of Sonora, Mexico (Figure 4-1). Trincheras is the nearest town 35 km to the northeast with a population of approximately 5,000. The town of La Cienega is located 10 km to the southwest of the project.

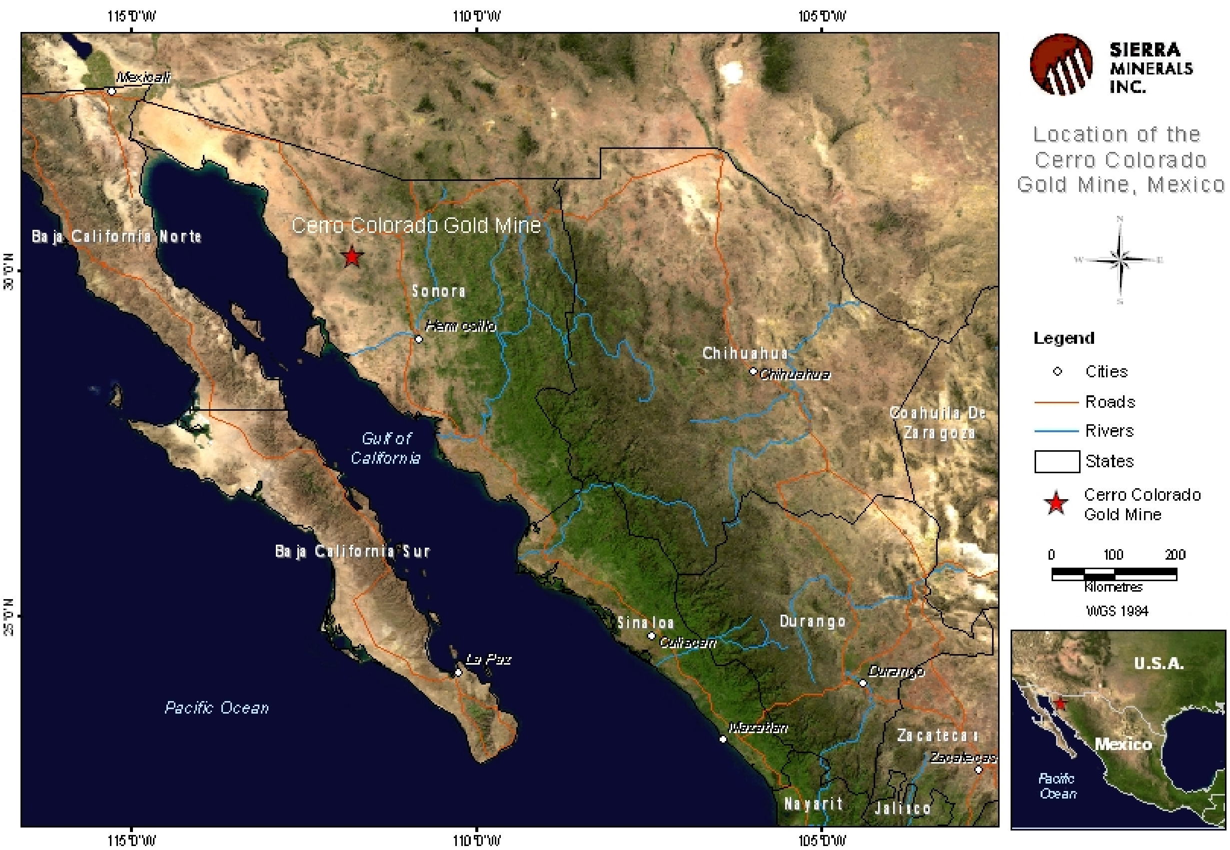

Figure 4- 1 Location of the Cerro Colorado Property in Sonora, Mexico.

The Cerro Colorado Property consists of 49 concessions (Figures 4-2 and 4-3; Table 4-1). One title is pending (Nuevo Gran Valle Fracción 4; Table 4-1). The total land area held by Sierra is 33,767.2026 ha (including the pending title of 5 ha). The location of a concession is determined from the position of a single claim monument ("mojonera"). The corners are all located based on surveyed distances and bearings from that monument by a registered Mexican Mineral Concession Surveyor. The mine area itself is covered by six contiguous concessions (Figure 4-3) and these concessions are the focus of this Report.

The Cerro Colorado Property is wholly owned by Sierra through Granmin S.A. de C.V. ("Granmin Mexico"), their Mexican operating company. In 2008, Sierra was required to pay approximately $11,000 in taxes in two equal instalments during the year to maintain the concessions (Table 4-1). Similar amounts are expected to be required in 2009.

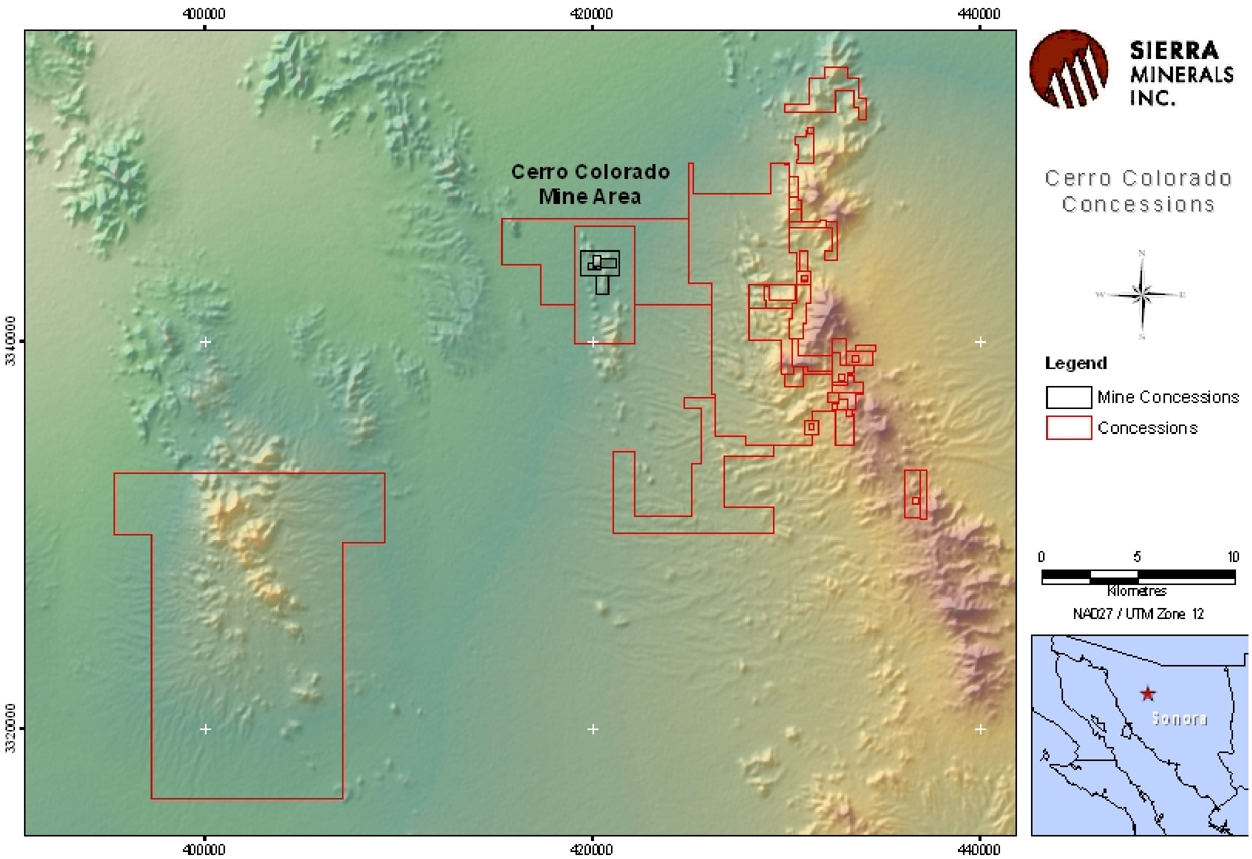

Figure 4- 2 Concessions comprising the Cerro Colorado Property in Sonora, Mexico.

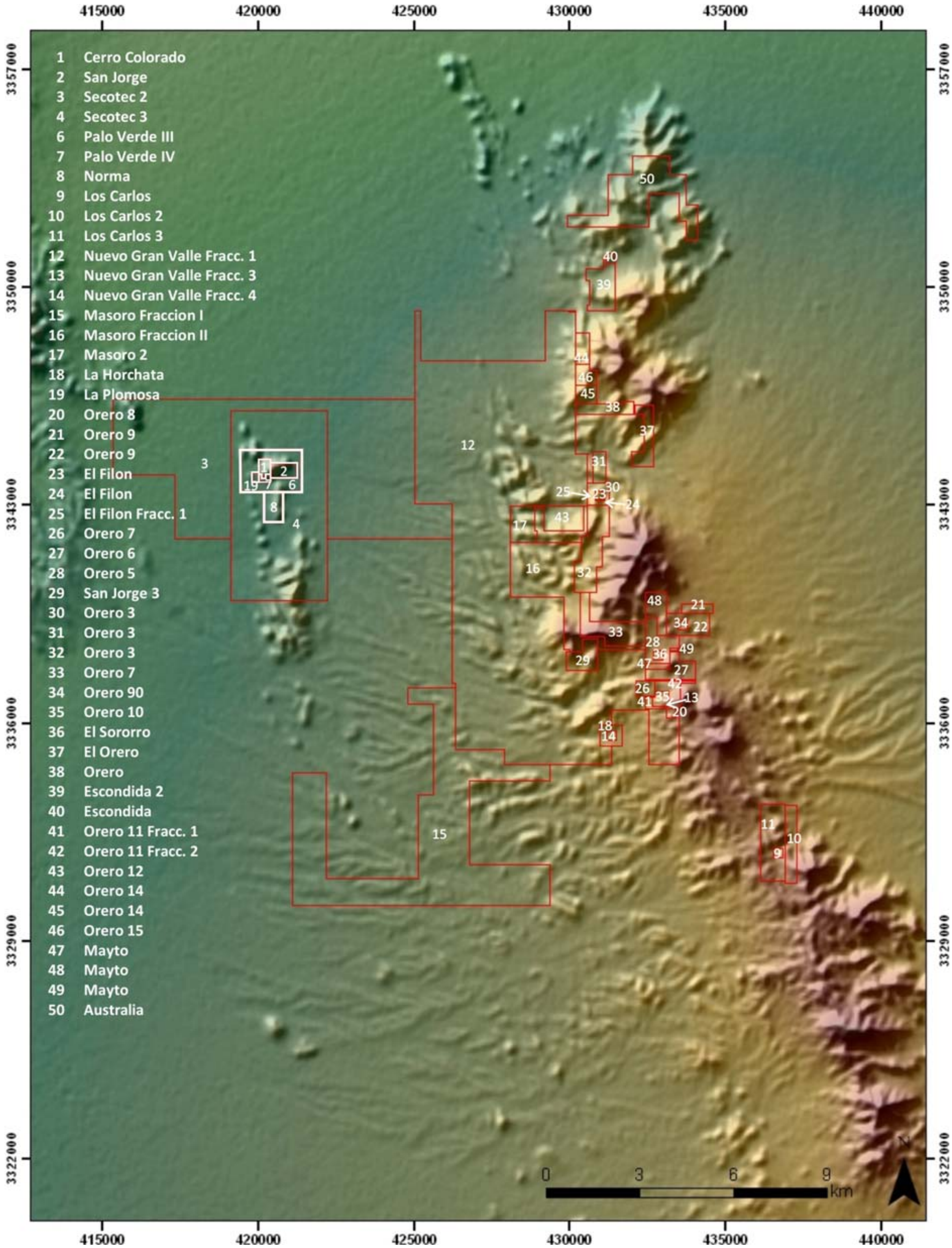

Figure 4- 3 Map showing the concessions around the Cerro Colorado Gold Mine (white) and the immediate surrounding area (red).

Table 4- 1: Mineral concessions of the Cerro Colorado Property. Taxes are expressed in US dollars.

	Concession	Owner	Title Number	Area (ha)	Issue Date	Expiry Date	Taxes Paid
1	CERRO COLORADO	GRANMIN	186367	20.8179	3/29/1990	3/28/2040	$2,317
2	SAN JORGE	GRANMIN	184829	39.9912	12/05/1989	12/04/2039	$4,450
3	SECOTEC 2	GRANMIN	220953	2,813.5456	11/04/2003	11/03/2009	$5,887
4	SECOTEC 3	GRANMIN	224723	1,468.8583	06/02/2005	06/01/2055	$221
5	JUDY	GRANMIN	82/31690	18,131.0000	7/18/2008	7/17/2058	$133,864
6	PALO VERDE III	CERRO DORADO	218965	186.1761	1/28/2003	1/27/2053	$5,887
7	PALO VERDE IV	CERRO DORADO	218966	6.9838	1/28/2003	1/27/2053	$221
8	NORMA	LARA	218449	60.0255	11/05/2002	11/04/2052	$1,898
9	LOS CARLOS	GRANMIN	227334	9.0000	06/09/2006	06/08/2056	$69
10	LOS CARLOS 2	GRANMIN	215707	93.3800	03/05/2002	03/04/2052	$2,953
11	LOS CARLOS 3	GRANMIN	225423	177.6907	09/06/2005	09/05/2055	$1,351
12	NUEVO GRAN VALLE FRACCIÓN 1	MASORO	218755	5,886.3238	1/17/2003	1/16/2053	$186,126
13	NUEVO GRAN VALLE FRACCIÓN 3	MASORO	218757	0.1500	1/17/2003	1/16/2053	$1
14	NUEVO GRAN VALLE FRACCIÓN 4	MASORO	82/27961	5.0000	pending		
15	MASORO 1 FRACCION I	MASORO	220537	2,192.2898	8/15/2003	8/14/2053	$34,463
16	MASORO 1 FRACCION II	MASORO	220538	496.8429	8/15/2003	8/14/2053	$7,811
17	MASORO 2	MASORO	227120	91.2935	05/11/2006	05/10/2056	$694
18	LA HORCHATA	MASORO	179752	40.0000	12/15/1986	12/14/2036	$4,451
19	LA PLOMOSA	MASORO	193790	6.0000	12/19/1991	12/18/2041	$668
20	ORERO 8	HÉCTOR GRAHAM*	214529	9.0000	10/02/2001	10/01/2051	$285
21	ORERO 9	HÉCTOR GRAHAM*	220513	30.0000	8/14/2003	8/13/2053	$472
22	ORERO 9	HÉCTOR GRAHAM*	220515	88.3183	8/14/2003	8/13/2053	$1,389
23	EL FILON	HÉCTOR GRAHAM*	213844	8.0731	07/03/2001	07/02/2051	$256
24	EL FILON	HÉCTOR GRAHAM*	213915	0.2558	7/13/2001	07/12/2051	$9
25	EL FILON FRACC. 1	HÉCTOR GRAHAM*	213916	0.6771	7/13/2001	07/12/2051	$22
26	ORERO 7	HÉCTOR GRAHAM*	218367	28.4578	11/05/2002	11/04/2052	$900
27	ORERO 6	HÉCTOR GRAHAM*	224789	85.2144	11/05/2002	11/04/2052	$2,695
28	ORERO 5	HÉCTOR GRAHAM*	220996	99.0000	8/31/2000	8/30/2050	$6,559
29	SAN JORGE 3	HÉCTOR GRAHAM*	220514	80.0000	8/14/2003	8/13/2003	$1,258
30	ORERO 3	HÉCTOR GRAHAM*	221856	39.9940	04/02/2004	04/01/2054	$636
31	ORERO 3	HÉCTOR GRAHAM*	221857	40.8701	04/02/2004	04/01/2054	$650
32	ORERO 3	HÉCTOR GRAHAM*	216769	200.0000	5/28/2002	5/27/2052	$6,395
33	ORERO 7	HÉCTOR GRAHAM*	217947	170.9904	9/18/2002	9/17/2052	$5,468
34	ORERO 90	HÉCTOR GRAHAM*	212866	9.0000	2/13/2001	02/12/2051	$575
35	ORERO 10	HÉCTOR GRAHAM*	224293	23.5724	4/22/2005	4/21/2055	$375
36	EL SOCORRO	HÉCTOR GRAHAM*	207572	9.0000	6/30/1998	6/29/2048	$1,013
37	EL ORERO	HÉCTOR GRAHAM*	223071	87.2571	10/08/2004	10/07/2054	$1,388
38	ORERO	HÉCTOR GRAHAM*	221952	63.4377	4/16/2004	4/15/2054	$1,009
39	ESCONDIDA 2	HÉCTOR GRAHAM*	221953	127.4567	4/16/2004	4/15/2054	$2,027
40	ESCONDIDA	HÉCTOR GRAHAM*	218515	9.0000	11/05/2002	11/04/2052	$288
41	ORERO 11 FRACC. 1	HÉCTOR GRAHAM*	228955	11.7429	2/22/2007	2/21/2057	$91
42	ORERO 11 FRACC. 2	HÉCTOR GRAHAM*	228956	54.2564	2/22/2007	2/21/2057	$418
43	ORERO 12	HÉCTOR GRAHAM*	227168	100.2807	5/17/2006	5/16/2056	$772
44	ORERO 14	HÉCTOR GRAHAM*	227327	44.0376	06/09/2006	06/08/2056	$339
45	ORERO 14	HÉCTOR GRAHAM*	227325	37.5792	06/09/2006	06/08/2056	$289
46	ORERO 15	HÉCTOR GRAHAM*	227326	40.8263	06/09/2006	06/08/2056	$315
47	MAYTO	HÉCTOR GRAHAM*	223808	14.2562	2/22/2005	2/21/2055	$228
48	MAYTO	HÉCTOR GRAHAM*	223809	72.5680	2/22/2005	2/21/2055	$1,154
49	MAYTO	HÉCTOR GRAHAM*	223810	2.5116	2/22/2005	2/21/2055	$40
50	AUSTRALIA	HÉCTOR GRAHAM*	232115	454.1997	6/20/2008	6/19/2058	$2,334

Cerro Dorado =Compañía Minera Cerro Dorado, S.A. de C.V.
Lara = Minera Lara, S.A. de C.V.
*Héctor Graham y Socios

4.2 Location of Mineralization and Workings

The Cerro Colorado Property encompasses several gold-bearing veins associated with faults that cross-cut a rhyolite dome. Open pit operations have developed in five areas: Abejas, Breccia Central, Harris, Obra X and Sorpresa (Figure 4-4). The Breccia Central, Harris and Obra X pits are currently operational. Waste piles and two heap leach pads are located adjacent to the active mining area (see also Section 5.3).

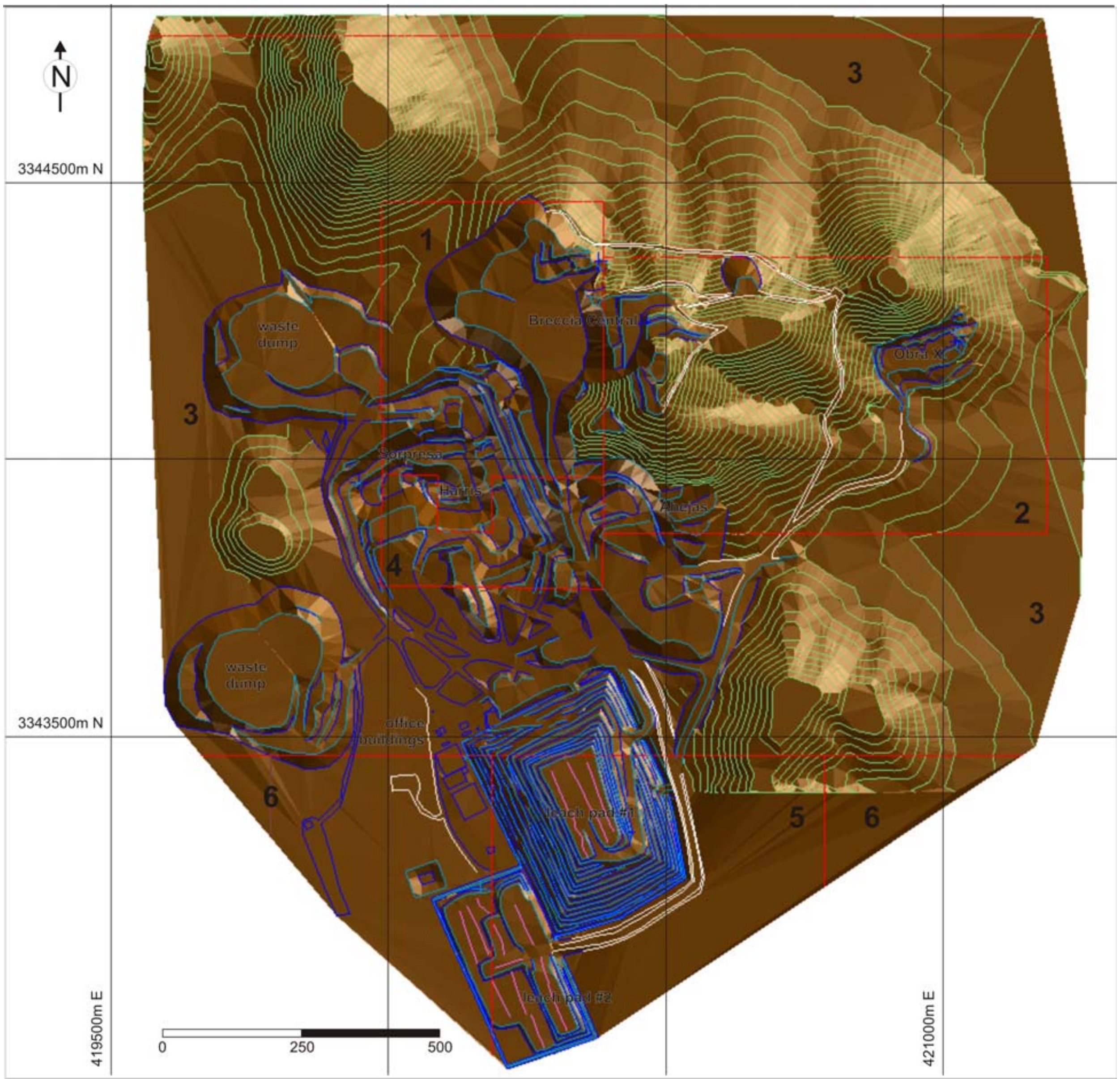

Figure 4- 4 Map showing the location of the open pits, waste dumps and leach pads at the Cerro Colorado mine site. Concession boundaries are shown in red. Concession numbers are referenced in Figure 4-3 and Table 4-1.

4.3 Title Ownership

The mine associated concession titles listed in Table 4-1 are owned by Sierra's Mexican operating company, Granmin Mexico, Cerro Dorado S.A. de C.V. ("Cerro Dorado") and Minera Lara, S.A. de C.V. ("Lara"). The remaining titles are held by Granmin Mexico, MasOro and a private Mexican company, Héctor Graham y Socios. These concessions are within approximately 25 km of the mine area and are considered separately for reporting purposes. This Report focuses on the 6 concessions held by Granmin Mexico, Cerro Dorado and Lara that were acquired by purchase agreement with Minera Secotec S.A. de C.V. ("Secotec"). Figure 4-5 shows Sierra's corporate structure, including all subsidiaries and their respective jurisdictions of incorporation.

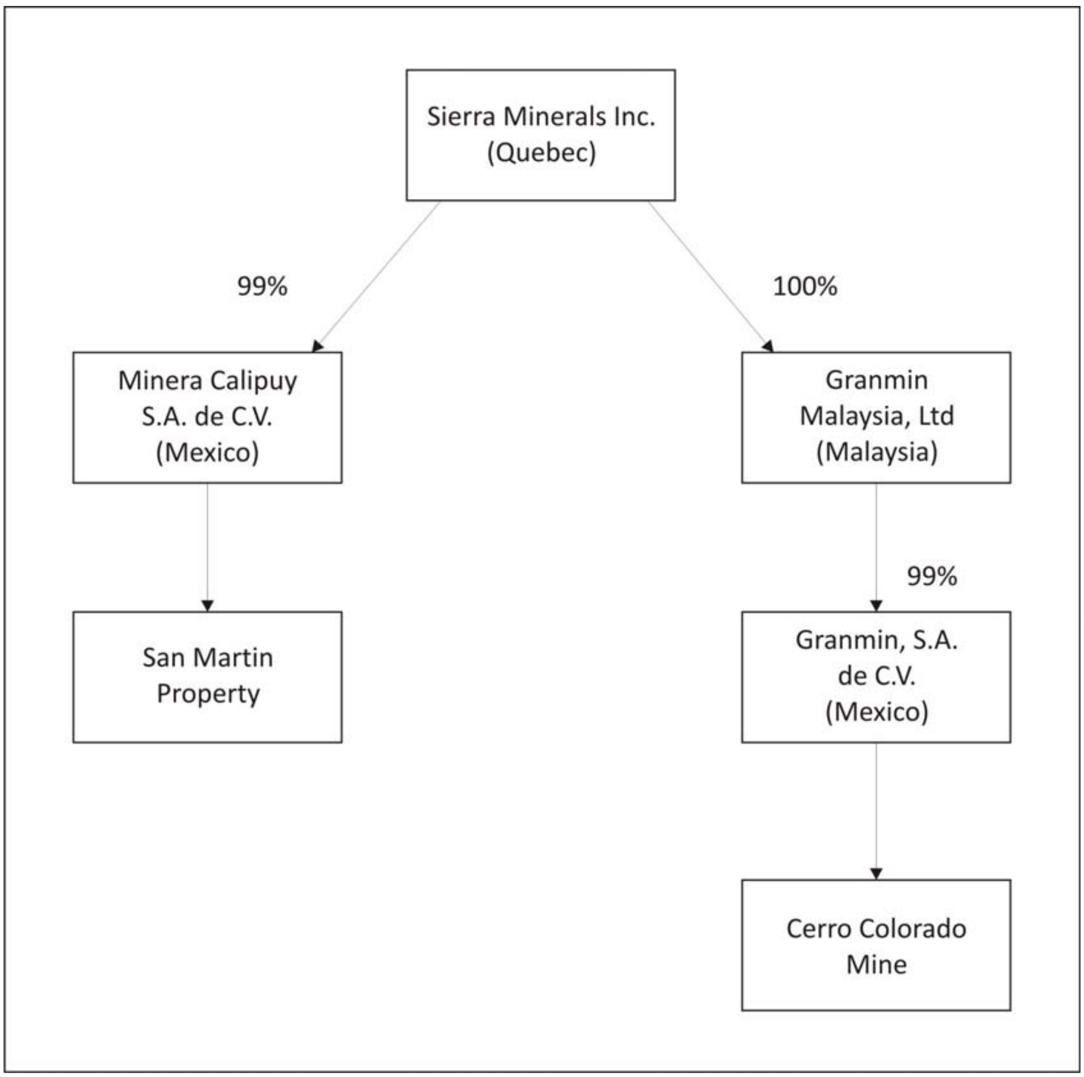

Figure 4- 5 Sierra's corporate structure.

The following is taken from the February 16th, 2006 Management Discussion and Analysis filed on SEDAR (www.sedar.com) describing the acquisition of the Property.

Laramide Resources Ltd. ("Laramide") entered into an option agreement with Secotec in December 2002 through its Mexican subsidiary Cerro Dorado allowing Secotec to lease 6 contiguous mining titles in Cerro Colorado covering 3,067 hectares in Sonora State, Mexico. The concessions comprise the current Cerro Colorado Mine area (Figures 4-2 and 4-3). The agreement stated that Laramide was to receive a 2.5% net smelter return ("NSR") from all production from these 6 concessions. When total production exceeds 100,000 ounces of gold from these concessions, the NSR rises to 3%. If the price of gold is less than US$350/ounce then the NSR reduces by 0.5%. In addition, the agreement gave Laramide the option to purchase a 12.5% interest in the ownership of Secotec for US$500,000. That option was exercised on December 20, 2004.

On November 26, 2004, Sierra entered into a letter agreement to procure the sale of the Cerro Colorado Gold Mine and Property with Mexican Mining Investments ("MMI"), which owned 98% of Secotec. This agreement formed a reverse take-over transaction ("RTO"). On September 12, 2005, the RTO was amended such that Sierra would now acquire Granmin Malaysia, Ltd., 100% owned by MMI, resulting in the shareholders of Granmin Malaysia, Ltd. owning 72.5% (60% in original letter agreement between MMI and Sierra) of the common shares of Sierra outstanding subsequent to the date of approval by the TSX-V.

Under the amended agreement, Secotec would transfer the assets and liabilities of the Cerro Colorado project to Granmin Mexico (a 100% subsidiary of Granmin Malaysia). Sierra would thereby own 100% of Granmin Mexico through Granmin Malaysia following completion of the RTO.

Included in the six concessions covered in this Report were two concessions owned by Abraham Nasser and Mabel Lamadrid Lopez de Nasser (the "Nassers"). The RTO transaction required Secotec to deliver (or cause to deliver) the ownership of these concessions. The Nassers agreed on February 2, 2006 that on receipt of $1.74 million they would execute an assignment to Secotec or to its assignee, of the mining rights attached to the Cerro Colorado and San Jorge mining concessions so that thereafter such corporation, or its assignee, would become the sole proprietors of said concessions, without any remaining claim from the Nassers.

Sierra was to raise CDN$1.14 million by private placement concurrent with the closing of the RTO and assume certain obligations of Secotec including promissory notes with Warman Investments Pty. Ltd. ($1,950,000 at 3%), Mr. Keith Piggott ($150,000) and Mr. Phil Bennet ($150,000). The assets and liabilities of the Cerro Colorado Gold Mine were also transferred to Granmin Mexico. The shareholders of Granmin Malaysia then sold their shares to Sierra in return for the issue to them of that number of shares equal to 72.5% of the issued and outstanding shares of Sierra subsequent to the date of approval by TSX-V. Existing shareholders and the subscribers to the CDN$1.14 million private placement were to own the remaining 27.5%.

As a result, Sierra took on Secotec's debt (approximately $2.25 million) and land payments to the Nasser's that totalled approximately $1.4 million in addition to some incidental mine operating costs totaling $250,000. The properties and mining operation were transferred to Granmin Mexico in 2006 and in August 2006, Granmin Malaysia was acquired by Sierra. The RTO was completed in September 2006.

The Project has been subject to the NSR to Laramide through its Mexican subsidiary Cerro Dorado Cerro Dorado. In December 2007, Laramide transferred its share ownership in Sierra and Cerro Dorado and the NSR to Treasury Metals Inc. ("Treasury"), a new publicly traded company. During the year Granmin Mexico paid $95,413 for withholding taxes on behalf of Cerro Dorado, of which Laramide reimbursed the Company for $37,246 in early 2008. At December 31, 2008, Sierra reported a receivable from Treasury of $37,840 in respect of tax withholdings and allowable refining and other costs as per the royalty agreement.

4.4 Mineral Rights

Previously, a distinction between exploration and exploitation concessions was made. Exploration was work performed on land aimed at identifying mineral deposits, as well as quantifying and evaluating the economically utilizable reserves they contain. Exploration Concessions were valid for 6 years and an escalating amount of work was required each year. After 6 years, Exploration Concessions could be converted to exploitation (Development and Extraction) and held for 50 years. Exploitation was work aimed at preparation and development of the area comprised by the mineral deposit, as well as work to detach and extract the minerals products or substances existing therein.

The Mexican Mining Act (Articulo 15, page 11) changed on April 28, 2005. Exploration and Exploitation concessions are now all equivalent to Exploitation concessions and they are valid for 50 years as long as the annual taxes are paid.

4.5 Environmental Liabilities and Required Permits

Baseline environmental studies were reported in 2001 and updated in 2003. Additional reporting as required for various mining and environmental permits has been made. More recently, permits have been sought and granted to accommodate the continued development and expansion of the mine. Reports provided to SEMARNAT document expansion details, environmental impacts of the expansion, plans to relocate rare plants and animals, and eventual reclamation. These reports have been accepted by SEMARNAT and permits have been granted to complete this work.

The following permits are held by Sierra with regards to their mining operations at Cerro Colorado:

- December 14th, 2001 (file #DS-SMA-UNE-IA-67) Authorization/acceptance of the environmental impact report submitted by Granmin Mexico.
- April 11th, 2002, technical opinion, file #SGPA-DGIRA- 000997, on the risks associated with the Cerro Colorado construction solicited during 2001.
- September 12th, 2002, file #DS-SGPA-UGA-708, letter accepting the modifications of conditions of environmental impact resolutions, as listed 07/29/02.
- July 29th, 2002, SEMARNAT, report describing the modifications of the conditions of resolution of environmental impacts from the mine construction
- October 31st, 2003, SEMARNAT, file# SGPA-DGIRA.DG-2068.03, acceptance and description of recovery plant modifications
- April 5th, 2004, SEMARNAT, file#DGGIMAR-710001271, acceptance of modifications and additions to the leach pad to a 400m by 400m area. This modification was requested on 01/23/04
- September 26th, 2006, SEMARNAT file # DS-SG-UGA-IA-0767-06, letter authorizing the change in terms and size that are listed in the original environment impact descriptions
- July 31st, 2008, SEMARNAT, file # DS-SG-UGA-IA-0651-08, authorization of the expansion of the Cerro Colorado mine in two stages of 50 hectares each, establishes reclamation costs.

The author is not aware of any environmental liabilities or outstanding permits associated with the Property.

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

5.1 Access

Access to the project is via Federal Highway 2 between Altar and Santa Ana to the kilometre 42 marker, then 22 km south by paved road to Trincheras. The property is located 37 km southwest of Trincheras along a maintained gravel road with no drainage improvements. The mine site grader blades this road as needed. The nearest major airports are located in Hermosillo, the capital of Sonora, or in Tucson, Arizona, USA. Travel time from either of these airports to the Property is approximately four hours.

5.2 Climate

Cerro Colorado is located in the Sonoran Desert west of the Sierra Madre Occidental mountain range. The climate is typified by mild winters and hot summers. A primary rainy season occurs from July to October, with a second rainy season occurring during the winter months. Mining at Cerro Colorado is continuous throughout the year, although minor delays and/or shut downs associated with periods of intense/excessive rainfall could occur. Vegetation is sparse and consists primarily of cacti and low thorny shrubs (mesquite) (Figure 5-1). Surface water is rare but ground water is readily available. Arroyos and washouts are common. Deer, javelinas, jackrabbits and quail are common to the area.

5.3 Local Resources and Infrastructure

The State of Sonora is located in the northwest portion of Mexico and is bounded by Arizona and New Mexico, USA in the north, Chihuahua, Mexico in the east, Sinaloa, Mexico in the south and, the Sea of Cortez and Baja California Norte in the west. The state covers approximately 185,500 km^2 and contains a population of nearly 2,000,000.

Infrastructure in Sonora is extensive. The state has approximately 10,000 km of paved roads in a system of 25,000 km. Additions to the paved portions of the system are in progress. Rail lines totalling 1,800 km link the major cities in the state. Numerous ports are found along the coast. International airlines serve Hermosillo, the state capital, several times daily. Infrastructure for the movement of either plant equipment or raw products to or from the mine is excellent. Sonora has an electrical generating capacity of 1,500 MV and a reasonably well developed power distribution system. Telecommunications in the state are linked to the country's federal microwave network which runs throughout the Pacific Coast, connecting all main cities and towns. Water for farming and city use is primarily provided by reservoirs with groundwater being used in the country side.

Figure 5- 1 Saguaros cacti (left and centre) are typical features of the landscape around Cerro Colorado in addition to stunted bushes and trees.

All services including rail are available at Trincheras. Electricity, satellite communications and water are available at the mine site. Federal Highway 2 is paved and serves as a major transportation route in Sonora. A labour pool, familiar with modern mining practices, is present in the area.

The mine site maintains several buildings on site that include various offices, the on-site laboratory, plant and maintenance facility, and a small camp (Figures 5-2 through 5-4). The crushing facilities and heap leach pads, waste areas and tailings ponds are centrally located adjacent to the pits. There is sufficient room on the Property to expand these facilities, pads, dumps and ponds if required.

Electrical power is supplied by on-site generators. Although there is power supply in the surrounding area, tapping into the system would require a large capital injection in excess of $500,000.

There are 3 generators on-site for power supply. The 500 kW generator is the primary generator, backed up by a 350 kW generator. If necessary the third generator that powers the crusher (also 350 kW), can be used to power the site and keep the process operations functioning.

Sierra entered into a lease agreement in 2006 with Mr. Arturo Bayardo of Sonora, Mexico, the owner of a nearby water well, for exclusive rights to use water from the well in the operations of the Cerro Colorado mine. No rental fees are charged or payable under this agreement. The lease has an indefinite term which runs until the cessation of mining activities at Cerro Colorado. Fees payable to the Mexican government based on water consumption are solely the responsibility of the Sierra during the term of the lease. Upon expiry of the lease, ownership and all rights of use relating to the well revert back to Mr. Bayardo.

Water is pumped to the mine site from the well, which is located approximately 12.5 km to the west of the mine. This well is capable of pumping 65 litres per second and is of sufficient quantity to meet water requirements at the mine site. Wells located closer to the mine are only capable of supplying water for single family dwellings for the area ranchers and are not feasible alternatives for the mine site. Ten (10) wells of 15 m depth are in place around the physical plant. These wells are checked monthly. Only rarely is there any water in them for sampling. When water is found in the wells a sample is collected and analyzed by an off-site laboratory for pH, suspended solids (conductivity), and gold and silver contents. Results to date have not shown any contamination.

Figure 5-2 Photograph showing the heap leach pads (primary pad on the left and secondary pad behind in the centre) with crushing facility to the right of the toe of the primary leach pad. View is looking to the south east from just north of the Harris pit.

Figure 5-3 Photograph showing the heap leach pads (left), general offices (centre) and camp accommodation (right - back). View is looking to the south from just north of the Harris pit.

5.4 Physiography

The project area occurs within the Sonoran Desert physiographic sub-province and in general exhibits a relatively flat topography. However, in the immediate mine area, hills reach up to approximately 170m in relief. Figure 5-1 shows low lying hills south of the Los Carlos exploration area (approximately 260m in relief), to the south east of the mine site.

Figure 5-4 Photograph showing the general offices and camp accommodation (left) and waste dump (centre). The view is to the south. The Harris pit is in the foreground.

6.0 HISTORY

6.1 Exploration History

The principal period of mining activity at Cerro Colorado occurred during the late 1800's to early 1900's. Both hard rock and dry placer operations were conducted during this period. Limited underground work is believed to have taken place during the 1920's and 1930's. Within the district small scale dry placer operations have continued intermittently to the present. The extent of past workings indicates that approximately 100,000 tonnes of high-grade gold-bearing rock was mined (MRDS MX00297) at Cerro Colorado. This production from underground mining and placer workings is estimated to have recovered approximately 50,000 ounces of gold.

6.2 Contratista Tormex

The property was explored by Contratista Tormex ("Tormex") during the early 1970's. They calculated that there were 1,000,000 tonnes of reserves at a grade of 2.6 g/t Au in the Harris breccia from extensive underground sampling. Tormex estimated an Indicated resource, which includes the above reserve, of 3.5 to 4.0 million tonnes at a grade of 2.6 g/t Au. These resources and reserves are historic, are not current, have not been verified by CCIC and should not be relied upon.

6.3 Papanton Minas S.A. de C.V. – BP Minerals

In 1983 and 1984, Papanton Minas S.A. de C.V. and BP Minerals explored the area in a joint venture. A total of 25 holes, eight diamond and 15 rotary, totalling 3,984 metres were drilled in a widely spaced pattern over the property.

6.4 Compañía Fresnillo S.A.

In 1989-1990 Compañía Fresnillo, S.A. ("Fresnillo") explored the Cerro Colorado Property. Fresnillo explored the entire district and developed a target of 8.1 million tonnes at 2.0 g/t Au. The project potential of 525,000 ounces of gold was not deemed large enough for Fresnillo, an Amax-Peñoles joint venture, and the project was turned back to its underlying landowners.

6.5 Laramide Resources Ltd.

Laramide Resources Ltd. optioned the Cerro Colorado property in 1995 and carried out the first mapping and sampling program in November and December of that year. This was followed by drilling 23 holes on accessible targets in February of 1996. Results of this work were encouraging and work continued through 1996 and most of 1997 with geologic mapping, surface and underground chip sampling, soil sampling and two additional phases of reverse circulation ("RC") drilling.

After the first phase of confirmation drilling, exploration focused on proving mineable resources by drilling the obvious mineralized zones, in addition to whatever extension(s) derived from them. As the zones were drilled on approximately 20 m separations they quickly consumed the full exploration budget. No effort was made to explore targets outside the core area. In this first drill program (February 1995), 23 holes totalling 2,356 m were drilled mainly from existing roads near Harris and Obra X (CC-1 to CC-23). The second drill program, completed in August and September 1996, included 64 holes totalling 6,276 m (CC-24 to CC-87). These drill programs completed the drilling of the Obra X zone and first tested the mineralization at Breccia Central and Abejas.

In the third exploration program, 75 holes totalling 8,289 m (CC-88 to CC-162) were drilled to prove Breccia Central and add Abejas and Sorpresa to the Harris resource. This drilling was completed between February and June 1997. At the end of this third phase of exploration drilling, a total of 14,565m had been drilled in 162 holes to define mineable zones at Obra X and Breccia Central. Laramide believed that additional drilling was required at Sorpresa, Harris and Abejas to bring these zones into mineable resource categories. Laramide estimated an overall resource of 4.2 million tonnes at a gold grade of 1.33 g/t Au (Wendt, 1995). This resource estimate is historic, not current, has not been verified by CCIC and should not be relied upon. Bottle roll testing of 53 composite samples from 10 representative drill holes showed gold recovery ranging from 54.7% to 90.6% with an average of 77.6% (Balderama, 1997).

6.6 Minera Secotec S.A. de C.V.

In April 2000 Secotec began a preliminary feasibility study to determine the economic viability of the Cerro Colorado project. This work consisted of rock chip sampling of the old workings, exposed breccia outcrops, infill drilling on 25m x 20m centres on the Sorpresa mineralized zone, and column leach testing of the mineralized intercepts using the Laramide drill chips and dump material left at the surface during the old mining operations. Secotec also completed rock chip sampling confirming the values encountered during the Laramide and Tormex exploration programs.

In-fill drilling on the Sorpresa mineralized zone consisted of 26 vertical percussion drill holes on section lines spaced 25m apart. Holes were spaced 20m apart on the section lines. Gold mineralization was encountered in 21 of the 26 holes drilled, in zones of altered and hematized rhyolite, rhyolite breccia and sometimes a few metres into the underlying limestone. Holes drilled directly into the limestone from surface invariably showed little or no gold. Mineralized intercepts encountered in the drilling include drill hole CCS11 (5-27m) 22m @ 3.78 g/t Au, and CCS14 (32-46m) 14m @ 4.84 g/t Au. The drilling confirmed and expanded the original Laramide drilling and outlined a mineralized zone which is roughly lenticular in shape, plunging easterly into the main Cerro Colorado hill and containing an estimated resource of 487,000 tonnes @ 1.54 g/t Au. This resource estimate is historic, not current, has not been verified by CCIC and should not be relied upon.

The Sorpresa area has been drilled on 9 sections, spaced 25m apart with drill holes spaced at 20m centres along section lines. The mineralized area occurs above the rhyolite/basement contact along its southern boundary and has been traced virtually into contact with the Harris mineralization. Although the most easterly section drilled contained only weak mineralization, the best intercept of which was 12m @ 0.76 g/t Au, in drill hole CCS26 from 49-61m, the zone continues and can be traced in outcrop into contact with the Breccia Central mineralization.

A total of 13 column leach tests were undertaken using percussion drill chips from the Laramide drilling and dump material left at surface from the old mine workings. The tests ranged in size from 4 kg in 100 mm diameter columns, up to 200 kg in 2m x 300mm diameter columns. Gold recoveries ranged from 81% to 99% based on the leach recovery and final tails assay. Leach times were generally less than 120 days except in three cases (Tests 5, 6 and 7), where the sample material was crushed to minus 6mm and extremely slow percolation resulted. Test 10 was also slow at 203 days on lower grade coarse dump material. Based on the above drilling and column leach test results, a decision was made in May 2001 to start a heap leach mining operation. Operations would initially focus on the Sorpresa mineralized zone, and expand into the Harris/Abejas areas and subsequently the Breccia Central and Obra X mineralized zones. Mine construction began in mid 2001 and was completed by February 2003. During the first phase of mining a trial heap of 90,000 tonnes of mineralized material with an average grade of 1.24 g/t

Au was placed on the leach pad at a crush size of minus 90mm with the addition of 1.5 kg of lime per tonne of rock. Leaching commenced in March 2003 using a cyanide concentration in solution of 150 ppm at a pH of 10.5. Gold recovery from this initial trial heap was 67%. Mining recommenced in December 2003 using a secondary cone crusher to reduce the crush size to minus 45mm but due to insufficient capital the secondary crushing circuit could not be maintained in operation. At the same time cyanide strength was increased and additional side-slope heap sprinkling was commenced. Recoveries appeared to be quicker from the finer crushed material.

Secotec also completed a soil sampling program. Soil samples were collected over a grid covering the south and west flanks of Cerro Colorado and the low ground between Cerro Colorado, Plomosa and Hematita Hills. The samples were taken at 20m intervals on lines spaced 100 metres apart and run at right angles to a picketed baseline running N76°E - S76°W from an origin at drill hole CC-10. A second baseline along line 1W was used to cover the low ground between Cerro Colorado, Plomosa and Hematita hills. An additional 3-line grid was sampled over the northeast end of Cerro Colorado where breccia outcrops had been located. Samples were collected from 10 to 20 cm below the surface and sieved in the field. Bondar Clegg in Vancouver, Canada analyzed the minus 80 mesh fraction for gold plus an additional 34 elements including Ag, Cu, Pb, Zn, Mo, As, Sb and Mn. Gold was the only element used in target definition. Various anomalies were defined as described below (an extract from Kappes, Cassiday & Associates, 2005) and located on Figure 6-1.

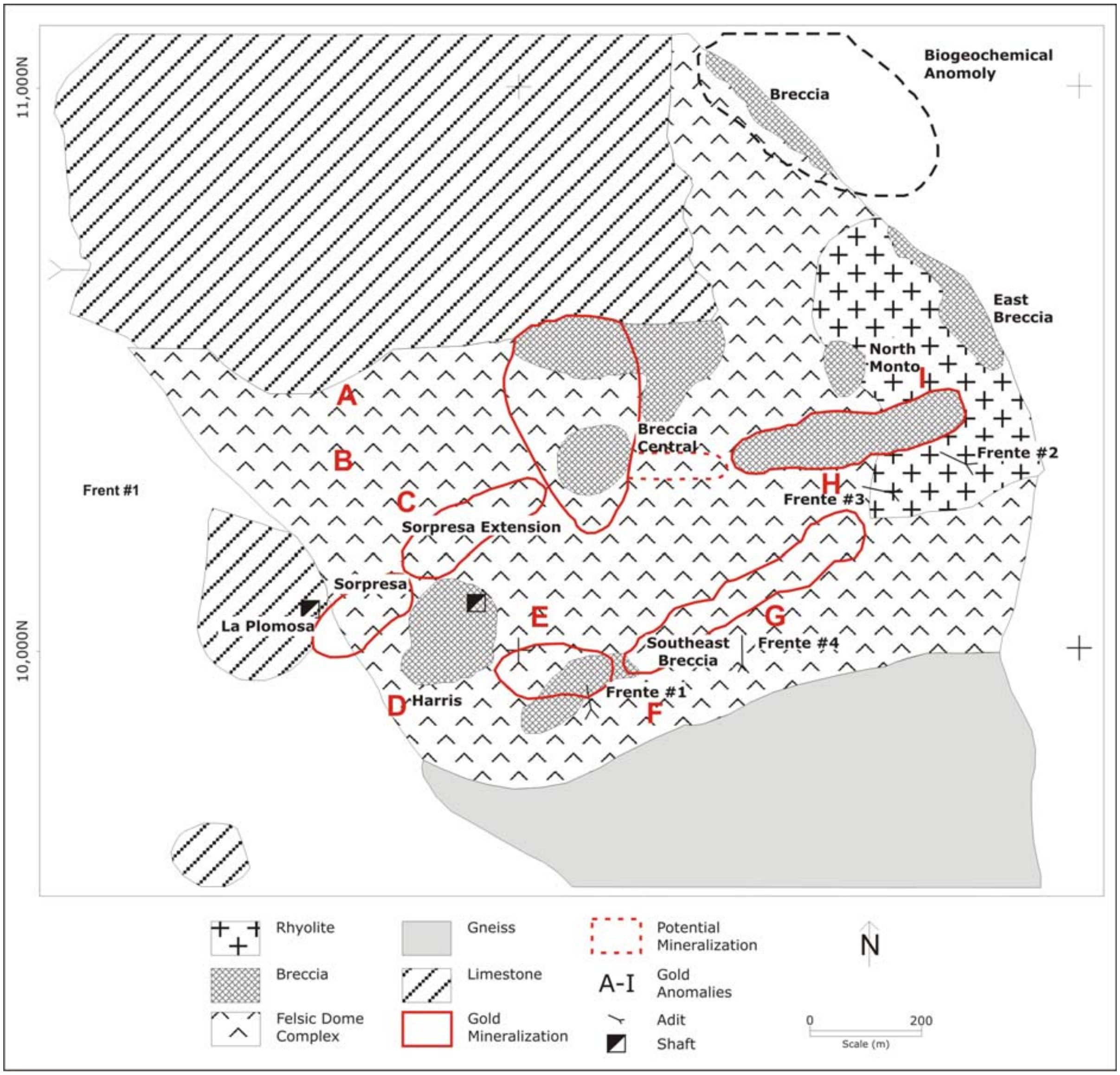

Figure 6-1 Map showing the exploration targets defined by Secotec based on the results of soil sampling (modified from Kappes, Cassiday & Associates (2005)).

Values were reported as very high through the low ground between the three hills, and spreading downhill from Harris, Abejas and Obra X (detailed assays not provided in the 2005 report). An east-west anomaly south of Abejas needs to be checked in the field. The crests of the main anomalies are labelled for reference as follows: Anomalies “A”, “B” and “C” appear to run east north-easterly through the low ground north of Sorpresa Zone with “C” located close to the wash running westward off Cerro Colorado. This area, particularly the east ends of the three anomalies, contains placer pits after gold draining off Cerro Colorado but the western parts of the anomalies are equally strong and occur in areas of little disturbance several hundred metres away from that source. Although they occur in an area containing placer gold, their orientation is parallel to the mineralized trends in an area where regional faults underlie alluvial cover giving these anomalies considerable exploration potential. A grid of holes drilled through the placer to test bedrock under the anomalies could locate other mineralization like the Sorpresa Zone in this area.

Anomaly "E" covers an area of surface disturbance from work at the Harris Mine, and the road from Harris to the Hematita Mill. Anomaly "G" is derived from the Abejas breccia outcrops and joins through lines 1E and 0E into the Harris Zone and westward along the gneiss contact fault. This contact between Harris and Abejas should be drilled during the next exploration program. The Abejas breccia trend reappears as anomaly "H" to the east of a slope covered by talus derived from the barren rhyolite above. Anomaly "F", which includes 6 samples of over 1,000 ppb Au, lies in a little-disturbed area of the basement rock down-slope from Abejas. A field check with fill-in sampling is needed for this area. Anomaly "I" is derived from the Obra X Zone, with an Inferred tail extending to the east.

Exploration targets were developed from the soil survey and previously reported as (Kappes, Cassiday & Associates, 2005; Figure 6-1):

1) Anomalies "A", "B", and "C", where colluvial placer deposits may cover bedrock gold in faults near the limestone-rhyolite contact, require testing by grid drilling for placer plus enough bedrock to determine potential.

2) The zone west of anomaly "G" above the gneiss contact requires drilling to test north dipping mineralization between Abejas and Harris.

3) Anomaly "F" is a puzzle, and needs to be field checked.

4) The anomaly at 1+00 N and 1+20 N on line 10E should be checked for nearby bedrock connecting with the Obra X zone.

7.0 GEOLOGICAL SETTING

7.1 Regional Geology

Sonora is comprised of three main physiographic provinces. These provinces trend approximately north-south, parallel to the Sierra Madre Occidental and include the Basin and Range Province (of which the project is a part), the Transitional zone and the High Plateau (Sierra Madre Occidental). In the western portion of the state (west of Federal Highway 15) the Basin and Range Province of the western United States continues into Sonora. In Sonora, the Basin and Range Province consists of widely spaced mountain ranges, the result of mid-to-late Tertiary high-angle listric faults or earlier low-angle (detachment) faulting. These ranges contain a majority of the older Precambrian and Mesozoic rocks found in the state. The majority of the gold systems in this province have a structural component involving a combination of high and low-angle faulting (e.g. La Choya, Cerro Colorado and Quitovac).

The Transitional zone is found between Highway 15 and the Rio Yaqui and consists of closely spaced ranges that form a topographical high. A wide range of rock types and ages are found here but Tertiary volcanic rocks and indurated gravels are the most prevalent. This zone hosts the Cananea and La Caridad mines which produce the bulk of Mexico's copper. Gold deposits vary from the structurally-hosted Amelia Deposit, clastic sediment hosted shear zones at Quitovac, structural/carbonate-hosted deposits such as at Santa Gertrudis, and to the vein/stockwork hosted La Colorada Deposit.

The High Plateau or Sierra Madre Occidental is found along Sonora's eastern border with Chihuahua and consists of large, nearly layer-cake volcanic flows and tuffs with deeply incised canyons. Tertiary volcanic rocks predominate. This region is host to numerous epithermal precious metal systems such as Mulatos and Ocampo. Rocks of Cenozoic age are predominant throughout the State of Sonora. The western half of the state contains a more diverse suite of rock types spanning various ages.

The Precambrian of Sonora is divided by the Mojave-Sonora mega-shear. Deposits related to this tectonic event are La Cholla, La Herradura and San Francisco. North of this shear, the Precambrian consists of schists overlain by weakly metamorphosed dolomites and sandstones. To the south, the area is covered by coarse-grained granitic rocks and lesser lower-grade metamorphic rocks. Paleozoic rocks are less widespread in Sonora and consist mainly of quartzite, limestone, shale and dolomite.

The Mesozoic time was perhaps the most important from the standpoint of economic geology. During the Triassic and Jurassic periods a relatively thick pile of sediments was deposited. Following the deposition of these sediments large granitic batholiths were emplaced. By the early Cretaceous, tectonic plate movement produced the Mojave-Sonora mega-shear. Chemically reactive carbonate units, especially the Cretaceous Bisbee Group, were deposited during middle Cretaceous time. Late Cretaceous marks the onset of the Laramide tectono-igneous event. This orogenic event resulted in the intrusion of igneous rocks, the development of volcanic piles, the structural preparation of host rocks and provided a structural heat sources for the formation of major metallic deposits. The Cenozoic saw the continuation of Laramide volcanism and intrusive event and the formation of the major copper porphyries at Cananea and Nacozari. During the mid-Tertiary age large-scale ashflow tuff eruptions created the High Plateau Province. The final igneous event took place in the far western portion of the state and consists of basaltic volcanism. Figure 7-1 is a geological map of the region around Cerro Colorado.

7.2 Local and Property Geology

There are two main rock types in the district, Proterozoic sedimentary units and gneisses. Two principal structural styles - detachment/low angle faulting and higher angle Basin and Range normal faulting are also present. Many of the basins in the district are covered by mid-to-late Tertiary indurated conglomerates. Tertiary volcanic/intrusive complexes, like Cerro Colorado, are rare in this part of Mexico.

The geology of the Cerro Colorado area consists of Precambrian basement rocks overlain by Paleozoic sedimentary rocks and intruded by Tertiary rhyolite and rhyolite breccia. Gold mineralization accompanies strong hematization and argillization in the rhyolite breccia, fractured rhyolites and porphyries and in fault breccias within the limestone. This mineralization formed by late stage emplacement into the rhyolite and nearby sedimentary rocks, with the best gold concentrations forming near the intersections of deep open fractures through porous or reactive host rocks and commonly below a confining cap or along a flat fracture. One of these faults, the La Cienega Fault, is a regional structure running north-east across the northwest end of the Harris and Breccia Central mineralized zones.

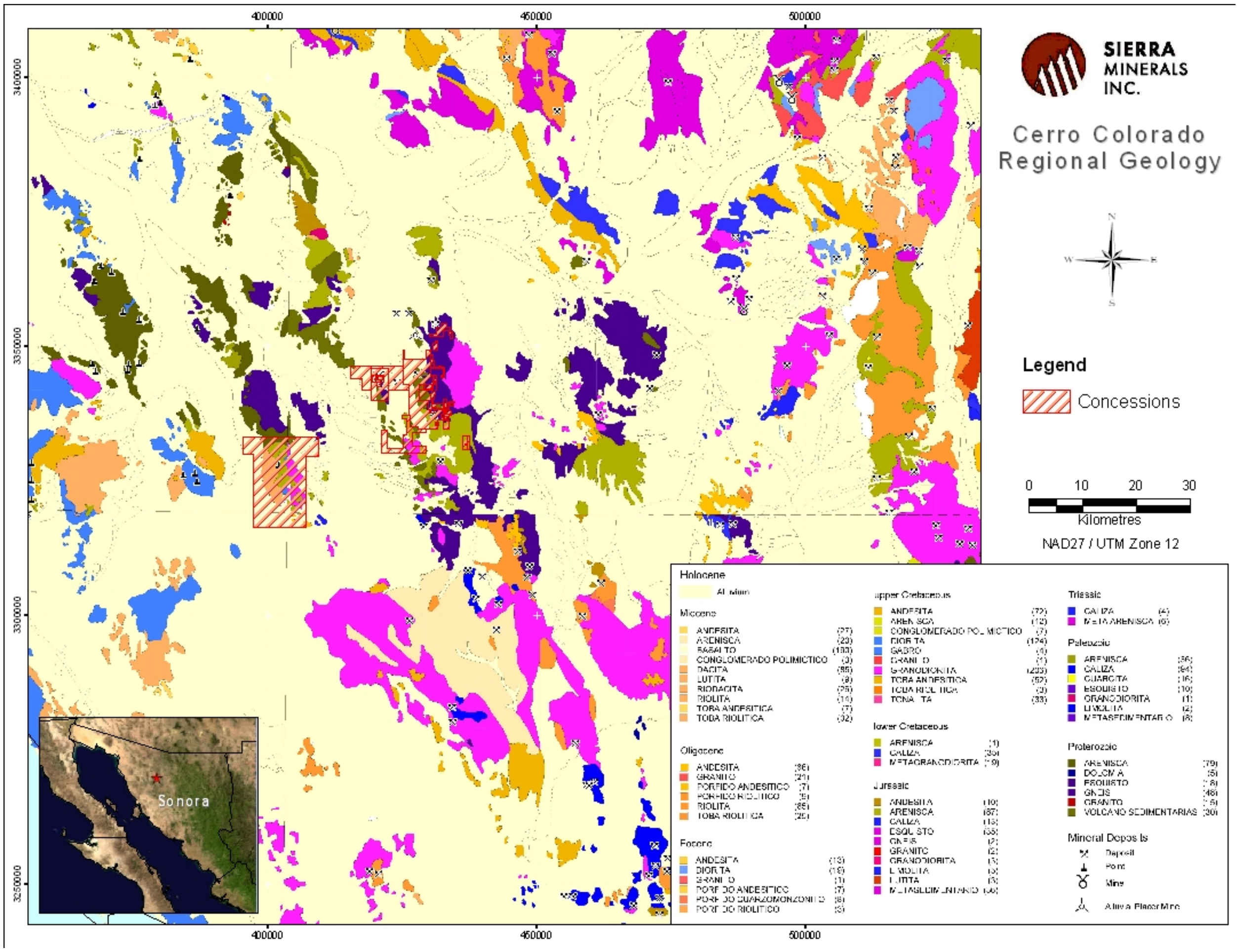

Figure 7- 1 Geological map of the area around the Cerro Colorado Gold Mine.

La Cienega dips to the south-east, intersecting structures underlying the deposits. The La Cienega Fault is thought to have been a major control in the emplacement of the mineralization. The main geological units are shown on Figure 7-2. Most of the following section has been extracted from an internal company report prepared for Laramide by Fowlers (1997).

The basement complex is comprised mainly of biotite paragneiss, amphibolite, and coarse granitic rocks. Fowler describes the gneiss-rhyolite contact as primarily intrusive, with flow banded rhyolite following joint edges and carrying fragments of gneiss higher in the intrusion. Many partly digested ghosts of gneiss can be recognized in the porphyry, particularly near Obra X. Most likely, the rhyolite intruded up an older fault in the basement. Younger faulting also affects the contact. This can be seen in Frente 1 and probably south and west of Harris, where the slope of the contact rises abruptly to the southeast.

On a regional scale, the mineralization at Plomosa, Harris, Abejas, and east to Obra X all trend east-northeast parallel to and within 100 metres of the gneiss contact. This suggests emplacement of the mineralizing fluids up deep faults near the rhyolite contact.

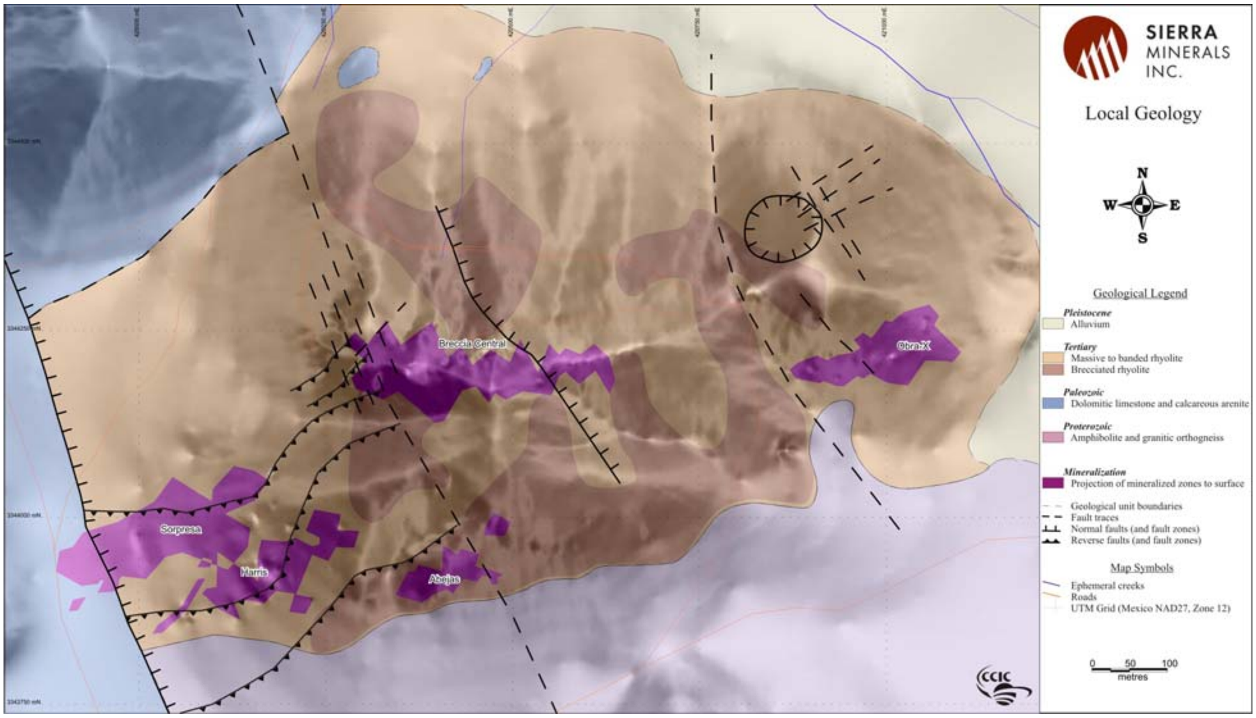

Figure 7- 2 Geology of the Cerro Colorado Gold Mine.

A set of almost east-west faults can be interpreted from offsets in a north-south line of limestone hills including those at Plomosa and Hematita Hills. These two hills show stepped lateral offsets eastward from the regional trend in the area intruded by the Cerro Colorado rhyolite. This suggests that the rhyolite complex was emplaced along faults and probably into a graben lying between Plomosa and the hill north of Hematita.

The sedimentary sequence consists of interbedded gray limestone, buff dolomite, gray-beige to red sandstones and finer siltstone and marl. In the drilling at Sorpresa coarse sandstone overlies the gneiss contact accompanied by very fine siliceous rock (here called jasperoid) and limestone. Similar looking rocks toward the base of the Harris section were logged as fine grained rhyolite, and confirmed as such by thin section.

The rhyolite at Cerro Colorado comprises a suite of intrusive and extrusive rocks which vary more in texture and alteration than in original composition. Fine grained quartz porphyry rhyolite underlies the east end of the complex centered on the hill above and north of Obra X. Concentric inward-dipping flow textures suggest that this is the main feeder vent of the complex. If the complex is symmetrical, the other half of the complex must lie under the alluvial plane to the east of Obra X, suggesting a continuation of the mineralization under that alluvial cover.

Most of the central portion of Cerro Colorado, generally above the 700m contour, is composed of sterile cap rhyolite. This rock, which has a uniform light beige tone, is finer grained and lacks the quartz eyes of the porphyry. The rocks of this unit are softer in outcrop, forming moderate slopes covered by loose blocks. It has a fine grained texture and well developed flow banding with a steep south-westerly dip. An important feature of this rock is a strong joint set dipping flatly to the east or east south east. These joints are interpreted to have directed the explosive breccia and mineralizing fluids upslope westward, where they blew out of what is now the western end of the hill.

Fowler divides the breccia into two types: “Closed breccia” and “Open breccia”. The Closed breccia carries more angular clasts separated by relatively little matrix in a generally hard siliceous rhyolite. The Open breccia has more rounded clasts of varying material in a sea of much finer matrix material. This breccia is generally altered to a soft greenish white alunitic-argillic rock cut by purple hematitic bands along fractures and fragment boundaries.

This alteration is most prevalent in well mineralized areas in the breccia (Breccia Central) or porphyry (Obra X) although some areas showing good grade mineralization can occur outside of the breccia in moderately altered rhyolite. Experience from the drilling in the mineralized areas is that there is no geological signature for the gold other than gold itself, seen by panning the cuttings or in assays. One distinctive unit, a pale green, siliceous, heavily pyritic dike, occurs in the high grade core through the east half of Breccia Central. This mineralizing dike carries values of 5.0 g/t Au to 15.0 g/t Au and probably marks the feeder to the breccia deposit.

The lower rhyolite is essentially a continuation with depth of the barren cap unit into areas of greater degree of alteration. Fresh rhyolite appears greener than the barren cap and progresses through increasing alteration into green/purple altered rhyolite.

7.3 Structural Geology

Gold mineralization occurs in host rocks located in zones of higher grade alteration. These zones lie within regions of structural disturbance in which high concentrations of fractures, faults and breccia are present. Faults and fractures generally trend N70°E, North-South, and N30°W. These structural zones represent areas of weakness and reactivation along which faulting, intrusion, fracturing, gas discharge, alteration and mineralization are facilitated.

Ground preparation through extensive cross–fracturing, providing a conduit for fluids, appears to be the necessary precursors to gold mineralization. Most breccia zones seem no more likely to be mineralized than any other type of rhyolite. The largest breccia zones, generally the more “open” ones (like Harris and Breccia Central), seem to be rather weak rocks lying along structurally reactive trends which favour the development of the necessary faults and fractures. Even within these larger breccias, alteration can be seen to penetrate along fractures and faults, often leaving intervening areas of breccia with little sign of mineralization between clasts. Also, what appear to be significant fault zones within breccias will often be reduced to a set of ordinary fractures within a few metres of the contact in the surrounding rhyolite.

The two primary features - the La Cienega Fault and the rhyolite - gneiss contact (healed fault) intersects west of the Harris Mine. The La Cienega Fault strikes northeast and dips approximately 70° southeast, the basement contact strikes east northeast and dips approximately 80° north. These structures intersect in a minus 50° north - easterly plunging juncture forming the keel of the Harris Deposit.

The La Cienega Fault continues north from Harris, through the western end of Breccia Central and continuing under the low ground to the north. As at Harris, the eastern end of Breccia Central plunges 40° to 50° east or east - northeast and ends against an east-west fault along its southern edge. Flat (less than 20°) east - northeast dipping joints form in the barren cap rock, while indicated feeder fractures dip approximately 80° to the east - northeast. These two fracture sets dip in the direction of the plunge of the deposit, with the barren hanging wall fractures approximately 30° flatter and the altered footwall fractures approximately 30°steeper than the plunge. Obra X also occurs along the north edge of the basement contact and plunges gently to the east - northeast.

Wetherup (2007) completed a detailed structural study of the Tertiary rocks to understand the structural environment present during the gold mineralization event. The main types of structures are brittle faults near the surface, which is suggested by “onion” or “tulip” fault structures (faults concentrically bifurcate and open upwards). Wetherup observed four dominant structures in the rhyolite: (1) northwest trending, northeast and southwest dipping faults and joints, (2) northeast to east trending faults and joints which generally dip southward, (3) north trending, steeply to shallowly east dipping faults and joints, and (4) steeply west-southwest dipping quartz-pyrite veins. He concluded that the mineralization occurs along east-northeast striking, south dipping structures where they are intersected by NW trending normal faults. These structures occur throughout the rhyolite dome.

8.0 DEPOSIT TYPES

The exploration model for Cerro Colorado that has been used by Sierra is the Kidston gold-silver deposit, Queensland, Australia (e.g., Baker and Andrew, 1991). The Kidston deposit was a significant gold occurrence and contained high grade resources. The mineralization was hosted within a trapezoid-shaped breccia pipe with surface dimensions of 1,100m × 900m. Rhyolite dikes are spatially and temporally associated with the mineralization and brecciation. The breccia formed by collapse and did not reach the current land surface. At Kidston, mineralization that is not related to the breccia (stockwork in host rhyolite) was uneconomic. The breccias at Kidston coalesced at depth and formed a single mineralized system.

At Cerro Colorado, breccia-type targets occur within and along the margin of the Cerro Colorado dome complex. At present, the known mineralized zones at Cerro Colorado appear to be associated with the rhyolite/gneiss contact, the rhyolite/limestone contact and the La Cienega fault. Mineralization can be traced in outcropping brecciated rhyolite, generally within 200m of the basement gneiss contact, from Sorpresa to the Harris mineralized zone through Abejas and the southeast breccia zone to Obra X, a distance of 1,300m. Gold mineralization also occurs adjacent to or within structures in zones of intense argillic alteration and silica flooding. Both styles of mineralization are exposed and have been exploited at Cerro Colorado.

9.0 MINERALIZATION

Gold is hosted by rhyolite and associated with hydrothermal alteration. Hematite is a dominant mineral in the altered zones. The main control appears to be the location of east-northeast steeply to moderately south dipping reverse fault zones (Wetherup, 2007). Northwest and north trending structures within the rhyolite are only significantly mineralized where they have been cut by the east-northeast trending structures (and vice-versa). These structures occur as either shallow east dipping features or moderate to steep east and west dipping features within the rock. The general plunge of the mineralization is shallowly eastward (primary plunge) with higher grade shoots occurring along the steeper structures (secondary plunge) within the overall shallow plunging zone. Considering all three of the structural constraints the mineralized bodies look like shallowly east plunging tabular shoots with secondary high grade tabular shoots nearly perpendicular to the overall trend of the zone (Figure 9-1). Three areas are currently mined at Cerro Colorado: Breccia Central, Harris and Obra X.

9.1 Breccia Central

The mineralization at Breccia Central falls within an area 300m long by 120m to 200m wide and is approximately 50m thick at the west end of the hill. From there it plunges eastward becoming narrower and richer with depth. In detail the easterly plunge appears to be controlled by cross faults stepping down to the east at approximately 20,440m E and 20,500m E (Figure 9-2). A pale green-white silicic, pyritic (+galena) feeder dyke appears to intrude from the north and carry high grades close under the barren cap.

9.2 Obra X

The mineralization at Obra X occurs through an area approximately 200m long by 20m to 30m wide and approximately 50m deep in its root zone. It lies close to surface through most of its extent, dipping shallowly south-eastward parallel to the slope of the hill.

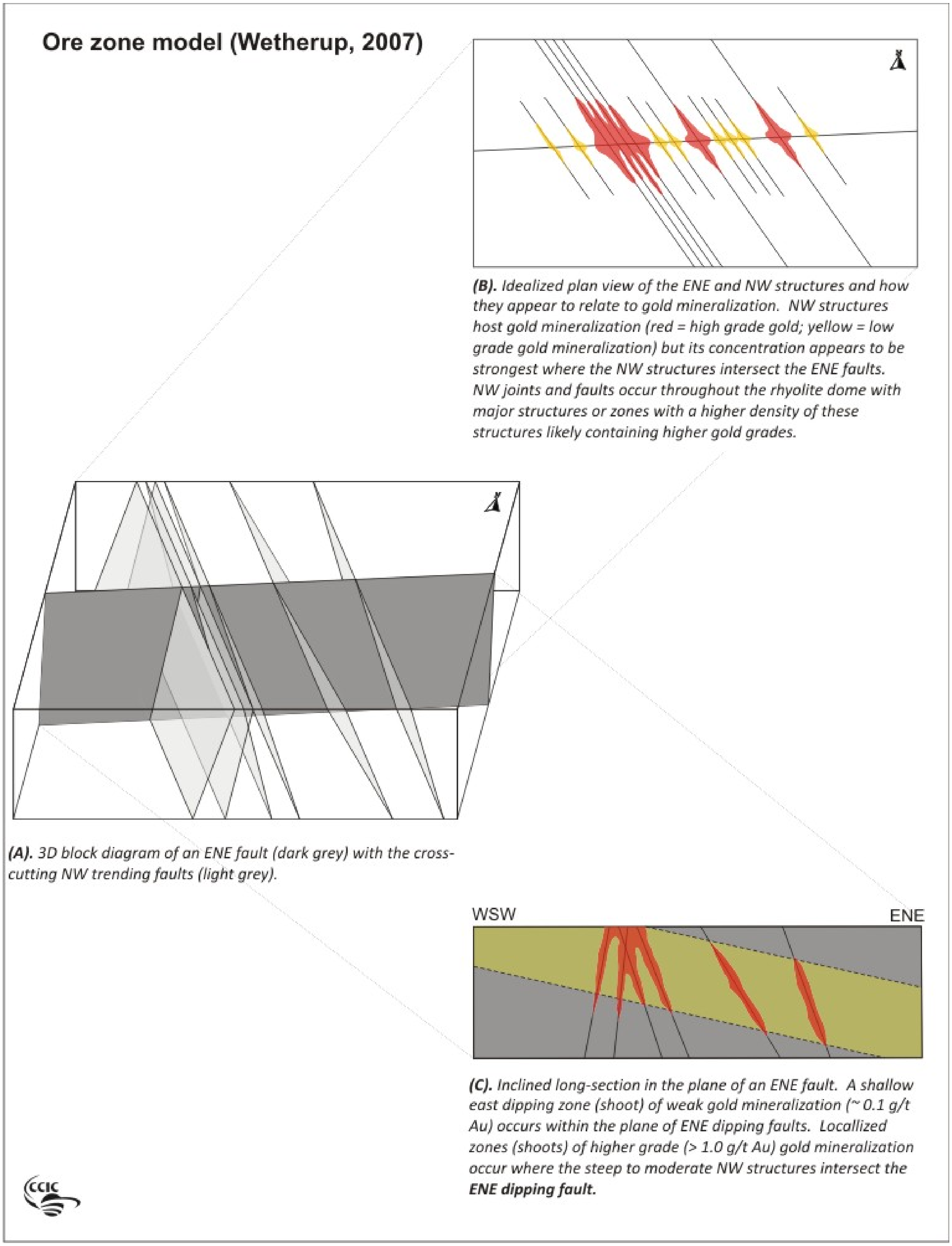

Figure 9-1 Mineralization model for Cerro Colorado from Wetherup (2007).

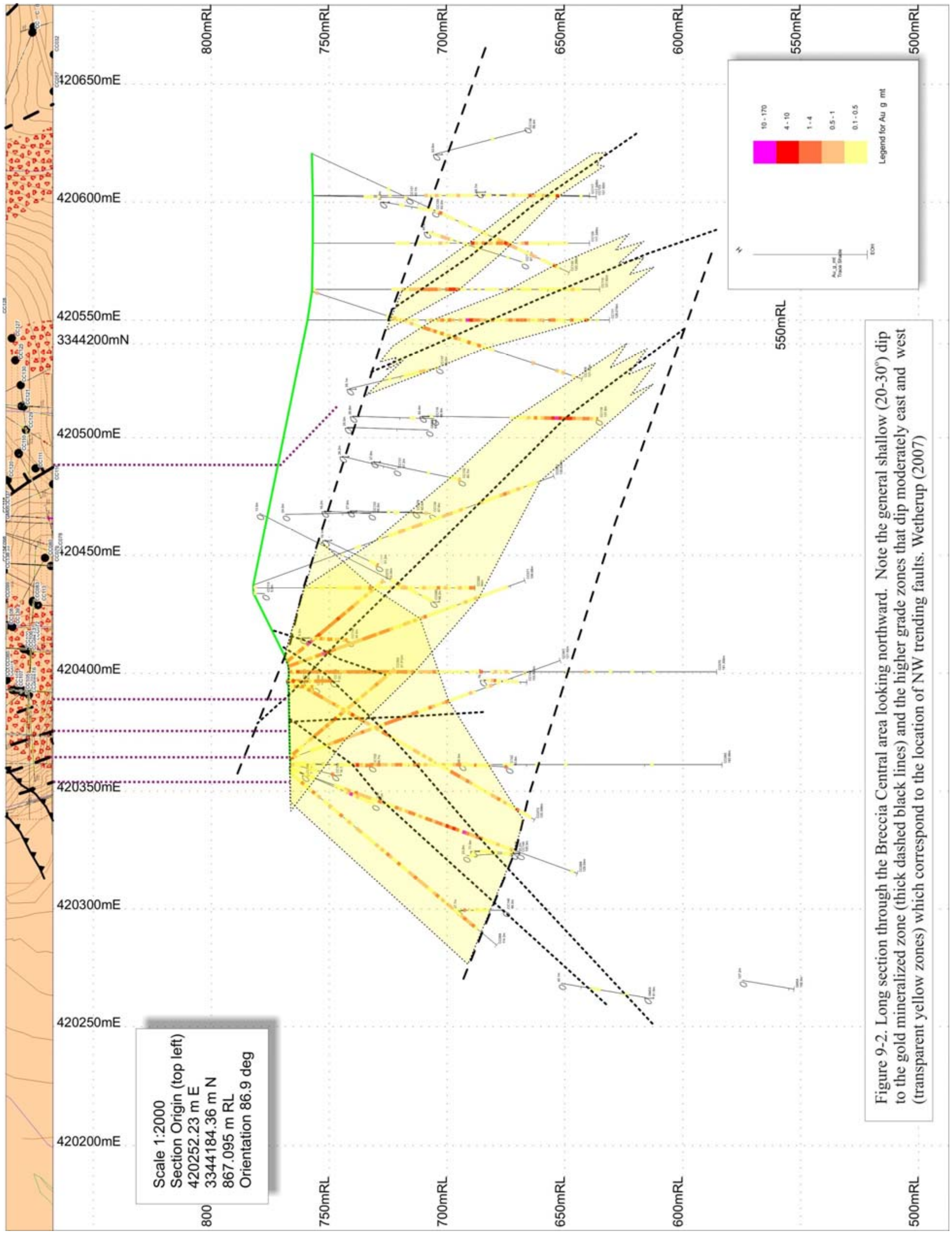

Figure 9-2 Long section through the Breccia Central area looking north.

Gold at Obra X occurs in fractured, altered rhyolite quartz porphyry intrusive lying approximately 100m north of the gneiss contact and a few tens of metres below hard rhyolite porphyry. Inclusions of replaced gneiss occur in the mineralized zone near the west end of the trend, but none of the drill holes reached basement.

The principal structures at Obra X are: 1) a system of fractures striking NNW and dipping steeply eastward, and 2) strong brecciated flat shears dipping shallowly to the southeast. These two fracture sets are strongly hematized and argillized, and control the better mineralization. Northwest dipping fractures may also be important.

Obra X mineralization is exposed by a trench running east-northeast for approximately 200m, and by a cross-cut adit running north-westerly to intersect with a drift running roughly parallel to the trench, 15m to the south and 20m below it.

Gold appears to occur in two lenses separated by approximately 10m of waste. They dip shallowly to the south-east parallel to the topography. The upper lens thickens and deepens to form a root zone near section 0 E-NE. Additional drilling from the road extending northeast from the adit portal is needed to follow the zone down dip.

9.3 Harris - Sorpresa - Abejas Areas

Centered on the Harris mine in the southwest corner of the rhyolite complex, the Harris, Sorpresa, and Abejas zones are described together here. With additional drilling results they are expected to merge into a single pit area.

Gold occurs in an altered rhyolite breccia and fractured rhyolite at Abejas and Harris, but at Sorpresa it also occurs in brecciated and replaced limey sedimentary rocks below the rhyolite. It is rarely found in the basement gneiss. The Plomosa and Hematita mineralization is generally located within bedding and fracturing within the limestone regionally associated with rhyolite intrusions.

Two main breccia bodies are known - 1) Abejas which dips northward 20m to 40m above gneiss contact, and 2) Harris which dips southward and may intersect with the Abejas trend in the core of the Harris zone. The breccias occur above and between two regional faults which were probably active in the emplacement of the mineralization.

The La Cienega Fault is best observed cutting a notch in the rhyolite cliff west of Breccia Central. From there it projects to the southwest past its outcropping near hole CC-16 passing through the zone of bad drilling (lost holes CC-8, CC-48, CC-7, CC-49) just north of Harris to the south end of Plomosa Hill. This fault lies to the north and below the main Harris Breccia similar to the basement contact fault that lies below the Abejas breccia. The two faults intersect below Harris, possibly forming a V-shaped mineralized zone that runs from the Harris 94m level eastward to Abejas. The southern arm of this “V” has not yet been drilled.

The Plomosa - Sorpresa zone lies in limey sediment and rhyolite close to the contact between the two rock types, and 20m to 50m above the basement gneiss. Gold occurs in two or three apparently flat-lying zones in both volcanic and sedimentary rocks. Irregular mixing of rock types in a single drill sample suggests complex brecciation possibly accompanying the flat-lying faults.

9.4 Abejas

Mineralization forming the Abejas zone has been determined from intersections of six drill holes and approximately 25 chip samples. The mineralization has now been traced along a length of approximately 150m, to a depth of approximately 100m and a width of 20m to 30m. It comprises two lenses running approximately east-northeast 20m to 40m above the gneiss contact. The lenses dip steeply to the north and appear to diverge from the contact in the eastern intersections.

The best mineralization intersected to date was between lines 230° ENE and 330° ENE, close to the drill pad at 305° ENE. Access to the east is blocked by a steep cliff of hard rhyolite. The mineralized trend westward towards the Harris zone has not yet been tested.

9.5 Harris Breccia

The Harris Breccia deposit, centered on the workings of the late 19th Century Harris Mine, occurs west of the Abejas zone and east or southeast of Sorpresa. The gold at Harris occurs in hematized - argillized fractures and in a matrix of the explosive rhyolite breccia, and also in north-northwest striking fractures in wall rock outside the breccia. The alteration and associated mineralization favour the breccia but can pass outside of it to mineralize wall rock. The Harris zone lies above the intersection of two major faults: the Basement Contact Fault running approximately N80°E and dipping steeply north, and the La Cienega Fault, running approximately N40°E and dipping 70° southeast.

The two faults are not themselves mineralized but intersect to form a keel plunging approximately 50° to N65°E with the Harris zone lying in the hanging wall breccias above. The strong north-northwest trending fractures strike perpendicular and dip at approximately 30° steeper than the plunge of the keel. Coincidentally the Breccia Central structure also lies in the hanging wall of the La Cienega fault and north of a steep fault against barren wall rock and also plunges approximately 50° east or northeast, with flat fractures dipping approximately 20° to the east. Obra X has a similar easterly rake, suggesting a similar control. This pattern is somewhat affected by flat-lying northeast trending faults as observed in the large stope and in apparent offsets to the mineralization between the 33m and 46m levels.

The Harris zone, as drilled to date, extends from section 103 WSW to section 170 ENE and from surface at approximately 640m elevation to approximately 550m in its core; widths vary from 3m to approximately 50m, and grades range up to 17.0 g/t Au and average 1.43 g/t Au.

The mineralization occurs above the steeply north-dipping basement and below a cap of barren rhyolite to the east of section 50 east-northeast. Flat faults seen in the workings between 90 ENE and 30 ENE impose a flatter dip which may carry into the Sorpresa area to the northwest. The last Harris section and the beginning of the Sorpresa mineralization are shown in section 100 WSW. At Sorpresa the basement contact is flat, stratigraphic, and 20m to 30m shallower than at the bottom of the Harris deposit.

The rhyolite to the north of the main Harris zone is fresh and in part aphanitic and flow banded. This very fine grained rhyolite has been logged as “rhyolite 3”. The La Cienega fault has been projected through the area between Harris and the hard rhyolite, but is not indicated on the sections.

9.6 La Sorpresa

The Sorpresa zone was discovered by holes CC-63 and CC-64 drilling across the valley between Plomosa and Cerro Colorado hills in search of a faulted limestone-rhyolite contact. The holes found gold mineralization in both limestone and rhyolite, tying the Plomosa sediment-hosted mineralization on the west to the rhyolite-hosted mineralization at Harris. By the end of the 1997 drilling, the Sorpresa mineralization had been traced to approximately 80m north of the west end of the Harris zone and essentially into contact with Plomosa.

The mineralization at Plomosa occurs in 1m to 2m thick replacement breccias through limestone. The breccias dip approximately 40° west down narrow declines and flatten at depth under the Plomosa claim. Stockwork type mineralization occurs around the breccias. Very altered rhyolite was seen underground near the Malacate shaft at the northeast end of the Plomosa workings, indicating geological continuity with Sorpresa.

At Sorpresa the bulk of the drill holes hit good grade mineralization in two apparently flat to shallow east-dipping lenses, that begin near surface at Plomosa and reach a depth of approximately 40m in section 75 ENE, 125m to the east. One of the lenses is in rhyolite; the other is in sediment or at the sediment-rhyolite contact. The stratigraphic sequence consists of gneissic basement rocks, overlain by quartzite or arkose that passes upward into limestone and is finally overlain by the rhyolite. The basement gneisses lie 20m to 30m below the level of mineralization and form a relatively flat contact with overlying sediments. This contact occurs at the 560m to 570m elevation beneath the Sorpresa Zone.

Drill holes CC-15 and CC-63 intersected gold in limestone near the surface. Both of these holes ended in large natural voids, possibly solution cavities along the basement contact. Alluvium above the zone has placer potential as seen in the 0.1 g/t Au to 0.2 g/t Au assays in some drill holes; plus the gold anomaly in the soil shown by the geochemical survey.

10.0 EXPLORATION

Sierra holds approximately 34,000 ha of mineral exploration concessions within a 30 km radius of Cerro Colorado. Breccia-type targets within and along the margin of the Cerro Colorado dome complex served as both conduits for the migration of mineralized solutions and sites for the deposition of gold. Gold mineralization is also found adjacent to or within structures in zones of intense argillic alteration and silica flooding. Both styles of mineralization are exposed and have been exploited in the past.

At present, the known mineralized zones at Cerro Colorado appear to be associated with the rhyolite/gneiss contact, the rhyolite/limestone contact and the La Cienega fault. Mineralization can be traced in outcropping brecciated rhyolite, generally within 200m of the basement gneiss contact, from Sorpresa to the Harris mineralized zone through Abejas and the southeast breccia zone to Obra X, a distance of 1,300m.

The mineralized Sorpresa zone can be traced in outcrop to the northeast into contact with the western end of the Breccia Central mineralized zone. This zone (~150m wide) is situated in the footwall of the La Cienega fault and extends for 700m from the present back wall of the Sorpresa open pit to the north side of the main hill and contains scattered old prospecting and mining pits in mineralized breccia.

Another large area of rhyolite breccia, approximately 100m x 300m outcrops in the northwest corner of the rhyolite dome complex, in contact with the limestone at Hematita Hill. Hematita Hill contains numerous pits and shafts from previous mining of mineralized zones within the limestone bedding planes. These hematitic zones are very similar to the mineralized zones in the limestone at Sorpresa and Plomosa and are a direct result of the intrusion of the Cerro Colorado rhyolite into the surrounding limestone. This area of brecciation is also coincident with anomalous gold in soils up to 3,000 ppb.

In addition to the areas described above, further potential exists in the high grade deep zone of the Breccia Central mineralized zone. This zone has been traced by drilling east from Breccia Central for 150m under the high point of the main hill and is trending towards Obra X, a further 300m away. Several other mineralized breccia zones outcrop on the northern side of the main hill, some of which contain old prospecting pits.

Recent exploration efforts focused on mapping pit benches at a scale of 1:500 and mapping in the Los Carlos, Judy and Oreros concessions, in particular, mapping of the rhyolite dikes in the Oreros concessions). The dike extends approximately 400m and is between 2m and 15m thick; it strikes between 205° and 210° and dips between 80° and 88°. Two additional dikes run parallel to the main dike (Figure 10-1). Samples were collected from trenches perpendicular to the dike (results have not been reported to date). Further areas mapped include Harris Sur, Abejas and Este de Abejas.

At Los Carlos, approximately 25 km from Cerro Colorado, the main rock type is Early to Middle Proterozoic gneiss but minor biotite schist and rhyolite also occur. The rhyolite is characterized by intense fracturing and small quartz veins (particularly in the area of Rancho San Antonio). Average grades of 327 surface samples from this area returned a grade of 2.06 g/t Au. Several pits are assumed to be more than 100 years old were found in the area of Rancho Los Polvaderas. At Los Polvaderas, Jurassic limestone hosts quartz veins.

Three drill programs have been completed by Sierra since they acquired the Project. Drill results are presented in Section 11. In total, 305 RC holes have been drilled in and around the mine and at surrounding prospects (e.g. Los Carlos). The third drill program, completed in 2008, was contracted to Majoro Drilling de Mexico, S.A. de C.V., a Mexican subsidiary of Major Drilling.

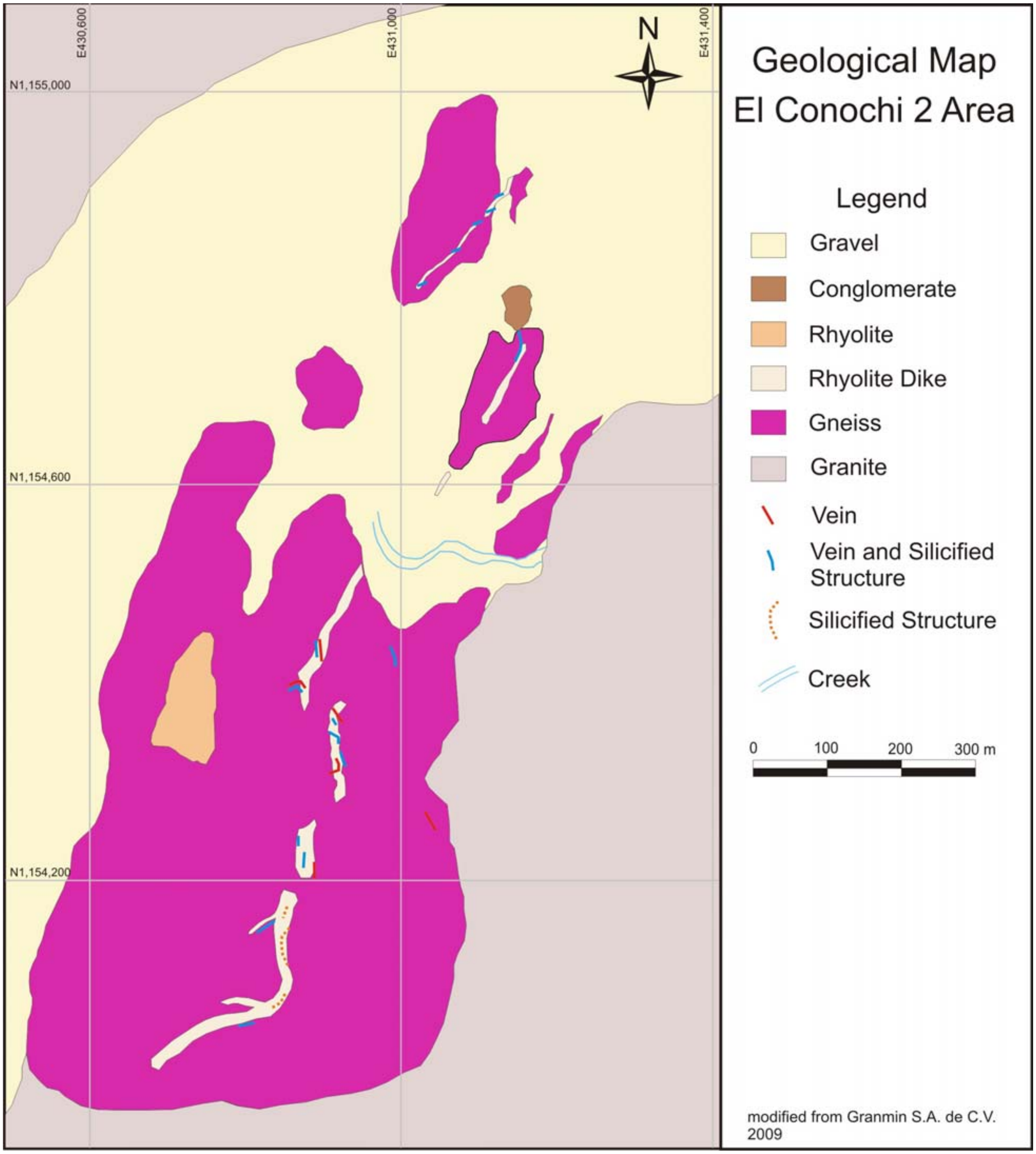

FIgure 10 -1 Results of mapping in the El Conochi area.

11.0 DRILLING

Sierra completed a RC drilling program of eight (8) RC holes drilled outside the area of known resources in 2006. Thirty two metres of 3.42 g/t Au and 6.0 g/t Ag were intersected 30m below the surface in hole GM-4, while hole GM-5 intersected 32m at 1.72 g/t Au approximately 80m below surface.

In a Phase II RC drilling program completed in 2007, Sierra drilled 195 holes totalling 14,000m; 154 holes were resource and exploration holes while 41 holes were drilled to sterilize an area for the planned operations. Significant intercepts included 90m of 1.59 g/t Au and 1.46 g/t Ag (at a depth of 28m below surface) and 44m at 0.90 g/t Au and 9.61 g/t Ag (Annual Information Form for Fiscal Year ending December 31st, 2007). Summaries of the drill results previously released are shown in Table 11-1.

During a third phase of exploration completed in June 2008, 102 RC holes totalling approximately 20,000m were drilled. Only 3 holes have had results previously released. These results are shown in Table 11-1. Assay results for 87 holes were available at the time of the report for holes in the immediate area of the mine.

Most holes have been drilled with a dip of 60°, which is roughly perpendicular to the dip of the known mineralization. Mineralized true widths are therefore approximately 90% of the reported widths.

None of the drilling by Sierra has had directional surveys completed. This should be done as a standard practice and it is recommended that a procedure be established for routine monitoring of down-hole deviation as they can have a significant impact on geological interpretation and construction of a three dimensional ("3D") model.

Table 11- 1: Selected results of the 2006 and 2007 drilling programs.

Drill Hole	Easting (m)	Northing (m)	From (m)	To (m)	Width (m)	Au (g/t)
GM-1	420,349	3,343,981	0.00	3.00	3.00	0.63
GM-3	420,276	3,344,156	6.10	25.90	19.80	0.40
GM-4	420,292	3,344,116	35.10	67.10	32.00	3.42
	including		41.20	61.00	19.80	5.37
GM-5	420,504	3,344,221	68.60	100.60	32.00	1.72
	including		82.40	88.50	6.10	7.42
GM-6	420,243	3,343,991	102.20	120.50	18.30	0.20
GM-7	420,226	3,344,025	77.80	88.50	10.70	0.65
GM-8	420,360	3,343,923	97.60	102.20	4.60	0.28
GM 18	420,113	3,343,964	2.00	16.00	14.00	1.34
GM 19	420,117	3,343,955	2.00	16.00	14.00	0.65
GM 21	420,124	3,343,934	12.00	34.00	22.00	0.55
GM 22	420,128	3,343,923	18.00	36.00	18.00	0.98
GM 27	420,107	3,343,930	2.00	24.00	22.00	0.52
GM 28	420,111	3,343,918	6.00	20.00	14.00	0.51
GM 29	420,068	3,343,963	4.00	12.00	8.00	1.14
GM 31	420,077	3,343,942	2.00	6.00	4.00	0.55
GM 32	420,081	3,343,932	2.00	12.00	10.00	1.12
GM 34	420,088	3,343,912	2.00	6.00	4.00	0.53
GM 35	420,114	3,343,907	2.00	12.00	10.00	0.61
	and		20.00	22.00	2.00	2.36
GM 59	420,264	3,343,868	0.00	26.00	26.00	1.18
	including		0.00	8.00	8.00	2.68
GM 61	420,197	3,343,866	30.00	32.00	2.00	8.80
			50.00	22.00	2.00	2.36
GM 92	420,318	3,344,307	30.00	44.00	14.00	1.07
GM 94	420,315	3,344,244	4.00	16.00	12.00	0.59
	and		74.00	78.00	4.00	2.04
	and		76.00	80.00	4.00	0.59
	and		114.00	120.00	6.00	1.30
GM 107	420,237	3,344,049	76.00	78.00	2.00	4.78
GM 108	420,425	3,343,941	2.00	14.00	12.00	1.40
	and		22.00	30.00	8.00	0.74
	and		40.00	44.00	4.00	0.89
GM 110	420,425	3,343,943	14.00	26.00	12.00	1.00
	and		38.00	70.00	32.00	0.97
GM 113	420,204	3,344,031	58.00	76.00	18.00	0.37
GM 114	420,213	3,344,003	84.00	98.00	14.00	0.31
GM 116	420,231	3,343,950	2.00	8.00	6.00	0.26
GM 117	420,227	3,344,069	56.00	62.00	6.00	0.24
	and	and	72.00	100.00	28.00	0.42
GM 118	420,272	3,343,936	72.00	80.00	8.00	0.94

Drill Hole	Easting (m)	Northing (m)	From (m)	To (m)	Width (m)	Au (g/t)
GM 119	420,288	3,344,088	58.00	70.00	12.00	0.59
GM 121	420,282	3,344,112	42.00	60.00	18.00	2.46
GM 125	420,305	3,344,045	96.00	120.00	24.00	0.23
GM 126	420,215	3,344,121	2.00	6.00	4.00	1.34
GM 131	420,200	3,344,157	24.00	46.00	22.00	0.40
GM 132	420,290	3,343,919	50.00	56.00	6.00	0.39
GM 133	420,379	3,343,925	6.00	30.00	24.00	0.66
GM 135	420,391	3,343,897	40.00	46.00	6.00	0.81
GM 136	420,384	3,343,913	2.00	14.00	12.00	1.39
GM 139	420,302	3,344,150	12.00	20.00	8.00	0.39
	and	and	60.00	68.00	8.00	0.45
GM 142	420,175	3,344,098	46.00	52.00	6.00	0.36
GM 153	420,480	3,344,091	70.00	114.00	44.00	0.90
GM 157	420,559	3,344,158	28.00	118.00	90.00	1.59
	including	including	58.00	84.00	26.00	4.71
GM 158	420,556	3,344,183	38.00	78.00	40.00	0.67
	including	including	48.00	64.00	16.00	1.11
GM 173	420,504	3,344,377	36.00	74.00	38.00	0.48

Note: The above intersections are un-cut and are not true widths. Most holes were drilled at a dip of 60°, which is roughly perpendicular to the dip of the known mineralization. True widths are therefore approximately 90% of the reported widths.

Table 11- 2: Selected results of the 2008 drilling program.

Drill Hole	Easting (m)	Northing (m)	From (m)	To (m)	Width (m)	Au (g/t)
MCC2	420,647	3,344,113	100	104	4	0.81
MCC3	420,303	3,343,996	116	120	4	0.63
MCC11	420,457	3,344,145	56	106	50	1.15
		including	62	84	22	2.14

Note: The above intersections are un-cut and are not true widths. Most holes were drilled at a dip of 60°, which is roughly perpendicular to the dip of the known mineralization. True widths are therefore approximately 90% of the reported widths.

12.0 SAMPLING METHOD AND APPROACH

Production holes are drilled using a track mounted blast hole rig (Figure 12-1a), whereas exploration drilling is done by various types of RC rigs depending on the depths of the drill program or the drilling conditions and access.

The blast-hole sample is deposited in a cone around the hole. The entire sample is collected and put through a riffle splitter. Half of the sample is split into a plastic bag. The bag is labelled according to the drill rig number and the bench from which the sample was collected and assigned a sample number by the Geology Department (Figure 12-1b). The sample information is recorded in a sample notebook and collected from the drill site by the Geology Department (Figure 12-1c). A 100 mesh sized sub-sample is removed from each bag, washed and the chips stored in a numbered box. This material is used later for rock description (rock type, alteration, mineralization, etc; Figure 12-1d).

Exploration samples are similarly split from 2m samples at the rig, labelled, and brought back to the mine site laboratory for preparation and analysis at the on-site lab, and for shipping to International Plasma Laboratory ("IPL") for independent verification of grade. Chip samples are also collected and stored for description.

Once the chip samples are collected, standard reference material is inserted into the sample sequence (Figure 12-1a-e) and all samples are moved to the laboratory by the Geology Department for analysis (Figure 12-1f).

Figure 12-1 a-f: Drilling and sampling procedure

The minimum sampling width for all drill holes in the mine area is approximately 5 cm or 2 inches (Table 12-1). The maximum interval is just over 11m from a blast hole that was drilled and sampled through 2 mining benches. The average interval is around 1m or approximately 3 feet (Figure 12-2).

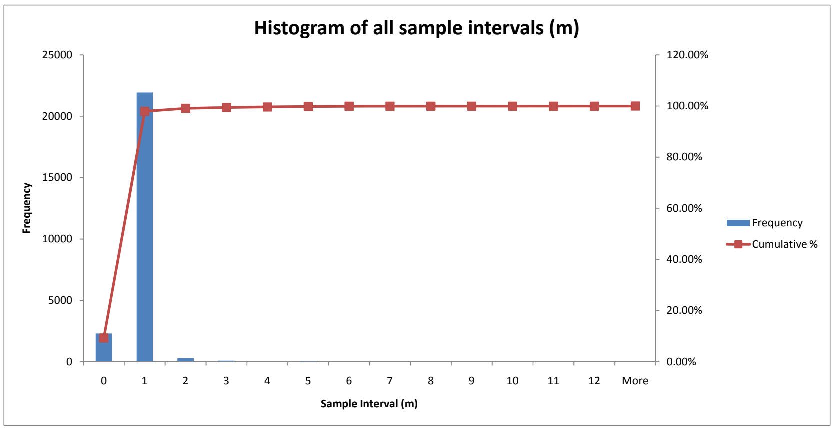

Figure 12-2 Histogram of sample intervals for all drill holes.

Figures 12-3 and 12-4 show histograms of sample intervals for each the exploration and blast hole data. Blast holes are typically drilled and sampled in approximately 5m intervals equivalent to the mining bench thickness (Table 12-1). Exploration holes are sampled in 2m intervals, but historically in 3 foot samples or approximately 1m intervals (Table 12-1).

Table 12-1: Sample interval thicknesses for exploration and blast holes.

Hole Type	Quantity	Minimum (m)	Maximum (m)	Average (m)
Exploration	444	0.61	2.13	1.77
Blast Holes	7,561	0.05	11.2	5.22

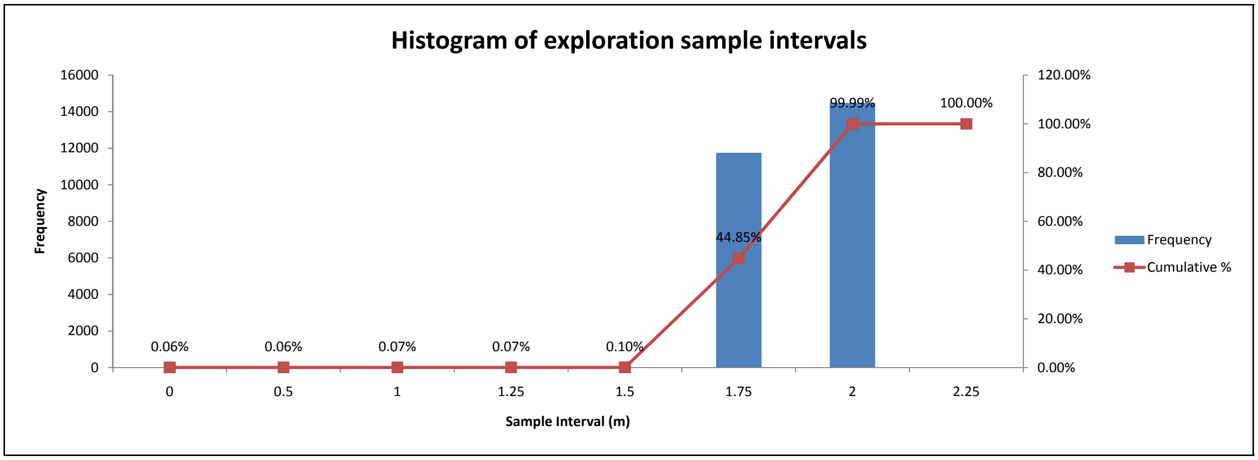

Figure 12- 3 Histogram of sample intervals for all exploration holes.

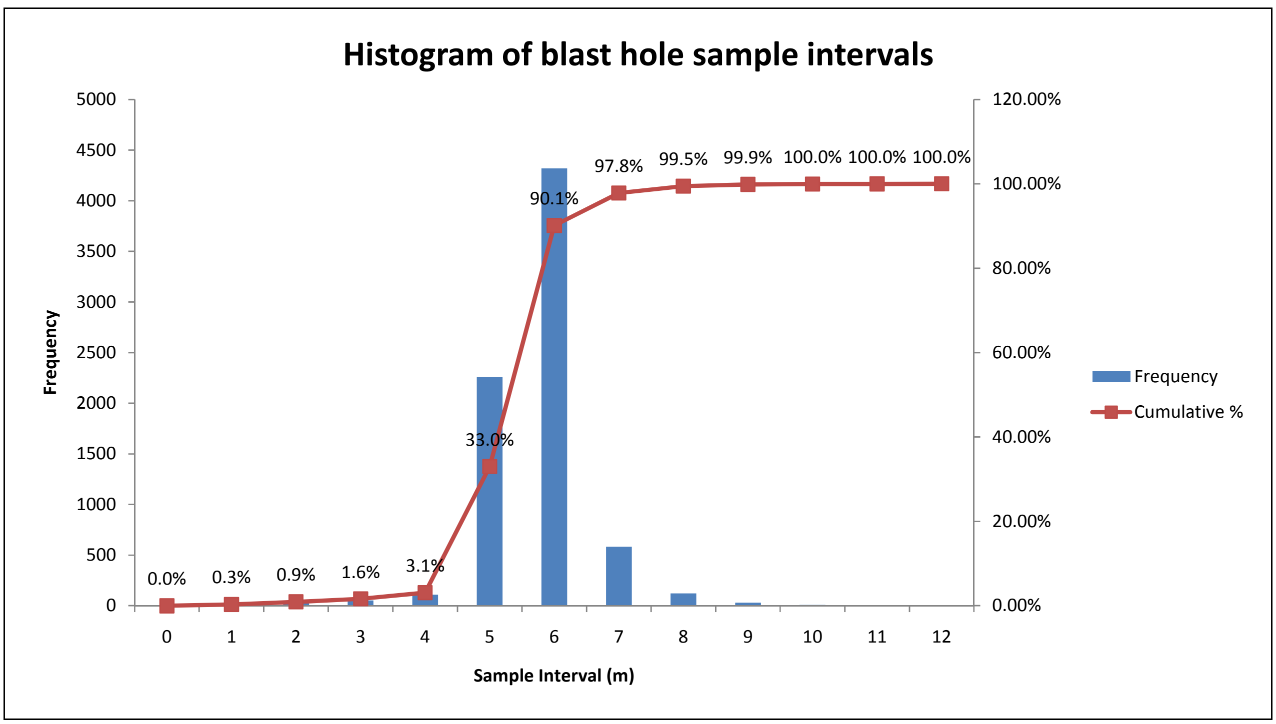

Figure 12-4 Histogram of sample intervals for all blast holes.

Sample grades are variable from below detection to more than 100 g/t Au in both exploration and blast holes (Table 12-2 and Figures 12-5 through 12-7). Where exploration holes and blast holes are in close proximity the grades are generally similar. In the opinion of the author, blast hole and drill core samples are representative of the mineralization on the Property and no bias is present in the sampling procedure(s).

Table 12-2: Sample gold grades for exploration and blast holes.

Hole Type	Quantity	Minimum (m)	Maximum (m)	Average (m)
Exploration	24,748	0.00	97.90	0.21
Blast Holes	7,380	0.00	137.71	0.40

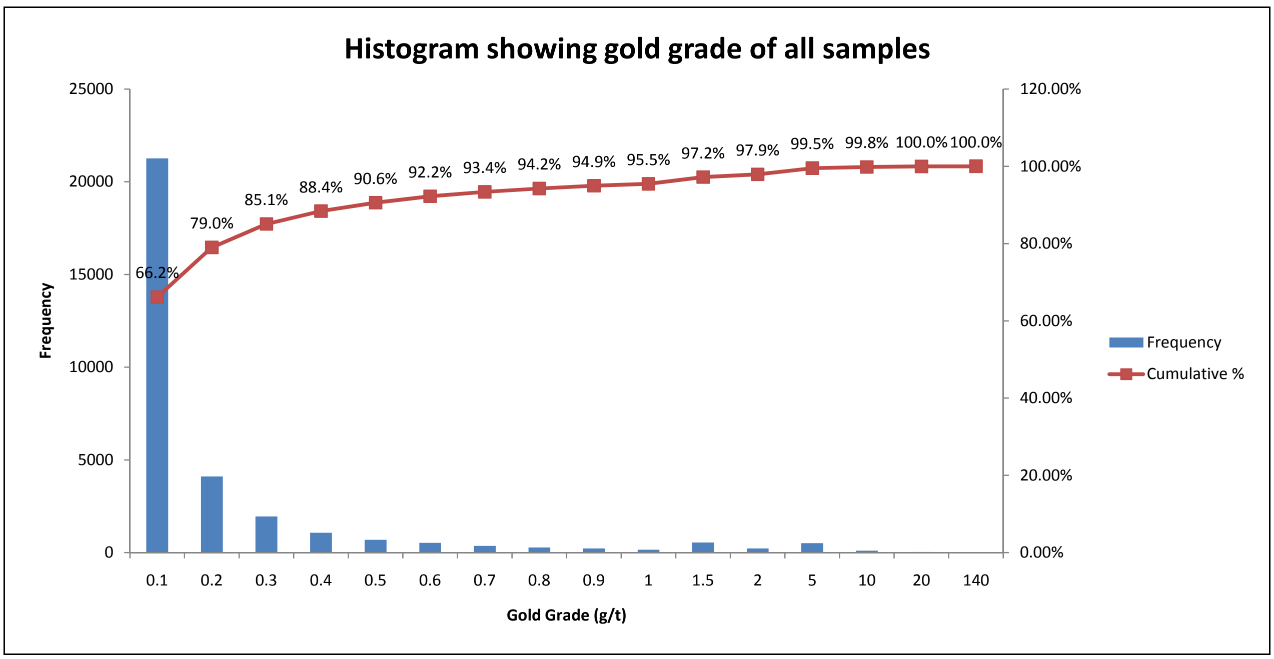

Figure 12-5 Histogram of sample gold grade for all holes.

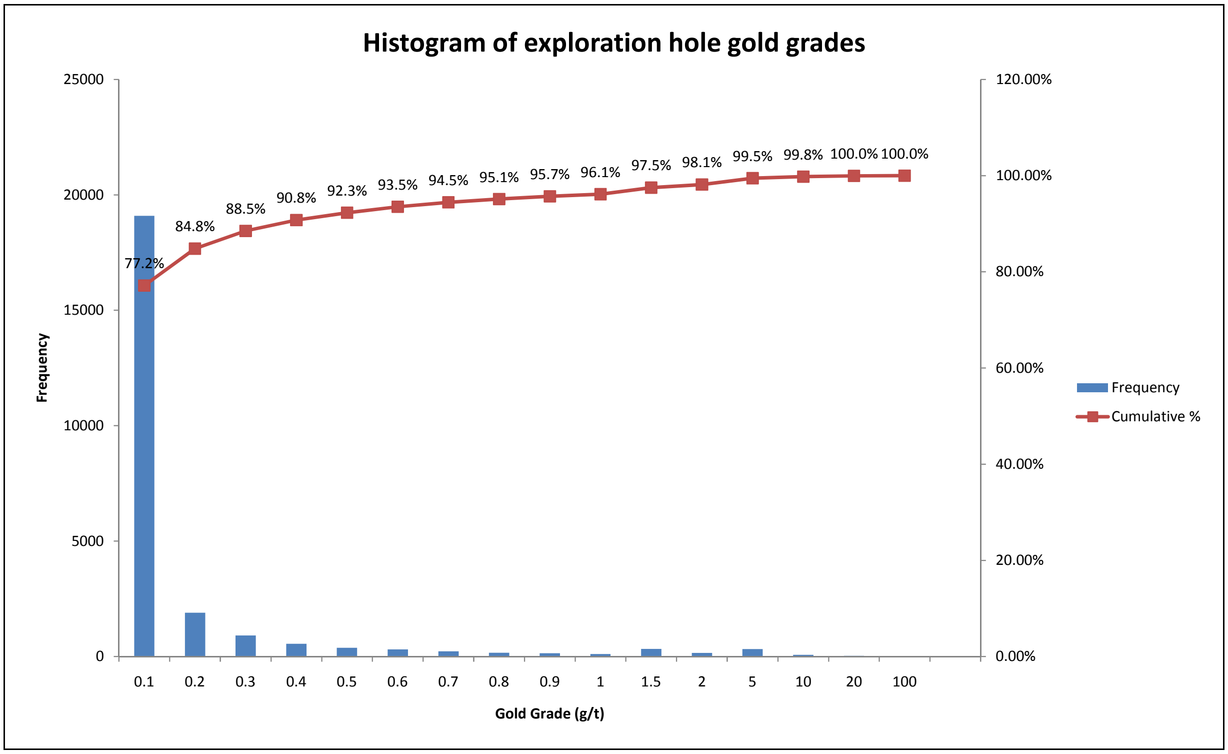

Figure 12-6 Histogram of sample gold grade for exploration holes.

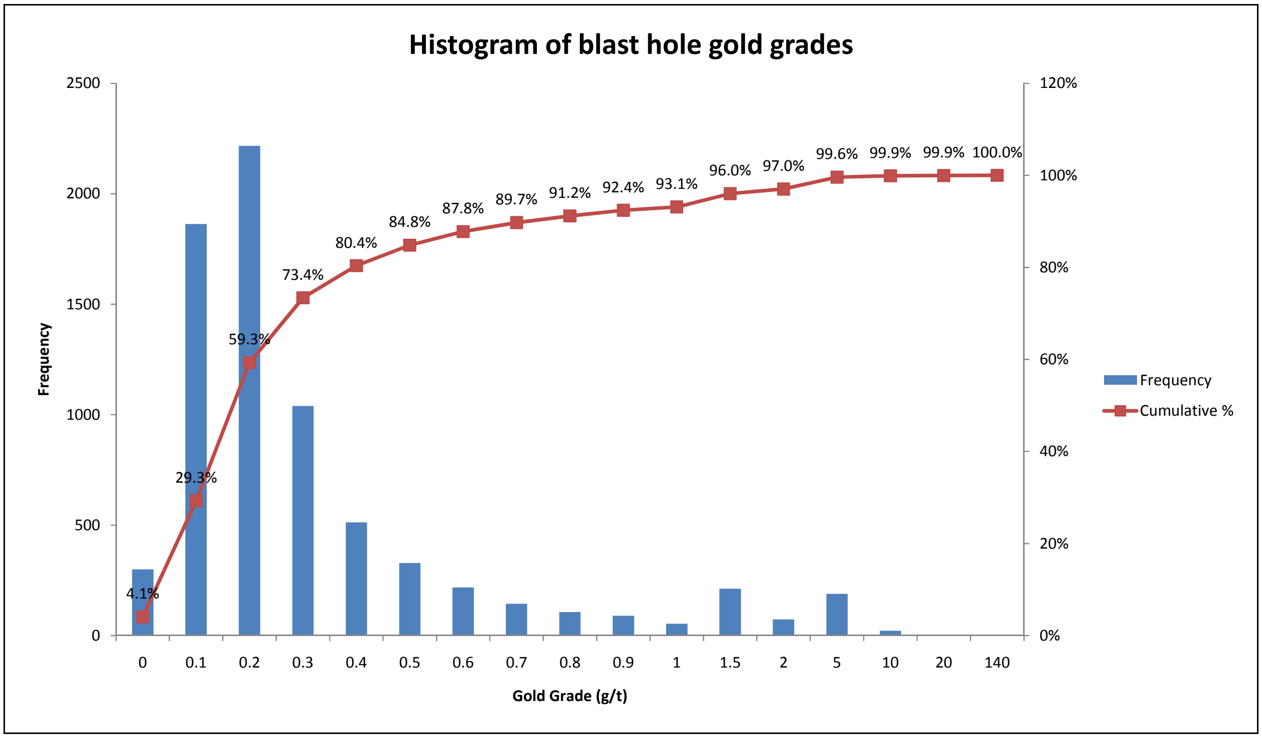

Figure 12-7 *Histogram of sample gold grade for blast holes.*

12.1 Specific Gravity

Specific gravity ("SG") measurements are not conducted routinely. Specific gravities determined prior to 2008 are shown in Table 12-3. In 2009 additional determinations were made by the University in Hermosillo for mineralized rocks and material that is considered by the mine to be waste. These values are shown in Table 12-4. The values are consistent with those previously determined. Sierra has established a truck/load weighing system to reconcile reported truck tonnages based on the new values.

Table 12-3: Specific gravity of Cerro Colorado samples pre-2009.

Mineralized	Number	Range	Average
Breccia Central	4	2.564 – 2.775	2.692
Harris	2	2.632 – 2.649	2.641
Obra X	3	2.573 – 2.715	2.621
Average			2.651

Waste	Number	Range	Average
Breccia Central	3	2.647 – 2.685	2.668

Table 12-4: Specific gravity determinations of Cerro Colorado samples in 2009.

Mineralized	**Value**
Breccia Central	2.59
Harris	2.66
Obra X	2.67

Waste	**Value**
Breccia Central	2.36
Harris	2.57
Obra X	2.60

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

Sample preparation and analysis for blast-hole samples is completed in the on-site laboratory by mine employees. Exploration samples are analyzed at IPL by fire assay-atomic absorption method and ICP in Richmond, British Columbia as well as by fire assay at the on-site laboratory.

When samples arrive from the open pit (blast-hole samples) or from the exploration site, each sample is catalogued on a laboratory sample list where a unique laboratory number is assigned to each sample. The Geology Department sample number is also recorded. The samples are then transferred to the preparation area inside the laboratory where the sample is crushed to -1/2 inches. If the sample does not require this first step of crushing it is directly passed through a fine grinder (-10 mesh). The sample is then homogenized and split into 200g aliquots. One aliquot is transferred to a sample tray and dried in a drying oven to eliminate the moisture before being pulverized for one minute. The sample is weighed and mixed with a lead flux and heated for one hour at 1,832°C. The molten sample is poured into an iron container where the molten product separates from the slag. The molten product is placed in a pre-heated cupel for cupellation. The temperature of cupellation is 1832°C; 98% of the lead is absorbed by the cupel and 2% is volatilized.

The resulting product is digested in 14% nitric acid to eliminate silver which may occur with gold. The remaining metal is washed with 5% ammonium hydroxide to eliminate all remaining silver and dried. The dried sample is weighed and the weight in milligrams recorded. The amount of gold in ppm and g/t is calculated using the weight of the original sample.

Until recently quality assurance and quality control ("QAQC") procedures were not utilized on site and the QAQC procedures of IPL were solely relied upon. Commercially prepared standards and blanks are now being analyzed with each sample batch at the on-site laboratory in addition to duplicate pulp samples. However, where they have been analyzed the data shows a reasonable level of accuracy and precision. The QAQC procedures still require improvement and need to be updated to current industry standards including routine analysis of variable grade gold standards, blanks and duplicates. It is recommended that site-specific standards be prepared and used as it best reflects the material mined at Cerro Colorado rather than a commercially prepared standard reference material. Duplicate samples also need to be taken from the coarse reject material, not just the prepared pulps.

In the opinion of the author, the sample preparation and assay protocols and procedures employed by Sierra and IPL are suitable for the types of samples and elements being analysed. The QAQC procedures need to be upgraded as noted above.

14.0 DATA VERIFICATION

14.1.1 Historic

Clancy Wendt, P.Geo., visited the storage facility at the mine at Cerro Colorado. Selected samples of drill rejects were taken from previous drilling. From the samples, sixteen independent samples were collected from drill rejects (Table 14-1). The sixteen samples were taken to Reno, Nevada in a secure manner by the geologist. The samples were submitted to Florin Analytical Services, LLC in Reno. The samples were prepared sing a standard industry analytical preparation flow chart.

Table 14- 1: Verification of historic assays from the 2005 technical report (Kappes, Cassiday & Associates).

Sample ID	Interval (m)	Barringer Labs (g/t Au)	Florin Analytical (g/t Au)
CC-29	15-20	1.20	1.17
CC-29	30-35	2.81	1.95
CC-29	45-50	0.86	0.86
CC-45	125-130	2.13	2.37
CC-45	135-140	1.30	1.58
CC-45	150-155	1.20	0.82
CC-45	160-165	1.34	1.54
CC-45	175-180	2.74	1.20
CC-47	5-10	1.23	0.24
CC-47	15-20	8.33	8.78
CC-47	20-25	0.17	1.47
CC-7	140-45	1.41	0.82
CC-7	145-50	1.34	0.93
CC-7	165-70	3.81	4.46
CC-131	280-285	107.31	48.21
CC-131	285-290	10.39	5.97

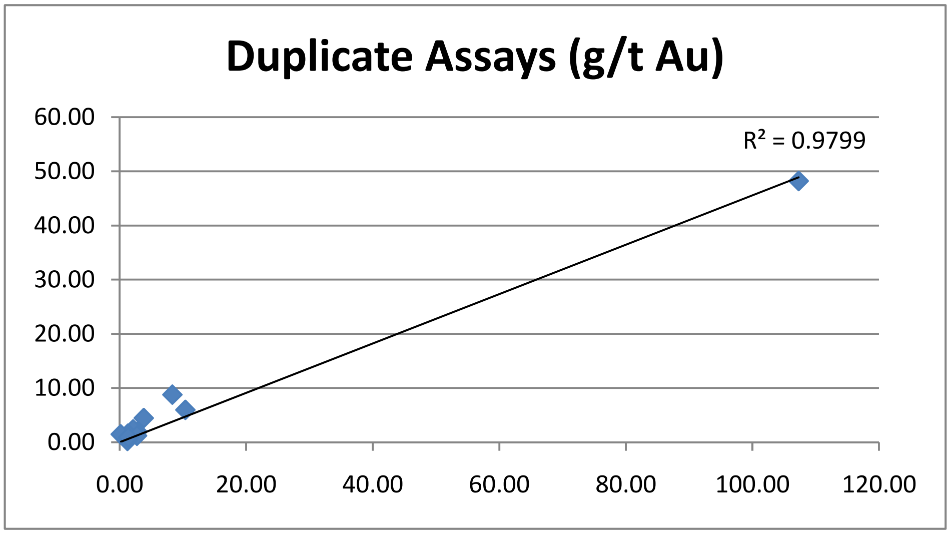

Figure 14-1 Plot showing historic assay check correlation on Laramide data.

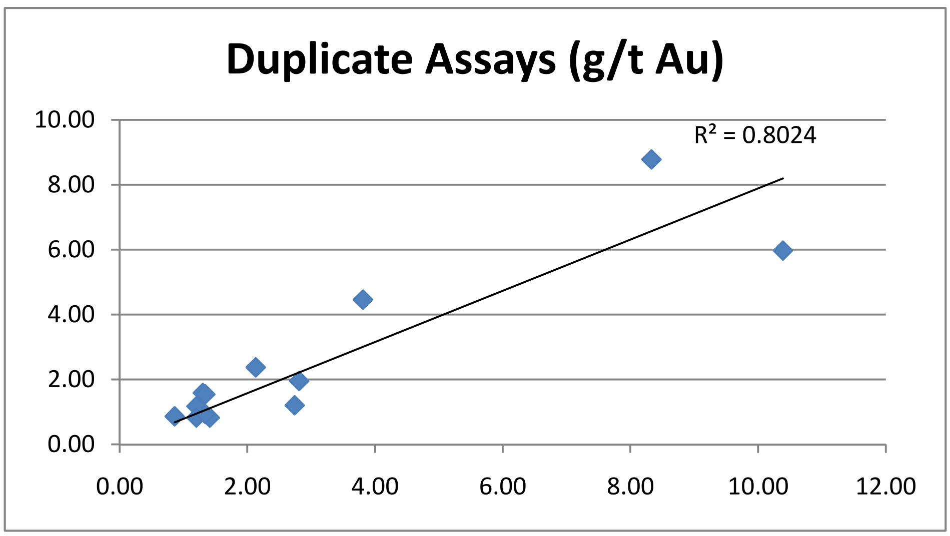

Figure 14-2 Plot showing historic assay check correlation on Laramide data excluding outlier points.

Two samples show anomalous repeat results which could result in a misclassification of mineralized material and waste (CC-47). The other variations have a high correlation despite the variation in gold assay values (e.g., 48.21 g/t Au versus 107.31 g/t Au). This variation is typical of samples exhibiting the "nugget" effect at higher gold grades. If these three sets of outlying data points are excluded, the correlation is still good with an R^2 value of more than 0.8. In general these duplicate sample data show good correlation at grades above the current mining grade cut-off, suggesting that the Laramide data is of good quality.

14.1.2 This Report

On January 21st and 22nd, 2009, the author, Michelle Stone (P.Geo.), visited the Cerro Colorado Property. She was shown drill collar locations from the 2007-2008 drilling program, the major geological features and units, the open pits, and toured the sample logging area and the on-site laboratory.

Drill hole databases were supplied to CCIC by Sierra in the format of a series of Microsoft Excel workbooks and MS Access Databases (one for blast holes and one for exploration holes). The files contained collar location, down hole directional survey data and assay results. These data were compiled into Microsoft Access for reviewing and validated where possible before being finalized into an appropriate format for resource evaluation.

The following general activities were undertaken during database validation by CCIC:

- Cross check total drill hole depth and final sample depth data.
- Check for overlapping and missing sampling intervals.
- Replace assay entries with less than detection limit values to one half the lower limit of detection for use with the resource modeling software.
- Checks were made using all available digital assay certificates for comparison with the results from provided in data files supplied by Sierra. Minor typographic errors were noted. The main discrepancy was the substitution of zero instead of half the detection limit for below detection limit values. However, these were updated were the possible

The database supplied was suitable for use for resource estimation after minor corrections were made.

14.1.3 QAQC Summary

Limited QAQC samples have been analyzed at Cerro Colorado despite the large number of drill holes and samples collected to date. Despite the quantity of data, they show reasonable accuracy and precision and are suitable for resource estimation. Improvements need to be made to the QAQC procedures for exploration and blast hole drilling to bring them in line with current industry standards.

Standards and Blanks

Figure 14-3 is an example of monthly blast hole QAQC data from September 2008. These results are typical of the on-site laboratory. Blank values are typically as expected. The two (2) outlying points in Figure 14-3 are probably mislabelled standards, in particular STD A, which has an expected value of 0.201 g/t Au. The standard analyses are typically within 1-2 standard deviations of the data mean indicating that the data is of good quality (Figures 14-4 and 14-5). The outlying point in Figure 14-4 is probably a mislabelled standard, STD C, which has an expected value of 0.201 g/t Au.

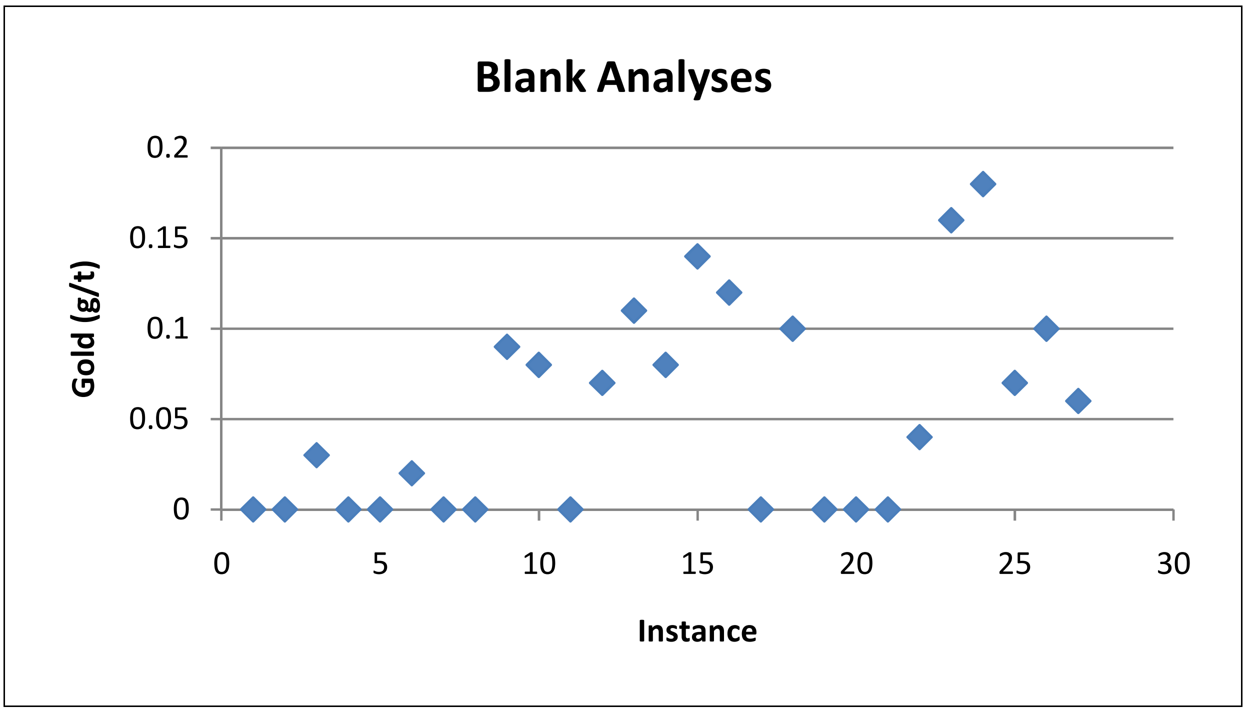

Figure 14-3 Scatter plot of assay values for blanks as determined by the on-site laboratory.

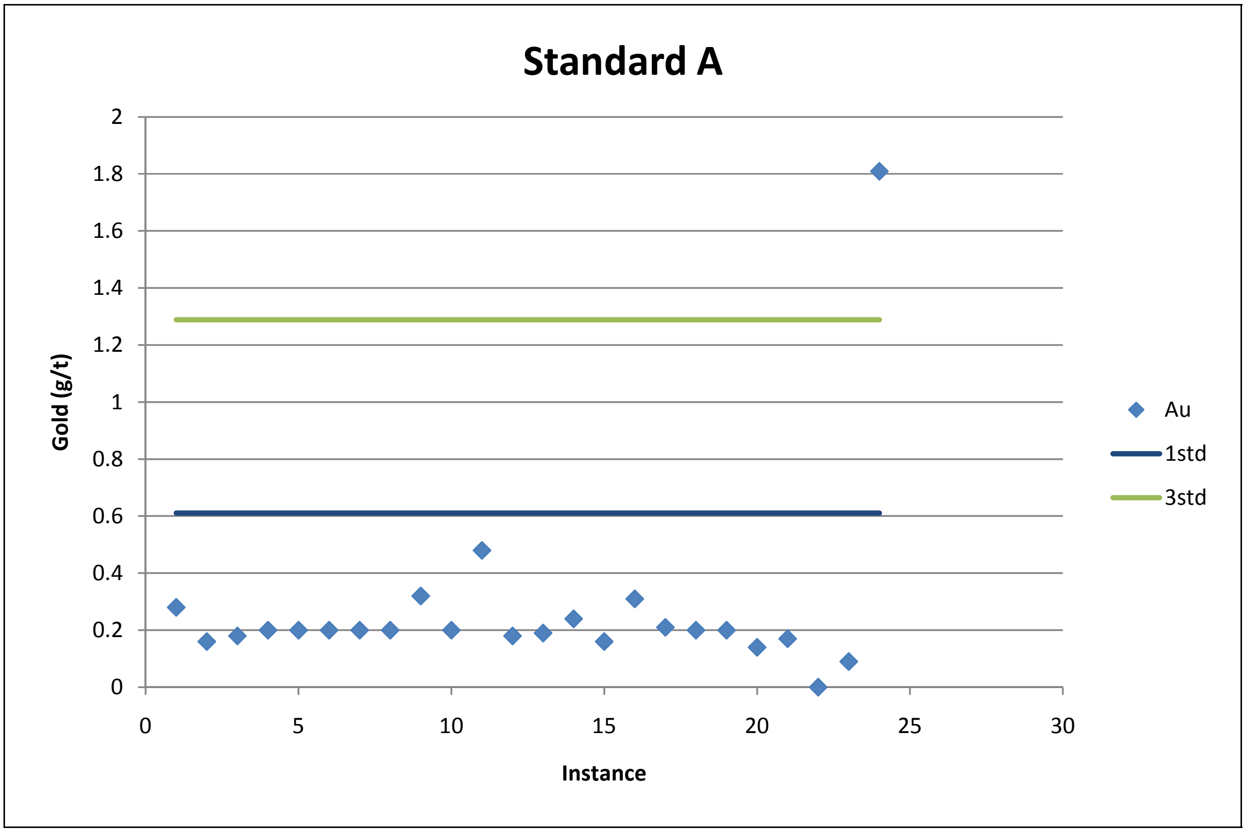

Figure 14-4 Scatter plot of assay values for Standard A as determined by the on-site laboratory.

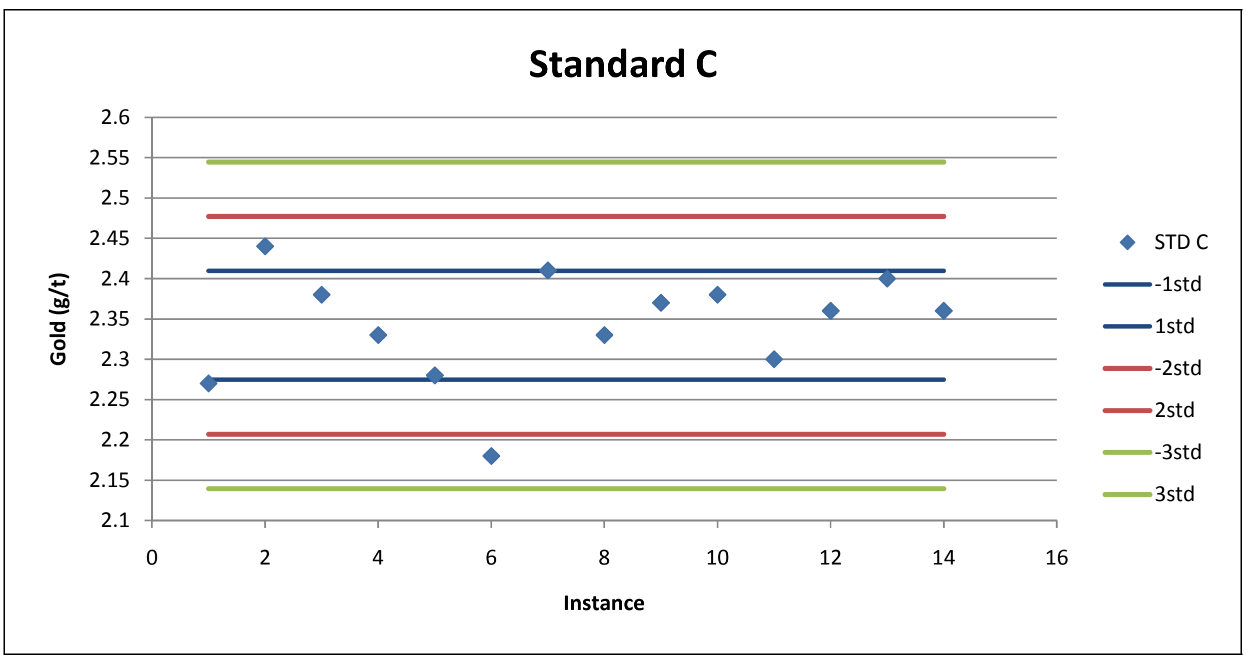

Figure 14-5 Scatter plot of assay values for Standard C as determined by the on-site laboratory.

Duplicates

753 duplicate samples were analyzed at the on-site laboratory and IPL. The results are shown in Figure 14-6. The data show a reasonable correlation with an R^2 value of almost 0.8. There is some scatter near the low end of the gold range, close to the minimum detection limit of the methods.

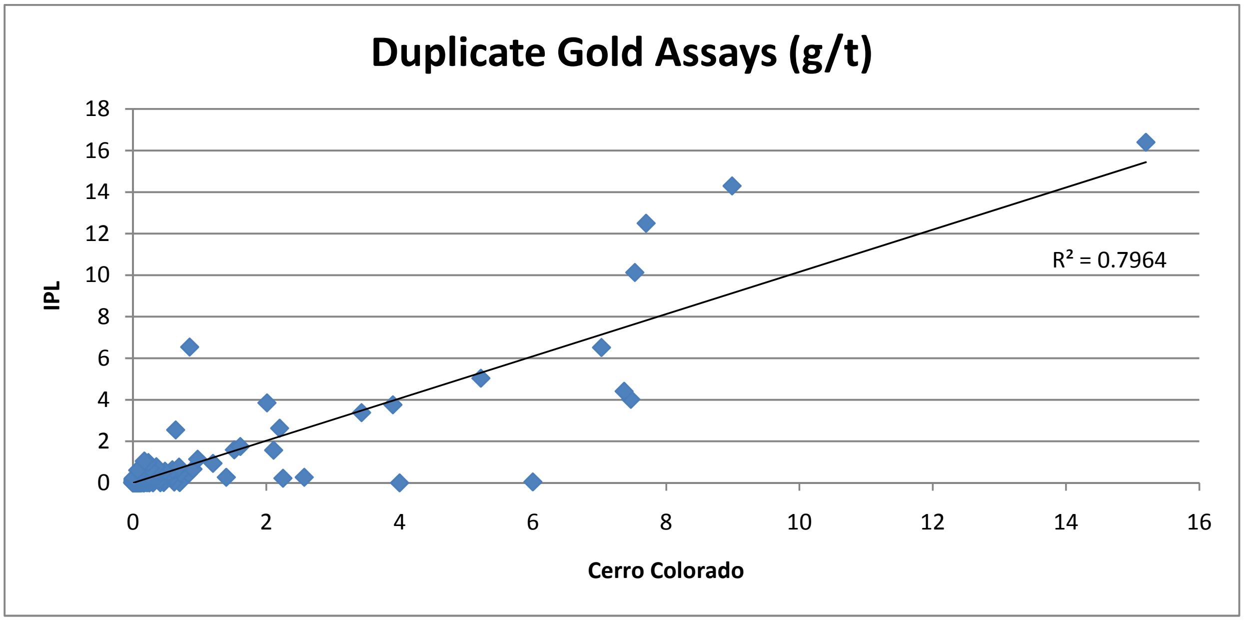

Figure 14-6 Duplicate gold assay results compared for the Cerro Colorado on-site laboratory and IPL.

Figures 14-7 and 14-8 show the difference between gold grades measured by the on-site laboratory at Cerro Colorado and IPL compared to the grade measured Cerro Colorado. Figure 14-7 shows that at lower gold grades, Sierra results are typically higher than those obtained from IPL. This relationship is more pronounced in the lower ranges of assay values, ie. less than 0.5 g/t Au (Figure 14-8). These values are important in determining if material is assigned as mineralized or waste and the data in this range needs to be closely monitored. Duplicate samples need to be sent to a third lab to confirm the positive bias in the Sierra laboratory numbers in this grade range. The data (Figures 14-7 and 14-8) also show that there is a general lack of duplicate assays at higher gold grades. As a result, a top cut will be applied to the resource estimation data.

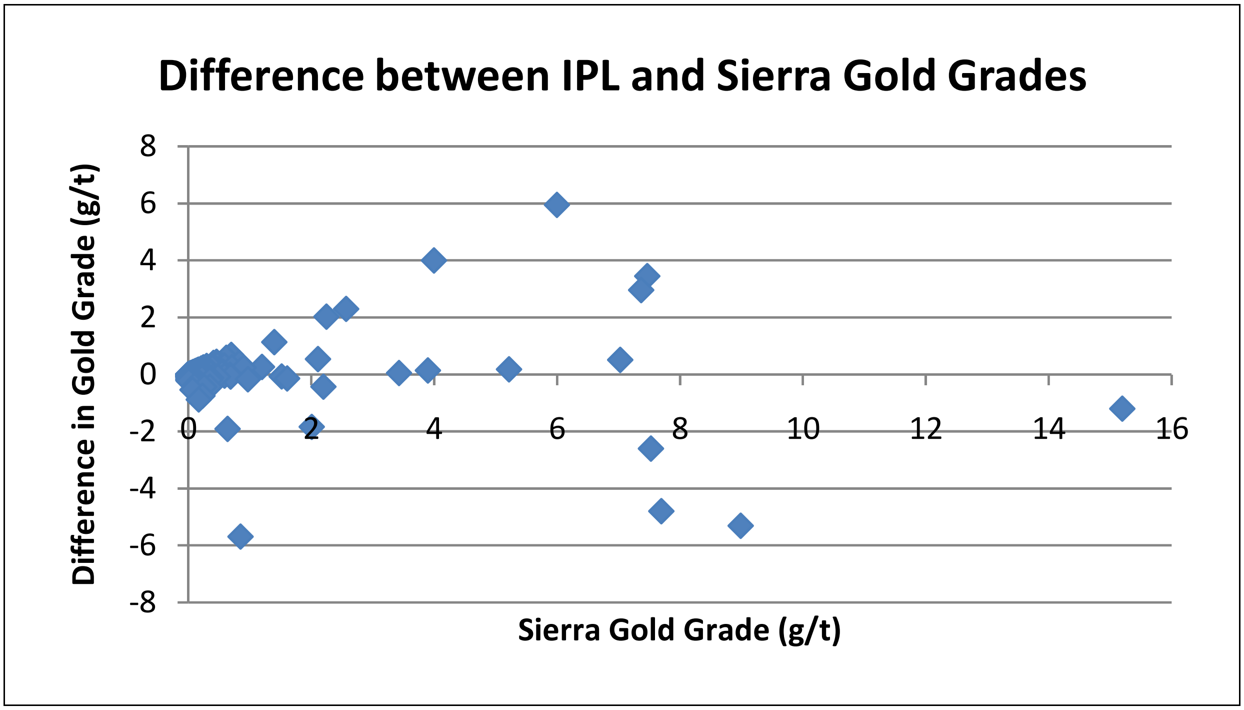

Figure 14-7 Graph showing the difference between the duplicate gold grades compared to the grade measured by the on-site laboratory at Cerro Colorado.

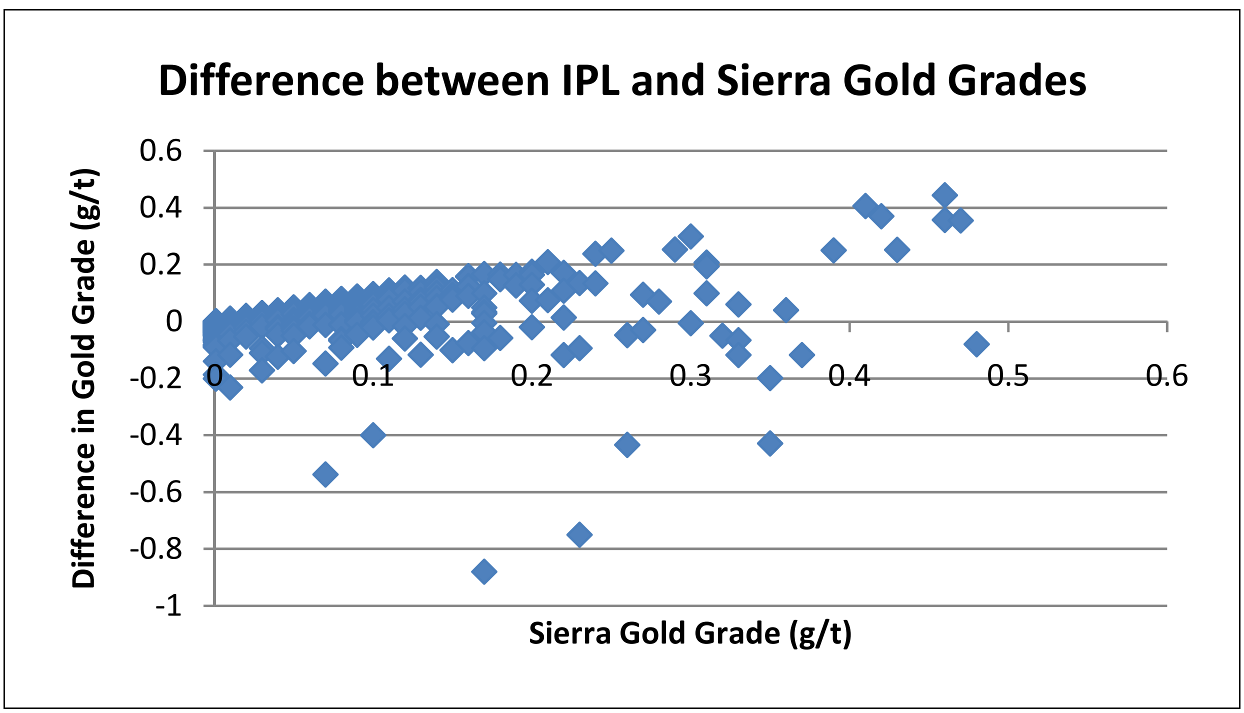

Figure 14-8 Graph showing the difference between the duplicate gold grades compared to the grade measured by Sierra for values of less than 0.5 g/t Au.

15.0 ADJACENT PROPERTIES

The Cerro Colorado Property is not bordered by any other concessions.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

16.1 Historic

A total of 13 column leach tests were undertaken using percussion drill chips from the Laramide drilling and dump material left at the surface from the old mine workings. The tests ranged in size from 4 kg in 100 mm diameter columns, up to 200 kg in 2m x 300 mm diameter columns. Gold recoveries ranged from 81% to 99% based on the leach recovery and final tails assay. Leach times were generally less than 120 days except in three cases (Tests 5, 6 and 7), where the sample material was crushed to minus 6 mm and extremely slow solution percolation was encountered. Test 10 also resulted in a slow leach time of 203 days on lower grade coarse dump material.

Based on the Sorpresa infill drilling and the column leach test results a decision was made in May 2001 to start a heap leach mining operation, initially in the Sorpresa mineralized zone, expanding into Harris - Abejas areas and later to open up the Breccia Central and Obra X mineralized zones. Mine construction began in mid 2001 and was completed by February 2003. During the first phase of mining a trial heap of 90,000 tonnes of mineralized material with an average grade of 1.24 g/t Au was placed on the pad at a crush size of minus 90 mm with the addition of 1.5 kg of lime per tonne of rock. Leaching commenced in March 2003 using a cyanide concentration in solution of 150 ppm at a pH of 10.5. Gold recovery from this initial trial heap was 67%. Mining recommenced in December 2003 using a secondary cone crusher to reduce the crush size to minus 45 mm but due to insufficient capital the secondary crushing circuit could not be maintained in operation. At the same time cyanide strength was increased and additional side-slope heap sprinkling was commenced. Recoveries appeared to be faster from the crushed material.

16.2 Recent Processing and Metallurgical Information

The current process department at Cerro Colorado includes the on-site laboratory, process plant and leach pad operations. The on-site laboratory provides data for grade control in the pit(s), metallurgical test columns for ongoing recovery profiles, and solution assays for monitoring the performance of the process plant. The process plant is a standard carbon adsorption/desorption circuit. The leach pad is a combination of mineralized material sourced directly from the pit(s) run of mine ("ROM") and crushed material which is sprayed with a weak cyanide solution containing 250-300 ppm cyanide. Cyanide solutions are kept within the enclosed loop circuit via high-density polyurethane ("HDPE") liner for all leach pads and process ponds. The material type is oxide.

16.2.1 Mineral Processing

Rock is hauled to the leach pad in 35 and 50 tonne trucks. This includes ROM material directly from the pit(s) or re-handled material from the crusher. The mineralized material is stacked in 3-5m lifts (Figures 16-1 and 16-2), ripped, and then cyanide solution is applied (Figure 16-3) to remove the precious metals from the rock. A second leach pad is under construction. Mineralized material is being stacked on the completed area, as the leach pad is being constructed in four stages to spread the capital expenditure over several quarters and only expanded as future space is required for additional material. Total volume once the entire leach pad is completed will be 4.0 million tonnes which equates to a useful life of 2.5-3 years mining at current rates.

Figure 16-1 Photograph showing the primary heap leach pad (completed) in the foreground. The secondary pad is in the background with cyanide sprayers on.

The cyanide solution distribution system contains 250-300 ppm of cyanide and is distributed via a network of wobbler sprayers over the entire surface area of truck dumped rock. The spray application rate is 10 litres per hour per square metre. Solutions percolate slowly through the rock, come in contact with the HPDE liner for gravity return to major collection points, and are now ready for processing at the carbon adsorption plant. This pregnant solution passes through the adsorption circuit for precious metal removal, returns to the barren pond where cyanide is added to bring the pH back up to the desired range noted above, and then sprayed back on top of the pad to complete the closed loop cycle of cyanide solutions. The site is currently testing an emitter drip system and if economically successful, may become the future distribution system.

Figure 16-2 Photograph showing the primary heap leach pad behind the processing plant. A collection pond is located in the fenced area in front of the truck on the left side of the photo.

Figure 16-3 Photograph showing the secondary heap leach pad with cyanide sprayers on. Three lifts were completed by the end of January 2009.

16.2.2 Previous Plant Performance - updated with expansion details

The previous plant performance is summarized as follows:

- One pregnant pond with 7.5 million litre capacity
- One barren pond with 10.0 million litre capacity
- Adsorption Circuit: six (6) circuits with three (3) carbon adsorption columns per circuit – 18 columns total with 0.5 tonne carbon per circuit for a total of 9 tons of carbon online with solution capacity of 6,000 tonnes per day (“tpd”; 1,000 tonnes per circuit)
- Desorption circuit: three (3) column strip @ 48 hour per strip; equates to 0.75 tonnes carbon desorption per day; atmospheric strip with 970,000 btu boiler (propane)
- EW cells: capacity of 50 cubic feet
- Refinery furnace: electric furnace with 200 kg capacity

- Spray pump capacity of 7,000 tpd with zero spray solution contingency during pump repairs/failure.

Details of the expansion to be completed in 2009 are provided below.

Ponds: The same pregnant and barren ponds noted above are still online to finish off the existing leaching required from the old leach pad. A new process pond was constructed below the new pad. This main function of the new pond is to operate as overflow catchments during storm events or pump failure. Pond capacity is 10 million litres. Normal operation is for this pond to be empty. There is a small pond at the head of this process pond where solutions pool for pick up via the plant feed pump(s) to pump solution directly to the six (6) circuits (four (4) columns per circuit) in the adsorption plant noted below. This small pond is continually being fed by pregnant solutions exiting the leach pad and has a capacity of 16-20 cubic metres of solution.

Adsorption circuit: Eight (8) circuits total; six (6) circuits of four (4) columns per circuit dedicated to the new leach pad with two (2) circuits of three (3) columns each for finishing off the leach cycle/recovery from the old pad – 30 columns total for a total of 15 tonnes carbon online for gold recovery from pregnant solution from both pads. Total solution capacity is rated at 8,000 tpd.

Desorption Circuit: Four to five (4-5) column strip per the existing boiler with capabilities to expand to 10 columns once the 2nd boiler is installed in June of 2009. With 2 boilers on line the site will be capable of stripping 5 tonnes of carbon per day if required. The new boiler is rated at 1,250,000 btu (propane).

Electro-winning cells: Two (2) electro-winning (EW) cells each with a capacity of 75 cubic feet. Electro-winning was expanded because the 50 cubic foot cell box was barely able to keep up to production at a rate of 1,600 to 1,800 ounces per month and required extensive repairs. Due to the condition of the 50 cubic foot box it was determined to de-commission this unit as opposed to repairing. With the two cell boxes operating, one can be dedicated to each boiler circuit.

Refinery: No changes were made to the smelting furnace as it only needs to operate once every 7 to 10 days to keep up with current production.

Barren solution: Barren solutions from the new carbon plant will exit into a barren tank. Cyanide will be added to this tank to bring cyanide levels back up to the 250-300 ppm range and two barren pumps will then pump solution directly back to the new leach pad. One pump in the barren pond will pump solution directly to the old leach pad. The second pump in the barren pond will be connected as a spare pump and used as needed if any of the other three online pumps need repairs. Total barren solution capacity is rated at 8,800 tpd utilizing three pumps.

Overall the new leach pad has been designed to operate without the use of storage ponds. The only requirements of ponds in this scenario are for pump failures or major storm events that exceed the capacity of the barren tank or small pond in front of the process pond. Therefore the process pond can be considered a contingency pond and reduces capital requirements of building a special pond for this function.

16.2.3 Plant flow sheet description

Solution Flow: Barren solution is pumped from the barren pond to the heap leach pad(s) (Figure 16-4). The piping for this system includes main distribution header pipes of 8 inch yelomine pipe which distribute solution from the pond to the base of the pad. The solution next reports to a network of 4 inch, HDPE pipes. These 4 inch pipes distribute solution up the side slope of the leach pad to different areas of the leach pad that require spraying. Once solution is on the upper most level of the pad, piping changes to four inch yelomine, with a two inch tee every 6 meters. The 2 inch yelomine laterals which run perpendicular to the 4 inch yelomine, distribute solution over the entire area under leach. Wobblers on a 6m spacing, or one per 36 square meters, distribute solution at the rate of 10 gallons per hour per meter squared. Yelomine pipe is used for ease of assembly/disassembly as required for placing additional lifts on the pad.

Barren solution then percolates slowly through the pad, extracting gold from the rock. When this pregnant solution exits the pad it is ready for processing in the carbon adsorption circuit. Pregnant solution is pumped into the carbon adsorption train for precious metal removal. Upon passing through the adsorption circuit, the solution is considered barren and returns to the barren pond for pumping back up to the leach pad to keep all solutions in a closed loop.

Carbon Flow Circuit: The carbon circuits are standard, gravity flow carbon adsorption trains used throughout the mining industry (Figure 16-4). Each circuit of the six (6) circuits in the new plant contains four columns each with a 0.5 tonne processing capacity per column. Solution flows via gravity through

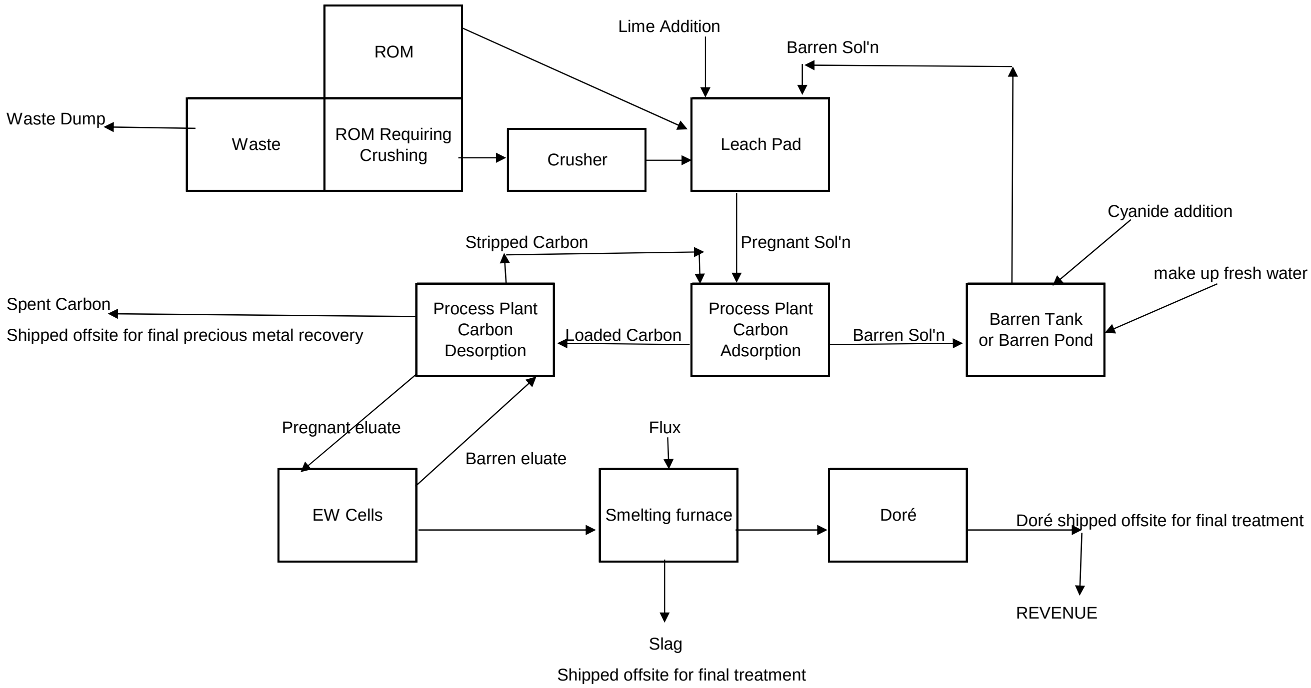

Figure 16-4 Process diagram for gold production at Cerro Colorado.

each column while the carbon movement is counter-current to the flow and moves up the train as the upper most column is removed for precious metal recovery at the desorption circuit.

In the desorption circuit the precious metals are removed from the carbon. An atmospheric strip is conducted using a boiler to raise the temperature to a point directly below the boiling point for water (207^{o} F at the elevation of Cerro Colorado). The eluate used in the strip is a solution containing 1.0%-1.5% NaOH and 0.1% NaCN. This eluate then passes through the EW circuit where the precious metals are transferred to the cathodes. Once the desorption-circuit is completed, carbon is returned to the bottom circuit in the adsorption train to begin reloading of the carbon again with precious metals.

Since Cerro Colorado does not have an acid wash or regeneration kiln, carbon is used for approximately five strips before being replaced. The spent carbon is accumulated until a truck load is available for shipment off-site for final extraction of any remaining precious metals on the carbon.

Electro-winning Cells: The eluate from the desorption-circuit passes through the EW cells and transfers the precious metals to the cathodes (Figure 16-4). Cathodes are removed bi-daily, washed of the accumulated sludge (precipitate) and then returned to the cell for additional loading. The cathodes are of stainless steel mesh and can be reused until the mesh becomes too brittle and begins to fall apart. Spent eluate is discharged into the pregnant pond and becomes part of the process solution circuit.

Refinery: The precipitate removed from the cathodes is dried and accumulated for smelting (Figure 16-4). Every 7-10 days a smelt is carried out. Flux is added to the precipitate and placed in the smelting furnace. When temperatures reach 2,000 °F, the liquid is poured into standard 1,000 ounce bar moulds. Slag is removed and stored for later shipment to offsite facilities for final extraction of precious metals. The remaining doré metal is weighed and shipped via armoured car to a refinery in the United States for further processing. Once the metal reaches the third party refinery, Cerro Colorado can sell the doré. Pin samples or drill cuttings are taken with each smelt and assayed at the onsite lab. These assays are compared to the doré assays results from the offsite refinery as part of an internal check process. Discrepancies, if any, are followed up with the refiner.

Crushing: The crushing plant consists of a primary and secondary crusher. The primary crusher is owned and operated by Sierra. The secondary crusher is leased and operated by a contractor. The secondary crusher was placed in service to primarily handle rock coming from the Obra X pit.

Primary crusher: The primary crusher has the capabilities to reduce rock size from a nominal 12 inches down to a 4 inch angular crush size. Mineralized material is fed into the primary crusher with a Caterpillar (“CAT”) 988 front end loader from the crusher stockpile when the fleet is not operating from the Obra X pit or direct dump into the primary crusher if the haulage is coming Obra X. When the crusher is shut down for maintenance or truck haulage exceeds the primary feed rate, haul trucks dump mineralized material on the coarse sized stockpile.

Secondary crusher and screen deck: A contractor has been sourced and has installed a secondary screen deck and secondary crushing plant. The screen deck removes all material that meets product size with the balance reporting to the secondary crusher. The secondary crusher reduces material from a nominal 4 inch crush size down to a P80 of minus one inch. The system is setup for single pass through the secondary with all material reporting to the final product belt.

Conveying: Conveyors connect the primary, secondary, and final product belts to the fine sized stockpile. The fine stockpile is then truck hauled to the leach pad.

Power Supply: The primary crusher and all conveyors are operated by the on-site 350kW generator. The contractor supplied screen deck and secondary crusher are powered by the contractor supplied generator.

16.2.4 Heap Pads (pad design)

Leach Pad:

A. Top soil removed and stockpiled for future reclamation.

B. Dozer or blade work as needed to bring base to desired elevation.

C. Compacted base; base is checked for compaction by outside party.

D. Base is prepared so gravity drainage occurs; topography for the new pad allowed for overall gradients to be between 1-2%.

E. HDPE 80 mil liner placed over compacted base material; all sheets double seem welded and checked via air pressure tests; extrusion welding competed as needed at liner intersections.

F. Area tailings are placed on top the liner as a protective layer.

G. Three inch and six inch ADS drainage pipe is placed on top of the tailings to drain solutions into the drainage canal.

H. Mineralized material is placed in 3-5m lifts.

I. Each lift steps in so a final reclaimed slope of 2:1 can be achieved during the reclamation stage.

Ponds:

A. Ponds are constructed with double containment liner and a leak detection system between the two liners.

B. Base liner is 40 mil HDPE

C. Top liner is 60 mil HDPE.

16.2.5 *Leaching (chemical process)*

Lime: Lime is hand applied as each truck load of ROM material is placed on the pad. The reagent is applied at a rate of 1-2 kg per tonne of rock. Adjustments are made as necessary to keep the solution pH exiting the leach pad in the desired range between 10.2-10.8. Crushed material has lime added after the primary crusher at the rates noted above.

Cyanide: Sodium cyanide ("CN") is batch mixed on site using 100 kg barrels to create a 25% solution in the batch tank. CN from the batch tank is then fed directly into the pump suction to maintain the CN levels in the leach solution in the range of 250-300 ppm.

Application Rate: The barren solution is applied at a rate of 10 litres per hour per square meter of rock.

16.2.6 *Monitoring daily control*

Solution samples are taken every four hours from the following areas and read on the atomic absorption ("AA") instrument at the lab: each carbon column in the adsorption circuit, each column in the desorption circuit, EW cell tail sample, plant feed head and tail samples, and each six inch ADS drain pipe that was placed on the liner. Flow meter readings are taken every four hours on the adsorption circuit with daily readings taken on each barren pump. This data is collected and complied on a daily plant report(s) and then distributed to all senior managers. The following data is part of the daily reporting process; gold production from the adsorption desorption circuits, flow meter readings on the pregnant/barren circuits, fresh water consumption, reagent usage and inventory levels, solution pH and CN levels and boiler temperature performance. Additional data is collected from the refinery whenever the EW cells are cleaned or a smelt is taking place.

16.3 Gold Analysis

16.3.1 *Fire assay*

Grade control: All drill-hole samples from the pit are analyzed by fire assay. The Geology Department is responsible for inserting blanks and standards to assure that the fire assays are representative of the lot being assayed. The samples are dried, split, pulverized, weighed and fluxed for fire assay, cupelled, and weighed on the microbalance to determine the grade of each sample.

Carbon assays: Carbon assays are completed in a separate furnace dedicated to this task so cross contamination does not occur in the main fire assay furnace.

Micro balance room: A new micro balance was purchased in 2008 along with a new vibration dampening table.

16.3.2 Wet Lab

The wet lab includes an AA instrument, fume hoods and other necessary gear to carry out the functions required for solution assay from the plant. A new electronic pH meter was purchased in 2008. Capital dollars have been allotted for purchasing a new AA machine in 2009.

16.3.3 Metallurgy Lab

Column leach tests: There are 10 leach columns set up for metallurgical testing of Au recoveries. The columns are 200mm by 2m in height and can hold a 40 kg charge. The on-site metallurgist is responsible for the column data and reporting. The Geology Department is responsible for collecting samples for the column leach tests as required.

Bottle rolls: Bottle rolls can be conducted as required. Currently the site is carrying out a campaign of bottle roll testing on the Obra X pit.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

An initial, independent NI 43-101 compliant resource for the Cerro Colorado Property was estimated by the author using data available as of January 22nd, 2009. The data supplied for this estimation included 444 surface exploration and 7,561 blast holes (Table 17-1). Assays for only 87 holes of the 2008 drill program were available for the estimate. The exploration and blast holes were used to construct a solid shape representing the gold mineralization (Figures 17-1 and Table 17-1). The grade of gold was estimated using 5m composites and the inverse distance squared method.

Table 17- 1: Sample interval length and frequency for the different drill hole types.

Hole Type	Number of Holes	Number of Samples
Exploration	444	26,256
Production	7,561	7,379

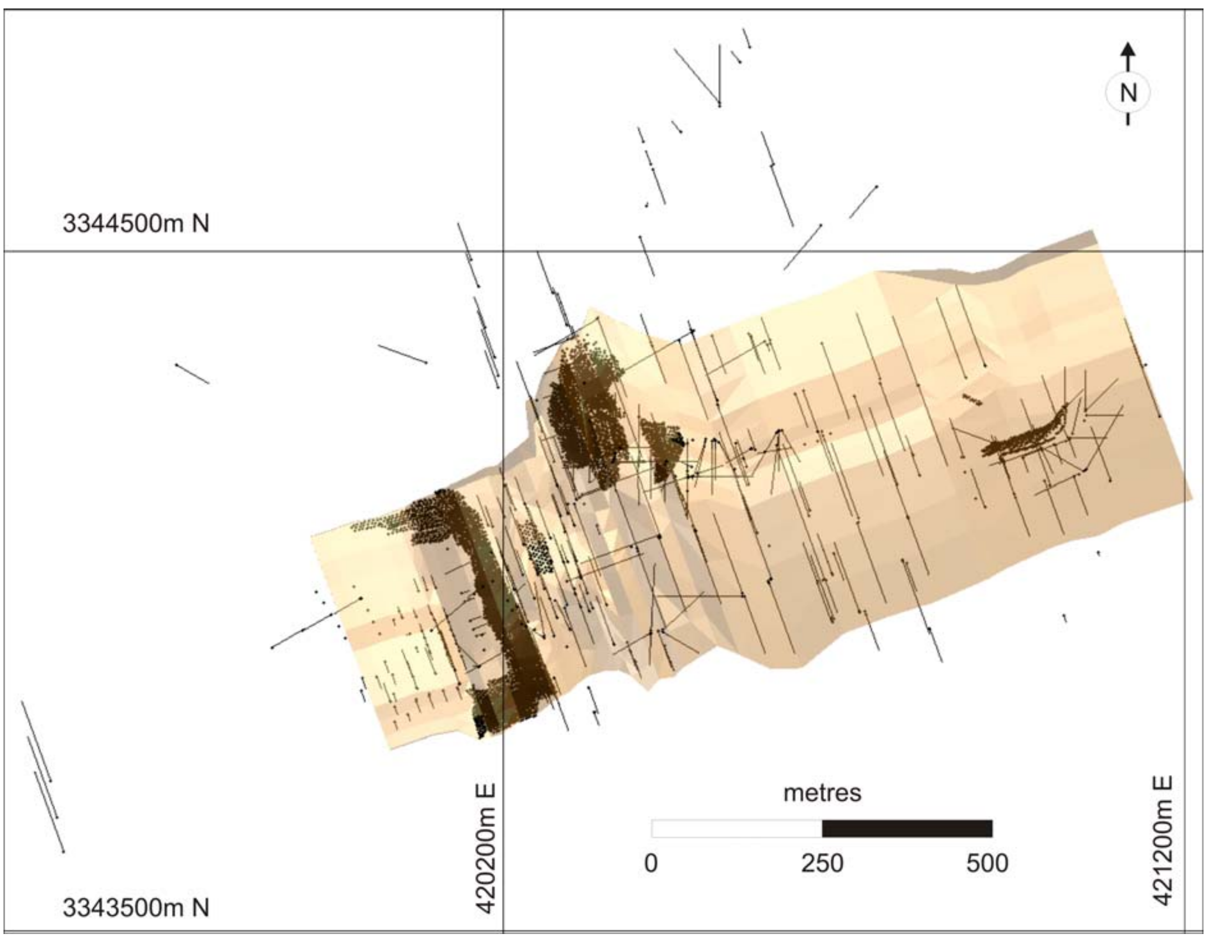

Figure 17-1 Drill hole location map (plan view; drill traces black) for the Cerro Colorado Gold Mine showing the solid shape (shaded) representing the mineralization modeled in this report.

17.1 Database, Software and 3D Model

The resource estimate is based on the interpretation of a database consisting of 444 surface exploration and 7,561 blast holes. The collar position, down-hole survey and assay data for these holes are stored in an MS Access database. Sample intervals with assays below the minimum detection limit were assigned a value equal to one half of the minimum detection limit where detection limit information was available.

A 3D model of the gold mineralization within the mine area was constructed using interpreted drill-hole cross sections. The overall shape of the solid includes what appears to be multiple, thin, closely stacked low grade gold veins with diffuse mineralization surrounding them. SurpacVision (v6.1) software was used to construct the 3D model and perform the grade estimation.

17.2 Compositing

As described in Section 12, the sampling interval is variable depending on the drilling type (blast hole or exploration). To be consistent with the typical mining bench thickness, samples were composited to 5m within the 3D solid. Intervals less than 5m were composited near the contacts where sample length was equal to 0.02m (1% of the maximum composite length). Table 17-2 summarizes the composite interval statistics.

Table 17- 2: Summary of assay statistics for composite samples.

Composites	Au (g/t)
Number of samples	11,230
Minimum	0.10
Maximum	137.71
Mean	0.533
Median	0.230
Variance	4.547
Standard Deviation	2.132
Coefficient of Variation	3.998
98th percentile (cut value)	3.695
Number of samples cut	244
Revised Coefficient of Variation	1.431

The coefficient of variation was checked for the composites. If the coefficient of variation for gold grades greater than or equal to 0.1 g/t Au was greater than 1.2, the grade was capped using the 98th percentile. A summary of the capping statistics for the composites are shown in Table 17-2. The composited and capped values exhibit a lower coefficient of variation and are deemed acceptable for use in estimating the grade of the gold mineralization in the mine area at Cerro Colorado

17.3 Block Model

The block model parameters are shown in Table 17-3. Block dimensions in the north-south direction were limited to 2m to try and restrict across vein smoothing. A rotation was not applied to the model. Partial percents were used as part of the volume estimation. The block volumes were adjusted based on the proportion that the block was "in" the solid shape representing the mineralization.

Table 17- 3: Block model description.

Model Setup	Y (m)	X (m)	Z (m)
Minimum Coordinates (m)	3,343,750	419,640	350
Maximum Coordinates (m)	3,344,790	421,220	800
Block Size (m)	10	10	5
Rotation	-	-	-
Total Blocks	7,613		

17.4 Specific Gravity

Specific gravity determinations were completed on behalf of Sierra in 2009 (Table 9-2) that are believed to best represent the mineralized material currently being mined or separated as waste. The distinction between mineralized material and waste has been assigned a value of 0.2 g/t Au which is the current mine cut-off grade. Specific gravities were not determined for the Sorpresa and Abejas pit areas. However, values for mineralized material and waste were assumed to be equal to that at Harris where the materials mined are similar in gold grade and general characteristics. Table 17-4 lists the specific gravities used in the modelling.

Table 17- 4: Specific gravities used in the 2009 resource model.

Pit Area	≥ 0.2 g/t Au	< 0.2 g/t Au
Harris	2.66	2.57
Abejas	2.66	2.57
Sopresa	2.66	2.57
Breccia Central	2.59	2.36
Obra X	2.67	2.60

17.5 Block Interpolation

The tonnage for each block was established as follows:

Block volume (10m x 5m x 2m) * SG * the proportion of the block within the 3D solid.

The grade was estimated by the inverse distance squared method using a search ellipse with a 100m radius oriented along the general strike and dip of the mineralization (245°/25°). The major to semi-major ratio and major to minor ratios are 1:1 and 10:1 for the search ellipse. A minimum of 4 samples and a maximum of 12 samples were used in the estimation with a maximum of 5 samples from any particular drill hole. Preliminary variography suggested that 100m could be an appropriate radius for the search ellipse oriented along the general strike and dip of the deposit used in grade estimation. However, the drilling completed at the Project does not conform to a regular pattern producing intercepts of approximately equal spacing and has not targeted potential high grades zones consistently making it difficult to complete a detailed analysis and robust determination of grade estimation parameters.

The 100m search distance is also generally considered appropriate for the Project given the irregular drill hole spacing and depth information within the known mineralized zones. Drill holes that are located up to 100m apart can be easily correlated. A more rigorous examination of the search parameters should be completed once a more regular drill pattern has been completed in the pit areas in addition to confirmation of the existence of a discrete zone or zones of higher Au grade with in the mine area. As indicated in Section 17.3, the gold values used for the grade estimation were capped as a result of a geostatistical analysis of the Au grades returned in drill holes at the Project..

17.6 Validation

Detailed visual inspection of the block model has been conducted in both section and plan to ensure the desired results of the estimation. This checking includes partial percentage estimates and grades. The estimated grades were checked in relation to the underlying drill-hole sample grades. The gold grades in the model appear to be a valid representation of the underlying drill hole sample data.

17.7 Classification

Based on the study reported herein, delineated mineralization within the Cerro Colorado Gold Mine is classified as a resource according to the following definitions from NI 43-101:

> *"In this Instrument, the terms "mineral resource", "inferred mineral resource", "indicated mineral resource" and "measured mineral resource" have the meanings ascribed to those terms by the Canadian Institute of Mining, Metallurgy and Petroleum, as the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted by CIM Council on December 11, 2005, as those definitions may be amended from time to time by the Canadian Institute of Mining, Metallurgy, and Petroleum."*
>
> *"A **Mineral Resource** is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a Mineral Resource are known, estimated or interpreted from specific geological evidence and knowledge."*
>
> The terms Measured, Indicated and Inferred are defined in NI 43-101 as follows:
>
> *"A '**Measured Mineral Resource**' is that part of a Mineral Resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity."*
>
> *"An '**Indicated Mineral Resource**' is that part of a Mineral*

Resource for which quantity, grade or quality, densities, shape and physical characteristics, can be estimated with a level of confidence sufficient to allow the appropriate application of technical and economic parameters, to support mine planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough for geological and grade continuity to be reasonably assumed."

*"An '**Inferred Mineral Resource**' is that part of a Mineral Resource for which quantity and grade or quality can be estimated on the basis of geological evidence and limited sampling and reasonably assumed, but not verified, geological and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes."*

17.8 Results

Resource estimates presented in the following sections are effective as of the January 31st, 2009. Blocks in the 3D model were classified as follows:

Measured: if the average distance between sample pairs used in the estimate was less than 10m.

Indicated: if the average distance between sample pairs used in the estimate was 10-50m.

Inferred: if the average distance between sample pairs used in the estimate was 50-100m.

A variety of parameters were evaluated for the classification. The maximum average distance between sample pairs deemed acceptable for classification of Measured material was 10m. Above this value there is a significant increase in estimated tonnages that is not as well supported by the data at the effective date of the report.

The resource estimate for the Cerro Colorado Mine is presented in Table 17-5. Figure 17-2 shows the distribution of Measured and Indicated blocks versus Inferred blocks. Table 17-6 and Figure 17-3 show the results of the tonnage and grade estimation at various gold cut-off grades. Table 17-7 shows the resource estimate by gold range.

The 0.25 g/t Au reporting cut-off grade was selected for the base case because it was the mining grade at Cerro Colorado during the author's site in 2009. This is the same cut-off reporting grade used for the Pre-feasibility study, on the geologically similar, El Castillo heap leach Au project located in the State of Durango, Mexico (Steven et al., 2006). Material in the grade range of 0.2 to 0.25 is also reported in the following tables as an NI 43-101 compliant economic evaluation has not been yet been completed. The cut-off grade needs to be re-evaluated as additional information becomes available. Currently the mining grade is 0.2 g/t Au at Cerro Colorado.

Table 17- 5: Estimated resources reported at a 0.25 g/t Au cut-off for the Cerro Colorado Gold Mine, January 31st, 2009 (base case). Tonnes are rounded to the nearest 1,000.

Classification	Tonnes (t)	Au (g/t)	Ounces Au
Measured	107,000	0.63	2,157
Indicated	9,599,000	0.54	167,987
Measured + Indicated	9,706,000	0.55	170,144
Inferred	5,599,000	0.41	74,177

Note: Ounces calculated using 31.103 grams per tonne.

Mineral resources which are not mineral reserves do not have demonstrated economic viability. There are no known factors related to environmental, permitting, legal, title, taxation, socio-economic, marketing or political issues which could materially affect the mineral resource.

The distribution of Inferred mineral resource above the 0.25 g/t Au base case is shown in Figure 17-2. The resource at this cut-off limit occurs as lenses down plunge or along strike of mineralization mined or presently being mined from the pits within the limits of the existing drill holes. This suggests that it is favorable with respect to selectivity and other factors when considering mining options.

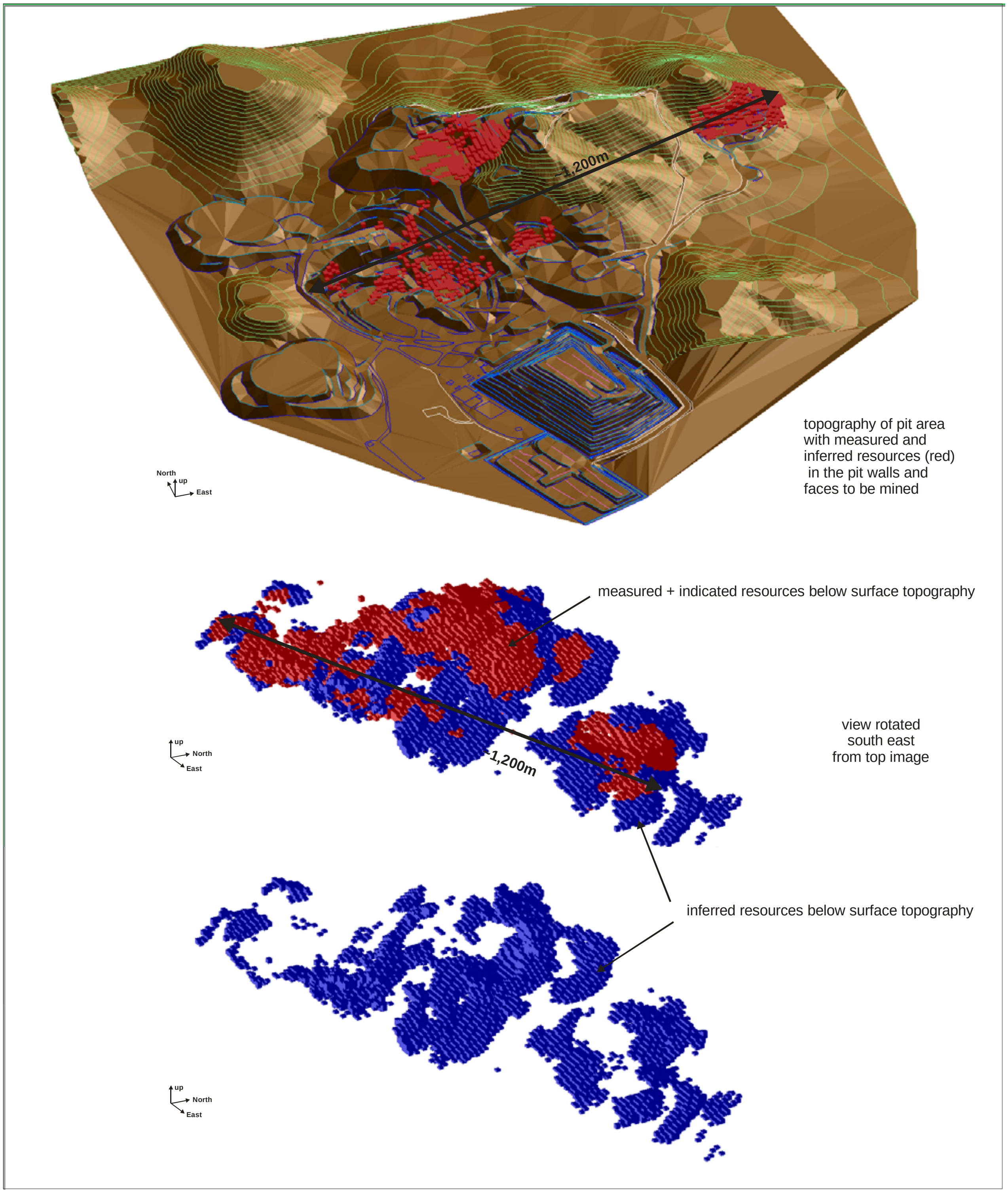

Figure 17-2 Map showing long section views of the resources at the Cerro Colorado Gold Mine. The blue area represents the Inferred resource with greater than 0.25 g/t Au.

Table 17- 6: Tonnage and grade estimated at various gold cut-off grades. Base case highlighted.

	Measured			Indicated		
Cut-off Grade (g/t Au)	Tonnes (000's)	Au (g/t)	Contained Gold (ounces)	Tonnes (000's)	Au (g/t)	Contained Gold (ounces)
0.20	157	0.50	2,520	12,369	0.47	187,899
0.25	107	0.63	2,157	9,599	0.54	167,987
0.30	89	0.70	1,994	7,602	0.62	150,422
0.40	73	0.78	1,815	5,142	0.75	123,171
	Measured + Indicated			**Inferred**		
Cut-off Grade (g/t Au)	Tonnes (000's)	Au (g/t)	Contained Gold (ounces)	Tonnes (000's)	Au (g/t)	Contained Gold (ounces)
0.20	12,526	0.47	190,419	8,575	0.35	95,533
0.25	9,706	0.55	170,144	5,599	0.41	74,177
0.30	7,691	0.62	152,416	3,810	0.48	58,468
0.40	5,215	0.75	124,986	1,936	0.61	37,772

Note: Ounces calculated using 31.103 grams per tonne.

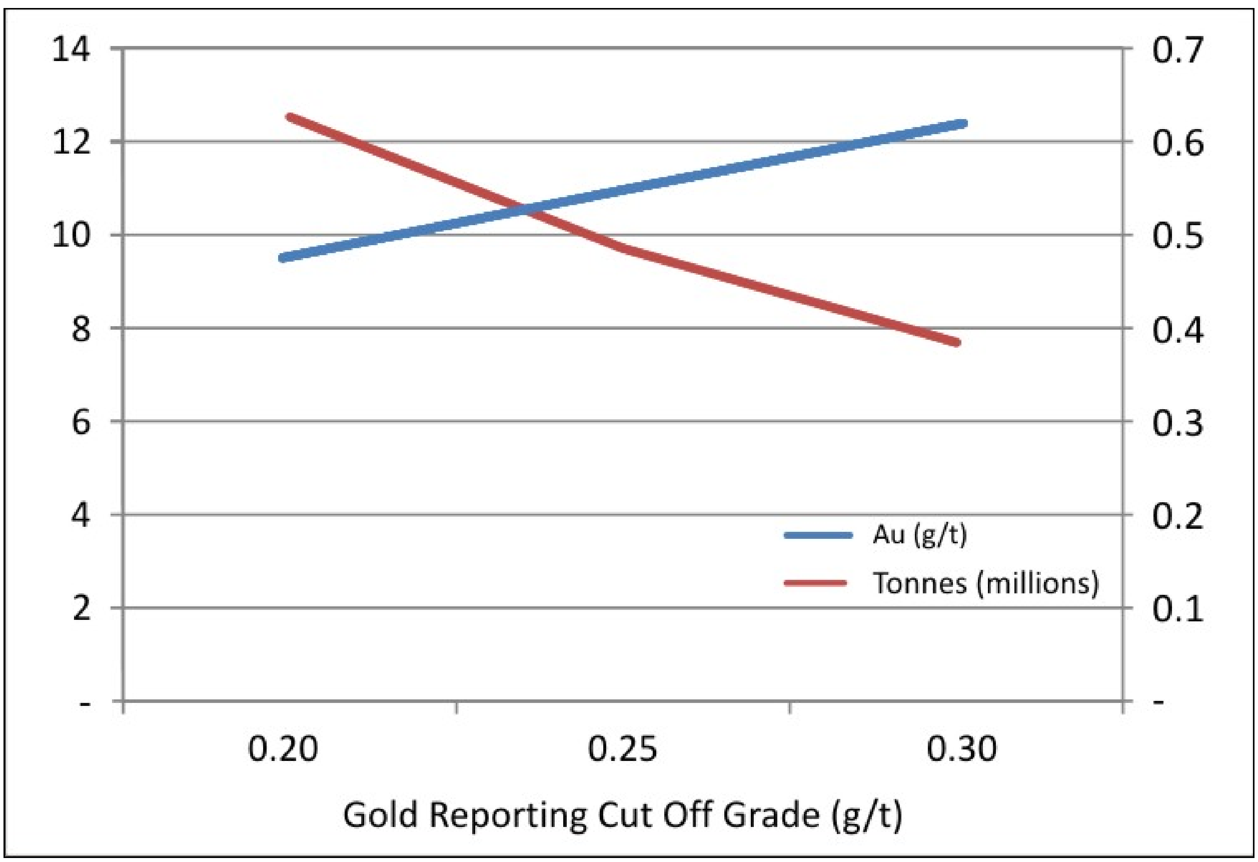

Figure 17-3 Grade-tonnage curve for the Cerro Colorado Gold Mine.

Table 17- 7: Tonnage and grade estimated reported at various gold ranges.

Au Range (g/t)	Classification	Tonnes (t)	Au (g/t)	Ounces Au
0.2 -> 0.25	Measured	50,315	0.22	362
	Indicated	2,769,380	0.22	19,927
	Inferred	2,976,822	0.22	21,362
0.25 -> 0.3	Measured	18,485	0.27	163
	Indicated	1,996,841	0.27	17,578
	Inferred	1,788,476	0.27	15,704
0.3 -> 0.6	Measured	41,000	0.42	559
	Indicated	4,926,139	0.41	65,570
	Inferred	3,119,572	0.40	39,788
0.6 -> 0.9	Measured	33,220	0.73	784
	Indicated	1,470,845	0.73	34,540
	Inferred	474,678	0.73	11,100
0.9 -> 1.2	Measured	7,925	1.00	254
	Indicated	653,223	1.03	21,535
	Inferred	171,313	1.01	5,548
1.2 -> 9999.0	Measured	6,545	1.89	398
	Indicated	552,276	1.62	28,767
	Inferred	44,461	1.42	2,030

Note: Ounces calculated using 31.103 grams per tonne.

For comparison, the tonnage and grade was estimated without the application of a top cut to the gold composited assay grades (Tables 17-8 and 17-9). The difference in contained gold ounces between the two models reported at the base case of 0.25 g/t Au is approximately 368 Indicated ounces and 1 Inferred ounce (Tables 17-10 and 17-11). At the reporting cut-off there is very little difference between the two models, but when considering the gold reporting to higher grade ranges there are more ounces lost through the application of a top cut. Infill drilling may increase the population of high grade samples and result in less gold losses due to the application of top cuts. Appropriate QAQC checks need to be completed to confirm these higher grade values.

Table 17- 8: Tonnage and grade estimate for various gold ranges (g/t) without the application of top cuts.

Au Range (g/t)	Classification	Tonnes (t)	Au (g/t)	Ounces Au
0.2 -> 0.25	Measured	48,985	0.2238	352
	Indicated	2,729,452	0.2237	19,631
	Inferred	2,965,217	0.2232	21,279
0.25 -> 0.3	Measured	17,155	0.2735	151
	Indicated	1,949,429	0.2738	17,161
	Inferred	1,782,740	0.2731	15,653
0.3 -> 0.6	Measured	42,365	0.4252	579
	Indicated	4,716,902	0.4134	62,694
	Inferred	3,058,293	0.3971	39,046
0.6 -> 0.9	Measured	34,515	0.7329	813
	Indicated	1,458,704	0.7332	34,386
	Inferred	488,641	0.7264	11,412
0.9 -> 1.2	Measured	7,925	0.9965	254
	Indicated	663,407	1.0336	22,046
	Inferred	179,541	1.0033	5,792
1.2 -> 9999.0	Measured	6,545	2.1481	452
	Indicated	925,722	2.1742	64,711
	Inferred	103,549	1.5580	5,187

Note: Ounces calculated using 31.103 grams per tonne.

Table 17- 9: Difference between the tonnage and grade estimates for various gold ranges (g/t) with between model with top cut and no top cut applied.

Au Range (g/t)	Classification	Tonnes (t)	Au (g/t)	Ounces Au
0.2 -> 0.25	Measured	1,330	0.000	0.0
	Indicated	39,928	0.000	0.1
	Inferred	11,605	-	-
0.25 -> 0.3	Measured	1,330	0.001	0.1
	Indicated	47,412	-	-
	Inferred	5,736	-	-
0.3 -> 0.6	Measured	- 1,365	- 0.001	0.1
	Indicated	209,237	0.001	4.0
	Inferred	61,279	- 0.000	- 0.8
0.6 -> 0.9	Measured	- 1,295	0.001	- 0.0
	Indicated	12,141	- 0.003	- 1.1
	Inferred	- 13,963	0.001	- 0.4
0.9 -> 1.2	Measured	-	-	-
	Indicated	- 10,184	- 0.008	2.7
	Inferred	- 8,228	0.004	- 1.1
1.2 -> 9999.0	Measured	-	- 0.257	-
	Indicated	- 373,446	- 0.554	6,653
	Inferred	- 59,088	- 0.138	262

Note: Ounces calculated using 31.103 grams per tonne.

Table 17- 10: Resource estimate calculated without application of top cuts and reported at a cut-off of 0.25 g/t Au. Tonnes round to the nearest 1,000.

Au Range (g/t)	Classification	Tonnes (t)	Au (g/t)	Ounces Au
0.25 -> 9999.0	Measured	109	0.6448	2
	Indicated	9,714,000	0.6436	201,007
	Inferred	5,613,000	0.4272	77,095

Note: Ounces calculated using 31.103 grams per tonne.

Table 17- 11: Difference between the resource model calculated with top cuts and without.

Au Range (g/t)	Classification	Tonnes (t)	Au (g/t)	Ounces Au
0.25 -> 9999.0	Measured	1,330	0.0187	1
	Indicated	114,841	0.0993	367
	Inferred	14,264	0.0151	7

Note: Ounces calculated using 31.103 grams per tonne.

17.9 Summary and Conclusions

The distribution of drilling completed on the Cerro Colorado deposit provides a reasonable basis for estimating the shape and distribution of the mineralization. However, there are limited drill intervals which have intersected higher grade gold mineralization, especially in the Breccia Central area. Appropriate QAQC has not yet been completed to verify these grades and the drilling is not sufficiently spaced to well define the extents of this mineralization. The approach to top cutting the composited drill hole sample grades prior to block grade estimation is therefore believed to be an appropriate method to dealing with sporadic high grade values that have not been confirmed with appropriate QAQC. Additional close-spaced drilling and grade confirmation is required to gain a better understanding of the nature of the high grade mineralization on the Cerro Colorado Property.

The current drilling database is considered reliable for the purposes of estimation of mineral resources. The approach to the development of the resource block model follows accepted industry standards and the methods of dealing with the past production from the deposit are considered appropriate based on the current information.

17.10 Mineral Reserves Estimation

Mineral reserves have not yet been calculated from the 2009 resource estimates for the Cerro Colorado Gold Mine.

18.0 OTHER RELEVANT DATA AND INFORMATION

The author is not aware of any other relevant data or information which is relevant to the Project.

19.0 INTERPRETATION AND CONCLUSIONS

The Cerro Colorado Property hosts several zones of mineralization, of which some have been or are currently being exploited through open pit mining. From mid-2006 through 2008, Sierra produced almost 44,000 ounces of gold from three pits. During 2009, Cerro Colorado produced 20,546 ounces of gold and the mine is the process of expanding annual production levels from the 20,000 ounce level to 25,000 ounces of gold.

Most of the exploration to date by Sierra has focused on defining the extents of the mineralization in the mine area. By completion of the 2008 exploration program adequate drill coverage existed to calculate a well constrained resource estimate. Blast hole sampling increases the density of information in the areas of the pits and provides a higher confidence for continuity of grade. The gold grades at Breccia Central appear to be higher than the surrounding area. However, additional drill testing and duplicate sampling is needed to confirm these higher grades.

Future drill programs could serve to define additional mineralization and upgrade existing estimated resources. Careful planning of the drill programs is required because of the variable orientation of the thin, stacked gold-bearing veins that are characteristic of the Cerro Colorado Gold Mine.

The mineral resource for the Cerro Colorado Gold Mine has been estimated to be approximately 9.7 million tonnes combined Measured and Indicated at 0.55 g/t Au and approximately 5.6 million tonnes of Inferred at a grade of 0.41 g/t Au reported at a cut-off grade of 0.25 g/t Au. This equates to over 170,000 ounces of Measured and Indicated gold and over 74,000 ounces of Inferred gold.

20.0 RECOMMENDATIONS

The following work is recommended for the Cerro Colorado Gold Mine with particular focus on better defining and confirming resources estimated for the mine:

6. 10,000 metre infill drilling program appropriately oriented to cross-cut the dominant trend of the veining. The estimated cost for this work program is approximately CDN$1.2 million as shown in Table 20-1.
7. Submit existing sample pulps to confirm the higher grade gold values returned in the Breccia Central drilling with appropriate QAQC samples.
8. Continue density/specific gravity determinations as part of the routine monitoring of the quality of the mineralization for accurate tonnage estimation. This can be done by sampling holes defined in Item 1 and having the specific gravity calculated on a series of pulps at ALS Chemex. This method is appropriate for use at Cerro Colorado because the material is bulk mined.
9. Update QAQC procedures to include routine duplicate analysis at a secondary laboratory and the inclusion of blank samples to check for contamination. Property specific standard reference materials should be prepared and analyzed as part of the revised QAQC procedure.
10. Down hole directional surveys should be completed on all new drill holes and old holes should be checked if they are in good condition.

Table 20- 1: Estimated cost of work program (Canadian dollars).

Item	Unit	No. of Units	Cost per Unit	Cost CDN$
Concession fees (for 2009)				$ 25,000
In-fill drilling (includes assaying)	metre	10,000	$ 100	1,000,000
High grade gold checks at Breccia Central	sample	100	$ 20	2,000
Additional SG determinations (based on 50 samples per hole)	hole	30	$ 211	6,338
Update QAQC procedure	days	1	$ 935	935
Update NI 43-101 technical report and resource model	days	30	$ 935	28,050
10% contingency				106,232
			TOTAL	$ 1,168,555

To assist the current plan for mine expansion Sierra should consider estimating mineral reserves for the Project.

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22.0 DATE AND SIGNATURE PAGE

This Report, titled "Independent Technical Report, Cerro Colorado Gold Mine, Sonora, Mexico", and dated February 28th, 2011 was prepared and signed by the following author:

"Michelle Stone"

____

Michelle Stone, P.Geo., Ph.D.
February 28th, 2011
Burlington, Ontario

23.0 ADDITIONAL REQUIREMENTS FOR TECHNICAL REPORTS ON DEVELPOMENT PROPERTIES AND PODUCTION PROPERTIES

23.1 Mining Operations

23.1.1 Mining Method

Open pit mining by Sierra at Cerro Colorado commenced in 2003. The mining bench height is typically 5m. Mineralization is hauled directly to the cyanide leach pads in 35 and 50 tonne trucks or is crushed to minus 4 inch and then taken to the leach pads. The crushing plant consists of a primary and a secondary crusher. The primary crusher reduces the rock size from 12 inches to 4 inches. This material is fed into the crusher with a CAT 988 front end loader from the crusher stock pile. A secondary crusher has been leased from and is operated by a contractor. The secondary crusher consists of a screen deck that removes all material that meets production size. The remaining material is then crushed from 4 inch to -1 inch. The final product is moved to the fine sized stockpile on conveyor belts and is periodically hauled by truck and integrated into the leach pads.

There are currently two leach pads in operation at Cerro Colorado. At the leach pads, the mineralized material is dozed to form 3-5 m lifts and then ripped. Barren solution is pumped from the barren pond (10 million litre capacity) to the heap leach pads in 8 inch yelomine piping. Yelomine piping is used for ease of assembly. At the pads, the solution is pumped to the areas that require spraying in 4 inch HDPE pipes. At the upper end of the pads, the solution is carried in 4 inch yelomine piping with a 2 inch tee every 6m and the cyanide is sprayed on a 6m spacing (1 sprinkler per 36 m^2) to distribute the solution at a rate of 10 litres per hour per m^2). The barren solution containing approximately 250-300 ppm cyanide then percolates slowly through the mineralized material to the HDPE liner and accumulates at collection points. Lime is added manually to control the pH as each truck load of rock is placed on the pad. The solution pH ranges from 10.2 to 10.8. Crushed rock has lime added after it has been passed through the primary crusher. The leach solution is collected at the bottom of the leach pads and pumped to a pregnant pond (7.5 million litre capacity). Currently, the plant processes 6,000 tonnes of solution per day.

The second leach pad is under construction (50% complete). The total volume of the completed pad is 4.0 million tonnes which equates to a life of 2.5-3 years at current mining rates.

23.1.2 Metallurgical Processes

The carbon flow circuits used to adsorb gold are gravity flow adsorption trains typically used in the mining industry. Gold is recovered by 18 carbon columns (set up in 6 circuits of 3 columns) with a NaOH atmospheric strip circuit. Each column contains 0.5 tonnes of carbon. The total amount of carbon on-line is 9 tonnes. The pregnant solution flows through each column via gravity. Six thousand tonnes of solution can be processed per day (i.e., 1,000 tonnes per circuit).

The desorption circuit where the precious metal is removed from the carbon consists of 3 columns. An atmospheric strip is conducted using a boiler to raise the temperature to just below boiling (207°F at the elevation of Cerro Colorado). The propane boiler has a capacity of 970,000 btu. The eluate used in the strip is a solution containing 1-1.5 % NaOH and 0.1 % NaCN. In total, 0.75 tonnes of carbon can be stripped per day. After desorption (stripping), the carbon is returned to the bottom of the circuit in the adsorption trains. Carbon is used for approximately 5 strips and then replaced with new carbon.

The eluate then passes through two, 50 cubic foot-size, electro-winning cells and gold is recovered onto a cathode as precipitate. The cathodes consist of a stainless steel mesh. Finally, the precipitate removed from the cathodes is dried and accumulated for smelting in an electric furnace. A smelt is completed approximately every 7 to 10 days. The temperature of the smelting furnace is 2,000°F. The liquid is poured into standard 1,000 ounce bar moulds. The resulting doré metal is weighed and shipped to the United States to a third party refiner.

23.1.3 Production Forecast

The approximate capacity of the plant is 20,000 oz Au per year but plant expansion to 8,000 tpd and nominal plant capacity to 25,000 oz Au per year is in progress and expected to be completed by the end of 2011. The expanded plant will have eight carbon circuits, 6 circuits of 4 columns for one leach pad and 2 circuits of 3 columns for the second pad (30 columns). The desorption circuit will be expanded to 4 columns with the capability to expand further to 10 columns. A second propane boiler (1,250,000 btu) will be installed in the third quarter of 2009. The two boilers will be capable of stripping 5 tonnes of carbon per day. The electro-winning cells will be replaced by 75 cubic foot-sized cell boxes.

23.2 Recoverability

Gold recovery at Cerro Colorado is between 50% and 60% based on mine statistics for the months of August through December 2008. Column tests were conducted on various size fractions (1 inch, 1-4 inch and ROM) of mineralized material from each mine bench. The materials selected are considered representative of the material typically mined. Several tests are conducted from each mine pit per year. Reagent consumption, pH and gold and silver recoveries are tabulated over the course of 60 to 80 days. Gold recoveries from the tests vary for the different pits and benches and typically range from 35% to 100%. Table 23-1 presents the results of recent recovery tests. These results generally agree with the average 55% to 60% recoveries calculated for the heap leach pad. Cyanide leaching is well-tested and the standard technique for processing mineralization of type mined at Cerro Colorado.

Table 23- 1: Recovery test results for the six month period from November 2008 to April 2009.

Breccia Central				
Date	**Bench**	**Size**	**Days On-line**	**Recovery**
Dec 08	745	-4"	60	51.97%
Dec 08	745	-4" +6"	60	28.82%
Dec 08	745	+6'	60	41.22%
Apr 09	720	-1"	60	99.87%
Apr 09	720	-1"	60	94.33%
Apr 09	730	ROM	74	58.31%
Apr 09	730	-1"	74	62.82%
Apr 09	720	ROM	58	69.09%
Average Recovery			**63.25**	**63.30%**

Harris				
Date	**Bench**	**Size**	**Days On-line**	**Recovery**
Dec 08	600	ROM	73	86.56%
Dec 08	600	-1"	73	97.63%
Mar 09	590	ROM	51	96.09%
Mar 09	590	-1"	51	85.27%
Apr 09	590	-1"	54	99.71%
Average Recovery			**60.4**	**93.05%**

Obra X				
Date	**Bench**	**Size**	**Days On-line**	**Recovery**
Nov 08		ROM	99	28.14%
Nov 08		ROM	72	30.76%
Nov 08		-1"	72	39.82%
Dec 08	Este	+1" -4"	67	44.37%
Dec 08	Este	+4"	67	21.05%
Apr 09	665	-1"	61	68.61%
Apr 09	665	-1"	61	70.89%
Apr 09	Cono	-2"	24	56.13%
Average Recovery			**65.375**	**44.97%**

23.3 Markets

Gold doré is shipped from the Cerro Colorado Gold Mine to a third party refiner in the United States. Gold and silver are recovered by the refiner in bullion form while other metals such as lead and copper are discarded. Sierra sells the majority of its gold bullion to Auramet Trading LLC (“Auramet”) based out of New Jersey, USA. Sierra has the ability to enter a sale agreement with Auramet and can receive payment as soon as the doré arrives at the refinery. Legal title to the gold is also transferred to Auramet at the same time that payment is made. Revenue is realized at this point. The final refining is completed ten business days after the doré arrives at the refinery. Any remaining unsold gold bullion and all of the silver bullion is then sold to the refiner on the completion (outturn) date. Sierra is not obligated to sell its product to any one buyer. It can establish other precious metals sales contracts if it so chose.

23.4 Contracts

All mining equipment including fixed and mobile equipment was purchased by Granmin S.A. de C.V. Fuel is purchased at local prices.

Drilling was outsourced to Medoza Drilling (a local drilling company) and Major Drilling de Mexico, S.A. de C.V. at competitive rates.

Granmin Mexico has a shipping contract with Servicio Pan Americano de Protección S.A. de C.V. where the product is shipped to Nogales, the main border city between Sonora, Mexico and Arizona, USA. At

Nogales, the product is transferred to a Brinks Inc. ("Brinks") armoured vehicle. Brinks delivers the doré to a storage area in Tucson, Arizona, to await shipment to the refiner via air transportation.

Granmin Mexico and Sierra have a refining contract with Metalor USA Refining Corporation, Massachusetts, USA.

Granmin Mexico and Sierra have a Master Purchase Contract for the sale of precious metals with Auramet Trading, LLC, based out of New Jersey, USA.

Sierra does not have any hedging contracts in place.

23.5 Environmental Considerations

The Cerro Colorado Mine operating facilities have been designed to mitigate environmental impacts. To prevent and control spills and protect water quality, the mine utilizes multiple levels of spill containment procedures and routine inspection and monitoring of its facilities. The mine has installed air pollution control devices on its facilities consistent with legal requirements. The mine also has water reuse and conservation programs. The mine uses dust suppression techniques to mitigate the impact of dust. All activities at Cerro Colorado are in compliance in all material respects with applicable corporate standards and environmental regulations.

Several environmental studies have been completed since 2005, including:

- a soil study which provided justification to remove topsoil from the vicinity of the mine to mitigate the mine's impact on flora and fauna (May 2009).
- a report estimating and outlining a plan to mitigate the environmental damage cause by the mine and operations (April 2008).
- an environmental audit conducted by the Sonora delegation of the federal environmental protection agency (January 2006).

Sierra is to pay a fee of $6,870.44 Mexican pesos per hectare for reclamation at the end of each five year expansion period. The total reclamation cost is calculated to be $2,267,245 pesos for 330 hectares.

23.6 Taxes

The Mexican Congress, in plenary sessions held on October 31 and November 1, 2009, approved the tax reform bill for 2010. The corporate income tax rate is increased from 28% to 30% for the period from January 1, 2010 through December 31, 2012, and will then be scaled back to 29% in 2013, and finally back to 28% in 2014 and future years.

Mexico has a value-added tax ("IVA") which is payable on goods and services but recoverable by Granmin Mexico after filing the appropriate documentation with the Mexican tax authorities. The IVA rate will increase from 15% to 16% (from 10% to 11% in the border zone) from January 1, 2010. Certain limited term transition rules will apply.

Royalties of 2.5% are paid as described in Section 4.3.

23.7 Capital and Operating Cost Estimates

Capital Estimates

The Cerro Colorado gold mine has been in operation since 2004. The Company anticipates spending approximately $3.5 million on capital in 2010. With high gold prices, the biggest component of this is the purchase of a secondary crushing system designed to increase gold recoveries. 2010 expected capital expenditures are shown in Table 23-2. Sustaining capital is expected to be approximately $1.0 million per year.

Table 23- 2: Expected capital expenditure 2010.

USD (millions)	Capital item
$ 1.50	Secondary crushing system and improve feed to primary crusher
$ 0.40	Drills - two (2)
$ 0.30	Upgrade water pipeline
$ 0.20	CAT 992 loader - one (1)
$ 0.20	CAT 773B haul trucks - two (2)
$ 0.20	Leach pad liner
$ 0.70	Miscellaneous
$ 3.50	Forecast capital expenditures – 2010

Operating Cost Estimates

In the nine months that ended on September 30, 2009, the cost of sales per ounce of gold before silver by-product credits was US$666. Table 23-3 summarized the operating costs for 2009 on a per ounce basis while Table 23-4 provides a breakdown of the major items comprising cost of sales.

Table 23- 3: 2009 operating costs per ounce of gold.

(Actual)	Q1 2009	Q2 2009	Q3 2009	YTD 2009
Cost of sales (excluding accretion, depreciation, depletion and amortization) (1)	$ 2,841,498	$ 3,257,245	$ 4,249,076	$ 10,347,819
Silver by-product credit	(31,331)	(41,236)	(24,239)	(96,806)
	$ 2,810,167	$ 3,216,009	$ 4,224,837	$ 10,251,013
Gold ounces sold	4,911	5,063	5,611	15,585
Total cash costs ($/oz. sold)	$572	$635	$753	$658
Breakdown of cost per ounce sold				
Direct operating costs	$555	$620	$732	$642
2.5% NSR Royalty	23	23	25	22
Less: silver by-product credits	(6)	(8)	(4)	(6)
Total cash costs ($/oz. sold)	**$572**	**$635**	**$753**	**$658**

(1) See breakdown of cost of sales in Table 23-4 below.

Operating costs during the second half 2009 rose due to the rental of a secondary crusher and a one-time increase in waste stripping to access the Upper Breccia Zone. With the purchase of a secondary crushing system, replacing rental costs and the completion of the additional waste stripping, it is expected that cash operating costs on a per ounce basis should decline significantly.

Table 23- 4: Breakdown of cost of sales (actual).

	Q1 2009	Q2 2009	Q3 2009	YTD 2009
Mining	$ 987,241	$ 1,557,249	$ 1,448,905	$ 3,993,395
Explosives	300,326	293,194	310,862	904,382
Crushing (rental equipment)	83,485	135,656	190,378	409,517
Processing	508,568	617,428	800,772	1,926,768
Other operating costs	395,045	393,304	462,162	1,250,513
General and administrative	321,161	480,843	600,369	1,402,373
Change in inventory	118,311	(327,192)	321,776	112,895
Royalty	127,361	106,763	113,852	347,976
	$ 2,841,498	$ 3,257,245	$ 4,249,076	$ 10,347,819

23.8 Economic Analysis

The Cerro Colorado gold mine has been in production since 2004. However, Mineral Reserves have not been calculated and a current economic analysis is not available.

This Technical Report was amended on February 28th, 2011 to remove reference to the previously included life of mine analysis which was excerpted from a Valuation Report prepared by Evans and Evans Inc. dated July 6, 2009. That analysis was not a NI 43-101 compliant economic analysis, and thus has been removed and the author has not relied, and no reader, should rely thereupon. No preliminary assessment (as defined by NI 43-101) or other economic analysis of the mineral resources has been completed for the Project. Consequently, it is difficult to project mine life and continued and potential future revenue flow from the Project. Production is currently continuing at the Project without an economic analysis. However, continued extraction could at any time become uneconomic and production could halt.

23.9 Payback

The Cerro Colorado gold mine has been in operation since 2004. The initial capital cost has been recovered. Expenditures on ongoing capital projects such as the secondary crushing system are evaluated on an item by item basis. The expected payback on the crushing system is about one year.

23.10 Mine Life

No preliminary assessment (as defined by NI 43-101) or other economic analysis of the mineral resources has been completed for the Project. Consequently, it is difficult to project mine life and continued and potential future revenue flow from the Project.

Appendix 1

Certificate of Authorship

CERTIFICATE

To accompany the report entitled "Independent Technical Report, Cerro Colorado Gold Mine, Sonora, Mexico" dated the 28th of February, 2011.

I, Michelle Stone, of 4361 Latimer Crescent, Burlington, Ontario, do hereby certify that:

I am a Senior Geologist with Caracle Creek International Consulting Inc., 34 King Street East, 9th Floor, Toronto, Ontario. I hold a B.Sc. (1994) from McMaster University (Ontario), an M.S. (1996) from the University of Alabama (Alabama), and a Ph.D. (2005) from the University of Western Australia (Australia).

I am a Professional Geoscientist and a member in good standing of the Association of Professional Engineers and Geoscientists of British Columbia since 2006 (registered #30601). I have practiced my profession continuously since 1994 and have worked on metallic and non-metallic, exploration and mining stage projects including Au, Ag, Ni-Cu-PGE, Cu-Pb-Zn, Ta-Nb, iron ore, lithium and potash and phosphate. I have worked in heap leach Au mining operations and been directly involved in mining for 5 years as a Senior Geologist and a Production Geologist. I have worked with mining engineers in the development of open pit and underground operations and have sufficient experience to be responsible for preparation of Section 23. Specifically I have experience in mine to mill to geological model reconciliations, stock pile management, production management, budgeting, scheduling and forecasting, estimation of trucking factors, geotechnical stability assessments, and reserve estimation in addition to dewatering practices and mine reclamation and environmental considerations. I have also worked for 2.5 years in Mexico and am familiar with the taxation system there. I have completed courses in Chemical Metallurgy, Geostatistics and Resource Modeling and have been completing mineral resource estimates since 1996.

I have read the definition of "qualified person" set out in National Instrument 43-101 and certify that by reason of education, experience, and affiliation with a professional association, I meet the requirements of a Qualified Person as defined in National Instrument 43-101. I am independent of the issuer applying the test in section 1.4 of National Instrument 43-101.

This report titled "Independent Technical Report, Cerro Colorado Gold Mine, Sonora, Mexico" and dated the 28th of February, 2011 (the "Technical Report") is based on a study of the data and literature available on the Cerro Colorado Gold Mine in Sonora, Mexico and a two day site visit on the 21st and 22nd of January, 2009. I am responsible for all sections of the Technical Report. I have had no prior involvement with the property that is the subject of this Technical Report.

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

I have read National Instrument 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

I consent to the filing of the Technical Report by Goldgroup Mining Inc., formerly known as Sierra Minerals Inc., with any stock exchange and other regulatory authority, and any publication of the

Technical Report by them for regulatory purposes, including electronic publication in the public company files on their websites accessible to the public.

Signed and stamped this 28th day of February, 2011, at Burlington, Ontario.

"Michelle Stone"

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Michelle Stone, P.Geo., Ph.D.