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ENDEAVOUR SILVER CORP.

NI 43-101 TECHNICAL REPORT AUDIT OF THE RESOURCE AND RESERVE ESTIMATES FOR THE GUANAJUATO MINES PROJECT GUANAJUATO STATE, MEXICO

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Report By

William J. Lewis, BSc., P.Geo.
Charley Z. Murahwi, M.Sc., P.Geo, MAusIMM
Robert J. Leader, P.Eng.
Ing. Alan J. San Martin, MAusIMM

SUITE 900 - 390 BAY STREET, TORONTO ONTARIO, CANADA M5H 2Y2
Telephone (1) (416) 362-5135 Fax (1) (416) 362 5763

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1.0 SUMMARY

Endeavour Silver Corp. (Endeavour Silver) has retained Micon International Limited (Micon) to conduct an audit of the updated resource and reserve estimate for its Guanajuato Mines project, located near the city of Guanajuato in the State of Guanajuato in Mexico. This Technical Report constitutes an audit of the December 31, 2009 mineral resource and reserve estimate conducted on the property by Endeavour Silver. The audit was performed to ensure that the resources and reserves comply with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) standards and definitions referred to in Canadian National Instrument 43-101 (NI 43-101).

The previous December 31, 2008 resource and reserve estimate was the subject of a March, 2009, NI 43-101 Technical Report prepared by Micon. The Micon audit incorporates the exploration data gathered since the publication of the March, 2009, report. The March, 2009, Technical Report was electronically posted on the System for Electronic Document Analysis and Retrieval (SEDAR). SEDAR is the filing system developed for the Canadian Securities Administrators (CSA).

1.1 PROPERTY DESCRIPTION

The Guanajuato Mines project consists of three operating mines in two areas. Mina Cebada is located about 5 km north of the city of Guanajuato. The Bolañitos mine and the processing plant are situated approximately 5 km west of Cebada, and both properties are readily accessed by paved and gravel roads. The Golondrinas mine is 3.5 km to the southwest of Cebada. Endeavour Silver did not operate the Golondrinas mine during 2009. The Bolañitos and Golondrinas mines are located near the town of La Luz, about 12 km to the northeast of Guanajuato.

The State of Guanajuato is situated within the Central Plateau of Mexico in the Sierra de Guanajuato at elevations ranging from 2,000 to 2,600 m. From Guanajuato, the properties are accessible via a gravel road, with about a 15 minute drive to Mina Cebada and a 35 minute drive to the Bolañitos or Golondrinas mines. The gravel road is heavily eroded by the intense thunderstorms which occur in the area and it receives sporadic maintenance by a grader. Therefore, the road is highly washboarded which keeps driving speeds to generally less than 50 km/h.

Most of the supplies and labour required for the exploration programs and mining operations are purchased in either the city of Guanajuato or Leon. The area has a rich tradition of mining and there is an ample supply of skilled personnel sufficient for both the underground mining operations and the surface facilities. Power supply to the Guanajuato Mines project is provided by the national grid (Comisión Federal de Electricidad).

1.2 OWNERSHIP

Endeavour Silver advises that it holds the Guanajuato Mines project through its 100% owned Mexican subsidiary Mina Bolañitos S.A. de C.V.

In 2007, Endeavour Silver acquired the Guanajuato Mines project from Industrias Peñoles S.A. de C.V. (Peñoles), the owner at the time, and Minas de la Luz, S.A. de C.V. (Minas de la Luz), the operator at the time. The acquisition included the Mina Cebada, Mina Bolañitos, Mina Golondrinas and Mina Asuncion (as well as a few other currently closed mines). Minas de la Luz continued as the operator of the mines until June, 2007, when Endeavour Silver assumed control. The Mina Asuncion is very close to the Mina Bolañitos and has recently been connected underground.

The Guanajuato Mines project consists of 13 properties which are not all contiguous and vary in size for a total of 2,071 hectares (ha). The project included three operating silver (gold) mines (Bolañitos, Golondrinas and Cebada), several past-producing silver (gold) mines, and the 500 t/d Bolañitos processing plant.

The exploitation lease was held by Minas de la Luz and purchased by Endeavour Silver in conjunction with the asset purchase from Peñoles. Endeavour Silver previously reported that some licensing issues were inherited with the properties. However, these have now been resolved although the transfer of the water license and the explosive permit to Endeavour Silver's Mina Bolanitos S.A. de C.V. is still in process.

The annual 2010 concession tax payment for the Guanajuato Mines property is approximately 483,628 Mexican pesos (pesos), which is equal to about US $37,666 at an exchange rate of 12.84 pesos to US $1.00 dollar. All concessions are subject to a bi-annual fee (i.e., twice per year) and the filing of reports in May of each year covering the work accomplished on the property between January and December of the preceding year. It should be noted that as of December 21, 2005 (by means of an amendment made on April 28, 2005 to the Mexican mining law), there is only one type of mineral concession in Mexico.

In addition to the mineral rights, Endeavour Silver has agreements with various private ranch owners and a local ejido (Mesa Cuata) that provide surface access for exploration and exploitation purposes.

1.3 HISTORY

The Guanajuato mining district is located at the southern end of what used to be the Chichimeca Empire which was colonized by Nuño de Guzmán in 1540.

It is not known if the indigenous peoples or the Spanish colonists first began mining in the Guanajuato district but mining extends back to at least 1548 when the silver veins began to be exploited by the Spanish. Guanajuato was one of the premier mining districts of Nueva España (New Spain).

Although the Spanish began mining as early as 1548 and worked the mines until 1700, it was not until after the latter date that they commenced to work them strongly, continuing to do so until 1810 with the start of the War of Independence.

During the war many of the mines were abandoned and either filled with water or caved in, and so they remained until 1824. In 1824 a number of English capitalists took the rehabilitation of the principal mines in hand and worked them for approximately 10 years. However, during this period they sustained great losses that were principally due to the lack of railroads which necessitated the transportation of all heavy machinery to the mines on the backs of mules. In some cases it took a couple of years to transport the equipment from England to the mines in Mexico.

Mining in Mexico became more prevalent again from the 1880s until the early 1900s when many of the mining districts were in decline due to low prices. The Civil War in 1910 for the most part paralyzed mining in Mexico and in many districts it did not recover until late in the 20th century.

It is impossible to state with even approximate accuracy what the production of precious metals was in the early days. When the Spanish arrived in Mexico there were no Aztec records and although accurate records were kept up until 1810, smuggling prevailed to such an extent, owing to the heavy tax on silver, as to render it impossible to arrive at exact figures. However, mining of the silver-gold veins has occurred for more than 450 years and is estimated to have produced more than 130 tonnes of gold and 30,000 tonnes of silver.

In 1906 Percy Martin noted in his book on the mines of Guanajuato that the principal or "mother vein has yielded the sum of one billion dollars as proven by the mint and government records. The Valenciana mine proved to be the greatest silver producer with workings down to 2,400 feet on the incline and producing over $300 million dollars of silver or approximately 60 million British pounds".

1.4 GEOLOGY AND MINERALIZATION

The mining district of Guanajuato is located on the south and eastern flanks of the Sierra Madre Occidental geological province, a north-northwesterly trending linear volcanic belt of Tertiary age. It is approximately 1,200 km long and 200 to 300 km in width. The project area is located in the southern portion of the Sierra de Guanajuato, an anticlinal structure about 100 km long and 20 km wide. The Guanajuato district is located on the northeast side of this structure where the typical primary bedding textures dip 10° to 20° to the north-northeast.

The stratigraphy of the Guanajuato mining district can be divided into a Mesozoic basement and overlying Cenozoic units. The lower Mesozoic lithological units are the Esperanza and La Luz Formations which are composed of rocks of marine origin, weakly to moderately metamorphosed and intensely deformed by shortening. These rocks are unconformably overlain by the Tertiary Conglomerado Rojo de Guanajuato, and the Loseros, Bufa, Calderones, Cedros and Chichíndaro Formations. The Tertiary rocks consist of continental sediments and sedimentary rocks, which generally occupy lower topographical zones, and subaerial volcanic rocks, which are principally exposed in the ranges and higher plateaus. The rocks of the Cenozoic cover have experienced only extensional deformation and in some

places are gently tilted. Tertiary-aged rocks correspond to a period of tectonism accompanied by volcanism and intrusive magmatic activity.

Randall et al (1994) originally proposed a caldera structure for the Guanajuato mining district, siting the presence of a megabreccia in the Calderones Formation and the distribution of the Oligocene volcanic formations described above. The hypothesis states that the caldera collapse occurred in at least two stages and the collapse was a trap-door type. The presence of a peripheral three-quarter ring of rhyolite domes intruding along bounding faults, the location of the Oligocene volcanic formations ponded within this ring, megabreccia and topographic rim, all contribute evidence to support this hypothesis.

Subsequent normal faulting combined with hydrothermal activity around 27 Ma resulted in many of the silver-gold deposits found in the district. There are four principal orientations of normal faults: northwest, north-south, east-west and northeast but the economic mineralization is generally related to the north and northwesterly trending structures. Within the Guanajuato mining district there are three major mineralized fault systems, the La Luz, Sierra and the Veta Madre systems. Veta Madre is a north-northwest trending fault system and the largest at 25 km long.

Most of the production has been extracted from three principal vein systems on normal faults, the La Luz, Veta Madre and La Sierra. Economic concentrations of precious metals are present in isolated packets (known as bonanzas, or “spikes”) distributed vertically and laterally between non-mineralized segments of the veins. There is a vertical mineralogical zonation within these veins. The upper-levels are acanthite + adularia + pyrite + electrum + calcite + quartz and the lower-levels are chalcopyrite + galena + sphalerite + adularia + quartz + acanthite. The Veta Madre has been the most productive vein and it is by far the most continuous, having been traced on the surface for approximately 20 km. The vein dips from 35° to 55º to the southwest and it has measured displacements of around 1,200 m near the Las Torres mine and 1,700 m near La Valenciana mine. Most of the other productive veins in the district strike parallel to the Veta Madre.

In addition to the epithermal veins near Guanajuato, small deposits of stratabound massive sulphides have been reported in the Mesozoic volcano-sedimentary association (Los Mexicanos). Similarly, there is gold mineralization in the Comanja granite, and in its contact aureole small tungsten deposits have been found. In the Tertiary volcanic rocks, principally in the topaz rhyolites, there are small tin prospects.

1.5 EXPLORATION

In 2009, Endeavour Silver conducted a surface and underground diamond drilling program focused on following up several of the new discoveries made near its operations at the Guanajuato Mines project and testing new prospective targets within the district. The primary goal of this program was to expand reserves and resources. Exploration drilling was focused in two main areas: exploring the Lucero-Karina-La Joya vein system to the south of the Bolañitos mine area in the La Luz district in order to potentially add new mineralized material to the mine plan for development and production; and exploring the extension of the

Veta Madre structure, northwest of Endeavour Silver's Cebada mine, for the potential to develop future resources and production. Underground diamond drilling was mainly targeted at finding extensions of known mineralized zones on the Lucero and Bolañitos veins in the Bolañitos mine and the Veta Madre in the Cebada mine.

During 2009, Endeavour Silver completed 4,390 m of drilling in sixteen surface diamond drill holes at the Guanajuato Mines project. A total of 1,281 samples were collected and submitted for assay.

In 2009, Endeavour Silver also conducted a major step-out program at the heart of the Cebada mine. The drilling was conducted between the 315 and 515 levels as well as below the 515 level, approximately 300 m down dip from stope 2172 which is a the source of high grade silver and gold mineralization.

The underground drilling program at the Cebada mine consisted of 16 drill holes totalling 4,305.6 m while the drilling on the Bolañitos and Lucero veins consisted of 9 drill holes totalling 3,094.2 m.

The 2010 exploration program is planned to include 16,000 m of core in more than 50 surface diamond drill holes to target vein discoveries and new prospective areas in the Cebada and Bolañitos areas of the Guanajuato district. Endeavour Silver is budgeting to spend US $3,021,700, mainly on surface diamond drilling, in an effort to continue to expand the resource base through both exploration and development on its properties during 2010. The estimated cost of diamond drilling is US $150/m. In 2010, Endeavour Silver will also conduct an underground exploration program consisting of 21 diamond drill holes totalling approximately 10,500 m. The underground program will focus on expanding the resources and reserves at the Guanajuato Mines project as well as continuing to explore for new sources of mineralization within property.

1.6 RESOURCE AND RESERVE ESTIMATION

Prior to this report, two previous resource and reserve estimates for the Guanajuato Mines project were reported by Endeavour Silver. Both these previous mineral resource and reserve estimates were contained in Technical Reports filed on the System for Electronic Document Analysis and Retrieval (SEDAR). SEDAR is the filing system developed for the Canadian Securities Administrators (CSA).

The first Technical Report was issued by SRK Consulting (SRK). This Technical Report was entitled "NI 43-101 Technical Report for the Guanajuato Mines Project, Guanajuato State, Mexico" and dated March, 2008.

The second Technical Report was issued by Micon. The report was entitled "NI 43-101 Technical Report, Audit of the Resource and Reserve Estimate for the Guanajuato Mines Project, Guanajuato State, Mexico" dated March 18, 2009.

The December 31, 2009 mineral resource estimates discussed in this present report used the following parameters:

- Cut-off grade for indicated and inferred resources is 150 g/t silver equivalent.
- Silver equivalents in the resource tables were estimated using a 65:1 ratio based on prices of US $17/oz silver and US $1,100/oz gold with no base metal credits.

The December 31, 2009 mineral reserve estimates used the following parameters:

- Cut-off grade for proven and probable reserves is 202 g/t silver equivalent.
- Silver equivalents in the reserve tables were also estimated using a 65:1 ratio. No base metal credits were used.

The mineral resources are exclusive of the mineral reserves. The summary of the resource and reserve estimates as contained in Tables 1.1, 1.2 and 1.3, is effective December 31, 2009.

Table 1.1
December 31, 2009, Measured and Indicated Mineral Resource Estimate, Guanajuato Mines Project

Resource Category	Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Measured	---	---	---	---	---	---	---
Indicated	624,000	215	1.90	339	4,319,500	38,200	6,804,000
Total Measured and Indicated	**624,000**	**215**	**1.90**	**339**	**4,319,500**	**38,200**	**6,804,000**

Table 1.2
December 31, 2009, Inferred Mineral Resource Estimate, Guanajuato Mines Project

Resource Category	Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Inferred	1,131,000	212	1.93	338	7,714,000	69,900	12,262,600
Total Inferred	**1,131,000**	**212**	**1.93**	**338**	**7,714,000**	**69,900**	**12,262,600**

Table 1.3
December 31, 2009, Probable Mineral Reserve Estimate, Guanajuato Mines Project

Reserve Category	Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Proven	111,000	184	2.58	352	656,800	9,200	1,257,000
Probable	159,000	175	2.41	332	897,000	12,300	1,696,300
Total Proven & Probable	**270,000**	**179**	**2.48**	**340**	**1,553,800**	**21,500**	**2,953,300**

The process of mineral resource and reserve estimation includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, Micon does not consider them to be material. The final resource and reserve figures in Tables 1.1 through 1.3 have been rounded, in part, to provide a mineral resource and reserve statement which implies an appropriate level of accuracy in order to reflect that the numbers are estimates.

Micon has conducted an audit of the Endeavour Silver resource and reserve estimate for the period ending December 31, 2009 and considers these estimates to have been reasonably prepared and to conform to the current CIM standards and definitions for estimating resources and reserves as required under NI 43-101 regulations. Accordingly, Micon accepts Endeavour Silver's resource and reserve estimate as its basis for the ongoing mining operations at the Guanajuato Mines project. In Micon's opinion there are no significant technical, legal, environmental or political considerations which would affect the extraction and processing of the resources and reserves at the Guanajuato Mines project.

Micon believes that the land controlled by Endeavour Silver is highly prospective both along strike and down dip of the known mineralization and that further resources could be converted into reserves with additional exploration and development. According to historical production, the Guanajuato mining district has the potential to be a significant silver producing district in Mexico once again.

1.7 DEVELOPMENT AND OPERATIONS

In 2006, before Endeavour Silver took control, the previous operator Minas de la Luz produced 255,766 oz silver and 3,349 oz gold from 76,532 tonnes of ore grading 128 g/t silver and 1.62 g/t gold from the Bolañitos, Cebada and Golondrinas mines. The Bolañitos plant operated at about 43% of its capacity. Endeavour Silver has made a number of improvements and efficiencies which have increased the throughput of the plant.

In 2009, the Bolañitos plant produced 784,974 oz silver and 8,775.1 oz gold from 154,196 t ore grading 194 g/t silver and 2.14 g/t gold. Silver and gold recoveries averaged 88.06% and 88.52%, respectively. Recent production statistics (2006 to 2009) are summarized in Table 6.1.

Table 1.4
Production Statistics for the Guanajuato Mines Project

Operator	Year	Tonnes	Grade (g/t)		Production (ounces)	
			Gold	Silver	Gold	Silver
Minas de la Luz	2006	76,532	1.62	128	3,349	255,766
	2007	-------	----	----	-----	-------
Endeavour Silver	2007	58,077	1.50	136	2,152	195,696
	2008	100,312	1.35	170	3,660	465,867
	2009	154,196	2.13	188	8,775	784,974
Total		**389,117**	**1.43**	**136**	**17,936**	**1,702,303**

Table provided by Endeavour Silver Corp.

Endeavour Silver is continuing to seek additional improvements and expand the mineral resources at its operations at the Guanajuato Mines project.

The Guanajuato Mines project produces a concentrate which it ships to Endeavour Silver's Guanaceví Mines project in Durango for refining into doré silver-gold bars.

1.8 CONCLUSIONS AND RECOMMENDATIONS

Micon has reviewed Endeavour Silver's proposal for further exploration on its Guanajuato Mines property and recommends that Endeavour Silver conducts the exploration program as proposed subject to funding and any other matters which may cause the proposed exploration program to be altered in the normal course of its business activities or alterations which may affect the program as a result of exploration activities themselves.

Through its acquisition of the Guanajuato Mines project, Endeavour Silver has acquired an operating project in one of the major silver producing districts in Mexico. Micon has reviewed Micon Endeavour Silver's proposal for further exploration and has conducted its third audit of the resource and reserve estimate for the project, and has accepted the estimate as correct. Micon makes the following additional recommendations to assist Endeavour Silver in its exploration and resource and reserve estimation processes:

1) Micon recommends that Endeavour Silver continues to develop a reconciliation plan for the Guanajuato Mines project. The ability to be able to reconcile the ore mined and milled on a stope-by-stope basis to the original estimates for the stope will be a critical factor in future resource and reserve estimations. The reconciliations will form the basis for reviewing dilution estimates, mining loss and gain estimates, and will assist in reviewing the classification categories of the resources.

2) Micon recommends that Endeavour Silver continues to pursue the necessary paperwork for its on-site laboratory to join a proficiency program of round-robin testing such as the one run by CanMet. This would assist the on-site laboratory in assessing its performance for one or more analytical methods independently of internal quality control. Coupled with this program, a total of between 5% and 10% of the samples submitted to the on-site assay laboratory should be sent out to a secondary accredited laboratory.

3) Micon recommends that the computerization programs planned for Guanajuato should be speeded up to achieve better efficiency and enable Endeavour Silver to standardize practices at all its operations.

4) Micon recommends that Endeavour Silver continues sending out representative samples of the various mineralized zones encountered in the drilling for bulk density determinations and that this information is used in conducting future resource and reserve estimates on the Guanajuato Mines project. At the same time

representative samples of the mineralized material from the various zones could be sent out for metallurgical and mineralogical testwork.

5) Micon recommends that Endeavour Silver completes its conversion of the existing paper database. As further data are generated from the mining, more detailed examination of the block modelling parameters should be done to develop better estimation protocols. This would not only help in future exploration but would also help in infill drilling.

6) Micon recommends that future budgets should include modern-day technology sampling tools to improve the quality of the samples used for evaluation and thereby achieve a more accurate base for reconciliation with the mill output.

Given the amount of historical mining conducted on the Guanajuato Mines project, the extent of the remaining mineralization within the known mining areas, and the lack of a modern comprehensive exploration program covering the entire property in the past, the property has the potential to host further zones of silver and gold mineralization, similar in character and grade to those exploited in the past, outside the present resource and reserve base.

2.0 INTRODUCTION AND TERMS OF REFERENCE

At the request of Mr. Godfrey Walton, President and Chief Operating Officer of Endeavour Silver Corp. (Endeavour Silver), Micon International Limited (Micon) has been retained to provide an independent audit and review of the resource estimate for the Guanajuato Mines project in the State of Guanajuato, Mexico. This report is an update of the previous Micon Technical Report entitled "NI 43-101 Technical Report, Audit of the Resource and Reserve Estimates for the Guanajuato Mines Project, Guanajuato State, Mexico" and dated March 18, 2009. That report was posted by Endeavour Silver on the System for Electronic Document Analysis and Retrieval (SEDAR). SEDAR is the filing system developed for the Canadian Securities Administrators (CSA).

This report constitutes an audit of the December 31, 2009 mineral resource estimate conducted on the project by Endeavour Silver. The audit was conducted to ensure that the resource estimate complied with the Canadian Institute of Mining, Metallurgy and Petroleum (CIM) standards and definitions required by Canadian National Instrument 43-101 (NI 43-101).

The geological setting of the property, mineralization style and occurrences, and exploration history were described in reports that were prepared by Micon (2009), SRK (2008) and various government and other publications listed in Section 21 "References". The relevant sections of those reports are reproduced herein.

All currency amounts are stated in US dollars or Mexican pesos, as specified, with costs and commodity prices typically expressed in US dollars. Quantities are generally stated in metric (SI) units, the standard Canadian and international practice, including metric tons (tonnes, t) and kilograms (kg) for weight, kilometres (km) or metres (m) for distance, hectares (ha) for area, grams (g) and grams per metric tonne (g/t) for gold and silver grades (g/t Au, g/t Ag). Wherever applicable, any other units of measure encountered have been converted to Système International d'Unités (SI) units for reporting consistency. Precious metal grades may be expressed in parts per million (ppm) or parts per billion (ppb) and their quantities may also be reported in troy ounces (ounces, oz), a common practice in the mining industry. Base metal grades may be expressed as a percentage (%). Table 2.1 summarizes a list of the various abbreviations used throughout this report. Appendix 1 contains a glossary of mining terms.

The Qualified Persons responsible for the preparation of this report and the audit of the resource and reserve estimate on the Guanajuato Mines project are William J. Lewis, B.Sc., P.Geo., a senior geologist with Micon, Charley Z. Murahwi, P.Geo. MAusIMM., a senior geologist with Micon, Robert J. Leader, P. Eng., a senior mining engineer with Micon and Ing. Alan San Martin, MAusIMM., a mineral resource modeller with Micon who assisted Mr. Murahwi with the audit of the resource estimate.

Table 2.1
List of the Abbreviations

Name	Abbreviations	Name	Abbreviations
BSI Inspectorate	BSI	Million ounces	Moz
Canadian Institute of Mining, Metallurgy and Petroleum	CIM	Million years	Ma
Canadian National Instrument 43-101	NI 43-101	Million metric tonnes per year	Mt/y
Carbon in leach	CIL	Milligram(s)	mg
Centimetre(s)	cm	Millimetre(s)	mm
Comisión de Fomento Minero	Fomento Minero	Mina Bolañitos S.A. de C.V.	Mina Bolañitos
Day	D	Minas de la Luz S.A. de C.V.	Minas del la Luz
Degree(s)	º	Minera Planta Adelante S.A. de C.V.	Minera Planta Adelante
Degrees Celsius	ºC	North American Datum	NAD
Digital elevation model	DEM	Net present value	NPV
Dirección General de Minas	DGM	Net smelter return	NSR
Dollar(s), Canadian and US	$, CDN $ and US $	Not available/applicable	n.a.
Endeavour Gold S.A de C.V.	Endeavour Gold	Ounces	oz
Endeavour Silver Corp	Endeavour Silver	Ounces per year	oz/y
Gram(s)	G	Parts per billion	ppb
Grams per metric tonne	g/t	Parts per million	ppm
Greater than	>	Percent(age)	%
Hectare(s)	Ha	Quality Assurance/Quality Control	QA/QC
Industrias Peñoles S.A. de C.V.	Peñoles	Second	s
Internal rate of return	IRR	Specific gravity	SG
Kilogram(s)	Kg	SRK Consulting	SRK
Kilometre(s)	Km	System for Electronic Document Analysis and Retrieval	SEDAR
Less than	<	Système International d'Unités	SI
Litre(s)	L	Tonne (metric)	t
Metre(s)	M	Tonnes (metric) per day	t/d
Mexican Peso	Peso	Tonnes (metric) per month	t/m
Micon International Limited	Micon	Universal Transverse Mercator	UTM
Million tonnes	Mt	Year	y

Micon first visited Endeavour Silver's Guanajuato Mines project from September 2 to 4, 2008, with a visit to the Durango exploration office on September 5, 2008, to discuss the exploration and Quality Assurance and Quality Control (QA/QC) programs. Micon was assisted during the visit by a number of employees and consultants working for Endeavour Silver including Barry Devlin, M.Sc., P.Geo., Vice President of Exploration, Ing. Luis R. Castro V., Exploration Manager, Endeavour Silver's chief planning engineer, Nelson Peña, and Endeavour Silver's chief mine geologist, Miguel Lampson, in Guanajuato. No independent sampling was undertaken by Micon because the Guanajuato Mines project has been in production for many years and the mineralization has been verified by settlement statements from the smelter. Micon visited Endeavour Silver's Guanajuato Mines project for a second time from November 16 to 18, 2009, to review and audit the 2009 programs and database.

Mr. Murahwi visited the Guanajuato property in both 2008 and 2009 where the underground mine workings and surface facilities were inspected, and the initial review of the database and block model for the resource and reserve estimate was performed.

The review of the Guanajuato Mines project was based on published material researched by Micon, as well as data, professional opinions and unpublished material submitted by the professional staff of Endeavour Silver or its consultants. Much of the data came from reports prepared and provided by Endeavour Silver and/or Mina Bolañitos S.A. de C.V. The review of the resource and reserve estimation parameters was conducted both during the site visit and during the audit of the resource and reserve estimate undertaken in January and February, 2010, upon completion of the estimates by Endeavour Silver.

Micon is pleased to acknowledge the helpful cooperation of Endeavour Silver's management and personnel, all of whom made any and all data requested available and responded openly and helpfully to all questions, queries and requests for material.

Micon does not have nor has it previously had any material interest in Endeavour Silver or related entities or interests. The relationship with Endeavour Silver is solely a professional association between the client and the independent consultant. This report is prepared in return for fees based upon agreed commercial rates and the payment of these fees is in no way contingent on the results of this report.

This report includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, Micon does not consider them to be material.

3.0 RELIANCE ON OTHER EXPERTS

Micon has reviewed and analyzed data provided by Endeavour Silver, its consultants and previous operators of the property, and has drawn its own conclusions therefrom, augmented by its direct field examination. Micon has not carried out any independent exploration work, drilled any holes or carried out any sampling and assaying on the property.

Micon audited Endeavour Silver's previous December 31, 2008 resource and reserve estimate. The results of the 2008 estimates were published in a Technical Report dated March 18, 2009. The 2008 resource and reserve estimate has been superseded by a new resource estimate which was completed by Endeavour Silver in early January, 2010, but has an effective date of December 31, 2009. The December 31, 2009, estimate conforms to the presently accepted industry standards and definitions for resource estimates and is compliant with the CIM definitions required by NI 43-101 and, therefore, is reportable as mineral resources and reserves by Endeavour Silver.

While exercising all reasonable diligence in checking, confirming and testing it, Micon has relied upon Endeavour Silver's presentation of the project data from previous operators and Endeavour Silver's mining and exploration experience in the Guanajuato project in formulating its opinion.

Micon has not reviewed any of the documents or agreements under which Endeavour Silver holds title to the Guanajuato Mines project or the underlying mineral concessions and Micon offers no opinion as to the validity of the mineral titles claimed. A description of the properties, and ownership thereof, is provided for general information purposes only. The existing environmental conditions, liabilities and remediation have been described where required by NI 43-101 regulations. These statements also are provided for information purposes only and Micon offers no opinion in this regard.

The descriptions of geology, mineralization and exploration are taken from reports prepared by various companies or their contracted consultants. The conclusions of this report rely on data available in published and unpublished reports and information supplied by the various companies which have conducted exploration on the property, and information supplied by Endeavour Silver. The information provided to Endeavour Silver was supplied by reputable companies and Micon has no reason to doubt its validity.

The figures and tables for this report were reproduced or derived from reports written for Endeavour Silver and the majority of the photographs taken by Mr. Charley Murahwi during the Micon site visits. Where the figures and tables are derived from sources other than Micon it is acknowledged below the figure or table.

4.0 PROPERTY DESCRIPTION AND LOCATION

The Guanajuato Mines project is located in the state of Guanajuato, Mexico as shown in Figure 4.1. It consists of three operating mines in two areas. Mina Cebada is located about 5 km north of the city of Guanajuato. The Bolañitos mine and the processing plant are situated approximately 5 km west of Cebada, and both properties are readily accessed by paved and gravel roads. The Golondrinas mine is 3.5 km to the southwest of Cebada. The ore sourced during 2009 from the Cebada and Bolañitos mines was trucked to the Bolañitos plant for campaign processing.

Figure 4.1
Guanajuato Mines Project Location Map

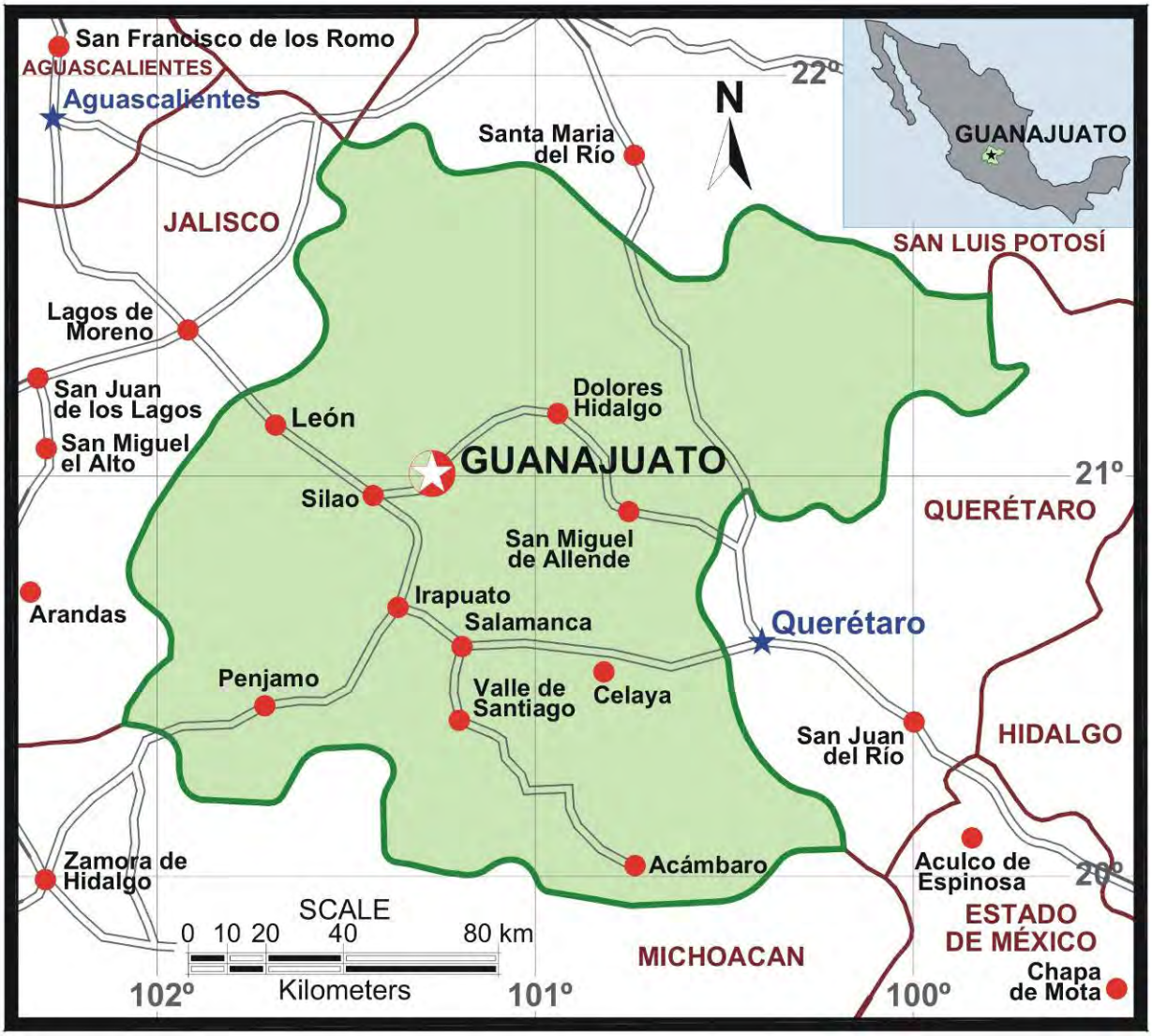


Figure provided by Endeavour Silver Corp.

Figure 4.2 is a map illustrating the claims included in Endeavour Silver's Guanajuato Mines project.

Figure 4.2
Guanajuato Mines Project Claim Map

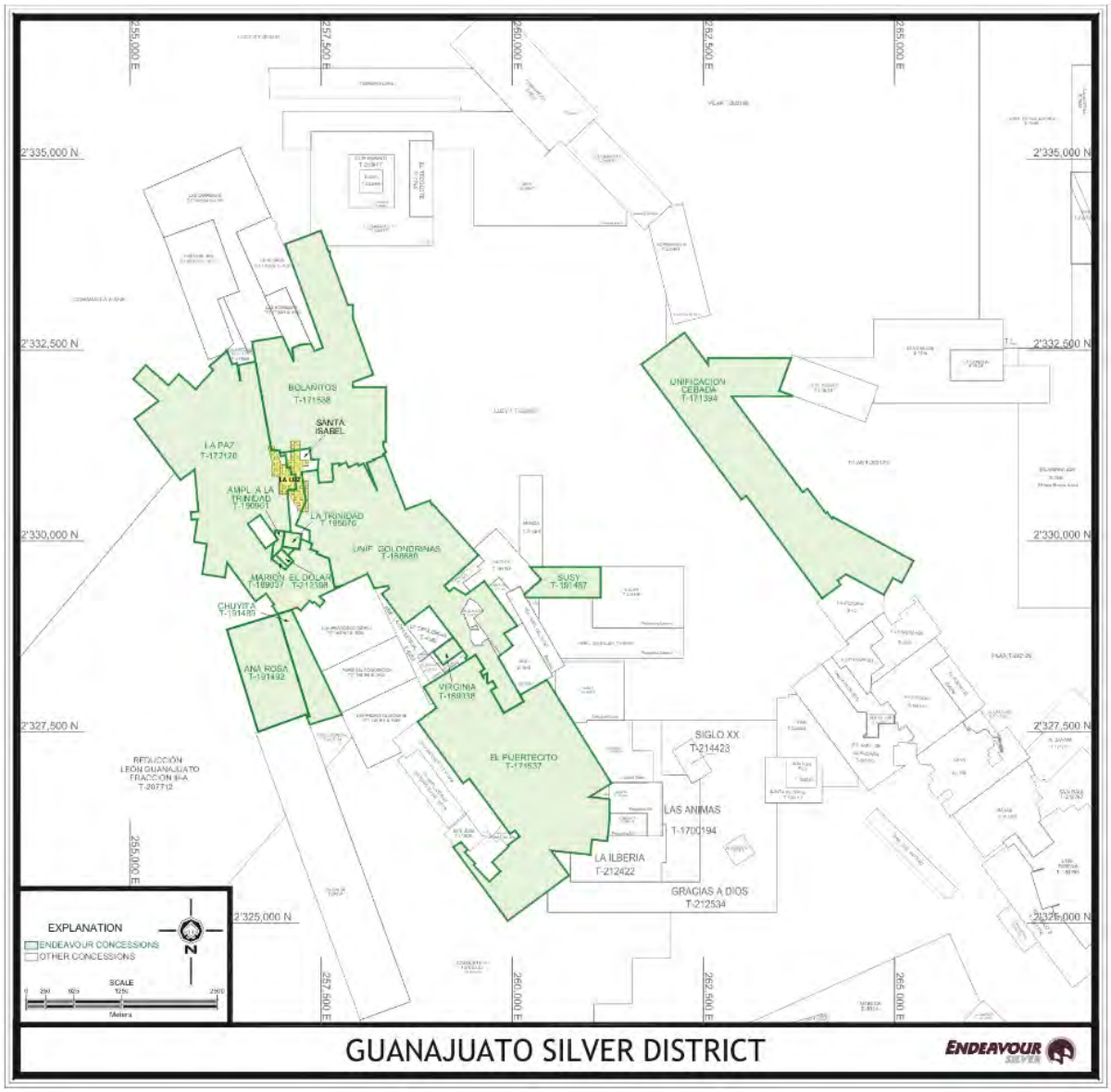


Figure provided by Endeavour Silver Corp.

The Cebada mine exploits the Veta Madre (Mother Lode) which has historically been host to some of the richest silver mines in the world. The Bolañitos and Golondrinas mines are located near the town of La Luz, about 12 km to the northeast of Guanajuato. Coordinates of the Cebada mine shaft, the approximate centre of Guanajuato Mines project, are given in Table 4.1.

Table 4.1
Coordinates of the Cebada Mine Shaft

Coordinates	Geographic	UTM
North	21° 03’ 45”	2,330,550
East	Not applicable	263,851
West	101°16’ 23”	Not applicable

Table provided by Endeavour Silver Corp.

In 2007, Endeavour Silver acquired the Guanajuato Mines project from Industrias Peñoles S.A. de C.V. (Peñoles), the owner at the time, and Minas de la Luz, S.A. de C.V. (Minas de la Luz), the operator at the time. The acquisition included the Mina Cebada, Mina Bolañitos, Mina Golondrinas and Mina Asuncion (as well as a few other currently closed mines). Minas de la Luz continued as the operator of the mines until June, 2007, when Endeavour Silver assumed control. The Mina Asuncion is very close to the Mina Bolañitos and is currently connected underground to the Mina Bolañitos.

The Guanajuato Mines project consists of 13 properties totalling 2,071 hectares (ha) including three operating silver (gold) mines (Bolañitos, Golondrinas and Cebada), several past-producing silver (gold) mines, and the 500 t/d Bolañitos processing plant.

The exploitation lease was held by Minas de la Luz and purchased by Endeavour Silver in conjunction with the asset purchase from Peñoles. Endeavour Silver previously reported that some licensing issues were inherited with the properties. However, these have now been resolved although the transfer of the water license and the explosive permit to Endeavour Silver’s Mina Bolanitos S.A. de C.V. is still in process.

The following is a summary of the relevant legal aspects of Endeavour Silver’s Guanajuato Mines Project:

- Minas de la Luz signed a mining exploitation contract with subsidiaries of Met Mex Peñoles (Met Mex) on April, 2002. Through this contract, Minas de la Luz had the right to develop, explore and exploit the lots listed in Table 4.2, as well as the use of the mining works, the processing plant, the tailings pond, operating or not, offices, shops, warehouses, the housing compound for the employees, the clinic located in the town of La Luz, two ranch ruins, two houses in the mine compound and all the terrains that are in the facilities of which it is the owner.

- Subsidiary companies of Met Mex are:

    - Compañia Minera Las Torres, S.A. de C.V. (Minera Las Torres).

    - Compañia Minera La Parreña, S.A. de C.V. (Minera La Parreña).

Minera Las Torres was the holder of the rights for the lots contained in Table 4.2.

Table 4.2
Summary of the Lots Owned by Minera Las Torres

Lot	Title Number	Lot	Title Number
Unificación Golondrinas	188680	Ana Rosa	191492
Virginia	189038	Bolañitos	171538
Susy	191487	El Puertecito	171537
Chuyita	191489		

Table provided by Endeavour Silver Corp.

Minera La Parreña owned a mineral processing plant, with a capacity of 500 t/day, property including 7 houses and a clinic located in the town named La Luz, and the lots mentioned in Table 4.3.

Table 4.3
Summary of the Lots owned Minera La Parreña

Lot	Title Number
El Dollar	212398
La Paz	172120
Marion	189037
La Trinidad	195076
Ampliación la trinidad	190961

Table provided by Endeavour Silver Corp.

The mining lots are located in the district of Mineral de La Luz, and were in compliance with all the obligations that the holders have according to the Mining Law and its regulations, especially those regarding the payments of rights on mining concessions for exploration and exploitation. There is no tax, affectation or any limitation on these lots.

In September, 2003, Minas de la Luz modified the original contract with Met Mex to add a lot named La Cebada owned by Minera Las Torres, another subsidiary of Met Mex.

In August, 2005, there was another modification to the contract, in which it is noted that the mining concessions for the lots of which Minera La Parreña was the owner, now belonged to Exploraciones Mineras Parreña S.A. de C.V. (Exploraciones Mineras Parreña) which acquired the concessions for these lots through a spin off. The modified contract was for another five years, scheduled to expire in August, 2010.

Minas de la Luz was responsible for the environmental, physical and chemical stability of the terrain, tailings pond, waste and mining works during the effective contract period, as well as preventing any acid drainage generation.

The mineral concessions owned by Endeavour Silver are summarized in Table 4.4.

In addition to the mineral rights, Endeavour Silver has agreements with various private ranch owners and a local ejido (Mesa Cuata) that provide access for exploration and exploitation purposes. Table 4.5 summarizes the surface access rights as at December 31, 2009.

Table 4.4
Summary of the Mineral Concessions Owned by Endeavour Silver

Lot Name	Title No.	Term of Mineral Concession		Hectares	2010 Annual Taxes (pesos)	
		From	To		1st Half	2nd Half
La Cebada	171340	20/09/82	19/09/32	353.0373	41,247	41,247
El Puertecito	171537	20/10/82	19/10/32	441.9481	51,634	51,634
Bolañitos	171538	20/10/82	19/10/32	305.4762	35,690	35,690
La Paz	172120	26/09/83	25/09/33	413.0599	48,259	48,259
Unif. Golondrina	188680	29/11/90	28/11/40	361.6543	42,253	42,253
Marion	189037	05/12/90	04/12/40	1.0498	123	123
Virginia	189038	05/12/90	04/12/40	7.1339	833	833
Ampl. De la Trinidad	190961	29/04/91	28/04/41	4.6061	538	538
Susy	191487	19/12/91	18/12/41	35.4282	4,139	4,139
Chuyita	191489	19/12/91	18/12/41	43.3159	5,061	5,061
Ana Rosa	191492	19/12/91	18/12/41	96.7364	11,302	11,302
La Trinidad	195076	25/08/92	24/08/42	4.4800	523	523
El Dólar	212398	04/10/00	03/10/50	3.1979	212	212
			Totals	**2,071.1240**	**241,814**	**241,814**

Table provided by Endeavour Silver Corp.

Table 4.5
Summary of Endeavour Silver's Surface Access Rights

Owner	Area Name	Area (ha)	Validity	Term	Annual Cash Payments (pesos)
Florentino Ortega Camarillo	El Sauz	30	15 Years Renewable	01/12/2007 - 2022	30,000
Pablo Vallejo Sandoval	San Ignacio del Puertecito "C"	10	5 Years Renewable	01/02/2008 - 2013	30,000
Benjamin Tapias Cruces	Golondrinas	91	15 Years	01/12/2007 - 2022	24,000
Alfredo Ortega Gonzalez	Cuesta de Los Burros	30	15 Years Renewable	01/12/2007 - 2022	24,000
Ignacio Camarillo Velasquez	San Ignacio del Puertecito	30	2 Years Renewable	01/04/2008 – 2010	125,000
Maria Coccepcion Ortega Camarillo	Las Golondrinas	29	5 Years Renewable	26/09/2008 - 2013	55,000

Table provided by Endeavour Silver Corp.

4.1 SAFETY

In 2009, a number of advances were made in safety at the Guanajuato Mines project. Safety talks and demonstrations were undertaken at Guanajuato with more than 11,182 hours of training recorded in 2009. Endeavour Silver is programming more hours for 2010. Five lost time accidents were recorded; however, these were generally considered to be low risk accidents. Mine rescue training includes advanced first aid, fire fighting, ventilation, use of Draeger re-breathing equipment, rescue knots, and use of explosives, discussions about H1N1 and personal hygiene training by a local Guanajuato firemen team and MEXVOL explosive company. In 2009, the Endeavour Silver mine rescue team participated in the national safety demonstration obtaining third place in the first aid part of the competition.

The Guanajuato safety department undertakes all inductions of new personnel to train them in the basics of mine and plant safety, monitors housekeeping and sign installation and is also involved with the environmental department. Safety talks are given at the beginning of each shift to reinforce safety in the workplace. Safety training at the mines includes the Five Point Safety method, First Aid, use of PPE (personal protective equipment – helmet, safety glasses, steel toe boots, gloves and hearing protection),as well as recording 8,144, talks on explosives, barring down, identification of risks, lock-out/tag-out of equipment, prevention and fighting of fires, mining gases and ventilation. In addition to the underground personnel, personnel in the plant (mill) and the other departments all receive safety training.

In 2009, Endeavour Silver recorded 2,400 safety audits that include management and workers undertaking detailed audits and these, like the safety training, are ongoing throughout the year. Also in 2009, Endeavour Silver conducted a Safety Monitoring system at Guanajuato to aid the safety department and make people more responsible for their own safety. At Guanajuato, safety is also an element in the production bonus system and in 2008, upper management introduced the Chairman's and President's Safety Awards (annual and quarterly safety awards) which introduced incentives for all personnel to work safely. Safety at the Guanajuato Mines project involves all of the daily activities and Endeavour Silver has made work safety its first priority.

4.2 ENVIRONMENTAL

In Guanajuato, Endeavour Silver continues to improve the level of housekeeping and the management of toxic substances. A new facility constructed in 2008 for the temporary storage of oil, used filters, contaminated soil, etc. is in use and materials from this storage facility are disposed of at an official site in Zacatecas. Installed oil traps in the mechanic shop and jackleg repair shop are inspected regularly.

In the processing plant, a shower and hand washing area was installed as a preventative measure to aid in retarding or preventing acid and chemical burns.

Presently the environmental department is monitoring the new assay laboratory for emission contaminants although this is not necessary step required to operate the assay laboratory, Endeavour Silver has been notified that the laboratory is operating within all of the current

parameters for emission contaminants. Nevertheless Endeavour Silver has installed fans as a further preventative measure.

Endeavour Silver continues to store scrap metal and conducts frequent scrap sales and/or recycling to avoid build up of junk on site.

Plans for the construction of a water treatment plant have been completed and approved with the construction planned to begin in the 1st quarter of 2010.

In September, 2009 Endeavour received the Licencia Ambiental Unica (LAU) from the Secretaria Medio Ambiente y Recursos Naturales (SEMARNAT). This license indicates that Endeavour Silver is working in accordance with all the Mexican environmental regulations. Endeavour Silver is also in compliance with the Programa de Auditoria Ambiental de la Procuradia Federal de Proteccion al Ambiente de Gobierno Federal.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The Guanajuato Mines project is located north of the city of Guanajuato, capital of the State of Guanajuato which is approximately 430 km northwest of Mexico City. The city of Guanajuato has a population of approximately 150,000 and is the host of several universities and post-secondary schools including a mining college. The city is well maintained with numerous hotels, restaurants and museums. Tourism, which is comprised primarily of Mexican nationals, is the principal industry of the city.

The State of Guanajuato is situated within the Central Plateau of Mexico in the Sierra de Guanajuato at elevations ranging from 2,000 to 2,600 m.

International access to Guanajuato is relatively good as the Leon/Guanajuato international airport has daily services from Los Angeles, Dallas/Fort Worth, Houston and Mexico City, giving many options for travelling to and from the project. The airport is located between the large city of Leon, a city of over 1 million inhabitants, and the city of Guanajuato. Guanajuato is approximately a 25 to 30 minute drive from the airport on a toll highway. From Guanajuato, the properties are accessible via a gravel road, with about a 15 minute drive to Mina Cebada and a 35 minute drive to the Bolañitos or Golondrinas mines. The gravel road is heavily eroded by the intense thunderstorms which occur in the area and it receives sporadic maintenance by a grader. Therefore, the road is highly washboarded which keeps driving speeds to generally less than 50 km/h.

Most of the supplies and labour required for the exploration programs and mining operations are purchased in either the city of Guanajuato or Leon. The area has a rich tradition of mining and there is an ample supply of skilled personnel sufficient for both the underground mining operations and the surface facilities.

Power supply to the Guanajuato Mines project is provided by the national grid (Comisión Federal de Electricidad).

Telephone communications are integrated into the national land-base telephone system that provides reliable national and international direct dial telephone communications. Satellite communications also provide phone and internet capabilities at the Guanajuato Mines project. However, the satellite phone and internet services are slow and sometimes unreliable. There is no cell phone service at any of the mines.

The climate is generally dry with sporadic, often violent thunderstorms in the summer months which are also the source of most of the precipitation for the area. The average precipitation is about 600 mm, which occurs primarily between May and October. The summer months are temperate, with comfortable daytime high temperatures of between 22 and 30°C. Generally, the thunderstorms occur in the late afternoons. The winter months are cool and dry, though some rain does occur. Daytime highs in the winter are generally 15 to 25°C and overnight lows can drop below freezing. The winter is the windy season and winds can be very strong.

Grass, small trees and shrubs along with several varieties of cacti make up most of the vegetation on the steep hillsides, with larger trees found near springs and streams. The area is mainly devoid of trees, however, in the valleys and where reforestation has taken place, there are stands of trees. The Encino tree is a protected species in the area. In the higher elevations, sheltered areas can be home to pine forests.

Even though there is a reasonable amount of rainfall each year, most of the creeks in the area are usually dry with the exception of the man-made reservoirs surrounding the city of Guanajuato. Some cattle and/or goat grazing is carried out in the area over the scrub land. Sections of more arable land have been deforested to support small plots for growing crops.

At each of the mine sites, the required water for the operations is supplied from dewatering of the mines. The tailings facility at Mina Bolañitos is set up to recycle all water back into the processing plant.

Endeavour Silver provides limited housing for employees, apart from offices, warehouses and other facilities. Most of the work force lives in the nearby communities and Guanajuato. There is an ample supply of skilled labour in the area due to its long mining history. Figure 5.1 is a view of the town of La Luz. La Luz is close to the Bolanitos mine and plant and is home to many of the employees of Endeavour Silver's Guanajuato Mines project.

Figure 5.1
View of the Town of La Luz Located 12 Kilometres Northeast of Guanajuato

Figure provided by Endeavour Silver Corp.

6.0 HISTORY

6.1 MINING IN MEXICO

Mining has played an important role in Mexico since pre-historic times, but it entered a period of rapid expansion after the Spanish conquest when rich mineral deposits were found. The wealth found in these early mines served as incentives for the early colonizers to locate to remote and barely accessible portions of the county.

Although the Spanish began mining as early as 1526 and worked the mines until 1700, it was not until after the latter date that they commenced to work them strongly, continuing to do so until 1810 with the start of the War of Independence. In 1810, the yearly mining production fell in Mexico from $27,000,000 to $5,000,000 and this state of affairs continued until 1821 with the expulsion of the Spaniards.

During the war many of the mines were abandoned and either filled with water or caved in, and so they remained until 1824. In 1824 a number of English capitalists took the rehabilitation of the principal mines in hand and worked them for approximately 10 years. However, during this period they sustained great losses that were principally due to the lack of railroads which necessitated the transportation of all heavy machinery to the mines on the backs of mules. In some cases it took a couple of years to transport the equipment from England to the mine in Mexico.

Mining in Mexico became more prevalent again from the 1880s until the early 1900s when many of the mining districts were in decline due to low prices. The Civil War in 1910 for the most part paralyzed mining in Mexico and in many districts it did not recover until late in the 20th century.

It is impossible to state with even approximate accuracy what the production of precious metals was in the early days. When the Spanish arrived in Mexico there were no Aztec records and although accurate records were kept up until 1810, smuggling prevailed to such an extent, owing to the heavy tax on silver, as to render it impossible to arrive at exact figures. The coinage records, however, are more exact, and according the best estimates from 1522 to 1879, the production of precious metals in Mexico was about $3,723,139,070, of which gold amounted to about 0.4 to 0.8 percent or approximately $23,600,000. The annual coinage from 1521 to 1879, a period of 355 years, was approximately $8,173,565 and the annual product nearly $10,000,000.

In the early days 90% of all the ores were amalgamated with the balance being smelted. However, this proportion varied in different districts with smelting taking precedence in some districts and amalgamation in others. Many of the silver mines also had gold to some extent which was termed the “ley” or percentage of gold.

6.2 GUANAJUATO MINING DISTRICT

The Guanajuato mining district is located at the southern end of what used to be the Chichimeca empire which was colonized by Nuño de Guzmán in 1540.

It is suspected that (but not known if) the indigenous peoples rather than the Spanish colonists first began mining in the Guanajuato district. However, mining extends back to at least 1548 when the silver veins began to be exploited by the Spanish. Guanajuato was one of the premier mining districts of Nueva España (New Spain). The following is a brief timeline of the history of the Guanajuato mining district:

- Pre-Conquest: Martin notes in his 1906 volume on the mines of Guanajuato that *"there is reason to believe that* the *Peregrina* mine *was being worked and big quantities of ore being taken out by the Indians before Cortez ever set foot in the country."*

- 1548: The first silver vein, San Bernabé (La Luz), was discovered by a local mule driver. In these early years the silver ore was hand mined and transported by mule to Zacatecas to be milled.

- 1550: Juan de Rayas discovered the Veta Madre system at the site where the present day Rayas shaft is located. This discovery triggered an exploration rush that saw the discovery of the Valenciana, Tepeyec, Mellado, Cata and Sirena silver occurrences.

- 1726: Don Jose de Sardeneta y Legaspi introduced gunpowder to be used for blasting. Prior to this, production was very limited as the method of extracting ores was by fire where the rock face was heated and then quickly quenched with water, shattering the rock. Construction began on the Rayas shaft.

- 1760 to 1770: Antonio Obregón y Alcocer, who later became Count Valenciana, completed a number of exploration ventures, culminating with the discovery of the Valenciana ore-shoot and the development of the Valenciana mine.

- 1771: Immense masses of silver sulphides, mixed with ruby silver and native silver were discovered at Valenciana. At the time, the Valenciana mine was estimated to be producing one-third of the world's silver. Production was increased under the Count's direction, and the Santo Cristo de Burgos shaft was sunk to a depth of 150 m.

- 1775: The San Antonio shaft on the Valenciana vein was sunk to a depth of 227 m.

- 1760 to 1810: Martin notes that during this period the Guanajuato mines accounted for 30% of the entire Mexican production and 20% of the entire world's output of silver.

- 1810 to 1868: Production stopped as the result of the War of Independence from Spain.

- 1810: In September, Hidalgo began his revolt against Spain. In the City of Guanajuato all foreigners' property was seized and their homes destroyed. Hidalgo took the Alhóndiga de Granaditas (public granary) and massacred most of the people taking refuge in it.

- 1821: Revolutionaries burned all the mining installations, including the headworks of the newly-built Valenciana shaft.

- 1868: The Valenciana mine was reopened by British investment capital.

- Between 1887 and 1889 the production from the mines of Guanajuato accounted for as much as US 14.4 million dollars or approximately 2.88 million British pounds.

- 1906: Martin noted that the principal or "mother vein has yielded the sum of one billion dollars as proven by the mint and government records. The Valenciana mine proved to be the greatest silver producer with workings down to 2,400 feet on the incline and producing over $300 million dollars of silver or approximately 60 million British pounds".

- 1910 to 1920: Mexican revolution; mining ceased or declined during this period with the destruction of a great many mines and infrastructure.

- 1936: Peñoles tested the Veta Madre with four diamond drill holes.

- 1939: Sociedad Cooperativa Minero Metalúrgica Santa Fe de Guanajuato (SCMMSFG) became the legal owner of the properties of the Guanajuato Reduction and Mines Company. Starting out with no mineral reserves and working capital, the new Cooperative had a very difficult time conducting exploration and mining with outdated equipment.

- 1947-1949: The Fresnillo Company, a division of Peñoles, completed a diamond drilling program consisting of 9 holes which intersected the Veta Madre 80 m to 150 m below the lowest existing workings.

- 1968: Fresnillo discovered the Torres-Cedros deposit during an exploration and drilling campaign.

- 1973: The SCMMSFG discovered the Clavo de Rayas "bonanza" mineral shoot.

6.3 GUANAJUATO MINES PROJECT

Below is an abbreviated timeline of the history of Endeavour's Guanajuato Mines project since the 1960s.

- 1968: The Fresnillo Company acquired additional claims and incorporated Negociación Minera Santa Lucía (now Cebada) and the Peregrina mine.

- 1973: The contracting company Tormex S.A. completed a photogeological study in the area of the Cebada mine holdings.

- 1976: The Cebada mine began production. Between 1976 and 1995, the Cebada mine produced 1,277,216 tonnes at an average grade of 4.04 g/t gold and 372 g/t silver.

- 2003: The Grupo Guanajuato closed the Torres, Sirena, Peregrina and Apolo mines. The Bolañitos, Golondrinas, Asunción and Cebada mines stayed in production on a break-even basis.

- 2007: Endeavour Silver acquired the Guanajuato Mines Project from Peñoles, the owner at the time, and Minas de la Luz, the operator at the time, which included, Mina Cebada, Mina Bolañitos, Mina Golondrinas and Mina Asuncion (as well as a few other currently closed mines). Minas de la Luz, was kept on as the operator of the mines until June, 2007, when Endeavour Silver assumed control. Mina Asuncion is very close to the Bolañitos mine and has recently been connected to the Bolañitos mine.

Records from the mining operations provide surveyed information of the historical workings and channel sample data from stopes, raises and drifts excavated on the mineralized zones. Limited drilling on the properties has been conducted during the past 20 years, and none during the past 10 years before Endeavour Silver took control. Several well mineralized and high-grade drill holes completed by Peñoles have not yet been followed-up and these contribute to the remaining exploration potential for the property. Endeavour Silver believes that surface mapping and exploration, together with compilation of the Peñoles data, should help to identify some new veins, breccia/stockwork zones and related splays for future drilling.

There is potential both along the strike of the veins and at depth below the old workings as these areas are largely untested and present a major exploration target for Endeavour Silver.

In 2007, Endeavour Silver spent approximately US $842,000 on exploration on the Guanajuato Mines project. The exploration program consisted of 13 surface diamond drill holes totalling 3,513 m at the Cebada mine and 2 underground diamond holes totalling 58 m at the Golondrinas mine. A total of 1,091 samples were also collected and submitted for assay. The March, 2009, Micon Technical Report contains a summary of Endeavour Silver's 2007 surface and underground exploration programs in Section 6. A detailed description of

the 2007 exploration program was recorded in the March, 2008, Technical Report by SRK. The SRK Technical Report is filed on SEDAR.

In 2008, Endeavour Silver's exploration drilling at Guanajuato focused in two areas:

1) Testing several targets along the Veta Madre vein structure close to the Cebada mine.

2) Testing several targets along the La Luz vein structures (La Luz consists of multiple sub-parallel veins) close to the Bolañitos mine.

The 2008 drilling program was successful in expanding the 3785 (Robbins #5) mineralized zone discovered near the Cebada mine in 2007, and discovering new high-grade silver-gold mineralized zones in four other target areas: the Bolañitos, Santa Maria, San Jose and Lucero vein prospects near the Bolañitos mine.

Within the Guanajuato district, the Veta Madre vein typically forms a central lode, with hanging wall and footwall splays, occupying a major fault structure, whereas the La Luz veins form a swarm of sub-parallel veins occupying lesser fault structures. The Cebada mineralized bodies were typically larger and had greater vertical extent (500+ m) than at La Luz but the Bolañitos mineralized-bodies were more numerous.

During 2008, Endeavour Silver spent US $3,431,207 on exploration activities on the Guanajuato Mines project. The exploration drilling program included 5,241 m in 15 surface diamond holes at the Cebada mine and 16,012 m in 55 surface and underground diamond drill holes at the Golondrinas and Bolañitos mines. A total of 3,662 samples were also collected and submitted for assay.

In 2008, surface mapping and sampling in the Cebada, Bolañitos and Golondrinas mines areas continued to be an important part of the Guanajuato exploration program. Even though these properties have had a long mining history, detailed geological maps of sufficient quality for defining drill targets do not exist. In addition, many concessions in the Guanajuato district remain under-explored.

A detailed description of Endeavour Silver's 2008 exploration and drilling programs is contained in Section 10 and 11 of Micon's March, 2009, Technical Report which is filed on SEDAR.

6.4 HISTORICAL PRODUCTION

Mining in the Guanajuato district extends back to at least 1548 when the mines were first worked by the Spanish. The total production from this district is estimated at about 6 million oz of gold and 1.2 billion oz of silver.

During the late sixteenth century silver production accounted for 80% of all exports from Nueva España (New Spain), although, by the mid-seventeenth century silver production collapsed when mercury, necessary to the refining process, was diverted to the silver mines

of Potosí in present day Bolivia. Collapse of the seventeenth century mining led to widespread bankruptcy among the miners and hacienda owners; however, in the latter half of the seventeenth century silver mining began to recover in Nueva España.

The peasant uprisings of 1810 to 1821 were disastrous to the Mexican mining industry with both the insurgents' soldiers and royalist troops all but destroying the mining production in Mexico, and the Guanajuato mining district was not spared during this period.

It is evident that historical production has occurred in the Guanajuato mining district since pre-colonial times and early production records from the Spanish colonial period probably exist in the Archive of the Indies (Archivo des Indies), in Seville, Spain, in the records of the Viceroyalty of Mexico or in the records for Nueva España. However, Micon does not have access to any historical records of the actual silver and gold production from the Guanajuato mining district.

In 2006, before Endeavour Silver took control, the previous operators Minas de la Luz produced 255,766 oz silver and 3,349 oz gold from 76,532 tonnes ore grading 128 g/t silver and 1.62 g/t gold from the Bolañitos, Cebada and Golondrinas mines. The Bolañitos plant operated at about 43% of its capacity. Endeavour Silver has made a number of improvements and efficiencies which have increased the throughput of the plant.

In 2009, the Bolañitos plant produced 784,974 oz silver and 8,775 oz gold from 154,196 t ore grading 188 g/t silver and 2.13 g/t gold. Silver and gold recoveries averaged 88.06 and 88.52%, respectively. Recent production statistics (2006 to 2009) are summarized in Table 6.1.

Table 6.1
Production Statistics for the Guanajuato Mines Project

Operator	Year	Tonnes	Grade (g/t)		Production (ounces)	
			Gold	Silver	Gold	Silver
Minas de la Luz	2006	76,532	1.62	128	3,349	255,766
	2007	------	----	----	-----	------
Endeavour Silver	2007	58,077	1.50	136	2,152	195,696
	2008	100,312	1.35	170	3,660	465,867
	2009	154,196	2.13	188	8,775	784,974
Total		**389,117**	**1.43**	**136**	**17,936**	**1,702,303**

Table provided by Endeavour Silver Corp.

6.5 RESOURCE AND RESERVE ESTIMATES PRIOR TO DECEMBER, 2009

Historical resource and reserve estimates are not discussed in this report because they are not CIM compliant and have been superseded by CIM compliant estimates.

Prior to this report, two previous resource and reserve estimates for the Guanajuato Mines project were reported by Endeavour Silver. Both these previous estimates were contained in Technical Reports filed on SEDAR.

The first Technical Report was issued by SRK Consulting (SRK). This Technical Report was entitled "NI 43-101 Technical Report for the Guanajuato Mines Project, Guanajuato State, Mexico" and dated March, 2008.

The second Technical Report was issued by Micon. The report was entitled "NI 43-101 Technical Report, Audit of the Resource and Reserve Estimate for the Guanajuato Mines Project, Guanajuato State, Mexico" dated March 18, 2009. This report has also been filed on SEDAR and is available to the public.

Both resource and reserve estimates contained in the previous Technical Reports comply with the current CIM standards and definitions for estimating resources and reserves as required by NI 43-101 regulations

Since the last resource and reserve estimate was completed in March, 2009, Endeavour Silver has conducted further diamond drilling and underground development and has completed a new resource and reserve estimate for the Guanajuato Mines project. Micon has audited Endeavour Silver's new resource and reserve estimate for the project and the discussions related to the new estimate are located in Section 17 of this report. The new resource and reserve estimate conducted by Endeavour Silver and audited by Micon complies with the current CIM standards and definitions for estimating resources and reserves as required by NI 43-101 regulations.

7.0 GEOLOGICAL SETTING

The following description of the geological setting for the Guanajuato property has been copied from the March, 2009, Micon report which was excerpted and edited from the March, 2008, SRK Technical Report.

7.1 REGIONAL GEOLOGY

The mining district of Guanajuato is located on the south and eastern flanks of the Sierra Madre Occidental geological province, a north-northwesterly trending linear volcanic belt of Tertiary age. It is approximately 1,200 km long and 200 to 300 km in width. The project area is located in the southern portion of the Sierra de Guanajuato, an anticlinal structure about 100 km long and 20 km wide. The Guanajuato district is located on the northeast side of this structure where the typical primary bedding textures dip 10° to 20° to the north-northeast.

7.1.1 Stratigraphy

The stratigraphy of the Guanajuato mining district can be divided into a Mesozoic basement (Chiodi et al, 1988; Dávila and Martinez, 1987; Martinez-Reyes, 1992) and overlying Cenozoic units as shown in Figures 7.1 and 7.2. The lower Mesozoic lithological units are the Esperanza and La Luz Formations which are composed of rocks of marine origin, weakly to moderately metamorphosed and intensely deformed by shortening. These rocks are unconformably overlain by the Tertiary Conglomerado Rojo de Guanajuato, and the Loseros, Bufa, Calderones, Cedros and Chichíndaro Formations. The Tertiary rocks consist of continental sediments and sedimentary rocks, which generally occupy lower topographical zones, and subaerial volcanic rocks, which are principally exposed in the ranges and higher plateaus. The rocks of the Cenozoic cover have experienced only extensional deformation and in some places are gently tilted. Tertiary-aged rocks correspond to a period of tectonism accompanied by volcanism and intrusive magmatic activity.

7.1.1.1 Esperanza Formation (Middle to Upper Triassic)

The oldest rocks in the area comprise the Esperanza Formation made up of carbonaceous and calcareous shale interbedded with arenite, limestone, and andesitic to basaltic lava flows, all weakly metamorphosed to phyllites, slates and marble. The thickness of this unit exceeds 600 m though the true thickness in unknown. It is middle to upper Triassic in age. Pervasive propylitic alteration is common.

7.1.1.2 La Luz Formation (Upper Triassic to lower Jurassic)

The La Luz Formation which overlies the Esperanza consists primarily of interbedded clastic sedimentary rocks and tholeiitic massive and pillow basalts that are dated at 108.4 ±2 Ma. Locally, rhyolite tuffs and agglomerates are present, and some volcanogenic massive

Figure 7.1
Regional Geology of the Guanajuato Mining District

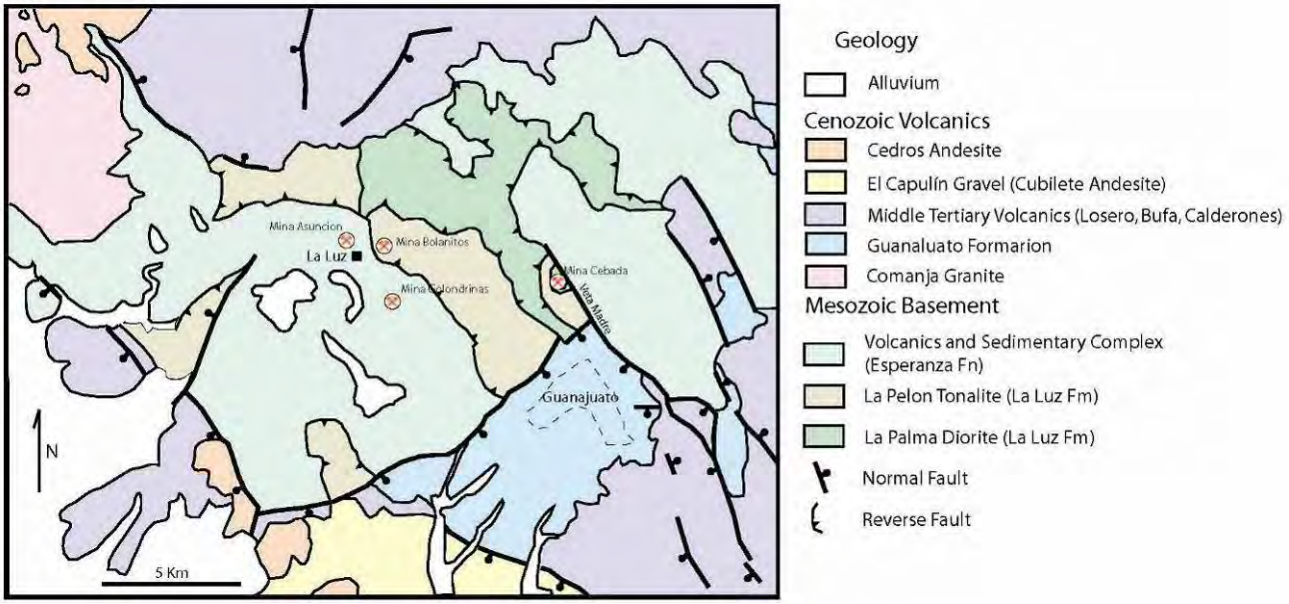


Figure adapted from the March, 2008 SRK Report.

Figure 7.2
Stratigraphic Column for the Guanajuato Mining District
(From the Geological – Mining Monograph for Guanajuato State, COREMI)

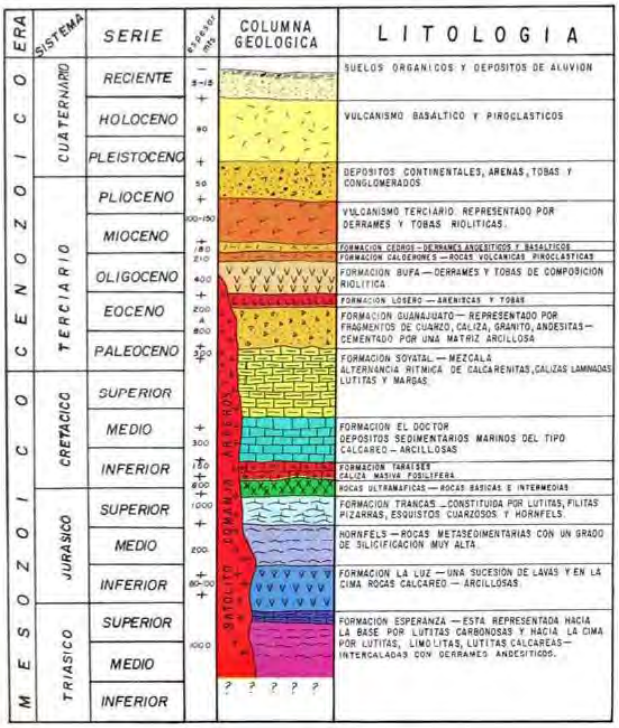


Figure adapted from the March, 2008 SRK Report.

sulphide occurrences have been noted. A minimum thickness of at least 1,000 m is recognized, but the true thickness is unknown due to deformation and sub-greenschist metamorphism. Included with the La Luz Formation are the La Palma diorite and La Pelon tonalite. These form the upper part of the Guanajuato arc. Pervasive propylitic alteration is common.

7.1.1.3 Guanajuato Formation (Paleocene to Eocene)

The red Guanajuato conglomerate lies unconformably over the Esperanza and less frequently on the La Luz andesite (Edwards, 1955). The conglomerate consists of pebbles to boulders of quartz, limestone, granite and andesite belonging to older rock units cemented by a clay matrix. It also contains some interlayers of sandstone. At its base, there are beds of volcanic arenites and andesitic lavas. The Guanajuato conglomerate has been estimated to be 1,500 m thick. Vertebrate paleontology and andesitic lavas (49 Ma, Aranda-Gómez and McDowell, 1998), contemporaneous with the conglomerates, indicate that the unit is Eocene to Oligocene in age.

7.1.1.4 Loseros Tuff (Cenozoic)

This overlying mid-Tertiary volcanic sequence is interpreted to be within and adjacent to a caldera. The Loseros tuff is a well-bedded, green to cream-red volcanic arenite from 10 m to 52 m thick. It is interpreted to be a surge deposit at the base of the Cubo caldera filling and Oligocene in age.

7.1.1.5 Bufa Rhyolite (Cenozoic)

The Bufa rhyolite is a felsic ignimbrite ash-flow tuff that is approximately 360 m thick and lies above a sharp to gradational contact. It is a sanidine-bearing rhyolite-ignimbrite with biotite as a mafic phase, and is often massive, but locally bedded. Owing to moderate welding and extensive and pervasive silicification, it is a hard rock that forms prominent cliffs east of the city of Guanajuato. It occasionally contains large lithic clasts of various types; many of which were derived from the pre-volcanic basement. At El Cubo, it has three mappable units: a lower breccia overlain by a dense, red rhyolite porphyry, in turn overlain by a massive to bedded ignimbrite. The Bufa rhyolite has been dated using the K-Ar dating technique to be 37 ±3 Ma, placing it in the middle Oligocene.

7.1.1.6 Calderones Formation (Cenozoic)

The Calderones Formation includes a wide variety of volcanic rocks. These include low- to medium-grade ignimbrites, deposits of pyroclastic flows, pyroclastic surge layers related to phreato-magmatic activity, airfall ash-rich tuffs, minor Plinian pumice layers, lahars, debris flows, reworked tuffaceous layers deposited in water, tuff-breccias and mega-breccias. Ubiquitous and characteristic chlorite alteration imparts a green to greenish blue colour to almost all outcrops of the Calderones. Propylitic alteration adjacent to veins and dikes is of local importance in many outcrops.

The Calderones Formation overlies the Bufa with a contact at El Cubo marked by a mega-breccia composed of large (often 5 to 10 m) fragments of the Esperanza, La Luz or Guanajuato Formations. The Calderones Formation, which exceeds 300 m in thickness at El Cubo, is the upper caldera-filling unit above the surge deposit and the Bufa ignimbrites.

7.1.1.7 Cedros Andesite (Cenozoic)

The Calderones Formation passes upward into the Cedros andesite, which is a package of lava flows and associated tuffs of andesitic to possibly basaltic composition. The Cedros andesite is made up of grey to black andesite lava flows, in places with interbeds of pyroclastic materials. The total thickness varies from 100 to 640 m.

7.1.1.8 Chichindaro Rhyolite (Cenozoic)

This is the youngest volcanic unit in the Guanajuato mining district. It forms large domes and lava flows, along with associated ignimbrites and volcanic breccias. In places, the rhyolite domes contain disseminated tin and vapour-phase cavity-filling topaz distributed along the flow foliation. Three K-Ar ages have been obtained from this formation (Gross, 1975; Nieto- Samaniego et al, 1996) of 32 ±1 Ma, 30.8 ±0.8 Ma and 30.1 ±0.8 Ma.

7.1.1.9 Comanja Granite (Cenozoic)

The Comanja granite is an important unit of batholithic size, apparently emplaced along the axis of the Sierra de Guanajuato. Its age is Eocene and has been radiometrically dated at 53 ±3 Ma and 51 ±1 Ma by K-Ar in biotite (Zimmermann et al, 1990). This defines the youngest age for the Bufa formation, the youngest unit cut by the granite.

The volcanic activity that produced the bulk of the upper volcanic group had stopped by the late Oligocene, although there was some eruptive activity as recently as 23 Ma (early Miocene). The Sierra Madre Occidental belt appears to have been uplifted as the result of the combination of basin and range tectonics and the opening of the Sea of Cortez. Post volcanism, there was a period during which peneplanation took place, with uplift beginning probably toward the end of the Miocene with the onset of block faulting that resulted in the present geomorphology of the belt.

7.1.2 Structure

The structural setting of the Guanajuato district was briefly described in the March, 2008, NI 43-101 Technical Report by SRK. The following description of the structural setting has been excerpted from that report.

> "*Randall et al (1994) originally proposed a caldera structure for the Guanajuato Mining district, citing the presence of a megabreccia in the Calderones Formation and the distribution of the Oligocene volcanic formations described above. The hypothesis states that the caldera collapse occurred in at least two stages and the*

collapse was a trap-door type. The presence of a peripheral three-quarter ring of rhyolite domes intruding along bounding faults, the location of the Oligocene volcanic formations ponded within this ring, megabreccia and topographic rim, all contribute evidence to support this hypothesis.

Subsequent normal faulting combined with hydrothermal activity around 27 Ma (Buchanan, 1980) resulted in many of the silver-gold deposits found in the district. There are four principal orientations of normal faults: northwest, north-south, east-west and northeast but, the economic mineralization is generally related to the north and northwesterly trending structures. Within the Guanajuato Mining district there are three major mineralized fault systems, the La Luz, Sierra, and the Veta Madre systems. Veta Madre is a north-northwest trending fault system and the largest at the 25 km long."

In March, 2008, Tony Starling of Telluris Consulting Ltd. (Telluris Consulting) made a 7 day field visit to the Guanajuato mines and deposits on behalf of Endeavour Silver. The emphasis of this visit was placed on the La Luz and Cebada mine areas. The aim of this structural study was to provide a detailed appraisal of the control of mineralization in the Guanajuato group of deposits to generate a model that could be applied to near-mine exploration.

The preliminary conclusions of this structural geology study are summarized as follows:

- Pre-mineralization deformation occurred during the Laramide orogeny (~80-40 Ma) with two main phases; NE-SW to ENE-WSW compression followed by a swing to NNE directed compression. As a result pre-mineral folds and thrusts in the Esperanza Formation at the Cebada Mine trend WNW.

- Early post-Laramide extension (~30 Ma) was oriented N-S to NNE and controlled many vein deposits in the region (e.g. Fresnillo, Zacatecas, La Guitarra). Guanajuato appears to lie on a NNW-trending terrane boundary which was reactivated as a sinistral transtensional fault zone during early stage intermediate-sulphidation style mineralization.

- Regional extension then rotated abruptly to the ENE-WSW (~28 Ma) resulting in early stage basin and range deformation and block faulting at Guanajuato. The second stage of mineralization occurred at Guanajuato during this event and resulted in tilting of the sequence to the NE along NNW-trending listric (?) fault zones such as the Veta Madre.

- Following mineralization ENE extension continued to around 12 Ma when it began to rotate to the NW (under the influence of the San Andreas system) and at the present day probably is oriented N-S due to subduction along the Trans-Mexico Volcanic Belt (post-mineralization graben formation).

- Regionally the two extensional events active around the time of mineralization appear to have resulted in two phases of mineralization (30-27 Ma?) at Guanajuato, a phenomenon which has been seen in other important epithermal vein districts in the Altiplano such as Zacatecas-El Orito and San Sebastian-Don Sergio.

- Along the Veta Madre system ore shoots were controlled during early-stage mineralization by anti-clockwise strike-swings along the main structure and at intersections with WNW and NE fault zones (<2,100 m?). These tended to generate relatively steep ore shoots plunging to the south along the Veta Madre.

- During the second phase, early basin and range deformation, the listric block faulting and tilting accompanying mineralization reactivated parts of the Veta Madre and developed new systems such as La Luz (>2,000 m?). The veins at La Luz appear to have formed as extensional arrays between reactivated WNW fault zones acting as dextral transtensional structures.

- The second phase vein systems tend to have formed sub-horizontal ore zones either reflecting fluid mixing zones or structural controls due to changes in dip of the fault surface. The overprint of two events means that in some deposits ore shoots have more than one orientation and that there are vertical gaps in ore grade.

- With the protracted tectonic evolution at Guanajuato there appears to have operated structural and hydrothermal telescoping along with pinching of ore shoots due to changes in dip and/or strike. There is potential to find extensions to mineralization below barren horizons and high-level ore bodies that are blind to surface.

7.2 PROJECT GEOLOGY

The most important mineralization in the Guanajuato mining district consists of epithermal silver-gold veins formed 27.4 ±0.4 Ma (Buchanan, 1975). Mining of these veins has occurred for more than 450 years and is estimated to have produced more than 130 tonnes of gold and 30,000 tonnes of silver.

Most of the production has been extracted from three principal vein systems on normal faults, the La Luz, Veta Madre and La Sierra which are illustrated in Figures 7.3 and 7.4. Economic concentrations of precious metals are present in isolated packets (known as bonanzas, or “spikes”) distributed vertically and laterally between non-mineralized segments of the veins. There is a vertical mineralogical zonation within these veins. The upper-levels are acanthite + adularia + pyrite + electrum + calcite + quartz and the lower-levels are chalcopyrite + galena + sphalerite + adularia + quartz + acanthite. The Veta Madre has been the most productive vein and it is by far the most continuous, having been traced on the surface for approximately 20 km. The vein dips from 35° to 55º to the southwest and it has measured displacements of around 1,200 m near the Las Torres mine and 1,700 m near La Valenciana mine. Most of the other productive veins in the district strike parallel to the Veta Madre.

Figure 7.5 is a surface map showing the veins and concession boundaries for the Bolañitos and Golondrinas mines.

Figure 7.3
Sketch Models for the Mineralization Controls during Second Stage Mineralization at Guanajuato

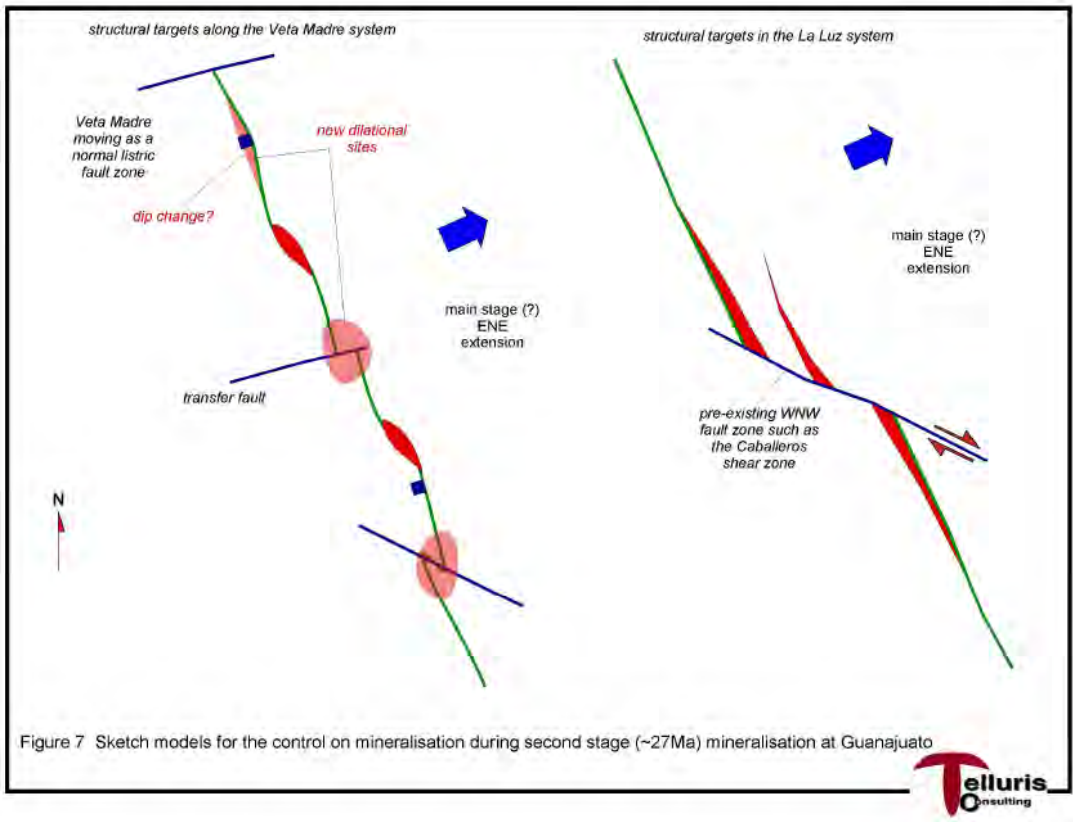


Figure from the Telluris Consulting Report, 2008.

In addition to the epithermal veins near Guanajuato, small deposits of stratabound massive sulphides have been reported in the Mesozoic volcano-sedimentary association (Los Mexicanos). Similarly, there is gold mineralization in the Comanja granite, and in its contact aureole small tungsten deposits have been found. In the Tertiary volcanic rocks, principally in the topaz rhyolites, there are small tin prospects.

Endeavour Silver currently has three mines at Guanajuato that are in operation. These include the Cebada mine, exploiting the Veta Madre, and the Bolañitos and Golondrinas mines which exploit various north-northwest striking veins in the La Luz vein system shown in Figure 7.3. Mina Asuncion, another of Endeavour Silver's mines at La Luz, is currently extracting previously broken ore left behind in old stopes. There are a number of other mines not currently in operation, such as the San Roman mine in the La Luz system, which is contained within Endeavour Silver's land concessions.

Figure 7.4
Simplified Geological Map of the Guanajuato Mining District Illustrating the Major Veins

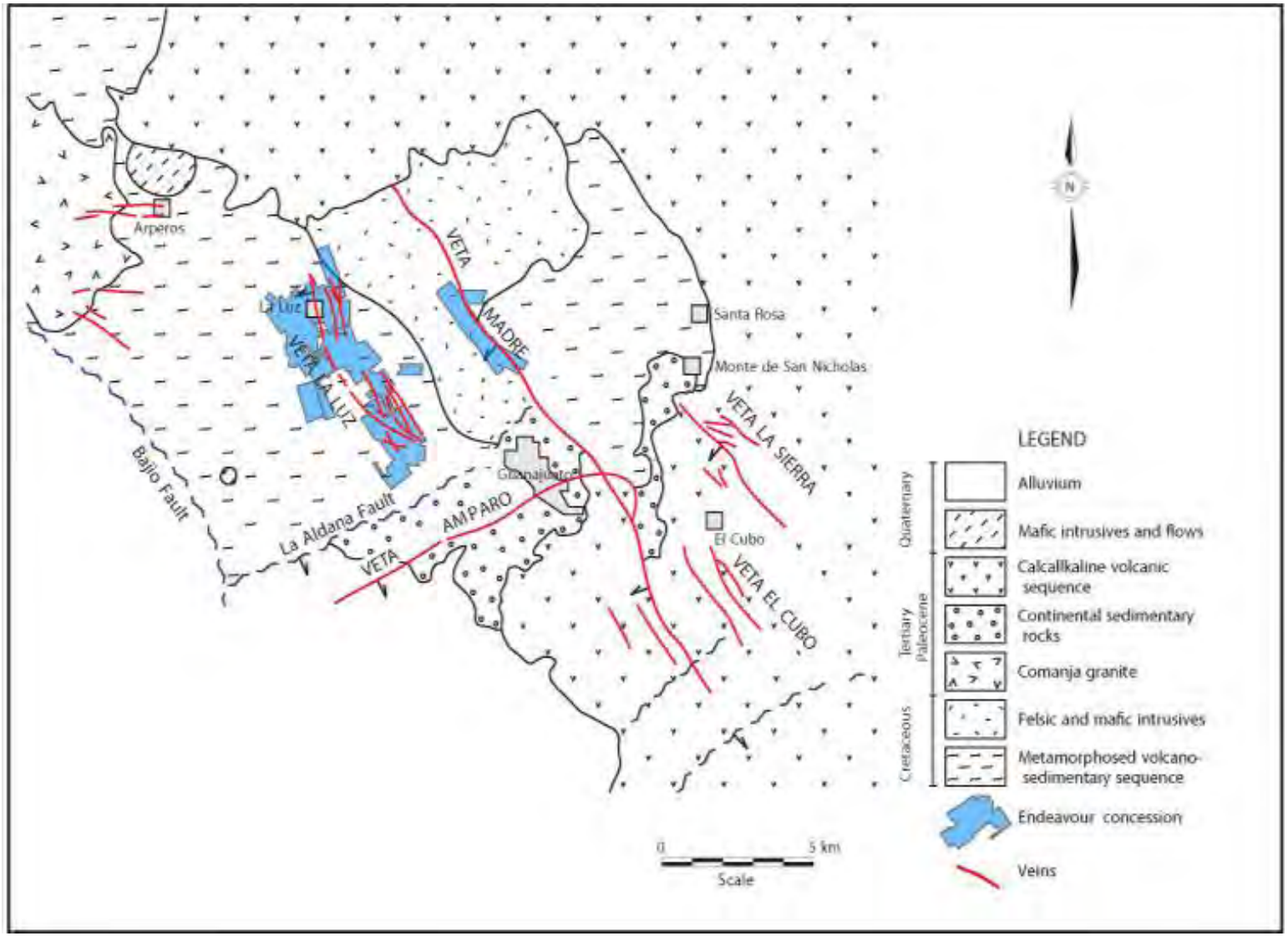


Figure adapted from the March, 2008 SRK Report.

Figure 7.5
Surface Map Indicating the Location of the Veins and Mineral Concession Boundaries for the Bolañitos – Golondrinas (El Puertecito Area) Mines in the La Luz District, Guanajuato

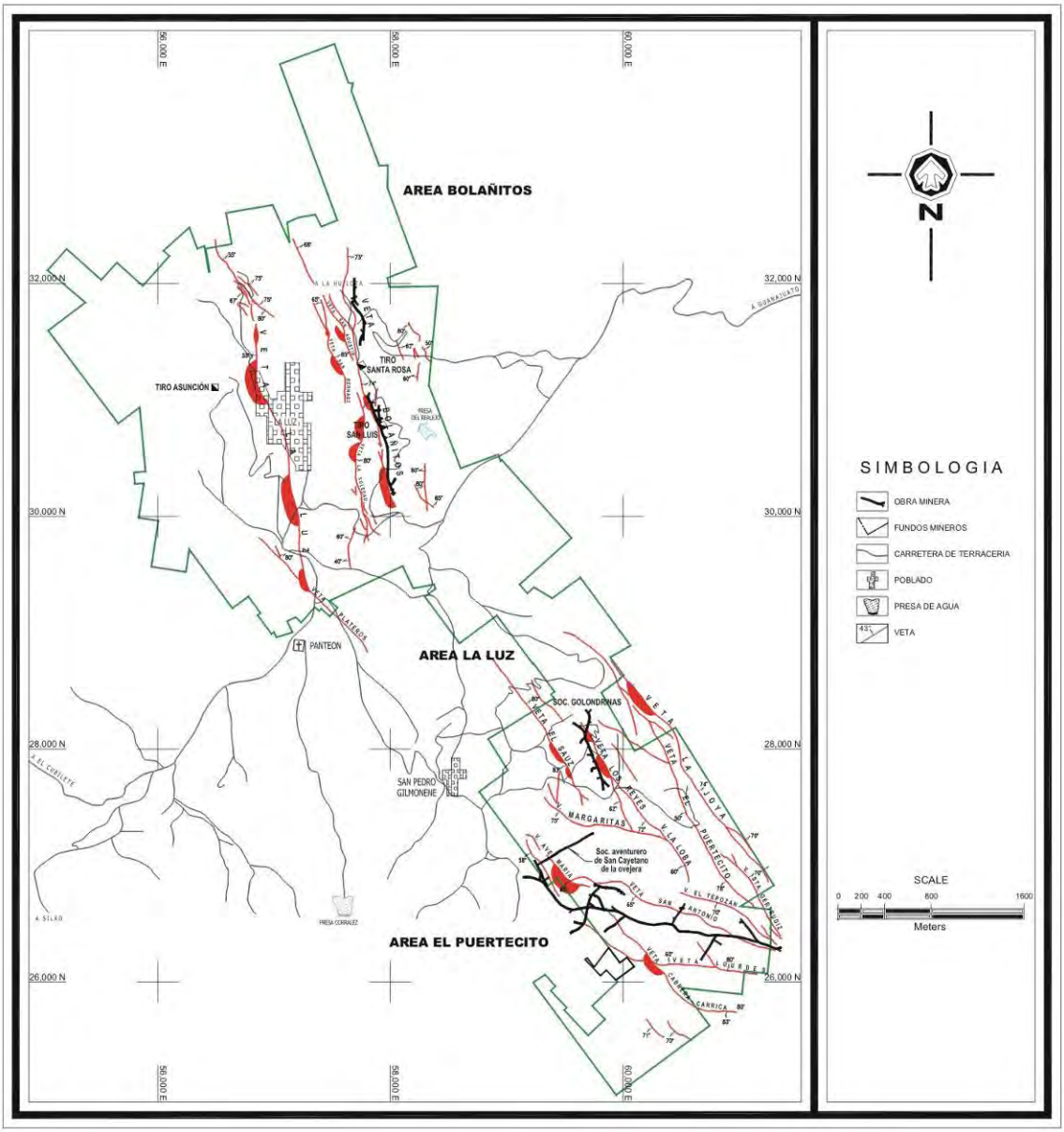


Figure adapted from the March, 2008 SRK Report.

8.0 DEPOSIT TYPES

The Guanajuato silver-gold district comprises classic, high grade silver-gold, epithermal vein deposits, characterized by low sulphidation mineralization and adularia-sericite alteration. The Guanajuato veins are typical of most other epithermal silver-gold vein deposits in Mexico in that they are primarily hosted in either a volcanic series of andesite flows, pyroclastics and epiclastics or sedimentary sequences of mainly shale and their metamorphic counterparts.

Low-sulphidation epithermal veins in Mexico typically have a well defined, subhorizontal ore horizon about 300 m to 500 m in vertical extent where the bonanza grade ore shoots have been deposited due to boiling of the hydrothermal fluids. Neither the top nor the bottom of the mineralized horizons at the Guanajuato Mines project has yet been established precisely. However, drilling at Cebada suggests that the top of the boiling zone is just below surface since mineralization is spotty on surface above the deposit. The bottom is not currently known. In La Luz, veins with weak mineralization have been observed on surface. In summary, the initial drilling suggests a vertical extent of mineralization around 250 m to 300 m in the La Luz system.

Low-sulphidation deposits are formed by the circulation of hydrothermal solutions that are near neutral in pH, resulting in very little acidic alteration with the host rock units. The characteristic alteration assemblages include illite, sericite and adularia that are typically hosted by either the veins themselves or in the vein wall rocks. The hydrothermal fluid can travel either along discrete fractures where it may create vein deposits or it can travel through permeable lithology such as a poorly welded ignimbrite flow, where it may deposit its load of precious metals in a disseminated deposit. In general terms this style of mineralization is found at some distance from the heat source. Figure 8.1 illustrates the spatial distribution of the alteration and veining found in a hypothetical low-sulphidation hydrothermal system.

Figure 8.1
Alteration Mineral Distributions within a Low Sulphidation System

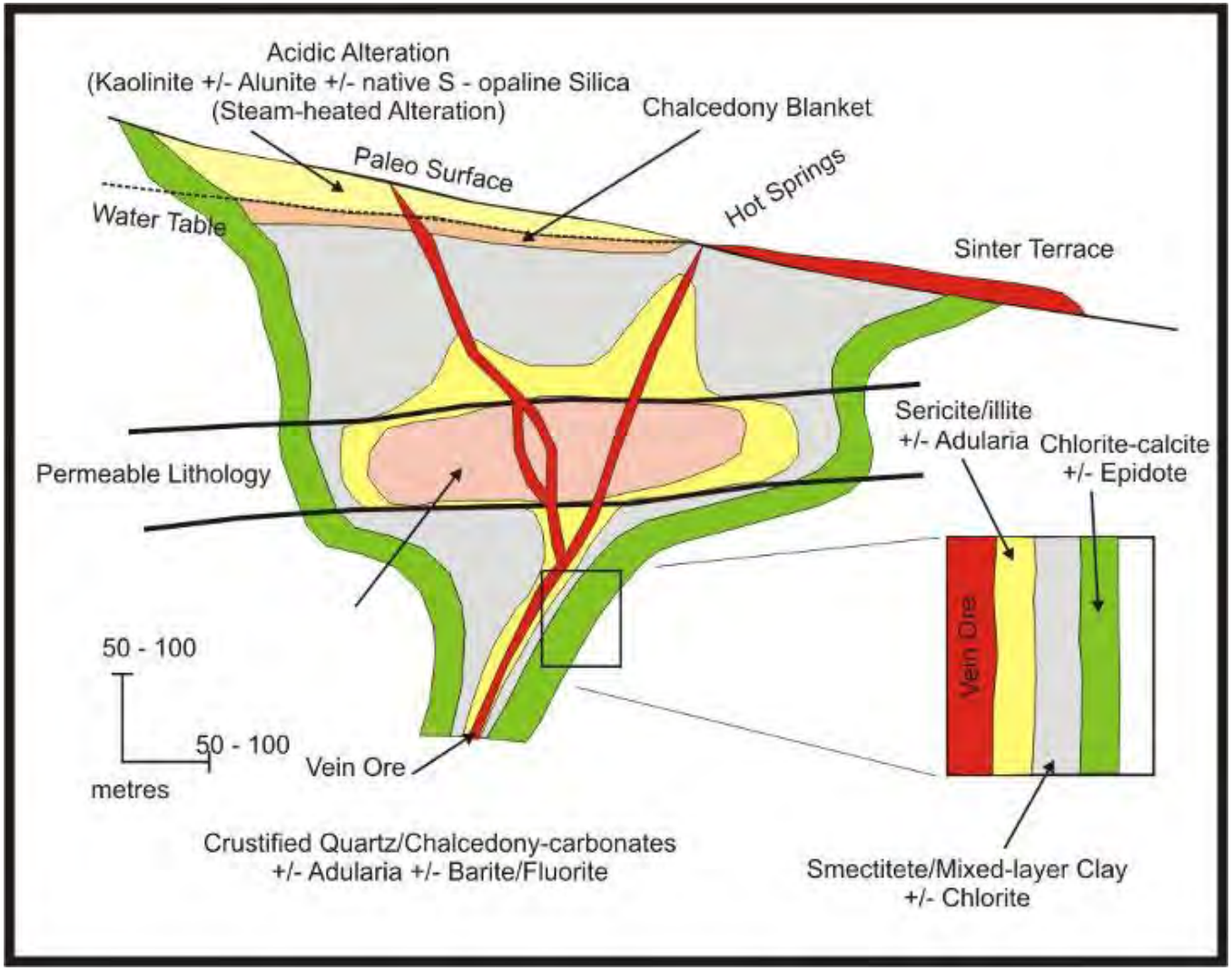


Figure taken from Pressacco, 2005.

9.0 MINERALIZATION

The following description of the mineralization of the Guanajuato property has been copied from the March, 2009, Micon report which was excerpted and edited from the March, 2008, SRK Technical Report.

Mineralized veins on the Guanajuato Mines project consist of the classic banded and brecciated epithermal variety. Silver occurs primarily in dark sulphide-rich bands within the veins, with little mineralization within the wall-rocks. The major metallic minerals reported include pyrite, argentite, electrum and ruby silver as well as some galena and sphalerite, generally deeper in the veins. The mineralization is generally associated with the phyllic (sericite) and silicification alteration which forms haloes around the mineralizing structure.

The textures are attributed to the brittle fracturing-healing cycle of the fault-hosted veins during and/or after faulting. There are examples of both syn- and post-kinematic mineralized veining within Endeavour Silver's concessions. All of the mineralized structures within Endeavour Silver's concessions are hosted within the Esperanza and La Luz formations.

9.1 VETA MADRE VEIN

The Veta Madre is the main mineralized structure in the Guanajuato mining district. The vein typically strikes about 310° to 345° and dips 50° to 70° to the west. It can be traced for more than 20 km in a shear zone which can be over 200 m thick. It contains five major mines, all of which are in operation, or currently being explored. Most of the major mineralization is concentrated near the footwall of the fault. The vein commonly displays brecciated and comb-type banded textures, with strong areas of sericitic and occasionally potassic alteration. The Cebada mine is Endeavour Silver's only mine on this system and is located at the northern limit of known economic grade mineralization.

9.2 LA LUZ VEINS

The mineral zones of the La Luz vein system are spread over a zone some 8 km wide and include the more significant veins of La Luz, Bolañitos and Los Reyes as well as countless other parallel striking veins, many of which have been exploited. They generally strike 315° to 360° and dip steeply to the east and or the west. In contrast to Veta Madre, individual veins are less extensive and generally no more than 1.5 km in strike length, although the La Luz vein itself is much longer, and the associated structures are much less pronounced than the Veta Madre fault.

There are two operating mines and one mine currently under rehabilitation that Endeavour Silver operates on the La Luz vein system. These are the Bolañitos, Golondrinas and Asuncion mines. Mina Golondrinas exploited two principal veins, the Los Reyes and Canarios, and a few minor veins that have been worked on. The two principal veins strike northwest and dip steeply to the southwest. The attitudes of the smaller veins are similar to the two major veins; however, in the southeast part of the mine the veins dip in the opposite direction. The Mina Bolañitos exploits the Bolañitos, San Jose and Soledad veins which

strike north-northwest and dip either to the west or east. Soledad is the only vein to dip west. The San Jose vein splays off the Bolañitos vein in the southern part of the mine. The Lucero vein which also occurs in the Bolañitos area was one of the targets evaluated during the latter half of 2009 and is set to attract a lot of attention in 2010.

In 2008, surface diamond drilling by Endeavour Silver discovered a new vein, named Lucero, in the footwall of the San Jose vein (Figure 9.1). The Lucero vein generally strikes northwest, subparallel to the San Jose vein, but dips moderately to the west, opposite to that of the San Jose vein. The Lucero vein is located only 35 m from the the San Jose vein. By the end of December, 2008, Endeavour Silver's development crews had already advanced approximately 100 m and the vein was still open to the northwest and southeast. For this distance, the average grade of the vein was 410 g/t silver and 3.0 g/t gold over a true width of 2.3 m.

In 2009, surface diamond drilling by Endeavour Silver discovered the Karina vein, a new subparallel vein approximately 100 m in the footwall of the Lucero vein.

New reserves and resources have since been estimated for the Lucero and new resources identified on the Karina vein. Further exploration and development shall continue on these veins in 2010.

Figure 9.1
Lucero Vein in the Bolañitos Mine

Figure supplied by Endeavour Silver Corp.

Mina Asuncion, located just to the west of Mina Bolañitos, exploits the north-northwest striking, west dipping La Luz vein. Like Golondrinas, larger veins to the west of the Bolañitos-Asuncion mine area dip west, and veins in the east dip to the east.

10.0 EXPLORATION

A detailed description of Endeavour Silver's 2008 exploration program was recorded in the March, 2009, Technical Report by Micon and is summarized in Section 6 of this report. Only the 2009 exploration program will be discussed in detail in this section.

10.1 2009 GENERAL EXPLORATION AND DRILLING

Endeavour Silver spent US $897,935 (including property holding costs) on exploration activities on the Guanajuato Mines project, as summarized in Table 10.1.

Table 10.1
Summary of the 2009 Expenditures for the Guanajuato Mines Project Exploration Program

Name of Concession/Claim	Description	Pesos	US $
Cebada	Assays	82,534	6,132
	Consultants	185,627	13,792
	Diamond drilling	1,198,278	89,032
	Field	58,916	4,377
	Housing	11,513	855
	Food	10,531	782
	Geology and engineering personnel	432,046	32,101
	Contract payment and fees	638	47
	Roads and drill pads	209,185	15,542
	Salaries	82,056	6,097
	Travel and lodging	20,338	1,511
	Gas	4,348	323
	Repair and maintenance	5,756	428
	Expenses non deductible	46,716	3,471
	Subtotal	**2,348,483**	**174,492**
Bolañitos	Assays	454,042	33,735
	Consultants	165,342	12,285
	Diamond drilling	5,838,030	433,766
	Field	298,201	22,156
	Housing	106,110	7,884
	Food	68,976	5,125
	Office supplies and equipment	2,443	182
	Geology and engineering personnel	1,752,896	130,240
	Management	1,051	78
	Roads and drill pads	404,257	30,036
	Salaries	245,848	18,267
	Travel and lodging	75,900	5,639
	Gas	65,603	4,874
	Repair and maintenance	71,603	5,320
	Expenses non deductible	186,475	13,855
	Subtotal	**9,736,779**	**723,443**
	Guanajuato Total	**12,085,262**	**897,935**

Table provided by Endeavour Silver Corp.

10.1.1 Drilling

In 2009, Endeavour Silver conducted a surface diamond drilling program focused on following up several of the new discoveries made near its operations at the Guanajuato Mines project and testing new prospective targets within the district. The primary goal of this program was to expand reserves and resources. Exploration drilling was focused in two main areas: exploring the Lucero-Karina-La Joya vein system to the south of the Bolañitos mine area in the La Luz district in order to potentially add new mineralized material to the mine plan for development and production; and exploring the extension of the Veta Madre structure, northwest of the Endeavour Silver's Cebada mine, for the potential to develop future resources and production.

During 2009, Endeavour Silver completed 4,390 m of drilling in sixteen (16) surface diamond drill holes at the Guanajuato Mines project. A total of 1,281 samples were also collected and submitted for assay. Exploration drilling undertaken since January, 2009, is summarized in Table 10.2.

Table 10.2
Guanajuato Mines Project Surface Exploration Drilling Activities in 2009

Area	Description	July	August	September	October	November	December	Total
Cebada	**No. of Holes**						1	**1**
	Metres						553	**553**
	No. of Samples						204	**204**
Bolañitos	**No. of Holes**				4	9	2	**15**
	Metres				1,208	2,000	628	**3,836**
	No. of Samples				221	703	153	**1,077**
All	**No. of Holes**				**4**	**9**	**3**	**16**
	Metres				**1,208**	**2,000**	**1,181**	**4,390**
	No. of Samples				**221**	**703**	**357**	**1,281**

Table provided by Endeavour Silver Corp.

10.2 2009 OTHER EXPLORATION ACTIVITIES

10.2.1 Lucero – Karina – La Joya Surface Mapping and Sampling

Surface geological mapping and sampling of the Lucero-Karina-La Joya area showed evidence that the veins either being developed underground or intercepted by drilling in the Bolañitos mine continue to the southeast. Veins and zones of argillization are interpreted as the surface expressions of the veins either intercepted by drilling and or being developed underground.

Surface mapping confirmed that the main veins mapped on surface in are the Lucero, Karina and La Joya veins. The veins trend north-northwest and dip to the south west. These structures are also coincident with geochemical soil/rock anomalies for gold and silver.

Surface mapping indicates that the San Jose vein does not appear to continue further to the south and it is believed that this interpretation will eventually be confirmed by drilling.

Interpretation of the main structures in this area included identification of some intrusive bodies.

Surface geological mapping and sampling of the veins and alteration zones is illustrated in Figure 10.1. A new vein named the La Joya was discovered in an outcrop with some encouraging assays above one g/t gold and 100 g/t silver being returned from rock chip samples (Figures 10.2 to 10.4).

Figure 10.1
Surface Geology Map of the Lucero-Karina-La Joya Area, La Luz District

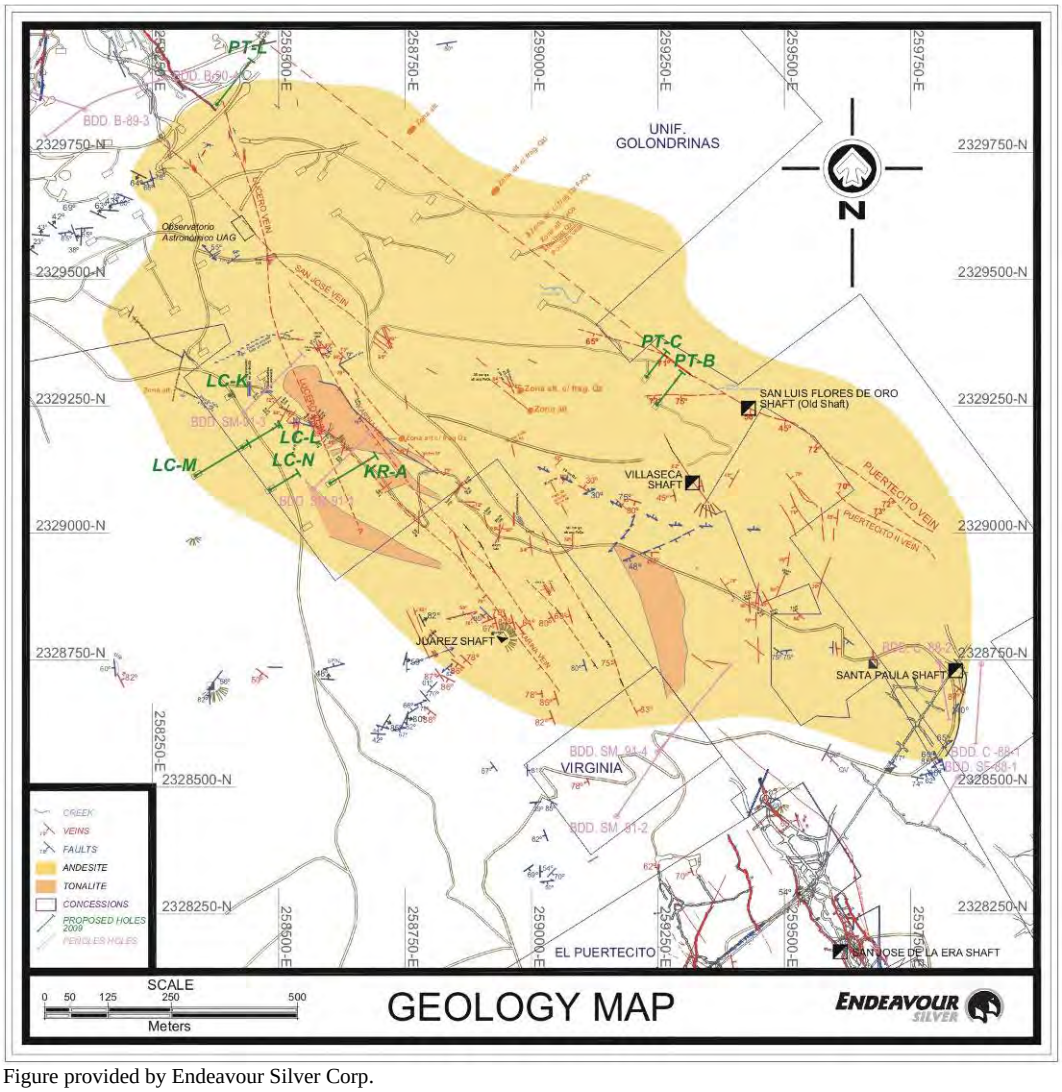


Figure provided by Endeavour Silver Corp.

Figure 10.1 also includes the original proposed drill holes for surface drilling (green) to be conducted by Endeavour Silver in 2009.

Figure 10.2
Surface Map Showing Rock Chip Samples and Endeavour Silver's Concessions in the Lucero-Karina-La Joya Area

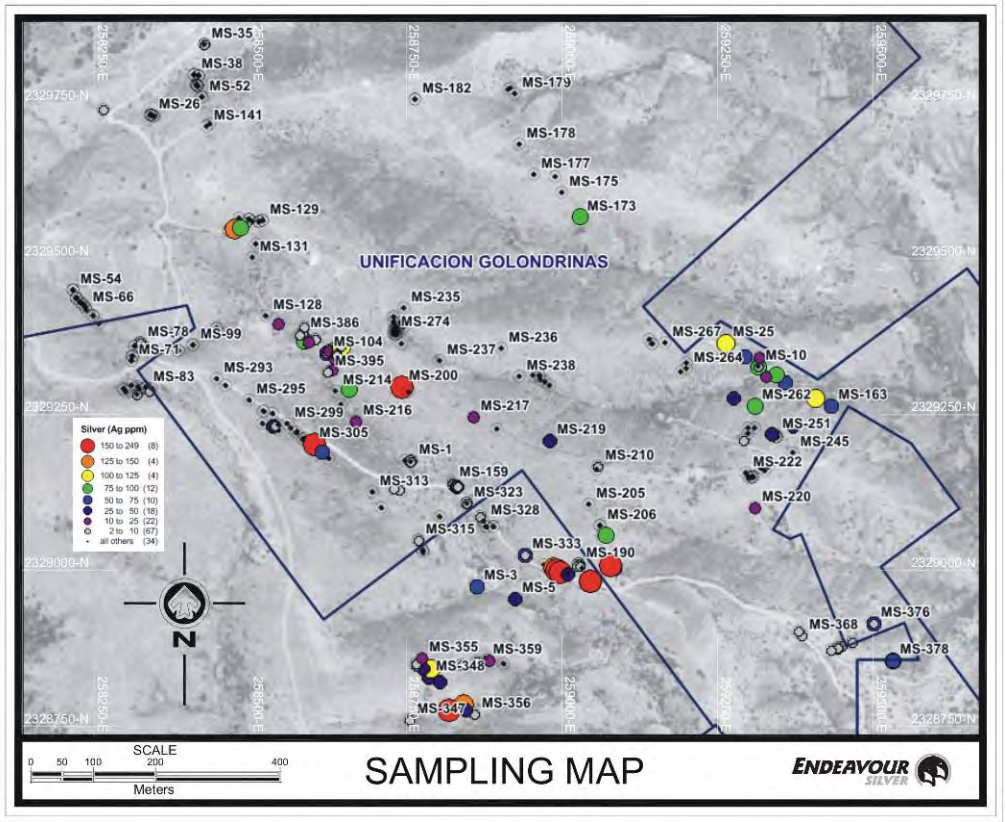


Figure provided by Endeavour Silver Corp.

Figure 10.3
Roadcut Outcrop of the La Joya Vein Located Several Hundred Metres to the Southeast of the Last Known Position of the San Jose and Lucero Veins.


Figure provided by Endeavour Silver Corp.

Figure 10.4
Close-up Photograph of the La Joya Vein Showing Well Developed Banded, Locally Colloform, and Brecciated Quartz-Calcite Vein Textures with Abundant Iron Oxides and Boxworks

Figure provided by Endeavour Silver Corp.

In early 2009, a grid geochemical soil/rock survey was completed to the south of the San Jose and Lucero-Karina and La Joya veins (Fig. 10.5). A total of approximately 300 rock and soil samples were collected from this grid.

By April, 2009, assays were returned for surface rock chip samples (Bolañitos laboratory) and multi-element ICP analyses for the grid geochemical soil/rock sample survey (ALS-Chemex). The initial ICP analyses for soil/rock samples did not include gold. Once the initial ICP results were returned, the pulps were re-submitted from the southern part of the soil grid. Primarily the southern part was anomalous for silver, so only these pulps were re-assayed for gold.

Contoured maps for silver and gold values returned for grid geochemical soil/rock samples are shown in Figures 10.6 and 10.7.

Figure 10.5
Surface Map showing the Location of the Soil/Rock Geochemical Sampling Grid, Underground Workings and Endeavour Silver's Concessions in the San Jose, Lucero-Karina and La Joya Target Areas of the La Luz District

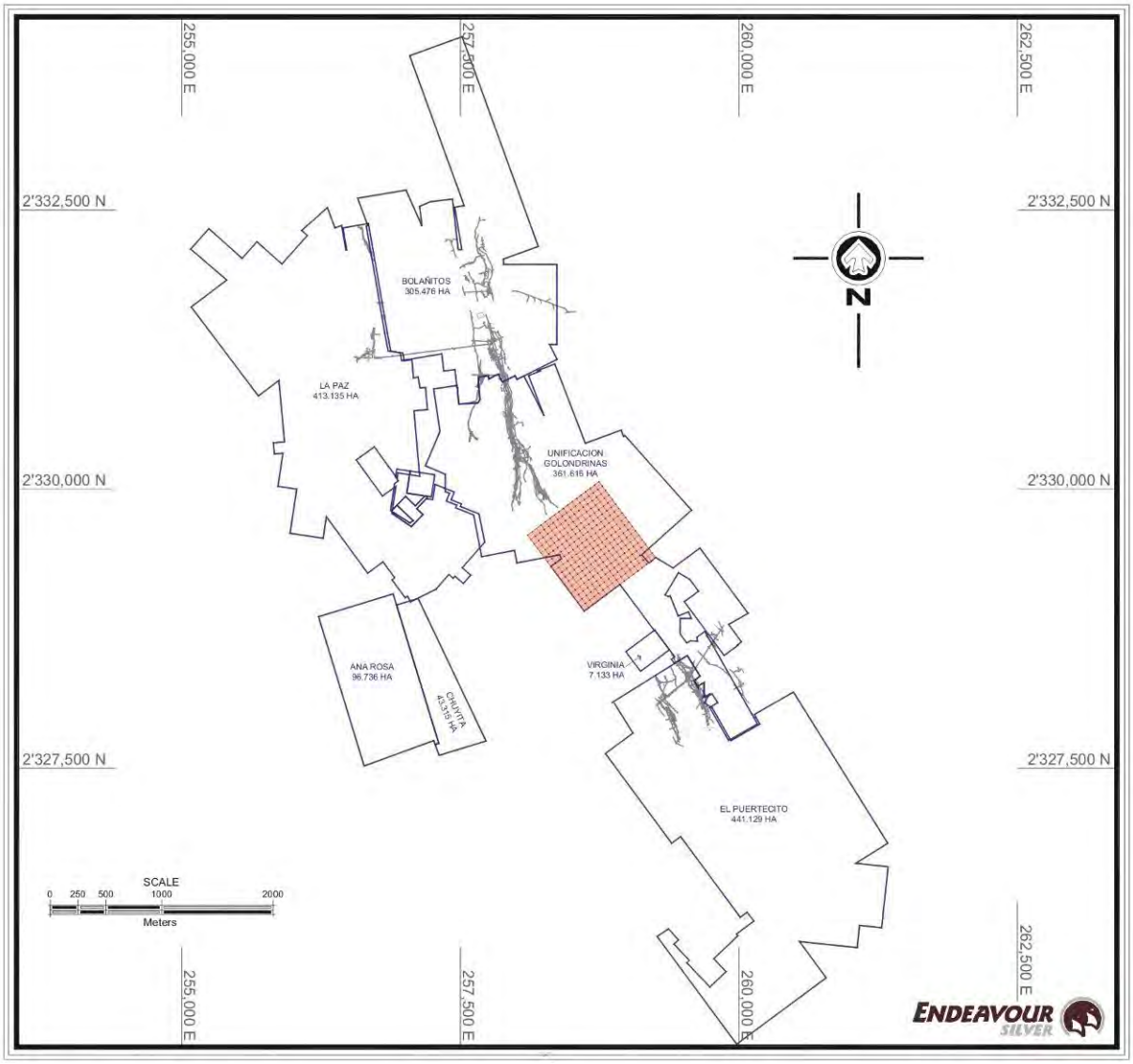


Figure provided by Endeavour Silver Corp.

Figure 10.6
Contoured Silver Results for the Soil/Rock Samples Collected from the San Jose, Lucero-Karina and La Joya Vein Area in the La Luz District.

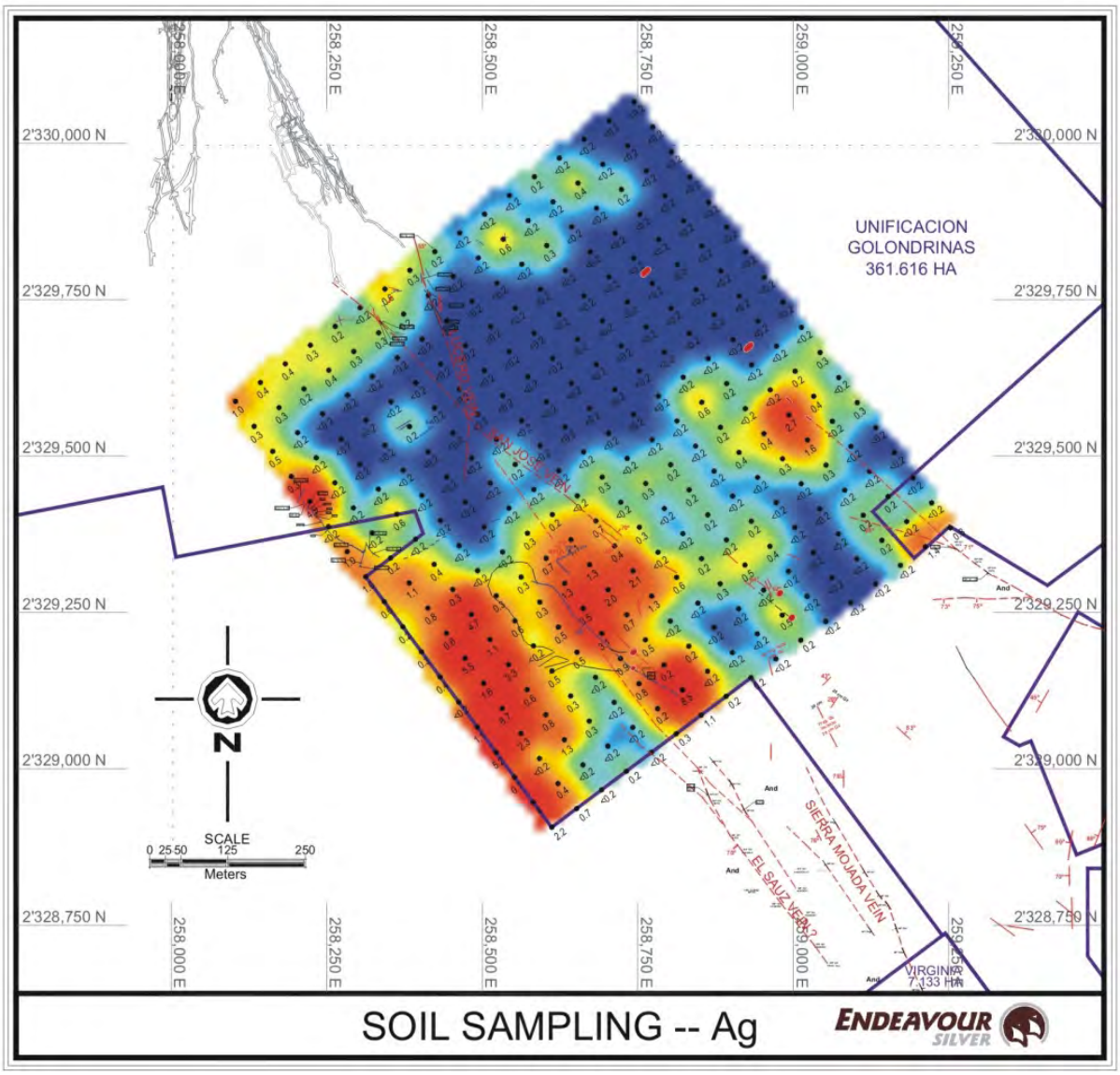


Figure provided by Endeavour Silver Corp.

Figure 10.7
Contoured Gold Results for Soil/Rock Samples Collected from the San Jose –Lucero South and Puertecito Area in the La Luz District.

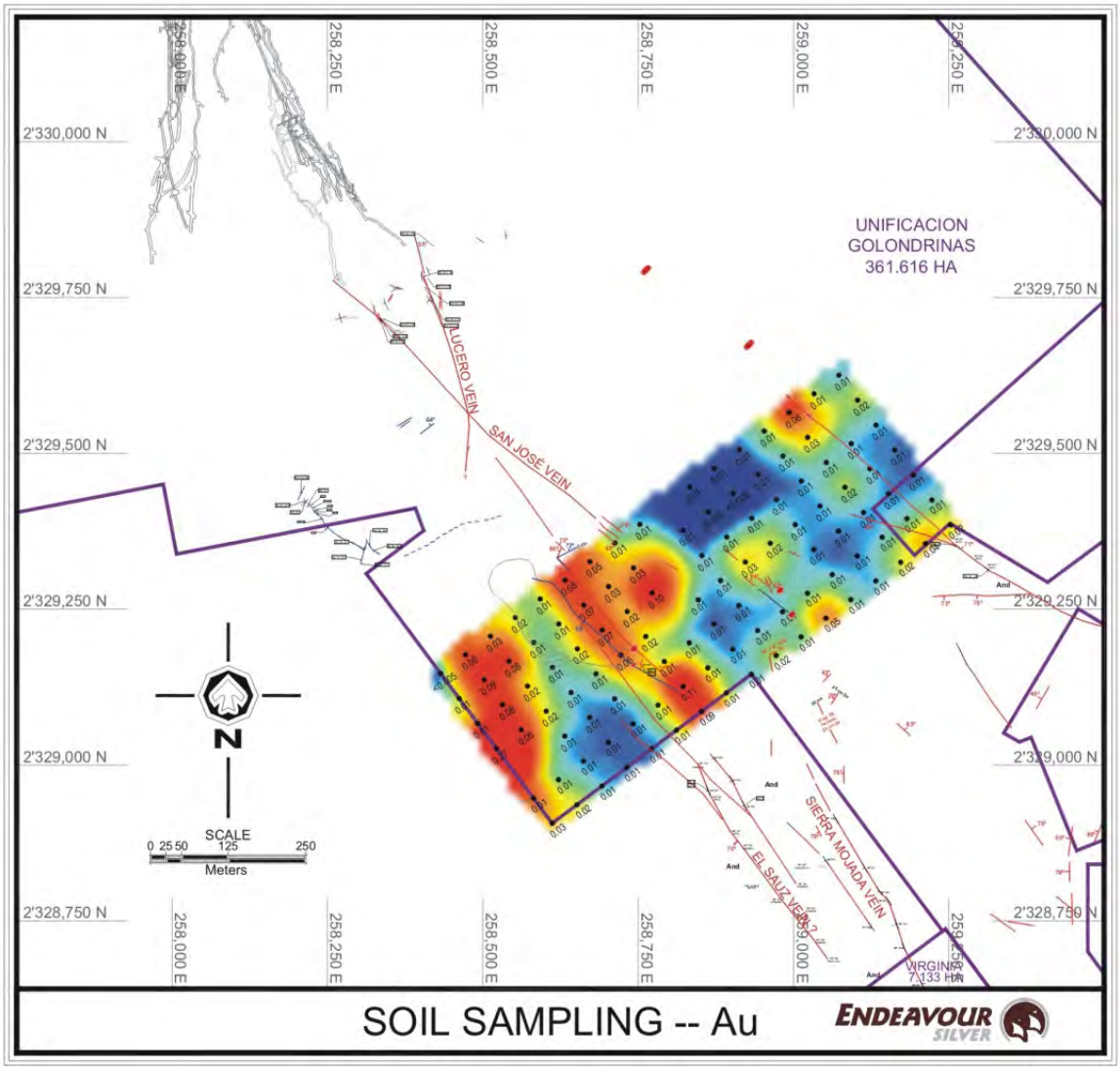


Figure provided by Endeavour Silver Corp.

During May and June, 2009, geological mapping and sampling were extended further to the south of the Lucero-Karina-La Joya area, towards the Golondrinas mine.

The principal units mapped in the southern area consisted of Tertiary andesite and a Mesozoic basalt (Figure 10.8). There were also three small outcrop areas of diorite/quartz diorite and one small outcrop area of rhyolite with subvolcanic textures. These latter rock units are found within the andesites and may represent an intrusive relationship.

The andesite is thrust over the Mesozoic basalt of the La Luz Formation. Extensive internal shearing within the andesite exposed in the road cuts is typical of low angle tectonics. Northwest-trending high angle faults juxtapose the lower plate basalts and the upper plate

andesites. These structures are deduced from the outcrop patterns. They cluster around the Golondrinas mine with a second trend near the Santa Paula shaft. A northeast-trending shear zone is exposed as a distinctive brittle deformation style in road cuts and arroyo exposures.

Widespread weak argillic and chloritic alteration were not observed. Veining and alteration types were mapped because of their possible relationship to localized mineralization: quartz, quartz + calcite and calcite veins, silicification, Beta quartz, a hardening and textural destruction, sericitization and argillization. The alterations cluster in northwest trending zones.

Figure 10.8
Generalized Surface Geologic Map of the Golondrinas Mine Area.

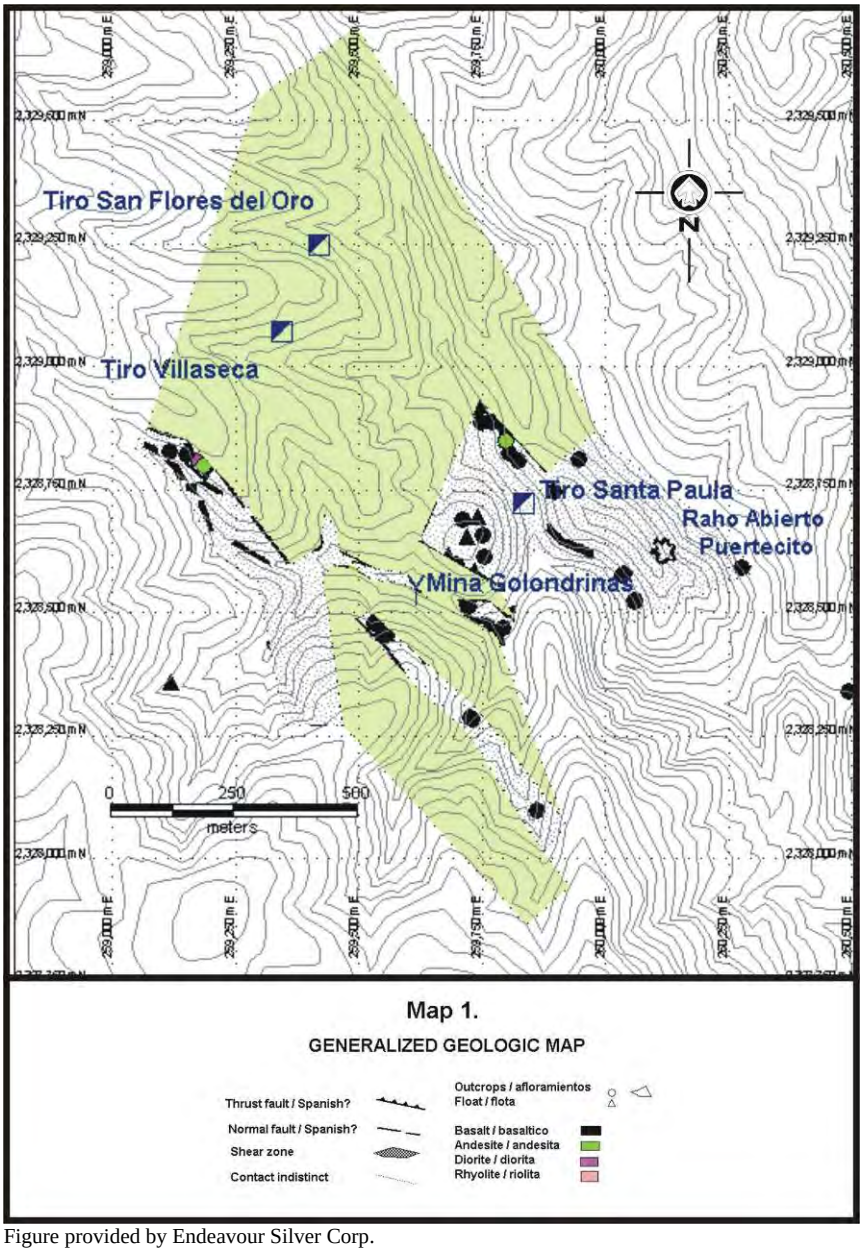


Figure provided by Endeavour Silver Corp.

Float and outcrops (no soils) were sampled in the southern area. All samples were analyzed for gold and silver and plotted on Figures 10.9 and 10.10. Both gold and silver values follow the two northwest trending structural and alteration zones.

Surface mapping and sampling indicate that the exploration potential continues to the southeast of previous work in the Lucero-Karina-La Joya area. That potential lies within two coherent and well defined zones of alteration controlled by high angle structures. Endeavour Silver is recommending continuing work which should include more grid sampling of outcrops, float and soils and ranking the resulting anomalies with confidence and to plan trenching for the structural information needed for drill hole planning.

Figure 10.9
Silver Analysis of Outcrop and Float Samples in the Golondrinas Mine Area

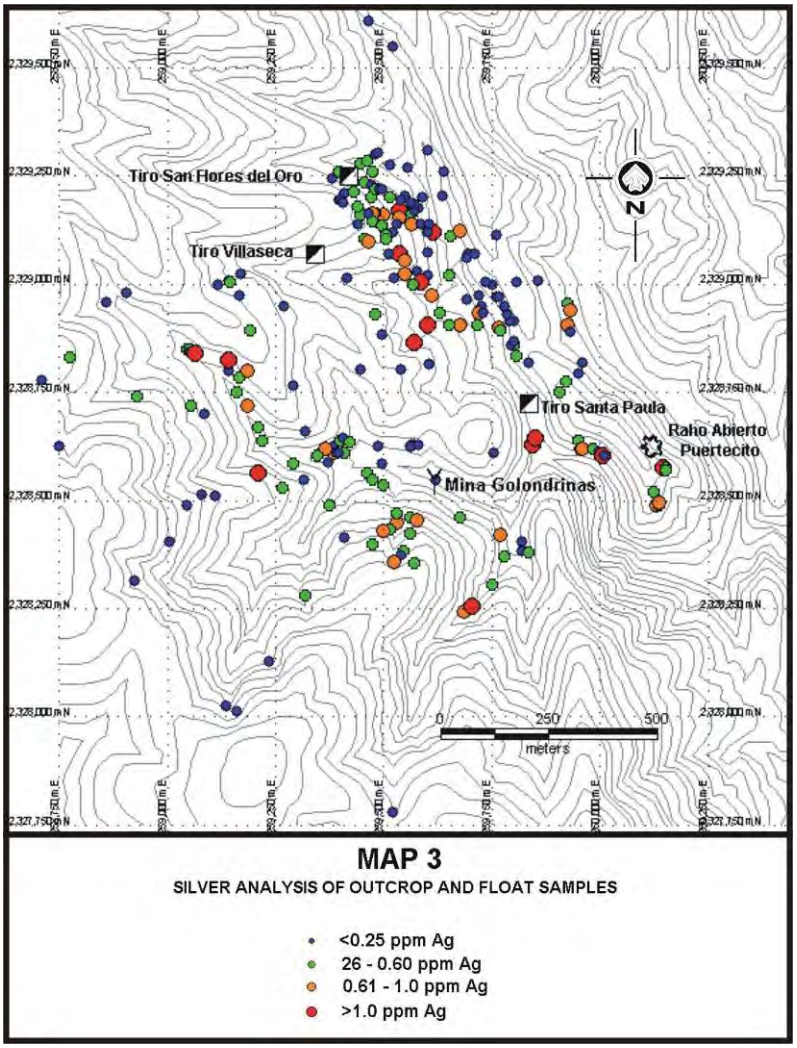


Figure provided by Endeavour Silver Corp.

Figure 10.10
Gold Analysis of Outcrop and Float Samples in the Golondrinas mine area.

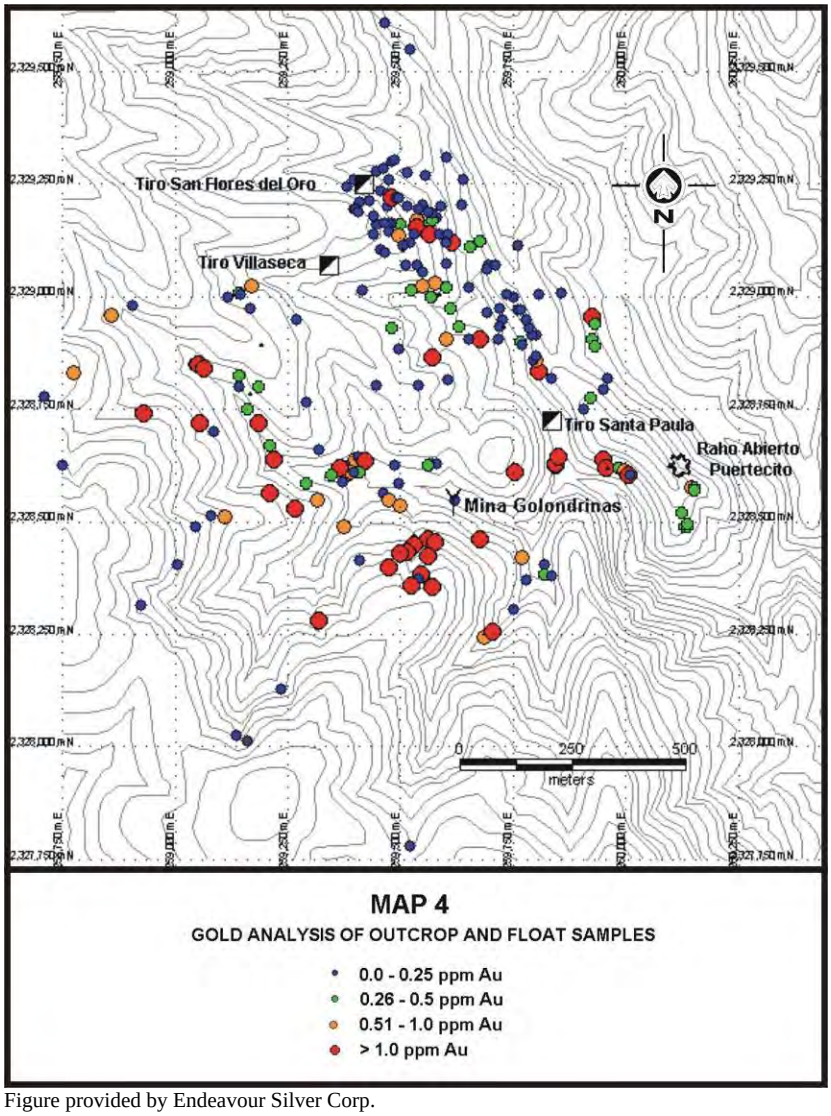


Figure provided by Endeavour Silver Corp.

10.2.2 Bolañitos North Surface Mapping and Sampling

Previous drilling and exploration development conducted in the 1970's and 1980's show good vein continuity and some economic-grade intervals on the northern extension of the Bolañitos vein and other ancillary veins. Significant drill intercepts in previous holes include 8.0 g/t gold and 43 g/t silver over 3 m (Hole 57056) and 0.5 g/t gold and 215 g/t silver over 7 m (Hole M-82-8). Exploration drifting conducted by Peñoles on the Bolañitos vein (Level 115 of Tiro San Ramon) has also exposed several potential ore shoots which include a 25 m strike length grading 1.1 g/t gold and 226 g/t silver. This area does not appear to have been previously mined. The better grades also appear to occur where the veins change strike direction, similar to mineralized zones in the main Bolañitos mine.

In 2009, Endeavour Silver geologists conducted surface mapping and sampling along the northern extension of the Bolañitos and other veins in La Luz vein system, north of the Bolañitos mine. The north-trending Bolañitos and other veins mapped were found to be hosted in La Luz andesite as shown on Figure 10.11.

In addition to the north-south trending Bolañitos vein, several other veins with varying strike and dip directions (eg. San Miguelito, San Ignacio and San Bernabé) have been identified.

Rock and soil samples taken were submitted to ALS-Chemex for analyses. Anomalous values for silver and gold were encountered on the Bolañitos and other veins. Assay results for silver are shown on Figure 10.12. Typically, elevated gold values coincided with anomalous silver values.

Endeavour Silver has concluded that the preliminary exploration work in the Bolañitos North area has revealed multiple veins with very limited drilling and that further investigation of this area followed by surface diamond drilling is clearly warranted.

Figure 10.11
Surface Geology Map of Bolañitos North Area

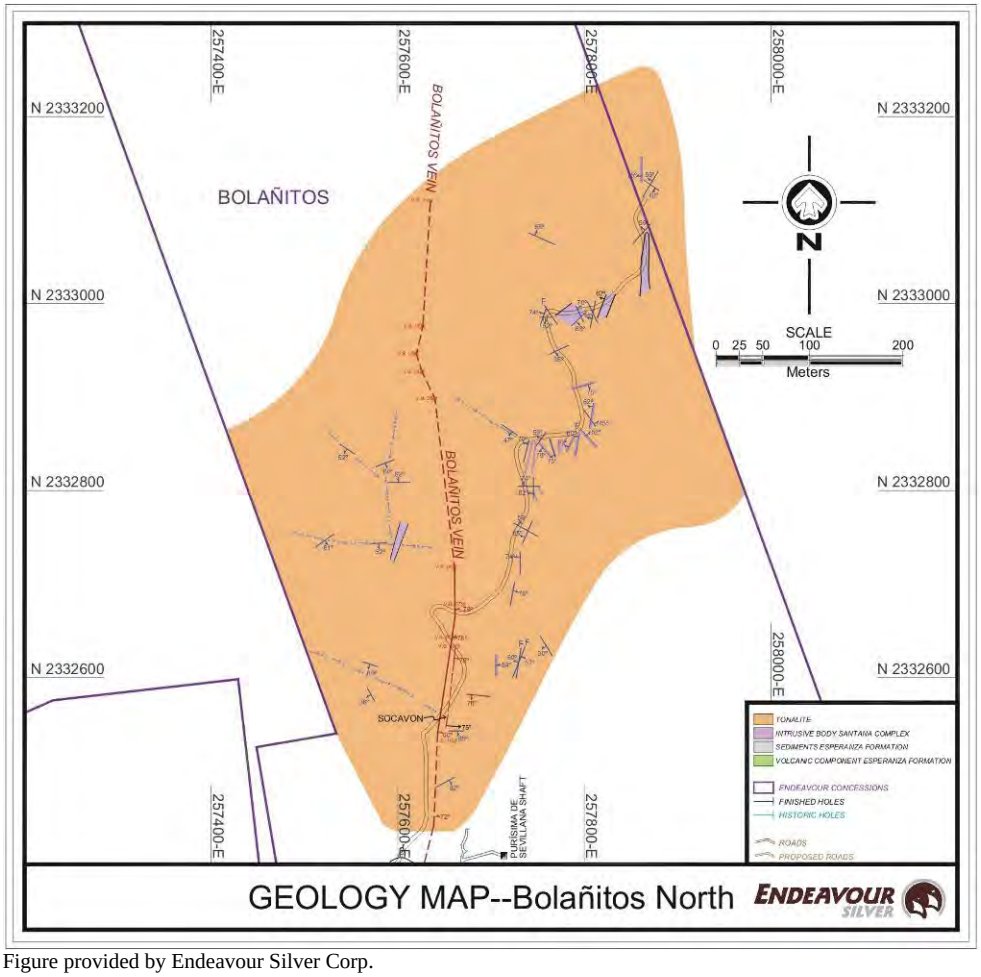


Figure provided by Endeavour Silver Corp.

Figure 10.12
Silver Results for Rock and Soil Sampling Undertaken in the Bolañitos North Area

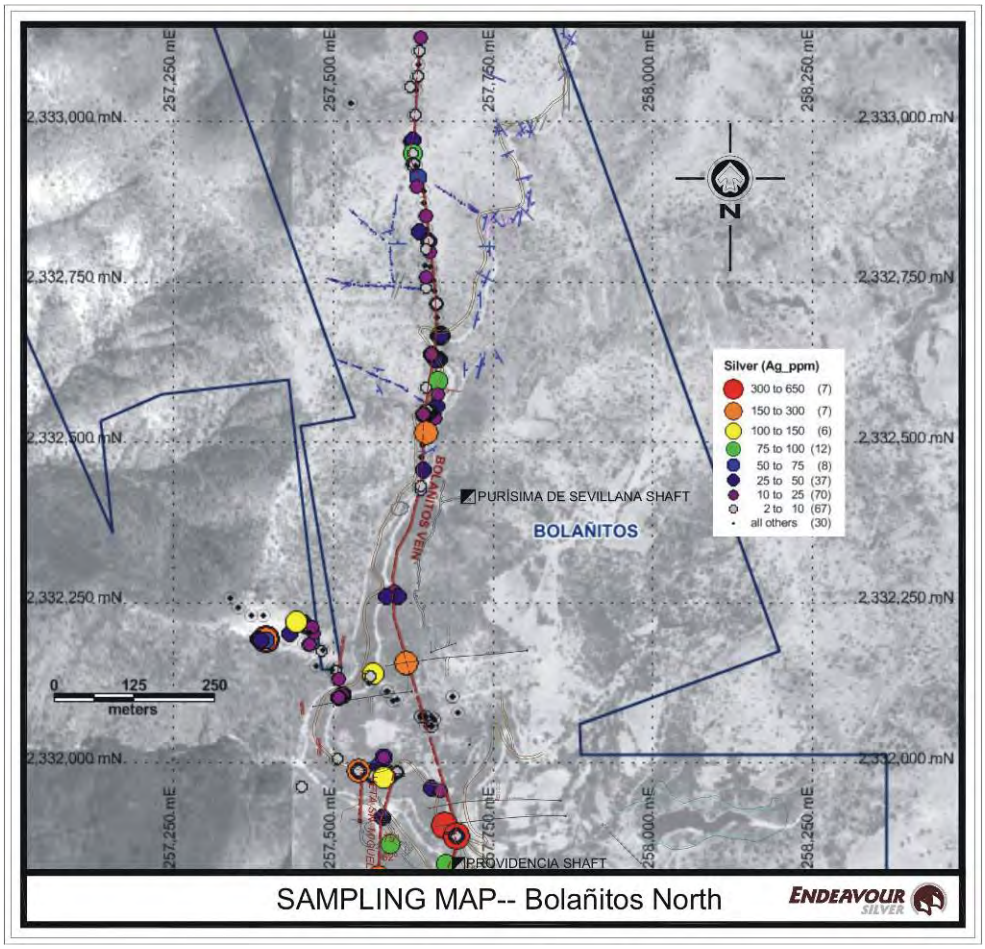


Figure provided by Endeavour Silver Corp.

10.2.3 Cebada North Surface Mapping and Sampling

During 2009, surface geological mapping and sampling were also conducted in the Cebada North area. The objective was to have a better understanding of the geology and how to assess the area for future drilling consideration.

Mapping was able to trace the Veta Madre structure to the northwest, to the limits of Endeavour Silver's concession (Figure 10.13). The structures found in this area occur as faults, silicification and argillization zones. Outcrops of quartz veins are rarely observed. The main structures present trend NW75ºSE, NW35ºSE, N-S and NE60ºSw.

Mapping also traced Julianas vein-fault, a major cross-cutting structure (Fig. 10.14).

Figure 10.13
Surface Geology Map of Cebada North Area

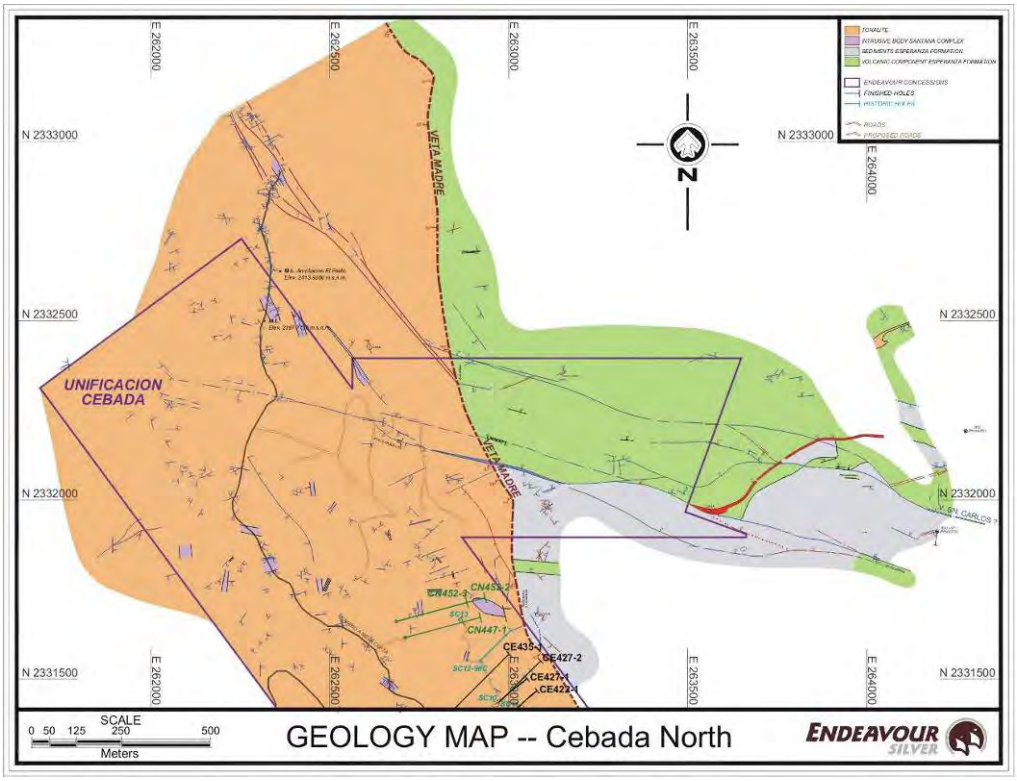


Figure provided by Endeavour Silver Corp.

Figure 10.14
Photo of Las Julianas Fault-Vein in the Cebada North Area

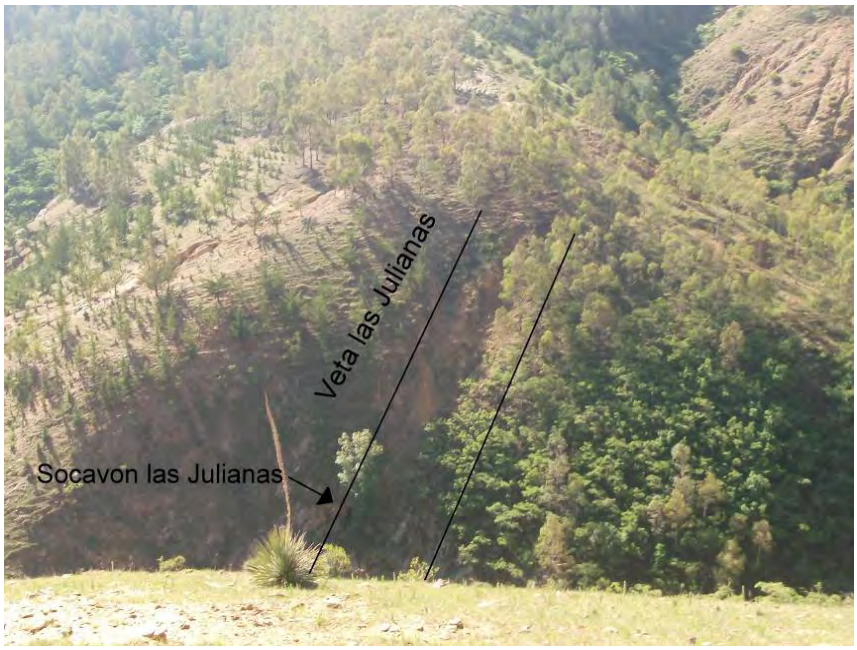


Figure provided by Endeavour Silver Corp.

Rock and soil sampling was also completed on the Veta Madre, Julianas fault-vein and other structures on the hanging wall of the Veta Madre structure. A total of 317 rock and soil samples were taken and sent for analysis to ALS-Chemex.

Values returned for silver and gold were typically low for the Veta Madre and other structures. Assay results for silver are shown on Figure 10.15. Elevated gold values generally coincide with anomalous silver values.

In summary, the Cebada North target area was found to be underlain by a widespread zone of alteration. The alteration and coincident anomalous geochemistry extend for nearly 500 m and are clearly in an area where the Veta Madre bends more northerly. This is interpreted to be a major control feature for the mineralized shoots on the Veta Madre structure and other veins in the district, like Bolañitos and Lucero.

Figure 10.15
Rock and Soil Sampling Undertaken in the Cebada North Area through 2009

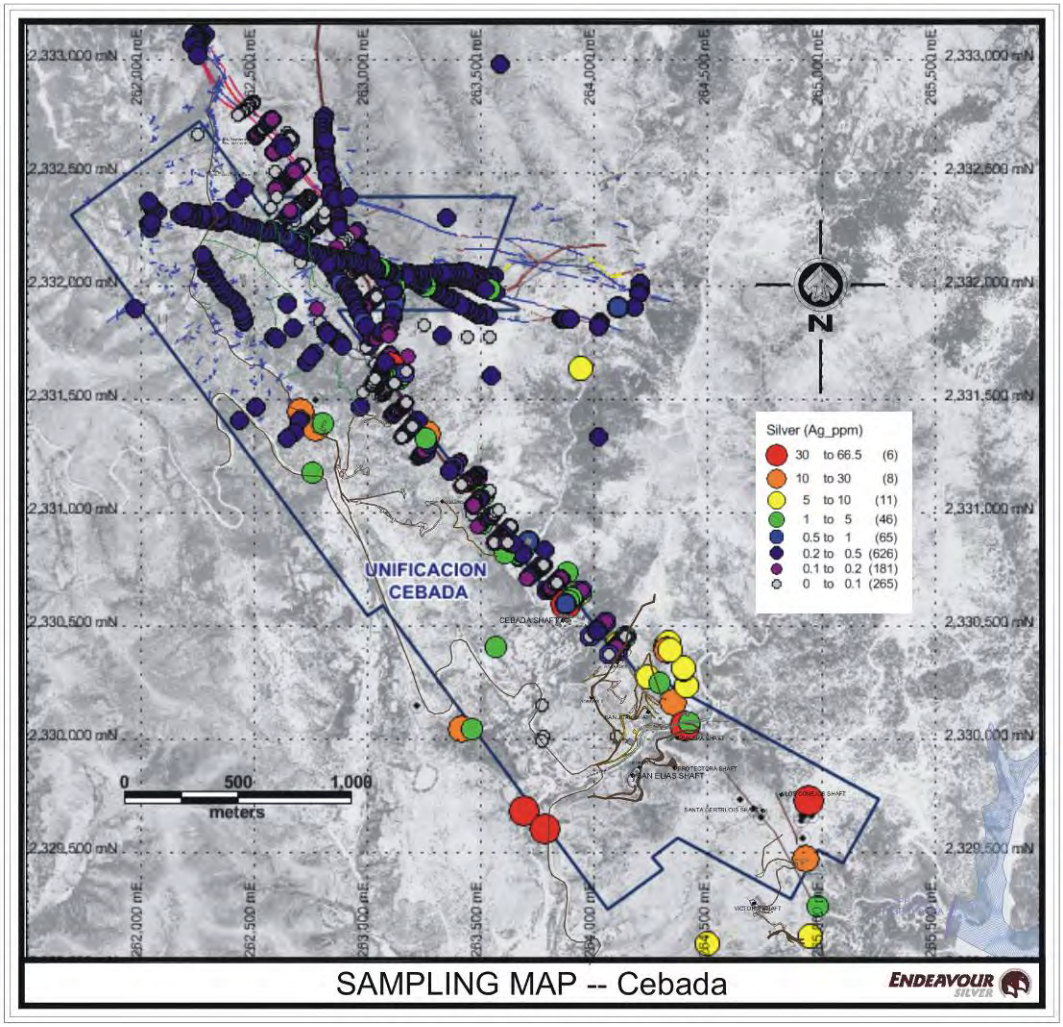


Figure provided by Endeavour Silver Corp.

Micon believes that, based on the results of the exploration programs conducted to date and the historical production, the properties held by Endeavour Silver are worthy of further exploration.

Micon has reviewed Endeavour Silver's 2009 exploration programs and believes that they follow the Best Practices Guidelines as outlined by the CIM.

11.0 DRILLING

A detailed description of Endeavour Silver's 2008 drilling program was recorded in the March, 2009, Technical Report by Micon and is summarized in Section 6 of this report. Only the 2009 exploration program will be discussed in detail in this section.

11.1 2009 SURFACE GENERAL EXPLORATION DRILLING PROGRAM

In 2009, Endeavour Silver conducted a surface diamond drilling program focused on following up several of the new discoveries made near its operations at the Guanajuato Mines project and testing new prospective targets within the district. The primary goal of this program was to expand reserves and resources. Exploration drilling was focused in two main areas: exploring the Lucero-Karina-La Joya vein system to the south of the Bolañitos mine area in the La Luz district in order to add areas of new mineralization to the mine plan for development and production; and exploring the extension of the Veta Madre structure, northwest of the Endeavour Silver's Cebada mine, for the potential to develop future resources and production.

During 2009, Endeavour Silver completed 4,390 m of surface drilling in sixteen surface diamond drill holes at the Guanajuato Mines project. A total of 1,281 samples were also collected and submitted for assay. Surface exploration drilling undertaken since January, 2009, is summarized in Table 11.1.

Table 11.1
Guanajuato Mines Project Surface Exploration Drilling Activities in 2009

Area	Description	July	August	September	October	November	December	Total
Cebada	No. of Holes						1	**1**
	Metres						553	**553**
	No. of Samples						204	**204**
Bolañitos	No. of Holes				4	9	2	**15**
	Metres				1,208	2,000	628	**3,836**
	No. of Samples				221	703	153	**1,077**
All	No. of Holes				**4**	**9**	**3**	**16**
	Metres				**1,208**	**2,000**	**1,181**	**4,390**
	No. of Samples				**221**	**703**	**357**	**1,281**

Table provided by Endeavour Silver Corp.

11.2 2009 SURFACE EXPLORATION DRILLING PROGRAM AND RESULTS

11.2.1 Lucero – Karina – La Joya Surface Diamond Drilling Program

Historic production at the Bolañitos mine came mainly from the Bolañitos and San Jose veins. Drilling has since extended the Bolañitos and San Jose vein mineralization to the south and it remains open in this direction. Several new veins, like Lucero, have also been discovered very close to the Bolañitos mine workings. Endeavour Silver has already developed and converted new resources in this area into reserves. In 2009, Endeavour Silver

discovered the Karina vein, in the footwall of the Lucero vein. Initial exploration drilling was also directed at the La Joya vein, located to the east of the Lucero and Karina veins.

In early October, 2009, surface diamond drilling commenced in the Lucero-Karina-La Joya area using one drill rig provided by Layne de Mexico S.A. de CV. (Layne de Mexico). By mid-December, 2009, Endeavour Silver had completed a total of 3,836 m in fifteen holes (Table 11.2; Figs. 11.1 through 11.3).

In 2009, exploration drilling at Guanajuato focused on two areas:

1) Testing the southeast extension of the Lucero and other veins in the La Luz system south of the Bolañitos mine.

2) Testing the northwest extension of the Veta Madre vein structure to the north of the Cebada mine.

The 2009 drilling program was successful in expanding the mineralized horizon discovered in 2008 on the Lucero vein, as well as on the newly discovered Karina vein. The Karina vein is approximately 100 m east of, and subparallel to, the Lucero vein. The 2009 drilling program also included preliminary testing of the La Joya vein, further to the east of the Lucero and Karina veins.

One surface drill hole was also completed on the northwest extension of the Veta Madre structure. Further drill testing of this target is planned in 2010.

Table 11.2
2009 Summary for Lucero-Karina-La Joya Surface Diamond Drilling

Drill Hole	Azimuth (°)	Dip (°)	Diameter	Total Depth	Start Date	Finish Date
LJ-1	38	-55	HQ	326.10	08/10/2009	12/10/2009
LJ-2	38	-50	HQ	92.85	30/10/2009	01/11/2009
LJ-3	218	-75	HQ	144.35	02/11/2009	05/11/2009
LC-1	59	-84	HQ	273.25	13/10/2009	19/10/2009
LC-2	59	-63	HQ	302.85	20/10/2009	25/10/2009
LC-3	59	-85	HQ	305.55	25/10/2009	31/10/2009
LC-4	59	-77	HQ	182.55	31/10/2009	04/11/2009
LC-5	59	-51	HQ	286.30	06/11/2009	10/11/2009
LC-8	239	-84	HQ	255.95	11/11/2009	16/11/2009
LC-9	59	-64	HQ	194.75	16/11/2009	20/11/2009
LC-6	59	-79	HQ	199.15	05/11/2009	10/11/2009
LC-7	59	-56	HQ	321.85	10/11/2009	17/11/2009
LC-10	68	-58	HQ	322.65	18/11/2009	28/11/2009
LC-11	87	-55	HQ	299.55	29/11/2009	06/12/2009
LC-12	50	-53	HQ	328.75	07/12/2009	14/12/2009
				3,836.45		

Table provided by Endeavour Silver Corp.

Figure 11.1
Surface Map Showing the Traces of Surface Holes Drilled to Test the Lucero – Karina – La Joya Vein Targets in the Bolañitos Mine Area of the La Luz District, Guanajuato.

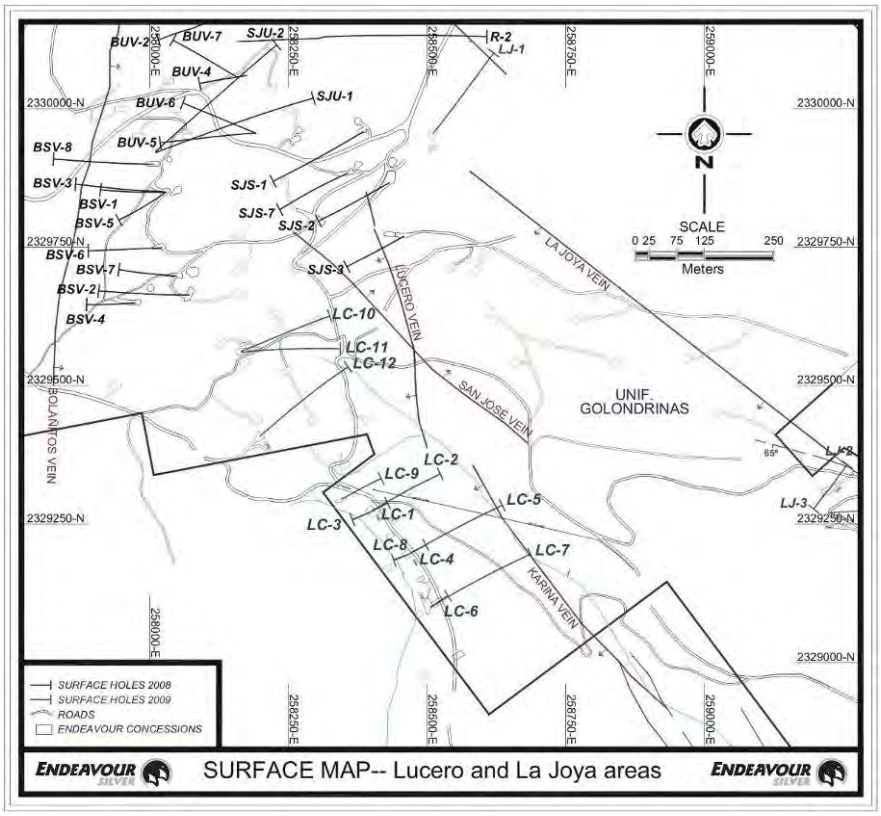


Figure provided by Endeavour Silver Corp.

Figure 11.2
Longitudinal Section (Looking NE) Showing the 2009 Surface Diamond Drill Hole Intersection Points on the La Joya Vein

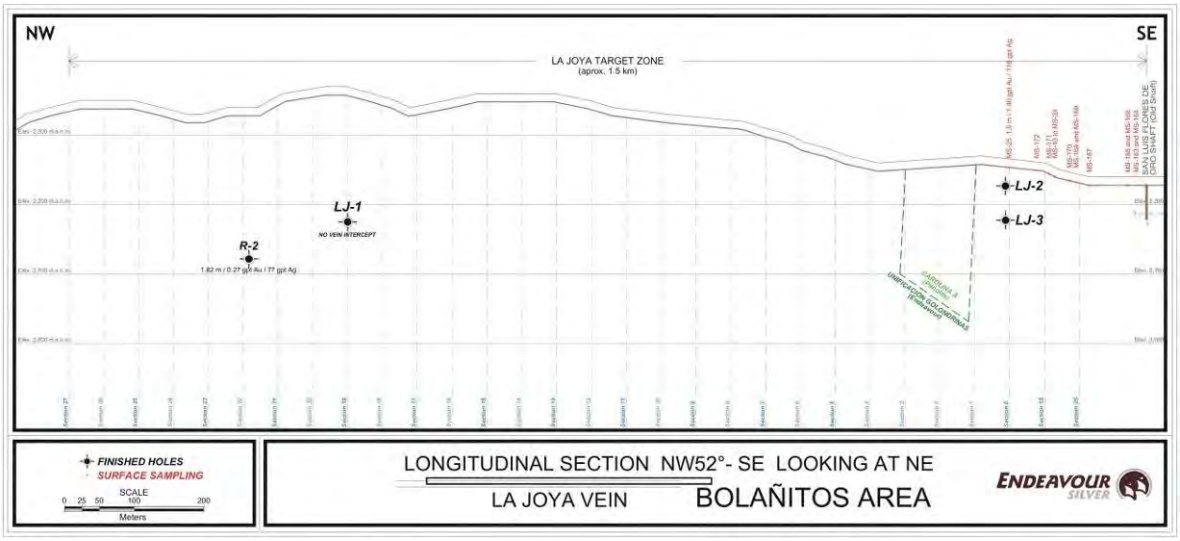


Figure provided by Endeavour Silver Corp.

Figure 11.3
Lucero Vein Longitudinal Section (Looking NE), Showing the 2009 Surface and Underground Diamond Drill Hole Intersection Points

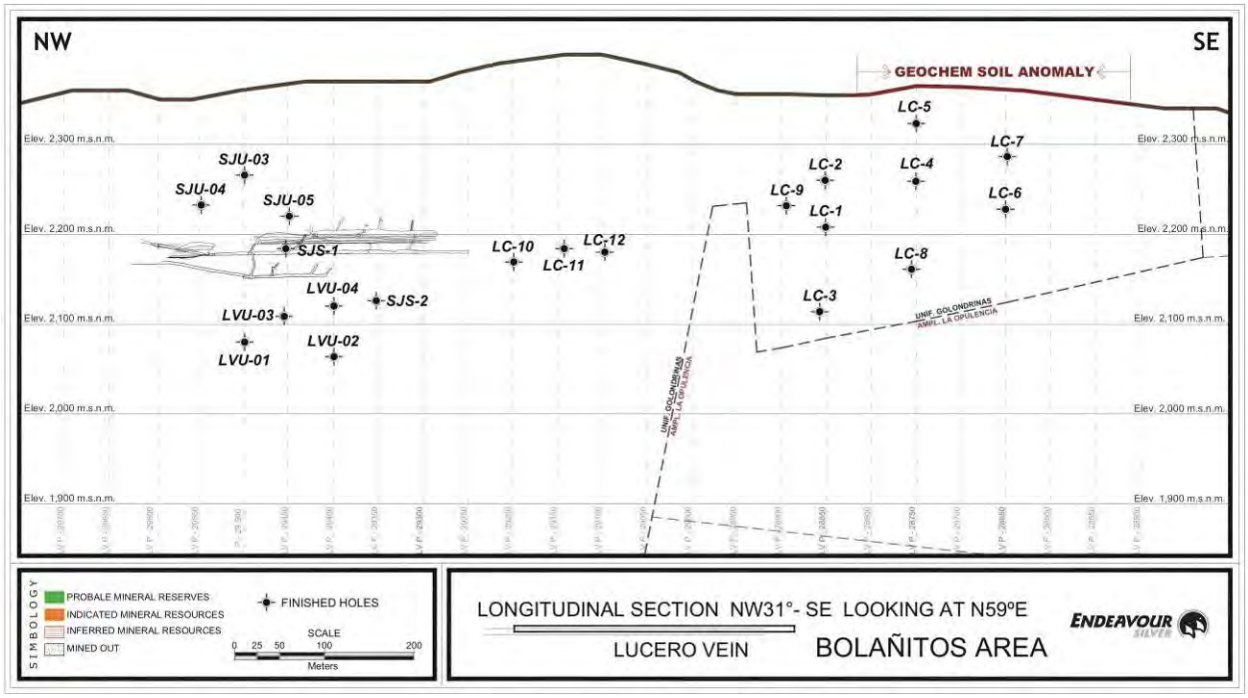


Figure provided by Endeavour Silver Corp.

11.2.2 Lucero – Karina – La Joya Surface Diamond Drilling Program Results

In 2009, surface diamond drilling focused on expanding the resources at the operating Bolañitos mine. This included a major step-out to the southeast, approximately 500 m along strike from the high grade silver-gold Lucero vein discovered in late 2008. This drilling also resulted in the new discovery of the Karina vein, approximately 100 m in the footwall of the Lucero vein. Surface diamond drilling also targeted the La Joya vein further to the east.

The Lucero vein intercepted in this area consisted of a quartz-sericite-adularia vein with disseminations and minor bands of pyrite, pyrargyrite and argentite. The host rock is andesite from La Luz Formation.

The Karina vein intercepted in the footwall of the Lucero vein consisted of a quartz vein with disseminated pyrite and argentite. The host rock is also andesite from La Luz Formation.

The few holes directed at the La Joya vein intercepted mainly a quartz-calcite+/-amethyst vein with disseminated pyrite. The host rock is andesite from La Luz Formation.

Drilling highlights for the Lucero vein include 413 g/t silver and 3.26 g/t gold over 2.5 m true width in Hole LC-1, 766 g/t silver and 17.62 g/t gold over 1.4 m true width in Hole LC-4, 411 g/t silver and 2.5 g/t gold over 2.4 m true width in Hole LC-10, and 213 g/t silver and 2.9 g/t gold over 3.5 m true width in Hole LC-12.

Drilling highlights for the Karina vein include 217 g/t silver and 0.75 g/t gold over 1.2 m true width in Hole LC-5, and 108 g/t silver and 1.4 g/t gold over 1.6 m true width in Hole LC-7.

Only elevated silver and gold values were returned the La Joya vein intercepts.

Drilling results are summarized in Table 11.3.

Figures 11.4 and 11.5 represent typical cross-sections and show Holes LC50-1, 2, 3, 4, 5 and 8 drilled to test the Lucero and Karina veins.

Figure 11.6 represents a typical cross-section and shows Holes LJ-2 and 3 drilled to test the La Joya vein.

Table 11.3
Lucero-Karina-La Joya 2009 Diamond Drilling Results

Drill Hole	Vein	Mineralized Intersection (m)				Assay Results (g/t)	
		From	To	Core Length	True Width	Silver	Gold
LJ-1	La Joya Vein	246.00	246.20	0.20	0.05	40	<0.05
LJ-2	La Joya Vein	38.60	39.70	1.10	1.08	58	0.21
LJ-3	La Joya Vein	82.35	83.00	0.65	0.03	<5	<0.05
LC-1	Lucero Vein	167.50	170.35	2.85	2.47	413	3.26
	Including	170.00	170.35	0.35	0.30	1,210	2.93
	Vein	215.75	218.65	2.90	0.99	85	3.27
LC-2	Lucero Vein	129.40	131.45	2.05	2.04	400	3.44
	Including	129.40	129.70	0.30	0.30	1,145	3.11
	Karina Vein	245.40	247.85	2.45	2.01	58	0.54
LC-3	Lucero Vein	262.70	266.40	3.70	1.84	142	3.06
	Including	265.15	266.40	1.25	0.53	408	8.35
LC-4	Lucero Vein	113.50	114.60	1.10	0.83	1,321	30.41
	Including	113.80	114.15	0.35	0.25	3,960	92.80
LC-5	Lucero Vein	62.65	63.25	0.60	0.49	206	0.33
	Karina Vein	237.50	238.90	1.40	1.24	217	0.75
LC-6	Lucero Vein	140.70	141.85	1.15	0.77	75	1.11
LC-7	Lucero Vein	97.75	100.10	2.35	2.26	17	0.12
	Karina Vein	263.55	265.20	1.65	1.59	108	1.35
LC-8	Lucero Vein	210.45	212.40	1.95	1.77	6	0.21
LC-9	Lucero Vein	164.00	166.10	2.10	1.72	368	2.49
	Including	165.80	166.10	0.30	0.25	1,385	5.80
LC-10	Vein	139.65	140.25	0.60	0.21	457	1.39
	Lucero Vein	276.95	279.50	2.55	2.16	411	2.46
	Including	276.95	277.65	0.70	0.59	691	4.31
	Vein	286.70	287.50	0.80	0.80	140	2.69
	Vein	292.95	293.25	0.30	0.29	274	1.73
LC-11	Lucero Vein	272.95	275.05	2.10	1.90	164	0.55
LC-12	Vein	99.80	100.10	0.30	0.21	152	0.30
	Lucero Vein	283.35	286.60	3.25	3.07	236	3.13
	Including	285.00	285.85	0.85	0.80	342	5.53
	Vein	298.90	299.20	0.30	0.23	325	3.50
	Vein	307.30	307.60	0.30	0.23	411	0.50

Table provided by Endeavour Silver Corp.

Figure 11.4
Cross-Section through Holes LC-1, LC-2 & LC-3 Drilled to Test the Lucero and Karina Veins.

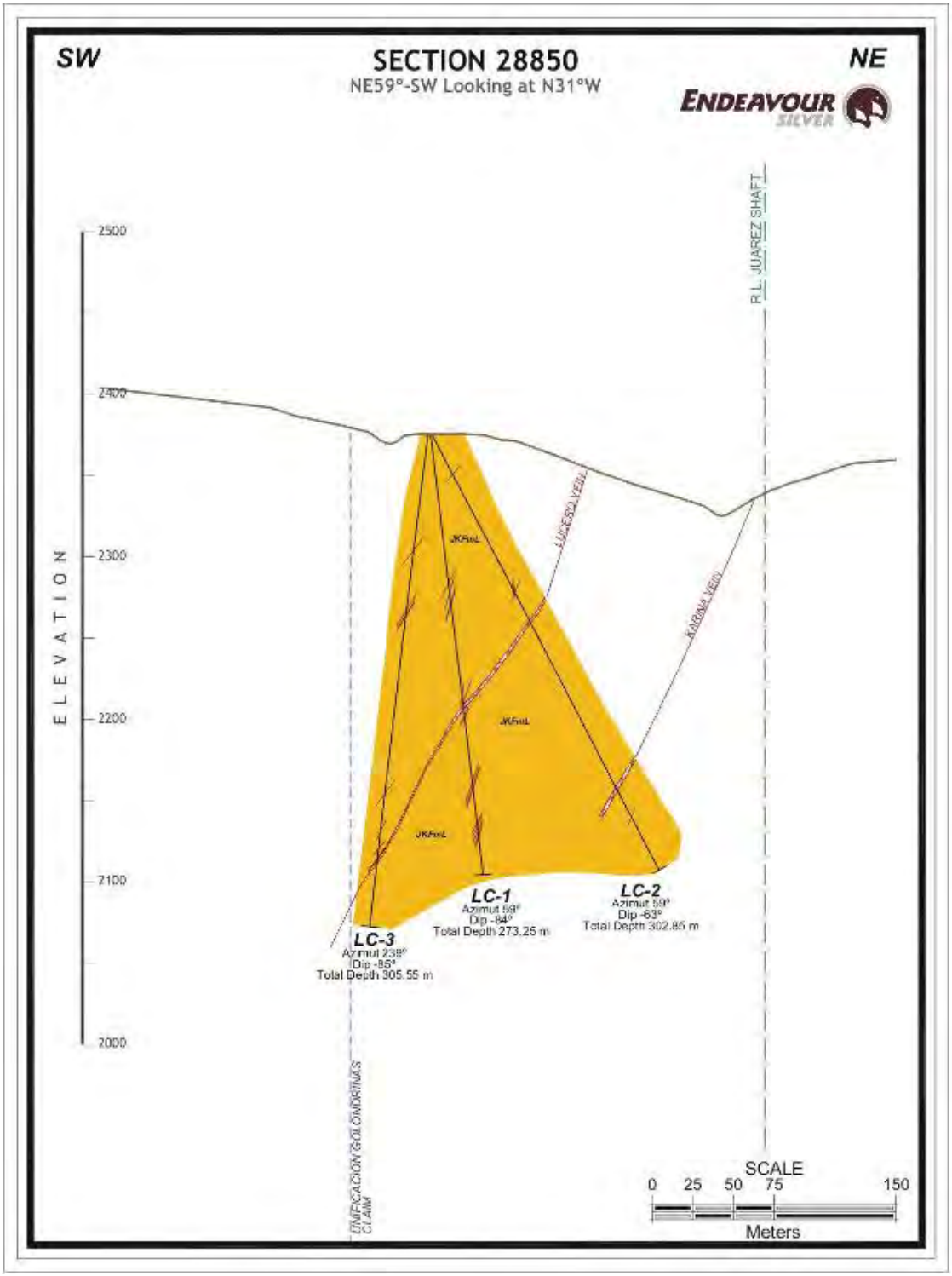


Figure provided by Endeavour Silver Corp.

Figure 11.5
Cross-Section through Holes LC-4, LC-5 & LC-8 Drilled to Test the Lucero and Karina Veins.

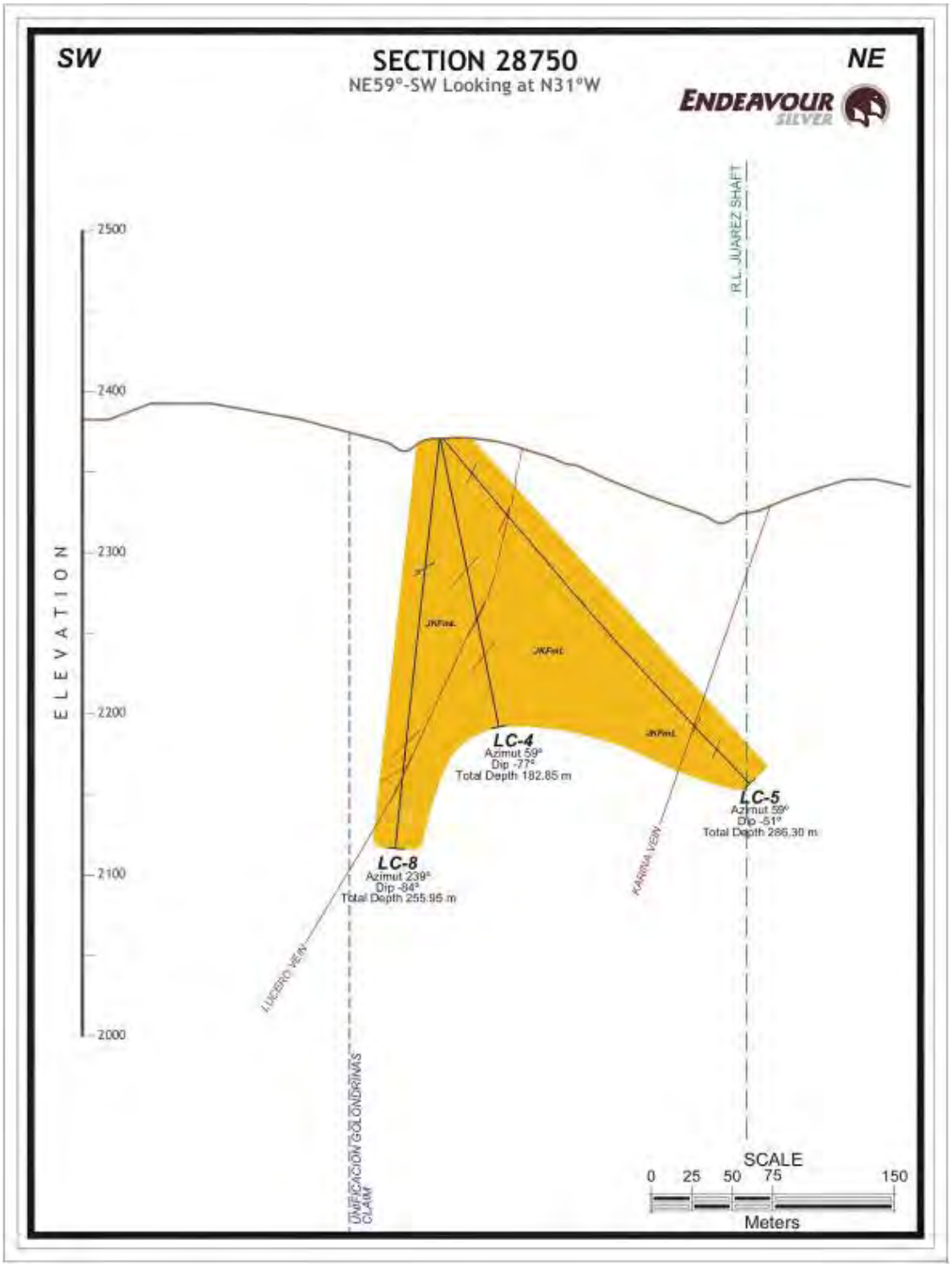


Figure provided by Endeavour Silver Corp.

Figure 11.6
Cross-Section through Holes LJ-2 & LJ-3 Drilled to Test the La Joya vein.

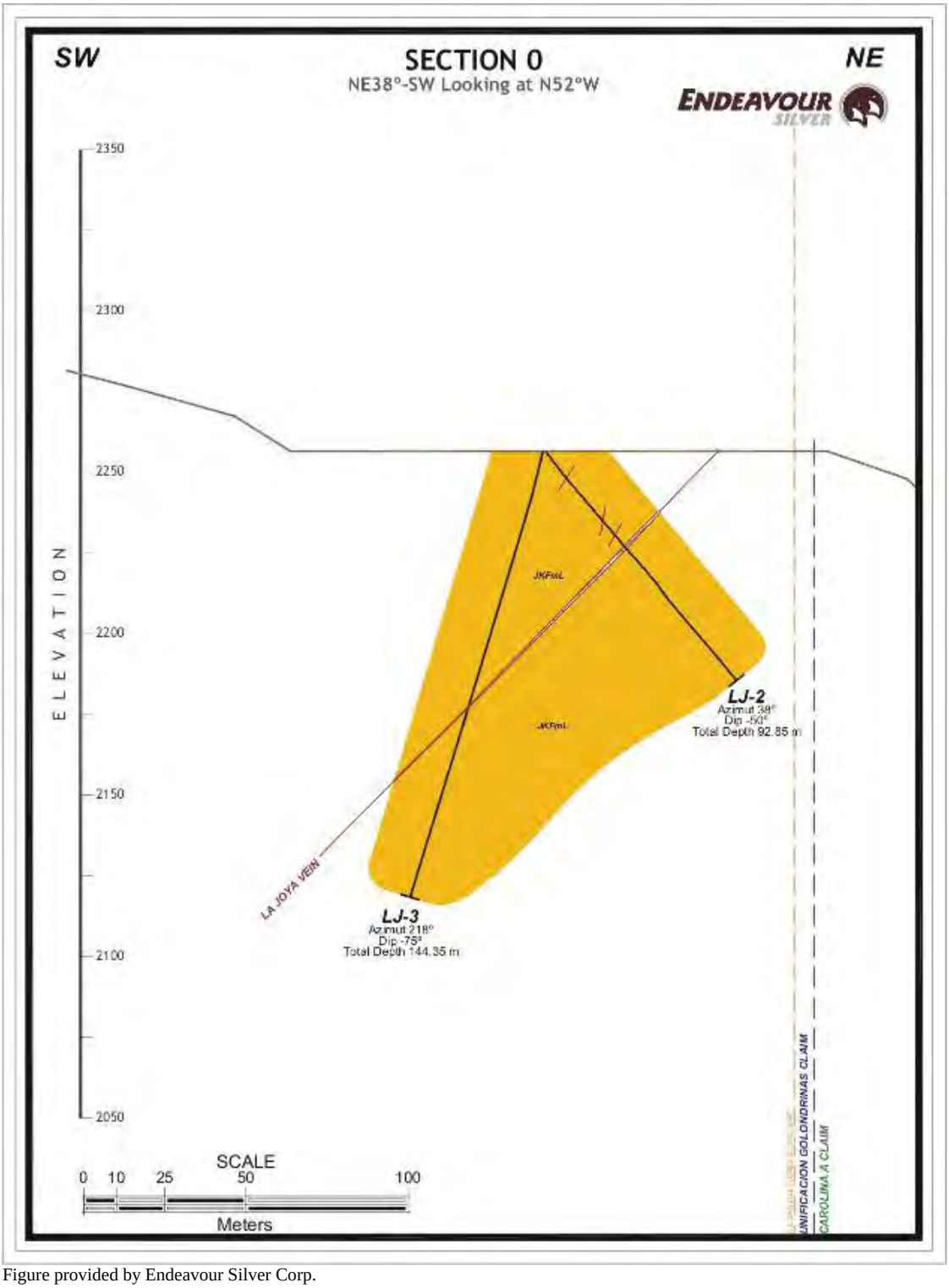


Figure provided by Endeavour Silver Corp.

11.2.3 Cebada North Surface Diamond Drilling Program

In late 2008, mapping and sampling were conducted along the Veta Madre trend, northwest of the Cebada shaft (Figure 11.7). The dominant geological feature in this area, herein called Cebada North, is the northwest trending, moderately southwest dipping Veta Madre structural zone. Mapping has revealed that the Veta Madre structural zone was re-activated several times during Tertiary extension. There have been multiple phases of hydrothermal activity, one of which generated the bonanza grade silver-gold deposits. The most favourable structural environment for mineralization is where the Veta Madre structure and cross structures intersect.

Approximately 1.5 km northwest of the Cebada shaft, and 700 m north of the 3785 (Robbins #5) zone, a new zone of alteration was discovered on the Veta Madre. A soil grid with samples collected at 10 m spacing on lines spaced 100 m apart showed coherent anomalies of silver, arsenic, gold, barium, beryllium, bismuth, potassium, phosphorous, lead, antimony and thorium coincident with the alteration areas. Analyses of rock chip samples up to 66 ppm silver support the soil anomalies. The soil grid that was used provided a consistent distribution of data and the 10 m sample spacing was selected as a reasonable compromise between one that was close enough to find the vein signature while far enough apart that work could advance at a reasonable pace.

This new discovery possibly represents another mineralized shoot on the Veta Madre. The area has never been drilled and the strong alteration and elevated silver and gold values indicate an excellent blind target for drill testing.

In late November, 2009, surface diamond drilling commenced in the Cebada North area using one drill rig provided by Layne de Mexico. Endeavour Silver completed one hole totalling 553.1m (Table 11.4; Figures 11.7 and 11.8).

Table 11.4
2009 Summary for Cebada North Surface Diamond Drilling

Drill Hole	Azimuth (°)	Dip (°)	Diameter	Total Depth	Start Date	Finish Date
CN452-1	61º	-52º	HQ	553.10	22/11/2009	07/12/2009
				553.1		

Table provided by Endeavour Silver Corp.

Figure 11.7
Surface Map Showing Completed Drill Holes in 2007-2008 (black) and 2009 (green) Testing the Veta Madre, Targets in the Cebada North Area

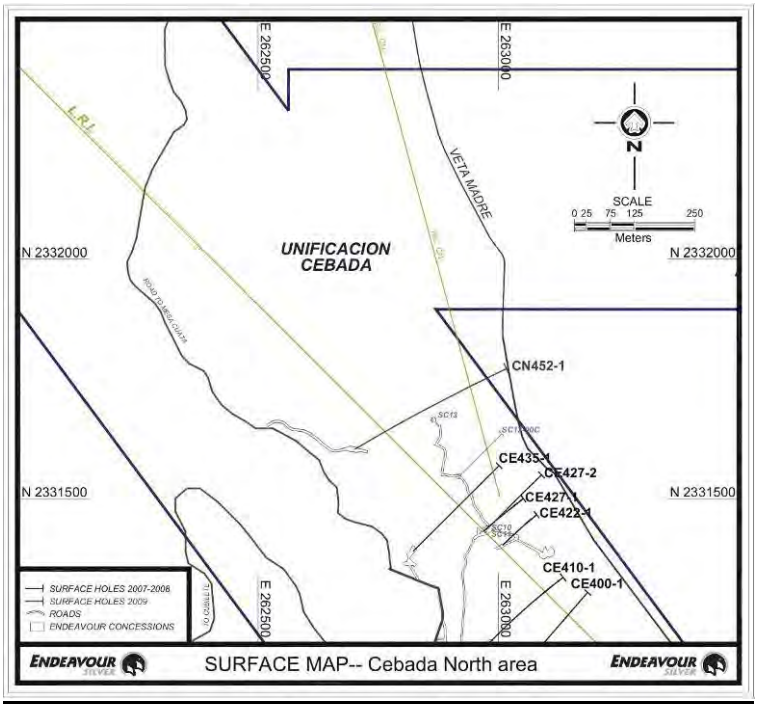


Figure provided by Endeavour Silver Corp.

Figure 11.8
Longitudinal Section (Looking Northeast) Showing the Intersection point for Hole CN452-1 on the Veta Madre in the Cebada North Area

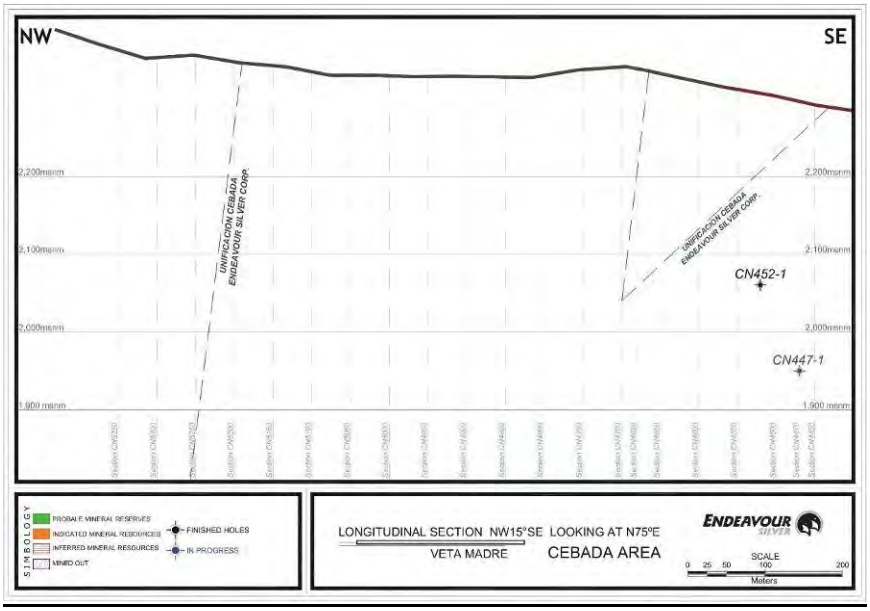


Figure provided by Endeavour Silver Corp.

Drill hole CN447-1 was not completed prior to the end of 2009 so only the projected intersection point is indicated on Figure 11.8

11.2.4 Cebada North Surface Diamond Drilling Program Results

The Veta Madre zone was intercepted from 392.75 to 393.20 m in Hole CN452-1 (Fig. 11.9). The structure consisted of a fault zone (brittle slate with clays and disseminated pyrite). The Veta Madre intercept in Hole CN452-1 averaged only <5 g/t silver and 0.30 g/t gold over a 0.44 m true width.

Figure 11.9
Cross-Section through Hole CN452-1 Drilled to Test the Veta Madre Structure in the Cebada North Area

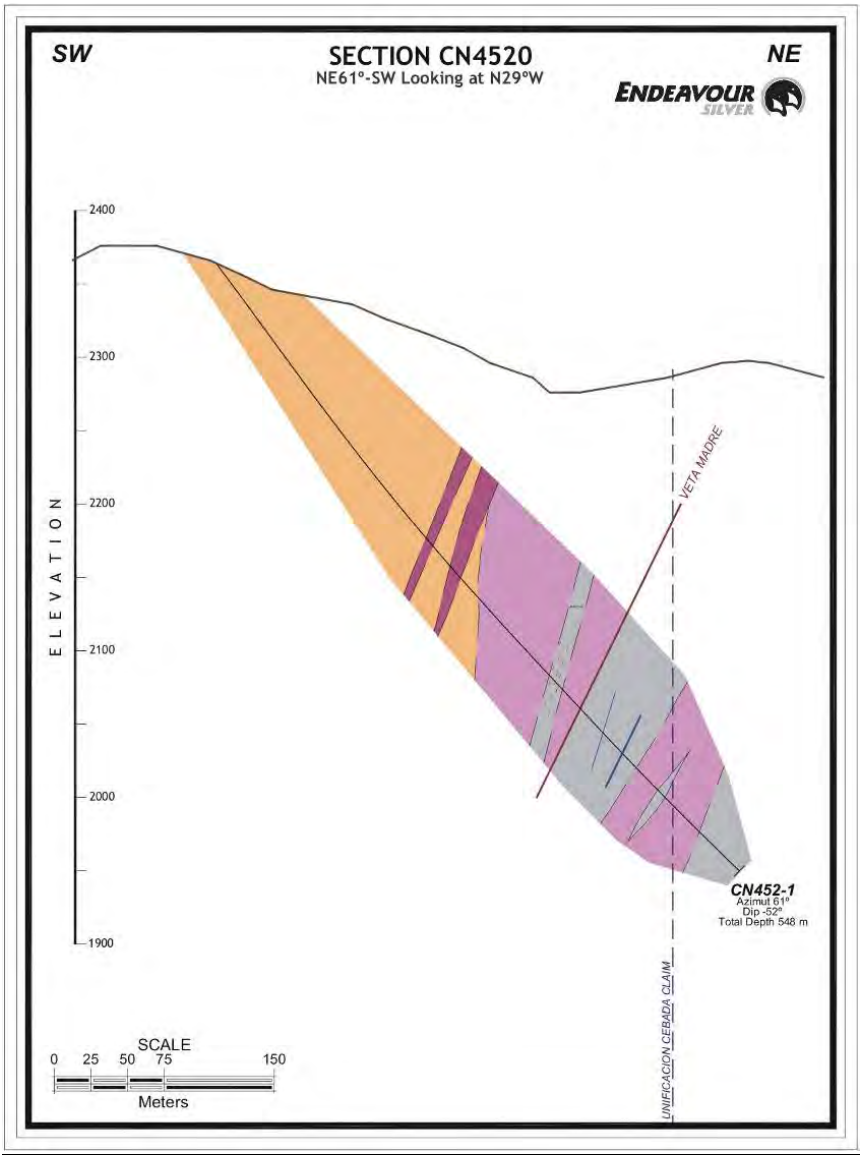


Figure provided by Endeavour Silver Corp.

11.3 2009 UNDERGROUND GENERAL EXPLORATION DRILLING PROGRAM

In 2009, Endeavour Silver conducted an underground diamond drilling program focused on expanding the resources at the operating Bolañitos and Cebada mines. This included a major step-out program at the heart of Cebada mine, between levels 315, 515 and below the 515 level approximately 300 m down dip from the high grade silver-gold stope 2172. This drilling also resulted in the discovery of a new hanging wall vein of Veta Madre. This new discovery is potentially minable from the 515 level or at least accessible from this level for further exploration.

During 2009, Endeavour Silver completed 7,399.8 m of drilling in 25 underground diamond drill holes at the Guanajuato Mines project. A total of 1,433 samples were also collected and submitted for assay. Underground exploration drilling undertaken since January, 2009 is summarized in Table 11.5.

Underground diamond drilling was conducted with one rig provided by Landdrill International Mexico, S.A de C.V. (Landdrill).

Table 11.5
Guanajuato Mines Project Underground Exploration Drilling Activities in 2009

	Drilling Details	Jul.	Aug.	Sep.	Oct.	Nov.	Dec.	Total
Cebada Mine	Number of drill holes			5	5	6		**16**
	Metres			1,542.7	1,288	1,474.9		**4,305.6**
	Number of samples			270	213	357		**840**
Bolañitos and Lucero Veins	Number of drill holes	4	4				1	**9**
	Metres	1,247.5	1,435.7				411	**3,094.2**
	Number of samples	223	179				191	**593**
Total Mines	Number of drill holes	4	4	5	5	6	1	**25**
	Metres							**7,399.8**
	Number of samples							**1,433**

Table provided by Endeavour Silver Corp.

11.4 2009 UNDERGROUND EXPLORATION DRILLING PROGRAM AND RESULTS

11.4.1 Lucero–San Jose-Veta Madre Underground Diamond Drilling Program

In 2009, Endeavour Silver conducted a major step-out program at the heart of the Cebada mine. The drilling was conducted between the 315 and 515 levels as well as below the 515 level approximately 300 m down dip from stope 2172 which is a the source of high grade silver and gold mineralization.

The drilling program at the Cebada mine consisted of 16 drill holes totalling 4,305.6 m while the drilling on the Bolanitos and Lucerno veins consisted of 9 drill holes totalling 3,094.2 m. Table 11.6 summarizes the details for the 2009 underground drilling program at the Cebada mine and on the Bolanitos and Lucerno veins.

Table 11.6
Summary of the Guanajuato Mines Project Underground Exploration Drill Holes in 2009

Drill Hole	Azimuth	Dip	Diameter	Total Depth (m)	Start date	Finish date
CU-01	45°	-77°	HQ	303.2	27/08/2009	01/09/2009
CU-02	100°	-68°	HQ	304.3	02/09/2009	07/09/2009
CU-03	45°	-77°	HQ	400	08/09/2009	13/09/2009
CU-04	45°	-90°	HQ	400	14/09/2009	22/09/2009
CU-05	21°	-27°	HQ	218	23/09/2009	27/09/2009
CU-06	4°	-8°	HQ	104	27/09/2009	02/10/2009
CU-07	24°	-6°	HQ	250	03/10/2009	15/10/2009
CU-08	24°	-6°	HQ	275	06/10/2009	14/10/2009
CU-09	22°	-57°	HQ	278	15/10/2009	19/10/2009
CU-10	352°	-39°	HQ	328.5	19/10/2009	29/10/2009
CU-11	358°	-63°	HQ	297	29/10/2009	02/11/2009
CU-12	49°	-70°	HQ/NQ	206.5	02/11/2009	03/11/2009
CU-13	49°	-70°	HQ	233	03/11/2009	06/11/2009
CU-14	91°	-64°	HQ	245.5	06/10/2009	10/11/2009
CU-15	353°	-77°	HQ/NQ	381.5	14/11/2009	19/11/2009
CU-16	128°	-74°	HQ/NQ	408	20/11/2009	26/11/2009
LVU-01	81.5°	-29°	NQ	183	26/06/2009	02/07/2009
LVU-02	114°	-24°	NQ	335.6	02/07/2009	14/07/2009
LVU-03	94°	-12°	NQ	291.5	14/07/2009	23/07/2009
LVU-04	106°	-10°	NQ	401	25/07/2009	23/07/2009
SJU-03	73°	24°	NQ	339	02/08/2009	08/08/2009
SJU-04	60°	21°	NQ	320.5	08/08/2009	14/08/2009
SJU-05	82°	20°	NQ	311.5	15/08/2009	19/08/2009
LVU-05	101°	9°	NQ	161.5	20/08/2009	21/08/2009
BVU-10	267°	19°	NQ	411	5/12/2009	13/12/2009
	°	°	**TOTAL**	**7,399.8 m**		

Table provided by Endeavour Silver Corp.

11.4.2 Lucero–San Jose-Veta Madre Underground Diamond Drilling Program Results

A total of 840 samples were collected and submitted for assaying from the Cebada mine drilling while 593 samples were collected from the drilling on the Bolañitos and Lucero veins.

Table 11.7 summarizes the results from the sampling conducted on the 2009 underground drilling program at the Cebada mine and on the Bolañitos and Lucero veins. Figures 11.10

and 11.11 are longitudinal sections depicting the intersection points for the 2009 underground diamond drilling for the Cebada mine and on the Bolañitos and Lucero veins.

The Veta Madre vein was intercepted in the Cebada mine. The Veta Madre vein is a shear and stockwork zone that can be up to 35 m true thickness; within this zone there are mineralized bodies that vary from 2 m to 12 m wide. The 2009 drilling focused on an area below the 315 level and continued below the lowest level of the mine with the idea that the mineralization is open to depth. The drilling and development below the 515 m level have located extensions of the mineralization that contain disseminated pyrite and native silver in small vugs within the Veta Madre. This zone appears to have a pipe-like orientation and consisted of a quartz-amethyst-breccias-sericite-adularia-calcite vein in hole CU-3, with visible silver, pyrargyrite and argentite, and disseminated pyrite. The host rock is black shales in contact with andesite and diorite dikes from Esperanza Formation.

Table 11.7
Summary of the Guanajuato Mines Project Underground Exploration Drill Hole Results for 2009

Drill Hole Number	Vein	Mineralized Intersection (m)				Assay Results (g/t)	
		From	To	Core Length	True Width	Silver	Gold
CU-01	Veta Madre	236.25	241.00	4.75	3.8	179	1.02
CU-02	Veta Madre	227	232.80	5.80	4.17	204	1.06
CU-03	Veta Madre	304.6	306.69	2.09	1.5	104	0.52
CU-04	Veta Madre	271.8	281.55	9.75	6.89	24	0.17
CU-05	Veta Madre	142.5	144.19	1.69	1.5	10	7.6
CU-06	Veta Madre	211.05	212.68	1.63	1.5	58	0.33
CU-07	Veta Madre	**N/A**		**N/A**		**N/A**	
CU-08	Veta Madre	162	164.00	2.00	1.5	331	2.88
CU-09	Veta Madre	145	157.00	12.00	9.19	8	21
CU-10	Veta Madre	167.3	180.20	12.90	9.88	4	0.05
CU-11	Veta Madre	185.76	188.00	2.24	1.5	140	0.59
CU-12	Veta Madre	127.4	137.10	9.70	9.06	6	0.09
CU-13	Veta Madre	150.35	176.00	25.65	16.49	11	0.11
CU-14	Veta Madre	159	160.00	1.00	0.87	132	0.83
CU-15	Veta Madre	241	250.00	9.00	6.89	9	0.35
CU-15	FW	263	264.00	1.00	1	177	0.63
CU-15	FW	271	272.00	1.00	1	239	1.41
CU-16	Veta Madre	256.55	266.00	9.45	7.24	5	0.11
LVU-01	Lucero	62.5	63.93	1.43	1.43	4	2.29
LVU-01	Lucero	**N/A**		**N/A**		**N/A**	
LVU-02	Cecilia	68.25	70.1	1.85	182	15	2.37
LVU-03	Lucero	167.95	169.4	1.45	1.11	15	1.88
LVU-04	Cecilia	75.7	77.6	1.90	1.72	18	0.95
LVU-04	Lucero	212.25	213	0.75	0.75	10	1.08
SJU-03	San Jose	219.05	226.5	7.45	6.75	4	0.06
SJU-04	San Jose	174.5	175.7	1.25	1.08	4	0.16
SJU-05	Cecilia	143.7	147.85	4.15	2.67	173	3.96
LVU-05	Cecilia	98.2	99.75	1.55	1.23	80	1.6

Table provided by Endeavour Silver Corp.

The 2009 drilling in the vicinity of the Lucero and Bolañitos veins was designed to extend the mineralized bodies discovered in 2008 and allow development of a more detailed mine plan. Holes were placed below, above and on strike to the south of the Lucero development. It was discovered during this exploration that the vertical extent of the Lucero mineralization was about 150 m. The mineralization consists of quartz-amethyst breccias and veins with sericite-adularia-calcite with disseminations and streaks of argentite. Many of the drill holes drilled in and around the Lucero vein outlined the edges of the mineralization except for the holes drilled from surface on the southern extension of the Lucero mineralization. In the case of Bolañitos the holes were able to show that the mineralization did extend to the south and allowed for further development.

Figure 11.10
Longitudinal Section of the Veta Madre (Looking Northeast) Depicting the 2009 Underground Diamond Drill Hole Intersection Points

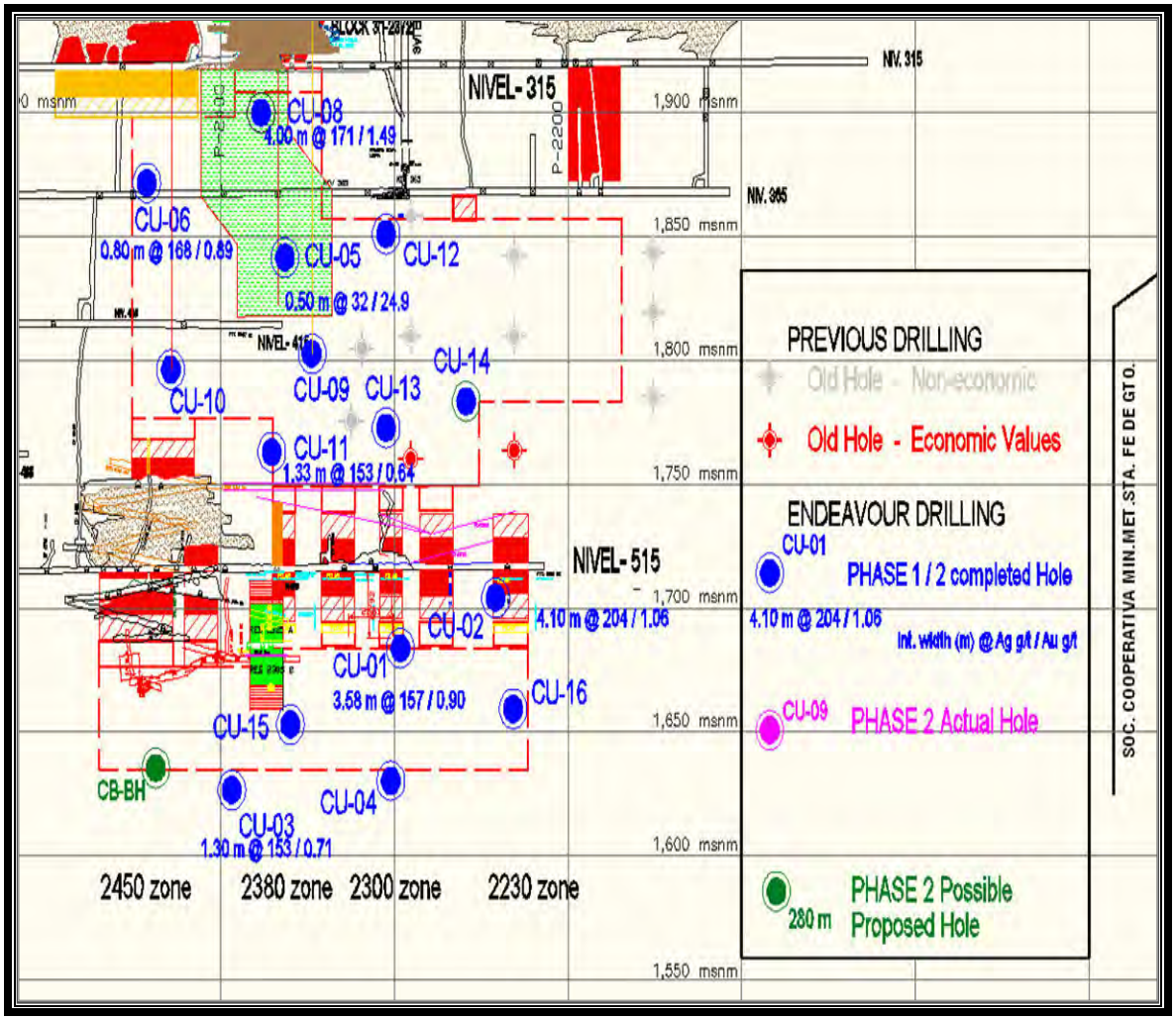


Figure provided by Endeavour Silver Corp.

Figure 11.11
Longitudinal Section of the Lucero Vein (Looking Northeast) Depicting the 2009 Underground Diamond Drill Hole Intersection Points

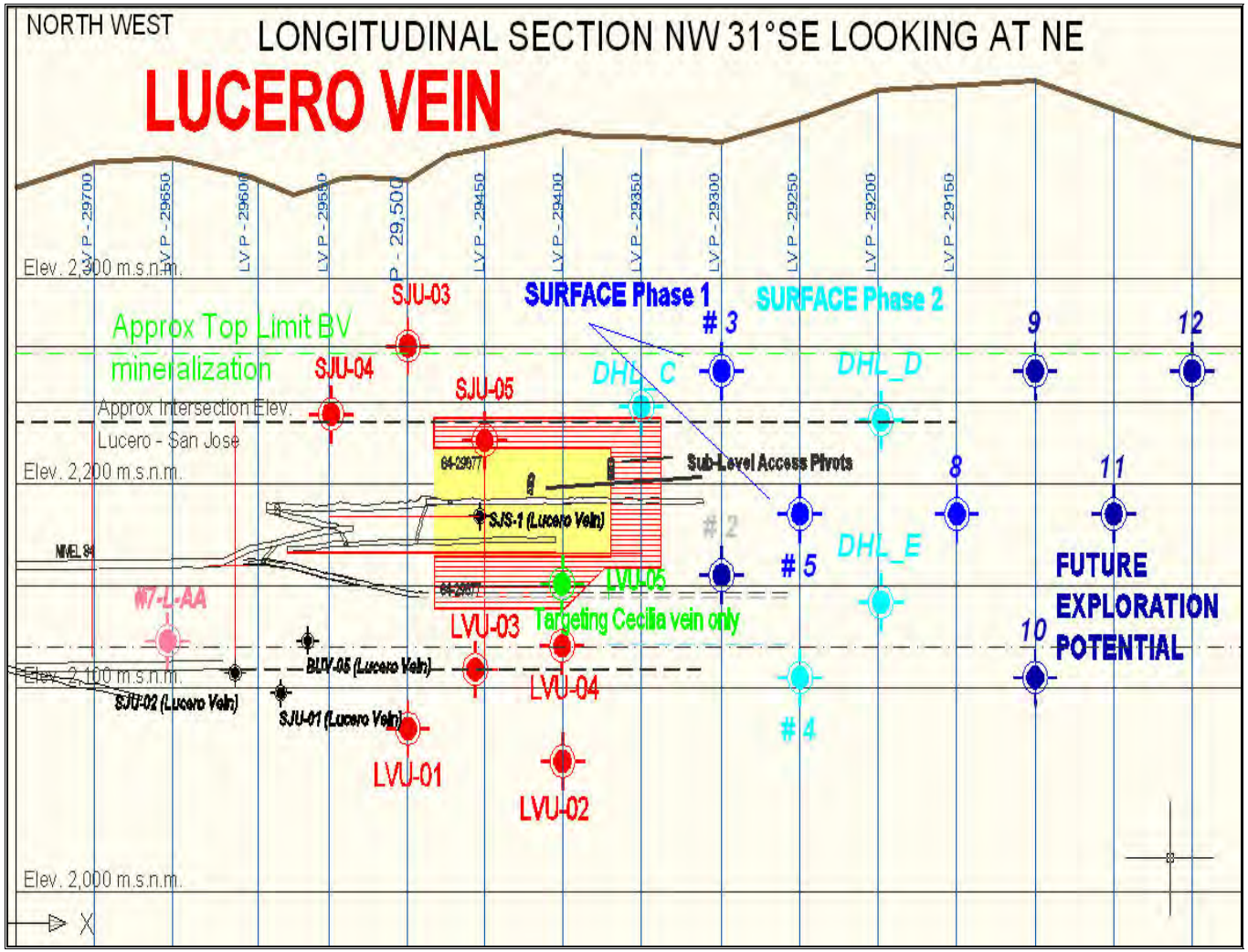


Figure provided by Endeavour Silver Corp.

12.0 SAMPLING METHOD AND APPROACH

A description of Endeavour Silver's sampling method and approach for the Guanajuato Mines project was previously provided in the March, 2009, NI 43-101 Technical Report by Micon. In general the following description was taken from that report with minor changes.

12.1 DRILLING PROCEDURES

Drill holes are typically drilled from the hanging wall, perpendicular to and passing through the target structure, into the footwall. No drilling is designed for intercept angles less than about 35° to the target, and most are between 45° and 90°. Drill holes are typically HQ to NQ size.

On the drill site, the drill set-up is surveyed for azimuth, inclination and collar coordinates with the drilling subject to daily scrutiny and coordination, with the drill crew, by Endeavour Silver's geologists. At or near the targeted drill hole depth, the hole is surveyed using a Reflex multi-shot down-hole survey instrument. Survey measurements are obtained at a depth of approximately 4 m below the end of the drill string and at 30 m to 50 m intervals from the bottom of the hole back up to the collar. The survey data obtained from the drill hole are transferred to a handheld personal digital assistant (PDA), and thence to the Vulcan mine planning software and AutoCAD databases. True thicknesses are estimated from the measured inclination of the drill hole intercept and the interpreted dip of the vein.

The full drill core boxes are collected daily and brought to the core storage building where the core is laid out, measured, logged for geotechnical and geological data, and marked for sampling.

Depending on the competency of the core, it is either cut in half with a diamond bladed saw or split with a pneumatic core splitter.

The core storage facilities at Guanajuato are well protected by high level security fences and are under 24 hours surveillance by security personnel.

12.2 CORE LOGGING PROCEDURES

In 2008, Endeavour Silver implemented a drill hole data collection and data management system for its exploration projects. These procedures were continued in 2009.

A configuration set-up by Century Systems Technologies Inc. (Century) was selected for this purpose (Figure 12.1). Century was chosen because it directly interfaces with other software, like Vulcan, MapInfo and ArcGIS. The configuration selected was as follows:

- DHLogger for drill hole data collection, management and reporting which runs on a Windows XP or Vista computer.

- DHLite for drill hole data collection which runs on a handheld Windows mobile computer Fusion Client to move data back and forth between the local computer and the server(s).

In 2008, Endeavour Silver established logging codes and other database organization and implemented the Century data collection and data management system at the Guanajuato properties.

Figure 12.1
Century's Configuration for Drill Hole Data Collection for the Guanajuato Mines Project

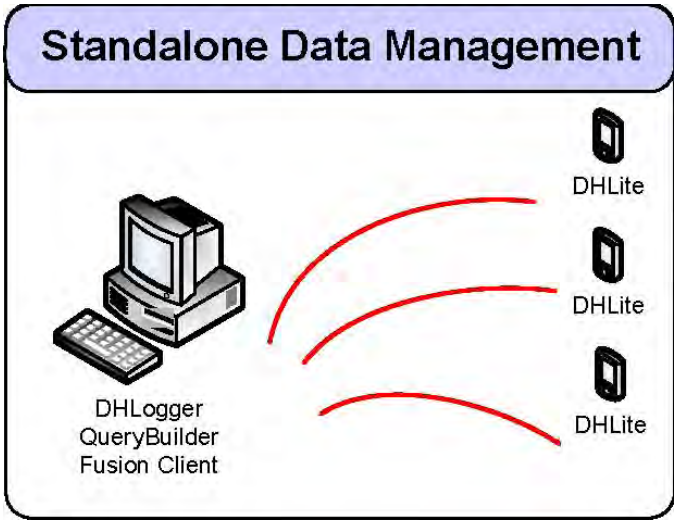


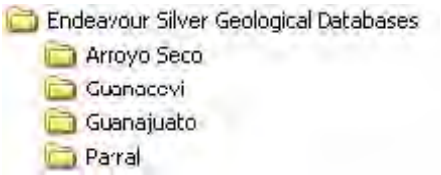
Figure provided by Endeavour Silver Corp.

Each project will be captured into a DHLogger stand-alone database. The database comes in two files that can be easily copied to the office for backup and sharing of the data.

Only one person can be adding data to a project's database at a given time in DHLogger but many people can be logging drill holes on DHLite at the same time.

The data will be captured at the project or in the office and the database files can be posted to a secure area in the office for others to copy to their computer and view.

Directories can be setup in the office similar to the one shown below to store the database files for backup purposes and to view the project data.



12.3 CHANNEL SAMPLING PROCEDURES

12.3.1 Historic Channel Sampling Practices

Historical chip and channel sample records exist for vein exposures in stopes, raises and at 3 m intervals along lode drives. The sample weights were known to be low and representivity was not assured; further the laboratory results were not subject to quality control. Whilst these historical results have been useful in confirming the presence of mineralization the grades themselves are considered to have low confidence. Therefore, Endeavour Silver has undertaken re-sampling of certain blocks in order to plan with more confidence.

12.3.2 Current Channel Sampling Practices

Endeavour Silver conducts underground development and continuous level back mapping to guide both the development and sampling crews and to facilitate the interpretation of the sampling results. Chip channel sampling is conducted after every blast in the stope or development, under the guidance of the geologist. The channel samples are used for differentiating between waste and ore at each mine.

Channel sampling procedures are generally described as follows:

1) A channel profile approximately 15 cm to 20 cm wide is marked across the face to be sampled using water based paint.

2) Depending on lithological boundaries, sample lengths varying from 0.3 m to 2.5 m are marked along the channel. The differentiation between sample limits is similar to that described for core samples. The sampler records a brief description of the sample in a note book.

3) Using a chisel and hammer, a sample is chipped from the profile in a systematic manner to achieve a fair representation. The chips are collected in a pan before being bagged and ticketed. The sample site is numbered for future reference.

4) Where the roof of the drive/stope is too high, a ladder/sampling platform is used in conjunction with a 1.5 m to 2 m long jumper rod as a chisel.

5) The spacing between channels is 2.5 m.

6) The position of the channel is offset and referenced from an existing survey peg. Only the top part of the channel is actually surveyed.

7) Sample crews have been instructed to collect a duplicate sample after every 20 samples as part of the QA/QC control measures. Also, a chip blank sample is taken every 50 samples. However, this protocol has yet to be completely adopted by Guanajuato's sample crews.

8) Back and stope faces are washed prior to taking the samples. A chisel is used in the harder zones of the vein with a pneumatic hammer used for the remaining portion

The 2009 sampling procedures have been improved from the previous 2008 procedures in that the back and production faces are washed prior to taking the sample and through the implementation of the use of a pneumatic hammer to assist in acquiring a good channel sample. The spacing between the channels of 2.5 m is considered adequate to cope with local variations and/or short range variability within the deposit.

12.4 MICON'S COMMENTS

Endeavour Silver's chip and core sampling procedures respect the mineralization and geology with the length of the sample being dependent on the extent of the mineralization and geological boundaries between separate units. The minimum and maximum sample lengths vary between chip and drill core as well as between the different drill core sizes. However, generally smaller samples are taken in the zones of mineralization than in un-mineralized areas. While this comment may appear to be intuitive it is important that, in the pursuit of acquiring sample information, the geological boundaries are respected irrespective of the mineralization which may cross geological boundaries.

Chip sampling can at times be a somewhat selective sampling method since it is occasionally difficult to take a representative sample due to the hardness of the material being sampled, and only the softer material is sampled. This is especially the case in mineral deposits where the mineralization is associated with quartz veins or siliceous alteration as is the case with the Guanajuato Mines project. However, the practice of chip sampling is common around the world for underground deposits and the practice of systematically sampling the faces, backs or walls of the development drifts on a close spacing tends to generate a very large set of samples which, in most cases, is statistically representative of the material being sampled. Chip sampling is a routine sampling method used in mines in order to identify ore and waste development rounds. In these cases, the chip sampling is submitted to the mine's on-site assay laboratory with the results available usually within 24 to 36 hours of being submitted. The results obtained in the on-site laboratory are commonly used for grade control purposes.

The mine laboratory usually includes a number of control assays within the batches of mine samples and commonly sends out a number of samples, generally between 5 and 10% of all samples received, for secondary testing at independent laboratories. In an increasing number of mines the laboratory is participating in a round-robin assay program which allows the laboratory to be awarded a certificate of proficiency in assaying one or more elements. In addition to the regular QA/QC program, the round-robin program allows the operators of the mine a degree of confidence that the assay results being produced at the mine laboratory are of sufficient quality to be used in predicting and estimating the grade of the material being produced.

Core sampling was conducted not only with visible evidence of mineralization, such as veins and stringers, but also on barren core to preserve the sampling continuity in between mineralized zones and to test for broad zones of lower grade material. The sampling of the wall rock next to the zone of mineralization also assists Endeavour Silver in understanding the grade of the external dilution associated with mining some of the mineralized zones.

Manual rock splitting of the core can be subject to a number of sampling biases based usually on the hardness of the material being split. In the case of very hard core, the core may twist in the splitter which may result in uneven core fragments and in a slightly greater split than 50% being sent to the assay laboratory or left in the box as a representative sample. In the case of soft core, the core may crumble when being split or may split along natural fracture lines which again results in uneven core representation. Also to prevent contamination the splitter and pans used to collect the samples must be cleaned after each sample. Despite the potential to introduce a bias into the sampling procedure as a result of uneven sample sizes, the splitting of drill core continues to remain a common practice in the exploration and mining industries. Endeavour Silver has recognized these potential problems and has ensured that the splitter and pans are cleaned between samples and that the sample is split is such as way as to best represent half of the core. In addition, Endeavour Silver only uses the manual rock splitting in areas where the core is soft.

Sawn core can also have sampling biases. The use of water during the sawing process may wash out free gold and therefore under-report the gold content of the sample. It is prudent in this case to periodically sample the cuttings from the core sawing process in order to determine if there is any loss of the mineralization which may impact the overall grade of the samples. Additionally it is important that the same half of the core is sampled in all cases for consistency purposes.

It is Micon's opinion, based on a general assessment of the chip sampling, drilling and core sampling procedures and based on direct discussions with Endeavour Silver personnel at the mine site, that the general procedures and controls in practice meets accepted industry standards. In general, both the channel and core sampling are considered to be representative of the areas examined and suitable for use in resource and reserve estimation.

Tables of the significant drilling assay results are included in Section 11. No table of significant underground chip channel assay results is included here as the underground assays are solely part of the mine grade control program.

13.0 SAMPLE PREPARATION, ANALYSES AND SECURITY

A description of Endeavour Silver's sample preparation, analysis and security is contained in Micon's March, 2009, NI 43-101 Technical Report. During the November, 2009, site visit by Micon, Endeavour Silver's sampling preparation, analyses and security were discussed and any changes since the publication of the March, 2009, report have been incorporated into the text below.

13.1 SAMPLE PREPARATION

13.1.1 Sampling Preparation

The historical mine chip, channel and drill hole samples, and mill feed belt samples, were prepared at an in-house laboratory located at the Bolañitos mine. However, all of Endeavour Silver's drill core samples and underground channel samples, collected as part of the 2007 through 2009 exploration programs, were bagged and tagged at the Cebada mine field office and shipped to the ALS-Chemex assay laboratory in Guadalajara, Mexico.

Upon arrival at ALS-Chemex, all of the samples are logged into the laboratory's tracking system. Then the entire sample is weighed, dried and fine crushed to better than 70% passing 2 mm. A sample split of up to 250 g is then taken and pulverized to 85% passing 75 microns.

13.1.2 ALS-Chemex Sample Analysis

The analytical procedure for the gold and silver mineralization is a fire assay followed by a gravimetric finish. A 50 g nominal pulp sample weight is used.

As an economical tool for first pass exploration geochemistry, the pulps are also subjected to aqua regia digestion and inductively coupled plasma (ICP) multi-element analysis. The data reported from an aqua regia leach are considered to represent the leachable portion of the particular analyte.

These analytical methods are optimized for low detection limits. The assays for evaluation of high-grade materials have been optimized for accuracy and precision at high concentrations (>10,000 ppm). Over-limits for lead, zinc and copper are determined by either using atomic adsorption (AA) or atomic emission spectroscopy (AES).

The turn-around time required for analyses has typically been from 2 to 4 weeks.

13.2 QUALITY ASSURANCE/QUALITY CONTROL (QA/QC)

A QA/QC program of blanks, duplicates, reference standards and check assays has been instituted by Endeavour Silver to monitor the integrity of assay results.

13.2.1 Drilling Programs

Drilling in the Lucero-Karina-La Joya and Cebada areas included a QA/QC program. For each batch of approximately 20 samples, control samples are inserted into the sample stream. Each batch of 20 samples includes one blank, one duplicate and one standard reference control sample. Check assaying is also conducted on the samples at a frequency of between 5% and 10%.

A total 1,126 samples were collected during Endeavour Silver's 2009 drilling program. A summary of the quantities of control samples is contained in Table 13.1.

Table 13.1
Table Showing Quantities of Control Samples Used

Sample Type	No. of Samples	Percentage (%)
Normal	962	85.4
Blanks	55	4.9
Duplicates	54	4.8
Standards	55	4.9
Total	**1,126**	**100%**
Check assays	48	5.0

Table provided by Endeavour Silver Corp.

Discrepancies and inconsistencies in the blank and duplicate data are resolved by re-assaying either the pulp or reject or both.

Endeavour Silver's sampling process, including handling of samples, preparation and analysis, is shown in the quality control flow sheet below (Figure 13.1).

Figure 13.1
Endeavour Silver's Flow Sheet for Core Sampling, Preparation and Analysis

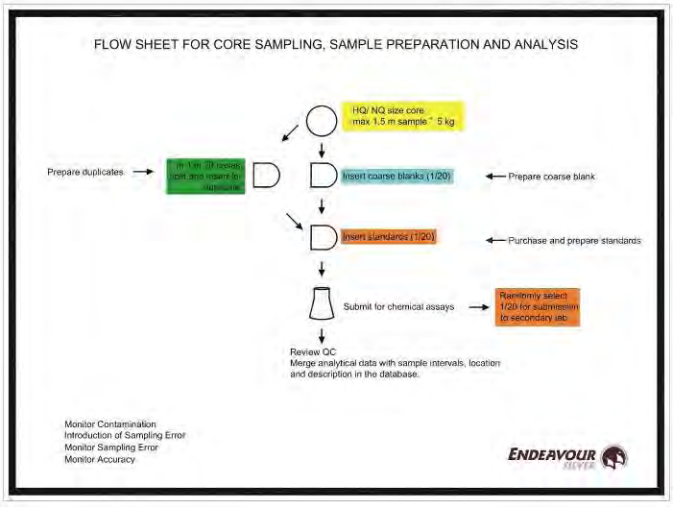


Figure provided by Endeavour Silver Corp.

13.2.2 Blanks

Blank samples were inserted to monitor possible contamination during the preparation process and analysis of the samples in the laboratory. The blank material used was derived from core samples with no apparent mineralization from Endeavour Silver's drilling programs in Guanajuato.

Blank samples were inserted at an average rate of approximately 1 for each 20 original samples.

For gold, only one sample (1.8%) out of a total of 55 blanks was over the detection limit of 0.05 g/t gold (Figure 13.2). This one sample was also out of the confidence range of 2 times the standard deviation of the same population.

For silver, 4 samples (7.3%) out of a total of 55 were above the detection limit of 5 g/t silver for the analytical method (Figure 13.3). Two of these samples were out of the confidence range of 2 times the standard deviation of the same population.

Upon review of the data, it is reasonable to conclude that the few cases of higher assay values were more related to the quality of the original blank material rather than to contamination in the preparation process or analysis in the laboratory. Some material used for blanks may in fact have had some minor amount of mineralization. Endeavour Silver considers that, based on the results obtained from the blank samples, its assay results for the drilling programs are for the most part free of any significant contamination.

Figure 13.2
Control Chart for Gold Assays from the Blank Samples Inserted into the Sample Stream for the Drilling

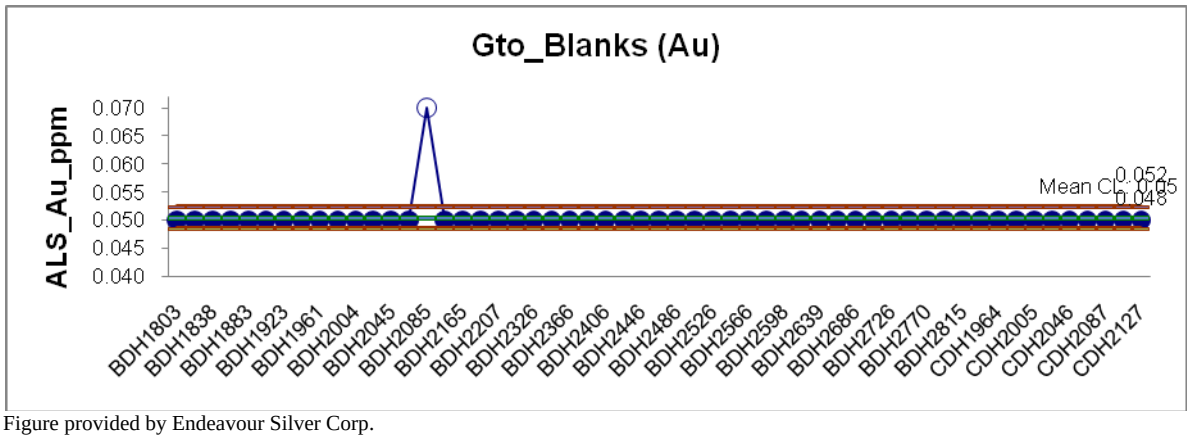


Figure provided by Endeavour Silver Corp.

Figure 13.3
Control Chart for Silver Assays from the Blank Samples Inserted into the Sample Stream for the Drilling

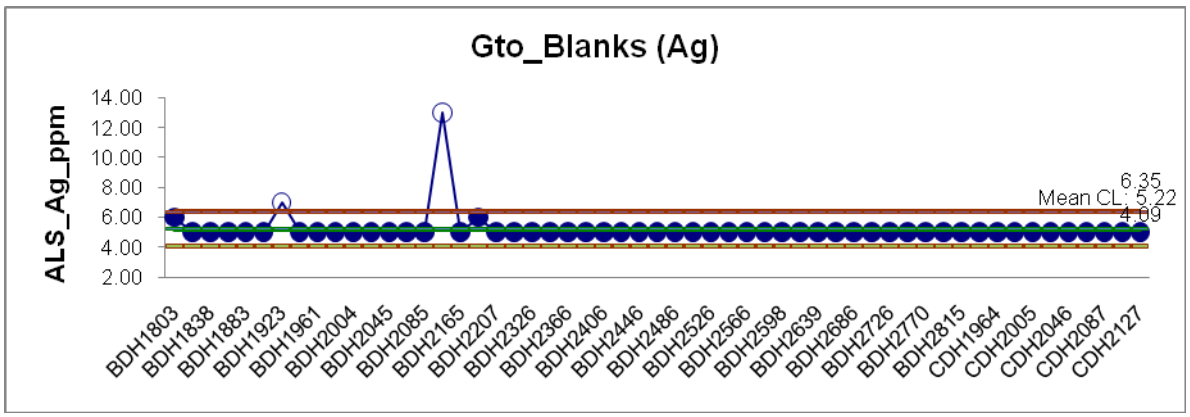


Figure provided by Endeavour Silver Corp.

Micon agrees with Endeavour Silver's conclusion. However, it would be better if the blank sample was derived from a geological unit in the area of the mines which was known to be barren, rather than material derived from core samples with no apparent mineralization. In the case of drill core derived from each program there is always the chance that it may have been contaminated or that a small amount of mineralization was missed during the initial logging. In both cases misleading results for the blank sample could be obtained.

13.2.3 Duplicates

Duplicate samples were used to monitor (a) potential mixing up of samples and (b) variability of the data as a result of laboratory error or lack of homogeneity of the samples.

Duplicate core samples were prepared by Endeavour Silver personnel at the core storage facility at the Guanajuato Mines project. Preparation first involved randomly selecting a sample interval for duplicate sampling purposes. The duplicates were then collected at the time of initial sampling. This required splitting the core in half and then crushing and dividing the half-split into two portions which were then sent to the laboratory separately. The duplicate samples were ticketed with the consecutive number following the original sample. One duplicate sample was collected for each batch of 20 samples.

A total of 54 duplicate samples were taken representing 4.8% of the total samples.

Basic statistics for duplicate samples are shown in Figures 13.4 and 13.5.

Figure 13.4
Histogram for Gold Assays from the Duplicate Samples Inserted into the Sample Stream

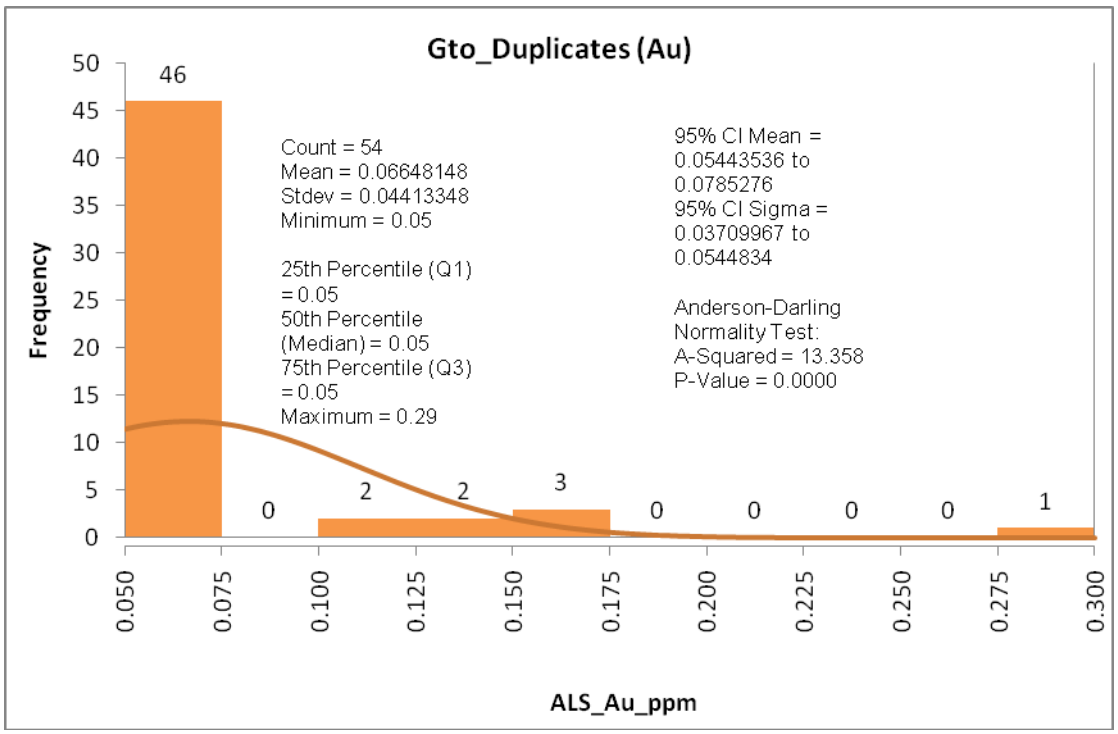


Figure provided by Endeavour Silver Corp.

Figure 13.5
Histogram for Silver Assays from the Duplicate Samples Inserted into the Sample Stream

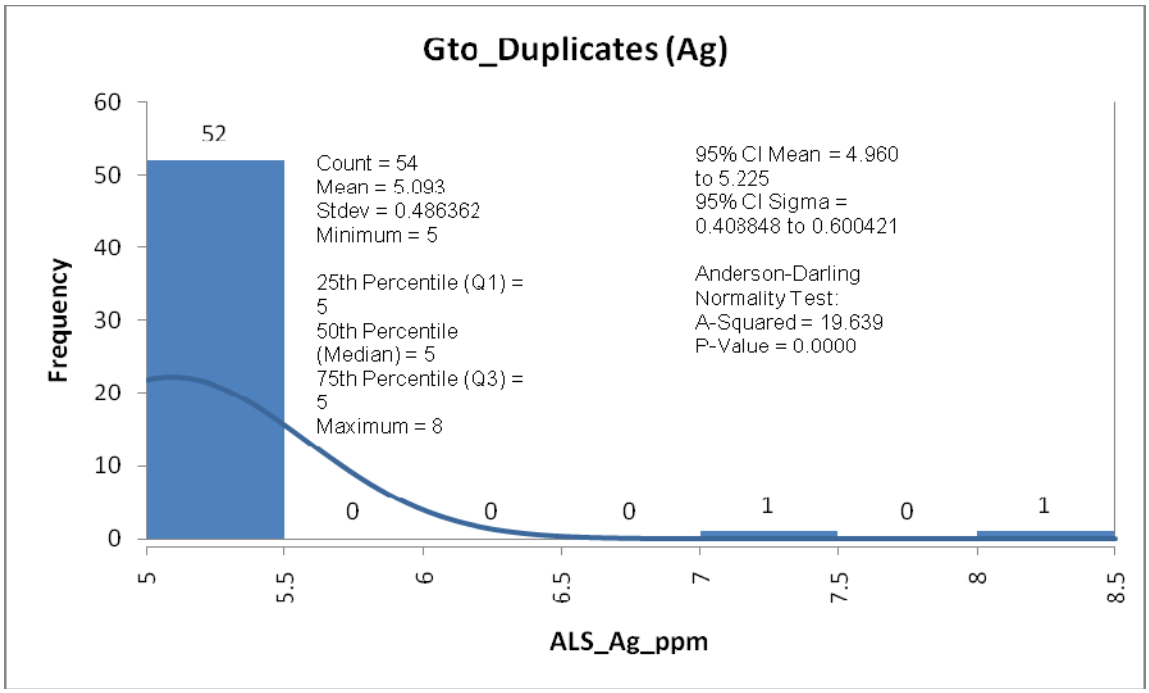


Figure provided by Endeavour Silver Corp.

For the duplicate samples, graphical analysis shows low correlation indices for the majority of the samples (Figures 13.6 and 13.7). This can, however, be mainly attributed to most of the samples, as shown on the histogram, being near the detection limit of the analytical method.

Out of a total 54 duplicate samples, only 3 samples for gold and 1 sample for silver were outside the zone of +/- 5% of confidence in the precision (orange lines) and 5 samples for gold and 5 sample for silver were outside the 5% confidence interval (blue line). The low correlation coefficients (0.26 for gold and 0.001 for silver) suggest that the homogeneity of the samples is very low. However, Endeavour Silver believes that the low homogeneity of the samples is primarily due to most of the samples (83%) being close to the lower detection limit, resulting in increased variability in the assays.

Figure 13.6
Graph of the Original versus Duplicate Sample for the Gold Assays from Endeavour Silver's Drilling Program

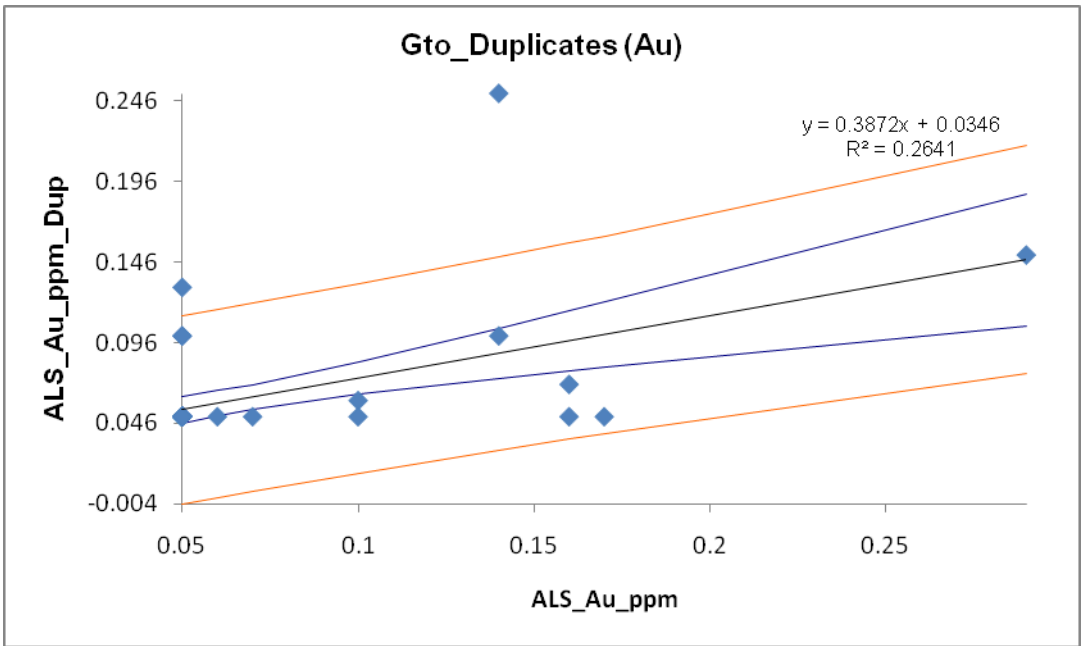


Figure provided by Endeavour Silver Corp.

There appear to be less points on the graphs in Figures 13.6 and 13.7 than the number of duplicate samples mentioned in the text because a the majority of the sample points lie on top of one another.

Figure 13.7
Graph of the Original versus Duplicate Sample for the Silver Assays from Silver's Drilling Program

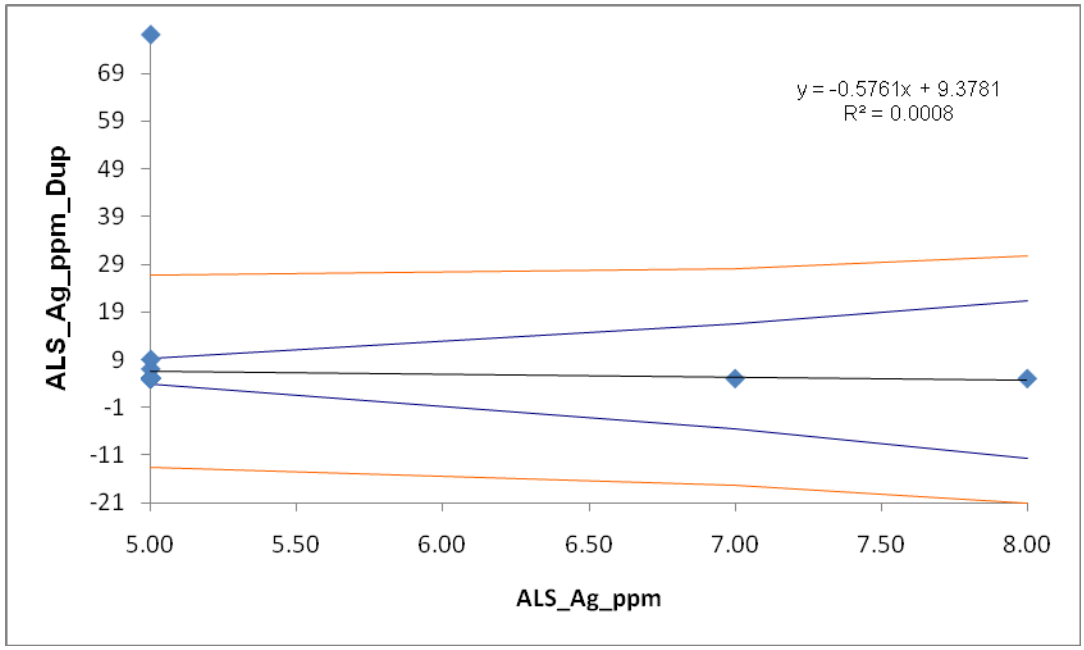


Figure provided by Endeavour Silver Corp.

Micon agrees with Endeavour Silver's observation. However, Micon would recommend that Endeavour Silver run a second set of assays for a selected group of duplicates to determine if the results are similar and that there has not been any bias introduced to the process related to the preparation method of the samples. Micon also recommends that a number of non-duplicate sample rejects and pulps be re-assayed as a further check.

13.2.4 Standard Reference Samples

Endeavour Silver uses commercial standard reference samples to monitor the accuracy of the laboratories. The standard reference material has been purchased from various internationally-recognized companies (WCM Minerals and Rock Labs.). Each standard reference sample was prepared by the vendor at its own laboratories and shipped directly to Endeavour Silver along with a certificate of analysis for each standard purchased.

In 2008, a total of 97 reference control samples were submitted at an average frequency of 1 for each batch of 20 samples. The standard reference samples were ticketed with pre-assigned numbers in order to avoid inadvertently using numbers that were being used during logging.

Nine different standards were submitted and analyzed for gold and silver for a total of 194 analyses (97 samples multiplied by 2 analyses each (gold and silver) = 194). The standard reference material samples used during Endeavour Silver's drilling programs are summarized in Table 13.2.

Table 13.2
Summary of the Standard Reference Material Samples used during the Diamond Drilling Program

Reference Standard	Sample Number.	Laboratory	Assay Results		
			Gold (g/t)	Silver (g/t)	Copper (%)
Edr-4	PM1112	WCM Minerals	1.35	228	0.23
Edr-5	PM1120	WCM Minerals	12.2	372	5.36
Er-9	PM1110	WCM Minerals	1.8	164	0.39
Edr-11	PM1118	WCM Minerals	1.8	38	
Edr-15	PM408	WCM Minerals	1.4		
Edr-16	HisSiK2	Rock Labs	3.5		
Edr-17	SH41	Rock Labs	1.3		

Table provided by Endeavour Silver Corp.

For graphical analysis, results for the standards were scrutinized relative to the mean or control limit (CL), and a lower control limit (LC) and an upper control limit (UL), as follows:

Limit Value:

UL Plus two standard deviations of standard reference material.
CL Recommended value (mean) of standard reference material).
LL Minus two standard deviations of standard reference material.

In 2009, a total of 55 standards were submitted of 7 different reference materials for a total of 110 assays for both gold and silver.

Results for each standard reference material sample used are presented separately below.

Edr-4

Seven samples of reference standard Edr-4 (a gold and silver standard) were submitted. The average values of the standards and the control charts are shown in Tables 13.3 and Figures 13.8 and 13.9.

Table 13.3
Summary of Results for Standard Reference Material Sample Edr-4

Element	Average Grade of Samples Submitted	Accepted Value of Standard
Gold (g/t)	1.33	1.35
Silver (g/t)	212	228

Table provided by Endeavour Silver Corp.

Figure 13.8
Control Chart for Gold Assays from the Standard Reference Sample Edr-4

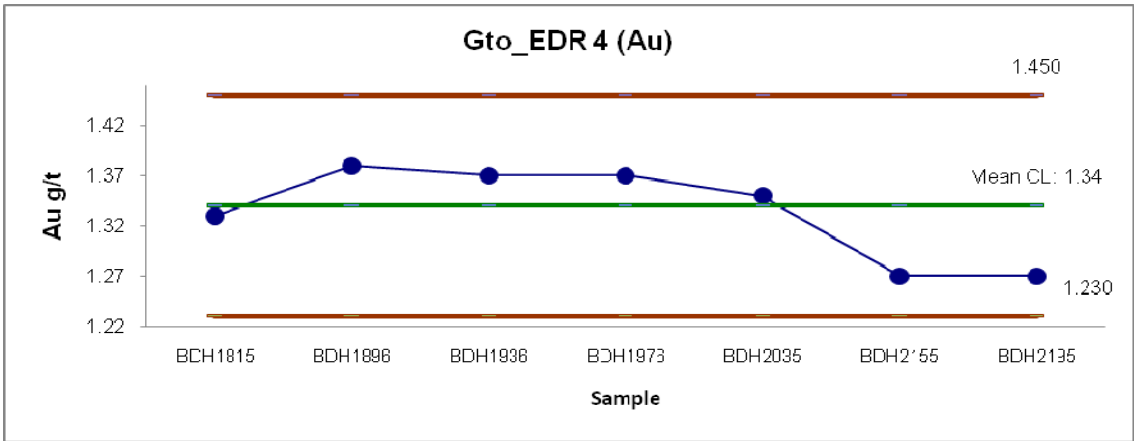


Figure provided by Endeavour Silver Corp.

Figure 13.9
Control Chart for Silver Assays from the Standard Reference Sample Edr-4

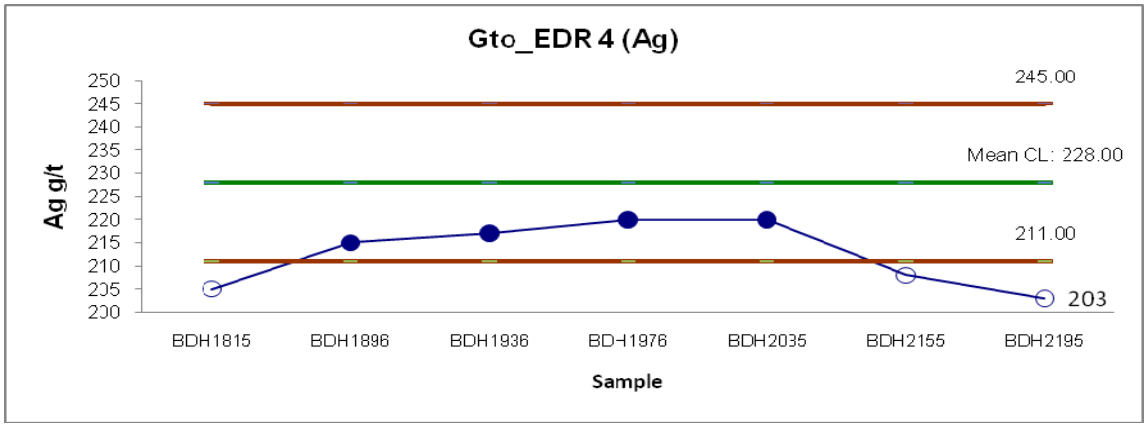


Figure provided by Endeavour Silver Corp.

For standard Edr-4, all of the samples were within the accepted gold range for the standard.

For standard Edr-4, three of the samples were outside the accepted silver range for the standard (±7%) and these have been summarized in Table 13.4.

Table 13.4
Summary of the Silver Results Outside the Accepted Range for the Standard Reference Material Sample Edr-4

EDR-4 Silver Sample Number	Percent of the Expected Value
BDH1815	-10%
BDH2155	-9%
BDH2195	-11%

Table provided by Endeavour Silver Corp.

Edr-5

Fifteen samples of standard Edr-5 (a gold and silver standard) were submitted. The average assay values for gold and silver for this standard are summarized in Table 13.5 and the control charts are shown in Figures 13.10 and 13.11.

Table 13.5
Summary of Results for Standard Reference Material Sample Edr-5

Element	Average Grade of Samples Submitted	Accepted Value of Standard
Gold (g/t)	11.96	12.20
Silver(g/t)	355	372

Table provided by Endeavour Silver Corp.

Figure 13.10
Control Chart for Gold Assays from the Standard Reference Sample Edr-5

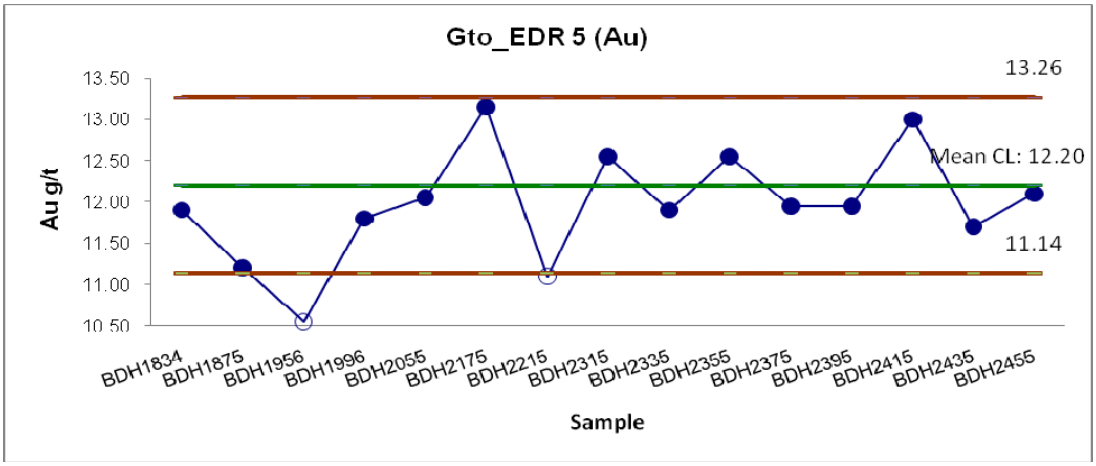


Figure provided by Endeavour Silver Corp.

Figure 13.11
Control Chart for Silver Assays from the Standard Reference Sample Edr-5

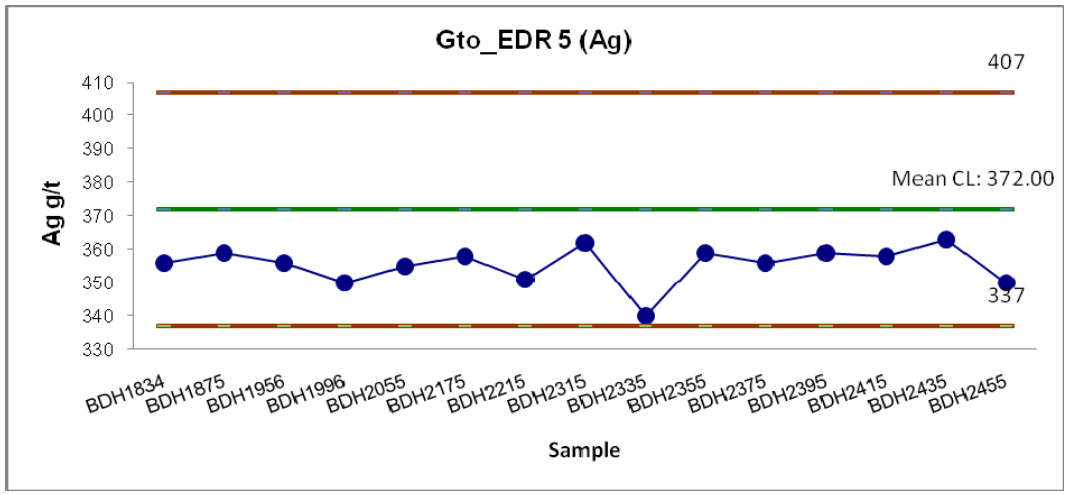


Figure provided by Endeavour Silver Corp.

For standard Edr-5, two of the samples were outside the accepted gold range for the standard (±8.7%) and these have been summarized in Table 13.6.

Table 13.6
Summary of the Gold Results Outside the Accepted Range for the Standard Reference Material Sample Edr-5

Edr-5 Gold Sample Number	Percent of the Expected Value
BDH 2215	-9%
BDH 1958	-16%

Table provided by Endeavour Silver Corp.

For standard Edr-5, all samples were slightly less than the average but within the accepted silver range for the standard (±9.4%).

Edr-9

Five samples were submitted for standard Edr-9 (a gold and silver standard). The average assay values for gold and silver for this standard are summarized in Table 13.7 and the control charts are shown in Figures 13.12 and 13.13.

Table 13.7
Summary of Results for Standard Reference Material Sample Edr-9

Element	Average Grade of Samples Submitted	Accepted Value of Standard
Gold (g/t)	1.75	1.78
Silver(g/t)	156	164

Table provided by Endeavour Silver Corp.

For gold, only one sample (DH2075) was outside the accepted range for the standard (± 3.9%).

For silver, the same sample (DH2075) was outside the accepted range for the standard (± 5.5%).

Figure 13.12
Control Chart for Gold Assays from the Standard Reference Sample Edr-9

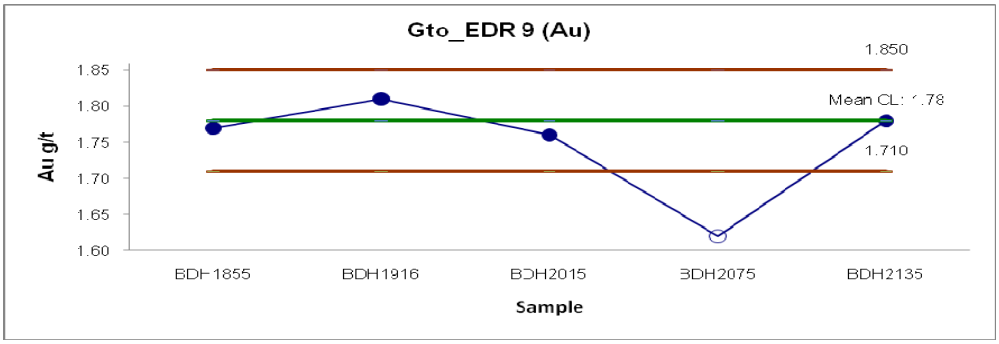


Figure provided by Endeavour Silver Corp.

Figure 13.13
Control Chart for Silver Assays from the Standard Reference Sample Edr-9

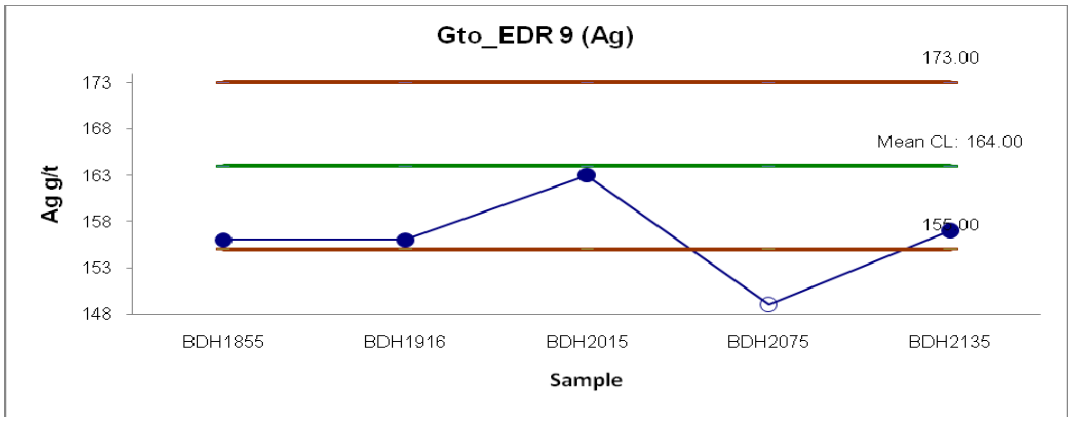


Figure provided by Endeavour Silver Corp.

Edr-11

Sixteen samples of standard Edr-11 (a gold and silver standard) were submitted. The average assay values for gold and silver for this standard reference material sample are summarized in Table 13.8 and the control charts are shown in Figures 13.14 and 13.15.

Table 13.8
Summary of Results for Standard Reference Material Sample Edr-11

Element	Average Grade of Samples Submitted	Accepted Value of Standard
Gold (g/t)	1.82	1.82
Silver (g/t)	38	38

Table provided by Endeavour Silver Corp.

Figure 13.14
Control Chart for Gold Assays from the Standard Reference Sample Edr-11

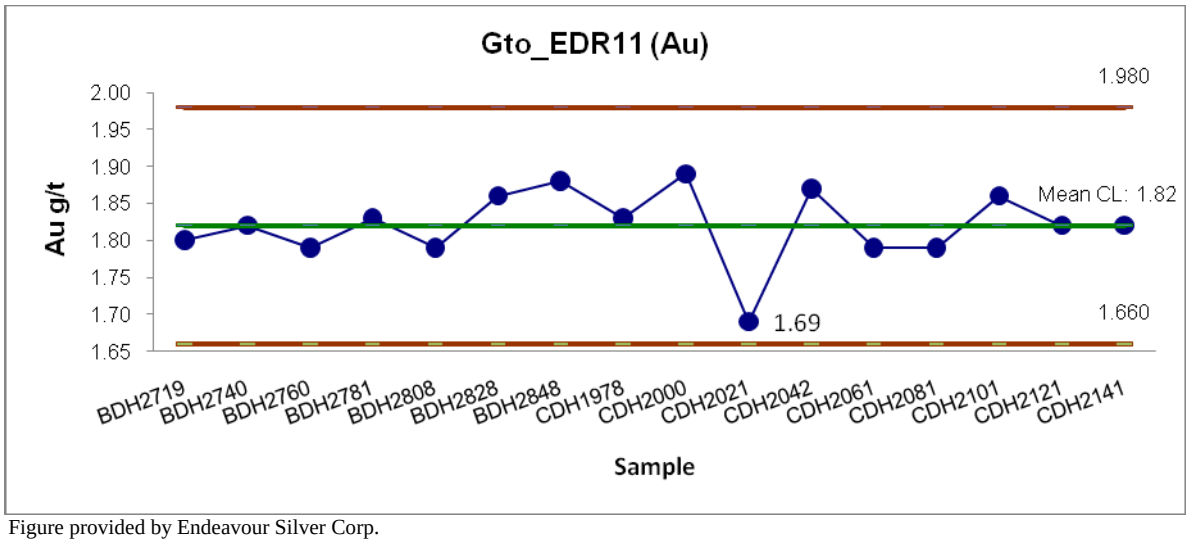


Figure provided by Endeavour Silver Corp.

Figure 13.15
Control Chart for Silver Assays from the Standard Reference Sample Edr-11

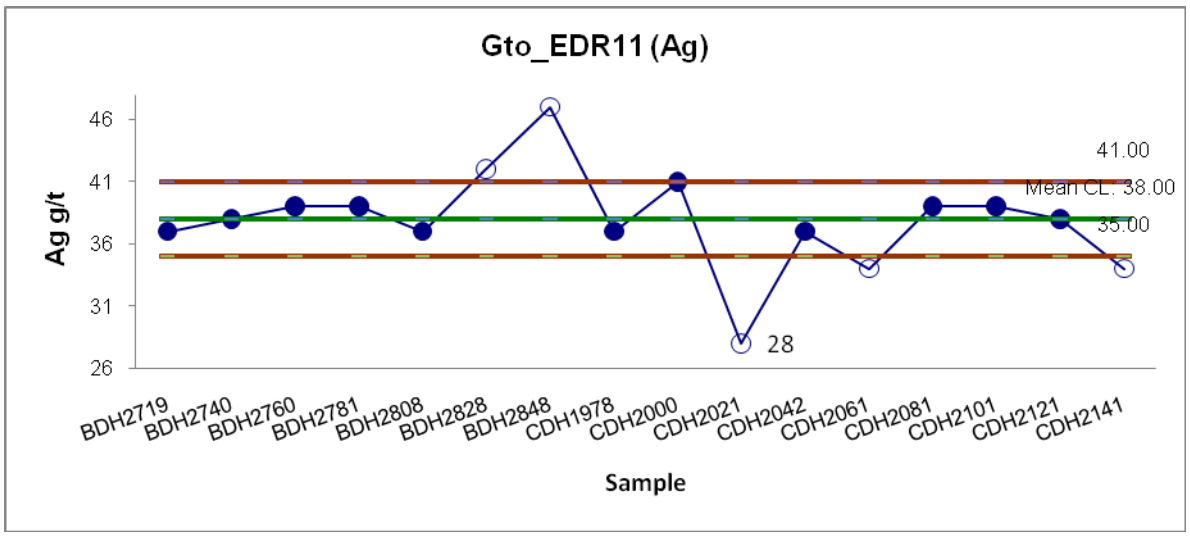


Figure provided by Endeavour Silver Corp.

For standard Edr-11, none of the samples had a value outside the accepted gold range for the standard.

For standard reference material sample Edr-11, five of the values for the samples were outside the accepted silver range for the standard (±9.2%) and these have been summarized in Table 13.9.

Table 13.9
Summary of the Gold Results Outside the Accepted Range for the Standard Reference Material Sample Edr-11

Edr-11 Silver Sample Number	Percent of the Expected Value
BDH2828	+11%
BDH2848	+24%
CDH2021	-26%
CDH2061	-11%
CDH2141	-11%

Table provided by Endeavour Silver Corp.

Edr-15

Four samples of reference standard Edr-15 (a gold standard) were submitted.

The average assay values for gold for this standard are summarized in Table 13.10 and the control chart is shown in Figure 13.16.

Table 13.10
Summary of Results for Standard Reference Material Sample Edr-15

Element	Average Grade of Samples Submitted	Accepted Value of Standard
Gold (g/t)	1.40	1.42

Table provided by Endeavour Silver Corp.

Figure 13.16
Control Chart for Gold Assays from the Standard Reference Sample Edr-15

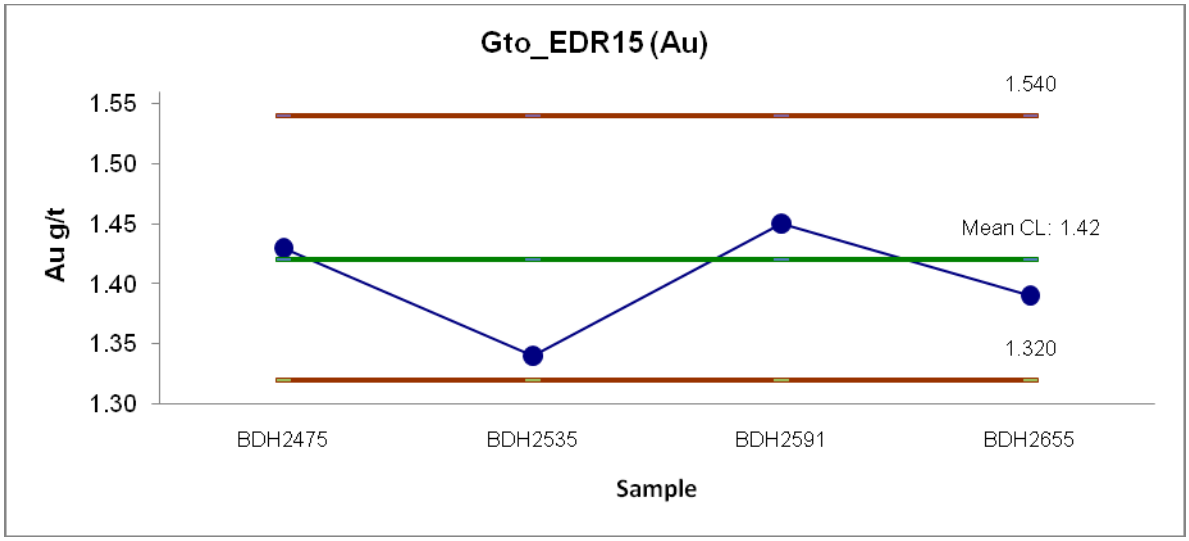


Figure provided by Endeavour Silver Corp.

For standard Edr-15, none of the samples had a value outside the accepted gold range for the standard.

Edr-16

Four samples of reference standard Edr-16 (a gold standard) were submitted.

The average value of the standard and the control chart are shown in Table 13.11 and Figure 13.17.

For standard Edr-16, all values were slightly less than the expected value but none was outside the accepted gold range for the standard.

Table 13.11
Laboratory Performance on Standard Edr-16

Element	Average Grade of Samples Submitted	Accepted Value of Standard
Ag (g/t)	3.38	3.47

Table provided by Endeavour Silver Corp.

Figure 13.17
Control Chart for Gold Assays from the Standard Reference Sample Edr-16

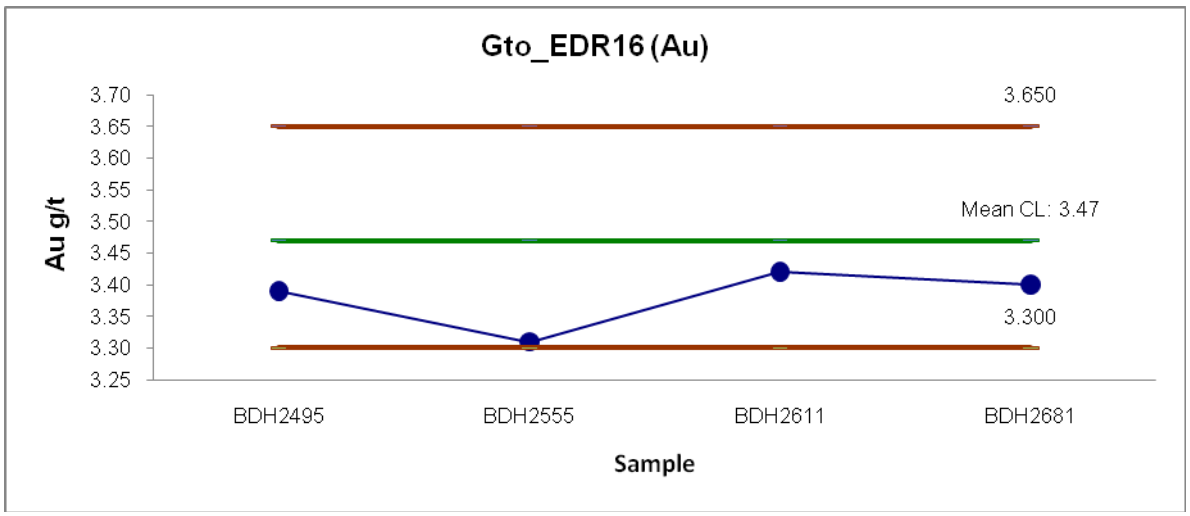


Figure provided by Endeavour Silver Corp.

Edr-17

Four samples of reference standard Edr-17 (a gold standard) were submitted.

The average value of the standard and the control chart are shown in Table 13.12 and Figure 13.18.

For standard Edr-17, all samples had a value within the accepted gold range for the standard.

Table 13.12
Laboratory Performance on Standard Edr-17

Element	Average Grade of Sample Submitted	Accepted Value of Standard
Ag (g/t)	1.32	1.34

Table provided by Endeavour Silver Corp.

Figure 13.18
Control Chart for Gold Assays from the Standard Reference Sample Edr-17

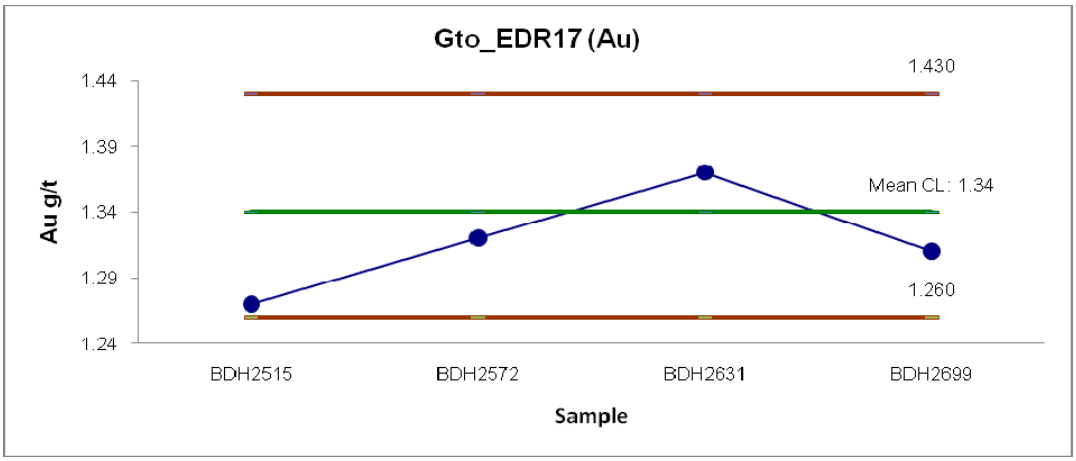


Figure provided by Endeavour Silver Corp.

Summary of Control Sample Results

Several different standards have been used during the Guanajuato drilling program. To view the overall results of this QA/QC program, it was necessary to prepare a single control chart for each of gold and silver to show the variability of results over time. The summary control charts are shown in Figures 13.19 and 13.20.

The control chart for gold shows a high variability in the results but still close to the expected values for the standards.

Figure 13.19
Control Chart for Gold Assays over Time for the Standard Reference Samples Submitted as part of the Guanajuato Drilling Program

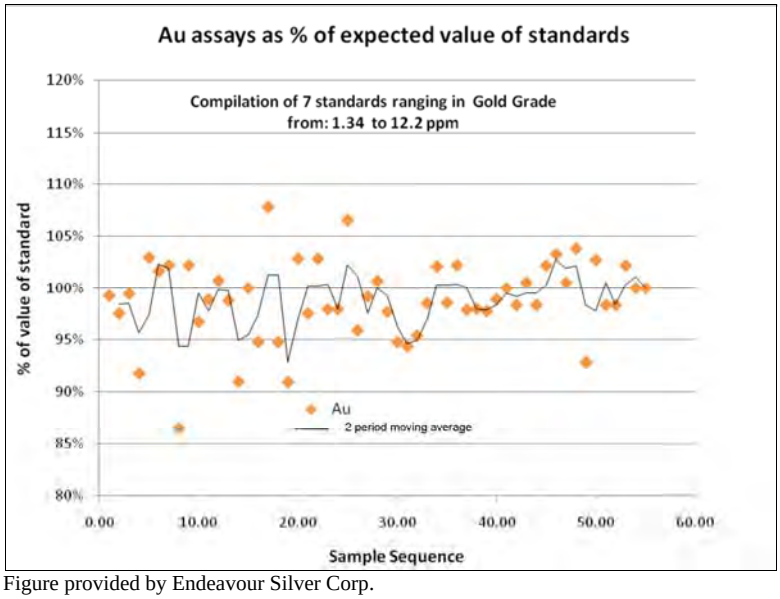


Figure provided by Endeavour Silver Corp.

For silver, there is a smaller amount of variability with respect to time. Assays depict a more concentrated cloud but with a marked tendency for values for all silver standards to be lower than the expected values. Assays were closer to expected values near the end of the program but the results are more dispersed.

Figure 13.20
Control Chart for Silver Assays over Time for the Standard Reference Samples Submitted as Part of the Guanajuato Drilling Program

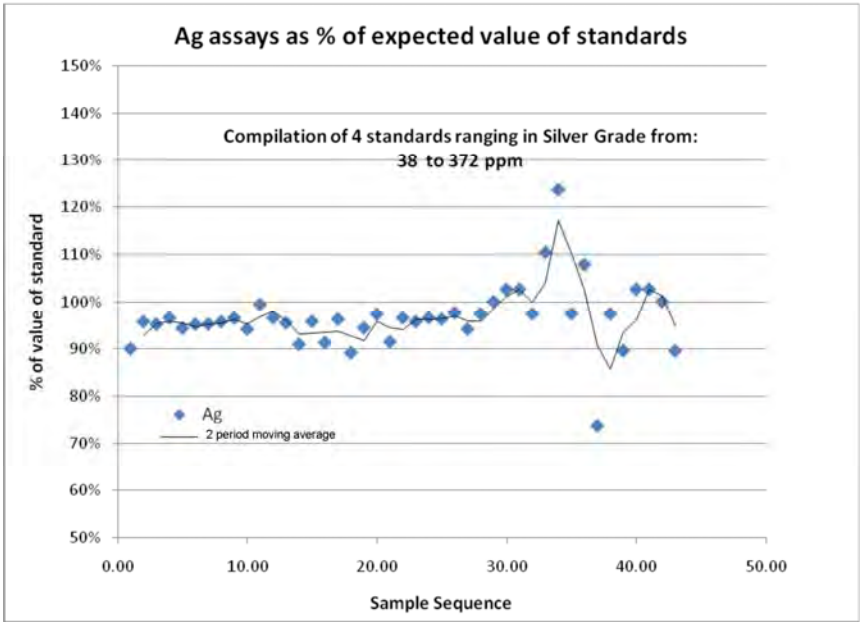


Figure provided by Endeavour Silver Corp.

13.2.5 Check Assay Samples

Random pulps were selected from original core samples and sent to a second laboratory to verify the original assay and monitor any possible deviation due to sample handling and laboratory procedures.

A total of 48 pulps, 4 blanks and 4 standards were sent to a third party laboratory (BSI-Inspectorate) for check analysis. This amounts to approximately to 5% of the total samples taken during the drilling program. Four blanks and 4 standards (Edr-14 and Edr-18) were submitted with the pulps sent for check assay.

For these samples, there was close correlation between the original assay and the check assay as shown in Figures 13.21 and 13.22.

Figure 13.21
Scatter Diagram of the Gold Check Samples Above Detection Limits

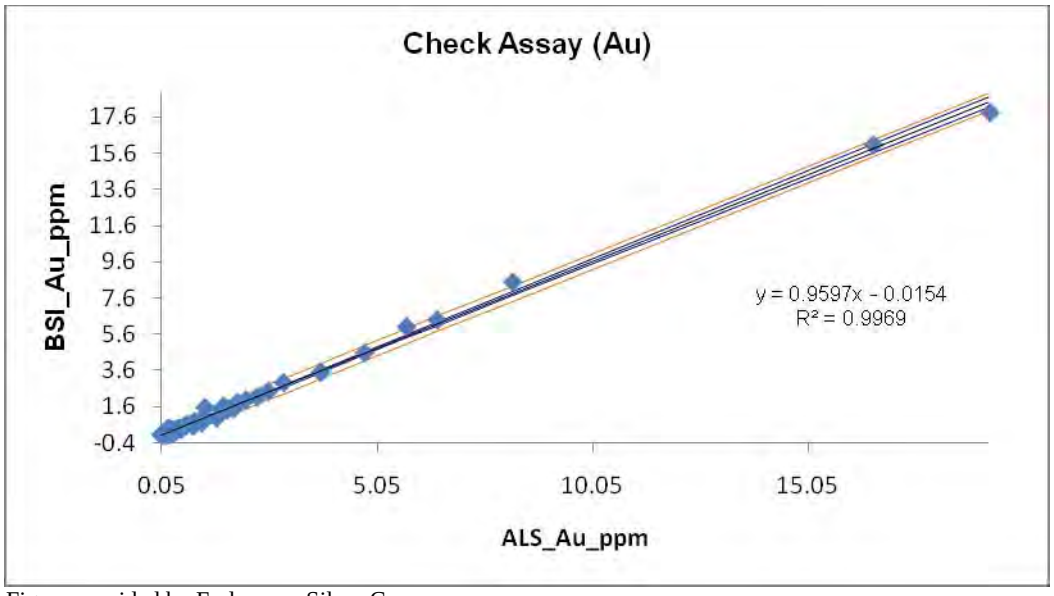


Figure provided by Endeavour Silver Corp.

Figure 13.22
Scatter Diagram of the Silver Check Samples Above Detection Limits

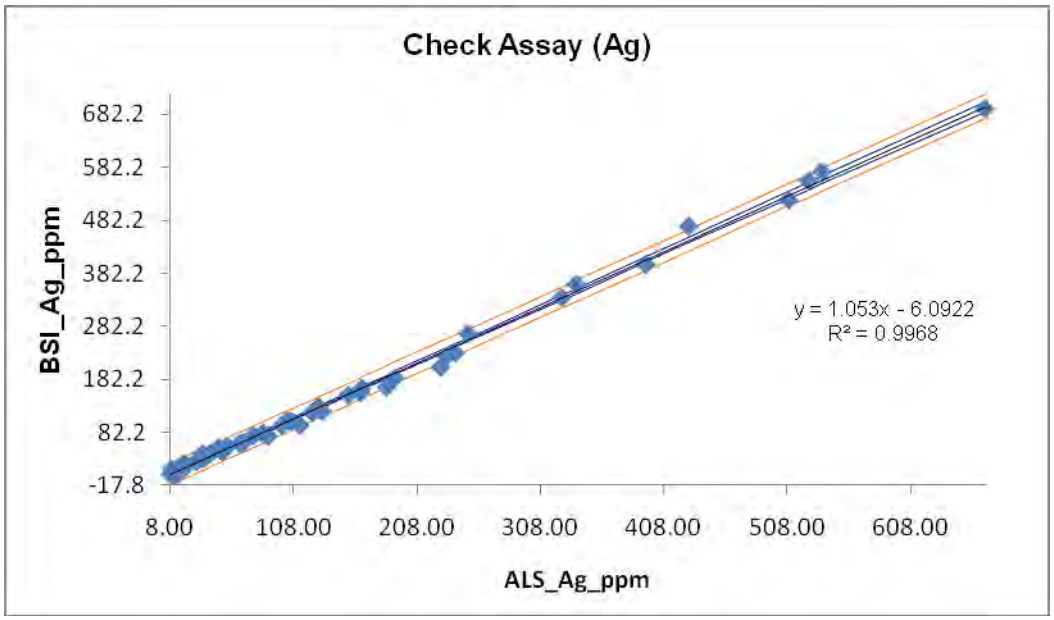


Figure provided by Endeavour Silver Corp.

13.3 BOLAÑITOS LABORATORY

In late 2008, Endeavour Silver commissioned a new laboratory facility at the Bolañitos mine for the Guanajuato Mines project. This laboratory was constructed as a measure to ensure accuracy and reliability of in-house analytical data. Endeavour Silver is currently in the process of continuing to develop and improve the QA/QC protocols for monitoring assay results for this laboratory.

During the commissioning of the new Bolañitos laboratory, Endeavour Silver is taking steps to improve deficiencies partly due to old equipment and also some bad practices. For example, Endeavour Silver has now adopted the practice of drying the sample before crushing and homogenizing the pulp prior to extracting the aliquot for final analysis. Sample preparation is also now being carried out under the direction of the laboratory supervisor.

In order to minimize contamination between samples, Endeavour Silver plans to submit blanks along with its control samples.

The Bolañitos laboratory also hopes to participate in a proficiency program of round-robin testing such as the one run by CanMet. This would assist the on-site laboratory in assessing its performance for one or more analytical methods independently of internal quality control.

13.3.1 Standards

In 2009, Endeavour Silver submitted 18 commercial standard reference material samples to the Bolañitos laboratory as a continuing evaluation of the accuracy of the laboratory. The standard reference material samples were purchased from various internationally-recognized companies

Six samples each of the standards Edr-11, Edr-14 and Edr-15 were submitted to the Bolañitos laboratory

Edr-11

The average values for standard Edr-11 are summarized in Table 13.13 and Figures 13.23 and 13.24.

Table 13.13
Summary of Results for Standard Reference Material Sample Edr-11

Element	Average of Grade of Samples Submitted	Accepted Value of Standard
Gold (g/t)	1.67	1.82
Silver (g/t)	34	38

Table provided by Endeavour Silver Corp.

For gold, the control chart (Figure 13.23) indicates that the values for all six of the standard samples were the below the accepted value of the standard. Four of the six values for gold were below the lower control limit.

For silver, all but one of the values for the samples were lower than the accepted value for the standard Edr-11 and five of the six were below the lower control limit of the standard (Figure 13.24).

Figure 13.23
Control Chart for Gold Assays from the Standard Reference Sample Edr-11

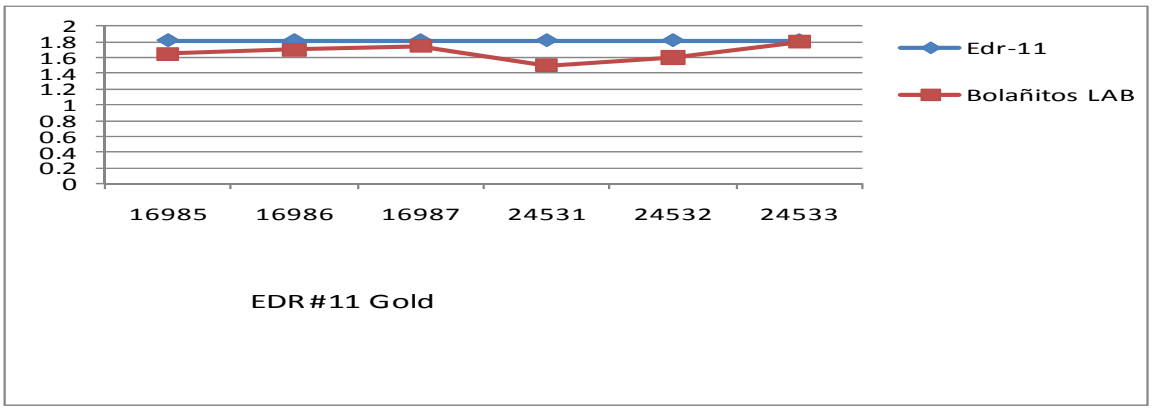


Figure provided by Endeavour Silver Corp.

Figure 13.24
Control Chart for Silver Assays from the Standard Reference Sample Edr-11

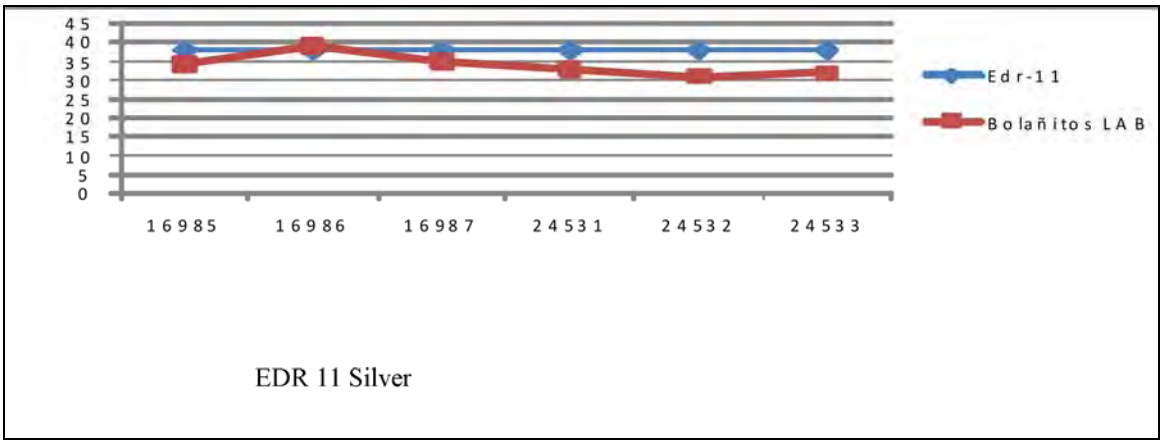


Figure provided by Endeavour Silver Corp.

Edr-14

Five samples of standard Edr-14 were submitted to the Bolañitos laboratory. The average values are summarized in Table 13.14 and Figure 13.25.

Table 13.14
Summary of Results for Standard Reference Material Sample Edr-14

Element	Average of Grade of Samples Submitted	Accepted Value of Standard
Silver (g/t)	201	228

Table provided by Endeavour Silver Corp.

Figure 13.25
Control Chart for Silver Assays from the Standard Reference Sample Edr-14

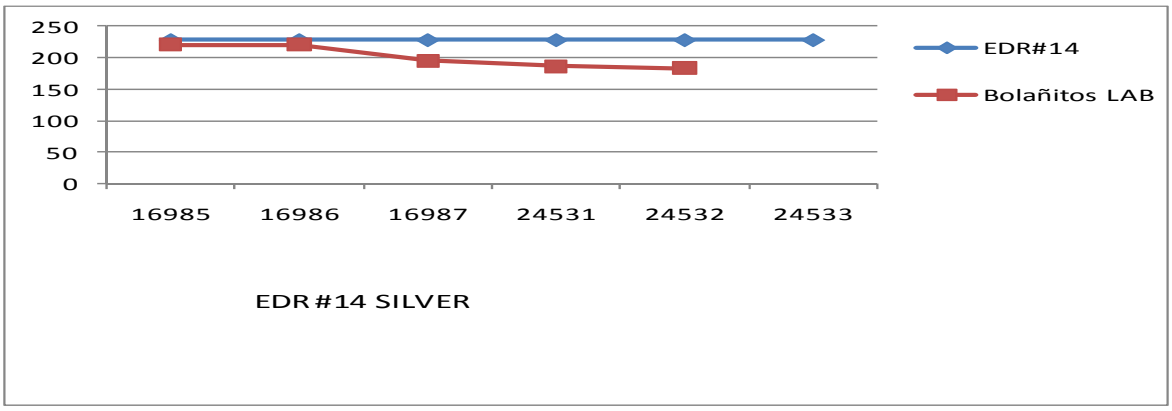


Figure provided by Endeavour Silver Corp.

The control chart indicates that all of the silver values were below the accepted value of the standard Edr-14. The standard Edr-14 has no value for gold, the mine value was below the detection limit.

Edr-15

Six samples of the standard Edr-15 were submitted to the Bolañitos laboratory. The average values are summarized in Table 13.15 and Figure 13.26.

Table 13.15
Summary of Results for Standard Reference Material Sample Edr-15

Element	Average of Grade of Samples Submitted	Accepted Value of Standard
Gold (g/t)	0	1.42

Table provided by Endeavour Silver Corp.

Figure 13.26
Control Chart for Silver Assays from the Standard Reference Sample Edr-14

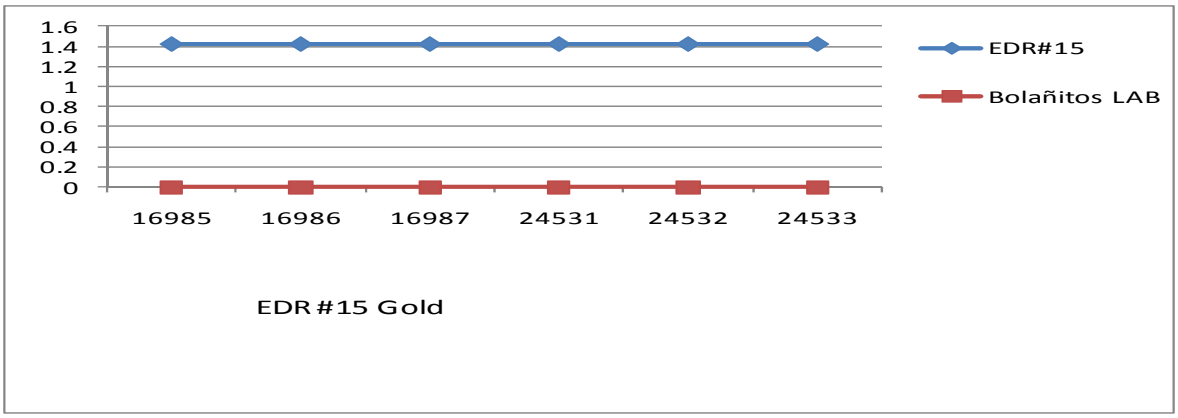


Figure provided by Endeavour Silver Corp.

The control chart indicates that all the gold value were below the lower limit. The Bolañitos laboratory essentially founf no gold in this standard.

In 2009, the Guanajuato Mines project began to use 5 different types of samples for the QA/QC program. The different types of samples are comprised of blanks, duplicates, rejects, pulps and standards

In 2010, the Endeavour Silver laboratory will process more commercial standards and will create some standards from the mine material with the objective that the laboratory increases its overall accuracy.

13.3.2 Check Assays

A total of 1,493 pulps were randomly selected from the original channel samples assayed by the Bolañitos laboratory during 2009. These samples were subsequently sent to second laboratories (BSI-Inspectorate and Guanaceví laboratories) to verify the original assay and monitor any possible deviation due to sample handling and laboratory procedures.

For the majority of these samples, the correlation between the original assay and the check assay is very good. For both gold and silver, check assays from BSI-Inspectorate tended to be close to the original assays reported by the Bolañitos laboratory, as shown in Figures 13.27 through 13.30. The correlation coefficients (R^2) were 0.994 and 0.995 for silver and gold, respectively. For both gold and silver, the check assays from the Guanaceví laboratory tended to be lower than the original assay reported by the Bolañitos laboratory as shown in Figures 13.31 through 13.34. Nevertheless, a good correlation was demonstrated with R^2 values of 0.9767 and 0.8650 for silver and gold, respectively.

A comparison was also made between all pulp and reject samples originally assayed at the Bolañitos laboratory and subsequently submitted to BSI-Inspectorate and the Guanaceví laboratory for check assaying. As demonstrated for silver assays in Figures 13.35 and 13.36,

these scatter diagrams indicate a good correlation between the Bolañitos laboratory and the two secondary laboratories. The overall R^2 value for the silver check assays of pulps was 0.9779 and 0.9488 for silver and gold, respectively. The correlation for silver check assays of rejects was also good with an overall R value of 0.8796 (Fig. 13.37). A lower R^2 value, however, was indicated for gold check assays for rejects (Fig 13.38). The overall R^2 value for gold check assays of rejects was 0.306 and is likely due to a higher variability for gold in coarse reject material than for pulps.

Figure 13.27
Diagram of the Silver Check Samples Indicating the Differences between the Bolañitos and Inspectorate Laboratories

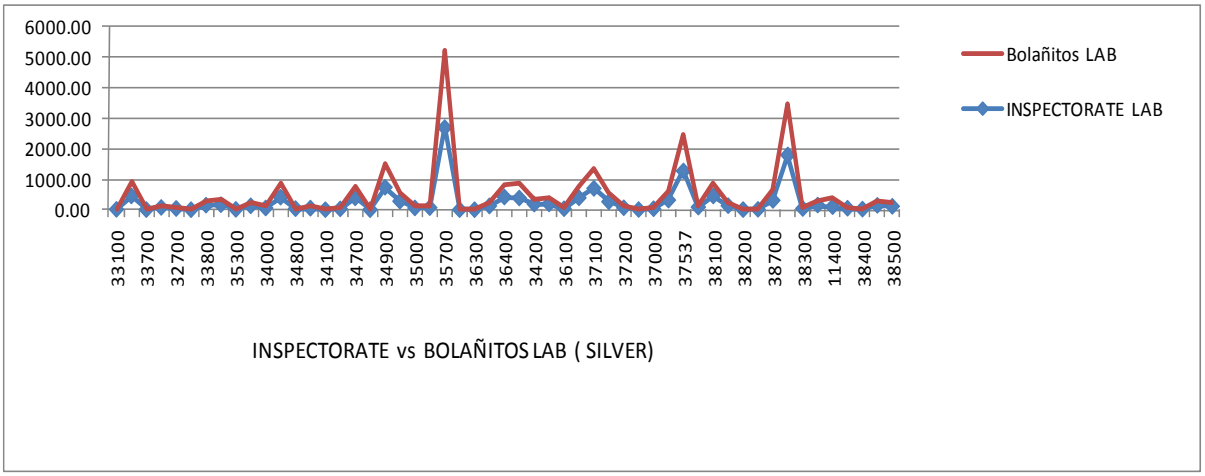


Figure provided by Endeavour Silver Corp.

Figure 13.28
Scatter Diagram of the Silver Check Samples Indicating a Good Correlation between the Bolañitos and Inspectorate Laboratories

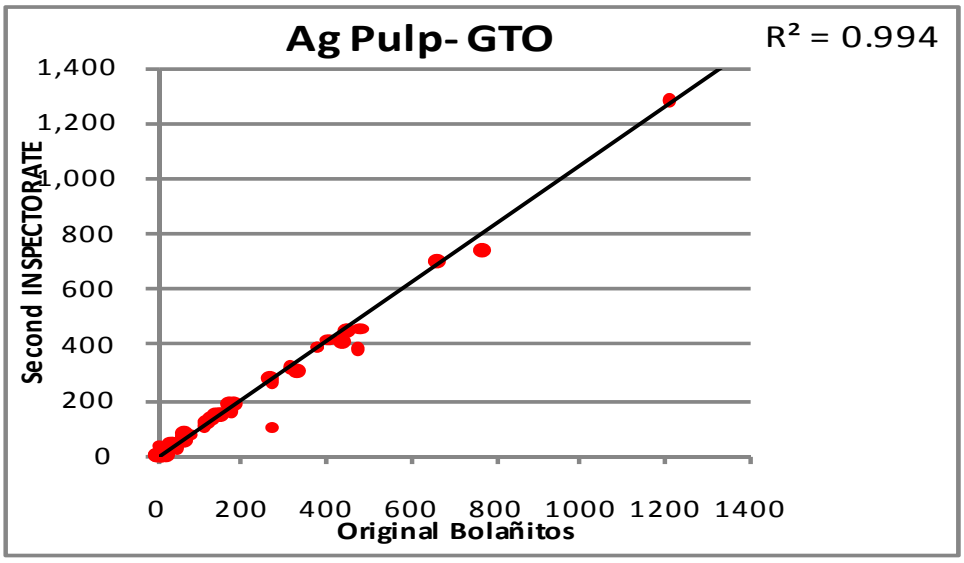


Figure provided by Endeavour Silver Corp.

Figure 13.29
Diagram of the Gold Check Samples Indicating the Differences between the Bolañitos and Inspectorate Laboratories

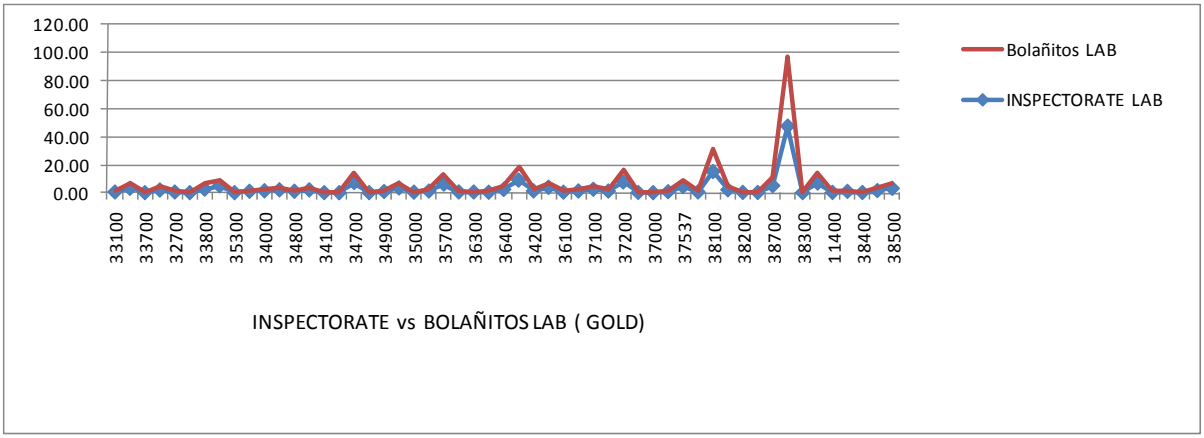


Figure provided by Endeavour Silver Corp.

Figure 13.30
Scatter Diagram of the Gold Check Samples Indicating a Good Correlation between the Bolañitos and Inspectorate Laboratories

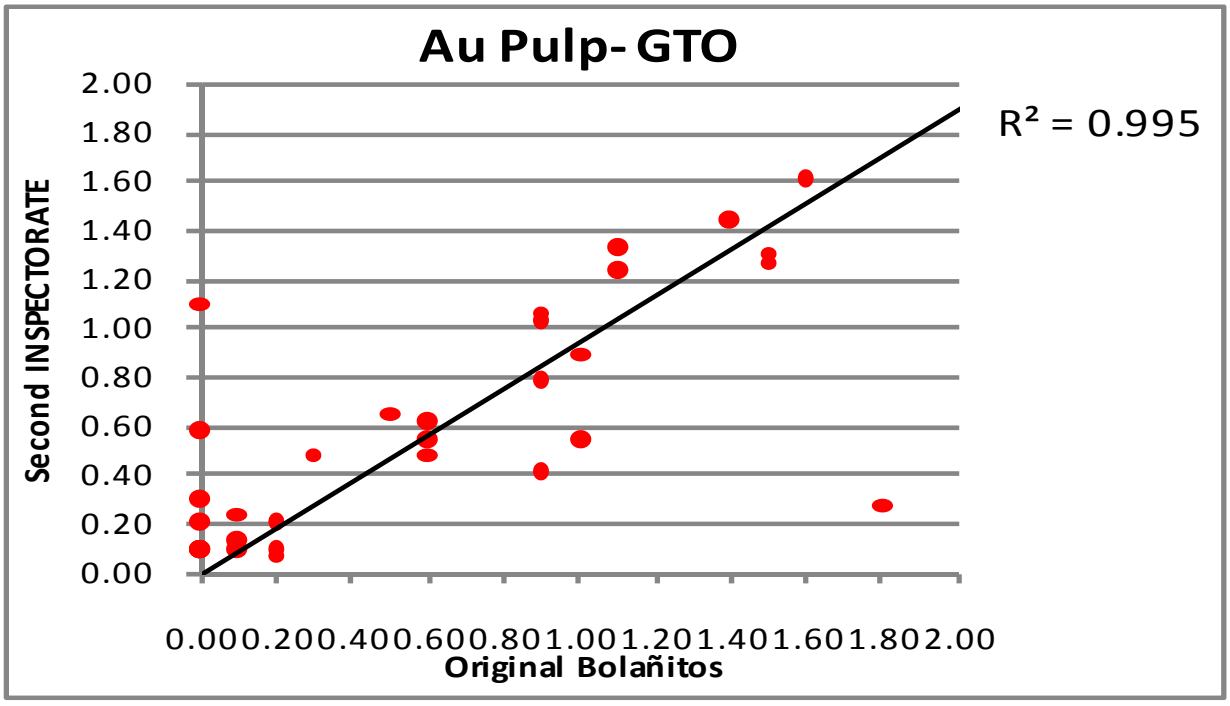


Figure provided by Endeavour Silver Corp.

Figure 13.31
Diagram of the Silver Check Samples Indicating the Differences between the Bolañitos and Guanaceví Laboratories

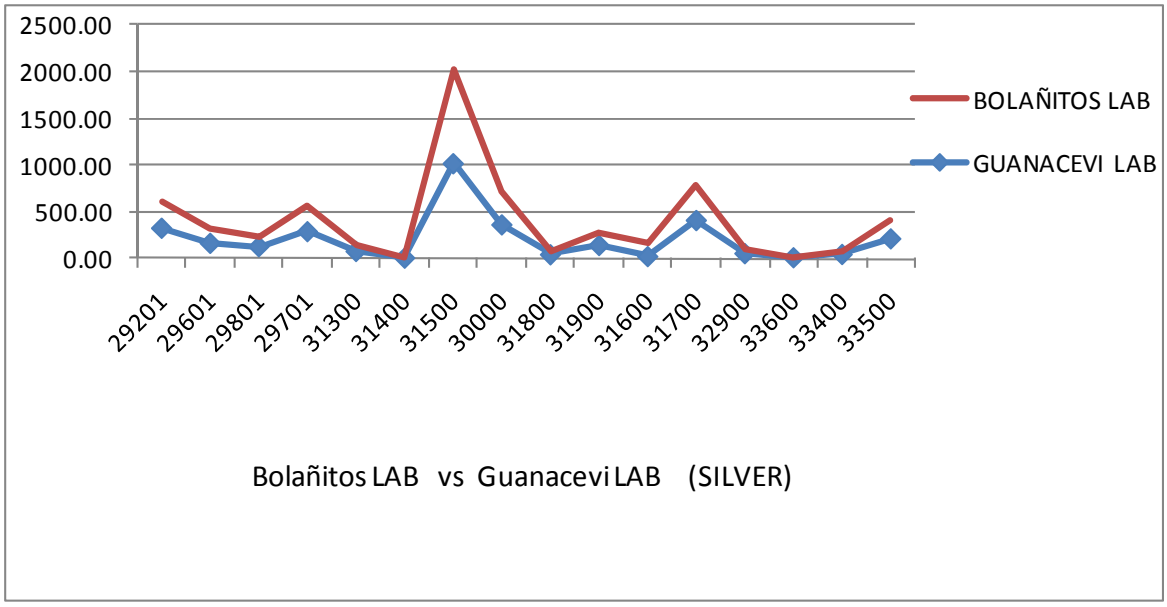


Figure provided by Endeavour Silver Corp.

Figure 13.32
Scatter Diagram of the Silver Check Samples Indicating a Good Correlation between the Bolañitos and Guanaceví Laboratories

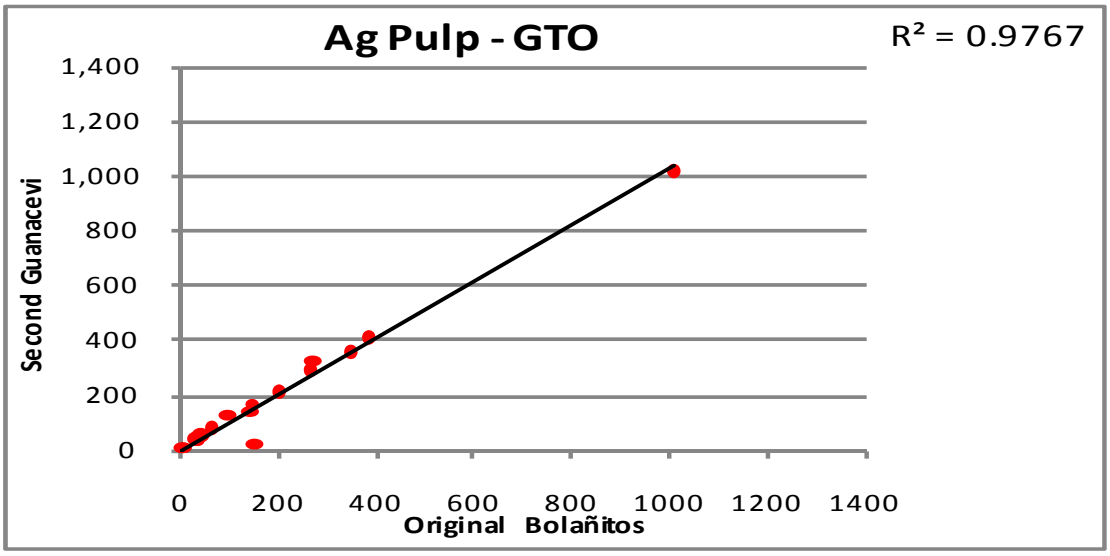


Figure provided by Endeavour Silver Corp.

Figure 13.33
Diagram of the Gold Check Samples Indicating the Differences between the Bolañitos and Guanaceví Laboratories

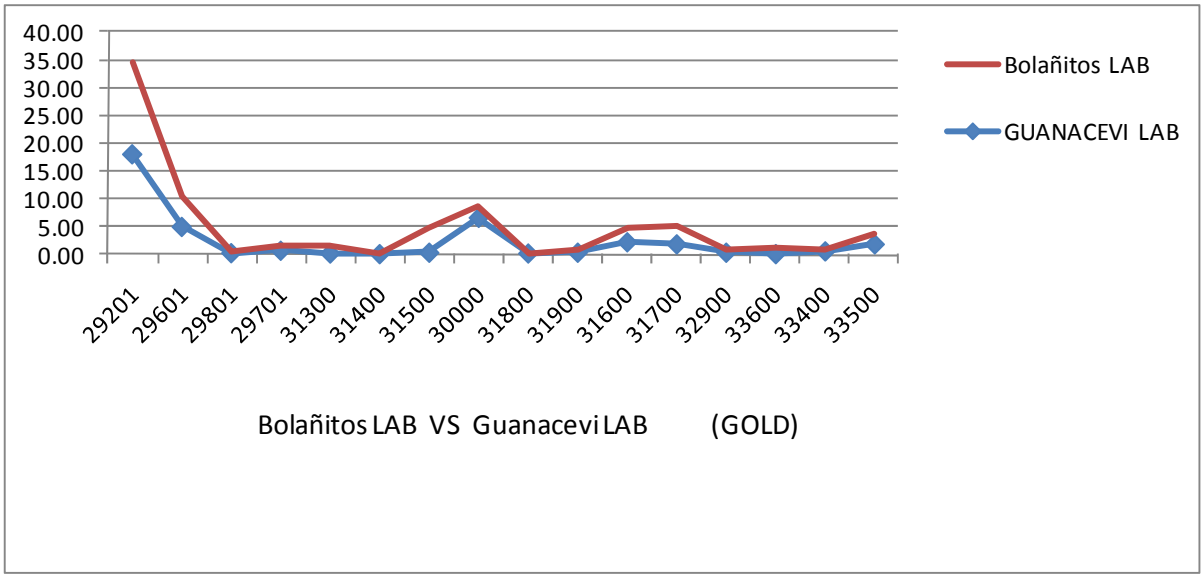


Figure provided by Endeavour Silver Corp.

Figure 13.34
Scatter Diagram of the Gold Check Samples Indicating a Good Correlation between the Bolañitos and Guanaceví Laboratories

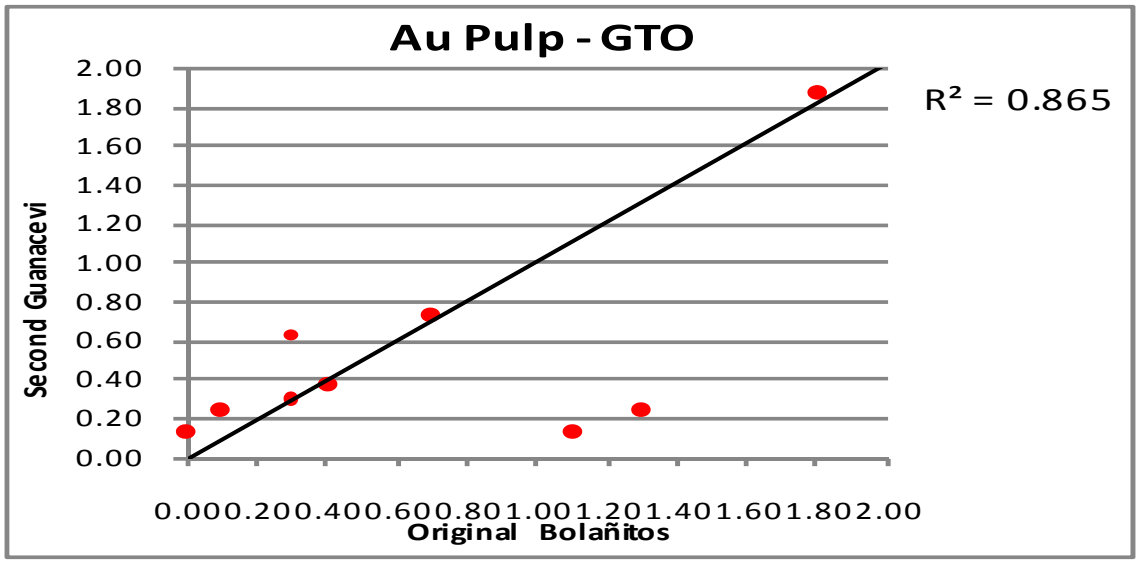


Figure provided by Endeavour Silver Corp.

Figure 13.35
Scatter Diagram of All of the Silver Pulp Check Samples Indicating a Good Correlation between the Bolañitos and the Two Secondary Laboratories

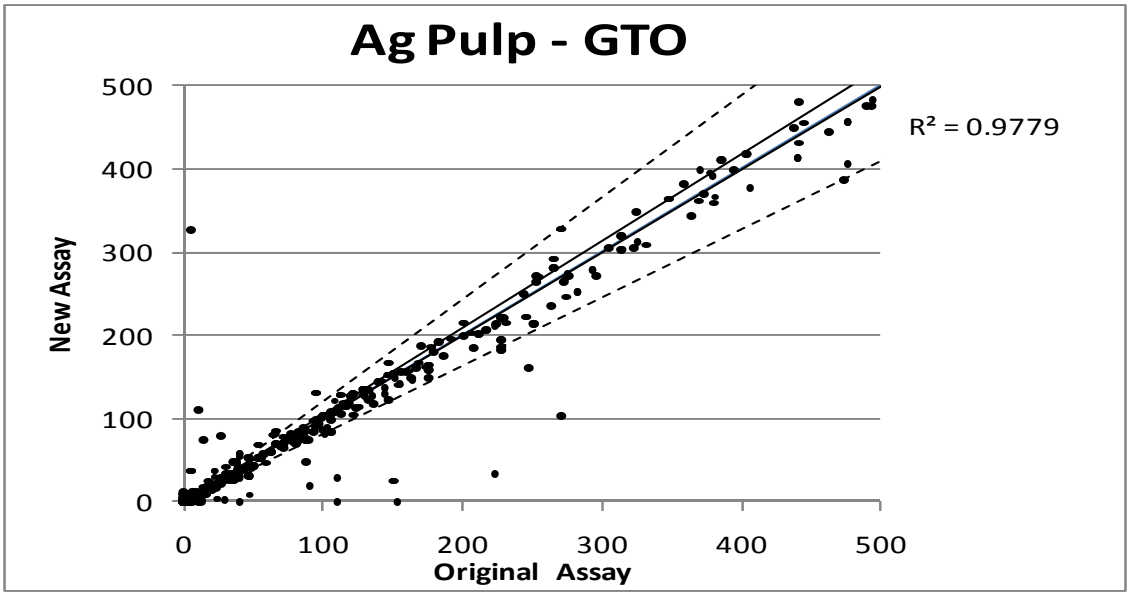


Figure provided by Endeavour Silver Corp.

Figure 13.36
Scatter Diagram of All of the Gold Pulp Check Samples Indicating a Good Correlation between the Bolañitos and the Two Secondary Laboratories

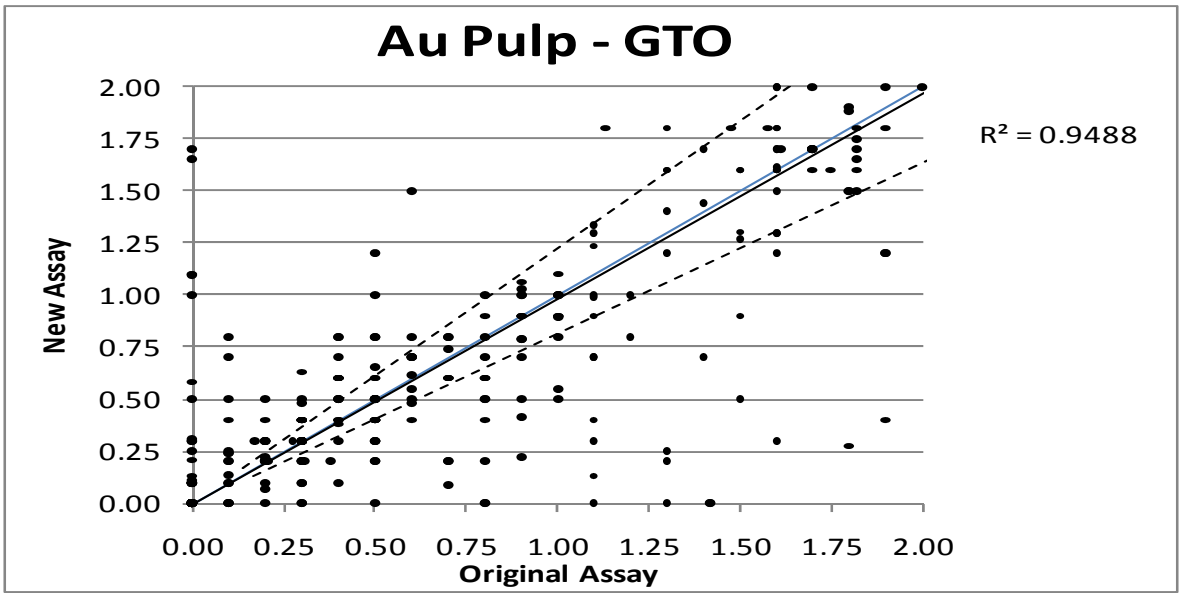


Figure provided by Endeavour Silver Corp.

Figure 13.37
Scatter Diagram of All of the Silver Reject Check Samples Indicating a Good Correlation between the Bolañitos and the Two Secondary Laboratories

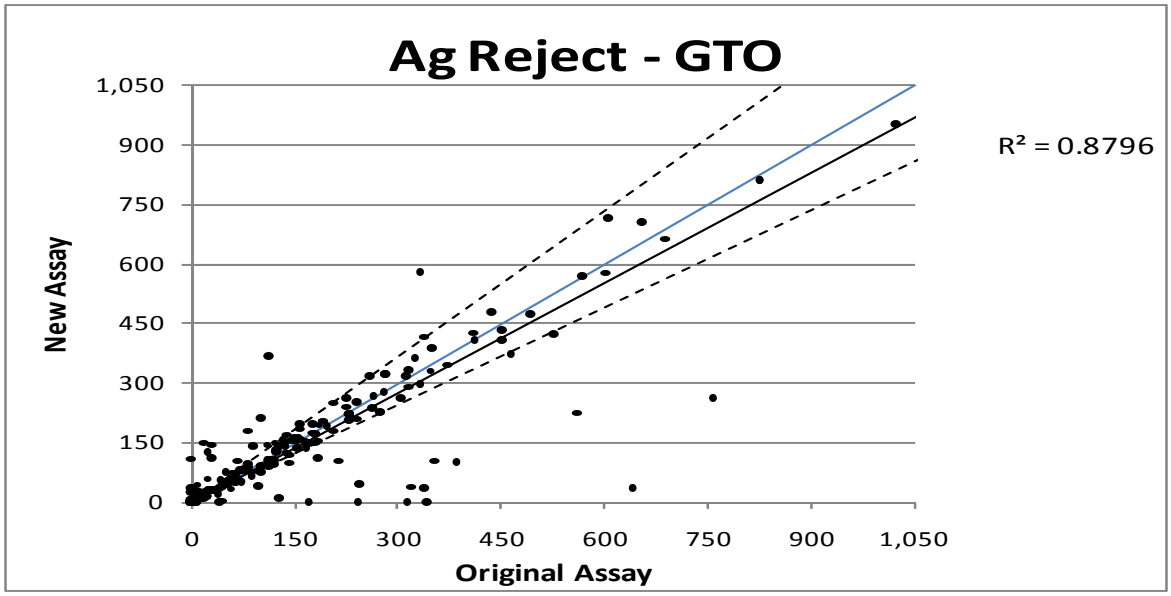


Figure provided by Endeavour Silver Corp.

Figure 13.38
Scatter Diagram of All of the Gold Reject Check Samples Indicating a Good Correlation between the Bolañitos and the Two Secondary Laboratories

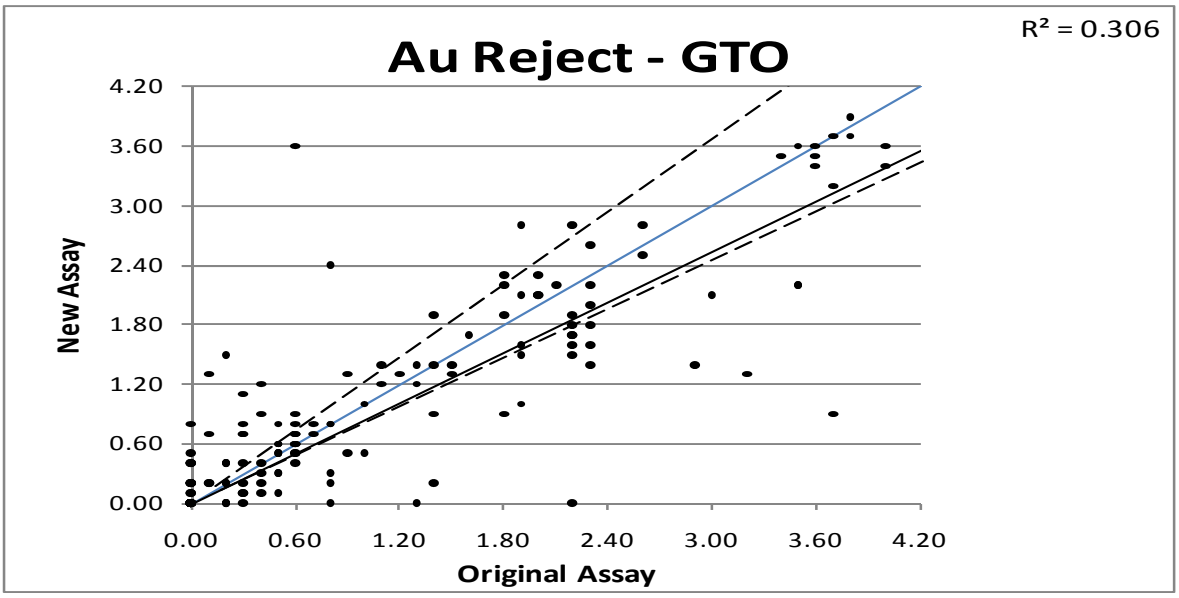


Figure provided by Endeavour Silver Corp.

Graphical analysis of the data, however, is difficult due to the limited amount of check assaying done and the differences in the detection limits reported by each laboratory. For assays below the detection limit, the Bolañitos laboratory reports zero ppm for gold and <2

ppm for silver. The detection limits of the assay method employed by Inspectorate are 0.05 ppm for gold and 5 ppm for silver. Many of the assays for the samples submitted were close to the detection limits.

It should also be noted that Endeavour Silver's blank samples upon occasion do assay some low grades within the limits of the assaying techniques used at the laboratory and the duplicate samples at times reflect the mineralization variation contained in the vein. By rechecking the sampling methodology, as well as compairing the check analyses of pulps and reject samples already analyzed by the mine site laboratory with the results from the external laboratories, the Bolañitos laboratory has improved the analysis portion of its procedures. In 2010, the laboratory will continue to work on the preparation procedures. Endeavour Silver and the Bolañitos laboratory are continuing to work towards improving the performance of the laboratory.

13.4 PRODUCTION RECONCILIATION

The over-riding indication of grade reliability at the Guanajuato Mines project is the historical production records. Grades are measured at the mill feed conveyor and these are related to production at the plant. The final mill production grades are related to the reserve grade of the block as estimated by the historical channel sample results and the dilution factors. The in-situ grade estimates may suffer from some bias as indicated by the previous re-sampling programs.

In 2008, Endeavour Silver implemented a mine-to-mill reconciliation for its operation at Guanajuato. The ability to reconcile the ore mined and milled on a stope-by-stope basis to the original reserve estimate for the stopes is considered a critical factor in the resource and reserve estimations conducted on a project in production. The reconciliation forms a basis for reviewing dilution estimates, mining loss and gain estimates, and will assist in reviewing the classification categories of the resources. The reconciliation program continued in 2009.

Table 13.16 is a summary of the reconciliation between the mine and plant at Guanajuato in 2009.

Table 13.16
Summary of the Reconciliation between the Mine and Plant at Guanajuato in 2009

Month	Mine Production					Plant Production		
	Wet Metric Tonnes	Moisture (%)	Dry Tonnes	Silver (g/t)	Gold (g/t)	Dry Tonnes	Silver (g/t)	Gold (g/t)
JANUARY	12,570	4.3	12,029	218	1.9	11,149	191	1.64
FEBRUARY	12,664	4.0	12,157	204	2.0	11,847	176	1.63
MARCH	12,104	3.6	11,668	217	1.9	11,663	201	1.83
APRIL	13,487	3.0	13,082	198	1.9	12,674	175	1.86
MAY	11,379	3.3	11,003	221	2.4	10,987	205	2.38
JUNE	13,395	4.9	12,739	232	2.7	12,741	197	2.14
JULY	13,692	6.1	12,857	210	2.5	12,732	183	2.22
AUGUST	13,653	3.5	13,175	226	2.7	13,175	197	2.22
SEPTEMBER	12,969	3.1	12,566	226	2.4	12,578	212	2.34
OCTOBER	15,790	4.3	15,111	207	2.2	15,115	179	2.09
NOVEMBER	14,687	4.8	13,982	177	2.3	13,978	166	2.47
DECEMBER	16,152	3.7	15,554	201	2.9	15,560	179	2.51
Totals	**162,542**		**155,925**	**211**	**2.32**	**154,196**	**188**	**2.13**
Reconciliation Factor			**1.011**	**1.123**	**1.092**			

13.5 DENSITY DETERMINATIONS

In 2009, bulk density determinations were completed on 201 mineralized samples collected from the active mine workings in the Cebada (104 determinations), Bolañitos (54 determinations) and Lucero mines (43 determinations).

The bulk density determinations were conducted at the Bolanitos mine laboratory in Guanajuato. The bulk densities averaged 2.52 for Cebada, 2.51 for Bolanitos and 2.52 for Lucero. Based on these 201 bulk density determinations, an average value of 2.5 was used for mineral resource and reserve tonnage estimates, as was used for earlier estimates.

13.6 CONCLUSIONS

Micon believes that, based on a review of the previous Technical Report and on discussions with Endeavour Silver personnel, Endeavour Silver applies a reasonable degree of care and diligence in monitoring the sample results on the property. Micon considers that the QA/QC procedures and protocols employed at the Guanajuato Mines project, along with the ongoing improvements to the procedures and protocols, are rigorous enough to ensure that the sample data are appropriate for use in mineral resource and reserve estimation. It is also Micon's opinion that the database and the procedures in-place at the Guanajuato Mine project are appropriate for use in a mineral resource and reserve estimate.

14.0 DATA VERIFICATION

14.1 INTRODUCTION

The data verification completed by Micon at Guanajuato was carried out during two separate site visits during the periods September 2 to 4, 2008 and November 16 to 18, 2009. In both instances Micon was represented by Charley Murahwi. In every case, no independent sampling was deemed necessary to confirm the mineralization. Micon considers production records as the most reliable data of mineralization contained in the deposits under development at the mine and therefore, independent sampling was unnecessary.

The Micon data verification comprised three separate but interrelated phases as follows: (a) general review of in-house data verification procedures, (b) validation of the in-house data protocols and (c) physical inspection of the blocks/areas drilled and/or sampled for reserve and/or resource definition.

The actual audits of the resources/reserves were conducted at the Micon offices in Toronto.

14.2 REVIEW OF THE IN-HOUSE VERIFICATION PROCEDURES

Endeavour Silver conducts a validation process on the underground sampling and surface exploration data generated from its Guanajuato Mines project. The data verification procedures generally involve:

- Visually checking the data for the following:
    - Any non-conforming assay information such as duplicate samples and missing sample numbers.
    - Verifying collar elevations against survey information for each drill hole.
    - Verifying collar coordinates against survey information for each drill hole.
    - Verifying the dip and azimuth against survey information for each hole.
    - Comparing the database interval against the original assay certificate for drill hole and channel samples.
    - Verifying survey information for location of underground channel samples used in reserve estimation.
- Using Vulcan software to check for data errors and vein continuity.

The assay information comes directly from the laboratory in an electronic format and is merged into the database using sample numbers. Once the laboratory has finalized assays they are put into a dedicated database directory.

The data are in a format that is directly importable to the company's Vulcan modeling software. The export format is an Excel spreadsheet so all data are also readily importable for use in spreadsheets or a different database.

Senior project personnel have portable versions of the drill hole database on their laptop computers. This allows them access to the data at all times. The portable databases are only up-to-date to the point that the master database is copied onto the laptop. Through day-to-day use of the database staff personnel are constantly verifying and rechecking data.

Channel sample assay data are entered into an Excel spreadsheet used for day-to-day grade control purposes; in addition assay data on sample orientation and location are also entered; all location data are relative to a local surveyed reference point. Channel samples are plotted onto plans prepared on the basis of most up-to-date survey information. If survey data for a particular stope cut are not available the sample location is estimated on the basis of the most recent survey pick up (and if available subsequent survey pick-ups). Coordinates are recorded manually and then entered into an Excel spreadsheet. The process of plotting data onto plans ensures that most field recording errors are identified and corrected.

The channel survey and assay data are then merged on the basis of sample numbers to produce the final database for resource estimation. Problems of channel data duplication were filtered using Excel spreadsheets. A final channel database for resource estimation in an Excel spreadsheet is in a format compatible for import into a Vulcan database.

Assay data and information generated by both operations and exploration are currently transmitted manually and the entire paper trail is accessible and available for inspection.

QA/QC procedures for (a) drilling, (b) sampling and (c) analyses and security are detailed in Sections 11, 12 and 13, respectively.

Micon considers the in-house protocols to be adequate to ensure the integrity of the database for resource and reserve estimates.

14.3 MICON VALIDATION OF DATA AND IN-HOUSE PROTOCOLS

During the two site visits, Micon completed the following validation tasks:

- Review of the property geology and the state of geological/mineralization knowledge.
- Review of the evaluation/exploration practices, specifically drilling, underground channel sampling, drill core handling and sampling procedures and sample security arrangements.
- Review of on-site laboratory facilities.
- General review of QA/QC procedures.

- Review of database integrity/back-up and storage procedures.

14.3.1 State of Geological /Mineralization Knowledge

Endeavour Silver site geologists base their geological model on a clear understanding of the geology of the deposit. That understanding comes from the intelligent interpretation of accurate observations of surface, underground and drilling exposures. Testing of the geological model is achieved through a thorough review of the geological mapping of the surface and underground openings as well as auditing the logging and recording of geological observations from drill holes. Endeavour Silver conducts underground development and continuous level back mapping to guide the development and sampling crews and to facilitate the interpretation of the sampling results.

The surface exploration team efforts have been recently enhanced by the use of drill core orientation techniques which provide vital information on geological structure and mineralization continuity influencing the geological model used in the resource estimation.

Comments:

Following its review, Micon is satisfied that the geology teams at Guanajuato have acquired a good understanding of the geology and mineralization controls which have an important bearing on resource estimates and future exploration efforts. Thus, the resource estimation process is well supported by a good geological/mineralization model.

14.3.2 Review of Exploration Practices

The drilling procedures as observed by Micon are in accordance with the current CIM Exploration Best Practices Guidelines. On the drill site, surveys are conducted to obtain collar coordinates, elevation of the site and its surroundings, inclination and azimuth of the drill hole. This is important for accuracy in the production of maps, sections and plans. As drilling progresses, the inclination and azimuth of the drill hole are monitored by conducting down-hole surveys. As the targeted drill hole depth is approached, the hole is surveyed using a Reflex down-hole survey instrument in multi-shot mode.

Endeavour Silver aims for HQ and NQ core sizes for surface and underground drilling, respectively. The bigger the sample, the more representative it is. The slightly smaller underground core is due to the lower capacity of the rigs as compared to surface rigs. Core logging is by bar-coding systems with a minimum of descriptive content. This is good practice and is to be commended as it provides a check list, minimizes data transcription errors and assists in maintaining consistency in logging.

In summary, Endeavour Silver's diamond drilling QA/QC are assured by good survey control, NQ and HQ core sizes which yield representative samples, good core recoveries which yield whole intercepts in targeted potential ore zones, and target intersection angles as near to perpendicular as possible. The core storage facilities at Guanajuato are well protected

by a high level security fence and are located in an area under 24-hour surveillance by security personnel. This arrangement rules out any possibility of tampering with the drill cores. The core shed facilities at Guanajuato are depicted in Figure 14.1.

Figure 14.1
Guanajuato Core Shed Facility

Guanajuato has enhanced its quality of underground samples by acquiring an air driven diamond rock sampling tool. This ensures that proper channels are cut which yield highly representative samples for evaluation.

14.3.3 On-site Laboratory Inspection

Micon carried out an inspection of the new laboratory complex commissioned at Guanajuato in the earlier half of 2009 and noted that the deficiencies in the sample preparation room previously observed during a similar inspection in 2008 had been addressed. The new sample preparation room is shown in Figure 14.2. The laboratory remains a small typical mine laboratory with capabilities limited to dealing mainly with mine production samples. Most of the analyses done are fire assays with AA finish. Although the laboratory is small and not yet ISO certified it is actively participating in round-robin exercises and conducts check analyses on behalf of its sister laboratory at Guanaceví. In Micon's opinion the

laboratory's in-house QA/QC protocols are sufficiently high to ensure reliable assay data for production purposes. However, Micon noted that Endeavour Silver still utilizes external ISO certified laboratories for most of its analytical work involving exploration projects. This leaves no doubt as to the credibility of the assay database for new prospective production additions to the mine.

Figure 14.2
Sample Preparation Room at the New Laboratory Complex at Guanajuato

14.3.4 QA/QC on Assay Data

In addition to using accredited laboratories off the mine sites, Endeavour Silver's exploration division has imposed and maintains various quality controls on sampling and assaying procedures including:

- Duplicate samples.
- Blanks.
- Reference standards.
- Check assaying of selected pulps at different laboratories.

Micon's review/evaluation of the QA/QC data generated from the above practices does not reveal any major deficiencies that are likely to have a material impact on the assay results used in the reserve/resource database.

14.3.5 Review of the Database

Endeavour Silver's data are stored in digital format but, for both internal and external audit purposes, hard copy output of raw and interpreted data in the form of tables, plans and sections is readily available.

Micon conducted an audit of the database at Endeavour Silver's exploration office in Durango City on September 5, 2008 and on November 19, 2009. The audit comprised a review of its construction, and the categories of information contained in it, to ensure that all the data necessary for the proper estimation of the resources have been assembled, and that data relating to all key geological and physical features can be accessed individually or in groupings.

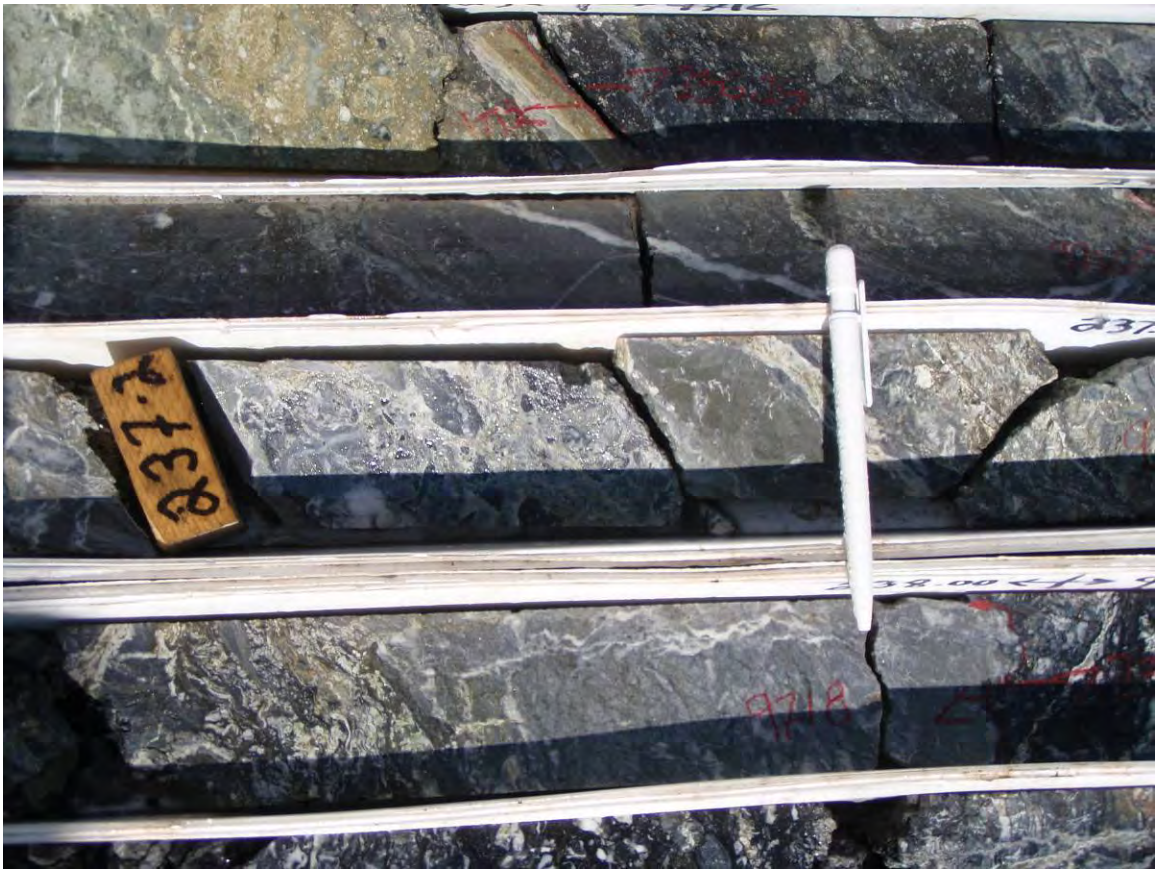
As a means of verification, Micon inspected various prints and plots from the database to ensure that the output is sensible. Micon noted that Endeavour Silver ensures and maintains a clean database by imposing restricted access to the database files and established that in all respects the database is in good order.

In line with Micon's previous recommendation Endeavour Silver has reviewed its security measures for the ultimate protection of the database against destruction by fire, theft or electronic failure and has acquired a safe. Good house-keeping practice generally requires regular backups of electronic data with at least one up-to-date copy being maintained off site and Endeavour Silver has put this into practice.

14.4 PHYSICAL INSPECTION OF RESOURCE AND RESERVE BLOCKS

During the November, 2009, site visit, Micon's representative was able to inspect all of the resource and reserve blocks that contribute to the current resource and reserve figures. Of particular importance to Micon were verification of the adequacy of the sampling/drilling density of the resource and reserve blocks and the accessibility of the proven reserve blocks. On the basis of this exercise, Micon was able to audit Endeavour Silver's classification of the resources and the reserves. Figure 14.3 shows mineralization visually verified in drill core intersections of the Lucero vein.

Figure 14.3
Half Split Drill Core showing Mineralization in the Lucero Vein



14.5 RESOURCE/RESERVE AUDITS

Micon's review and audit of the Endeavour Silver resource and reserve estimate conducted in Toronto is summarized as follows:

1) A site visit was conducted to the Guanajuato Mines project in Mexico where the data input procedures, geological model, block model parameters and resource classification details were reviewed in detail over a period of two days. The site visit included an underground tour to examine the various vein systems for continuity and mineralization; geological mark-up procedures and mining methods were observed and discussed. A tour of the mill was also arranged.

2) The review of the resource block models included review of the cut-off grade, wireframing, capping of high grade assays and block model protocols.

A review of the spreadsheets of tabulated reserves for each zone and by polygon block was undertaken to verify that:

- Appropriate methodology and parameters had been used to estimate quantities of dilution and recovery of mineral within the stoping areas.

- Calculations had been made correctly.

- Blocks had been correctly categorized as proven or probable reserves.

Summary tables had correctly listed total tonnages, grades and contained metal within the resource and reserve categories.

A review of the reserve/resource blocks showed that

- The capping was adequately conservative.

- No errors of significance were found in statistical calculations. Endeavour Silver's variogram ranges and search ellipses are sensible and similar to Micon's parallel calculations.

- Overall the reserve/resource blocks correlate well with the sample data and geological model.

15.0 ADJACENT PROPERTIES

Endeavour Silver's Guanajuato Mines project exists within the Guanajuato mining district which has hosted a number of past producers. A number of the past producers are located on the property and a majority of the past producers in the district are located on quartz veins which are similar or related to those located on the Guanajuato Mines project. However, there are no immediately adjacent properties which directly affect the interpretation or evaluation of the mineralization and anomalies found on the property.

Several other mineral properties and mines are present in the region and within the Guanajuato mining district as illustrated in Figure 15.1. The most noteworthy include the El Cubo mine, purchased by a Canadian company MexGold Resources (Gammon Lake Resources) in 2004 and the Guanajuato mines, which include the Valenciana, Cata and Reyes mines as well as a few other land holdings in the area, purchased by another Canadian company, Great Panther Resources, in 2005.

In addition, the Bolañitos plant also conducts custom milling and processing for a number of small mines in the Guanajuato district. The material from each mine is run through the plant in batches. These smaller mines typically exploit quartz-carbonate veins similar in character to the vein mineralization on Endeavour Silver's Guanajuato Mines project.

Figure 15.1
Major Land Positions held in the Guanajuato Mining District

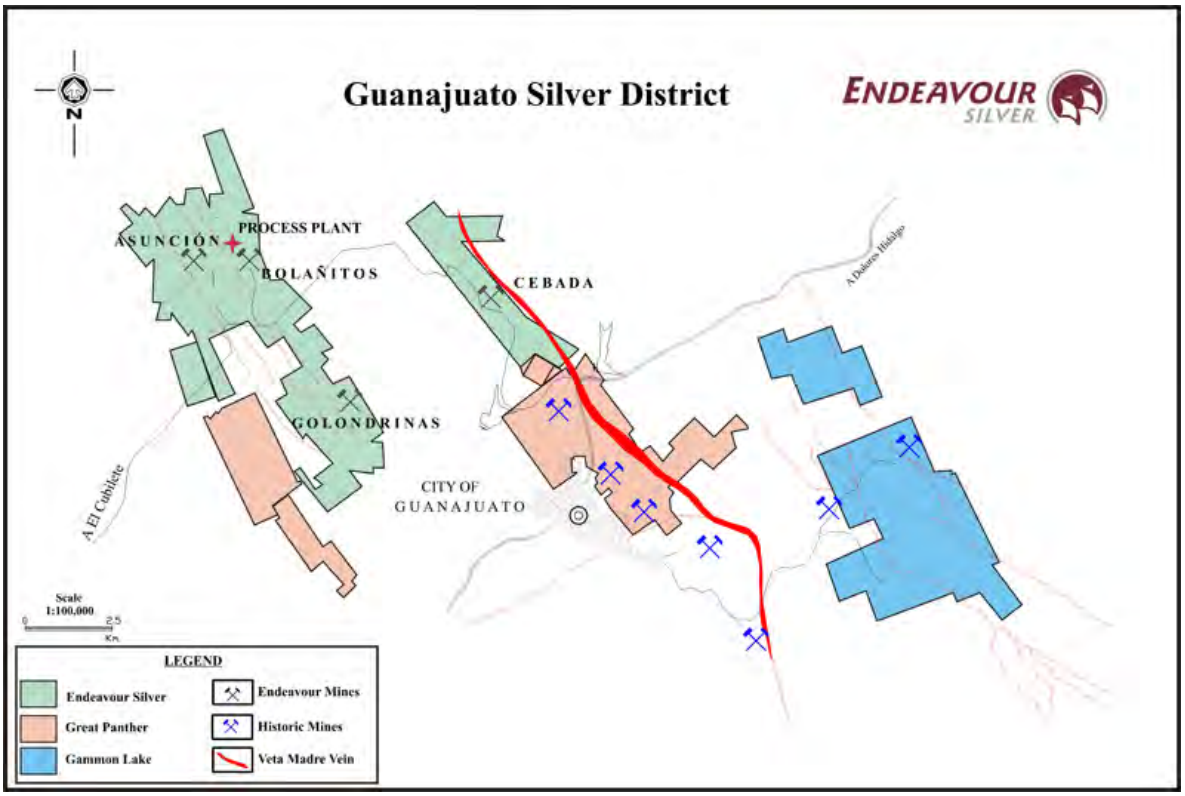


Figure provided by Endeavour Silver Corp.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

The mineral processing and metallurgical testing for the Guanajuato property is described in detail in the March, 2009, NI 43-101 Technical Report by Micon and was previously discussed in the March, 2008, SRK Technical Report. The following description of the mineral processing and metallurgical testing has been excerpted and edited from the March, 2009, report.

16.1 BOLAÑITOS PLANT DESCRIPTION

In 2008, the plant processed ore from the Cebada, Golondrinas and Bolanitos mines on a campaign basis.

The process plant is a conventional flotation plant which appears to be well suited to the campaign processing of different ore types. The process flow sheet is illustrated in Figure 16.1. The primary jaw crusher receives ore from the mines in the size range 250 to 375 mm. After the primary crusher there are two ore bins each with a 450 t capacity. The presence of the bins allows different ore types to be crushed and stored independently thus optimizing the plant availability and reducing change over time.

Secondary cone crushing takes the ore size down to 50 mm after which the tertiary crusher reduces it further to 9-10 mm. After the tertiary crusher there is a second set of two ore bins, each with a 120 t capacity that adds to the plant flexibility. The conveyor belt below the tertiary crusher bins is fitted with a weightometer which is regularly checked and re-calibrated by the plant operators as required. Also at this point, manual samples are regularly taken to determine the plant head grade.

A ball mill grinds the material down to 73% passing 74 microns after which it is subjected to conventional flotation in column and tank cells. Automatic samplers are in place to take samples of the tailings and concentrate. A single concentrate is produced which grades around 7.5 kg/t silver and 70 g/t gold. The concentrate is dewatered in a conventional thickener followed by filtration and drying in a gas drier.

At the maximum processing rate of 500 t/d the plant can produce around 5 to 6 t/d of concentrate which is then trucked either to a smelter (for the first 10 months of 2008) or to Endeavour's Silver's plant in Guanaceví, Mexico, where it is added to the mill stream for production of doré (for the last 2 months of 2008 and continuing into the future). In the second half of 2009, the second jaw crusher was replaced with a cone crusher which allowed a finer grind feed to be sent to the ball mill and therefore increase the throughput on the plant to approximately 600 t/d.

Operations at the plant improved in 2008 with an average recovery of between 80% and 89% being achieved for silver, while for gold the recovery is presently 88%. The campaign milling allows for each ore type to have different reagent dosages and for separate metallurgical balances to be carried out.

Figure 16.1
Bolañitos Mill Process Flow Sheet

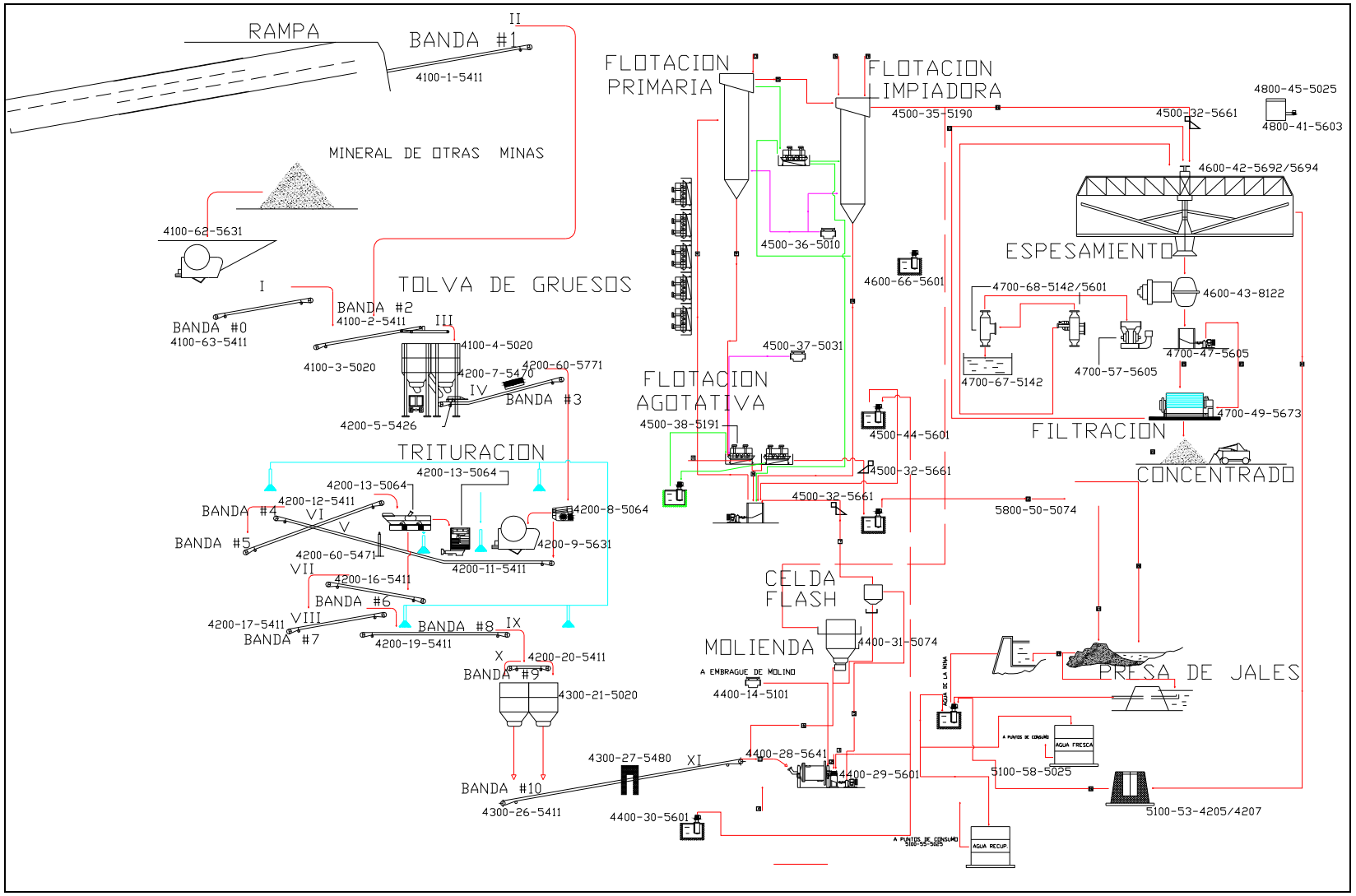


Figure adapted from the March, 2008 SRK Report.

16.2 BOLAÑITOS PLANT METALLURGICAL BALANCE

A description of the methodology of the monthly metallurgical balance which is undertaken at the Bolañitos plant is given below.

To generate the metallurgical monthly balance and also for the control of quality at the plant, key points of the process circuit are sampled:

- Head grade - taken from the conveyor which feeds the milling circuit.
- Wet head grade - taken from the pulp that feeds the flotation circuit.
- Concentrate grade - taken from the pulp of the final product that goes to the thickening stage.
- Tails grade - taken from the pulp sent to the tailings facility.

The samples are prepared and analyzed at the Bolañitos mine in-house laboratory, where a report is generated each day that contains the gold and silver grades for each sample on each shift. There are 3 shifts of 8 hours at the plant. The laboratory also measures the moisture content of the samples in order to calculate the dry tonnes.

A metallurgical balance for the concentrates is generated per shift using the gold grade, silver grade, % moisture and the tonnage which is registered by the weightometer on the belt that feeds the grinding circuit.

In addition to the above, after filtering and drying, the concentrate is stored and samples are taken for grade and moisture content. The daily calculated and accumulated balance is checked against the mass of concentrate produced.

The daily metallurgical balance forms the basis of the monthly reconciliation report. The monthly reconciliation is reviewed by senior staff and cross-checked against the mass and grade of concentrate samples taken from the dried concentrate.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1 INTRODUCTION

Mineral Reserve and Mineral Resource estimates have been produced and classified using the current CIM standards and definitions for estimating resources and reserves as required by Canadian National Instrument 43-101 and the accompanying documents NI 43-101-F1 and NI 43-101-CP.

The most recent reserve and resource estimate for the Guanajuato Mines project was reported in a Technical Report by Micon dated March, 2009, and posted on SEDAR by Endeavour Silver. Since the last resource and reserve estimate was completed, Endeavour Silver has conducted further diamond drilling and underground development at the Guanajuato Mines project and as a result it completed a new resource and reserve estimate for the project which is dated as of December 31, 2009.

The resources and reserves have been updated for all three of Endeavour's mines in the Guanajuato Mines project. These include the Cebada, Bolañitos and Golondrinas mines which are considered as separate entities and as such have been estimated separately.

The reported reserves for the Guanajuato Mines project only represent that portion of the mineral resources for which Endeavour Silver has a mine plan in place.

Micon was engaged to audit Endeavour Silver's December 31, 2009 mineral resource and reserve estimates. A discussion of the Micon audit of the Guanajuato Mines project December 31, 2009 resources and reserves is contained in Section 17.3.

Micon believes that the resource and reserve estimates by Endeavour Silver, as audited by Micon, have been reasonably prepared and conform to the current CIM standards and definitions for estimating resources and reserves. Therefore, Micon accepts Endeavour Silver's resource and reserve estimates as its basis for the ongoing mining operations at the Guanajuato Mines project. In Micon's opinion there are no significant technical, legal, environmental or political considerations which would affect the extraction and processing of the resources and reserves at the Guanajuato Mines project.

17.2 ENDEAVOUR SILVER RESOURCE AND RESERVE ESTIMATION METHODOLOGIES

17.2.1 Tonnage and Grade Estimation

For the December 31, 2009 resource and reserve report, two different methodologies have been employed for the estimation for the Guanajuato Mines project. Endeavour Silver is still using a classic polygonal method to estimate the majority of the mineral resources and all mineral reserves. All resources for the 3785 (Robbins #5) zone discovered in the Cebada mine at the end of 2007 were estimated using block model methods and Vulcan computer software.

The Guanajuato Mines project uses a specific gravity of 2.5 to estimate the tonnages. This is considered reasonable for this type of deposit and is based on a limited number of SG tests on samples collected from the Guanajuato Mines project.

17.2.1.1 2-D Polygonal Resource and Reserve Estimates

The 2-D polygonal method is based on the use of a longitudinal section to estimate the mineral resources and reserves. Mineral resource and reserve blocks are defined along the various sill levels and raises within the mine where both historical and current channel sampling has indicated potentially economically minable mineralization. The block volumes are estimated by drawing each block area on a longitudinal section and measuring this area using AutoCAD. For indicated mineral resources, a 25 m vertical height is projected for each block, above and/or below the mine working that has been channel sampled. When continuity of mineralization is determined, an additional 25 m projection will be made for inferred mineral resources above and/or below the indicated resource block. The area of the blocks is then multiplied by the average horizontal width of the composited samples to estimate the volume.

Drill indicated mineral resource blocks are defined by drawing a polygon around each drill intercept on a longitudinal section. Before a polygon is drawn the intercept must be above the established cut-off grade and meet the 1.5 m minimum width criteria. A 25 m projection from the centroid of the drill intercept is then made for indicated resource blocks. When the continuity of mineralization is determined, an additional 25 m projection will be made for inferred resources. Block volumes are estimated by drawing each block area on a longitudinal section and measuring this area using AutoCAD. The area of the block is then multiplied by the average horizontal width of the composited drill intercept to estimate the volume.

17.2.1.2 3-D Wireframe Modelling (3785/Robbins #5 Zone)

For the December 31, 2009 resource estimate of the 3785/Robbins #5 zone, 3-D wireframe modelling was conducted by the geologists and technicians working for Endeavour Silver's exploration department. However, only the Veta Madre vein structure was 3-D modelled using drill holes from cross-sections 3720 through 3900.

3-D wireframe modelling was completed in a manner to best represent the selective mining method currently being employed at the Guanajuato Mines project. In order to minimize dilution and ensure that only material above the incremental cut-off is actually mined and sent to the mill for processing, grade control geologists are only marking for exploitation the economical portion of the vein at a minimum mining width. To honour this practice, wireframes were also constructed at a minimum mining width.

For wireframe construction, the portion of the vein with a composite grade greater than 200 g/t silver-equivalent and having a minimum true vein width of 1.5 m was selected. This was done only for drill core. When only a low-grade (<200 g/t silver) composite is present, a

mineralized boundary is still selected to ensure that the wireframe model maintains a 1.5 m minimum true vein width throughout its entirety.

Because wireframe construction is based on the pre-compositing of the drill intercepts, the triangulation does not exactly match with limits of the samples or geological intervals. The primary objective was to select the best intervals based on an economic grade over a minimum mining width.

This methodology should not have any adverse effect on the resource estimation, especially since best practices are used during the wireframe modelling.

Statistical and Spatial Analysis

For the December 31, 2009 resource estimates, no 3-D statistical analysis was conducted for the 3785 (Robbins #5) zone. It was also determined that there were insufficient samples upon which to conduct meaningful variography.

Block Model Description

The resource block model for 3785 (Robbins #5) zone was generated using a block size of 5 m (northing) by 5 m (easting) by the width of the vein (z). The block size chosen was deemed appropriate relative to the geometry of the zones, the distance between samples and mine planning.

The blocks were rotated to fit the general dip and strike of the Veta Madre structure (135° azimuth and -65° dip).

Grade Interpolation

The 3-D wireframe for the 3785 (Robbins #5) zone was filled with blocks. Parent blocks were sub-blocked to fill the wireframe completely and to remove any volume discrepancy arising out of the difference between the wireframe volume and the block model volume.

A bulk density of 2.5 t/m^3 was assigned to these individual blocks before grade interpolation.

The method used by Endeavour Silver for silver and gold grade interpolation was Inverse Distance with a power of 3. The minimum number of samples used in the grade estimation of each block was 3 and maximum 10.

To assign grades to the blocks, two different search ellipsoids were used. The first pass was used basically to assign grades to the indicated resources blocks and the second pass for the inferred resources in areas that were not interpolated during the first pass, as shown in Table 17.1.

Table 17.1
Parameters of the Search Ellipsoids for the 3785 (Robbins #5) Zone 3-D Wireframe

Pass	Major Axis	Semi-Major Axis	Minor Axis	Min. No. of Samples	Max. No. of Samples
1	30	60	20	3	10
2	100	200	50	3	10

Table provided by Endeavour Silver Corp

17.2.2 Capping of High Grade Assays

Endeavour Silver has developed basic statistical parameters for raw silver and gold assays. The parameters indicated that the data are positively skewed and that it was necessary to limit the influence of high outlier assays. Accordingly, Endeavour Silver has elected to top-cut high assays and make equal length composites within each zone. To determine appropriate capping for each zone, lognormal probability plots were examined and the results for the capping used for each zone are shown in Table 17.2.

For Indicated Resources at the Guanajuato Mines project, Endeavour Silver capped the channel samples statistically based on the cumulative probability of approximately 95%.

Table 17.2
Summary of the Channel Sample Capping Grades for the Various Areas at Guanajuato

Area	Gold (g/t)	Silver (g/t)
Cebada – All resources and reserves	6.30	1,112
Cebada (3785 (Robbins #5) zone only) – All resources	4.96	381
Bolañitos (Lucero vein only) – All resources and reserves	6.60	636
Bolañitos & Golondrinas – All resources.	7.25	316

Table provided by Endeavour Silver Corp.

17.2.3 Sample Composites

A minimum horizontal width of 1.50 m was used for compositing channel and drill hole sample grades. The cut-off grade applied to resource blocks was 150 g/t silver equivalent (AgEq). The equivalent grade was reached by multiplying the gold grade by 65 and adding it to the silver grade. This reflects the relative recoverable values of the metals. The cut-off grade applied to reserve blocks was 202 g/t AgEq.

17.2.4 Modifying Factors and Reserve Estimation

Mineral reserve estimation work was carried out by both Endeavour Silver's staff and consulting engineer, John Thompson in 2007 (Thompson, 2007).

A varying amount of dilution, ranging between 6% and 33%, has been applied to convert the mineral resources to mineral reserves. Dilution for individual blocks depends mainly on the deposit width and the size of equipment that will be used. Thompson initially conducted the dilution study and it was subsequently audited by SRK in 2007. In 2008, further work on the

percentage of dilution and grade assumptions was carried out by Endeavour Silver's chief planning engineer, Nelson Peña, and chief mine geologist, Miguel Lampson, in Guanajuato.

In 2008, a mining recovery factor ranging from 92% to 97% was also included in the estimation process to generate the mineral reserves. This is because some mineralized pillars are now being left behind during the mining of the various veins at Cebada, and 100% extraction for some resource and reserve blocks is not possible at the mines. The cut and fill method does allow for a resource block to be mined from the bottom up in its entirety in some areas but complete extraction is rarely achieved.

17.2.5 Classification

Mineral resources and mineral reserves were classified on the basis of the location of blocks relative to the data used to interpolate the block grade. Mineral resources and reserves have been derived by classifying the blocks according to the following criteria:

- Probable mineral reserves are those indicated mineral resource blocks which are currently economic and for which Endeavour Silver has a mine plan in place. This is the case for the Cebada mine which, during 2008, had a program of investment in development and infrastructure to support the generation of mineral reserves. During 2009, Endeavour Silver monitored planned production as well as that achieved in the mill and attempted reconciliation between the mine and the mill on a month-to-month basis. However, the lack of rigorous QA/QC and a detailed reconciliation of the volumes and grades mined from each area still prevent any mineral resources being classified as measured. Therefore, proven mineral reserves cannot be generated from the currently available data.

- Indicated mineral resources are those blocks which have had some of the historical mine sampling superseded by Endeavour Silver's 2007 check channel samples as well as the 2008 and 2009 channel sampling program which, in conjunction with confidence gained from the historical reconciliations, provide a reasonable level of confidence in the sample grades and resultant block estimates.

- Inferred mineral resources are those outlined and estimated based on the mine's interpretation and historical sampling results. The historical sampling method and laboratory performance resulted in a low confidence in the results, despite reasonable historical reconciliations. Therefore, it is prudent to consider any resource blocks based on these parameters as inferred.

17.2.5.1 Mineral Resource Classifications (3785/Robbins #5 Zone Only)

The mineral resources for the 3785 (Robbins #5) zone are categorized as follows:

- Indicated mineral resources are those blocks which lie within a 30 m radius from the last drill hole in the periphery of the mineralized zone.
- Inferred mineral resources are those blocks outside the 30 m periphery but within 75

m from the last drill hole in any direction within the defined mineralization.

17.2.6 Cut-off Grades

A breakeven cut-off grade was used which considers metal prices, total mining, milling and administration costs, freight costs, mill recoveries and smelter charges. The cut-off grade does not include either exploration or capital costs.

For the December 31, 2009 resource estimates, the geological cut-off grade used was 150 g/t AgEq. Future plans to lower mine operating costs, raise mill throughput and improve mill recoveries at Guanajuato justify using the 150 g/t AgEq geological cut-off grade for resources, which eventually can be reasonably expected to be converted into mineral reserves.

For reserves, a cut-off grade of 202 g/t AgEq was used for the December 31, 2009 estimate. The reserve cut-off was based on a review of operating costs at the time of resource and reserve estimation. The review indicated some uncertainty in forecasted total operating costs of the Guanajuato Mines project. In order to be cautious and minimize any risk of over-stating proven and probable reserves, a conservative cut-off grade of 202 g/t AgEq was used.

At of the end of 2009, however, the improved silver and gold prices and operating performance were having a positive impact on operations at the Guanajuato Mines project. These factors are expected to continue to lower the operating costs and the cut-off grade used for reserves.

17.2.7 Mineral Resource and Reserve Statement

The mineral resources and mineral reserves have been estimated, classified and reported using the guidelines given in the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines which have been adopted for reporting under NI 43-101 and the accompanying documents NI 43-101-F1 and NI 43-101 CP.

The mineral resources are exclusive of the mineral reserves. The summary of the resource and reserve estimates as contained in Tables 17.3, 17.4 and 17.5, is effective December 31, 2009. The cut-off grade for the mineral resources is 150 g/t silver equivalent, while the cut-off grade for the mineral reserves is 202 g/t silver equivalent. Silver equivalents in the resource and reserve tables were estimated using a 65:1 ratio based on prices of US $17/oz silver and US $1,100/oz gold, with no base metal credits applied. Mineral reserves are those indicated resource blocks with grades in excess of 202 g/t AgEq.

The process of mineral resource and reserve estimation includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, Micon does not consider them to be material. The final resource and reserve figures in Tables 17.3 through 17.5 have been

rounded to provide a mineral resource and reserve statement which implies an appropriate level of accuracy in order to reflect that the numbers are estimates.

Table 17.3
December 31, 2009 Indicated Mineral Resource Estimate, Guanajuato Mines Project

Resource Category		Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Measured	-----	---	---	---	---	---	---	---
Indicated	Cebada (Veta Madre)	110,000	191	1.46	286	678,400	5,200	1,015,900
	Cebada (3785 - Robbins #5)	68,000	157	2.09	293	344,500	4,600	642,600
	Bolanitos	192,000	215	1.68	324	1,323,000	10,300	1,995,000
	Lucero (Inc. San Jose & Karina)	254,000	242	2.22	386	1,973,500	18,100	3,150,600
Total Measured and Indicated		**624,000**	**215**	**1.90**	**339**	**4,319,500**	**38,200**	**6,804,000**

Table 17.4
December 31, 2009 Inferred Mineral Resource Estimate, Guanajuato Mines Project

Resource Category		Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Inferred	Cebada (Veta Madre)	249,000	233	1.50	330	1,861,600	12,000	2,640,000
	Cebada (3785 - Robbins #5)	67,000	132	1.46	227	282,600	3,100	486,200
	Bolanitos	346,000	220	2.07	355	2,448,900	23,000	3,942,700
	Lucero (Inc. San Jose & Karina)	336,000	230	2.05	363	2,486,400	22,100	3,924,400
	Golondrinas	47,000	141	1.98	270	211,400	3,000	405,000
	Golondrinas (San Francisco Vein)	53,000	99	2.99	293	170,200	5,100	504,300
	Golondrinas (Periquitas Vein)	33,000	241	1.57	343	252,800	1,600	359,900
Total Inferred		**1,131,000**	**212**	**1.93**	**338**	**7,714,000**	**69,900**	**12,262,600**

Table 17.5
December 31, 2009 Proven and Probable Mineral Reserve Estimate, Guanajuato Mines Project

Reserve Category		Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Proven	Cebada (Veta Madre)	12,000	248	1.19	325	95,300	500	125,000
	Bolanitos	36,000	131	2.92	321	150,100	3,300	367,700
	Lucero	63,000	203	2.68	377	411,300	5,400	764,300
Total Proven		**111,000**	**184**	**2.58**	**352**	**656,800**	**9,200**	**1,257,000**
Probable	Cebada (Veta Madre)	59,000	213	1.99	343	406,700	3,800	653,000
	Bolanitos	68,000	136	2.71	312	296,800	5,900	682,200
	Lucero	32,000	187	2.49	349	193,500	2,600	361,100
Total Probable		**159,000**	**175**	**2.41**	**332**	**897,000**	**12,300**	**1,696,300**
Total Proven & Probable		**270,000**	**179**	**2.48**	**340**	**1,553,800**	**21,500**	**2,953,300**

Micon has conducted an audit of the Endeavour Silver resource and reserve estimates for the period ending December 31, 2009 and considers these estimates to have been reasonably prepared and to conform to the current CIM standards and definitions for estimating resources and reserves as required under NI 43-101 regulations. Accordingly, Micon accepts Endeavour Silver's resource and reserve estimate as its basis for the ongoing mining operations at the Guanajuato Mines project. In Micon's opinion there are no significant technical, legal, environmental or political considerations which would affect the extraction and processing of the resources and reserves at the Guanajuato Mines project.

17.2.8 Exploration Potential

The mineral exploration potential for the Guanajuato Mines project is considered to be very good. In the veins that have been partially mined and within which the resource blocks are contained, there is good potential to add to the resources by gathering information in the vicinity of these blocks and expanding them into unmined ground, like the Lucero vein. This could be achieved using a combination of underground drilling and further channel sampling. The block boundaries are in many cases only constrained by the arbitrary rules for how far a sample's influence should be extended.

Parts of these veins beyond the historically mined areas also represent good exploration targets for additional resource tonnage; however, surface drilling will be required. The concession areas contain many veins and Micon considers there to be reasonable potential to discover new veins and splays beyond those currently mapped.

17.3 MICON AUDIT OF THE ENDEAVOUR SILVER RESOURCE AND RESERVE ESTIMATES FOR THE GUANAJUATO MINES PROJECT

Based on the data verification as detailed under Section 14, Micon is satisfied that the database used in the reserve/resource estimates is credible.

Micon has audited the Endeavour Silver resource and reserve estimates for the Guanajuato Mines project. At the present time, Endeavour Silver is still using the traditional manual polygonal method based on the use of a longitudinal section to estimate the resources and the reserves. However, computerization of the database for future resource/reserve estimates is in progress and Micon strongly recommends that the process be fast tracked.

The estimation approach/methodology used is reasonable and commensurate with the data levels. The mineral reserve/resource blocks, when examined in plan, cross-section and long-section broadly reflect the grades in intersecting drill holes.

Endeavour Silver caps the channel samples statistically based on the cumulative probability of approximately 95%. Endeavour Silver has capped each area or vein separately and has not used an average for its entire project, which preserves the individual mineralogical nature of each area or vein during the resource and reserve estimate. Micon agrees with this approach but cautions that Endeavour Silver will have to continue to review its capping parameters to ensure their continuing relevance to the project.

A minimum horizontal width of 1.50 m was used for compositing channel and drill hole sample grades. Micon agrees with the current use of 1.50 m as the minimum mining width but recommends that Endeavour Silver undertake a review of the minimum width as well as conduct a sensitivity analysis using minimum mining widths varying between 1.5 m and 2.5 m.

The cut-off grade applied to resource blocks was 150 g/t AgEq. The cut-off grade applied to reserve blocks was 202 g/t AgEq. Micon agrees with the usage of these cut-off grades for the mines; however, for the purpose of block modelling estimation Micon recommends that the resource cut-off be reviewed using a lower cut-off grade in order to establish a potentially more consistent and continuous mineral envelope which will encompass the resource and reserve estimate.

While parameters may vary from vein to vein and from operation to operation, Micon strongly recommends that the methodologies for deriving the parameters should be standardized between sister operations.

Endeavour Silver is in a transition period in regard to the resource and reserve estimates and, since taking over the Guanajuato operations in 2007, has been implementing a number of changes. While it is increasingly common to see block model methods used to generate the resources and reserves, in the mining industry in a number of countries with long mining histories it is still common to see the classic polygonal or sectional methods used. Micon has reviewed the parameters and techniques used by Endeavour Silver at its Guanajuato Mines project and it believes that the techniques (although rather old fashioned) are still appropriate to generate resources and reserves for the project. However, Micon also believes that Endeavour Silver should make every effort to modernize its Guanajuato estimation techniques and bring them at par with its sister operation at Guanacevi. Modernization and standardization of practices will no doubt improve efficiency levels.

Micon believes that the varying dilution and mining recovery factors used in generating the mineral reserve estimate at the Guanajuato Mines project are appropriate at this stage in Endeavour Silver's estimation process. However, Micon recommends that, once good reconciliation data are available which can reconcile the material sent to the mill back to individual stopes, Endeavour Silver use the reconciliation data to review and update the varying dilution and recovery factors, if necessary.

Micon notes that while the resource and reserve methodology closely correlates to the actual mining practice, a true reconciliation record of reserves versus production versus mill needs to be perfected. Micon therefore recommends that Endeavour Silver continue to improve the reconciliation practices at the Guanajuato Mines project in order to gain a more complete understanding of the dilution and recoverability of the broken muck underground and its relationship to the mill production. The reconciliation process will assist Endeavour Silver in gaining a better understanding of the mining processes at the mines and will assist in identifying further efficiencies.

18.0 OTHER RELEVANT DATA AND INFORMATION

All relevant data and information regarding Endeavour Silver's Guanajuato Mines project is included in other sections of this report. This section will focus on covering the items contained in Item 25 of Form 43-101-F1 Technical Report "Additional Requirements for Technical Reports on Development Properties and Production Properties". As a number of areas in this section have not changed since the publication of the SRK report in March, 2008 some of the following descriptions have been excerpted and edited from that report and others have been changed to reflect the ongoing work undertaken at the mine by Endeavour Silver.

18.1 MINING OPERATIONS

As of June, 2007, Endeavour Silver assumed the running of day-to-day mining operations at the Guanajuato Mines project pictured in Figure 18.1. Endeavour Silver undertook control of the mining operations in order to allow for more flexibility in the operations and to continue optimizing the costs. As of December 31, 2009, the Guanajuato Mines project had a roster totalling 256 employees. The mine's operating schedule consists of three 8-hour shifts 6 days a week. The miners are skilled and experienced in vein mining and according to Endeavour Silver are currently not unionized. There is an incentive system in place rewarding personnel for safety and production. Technical services and overall supervision is provided by Endeavour Silver staff.

The mine employs geology, planning and surveying personnel and operates using detailed production plans and schedules. All the mining activities are conducted under the direct supervision and guidance of the mine manager.

Figure 18.1 is a view looking northwest along the trend of the Veta Madre.

Figure 18.1
View Looking Northwest along the Trend of the Veta Madre

Figure taken from the March, 2008 SRK Report.

18.2 GROUND CONDITIONS

The ground conditions at the Bolañitos and Golondrinas mines are considered to be good. The rocks are competent and require no special measures for support other than occasional rock bolting and regular scaling. At the Cebada mine the ground conditions are similar to the other mines with the exception of the hanging wall of the deposit which is comprised of a weak, laminated graphitic shale. The weak nature of the hanging wall material requires additional rock bolting. The current cut and fill mining method is well suited to these ground conditions.

18.3 MINING METHOD

A conventional bottom-up cut and fill mining method is employed with waste rock brought in using small diesel or electric loaders. The rock used to backfill the stopes is either dropped down a bore hole from surface or is generated from the waste development underground.

18.4 PRODUCTION

In 2009, the Bolañitos plant produced 784,974 oz silver and 8,775.1 oz gold from 143,505 t ore grading 194 g/t silver and 2.14 g/t gold. Silver and gold recoveries averaged 88.06 and 88.52%, respectively. Table 18.1 summarizes the production from the different areas from January to December, 2009, and Table 18.2 summarizes the actual production versus the budgeted production for 2009.

18.5 MINERAL PROCESSING

Mineral processing is discussed in Section 16 of this report.

18.6 TAILINGS DAM

Endeavour Silver in 2007 was conducting work in order to expand the tailings facility with the work concentrated on raising the downstream embankment and developing the diversion tunnel. Endeavour Silver continued with the expansion of the tailings facility in 2008.

18.7 CONTRACTS

Endeavour Silver has advised Micon that there are no contracts for mining, smelting, refining, transportation, handling, sales, contracts or agreements that are outside of normal or generally accepted practices within the mining industry. Endeavour Silver has a policy of not hedging or forward selling any of its products.

Table 18.1
Summary of Mine Production from January to December, 2009

Mine	Description/Month	Jan	Feb	Mar	Apr	May	June	July	Aug	Sept	Oct	Nov	Dec	Average
Cebada	Silver (g/t)	184	166	203	186	243	247	204	225	201	201	137	161	196.9
	Gold (g/t)	1.4	1.5	1.4	1.6	2.2	1.9	2.3	2.2	1.7	1.6	1.5	1.9	1.8
	Silver (oz)	29,605	21,407	35,848	32,147	27,965	37,498	30,061	26,814	23,611	31,859	13,605	24,736	**335,156**
	Gold (oz)	230	204.1	235	274.3	256.1	280.7	347.7	276	198.8	259.8	143.3	275.2	**2,981**
	Tonnes	**5,479**	**4,662**	**6,273**	**5,917**	**4,032**	**5,434**	**5,121**	**4,166**	**4,110**	**5,546**	**3,649**	**5,307**	**59,696**
Bolañitos	Silver (g/t)	197	183	198	166	220	200	195	207	218	167	176	184	192
	Gold (g/t)	1.8	1.7	2.3	2.1	2.8	2.6	2.3	2.4	2.7	2.4	2.8	2.9	2.4
	Silver (oz)	32,761	36,581	29,376	32,423	26,775	20,910	28,651	40,894	52,377	44,155	50,501	54,414	449,818
	Gold (oz)	309.3	350.3	348.7	402.1	350.7	264.2	358	508.5	649.5	647.7	801.7	803.4	5,794
	Tonnes	**5,669**	**7,185**	**5,389**	**6,757**	**6,955**	**7,307**	**7,611**	**9,009**	**8,468**	**9,566**	**10,329**	**10,253**	**94,498**

Table provided by Endeavour Silver Corp.

Table 18.2
Summary of 2009 Budget versus Actual Production for the Guanajuato Mines

Area	Description	Budget	Actual	Variance	% Difference
Plant	No. of Days	302	306	0	101.32%
	Tonnes of Ore	150,379	154,196	3,817	102.54%
	Silver Grade (g/t)	182	188	6	103.30%
	Gold Grade (g/t)	1.69	2.13	0.44	126.04%
	Silver Recovery	88%	88%	0.00	100.07%
	Gold Recovery	88%	89%	0.01	100.59%
	Silver Ounces Recovered	775,475	784,974	9,499.00	101.22%
	Gold Ounces Recovered	7,201	8,775	1,574.00	121.86%
Mine	No. of Days	302	306	4.00	101.32%
	Tonnes of Ore	150,379	155,925	5,546.00	103.69%
	Silver Grade (g/t)	182	211	29.00	115.93%
	Gold Grade (g/t)	1.69	2.32	0.63	137.28%
Development	Endeavour Silver	3,189.00	4,640.00	1,451.00	145.50%
	Contractor				
	Total (m) :	**3,189.00**	**4,640.00**	**1,451.00**	**145.50%**

Table provided by Endeavour Silver Corp.

18.8 ENVIRONMENTAL CONSIDERATIONS AND SAFETY

The Bolañitos plant monitors all the effluents and air quality on the site. Regular monitoring and laboratory testing are out-sourced to qualified contractors. Regular meetings are held with the local Ejido and President of the Municipality of Guanajuato to discuss areas of mutual concern.

The mill and mine recycle batteries, oils, greases, steel and aluminum.

The mine and mill have safety induction meetings and tours with all new employees and hold regular weekly half hour safety meetings with all employees and contractor employees.

18.9 TAXES

Taxation in Canada and Mexico is often complex and varies from one jurisdiction to the other. There are numerous calculations and allowances, all of which are outside the scope of this report. However, taxes are all levied in the normal course of business. Endeavour Silver is subject to the taxing jurisdictions of Guanajuato, Mexico and Canada. Endeavour Silver represents that all taxes assessed have been paid or will be paid when due, aside from any protests or other tax relief available under law.

18.10 CAPITAL COST ESTIMATES

In 2009, Endeavour Silver's Guanajuato mines project consisted of a modest size underground mining operation based at Cebada and Bolañitos. As 2008 was the first full year in which Endeavour Silver was in complete control of the operations, the capital outlay was higher than in previous years, as a number of improvements and up-grades were

conducted on the project and some of these will continue into 2009. The actual 2009 and proposed 2010 capital costs for the Guanajuato mines project are outlined in Table 18.3.

Table 18.3
Actual 2009 and Proposed 2010 Capital Cost Estimates for the Guanajuato Mines Project

Item	Actual 2009 Costs (US $)	Estimated 2010 Cost (US $)
Equipment	900,000	3,582,724.62
Shaft & Development	3,400,000	13,532,828.70
Vehicles	100,000	345,573.48
Various Construction		473,580.57
Plant	400,000	1,668,931.93
Total	**4,800,000**	**19,603,639.30**

Table provided by Endeavour Silver Corp.

However, the approved capital in US $ as per the Endeavour Silver Board approval is summarized in Table 18.4.

Table 18.4
Endeavour Silver 2010 Capital Cost Estimates Approved by the Board on December 15, 2009

Item	2010 Capital Expenditures (US $)
Mine Equipment	1,200,000
Mine various	631,500
Assay Lab	27,000
Plant General	0
Tailings	12,000
Environmental	0
Mine Exploration	1,383,000
Development	3,113,866
Plant	336,550
Buildings	189,500
Vehicles	93,000
Total	6,986,416

Table provided by Endeavour Silver Corp.

The capital expenditure budget for the mine and plant is in addition to the surface exploration budget.

18.11 ECONOMIC ANALYSIS

18.11.1 Operating Costs

The cash operating cost of silver produced at the Guanajuato Mines project in fiscal 2009 was US $1.01/oz compared to US $10.79 in 2008 (Table 18.5).

Cash operating cost per oz of silver is calculated net of gold credits and royalties. On a per tonne of ore processed basis, the cash operating costs averaged US $59.34/t compared to 2008 which averaged US $81.33/t.

The decrease in cash costs in 2009 is attributed to the discovery and development of the Lucero vein, significantly improving the silver and gold grades from the mine, improved mine efficiencies, reduction of refining costs and appreciation of gold prices.

Table 18.5
2009 Operating Cost Estimates for the Guanajuato Project

(In US $000s except oz produced / payable and cash cost/oz)	Year Ended Dec 31, 2009	Three Months Ended Dec 31, 2009	Three Months Ended Sep 30, 2009	Three Months Ended June 30, 2009	Three Months Ended Mar 31, 2009
Cost of Sales	$9,223	$3,297	$1,608	$1,858	$2,460
Add/(Subtract):					
Royalties	$0	$0	$0	$0	$0
Change in Inventories	$138	($518)	$776	$96	($216)
Change in By-Product Inventories	($987)	$619	($1,374)	($327)	$95
By-Product gold sales	($7,644)	($3,646)	($1,378)	($1,397)	($1,223)
Cash Operating Costs US $	**$730**	**($248)**	**($368)**	**$230**	**$1,116**
Oz Produced	728,181	191,867	204,294	168,711	163,309
Oz Payable	720,899	189,949	202,251	167,024	161,675
Cash Operating Cost Per Oz US $*	**$1.01**	**($1.31)**	**($1.82)**	**$1.38**	**$6.90**

*Based on Payable silver production attributable to cost of sales
Table provided by Endeavour Silver Corp.

The actual 2009 and estimated 2010 operating costs for the project are summarized in Table 18.6.

Table 18.6
Actual 2009 and Estimated 2010 Operating Cost Estimates for the Guanajuato Project

Item	Actual 2009 Costs (US $/t)	Estimated 2010 Costs (US $/t)
Mining Cost	25.66	26.94
Development Cost	NA	NA
Plant (Milling) Cost	19.27	20.23
Administration	14.41	15.13
Tailings Pond Expansion	NA	NA
Total	**59.34**	**62.30**

Table provided by Endeavour Silver Corp.

18.11.2 Economic Analysis

Micon has not undertaken a cash flow analysis for the Guanajuato Mines project due to the fact that there are currently only mineral reserves sufficient for a short term operation of less than two years.

18.11.3 Future Production Potential

The mine life based on proven and probable reserves as of December 31, 2009, is approximately one and a half years at a projected production level of 550 t/d or 15,000 t/m. This is less than the mill capacity and Endeavour Silver is hoping that ongoing exploration

will add to the mineral reserve inventory so that the mining and processing rate can be increased in 2009.

Given that many epithermal vein systems of this type have vertical mineralized extents ranging from 500 m to 800 m, Endeavour Silver could reasonably expect to increase its mineral resource base as more exploration is conducted. Micon believes there is a good likelihood of discovering additional resources at Endeavour Silver's Guanajuato mines project.

19.0 INTERPRETATION AND CONCLUSIONS

19.1 DISCUSSION AND INTERPRETATION

Endeavour Silver's Guanajuato Mines project is located in one of the major historical silver mining districts in Mexico. The geology, genesis and mineralization of the deposit are well understood by Endeavour Silver's exploration division and this forms a sound basis upon which to increase the resource/reserve through effective exploration concepts. More recently the exploration team enhanced its structural interpretation techniques by the acquisition of a Ballmark Core Orientation System which will be particularly useful for determining the geometry of structurally complex targets. Since Endeavour Silver has taken over the day-to-day operation of the mines, it has instituted a number of changes which have increased productivity and efficiency measures that have led to increased cost savings.

In 2006, upon acquiring the Guanajuato Mines project Endeavour Silver obtained an operating project with an extensive mining history and known silver and gold bearing veins. Although a number of mineralized areas have been exploited in the past, improvements in mining techniques have allowed mining to be expanded within the boundaries of previously mined areas and extended into new areas.Micon has conducted an audit of the Endeavour Silver resource and reserve estimate for the period ending December 31, 2009. Micon's audited resource estimates are contained in Tables 19.1 and 19.2 for the Indicated and Inferred Mineral Resources. The Proven and Probable Mineral Reserves are shown in Table 19.3. These reserves are in addition to the mineral resources. Based on its data verification process, Micon is satisfied that the database used in the reserve/resource estimates is credible.

The December 31, 2009 mineral resource estimates used the following parameters:

- Cut-off grade for indicated and inferred resources is 150 g/t silver equivalent.
- Silver equivalents in the resource tables were estimated using a 65:1 ratio based on prices of US $17/oz silver and US $1,100/oz gold, with no base metal credits.

The December 31, 2009 mineral reserve estimates used the following parameters:

- Cut-off grade for proven and probable reserves is 202 g/t silver equivalent.
- Silver equivalents in the reserve tables were also estimated using a 65:1 ratio based on prices of US $17/oz silver and US $1,100/oz gold, with no base metal credits.

The process of mineral resource and reserve estimation includes technical information which requires subsequent calculations or estimates to derive sub-totals, totals and weighted averages. Such calculations or estimations inherently involve a degree of rounding and consequently introduce a margin of error. Where these occur, Micon does not consider them to be material. The final resource and reserve figures in Tables 19.1 through 19.3 have been

rounded, in part, to provide a mineral resource and reserve statement which implies an appropriate level of accuracy in order to reflect that the numbers are estimates.

Table 19.1
December 31, 2009 Measured and Indicated Mineral Resource Estimate, Guanajuato Mines Project

Resource Category	Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Measured	---	---	---	---	---	---	---
Indicated	624,000	215	1.90	339	4,319,500	38,200	6,804,000
Total Measured and Indicated	**624,000**	**215**	**1.90**	**339**	**4,319,500**	**38,200**	**6,804,000**

Table 19.2
December 31, 2009 Inferred Mineral Resource Estimate, Guanajuato Mines Project

Resource Category	Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Inferred	1,131,000	212	1.93	338	7,714,000	69,900	12,262,600
Total Inferred	**1,131,000**	**212**	**1.93**	**338**	**7,714,000**	**69,900**	**12,262,600**

Table 19.3
December 31, 2009 Probable Mineral Reserve Estimate, Guanajuato Mines Project

Reserve Category	Tonnes	Silver (g/t)	Gold (g/t)	Silver Equivalent (g/t)	Silver oz	Gold oz	Silver Equivalent oz
Proven	111,000	184	2.58	352	656,800	9,200	1,257,000
Probable	159,000	175	2.41	332	897,000	12,300	1,696,300
Total Proven & Probable	**270,000**	**179**	**2.48**	**340**	**1,553,800**	**21,500**	**2,953,300**

Micon considers the resource and reserve estimates, compiled by Endeavour Silver and audited by Micon, to have been reasonably prepared and to conform to the current CIM standards and definitions for estimating resources and reserves as required under NI 43-101 "Standards of Disclosure for Mineral Projects." Therefore, Micon accepts Endeavour Silver's resource and reserve estimate as its basis for the ongoing mining operations at the Guanajuato Mine project. In Micon's opinion there are no significant technical, legal, environmental or political considerations which would affect the extraction and processing of the resources and reserves at the Guanajuato Mine project. However, mineral resources that are not mineral reserves do not have demonstrated economic viability.

Micon believes that the land controlled by Endeavour Silver is highly prospective both along strike and down dip of the existing mineralization and that further resources could be converted into reserves with additional exploration and development.

19.2 CONCLUSIONS

In 2006, upon acquiring the Guanajuato Mines project Endeavour Silver obtained an operating project with an extensive mining history and known silver and gold bearing veins. Although a number of mineralized areas have been exploited in the past, improvements in mining techniques have allowed mining to be expanded within the boundaries of previously mined areas and extended into new areas.

The resources and reserves reported herein by Endeavour Silver for the Guanajuato Mines project were audited and accepted by Micon as constituting a portion of Endeavour Silver's operations in Mexico. The resources and reserves for the Guanajuato Mines project conform to the current CIM standards and definitions for estimating resources and reserves as required under NI 43-101 regulations.

The mineral exploration potential for the Guanajuato Mines project is considered to be very good. In the veins that have been partially mined and within which the resource blocks are contained, there is good potential to add to the resources by gathering information in the vicinity of these blocks and expanding them into unmined ground, like the Lucero vein. This could be achieved using a combination of underground drilling and further channel sampling. The block boundaries are in many cases only constrained by the arbitrary rules for how far a sample's influence should be extended.

Parts of these veins beyond the historically mined areas also represent good exploration targets for additional resource tonnage; however, surface drilling will be required. The license areas contain many veins and Micon considers there to be reasonable potential to discover new veins and splays beyond those currently mapped.

Endeavour Silver is also in the position of operating in a major historical mining district in Mexico that has not been subjected fully to modern exploration concepts and technology. The property holds the potential for the discovery of mineralized deposits of similar character and grade as those discovered in the past, either along the trend of the veins or at depth below the presently exploited areas.

In so far as Endeavour Silver meeting its project objectives is concerned, Micon believes that the significant increase in reserves and resources as compared to the previous year's position is clear testimony of a significant achievement by Endeavour Silver and a reflection of the effectiveness of the exploration concepts/techniques being employed.

20.0 RECOMMENDATIONS

20.1 2010 EXPLORATION PROGRAMS

Given the success of Endeavour Silver's exploration programs, it plans to continue exploration focused on following up several of the new discoveries made near its existing mining operation at Guanajuato and testing several new prospective targets within the district. The primary long-term goal of this program is to expand reserves and resources and to identify properties for potential acquisition in the Guanajuato district to secure future growth.

The 2010 exploration program is planned to include 16,000 m of core in more than 50 surface diamond drill holes to target vein discoveries and new prospective areas in the Cebada and Bolañitos areas of the Guanajuato district. Endeavour Silver is budgeting to spend US $3,021,700, mainly on surface diamond drilling, in an effort to continue to expand the resource base through both exploration and development on its properties during 2010. The estimated cost of diamond drilling is US $150/m. In 2010, Endeavour Silver will also conduct an underground exploration program consisting of 21 diamond drill holes totalling approximately 10,500 m. The underground program will focus on expanding the resources and reserves at the Guanajuato Mines project as well as continuing to explore for new sources of mineralization within property.

Table 20.1 summarizes the planned 2010 budget for the Guanajuato Mines project.

Table 20.1
Summary of the 2010 Expenditures for the Guanajuato Mines Project Exploration Program

Project Area	2010 Exploration Program			Budget (US $)
	Drill Holes	Metres	Samples	
Lucero-Karina-La Joya	20	6,000	2,200	1,074,500
Cebada North	8	3,000	1,000	495,200
Bolañitos North	15	4,000	1,700	759,000
La Luz - Asuncion	5	1,500	900	343,500
Other targets and new acquisitions	5	1,500	1,000	349,500
Bolañitos mine underground	21	10,500	3,800	1,383,000
Total	**74**	**26,500**	**10,600**	**4,404,700**

Table provided by Endeavour Silver Corp.

20.1.1 Exploration Target Areas

Priority targets include drilling at Lucero-Karina-La Joya, Bolañitos North, Cebada North, Other Targets/New Acquisitions and underground. For these targets, the programs include:

1. Surface Drilling – 16,000 m.
    a. Lucero-Karina-La Joya – 6,000 m.
    b. Bolañitos North – 4,000 m.
    c. Cebada North – 3,000 m.
    d. Other Targets and New Acquisitions – 3,000 m.

2. Underground Drilling.
   a. Bolanitos Mine Underground – 10,500 m.

The detailed budget for these priority exploration targets is summarized in Table 20.2.

Table 20.2
Guanajuato Exploration Budget – 2010

Area	Activity (units)	Units	Unit Cost (US $)	Total Cost (US $)
Lucero-Karina-La Joya	Assays - rock and soil (sample)	200	30.00	6,000
	Assays - core (sample)	2,000	40.00	80,000
	Consultants (days)	20	1,200.00	24,000
	Surface diamond drilling (m)	6,000	125.00	750,000
	Field and office supplies (weeks)	20	500.00	10,000
	Housing and food (weeks)	20	250.00	5,000
	Geology and engineering personnel (weeks)	20	3,500.00	70,000
	Salaries -labour (weeks)	20	1,600.00	32,000
	Trenches, roads, drill pads and reclamation (weeks)	20	2,500.00	50,000
	Travel and lodging (weeks)	20	100.00	2,000
	Vehicle inc. gasoline, repair and maintenance (weeks)	20	200.00	4,000
	Surface use agreements (months)	4	10,000.00	40,000
	Expenses non deductable (weeks)	20	75.00	1,500
	Lucero - Karina - La Joya Subtotal			**1,074,500**
Cebada North	Assays (sample)	1,000	40.00	40,000
	Surface diamond drilling (m)	3,000	125.00	375,000
	Field and office supplies (weeks)	8	500.00	4,000
	Housing and food (weeks)	8	250.00	2,000
	Geology and engineering personnel (weeks)	8	3,500.00	28,000
	Salaries -labour (weeks)	8	1,000.00	8,000
	Trenches, roads, drill pads and reclamation (weeks)	8	2,500.00	20,000
	Travel and lodging (weeks)	8	100.00	800
	Vehicle inc. gasoline, repair and maintenance (weeks)	8	200.00	1,600
	Surface use agreements (months)	2	7,500.00	15,000
	Expenses non deductable (weeks)	8	100.00	800
	Cebada North Subtotal			**495,200**
Bolañitos North	Assays - rock and soil (sample)	400	30.00	12,000
	Assays - core (sample)	1,300	40.00	52,000
	Surface diamond drilling (m)	4,000	125.00	500,000
	Field and office supplies (weeks)	20	500.00	10,000
	Housing and food (weeks)	20	250.00	5,000
	Geology and engineering personnel (weeks)	20	3,500.00	70,000
	Salaries -labour (weeks)	20	1,600.00	32,000
	Trenches, roads, drill pads and reclamation (weeks)	20	2,500.00	50,000
	Travel and lodging (weeks)	20	100.00	2,000
	Vehicle inc. gasoline, repair and maintenance (weeks)	20	200.00	4,000
	Surface use agreements (months)	2	10,000.00	20,000
	Expenses non deductable (weeks)	20	100.00	2,000
	Bolañitos North Subtotal			**759,000**
La Lux - Asuncion	Assays - rock and soil (sample)	400	30.00	12,000
	Assays - core (sample)	500	40.00	20,000
	Consultants (days)	10	1,200.00	12,000
	Surface diamond drilling (m)	1,500	125.00	187,500
	Field and office supplies (weeks)	12	500.00	6,000
	Housing and food (weeks)	12	250.00	3,000
	Geology and engineering personnel (weeks)	12	3,500.00	42,000
	Salaries -labour (weeks)	12	1,600.00	19,200
	Trenches, roads, drill pads and reclamation (weeks)	12	2,250.00	27,000
	Travel and lodging (weeks)	12	100.00	1,200
	Vehicle inc. gasoline, repair and maintenance (weeks)	12	200.00	2,400
	Surface use agreements (months)	1	10,000.00	10,000
	Expenses non deductable (weeks)	12	100.00	1,200
	La Luz - Asuncion Subtotal			**343,500**

Area	Activity (units)	Units	Unit Cost (US $)	Total Cost (US $)
Other Targets and New Acqusitions	Assays - rock and soil (sample)	500	30.00	15,000
	Assays - Core (sample)	500	40.00	20,000
	Consultants (days)	10	1,200.00	12,000
	Surface diamond drilling (m)	1,500	125.00	187,500
	Field and office supplies (weeks)	12	500.00	6,000
	Housing and food (weeks)	12	250.00	3,000
	Geology and engineering personnel (weeks)	12	3,500.00	42,000
	Salaries -labour (weeks)	12	1,600.00	19,200
	Trenches, roads, drill pads and reclamation (weeks)	12	2,500.00	30,000
	Travel and lodging (weeks)	12	100.00	1,200
	Vehicle inc. gasoline, repair and maintenance (weeks)	12	200.00	2,400
	Surface use agreements (months)	1	10,000.00	10,000
	Expenses non deductable (weeks)	12	100.00	1,200
	Other Targets & New Acquisitions Subtotal			**349,500**
	Guanajuato Project Surface Exploration Total			**3,021,700**
Bolañitos Mine Underground Exploration Program	Assays - Core (sample)	3,800	40.0	152,000
	Undergrounds diamond drilling (m)	10,500	110.00	1,155,000
	Field and office supplies (weeks)	2	5,000	10,000
	Housing and food (weeks)	12	500	6,000
	Geology and engineering personnel (weeks)	12	3,100	37,200
	Salaries -labour (weeks)	12	1,600	19,200
	Vehicle inc. gasoline, repair and maintenance (weeks)	12	250	3,000
	Guanajuato Project Underground Exploration Total		**10,840**	**1,383,000**

Table provided by Endeavour Silver Corp.

Micon has reviewed Endeavour Silver's proposal for further exploration on its Guanajuato Mines property and recommends that Endeavour Silver conducts the exploration program as proposed subject to funding and any other matters which may cause the proposed exploration program to be altered in the normal course of its business activities or alterations which may affect the program as a result of exploration activities themselves.

20.2 FURTHER RECOMMENDATIONS

Through its acquisition of the Guanajuato Mines project, Endeavour Silver has acquired an operating project in one of the major silver producing districts in Mexico. Micon has reviewed Micon Endeavour Silver's proposal for further exploration and has conducted its third audit of the resource and reserve estimate for the project, and has accepted the estimate as correct. Micon makes the following additional recommendations to assist Endeavour Silver in its exploration and resource and reserve estimation processes:

1) Micon recommends that Endeavour Silver continues to develop a reconciliation plan for the Guanajuato Mines project. The ability to be able to reconcile the ore mined and milled on a stope-by-stope basis to the original estimates for the stope will be a critical factor in future resource and reserve estimations. The reconciliations will form the basis for reviewing dilution estimates, mining loss and gain estimates, and will assist in reviewing the classification categories of the resources.

2) Micon recommends that Endeavour Silver continues to pursue the necessary paperwork for its on-site laboratory to join a proficiency program of round-robin testing such as the one run by CanMet. This would assist the on-site laboratory in

assessing its performance for one or more analytical methods independently of internal quality control. Coupled with this program, a total of between 5% and 10% of the samples submitted to the on-site assay laboratory should be sent out to a secondary accredited laboratory.

3) Micon recommends that the computerization programs planned for Guanajuato should be speeded up to achieve better efficiency and enable Endeavour Silver to standardize practices at all its operations.

4) Micon recommends that Endeavour Silver continues sending out representative samples of the various mineralized zones encountered in the drilling for bulk density determinations and that this information is used in conducting future resource and reserve estimates on the Guanajuato Mines project. At the same time representative samples of the mineralized material from the various zones could be sent out for metallurgical and mineralogical testwork.

5) Micon recommends that Endeavour Silver completes its conversion of the existing paper database. As further data are generated from the mining, more detailed examination of the block modelling parameters should be done to develop better estimation protocols. This would not only help in future exploration but would also help in infill drilling.

6) Micon recommends that future budgets should include modern-day technology sampling tools to improve the quality of the samples used for evaluation and thereby achieve a more accurate base for reconciliation with the mill output.

MICON INTERNATIONAL LIMITED

"William J. Lewis"

William J. Lewis, B.Sc., P.Geo.
Senior Geologist March 15, 2010

"Charley Z. Murahwi"

Charley Z. Murahwi, M.Sc., P.Geo, MAusIMM
Senior Geologist March 15, 2010

"Robert J. Leader"

Robert J. Leader, P.Eng
Senior Mining Engineer March 15, 2010

"Alan J. San Martin"

Ing. Alan J. San Martin, MAusIMM
Mineral Resource Modeller March 15, 2010

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CERTIFICATE OF AUTHOR
WILLIAM J. LEWIS

As the co-author of this report on the Guanajuato Mines project of Endeavour Silver Corp., in Guanajuato State, Mexico, I, William J. Lewis do hereby certify that:

1) I am employed by, and carried out this assignment for, Micon International Limited, Suite 900, 390 Bay Street, Toronto, Ontario M5H 2Y2, tel. (416) 362-5135, fax (416) 362-5763, e-mail wlewis@micon-international.com;

2) I hold the following academic qualifications:

   B.Sc. (Geology) University of British Columbia 1985

3) I am a registered Professional Geoscientist with the Association of Professional Geoscientists of Manitoba (membership # 20480); as well, I am a member in good standing of several other technical associations and societies, including:

   - Association of Professional Engineers and Geoscientists of British Columbia (Membership # 20333)
   - Association of Professional Engineers, Geologists and Geophysicists of the Northwest Territories (Membership # 1450)
   - The Geological Association of Canada (Associate Member # A5975)
   - The Canadian Institute of Mining, Metallurgy and Petroleum (Member # 94758)

4) I have worked as a geologist in the minerals industry for 23 years;

5) I am familiar with NI 43-101 and, by reason of education, experience and professional registration; I fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 4 years as an exploration geologist looking for gold and base metal deposits, more than 11 years as a mine geologist in underground mines and 5 years as a surficial geologist and consulting geologist on precious and base metals and industrial minerals;

6) I have not visited the Guanajuato Mines project of Endeavour Silver Corp.;

7) I have co-authored the previous Micon Technical reports for the mineral properties in question;

8) 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 this report not misleading;

9) I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services;

10) I am responsible for the preparation of sections 1, through 11, 15 16, 18, 19, 21 and jointly wrote sections 12, 13, and 20 of the Technical Report dated March 15, 2010 entitled "NI 43-101 Technical Report Audit of the Resource and Reserve Estimate for the Guanajuato Mines Project, Guanajuato State Mexico."

Dated this 15th day of March, 2010

"William J. Lewis"

William J. Lewis, B.Sc., P.Geo.
Senior Geologist,
Micon International Limited

CERTIFICATE OF AUTHOR
CHARLEY Z. MURAHWI

As a co-author of this report on the Guanajuato Mines project of Endeavour Silver Corp., I Charley Z. Murahwi do hereby certify that:

1) I am employed as an Senior Geologist by, and carried out this assignment for, Micon International Limited, Suite 900, 390 Bay Street, Toronto, Ontario M5H 2Y2, telephone 416 362 5135, fax 416 362 5763, e-mail cmurahwi@micon-international.com.

2) I hold the following academic qualifications:

   B.Sc. (Geology) University of Rhodesia, Zimbabwe, 1979;

   Diplome d´Ingénieur Expert en Techniques Minières, Nancy, France, 1987;

   M.Sc. (Economic Geology), Rhodes University, South Africa, 1996.

3) I am a registered Professional Geoscientist of Ontario (membership number 1618), a member of the Australasian Institute of Mining & Metallurgy (AusIMM) (membership number 300395) and am also a registered Professional Natural Scientist with the South African Council for Natural and Scientific Professions (membership # 400133/09).

4) I have worked as a mining and exploration geologist in the minerals industry for over 28 years;

5) I do, by reason of education, experience and professional registration, fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 14 years on gold, silver, copper, tin and tantalite projects (on and off- mine), and 12 years on Cr-Ni-Cu-PGE deposits in layered intrusions/komatiitic environments.

6) I visited the Guanajuato Mines Project in Mexico from 2 to 4 September, 2008 and from 16 to 18 November, 2009. I also visited the Endeavour Silver exploration office in Durango (Mexico) on 5 September, 2008 and on the 19 November, 2009.

7) I have co-authored the previous Micon Technical reports for the mineral properties in question;

8) 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 this report not misleading;

9) I am independent of the parties involved in the Guanajuato property, other than providing consulting services;

10) I have read the NI 43-101 and the portions of this Technical Report for which I am responsible have been prepared in compliance with this Instrument.

11) I am responsible for the preparation of section 14 and co-authored sections 10, 12, 13, 17, 19, and 20 of this Technical Report dated March 15, 2010 and entitled “NI 43-101 Technical Report Audit of the Resource and Reserve Estimate for the Guanajuato Mines Project, Guanajuato State, Mexico.”

Dated this 15th day of March, 2010.

“Charley Z. Murahwi”
Charley Z. Murahwi, M.Sc., P. Geo. MAusIMM

CERTIFICATE OF AUTHOR
ROBERT JAMES LEADER

As the co-author of this report on the Guanajuato Mines project of Endeavour Silver Corp., in Guanajuato State, Mexico, I, Robert James Leader do hereby certify that:

1) I am employed by, and carried out this assignment for, Micon International Limited, Suite 205, 700 West Pender Street, Vancouver, BC, V6C 1G8, tel. (604) 647-6463, fax (604) 647-6455, e-mail jleader@micon-international.com;

2) I hold the following academic qualifications:

ACSM (First Class)	Camborne School of Mines - 1974
M.Sc. (Engineering)	Queens University, Kingston, Ontario - 1981

3) I am a registered Professional Engineer with the Association of Professional Engineers and Geoscientists of British Columbia (Membership #13896), I am a member in good standing of other technical associations and societies, including:

- The Canadian Institute of Mining, Metallurgy and Petroleum
- The Institute of Materials, Minerals and Mining (IOM3), UK

4) I have worked as a mining engineer in the minerals industry for 32 years;

5) I am familiar with NI 43-101 and, by reason of education, experience and professional registration; I fulfill the requirements of a Qualified Person as defined in NI 43-101. My work experience includes 3 years working as a mining engineer on a base metal underground mine, and over 15 years as a senior mining engineer and consultant carrying out reserves estimates and mine planning and design for diverse mining projects both underground and open pit;

6) I have not visited the Guanajuato Mines project of Endeavour Silver Corp.;

7) I have authored or co-authored the previous Micon Technical reports for the mineral properties in question;

8) 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 this report not misleading;

9) I am independent of the parties involved in the transaction for which this report is required, other than providing consulting services;

10) I am responsible for the preparation of parts of sections 1, 16, 17.2 and 17.3, 18, 19 and 20 of the Technical Report dated March 15, 2010 entitled "NI 43-101 Technical Report Audit of the Resource and Reserve Estimate for the Guanajuato Mines Project, Guanajuato State Mexico."

Dated this 15th day of March, 2010

"Robert J. Leader"

Robert J. Leader, M.Sc., P.Eng.
Senior Mining Engineer
Micon International Limited

CERTIFICATE OF AUTHOR
ALAN J. SAN MARTIN

As the co-author of this report on the Guanajuato Mines project of Endeavour Silver Corp., in Guanajuato State, Mexico, I, Alan J. San Martin do hereby certify that:

1) I am employed by Micon International Limited, Suite 900, 390 Bay Street, Toronto, Ontario M5H 2Y2, tel. (416) 362-5135, fax (416) 362-5763, e-mail asanmartin@micon-international.com;

2) Bachelor Degree in Mining Engineering (equivalent to B.Sc.) National University of Piura, Peru, 1999;

3) I am a registered Engineer with the Colegio de Ingenieros del Peru (CIP) Membership # 79184;

4) I have worked as a mining engineer in the minerals industry for 10 years;

5) I am familiar with NI 43-101 but I am not a Qualified Person in Canada. My work was supervised and approved by Charley Z. Murahwi, one of the authors and Qualified Persons for this report;

6) I have not visited the Guanajuato Mines project of Endeavour Silver Corp.;

7) I have co-authored the previous Micon Technical reports for the mineral properties in question;

8) 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 this report not misleading;

9) I am independent of the parties involved in the Guanajuato Mines project, other than providing consulting services;

10) I assisted Charley Z. Murahwi in the preparation of section 17 of this Technical Report dated March 15, 2010 entitled "NI 43-101 Technical Report Audit of the Resource and Reserve Estimate for the Guanajuato Mines Project, Guanajuato State Mexico."

Dated this 15th day of March, 2010

"Alan J. San Martin"

Ing. Alan J. San Martin.
Micon International Limited

APPENDIX 1

GLOSSARY OF MINING TERMS

GLOSSARY AND DEFINED TERMS

The following is a glossary of certain mining terms that may be used in this Technical Report.

A

Adit	A horizontal passage from the surface into the mine providing access to a mineral deposit.
Ag	Silver.
Assay	A chemical test performed on a sample of ores or minerals to determine the amount of valuable metals contained..
Au	Gold.

B

Backfill	Waste material used to fill the void created by mining an orebody.
Ball mill	A steel cylinder filled with steel balls into which crushed ore is fed. The ball mill is rotated, causing the balls to cascade and grind the ore.
Base metal	Any non-precious metal (eg. copper, lead, zinc, nickel, etc.).
Blasthole	A drill hole in a mine that is filled with explosives in order to blast loose a quantity of rock.
Block caving	An inexpensive method of mining in which large blocks of ore are undercut, causing the ore to break or cave under its own weight.
Bulk mining	Any large-scale, mechanized method of mining involving many thousands of tonnes of ore being brought to surface per day.
Bulk sample	A large sample of mineralized rock, frequently hundreds of tonnes, selected in such a manner as to be representative of the potential orebody being sampled. Used to determine metallurgical characteristics.
Bullion	Metal formed into bars or ingots.
Byproduct	A secondary metal or mineral product recovered in the milling process.

C

Calcine	Name given to concentrate that is ready for smelting (i.e. the sulphur has been driven off by oxidation).
Chalcopyrite	A sulphide mineral of copper and iron; the most important ore mineral of copper.

Channel sample	A sample composed of pieces of vein or mineral deposit that have been cut out of a small trench or channel, usually about 10 cm wide and 2 cm deep.
Chip sample	A method of sampling a rock exposure whereby a regular series of small chips of rock is broken off along a line across the face.
Chute	An opening, usually constructed of timber and equipped with a gate, through which ore is drawn from a stope into mine cars.
CIM Standards	The CIM Definition Standards on Mineral Resources and Mineral Reserves adopted by CIM Council from time to time.
CIM	The Canadian Institute of Mining, Metallurgy and Petroleum.
Concentrate	A fine, powdery product of the milling process containing a high percentage of valuable metal.
Contact	A geological term used to describe the line or plane along which two different rock formations meet.
Core	The long cylindrical piece of rock, about an inch in diameter, brought to surface by diamond drilling.
Core sample	One or several pieces of whole or split parts of core selected as a sample for analysis or assay.
Cross-cut	A horizontal opening driven from a shaft and (or near) right angles to the strike of a vein or other orebody. Also used to signify that a drill hole is crossing the mineralization at or near right angles to it.
Cu	Copper.
Custom smelter	A smelter which processes concentrates from independent mines. Concentrates may be purchased or the smelter may be contracted to do the processing for the independent company.
Cut-off grade	The lowest grade of mineralized rock that qualifies as ore grade in a given deposit, and is also used as the lowest grade below which the mineralized rock currently cannot be profitably exploited. Cut-off grades vary between deposits depending upon the amenability of ore to gold extraction and upon costs of production.
Cyanidation	A method of extracting exposed gold or silver grains from crushed or ground ore by dissolving it in a weak cyanide solution. May be carried out in tanks inside a mill or in heaps of ore out of doors.
Cyanide	A chemical species containing carbon and nitrogen used to dissolve gold and silver from ore.

D

Dacite	The extrusive (volcanic) equivalent of quartz diorite.

Decline	A sloping underground opening for machine access from level to level or from surface; also called a ramp.
Deposit	An informal term for an accumulation of mineralization or other valuable earth material of any origin.
Development	Underground work carried out for the purpose of opening up a mineral deposit. Includes shaft sinking, cross-cutting, drifting and raising.
Development drilling	Drilling to establish accurate estimates of mineral resources or reserves.
Dilution	Rock that is, by necessity, removed along with the ore in the mining process, subsequently lowering the grade of the ore.
Diorite	An intrusive igneous rock composed chiefly of sodic plagioclase, hornblende, biotite or pyroxene.
Dip	The angle at which a vein, structure or rock bed is inclined from the horizontal as measured at right angles to the strike.
Drift	A horizontal or nearly horizontal underground opening driven along a vein to gain access to the deposit.

E

Ejido	A local community of people who own the surface rights to an area of land
Endeavour Silver	Endeavour Silver Corp., including, unless the context otherwise requires, the Company's subsidiaries.
Epithermal	Hydrothermal mineral deposit formed within one kilometer of the earth’s surface, in the temperature range of 50–200°C.
Epithermal deposit	A mineral deposit consisting of veins and replacement bodies, usually in volcanic or sedimentary rocks, containing precious metals or, more rarely, base metals.
Exploration	Prospecting, sampling, mapping, diamond drilling and other work involved in searching for ore.

F

Face	The end of a drift, cross-cut or stope in which work is taking place.
Fault	A break in the Earth's crust caused by tectonic forces which have moved the rock on one side with respect to the other.

Flotation	A milling process in which valuable mineral particles are induced to become attached to bubbles and float as others sink.
Fold	Any bending or wrinkling of rock strata.
Footwall	The rock on the underside of a vein or ore structure.
Fracture	A break in the rock, the opening of which allows mineral-bearing solutions to enter. A "cross-fracture" is a minor break extending at more-or-less right angles to the direction of the principal fractures.

G

g/t	Grams per metric tonne.
Galena	Lead sulphide, the most common ore mineral of lead.
gpt	Grams per metric tonne.
Grade	Term used to indicate the concentration of an economically desirable mineral or element in its host rock as a function of its relative mass. With gold, this term may be expressed as grams per tonne (g/t) or ounces per tonne (oz/t).
Gram	0.0321507 troy ounces.

H

Hanging wall	The rock on the upper side of a vein or ore deposit.
High grade	Rich ore. As a verb, it refers to selective mining of the best ore in a deposit.
Host rock	The rock surrounding an ore deposit.
Hydrothermal	Processes associated with heated or superheated water, especially mineralization or alteration.

I

Indicated Mineral Resource

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.

Inferred Mineral Resource

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.

Intrusive — A body of igneous rock formed by the consolidation of magma intruded into other

K

km — Kilometre(s). Equal to 0.62 miles.

L

Leaching — The separation, selective removal or dissolving-out of soluble constituents from a rock or ore body by the natural actions of percolating solutions.

Level — The horizontal openings on a working horizon in a mine; it is customary to work mines from a shaft, establishing levels at regular intervals, generally about 50 m or more apart.

Limestone — A bedded, sedimentary deposit consisting chiefly of calcium carbonate.

M

m — Metre(s). Equal to 3.28 feet.

Marble — A metamorphic rock derived from the recrystallization of limestone under intense heat and pressure.

Measured Mineral Resource

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.

Metallurgy — The science and art of separating metals and metallic minerals from their ores by mechanical and chemical processes.

Metamorphic	Affected by physical, chemical, and structural processes imposed by depth in the earth's crust.
Mill	A plant in which ore is treated and metals are recovered or prepared for smelting; also a revolving drum used for the grinding of ores in preparation for treatment.
Mine	An excavation beneath the surface of the ground from which mineral matter of value is extracted.
Mineral	A naturally occurring homogeneous substance having definite physical properties and chemical composition and, if formed under favorable conditions, a definite crystal form.
Mineral Claim	That portion of public mineral lands which a party has staked or marked out in accordance with federal or state mining laws to acquire the right to explore for and exploit the minerals under the surface.
Mineralization	The process or processes by which mineral or minerals are introduced into a rock, resulting in a valuable or potentially valuable deposit.

Mineral Resource

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 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 term mineral resource covers mineralization and natural material of intrinsic economic interest which has been identified and estimated through exploration and sampling and within which mineral reserves may subsequently be defined by the consideration and application of technical, economic, legal, environmental, socio-economic and governmental factors. The phrase reasonable prospects for economic extraction implies a judgment by the Qualified Person in respect of the technical and economic factors likely to influence the prospect of economic extraction. A mineral resource is an inventory of mineralization that under realistically assumed and justifiable technical and economic conditions, might become economically extractable. The term mineral resource used in this AIF is a Canadian mining term as defined in accordance with NI 43-101 – Standards of Disclosure for Mineral Projects under the guidelines set out in the Canadian Institute of Mining, Metallurgy and Petroleum (the CIM), Standards on Mineral Resource and Mineral Reserves Definitions and guidelines adopted by the CIM Council on August 20, 2000 (the CIM Standards).

N

Net Smelter Return

	A payment made by a producer of metals based on the value of the gross metal production from the property, less deduction of certain limited costs including smelting, refining, transportation and insurance costs.

O

Open Cut	A term sometimes used to differentiate mining workings which are excavated beneath the surface of the ground but remain exposed to the surface.
Ounce	A measure of weight in gold and other precious metals, correctly troy ounces, which weigh 31.2 grams as distinct from an imperial ounce which weigh 28.4 grams.
Outcrop	An exposure of rock or mineral deposit that can be seen on surface, that is, not covered by soil or water.
Oxidation	A chemical reaction caused by exposure to oxygen that results in a change in the chemical composition of a mineral.
oz	Ounce
oz/t or opt	Ounces per metric tonne

P

Pb	Lead
Plant	A building or group of buildings in which a process or function is carried out; at a mine site it will include warehouses, hoisting equipment, compressors, maintenance shops, offices and the mill or concentrator.
Pyrite	A common, pale-bronze or brass-yellow, mineral. Pyrite has a brilliant metallic luster and has been mistaken for gold. Pyrite is the most wide-spread and abundant of the sulfide minerals and occurs in all kinds of rocks.

Q

Qualified Person	Conforms to that definition under NI 43-101 for an individual: (a) to be an engineer or geoscientist with at least five years' experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these; (b) to have experience relevant to the subject matter of the mineral project and the technical report; and (c) to be a member in good standing of a professional association that, among other things, is self-regulatory, has been given authority by statute, admits members based on their qualifications and experience, requires compliance with professional standards of competence and ethics and has disciplinary powers to suspend or expel a member.

R

Raise	A vertical hole between mine levels used to move ore or waste rock or to provide ventilation.
Ramp	An inclined underground tunnel which provides access for exploration or a connection between levels of a mine.
Reclamation	The restoration of a site after mining or exploration activity is completed.
Recovery Rate	A term used in process metallurgy to indicate the proportion of valuable material obtained in the processing of an ore. It is generally stated as a percentage of the material recovered compared to the total material present.
Refining	The final stage of metal production in which impurities are removed from the molten metal.
Refractory ore	Ore that resists the action of chemical reagents in the normal treatment processes and which may require pressure leaching or other means to effect the full recovery of the valuable minerals.

S

Shaft	A vertical passageway to an underground mine for moving personnel, equipment, supplies and material including ore and waste rock.
Shoot	A concentration of mineral values; that part of a vein or zone carrying values of ore grade.
Skarn	Name for the metamorphic rocks surrounding an igneous intrusive where it comes in contact with a limestone or dolostone formation.
Sphalerite	A zinc sulphide mineral; the most common ore mineral of zinc.
Stockpile	Broken ore heaped on surface, pending treatment or shipment.
Stope	An area in an underground mine where ore is mined.
Strike	The direction, or bearing from true north, of a vein or rock formation measureon a horizontal surface.
Stringer	A narrow vein or irregular filament of a mineral or minerals traversing a rock mass.
Sulphides	A group of minerals which contains sulfur and other metallic element such as copper and zinc. Gold is usually associated with sulphide enrichment in mineral deposits.

T

Tailings	Material rejected from a mill after most of the recoverable valuable minerals have been extracted.

Tailings pond	A low-lying depression used to confine tailings, the prime function of which is to allow enough time for heavy metals to settle out or for cyanide to be destroyed before water is discharged into the local watershed.
Tonne	A metric ton of 1,000 kilograms (2,205 pounds).
Tunnel	A horizontal underground opening, open to the atmosphere at both ends.

V

Vein	A fissure, fault or crack in a rock filled by minerals that have travelled upwards from some deep source.

W

Wall rocks	Rock units on either side of an orebody. The hanging wall and footwall rocks of an orebody.
Waste	Unmineralized, or sometimes mineralized, rock that is not minable at a profit.

Z

Zone - An area of distinct mineralization.