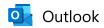


P. Geo. Ricardo Valls, P. Geo. Dr Vadim Galkine, M.Sc. José Áreas del Toro.

April 22, 2024



AVIS Umbrella Gold Bond Portfolios, physically gold delivery Bloomberg report

From Helmut Koenig (MHI CAPITAL LLC) <hkoenig8@bloomberg.net>

Date Wed 2025-07-09 09:08

To hjk@avis.capital <hjk@avis.capital>

Collateral of the ABEO, GENESIS Treasury and AVIS Umbrella Bond issuance Programme:

Gold reserves: The UMBRELLA Group processes the acquisition of several certified Gold Mining Industries and several in Africa with overall Gold Certification confirm NI 43-101 of the Canadian securities regulation in the amount of €4 trillion of gold reserves to be assigned to the bond holders as subordinated collateral.

AVIS Umbrella delivers its 228 bln gold bond portfolios to the project host central banks and banking infrastructure and starting by January 2026 in tranches every months physically gold assets for covering the financial needs of each ongoing construction and development project.

Application of gold mining fields: The application of advanced technology in South American gold mining is revolutionizing extraction processes. A particularly promising innovation involves the use of high-tech VORTEX nano powder equipment. This alternative green technology employs VORTEX milling processes to extract gold and other metals from rocks. The process involves shredding massive rocks into manageable 2 cm units, which are then subjected to contactless milling via VORTEX power. This method offers a potentially more efficient and environmentally sound approach to metal extraction compared to traditional techniques. Offering these technologies and development in this area will significantly impact the sustainability and productivity of the South American mining sector.

Construction of the US-Texas and in 65 Countries of High-Tech Green Waste to Nano-Powder Industrial Park and Green City Infrastructure Construction with an overall cash volume of 1,7 trillion and 35 large industrial manufacturers. 3D Printing Manufacturing and Merger & Acquisition of strategic Industries. Ai QUANTUM IT and Server Infrastructure. Web-4 Banking and Management Software Development Expansion. CIRAS Global Structure and its Expansion. VORTEX Contactless Milling Technology development and Nano-Powder Resonance Segregation. HMD Ring Power alternative Generator Manufacturing and Organic alternative meat research and industrial production. The construction risks, political risks and performance risks are covered by Marsh McLennan insurance.



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Executive Summary

1. Summary

This technical report documents an update of all the scientific and technical information concerning the activities status of claims TG5-08011, 500010, 500015, 500031,500214, 500463, 500470, the mining concession contract 0850-73, and mining contract concession14007 and 14008 (the "Licenses" or the "Property") in Santa Isabel, Ibagué, Tolima, Colombia, for Sector Resources Ltd, ("Sector", the "Client" or the "Company").

The Las Ánimas Mine Property has been in intermittent production beginning in 1921 until October 2018. Basically, the mine has been operated by various owners who either operated the mine or contracted sections of the mine(s) to contract miners who paid the owner a percentage based on of the gold sold.

Sector entered into an agreement with Fermin Duque Zabala on November 14, 1997 to conduct a feasibility study and if warranted purchase the Las Ánimas mineral property of 0.27 km2. Sector exercised the option to purchase the property July of 1998 upon the completion of financial and pre-mining feasibility studies by metallurgical and mining consultants as well as in-house personnel. Purchase of the mine property included the mining contract concession numbers 14007 and 14008.

Sector purchased additional land totaling 0.15 km² on August 14, 1998 from Luis Galindo Gomez and Mery Canon de Galindo for the protection of the access road and on April 5, 2000, Sector purchased an additional 0.01 km² due to road encroachment near to the property boundary. On September 26, 2005, Sector purchased the El Porvenir farm from Anabeiba Gomez Henao totaling 0.09 km². On December 2016 Sector added 0.03 km² to the land holdings.

The Client's current land holdings total 54.29 km² and including the claims- 110.28 km².

The Las Ánimas mine is located some 31 km north of Ibagué, Tolima, Colombia, and 1.8 km from the town of Santa Isabel. From Ibagué, access to the site is by National Highway #43 for 49 km and then 27 km by rural country paved road climbing in elevation from 500 meters to 2,100 meters. Access to the mine from the country paved road is by the company road for 2.8 km. The infrastructure at the site consists of a modern complex capable of crushing 400 tonnes of ore per day and milling 280 tonnes of ore per day. Power to the facility is supplied by a 34.5 kVolt power line from the local electric utility. The site also includes offices, maintenance shops, a warehouse, and a fully modern assay laboratory facility.

Mining Concession Contracts are licenses that the owner has either purchased or applied for from the government and this gives the owner the right to extract metals from within the defined area. The area of a mineral lease may incorporate the area where the owner has surface rights plus under other people' surface areas where they have not applied for the right to mine underground. Mining licenses do not give the right of disturbance to surface properties of others.

Explorations licenses are applied for and granted from the government for the sole right to explore for mineral deposits. This does not give the right of disturbance to the surface rights of people located on the exploration lease.

Prior to Sector's ownership, the Las Ánimas mine was operative for more than 70 year. Sector converted the operation to a modern trackless mine capable of producing more than 200 tonnes



per day at start up. The conversion of the old mine to present standards included the construction of a 2.8 kilometer access road, a modern crushing and processing facility under adverse geotechnical conditions, office buildings, shops, a modern laboratory with current technology and equipment and converting the old mine adits and drifts to accept the diesel trackless equipment. Precious Metal production since the start of production totals 1,309,401 grams of gold and 919,184 grams of silver sold to date.

As of December 17, 2007, the property reported 128,500 tonnes grading 1.70 g/t of gold in measured resources. Additionally, the property had 4,100 tonnes of ore reserves grading 4.86 g/t of gold in proven and probable reserves based on an economical cut-off of 3.5 g/t of gold. Comparisons of the actual grams of gold produced to the grams of gold produced by underground sampling is positive as increases of 20 - 40 percent were recorded monthly. The QP consider these resources and reserves as historical because the original dataset could not be validated and several errors in the collars of the holes inside the mine and the topographic survey of the mine itself.

After the first NI 43-101 technical report completed by the QP, the staff from Sector completed the validation of the historical database, a new survey of the mine and of all the drill holes, as well as conducted additional sampling in sectors of the mine that previously were not sampled. This new database was elaborated by M.Sc. José Áreas del Toro using GEMS v. 6.8 under the supervision of the QP.

Using a cut-off of 0.5 g/t Au, a dry density of 2.7 t/m³ for the load domain (hydrothermal type) and 2.89 t/m³ for the orogenic domain, and a minimum thickness of 1m, Las Ánimas mine contains 1.19 Mt grading 1.88 g/t in the measured category, 2.53 Mt grading 0.8 g/t in the indicated category, 3.73 Mt grading 1.16 g/t in the combined category of measured and indicated, and an additional 0.43 Mt grading 0.70 g/t in the inferred category.

Both the Las Ánimas Mine and the nearby Pava/Porvenir mine fit the classification of an orogenic type of gold in metamorphic rocks combined with a later event of hydrothermal veining associated to Cretaceous felsic intrusives. Only the hydrothermal vein has been mined. As a result of the previous philosophy of single vein deposit, there has been minor exploration for hanging wall and footwall veins to date. The potential to derive more ore from the orogenic type of mineralization is high.

Historically, the Santa Isabel area has supported many gold-producing mines in the 1920's to 40's but there has been little exploration work done in the area recently due to public disorder that existed in those days. Colombia has been known to have problems with public order. To alleviate this situation, the Company has worked with the national government to protect its workers, its assets, and the community. The Republic of Colombia has established a permanent Colombian army platoon in the community of Santa Isabel and a second army platoon in the vicinity of the mine site to maintain public order. The company also maintains a strong security force at site. The Company has taken the public position that it will not pay revolutionary forces for protection and that it will only work with the legally elected government and its representatives in regard to security.

Within the current exploration license, there exists one other mining concession contract (Sonrisa Mine) but at time of writing this report the mine was inactive. National and international companies have exploration licenses to the east and west of the property. The nearest active mine



is near Santa Teresa. The only other active major precious metal mining district is at Líbano, which is located approximately 20 kilometers to the N-NE.

Historically, it is noted that between the 1920's and 1940's there were 21 reported active California Stamp Mills working in the Santa Isabel area but the locations of these mines and mills are not reported on a compiled map.

The purchase of the Las Ánimas Property also included the purchase of mining contract concession 14007 (0.71 km²) and 14008 (0.62 km²). Sector was also granted a mining concession contract 0850-73 (6.10 km²) that surrounds the mining contract concession and totals 7.43 km² in area and incorporates all of the within the defined area (less any existing Mining contract concession that were granted prior to the time of issuing the exploration lease). As a result of the re interpretation of existing geochemical surveys and a complete lineament analysis, the Client has applied for new licenses in the area. The current area own by the Client is 110.28 km².

Previously there has not been a formal exploration geophysical or diamond drilling program on the property to enhance the identification and/or up grading of known resources to an acceptable reserve classification. Drilling that has been done to date has been done underground to locate and define the known vein near the underground workings.

Sector has completed numerous metallurgical studies on the ore to determine that expected recoveries of better than 90% using a gravity, floatation, and cyanide circuits to extract the gold and silver. The ore grindability is moderate to high having a measured abrasion index of 0.298 and a measured work index of 16.5 kWh per metric tonne.

This technical report documents a summary of the scientific and technical information concerning mineral exploration, development and production activities status of the property for Sector Resources prepared by P.Geo. Ricardo A. Valls from Valls Geoconsultant, P. Geo. Dr. Vadim Galkine from Fenix Geoconsultant Inc (lineament analysis), and independent Sr. geologist and M. Sc. José Áreas del Toro (resource estimations), following the terms and definitions of the National Instrument 43-101. NI 43-101 was developed by the Canadian Securities Administrators in 2001. It established standards for all public disclosure an issuer makes of scientific and technical information concerning mineral properties/projects. NI 43-101 takes into consideration CIM Exploration Best Practices Guidelines. The QP considers the NI 43-101 and the CIM Exploration Best Practices Guidelines to be an internationally recognized reporting standard that is recognized and adopted worldwide for market-related reporting, technical explanations, and financial investment.

In a report prior to the first visit of the QP, it was recommended a diamond drilling program totaling 20,000 meters of which 10,500 metres to test the westerly and down dip extensions of the known vein and to locate mineralized veins known to exist above and below the present vein and the remaining 9,500 meters around the exploration lease to locate additional veins.

The QP recommended in his first NI 43-101 report that prior to any drilling, a comprehensive approach including detailed structural analysis, rock sampling, and metallurgical studies of the orogenic type of mineralization should be completed. The Client is currently conducting these works and plans to continue the detailed exploration inside the mine. The QP suggest testing the volume between the surface and the mine, which may contain more of the orogenic type of mineralization in the greenschists rocks.



For the exploration targets the QP recommends satellite image interpretation, geochemistry, geophysics, geological and structural mapping to define the location of other promising targets. If granted, this should be followed by drilling, pitting, and trenching to define potential new targets. The proposed budget concentrates on the technical work and does not include any cost of supportive and administration work, nor any amounts of money related to the purchase of the Licenses. The budget estimates US\$ 6,946,845 for Stage I, followed if granted, by US\$ 12,578,553 for Stage II for a total of US\$ 19,525,400. Say US\$20 million.

2: Introduction

At the request of William Dell'Orfano, President and CEO of Sector Ltd., a technical report has been prepared by Ricardo Valls, M.Sc. P.Geo. of Valls Geoconsultant to present a summary of the technical aspects of the Licenses 0850, 14007, and 14008 in Santa Isabel, Tolima, Colombia.

Valls Geoconsultant ("VG") is a sole proprietorship consulting company located in Toronto, Canada. Sector hired Ricardo A. Valls from VG to undertake a technical study of the technical information related to the Las Ánimas Mine in Santa Isabel. Sector is registered in the Grand Cayman Islands and has an office at 749 East Industrial Park Drive, Manchester, New Hampshire, USA. Sector owns the Las Ánimas Mine property.

The Qualified Person (QP) visited the site on July 2-5, 2019 and again in March 12-17, 2020. On both occasions, the QP visited all the Property including the mine, and studied the local geology confirming the presence of the units that host gold mineralization in the area. The QP also trained the local staff in QA and QC best practices as well as CIM Best Exploration practices. This technical report is based on information supplied from the internal company reports and maps generated by the Client, on publicly available information, as well as on maps generated by the QP. Other information is generated by copies of legal documents on file at the Ibagué Office of the Client in Colombia. The original of the legal documents are on file at various Notaries in Colombia or with Colombian Governmental agencies such as Cortolima, Agencia Nacional Minera, and the town of Santa Isabel.

All coordinates in this technical report correspond to the WGS 84 18N datum. The QP has adhered to the metric system, all gold assays stated are in grams of gold per metric ton (tonne), and all costs are expressed in US dollars.

3: Reliance on Other Experts

This report represents the professional opinion of Ricardo A. Valls, M.Sc. P. Geo. from Valls Geoconsultant. This document has been prepared based on a scope of work agreed with the Client and is subject to inherent limitations considering the scope of work, the methodology, and procedures used. This document is meant to be read as a whole, and portions thereof should not be read or relied upon unless in the context of the whole.



The QP has seen the registration of the Mining Concession Contracts and Claims in the Colombian Cadastre of Mines¹ and on September 28, 2020 the QP received a legal opinion from Arturo Perdomo Gongora, legal representative of the Company confirming the validity and legal status of the Licenses. The QP is relying on the Title Opinion with respect to the ownership and good standing of these licenses under the section of this technical report entitled "Property Description and Location".

The QP worked closely with Sector's senior geologists Yadira Jerónimo, Wendy Yineth Gil Carvajal, Sebastian Castaño Posada, Oscar Forero Salinas, and other staff from the office and the mine.

The QP also worked closely with P. Geo. Dr. Vadim Galkine in the interpretation of the lineament analysis and with M. Sc. José Áreas del Toro in the estimation of the mineral resources of the Las Ánimas mine.

Finally, the reader should notice the signature date of this report, which is the cut-off date for the information that is included in this technical report.

4: Property Description and Location

The mine is located 1.8 kilometers east of Santa Isabel, Tolima, Colombia or 31 kilometers NNE of Ibagué, the capital city of Tolima. The physical property exists between 1,720 meters and 2,200 meters above mean sea level and covers an area of 0.65 km².

The Client constructed an access road in 1988 consisting of 2.80 km from the Berlin cutoff to the mine portal. This gravel road cuts into the steeply dipping hillside and requires continuous maintenance due to small landslides created by torrential rains during the rainy season.

Stabilization of the road is ongoing with the construction of gaviones to provide proper road base that will support trucks carrying loads of up to 20 tonnes.

Access to the property is gained by traveling 49 Km from the outskirts of Ibagué on National Highway No. 40 then traveling 27 km on a rural country paved road from Venadillo to the Berlin cutoff and then by traveling 2.8 km on the Company road to the mine. The National highway is designed to handle 52 tonne loads. The rural and mine access road is designed to handle 20 tonne loads.

By Colombian law, a royalty of 4.0% is payable to the Government of Colombia based on the selling price of Central Bank of Colombia (80% of the London Fix) for both gold and silver. This equates to a royalty of approximately 3.2% based on the London Fixed selling price.

The royalty is deducted from the final price of sale to the metals broker in Colombia and is paid by the metals broker directly to Agencia Nacional de Minería (the national mining registry who has the responsibility to dispense the royalty as defined by Colombian law. The royalties are return to the municipality from which the metal is extracted, according to the General Royalty System. No other royalties are paid.

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¹ http://www.cmc.gov.co:8080/CmcFrontEnd/consulta/busqueda.cmc



Sector has no other encumbrances, royalties, or agreements to pay levied against the property. On July 23, 1999, Sector received the approval to mine and constructed a modern 200 tonne per day plant based on a gravity circuit. Since that date, metallurgical work has shown that a floatation circuit and a cyanide circuit will increase extraction and the Company has submitted for approval all the necessary documents to permit the additional circuits and the Company is awaiting final approval in writing. The floatation and cyanide circuits have been installed with total concern for the environment addressed and the circuits designed for 100% containment. The Company has adopted the South African System of Cyanide Management for control of the process waters discharged to the environment.

Sector has in place an Insurance Policy in effect that is placed with Cortolima in case of environmental problems caused by the operation. This policy is paid yearly.

As far as it has been disclosed, all permits have been acquired to conduct the work proposed for the property and payments have been made to keep the Licenses in good standing. There is no known environmental liability to the Client. The QP has been told by the representatives of the Company that there are no royalties, back-in rights, payments or other agreements and encumbrances to which the any of the Licenses is subjected except for legislated government royalties.

Except for unforeseen events or Acts of God, the QP does not see any significant risks or uncertainties for the further access, right or ability to perform exploration work on the Licenses.

5: Accessibility, Climate, Local Resources, Infrastructure and Physiography

5.1: Accessibility, Climate, and Vegetation

The property is located 1.8 kilometers east of Santa Isabel, Tolima, Colombia or 31 kilometers NNE of Ibagué, the capital city of Tolima. The physical property exists between 1,720 meters and 2,200 meters above mean sea level and covers an area of 0.64 km².

Access to the property is gained by traveling 49 Km from the outskirts of Ibagué on National Highway No. 40 then traveling 27 km on a rural country paved road from Venadillo to the Berlin cutoff and then by traveling 2.8 km on the Company road to the mine. The National highway is designed to handle 52 tonne loads. The rural and mine access road is designed to handle 20 tonne loads.

The Company constructed an access road consisting of 2.8 km from the Berlin Farm to the mine portal. This road is gravel and is cut into the steeply dipping hillside that requires continual maintenance due to small landslides created by the torrential rains of the rainy season. Stabilization of the road is ongoing with the constructions of gaviones to provide a proper road base that will support trucks carrying loads of up to 20 tonnes.

Climate

The climate at the property can best be described as temperate with the mean annual daytime temperature to be $20-21^{\circ}$ C with high temperatures of 28-30 degrees being recorded. Night temperature can range to the near freezing and snow has been reported in the area. Lower



elevations cause the climate to become sub-tropical and higher elevations become alpine. The semi-dormant but active Volcano – Nevada de Tolima – some 28 km to the west reaches elevations of 5300 meters and is snow covered the year around.

Commonly the area can be encompassed in clouds as the movement of weather systems is from east to west and clouds tend to back up as they hit the Central range of the Andean Cordillera. Rainfall can be intense (up to 3 cm in one hour) and there are two distinct wet seasons that occur between April and June and September to December. Electrical storms are common with lightning strikes occurring. Annual rainfall at Santa Isabel is 1,539 mm of rain (60.5 inches of rain).

Altitude affects both temperature and vegetation. In fact, altitude is one of the most important influences on vegetation patterns in Colombia. The mountainous parts of the country can be divided into several vegetation zones according to altitude, although the altitude limits of each zone may vary somewhat depending on the latitude.

The "tierra caliente" (hot land) is below 1,006 m. It is the zone of tropical crops such as bananas. The tierra templada (temperate land) extends from an altitude of 1,006 to 2,012 m. It is the zone of coffee and maize. Wheat and potatoes dominate in the "tierra fría" (cold land), at altitudes from 2,012 to 3,200 m. In the "zona forestada" (forested zone), which is located between 3,200 and 3,901 m, trees are cut for firewood. Treeless pastures dominate the páramos, or alpine grasslands, at altitudes of 3,901 to 4,602 m. Above 4,602 m the temperatures are below freezing. It is the "tierra helada", a zone of permanent snow and ice.

Vegetation also responds to rainfall patterns. A scrub woodland of scattered trees and bushes dominates the semiarid northeast. To the south, savannah vegetation (tropical grassland) covers the Colombian portion of the llanos. The rainy areas in the southeast are blanketed by tropical rainforest. In the mountains, the spotty patterns of precipitation in alpine areas complicate vegetation patterns. The rainy side of a mountain may be lush and green, while the other side, in the rain shadow, may be parched.

The local vegetation supports both agriculture and livestock pasture. The principal economic activity in the area is the exploitation of emeralds, agriculture, and cattle industry. The area can be operated all year around.

5.2: Physiography, Infrastructure, and Local Resources

The topography of the Central Range of the Andean Cordillera can best be described as steep sided, narrow valleys cut by fast flowing streams in the mountainous areas to broad valleys in the low river valleys. Throughout the area, the terrain can be described as rugged as the elevations range from less than 500 meters at Venadillo rising sharply to the mountain peaks which range in elevations from 2,000 meters to the 5,280 meter elevation of the Nevada del Tolima Volcano located 28 km WSW of the mine. At the mine site, the steep sided valleys of the San Carlos and the Los Ánimas creeks show slopes that are measured to be 45 - 55 degrees and are covered by vegetation ranging scrub trees to grass lands. At the higher elevations above the mine site, the hillsides flatten into small bowl structures and are generally cleared for cultivation or ranching.



Regional Infrastructure

The Las Ánimas mine is situated in the Municipality of Santa Isabel that has little facilities to support the mining industry other than providing a labor force for the construction and mining efforts and minor supplies. The nearest supply center for the mine is Ibagué, the capital city of the Department of Tolima, is some 90 km distance by road or approximately 2 hours of travel time. Ibagué, is a modern city of some 700,000 people, that is serviced by modern all-weather highways and 2 regional airlines with regional connections to Bogota and Medellin.

General parts and materials are bought locally in Ibagué but specific parts for the equipment have to be brought from Bogota, Cali, Pereira, and Medellin or imported from the United States. The Company has determined that in the case of parts for the mining equipment, it is cost effective to import the parts directly.

See more details of the project infrastructure on Item 18.

6: History

The Los Ánimas mine property has been in intermittent production beginning in 1921 to today. Basically, the mine has been operated by various owners who either operated the mine or contracted sections of the mine(s) to contract miners who paid the owner a percentage based on of the gold sold.

Sector entered into an agreement with Fermin Duque Zabala on November 14, 1997 to conduct a feasibility study and if warranted purchase the Las Ánimas mineral property. Sector exercised the option to purchase the property July of 1998 upon the completion of financial and pre-mining feasibility studies by metallurgical and mining consultants as well as in-house personnel. Purchase of the mine property included the mining contract concession numbers 14007 and 14008.

Sector purchased additional land totaling 0.20 km² on August 14, 1998 from Luis Galindo Gomez and Mery Canon de Galindo for the protection of the access road and on April 5, 2000, Sector purchased an additional 0.01 km² due to road encroachment near to the property boundary. On September 26, 2005, Sector purchased the El Porvenir farm from Anabeiba Gomez Henao totaling 0.09 km². On December 2016 added 0.03 km² to the land holdings.

The Client's current land holdings total 54.29 km² and including the claims- 110.28 km².

7: Geological Setting and Mineralization

7.1: General Geology

The Andean Cordillera is an uplifted mountain chain that is similar to that of the Sierra Nevada's mountains of California, the Cascades Mountains of Washington and Oregon, and the Coast Mountain Range of British Colombia and Alaska. It is comprised of recent sediments, recent to old volcanic rocks (extrusions and pyroclastics), meta-sediments, meta-volcanic and plutonic rocks. These have been folded, faulted, intruded, and metamorphosed to create all types of geological terrains. The degree of metamorphism grades from low to high depending upon the proximity of the pluton.



In Colombia, the Andean Cordillera splits into three distinct mountain ranges that are divided by major crustal faults and/or tectonic plate boundaries. The QP has defended the idea of the influence of the displacement of the Caribbean Plate as the mechanism for the splitting of the Andean Cordillera in Colombia.

Wide valleys are found along the major crustal faults that soon yield to high rugged, steep sided mountains. Geologically, the area has been uplifted, folded, and faulted. Recent sediments in the valleys are commonly overlying both intrusive and high grade metamorphosed meta-sediments and meta-volcanics. The entire area has been intruded by batholiths and stocks that range in composition from ultra basic (gabbros) to acidic (granodiorites). The meta-volcanics occur throughout the region as metamorphosed pyroclastics and flows. Recent volcanic action has resulted in overlying tuffs, pyroclastics and basaltic flows. Compositionally, the meta-volcanics are andesitic to basaltic in composition but high degrees of metamorphism have destroyed any crystalline structure of the original rocks.

Tectonically, the entire region is highly active with movements both on the major fault planes and active volcanism is occurring. Earthquakes that measure greater than 5 on the Richter scale occur regularly in the region and the area is classified as moderate to high risk for major earthquakes. The most notable earthquake in recent times was the Armenia Earthquake of January 1999 that registered 6.2 on the Richter scale and resulted in the loss of life of some 2,500 people. Volcanism is active all along the Andean Cordillera with quiet but non- dormant Volcanoes such as the Nevada Del Tolima, Nevada EI Ruiz and Nevada Santa Isabel all located within 40 km. of the mine. Volcanic action by EI Ruiz in 1985 resulted in the melting of the snowcap and caused a mudslide that buried the town of Armero causing the deaths of some 25,000 people.

7.2: Regional Geology

The region consists of late stage tertiary sediments (glacial and alluvial) deposited on massive andesite to basaltic flows or in river valleys and intruded by acidic intrusions of the El Bosque and Ibagué batholiths that have resulted in high temperature contact metamorphism of the volcanic flows. Geological mapping in the area has shown the development of greenschist, amphibolite and black schist facies of metamorphism suggesting extreme high temperature of the intrusion.

Injected into the meta-andesites along fractures and shears is a multistage quartz injection that bears mineralization in the form of gold/silver electrum and base metal sulfides. These veins have been or are being mined in Líbano (18 kilometers NNE), Santa Teresa (10 Km to the NE) and the Sonrisa Mine (1 km to the SSE) as well as the Las Ánimas mine. It has been suggested by geologists who examined the different mines that this is the same structure. Major faulting has not been mapped in the area but recent work by Sector 's Geologists suggests that the area has been faulted with most movement indicating normal faulting in direction.

7.3: Property Geology

The geology at the site is described as a high-grade metavolcanic comprising both hanging wall and the footwall of the quartz ore vein(s) in the Las Ánimas/Porvenir mine. The metavolcanic is believed to be andesitic in composition; however, some geologists have suggested that it is a metamorphosed tuff. The degree of metamorphism has been so high that the original composition and crystal structure has been destroyed. Intruding into the area are the granodiorites of the Ibague Batholith and the quartz diorites of the Santa Isabel Stock.



The veins range from 0.4 to 4.0 meters in thickness and exhibit a boudinage structure and multistage quartz injection. Sulfide mineralization occurs predominately in bands along the footwall and hanging wall contact zones. Locally, the sulfides have intruded into the contact zone. The sulfide content of the vein ranges from less than 0.5% to 5.0% or greater in local areas. Sector's geologists believe that the vein exhibits at least 5 stages of quartz injection with the first two injections being gold bearing associated with the sulfides.

The quartz or silica is of a high quality (95%+) in composition and is of economical value. Generally, the quartz is milky white in color, massive in nature and texture with little impurities. The sulfides occur in sub-parallel veinlets concentrated near the wall rock contacts. Near to the middle of the vein, the sulfides die out and the vein expresses a brecciated or sheared texture that has been healed by the next injection. Large euhedral quartz crystals occur randomly in the mine in vugs located near the center of the vein.

Structurally, the vein was originally thought to be a tabular single vein structure dipping to the south at 28-35 degrees and striking basically east- west. It was also thought that the vein in the Pava/Palmitas and the Las Ánimas/Porvenir were the same vein. Recent exposures in the Las Ánimas mine shows the vein to bifurcate along both strike and dip confirming the presence of more than one vein which is the result of regional compressional cymoidal shearing followed by mineralized quartz injection.

In the Las Ánimas/Porvenir mines, geological mapping has shown that the dip and strike of the vein is neither constant nor tabular, but cymoidal in orientation. This proves that a multi-vein structure exists but the dimensions of the cymoids have not been fully determined by drilling. This combined with a structure viewed in the Pava/Palmitas and a quartz outcropping in the Las Animas Creek some 30 to 40 meters below the present portal indicates that ore-bearing quartz structures occur in both the hanging workings. wall and the footwall of the present workings.

Mining exposure, underground diamond drilling and ongoing geological mapping of the Las Ánimas/Porvenir has defined numerous distinct brittle fault structures. Offsets determined to this point indicated the movement to be reverse in nature with displacements from a few centimeters to 30 meters or more. Further exposure by mining and/or surface and underground diamond is required to fully define the structural component of the ore body. Work has focused on determining the general trends of the ore grade and sub ore grade mineralization and it appears that the ore grade mineralization is deposited in a series of side slipping cymoids that are plunging at about W 30° S and this explains the location of the Las Ánimas, the Fermin and the Porvenir deposits. All these mineralized zones are interconnected but offset along a series of faults that appear to have created a damming of the mineralized fluids. Once these faults are crossed, the grade falls off to 1-2 grams per tonne. High grade ore chutes or bonanzas as they are known locally appear to be associated with cross shearing between the boundary faults (τ shears).

7.4: Structural Geology

Structural Controls on Ore Zones

As stated earlier, the Pava/Palmitas, the Las Ánimas, the Fermin and the Porvenir ore zones are structurally controlled by regional compressional shearing or faulting that appears to be reverse in movement. These faults are generally sharp with little gouge or brecciation noted.



Northern Boundary Fault

The Las Ánimas, Fermin and Porvenir ore zones are all bounded a well-defined fault on the north that strikes basically east -west and dips to the north with a dip varying from 60° to the west end of the cymoid to 30° on the easterly end of the cymoid. Displacements are variable with 1 meter being measured to the west and more than 5 meters being measured in the east.

Southern Boundary Fault(s)

The southern boundary of the Las Animas ore zone is defined by a strong fault dipping to the south at about 65°. This fault cuts off the ore zone and shows a definite normal movement as draw down movement is observed (steepening of the dip) is observed within 5 meters of the fault. Diamond Drilling has located a displaced vein some 30 meters below and this is indicative of multi-directional movement along the dip of the fault.

Faults and Slips

Faulting within the ore zones is minor causing displacements up to one meter. Generally, it is thought that faulting is related to the major cymoid structures as transversal shearing (τ) created by the regional compressional stresses.

One thought is that the transversal shearing on an ENE trend may be the transversal shearing network that provides for the deposition of the Bonanzas.

Folding

There is a suggestion of major folding in the area but within the mine all the folding appears to be the result of localized fault movement or the formation of the major cymoid.

7.5: Mineralization

Mineralization of the quartz vein suggests that at least 5 stages of quartz injection have occurred. Gold mineralization occurs both as freely deposited electrum and as associated with sulfide deposition of pyrite and chalcopyrite. The primary gold mineralization is deposited along mineralized shear planes that parallel the hanging wall and footwall contacts. The secondary mineralization is associated with massive clots of pyrite and chalcopyrite that appears locally with the total vein. The native gold or bonanza appears to be a remobilized deposition or a later stage of injection. A fourth stage of quartz injection is associated with galena and sphalerite and is devoid of gold mineralization. The final stage of mineralization appears as milky to massive crystalline quartz in the middle of the vein and is basically barren of any gold mineralization. Areas where euhedral pyrite

Later testing by the Company at Ingeominas, showed that the ore was not as simple as previously noted. The free gold was in a form of an electrum having a 70/30 mixture of gold to silver and more gold was associated with the sulfides. Originally, the sulfides identified included pyrite, chalcopyrite, galena, and sphalerite. Additional sulfides identified in the Ingeominas study included tetrahedrite, pyrrhotite, marcasite and possibly other isomorphs of the above-mentioned minerals. The association of gold with the sulfide minerals appears to be increasing with depth.

The metamorphism of the host rocks is upper greenschist to amphibolite facies, which has high feldspartization, silicification and carbonatization. Locally, limonitization occurs particularly along and around the faults and slips but is also evident in vugs found within the major quartz vein.



Sulfide mineralization is confined primarily to the ore veins and is found in sheared bands along the hanging wall - footwall contacts and in localized concentrations (clots) within the quartz vein. Disseminations of sulfides within the middle of the vein (last stage of quartz injection) are minimal.

The metamorphic rock typically has a pyrite halo penetrating some 15 - 20 cm from the ore veins into the wall rock. This pyrite is typically small subhedral pyrite crystals that range up 3 mm in dimension and carries little economic value.

Company geologists identified early on that a potential halo of tungsten minerals exist surrounding the higher-grade areas. Testing showed to be economical only in large quantities, but it could be adapted as an exploration tool.

8: Deposit Types

8.1: Orogenic Gold (Au-Quartz Veins)

Identification Synonyms: Mother Lode veins, greenstone gold, Archean lode gold, mesothermal gold-quartz veins, shear-hosted lode gold, low-sulphide gold-quartz veins, lode gold.

Geological characteristics

Capsule description:

Gold-bearing quartz veins and veinlets with minor sulphides crosscut a wide variety of host rocks and are localized along major regional faults and related splays. The wall rock is typically altered to silica, pyrite, and muscovite within a broader carbonate alteration halo.

Tectonic settings:

Phanerozoic: Contained in moderate to gently dipping fault/suture zones related to continental margin collisional tectonism. Suture zones are major crustal breaks which are characterized by dismembered ophiolitic remnants between diverse assemblages of island arcs, subduction complexes and continental-margin clastic wedges.

Archean: Major trans crustal structural breaks within stable cratonic terranes. May represent remnant terrane collisional boundaries.

Depositional environment/Geological setting:

Veins form within fault and joint systems produced by regional compression or transpression (terrane collision), including major listric reverse faults², second and third-order splays. Gold is deposited at crustal levels within and near the brittle ductile transition zone at depths of 6-12 km, pressures between 1 to 3 kilobars and temperatures from 200 to 400 °C. Deposits may have a vertical extent of up to 2 km and lack pronounced zoning.

Age of mineralization:

Mineralization is post-peak metamorphism (i.e. late syncollisional) with gold quartz veins particularly abundant in the Late Archean and Mesozoic.

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² https://buff.ly/31SrewJ



Host/Associated rock types:

Lithologically highly varied, usually of greenschist metamorphic grade, ranging from virtually undeformed to totally schistose.

Phanerozoic: Mafic volcanics, serpentinite, peridotite, dunite, gabbro, diorite, trondhjemite/plagiogranites, graywacke, argillite, chert, shale, limestone and quartzite, felsic and intermediate intrusions.

Archean: Granite-greenstone belts - mafic, ultramafic (komatiitic) and felsic volcanics, intermediate and felsic intrusive rocks, graywacke and shale.

Deposit form: Tabular fissure veins in more competent host lithologies, veinlets and stringers forming stockworks in less competent lithologies. Typically occur as a system of echelon veins on all scales. Lower grade bulk-tonnage styles of mineralization may develop in areas marginal to veins with gold associated with disseminated sulphides. May also be related to broad areas of fracturing with gold and sulphides associated with quartz veinlet networks.

Texture/Structure:

Veins usually have sharp contacts with wall rocks and exhibit a variety of textures, including massive, ribboned, or banded and stockworks with anastamosing gashes and dilations. Textures may be modified or destroyed by subsequent deformation.

Ore mineralogy (Principal and subordinate):

Native gold, pyrite, arsenopyrite, galena, sphalerite, chalcopyrite, pyrrhotite, tellurides, scheelite, bismuth, cosalite, tetrahedrite, stibnite, molybdenite, gersdorffite (NiAsS), bismuthimite (Bi2S2), tetradymite (Bi2Te2S).

Gangue mineralogy (Principal and subordinate):

Quartz, carbonates (ferroan-dolomite, ankerite ferro-magnesite, calcite, siderite), albite, mariposite (fuchsite), sericite, muscovite, chlorite, tourmaline, graphite.

Alteration mineralogy:

Silicification, pyritization and potassium metasomatism generally occur adjacent to veins (usually within a metre) within broader zones of carbonate alteration, with or without ferroan dolomite veinlets, extending up to tens of metres from the veins. Type of carbonate alteration reflects the ferromagnesian content of the primary host lithology; ultramafics rocks - talc, Fe-magnesite; mafic volcanic rocks - ankerite, chlorite; sediments - graphite and pyrite; felsic to intermediate intrusions - sericite, albite, calcite, siderite, pyrite. Quartz-carbonate altered rock (listwanite) and pyrite are often the most prominent alteration minerals in the wall rock. Fuchsite, sericite, tourmaline and scheelite are common where veins are associated with felsic to intermediate intrusions.

Weathering:

Distinctive orange-brown limonite due to the oxidation of Fe-Mg carbonates cut by white veins and veinlets of quartz and ferroan dolomite. Distinctive green Cr-mica may also be present. Abundant quartz float in overburden. 32



Ore controls:

Gold-quartz veins are found within zones of intense and pervasive carbonate alteration along second order or later faults marginal to trans crustal breaks. They are commonly strongly associated with, late syncollisional, structurally controlled intermediate to felsic magmatism. Gold veins are more commonly economic where hosted by relatively large, competent units, such as intrusions or blocks of obducted oceanic crust. Veins are usually at a high angle to the primary collisional fault zone.

Phanerozoic: Secondary structures at a high angle to relatively flat lying to moderately dipping collisional suture zones.

Archean: Steep, trans crustal breaks; best deposits overall are in areas of greenstone.

Associated deposit types:

Gold placers, sulphide manto Au, silica veins; iron formation Au in the Archean.

Genetic model:

Gold quartz veins form in lithologically heterogeneous, deep trans crustal fault zones that develop in response to terrane collision. These faults act as conduits for CO2-H2O-rich (5-30 mol% CO2), low salinity (<3 wt% NaCl) aqueous fluids, with high Au, Ag, As, (±Sb, Te, W, Mo) and low Cu, Pb, Zn metal contents.

These fluids are believed to be tectonically or seismically driven by a cycle of pressure build-up that is released by failure and pressure reduction followed by sealing and repetition of the process. Gold is deposited at crustal levels within and near the brittle- ductile transition zone with deposition caused by sulphidation (the loss of H2S due to pyrite deposition) primarily as a result of fluid-wall rock reactions, other significant factors may involve phase separation and fluid pressure reduction. The origin of the mineralizing fluids remains controversial, with metamorphic, magmatic and mantle sources being suggested as possible candidates. Within an environment of tectonic crustal thickening in response to terrane collision, metamorphic devolatization or partial melting (anatexis) of either the lower crust or subducted slab may generate such fluids.

Comments: These deposits may be a difficult deposit to evaluate due to "nugget effect", hence the adage, "Drill for structure, drift for grade".

Exploration Guides

Geochemical signature:

Elevated values of Au, Ag, As, Sb, K, Li, Bi, W, Te and B \pm (Cd, Cu, Pb, Zn and Hg) in rock and soil, Au in stream sediments.

Geophysical signature:

Faults indicated by linear magnetic anomalies. Areas of alteration indicated by negative magnetic anomalies due to destruction of magnetite as a result of carbonate alteration. 33

Other Exploration Guides:

Placer gold or elevated gold in stream sediment samples is an excellent regional and property-scale guide to gold-quartz veins. Investigate broad 'deformation envelopes' adjacent to regional listric faults where associated with carbonate alteration. Alteration and structural analysis can be used to



delineate prospective ground. Within carbonate alteration zones, gold is typically only in areas containing quartz, with or without sulphides. Serpentinite bodies, if present, can be used to delineate favourable regional structures. Largest concentrations of free gold are commonly at, or near, the intersection of quartz veins with serpentinized and carbonate-altered ultramafic rocks.

Economic factors

Typical grade and tonnage:

Individual deposits average 30,000 t with grades of 16 g/t Au and 2.5 g/t Ag and may be as large as 40 Mt. Many major producers in the Canadian Shield range from 1 to 6 Mt at grades of 7 g/t Au.

Economic limitations:

These veins are usually less than 2m wide and therefore, only amenable to underground mining.

Importance:

These deposits are a major source of the world's gold production and account for approximately a quarter of Canada's output. They are the most prolific gold source after the ores of the Witwatersrand basin.

8.2: Plutonic-related Au Quartz veins and Veinlets

Identification Synonyms:

Intrusion-related gold systems, gold porphyries, plutonic-related gold quartz veins. Plutonic-related gold, Au-lithophile element deposits, Fort Knox-type Au, high arsenic and/or bismuth plutonic-related mesothermal gold deposits, intrusion-hosted gold vein and brittle shear zone deposits.

Geological characteristics

Capsule Description:

Gold mineralization hosted by millimetre to metre-wide quartz veins hosted by equigranular to porphyritic granitic intrusions and adjacent hornfelsic country rock. The veins form parallel arrays (sheeted) and less typically, weakly developed stockworks; the density of the veins and veinlets is a critical element for defining ore. Native gold occurs associated with minor pyrite, arsenopyrite, pyrrhotite, scheelite and bismuth and telluride minerals.

Tectonic Settings:

Most commonly found in continental margin sedimentary assemblages where intruded by plutons behind continental margin arcs. Typically developed late in orogeny or post-collisional settings.

Depositional Environment / Geological Setting:

Veins form in tensional fractures and shears within, and near, the apices of small (<3 km2) granitoid intrusions at depths of 3-8 kilometres.



Age of Mineralization:

Any age, although they are best known (preserved?) in Paleozoic to Mesozoic rocks. Cenozoic deposits generally not yet exposed by erosion.

Host / Associated Rock Types:

The host rocks are granitic intrusions and variably metamorphosed sedimentary rocks. Associated volcanic rocks are rare. The granitoid rocks are lithologically variable, but typically granodiorite, quartz monzonite to granite. Most intrusions have some degree of lithological variation that appear as multiple phases that can include monzonite, monzogranite, albite granites, alkali syenite and syenite. The more differentiated phases commonly contain feldspar and quartz and less than 5% mafic minerals.

Some deposits have abundant associated dykes, including lamprophyres, pegmatites, aplites and phases that have been fractionated from the main intrusion. Medium-to coarse-grained intrusions are commonly equigranular but can contain mega crystals of potassium feldspar or porphyritic phenocrysts of quartz, plagioclase, or biotite. Biotite is common, hornblende is only locally observed, pyroxene is rare, and muscovite and tourmaline are common in more highly fractionated phases, aplites or pegmatites. The intrusions have a reduced primary oxidation state. Evidence of fluid saturation, such as miarolitic cavities, locally up to several centimetres, can be common; some intrusions exhibit much larger ones. Many of the granitoid intrusions have contact metamorphic aureoles that extend up to several km from the intrusion and can be much larger than the surface exposure of the intrusion. The stocks generally intrude variably metamorphosed sedimentary rocks (sandstone, shale, carbonate), however, some cut sequences which include metavolcanic rocks. In some cases, the deposits are hosted by relatively high-grade metamorphic rocks including orthogneiss that may reflect the emplacement of the intrusions and veins at greater depths.

Deposit form:

Mineralization can be divided into intrusion-related, epizonal and shear-veins. Intrusion-related mineralization typically occurs widespread sheeted vein arrays. The arrays typically consist of numerous sheeted, or less commonly stockwork, veinlets and veins that form zones that are 10's of metres wide, and continuous for several 10's of metres. The veins are commonly hairline to centimetres wide, while some veins may be up to tens of metres thick. Epizonal mineralization is typically less focused, and may be disseminated, or occur as replacements. The thicker shear-veins veins are typically in fault zones outside of the pluton. The sheeted and stockwork zones extend up to a kilometre in the greatest dimension, while individual veins can be traced for more than a kilometre in exceptional cases.

Texture / Structure:

The sheeted veins are planar and often parallel to regional structures. The veins are generally extensional with no offset of walls, although some vein systems may also include shear-hosted veins. The veins may have minor vugs and drusy quartz. While most veins and structures are steeply dipping, shallowly dipping pegmatite and quartz bodies occur in some deposits, particularly those in the plutonic apices.



Ore Mineralogy (Principal and subordinate):

Sulphide minerals are generally less than 3% and can be less than 1%. Several deposits/intrusions have late and/or peripheral arsenopyrite, stibnite or galena veins. Native gold, sometimes visible, occurs with associated minor pyrite, arsenopyrite, loellingite, pyrrhotite, variable amounts of scheelite or more rarely wolframite, and sometimes molybdenite, bismuthinite, native bismuth, maldonite, tellur-bismuthinite, bismuth, tellurides, tetradymite, galena and chalcopyrite.

Epizonal veins are arsenopyrite-pyrite rich and lack associated Bi, Te and W minerals. The thicker, solitary veins typically contain higher percentages (<20%) of sulphide minerals. Generally, sulphide mineral content is higher in veins hosted in the country-rocks.

Gangue Mineralogy (Principal and subordinate):

Quartz is the dominant gangue mineral with associated minor sericite, alkali feldspar, biotite, calcite, and tourmaline. In some deposits the quartz veins grade into pegmatite dykes along strike - a relationship that has been referred to as vein-dykes or pegmatite veins. The pegmatites in some deposits can carry significant amounts of gold or scheelite, although they do not usually constitute ore. Many "veins" may lack gangue and are simply sulphide mineral coatings on fracture surfaces.

Alteration Mineralogy:

These deposits are characterized by relatively restricted alteration zones which are most obvious as narrow alteration selvages along the veins. The alteration generally consists of the same non-sulphide minerals as occur in the veins, typically albite, potassium feldspar, biotite, sericite, carbonate (dolomite) and minor pyrite. Pervasive alteration, dominated by sericite, only occurs in association with the best ore zones. The wall rocks surrounding the granitoid intrusions are typically hornfelsic and if carbonaceous, contain disseminated pyrrhotite. Alteration appears to be more extensive with shallow depths of emplacement or greater distances from the intrusion. Epizonal deposits may have clay alteration minerals.

Weathering:

The quartz veins resist weathering and can form linear knobs. Since alteration zones are frequently weak and the veins often contain only minor sulphide minerals, associated gossans or colour anomalies are rare. However, oxidized sulphide-rich epizonal mineralization may yield gossans.

Genetic Models:

The veins are genetically related to proximal granitoid intrusions, which explains their association with tungsten, bismuth and other lithophile elements, and the transitional relationships with pegmatites seen in some deposits. Mineralization likely formed from late stage fluids that accumulated in late-stage melts of differentiating granitic intrusions at depths of 2 to 8 km below the surface. These fluids typically contain elevated CO2 and have lower salinities which enable them to transport gold and/or tungsten and only limited amounts of base metals. At some point following sufficient differentiation to concentrate anomalous concentrations of elements, such as Au and W, the fluids are released along fractures that developed in response to regional stresses and faults that accommodated pluton emplacement.

Locally fluids infiltrate permeable or reactive rock units to form replacement mineralization or skarns.



Stockwork mineralization is not common but may have higher grades due to increased vein density. The deeper vein systems had little or no meteoric water input. In most deposits there are several other styles of mineralization, such as skarns and distal sulphide-rich veins that can be related to the same granitic intrusions but have different metallogenic signatures as they formed from rapidly evolving fluids. These characteristics are typical of an intrusion-centred mineralizing system but are not characteristic of the shear-veins that do not show any metallogenic zonation or associated deposit types. The epizonal deposits may have evidence vectoring towards a higher-temperature zone, but typically form outside of the steep thermal gradients that are proximal to a cooling pluton.

Ore Controls:

The mineralization is strongly structurally controlled and spatially related to highly differentiated granitoid intrusion. Mineralization is commonly hosted by, or close to, the most evolved phase of the intrusion (differentiation index greater than 80).

Associated Deposit Types:

W and Au skarns, W veins, stibnite-gold veins, Au quartz veins, disseminated gold sediment-hosted deposits, and possibly polymetallic veins. The veins commonly erode to produce nearby placer deposits.

Exploration Guides

Geochemical Signature:

Placer gold in creeks draining plutons or hornfels is the best geochemical indicator. Analysis of heavy mineral or silt samples for W, Au, As and Bi is particularly effective. Elevated values of Au-W-Bi-As ± (Sn-Sb-Ag-Mo-Cu-Pb-Te-Zn) can be found in stream sediments, soils, and rocks.

Geophysical Signature:

Aeromagnetic data may be entirely flat as reduced granites have no magnetic signature. If the country rocks are reducing (e.g. carbonaceous), aeromagnetic signatures may produce "donut" anomalies with high magnetic values associated with pyrrhotite in the contact metamorphic zone fringing a non- magnetic intrusion.

Other Exploration Guides:

The number of deposits correlates inversely with the surface exposure of the related granitoid intrusion because stocks and batholiths with considerable erosion are generally less prospective. Evidence of highly differentiated granites and fluid-phase separation, such as pegmatites, aplites, unidirectional solidification textures (USTs) and leucocratic phases, indicates prospective settings. Lamprophyres indicate regions of high extension and potentially good structural sites for mineralization. Gold, wolframite, and scheelite in stream gravels and placer deposits are excellent guides. The associated deposit types (e.g. skarns) can also assist in identifying prospective areas.

Economic Factors

Typical Grade and Tonnage:

The bulk mineable, intrusion-hosted low-grade sheeted vein deposits contain tens to hundreds of million tonnes of ~ 0.8 to 1.4 g/t Au. The epizonal deposits have slightly higher grades, 2-5 g/t Au and the shear veins have form high grade deposits contain hundreds of thousands to millions of



tonnes grading ~10 to 35 g/t Au. Gold to silver ratios are typically less than 1. Some gold producing veins have produced W when it was deemed a strategic metal, or it reached unusually high commodity prices.

Economic Limitations:

The Fort Knox deposit has a low strip ratio, and the ore is oxidized to the depths of drilling (greater than 300 m). A carbon-in-leach gold absorption with conventional carbon stripping process is used to recover the gold. The refractory nature of the arsenic-rich mineralization below the oxidation zone could render an otherwise attractive deposit sub-economic. Intrusion-hosted deposits may have a high work index.

Importance:

These deposits represent a potentially important gold resource which is found in regions that have seen limited gold exploration in recent years. Several deposits are now known that contain more than 100 tonnes of gold. In virtually all regions the production of gold from placers related to these deposits has far exceeded the lode gold production.

9: Exploration

9.1: Exploration Works Prior 2019

Historically, little is known of any sampling that took place prior to the acquirement of the property by Sector Ltd in 1998 as no records were received from the previous owner. Since the acquisition, Sector has maintained an ongoing sampling program to monitor production and to create an ore resource/reserve base. In doing so, the company has employed channel chip samples, area chip samples and percussion drilling sludge samples in attempts to predict and monitor the production underground. Mill head samples are taken off the belt using an automatic cutter to monitor production and to correlate the mill feedback to predicted underground feed. Selected sampling points in the mill circuit are taken to monitor both the mill circuit and to correlate back to the sampled mill head as it is believed that the slurry sampling in the mill is a true homogenous sample.

The free and random nature of the free gold distribution in the quartz makes any chip or channel sample skeptical as the re-testing of the same sample resulted in low reproducibility. For this reason, the company is utilizing production drilling sludge sampling to generate average results based on large numbers of samples in hopes of overcoming the variability. Truck or muck sampling is not utilized as tests have shown this method to be unreliable due to the presence of coarse gold and the size fraction of the samples taken do not correlate well to actual grade.

Rock sampling in a gold mine is dependent upon the assay method used. Fire assaying is an exacting method of assaying, but the turnaround time is large and usually the area sampled has passed into the mill prior to the receipt of the results. For this reason, the company went to a quantitative method of using Leachwell with atomic absorption finish to determine an approximated grade. The fire assay method is still employed for geology samples, but all production samples are done using the Leachwell method.

Although the area has been actively mined for over 80 years, little active exploration has been conducted over the last 20 years due to the presence of public disorder.



Sector Resources has minimal surface exploration in the area due to the concentration of resources being directed to mining the Las Ánimas Mine. Company Geologists have prospected the area for outcrops and has located and surveyed numerous old adits that were driven years before in attempt to correlate or connect to the Las Ánimas vein.

Chip Area Sampling

This type of sampling was employed early in the development but was discontinued when it was found that the samples were being biased by the sampler, as it was easier to sample the mineralized fractured quartz than the massive un-mineralized quartz. This resulted in the possibility of reporting higher grades than were actually there.

Channel Sampling

Proper channel sampling is employed when reserves are generated however a question exists on the reproducibility because of randomly deposited visible gold and the distance between sampling lines are too far apart to accurately predict the grade of a given ore block

Sludge Sampling

To get quick results from the active mining locations in the underground, the company went to taking sludge samples from the production holes as they were being drilled on the face or in the stopes. This method relies upon the collection of drill cuttings from selected holes at a given heading and assaying the sludge samples using the leach well method with an atomic absorption finish. This method allows drill sludge to be processed directly without any sample preparation and result in more assays to be processed daily in comparison to the traditional fire assay method.

Due to the variability of the assays caused by visible gold, this method relies on obtaining more samples to approximate the grade. For this reason, the results from using the Leachwell method is deemed to be a quantitative not a qualitative method. Correlations to the actual production are made monthly and this method generally understates the actual grade produced by some 20-30% when compared to the actual gold grams produced, the gold placed in inventory and the gold lost to tails.

Mill Head Sampling

The mill head sampling achieved by having an automatic cut of the belt on a frequency of every 10 minutes. This results in cutting out some 6.7 kilograms of sample per hour. The sample is reduced in size to a 500-gram sample using the cone and quartering method and this 500-gram sample is crushed and pulverized and cut down to the required 30 grams for assaying.

Results from the mill head sample are quite variable and internal mill slurry sampling, which is thought to be more homogenous, do not always reflect similar values. Correlation of the mill head to actual gold produced plus inventory changes plus gold lost to tails usually shows the gold entering the mill to be 30 to 40% lower than the actual gold produced.

Topography Surveying in the Area

In the general region, surface topographies have been generated primarily by air photo interpretation. Little surface survey has taken place with the exceptions of topographic surveys for road building, power line building and where companies such as Sector Resources require specific surveys.



Underground Development

The first recorded mining on the property was in 1921 but records are sketchy as to where the initial mining took place. Mining was initially done by hand using hand drills and small rail cars to move the material to the surface. Initial drifts were small with the portals measuring 1.8 meters by 1.5 meters. The blasted material was hand cobbed underground and wherever possible waste was and sub ore grade material was left underground. Sub-ore is estimated to be 10 grams or less as the selling price was 35 USD per ounce.

Little is known about the previous owners except for the last three owners who were Fermin Duque Zabala (1993-1997), Rosalba Bolivar de Cardona (1993), and Alfonso Cardona Arango (1972-1993). Generally, the owners contracted a miner for a percentage of the gold produced. Mining records from the period 1921 to 1997 were poorly kept or kept secret as a protection. Production records by the government were non-existent until recently when taxes and royalties were levied.

The Las Ánimas/Porvenir Mine is by far the bigger of the two different mines on the property. Little is known of the development sequence but examination of the mine shows that the initial primary adit was the San Carlos that was collared on the vein and development to the east and west were started. It appears that miners benched or drove an inclined shaft down to the 1927-meter level and then drove an exploration drift to the east until the vein petered out at about the present powder magazine location. This is evident by the old drill holes observed on the 27 meters level that were drilled from the east. A second level was driven to the east on the principal adit level and this adit carried over through the Fermin to the Las Animas Mine. It is not known whether the 1927-meter level or the upper level was driven first.

Two portals were driven in from the Las Animas creek to access these adits (1927-meter level and 1955-meter level). The 1927 level became the main haulage level. Mining joined the 1927 and 1955 levels with all ore was taken out of the Las Animas portal on the 1927-meter level to the California stamp mill located above the Las Animas creek.

Mining was done initially using hand drill steel and later air powered jacklegs with a pseudo room and pillar mining method being employed. Pillar placement was as the miner's discretion and placement was not as based on geotechnical information. Overmining of spans resulted in local ground hanging wall failures. Where these type failures occurred, the miners simply went around the area of the failure and started again.

Mining in the Las Ánimas zone was more difficult as it was not accessed from below (1927-meter level) and the ore was hauled over an internal raise and literally pushed down to the level. A California stamp mill was installed in the upper workings of the Las Ánimas to pulverize the rock then using water and a series of flues to "flow" the ore to the 1927 level.

In early 1999, the Company initiated access to the mine to permit the use of the diesel mining equipment in the mine. Since that time, the company has completed slashing the adit and the 1927 meter level, ramping down to below the 1908 meter level in the Porvenir mine, ramping up to the 1987 level in the Las Ánimas Mine, ventilation raising and stope raising.

Development totals as follows:

1) Ramping 949 m

2) Lateral Development 1,532 m



3) Slash Development 357mTotal development 2,838m

Porvenir Mine

Upon completion of the mine access road in December of 1998, Sector Resources brought in underground mining equipment and proceeded to slash the Las Animas 1927-meter portal and adit from 1.8 meters x 1.5 meters to a width of 3.2 x 3.2 meters to accommodate the diesel equipment purchased. Upon reaching the ore zone, services were installed and slashing of the 1927-meter level to the west was commenced and continued over to the San Carlos Raise to provide ventilation and a secondary access. A total of 357 meters of small drift was slashed to allow for production to commence.

Ramping in the Porvenir total 379 meters of ramp to the 1900 level to allow for the development of 3 levels (1918, 1915 and 1908 levels) with a total of 809 meters of lateral development completed to date.

Las Animas Mine

Ramping totaling 570 meters was driven up at a 12% grade from the 1927-meter level to connect the old workings at the 1940-meter level and then on up to the 1987-meter level. Lateral development totaling 736 meters was driven on 11 levels to either explore for the easterly extent of the ore zone or development for mining.

9.2: Exploration Works Post 2019

As the result of the processing of the previous existing geochemical data (stream sediments), the QP and the staff of Sector identified new prospective targets that the Client verified and continued to file new claim applications.

The staff of Sector conducted a detail stream sampling of the proposed targets using a sampling technique designed by the QP that allows *in situ* concentration of the samples³. All the data were studied using a combination of normal statistical methods including Principal Component Analysis (PCA), and Factor analysis (FA), together with more advance methods like Compositional Data Analysis and Machine Learning (ML). All these data and their process is contained in the digital support for this report.

Because the results of this survey will be interpreted in combination with the lineament analysis (see Item 24) preliminary maps will not be present here now.

10: Drilling

Sector Resources purchased a small underground Diamond Drill (Atlas Copco Diamec 232) in 2003 and it has been in use since that time for the underground ore definition and for the localized exploration within fifty meters of the known ore vein. In ore definition, the drill has been primarily used to locate fault displacements of the vein to allow for the continuation of mining. Localized exploration has utilized the drill to define known ore veins that were exposed on surface below the

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³ https://youtu.be/uEBOOifOPvA



active mining zone. Grass roots exploration drilling has not been conducted from the underground as the maximum length drillable by the Diamec 232 drill is about 130 meters. The Client purchased a Chinese made diamond drill HYKD-3A capable of reaching 250m. In total, the Client has drilled 5,320m with the HYKD and 10,911m with the Diamec.

10.1: Historic Diamond Drilling

There has been no surface diamond drilling conducted on the property.

10.2. Underground Diamond Drilling

The company has been conducting diamond drilling underground for support of the mining operations and increase reserves. This drilling has been in the form of short 20 - 50-meter holes for the location of the vein that has been displaced by faulting. A total of about 16,298 meters have been drilled for this purpose. The use of the diamond drill for pure exploration purposes has been minimal.

11: Sample Preparation, Analyses and Security

The Client was not been able to identify sample data taken by the previous owners therefore they considered the old workings as non-reproducible and new samples were collected where warranted. In most cases the old workings where no mining was planned were left unsampled.

Due to the slow turnaround time of qualified commercial laboratories in Colombia, the Client decided to develop its own lab on site with acceptable sample preparation procedures and proper quality control procedures to generate acceptable results within an acceptable time frame. However, the Client did not implement similar QA&QC procedures for the collection of samples. This is one of the reasons why the QP considers the existing resources and reserves as historical.

The QP introduced a system for QA&QC for the sampling procedure.

11.1 Sample Preparation Procedures

As mentioned before, the Client did not implement QA&QC procedures during sampling. Samples from the walls were taken using an electrical saw, the material collected on bags and sent to the preparation laboratory of the mine. In the case of the drill holes, after logging, all the material of the core was sampled, metre by metre, within identical lithologies.

Equipment used in the sample preparation now includes a laboratory jaw crusher, a laboratory cone crusher, a rolls crusher, a Jones Riffle splitter, and a ring and puck pulverized to reduce the rock sample to 100% passing –200 mesh.

Initially the sample preparation procedures called for cone and quartering of the sample down to an acceptable size then crushing and pulverizing the sample to 100% passing minus 100 mesh. Due to the variability caused by native gold, the procedures were changed to crushing the entire sample down to -20 mesh, then splitting the sample down using a Jones riffle splitter down to 100 gram lots and pulverizing the 100 gram lot to 100% passing -200 mesh prior to splitting the sample to 30 gram fire assay lots and retaining the second assay pulp for checks.



Working with Chief Assayer of ALS Chemex in Vancouver, British Colombia, the sample preparation procedures were revised to identical to that of ALS Chemex.

For quality control, standard assay checks were purchased and are run every 20 assays. In addition, the lab re-assays pulps on a regular based for checks on reproducibility. Occasionally assay pulps are sent to Vancouver for checking as a backup.

Assaying of Dore drillings is conducted on each bar by Sector 's and the Metal Broker's lab on identical samples drilled from the bar. Umpire assaying is available if the discrepancy between the 2 labs assays is significant. To date, only 2 assays from the dore drilling have gone for umpire assay.

The Leachwell assay sample preparation procedure is identical to that of the fire assay procedure for rock assays. Drill sludge samples are not dried and are taken as being pulverized.

Item 1.11.1.1: Sample Preparation procedures Post 2019

After having the samples properly packed and labeled in their respective bags, these are deposited in fiber bags which cannot weigh more than 25 Kg for health and safety issues at work. The bags are marked with bag number, the consecutive samples that go in the bag (e.g. 10500-105008), and finally they are closed with a security tag which is referenced in the sample request form that is sent to the laboratory for safety purposes. Each bag is also weighted at camp. This is later compared with the weight reported by the lab when they get the samples.

After having the bags ready, they are collected by Sector personnel and taken to the city of Ibague. They are subsequently transferred to ACT Labs in Rionegro, Medellín by TTC a local transport company. The sample request is sent to the laboratory physically and via email where they will be reviewed and give the go-ahead that the shipment is complete and the bags arrived sealed All samples of the shipments are recorded in CampControl (https://www.campcontrol.com) to satisfy the requirements of the chain of custody.

11.2 Analysis

11.2.1 Analysis Prior 2019

Sector chose to follow the standard procedures for fire assaying and complete with full gravimetric procedures to complete the assay. This applies to all geological samples that were used for reserve estimations and all dore assays that were used for checking of gold and silver produced.

The Leachwell assaying procedure is a qualitative procedure that utilizes cyanide to generate pregnant liquor that is assayed using a Perkins and Elmer Atomic Absorption 200 model spectrometer. The procedure uses a bigger sample (200 grams vs. 30 grams for fire assay) and the Leachwell (a patented prepared dry chemical is added to the sample as well as water into a bottle that is rolled for 2 hours on a bottle roller. After 2 hours the pregnant liquor is drawn off and analyzed.

This method is qualitative only and Sector used this method for all the production samples to give an indication of the grade only. The difference in the two methods is the sample preparation procedure as the Leachwell method does not have to be pulverized to –200 mesh. In addition, raw sludge samples can be rolled without drying or sample preparation, allowing for an assay to be returned prior to the blasted muck being sent to the mill.



Item 1.11.2.2 Analysis Post 2019

After the visit of the QP to the site and the laboratory, it was suggested that all samples should be sent to a certified laboratory for sample preparation and analysis. The Client engaged ACT Labs in Medellín, Colombia.

All samples were analyzed for multielements by the Ultratrace 1 (UT 1) method and for gold by FA (1-A2).

A complete sequence of QC procedures was introduced after the visit of the QP.

12: Data Verification

In the past, data verification was achieved by internal assay checks and was released only to the Geology Department for diamond drill and underground production reporting, to the Mill Department for production control in the plant and to Mine Management. Data checks were carried out on an ongoing basis and Management compiles comparisons of gold produced to mill heads monthly. Where required assays were sent out for crosschecking.

For security reasons, the data is issued on a need to know basis and not for general issue. This is done due to the ongoing presence of public disorder that exists in the area.

The QP conducted an audit of the chain of custody of the samples from the field to the reporting stage and, with the exception of not having include QA&QC during the sampling procedure, the procedures are compliant with the requirements of the Best Practices of the industry.

The QP also took independent samples from the quartz veins, the orogenic type of mineralization and from a barren zone. Samples were independently analyzed by ACT Labs in Medellin and confirmed the presence of gold, however in lower grades.

After the first visit, the Client introduced a complete QC program. During the period after the new procedures were implemented, only one standard fail and a total of 25 samples before and 25 samples after the failed standard was repeated by the laboratory.

13: Mineral Processing and Metallurgical Testing

With the option to purchase in place in 1997, the Client commissioned RDI of Wheatridge, Colorado to do metallurgical testing on samples that were taken in the Porvenir/Las Ánimas mine. With positive results from this sampling the decision to proceed was made. The Client then contracted Bharti Engineering of Sudbury Ontario to achieve a complete mining feasibility study on the property.

The test work conducted by both RDI and Lakefield Research showed the ore from the Las Ánimas mine was amenable to conventional milling techniques. The samples provided showed that the gold was essentially free with only a small proportion locked with the sulfide minerals. Besides these two studies, the Client contracted Ingeominas and Orepro for similar studies in 2001.



Test work showed that most of the gold occurs as free gold in a quartz matrix and minor amount occurs locked with sulfides. Later testing shows that more gold is more associated with sulfides as the deposit goes to depth.

Testing has shown the Bond Work Index of the ore to be 16.5 kWh/tonne. The abrasion index of the ore is 0.2972.

Test work shows that with grinding to 80% passing -80 mesh gave a recovery of better than 85% of the gold available.

Using a floatation circuit to concentrate the 80% passing 80 mesh tails from the gravity circuit, the recovery increased to better than 90%. Later testing showed that regrinding of the floatation concentrates to 80% passing minus 325 mesh and cyanide leaching the slurry increased the recovery to 95%.

14: Mineral Resource Estimates

14.1: Historical Resources and Reserves

At the time of acquisition, no ore reserves were available due simply to lack of data. A Colombian consulting geologist (Gabriel Paris) did an estimation of the tonnage of quartz vein that was exposed in the Pava/Palmitas and Las Ánimas veins.

Mr. Paris stated that 500,000 tonnes of quartz vein were available, but a grade could not be calculated due to the lack of previous production data available and the lack of sampling data as per se.

In house geological personnel have calculated resources at various times during the past 4 years upon which the mining has been based. In most cases the Client has been consuming the resources generated with production on a per year basis.

The drifting and development program conducted by the Client was followed by an ongoing sampling program to generate resources or reserves ahead of mining. For the most part resources generated were mined within months of accessing and as a result the mine cannot has no more than 50,000 to 70,000 tonnes of resources blocked out ahead of mining in any given year. A lack of diamond drilling data ahead of development further limits the development of sufficient resources to maintain a sufficient reserve base.

Sampling underground for the establishment of ore reserves was based upon channel sample approach on 5-meter centers.

The minimum mining width was established in the stopping area to be 1.5 meters wide based upon the equipment used. Stopping over the past 2 years has shown this mining width to be feasible. Where widths of intersections are less than the minimum mining widths, the intersection is recalculated to the minimum mining width using a dilution grading at 0.0 Au/grams per tonne.

Initial estimations of the resource were conducted using a 0.0 cut-off grade. Later economic estimations used an economical cut-off grade of 3.5 g/t based on a \$625 USD per troy ounce of gold and 200 tonnes per day mined.



The specific gravity applied for *in situ* ore was estimated to be 2.70 t/m3. This was based on a theoretical calculation of mineral content and not on air picometer testing.

Development dilution factors are variable due to the width of the vein exposed but dilution factors in stopping are generally 15% maximum due in part to a well- defined structural contact on the hanging wall that permits breaking to the contact only.

14.2: Current Mineral Resource Estimates by Eng. José Áreas del Toro.

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form, quality, and quantity that there are reasonable Prospects for eventual economic extraction. Mineral Resources are further sub-divided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories. 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 to 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. These assumptions must be presented explicitly in both public and technical reports. Current norms define three levels of resources.

Inferred Mineral Resource is that part of a mineral resource for which tonnage, grade, and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological/or grade continuity. It is based on information gathered through appropriate techniques from location such as outcrops, trenches, pits, workings, and drill holes which may be of limited or uncertain quality and reliability. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

Indicated Resources are simply economic mineral occurrences that have been sampled (from locations such as outcrops, trenches, pits and drill holes) to a point where an estimate has been made, at a reasonable level of confidence, of their contained metal, grade, tonnage, shape, densities, and physical characteristics.



Measured Resources are Indicated Resources that have undergone enough further sampling that a 'competent person' has declared them to be an acceptable estimate, at a high degree of confidence, of the grade, tonnage, shape, densities, physical characteristics, and mineral content of the mineral occurrence.

Based in the above definitions, we have identified Measured, Indicated and Inferred Mineral Resources for the "Las Animas" mine, based in the density information. In the mine exists a total of 36,743 composited samples, 2,152 from drill holes core samples and 34,591 channels samples took from mining excavations. Other relevant aspect used was the mineral continuity (spatial correlation) from variography studies, using composites as mentioned above for both "Lode" and "Orogenic" domain We defined some criteria for the resource classification as fallow:

For the "Las Animas" mine, the resource classification was based on the following criteria:

- 1. Passes according to ellipsoids ratios (ellipsoids expansion) defined from variograms ranges and determining using multiplicative coefficients: 0.5, 1 and 1.5 to obtain first, second and third passes. In both cases, for Lode Domain and for Orogenic Domain, the Median Indicator Semi-variograms ranges were used, according to interpolation method employed in block grade estimation, "Multiple Indicator Kriging", and:
- 2. Number of samples used in the interpolation
- 3. Maximum number of samples per drillhole
- 4. Number of drillholes used for block interpolation.

Measured resources:

All blocks in the first variogram running (pass=1) which match with the following criteria:

- Number of samples used in the interpolation: minimum of 12 and maximum of 24.
- Maximum number of samples per drillhole: between 2 and 3 samples per drillhole.
- Number of drillholes used for block interpolation: 3 drillholes for Orogenic and 6 drillholes for Lode Domain.

Indicated resources:

All blocks in the in the first and second variogram running (pass=1 and 2)

- Number of samples used in the interpolation: minimum of 8 and maximum of 24.
- Maximum number of samples per drillhole: between 2 and 3 samples per drillhole.
- Number of drillholes used for block interpolation: 3 drillholes for Orogenic and 4 drillholes for Lode Domain.

Inferred resources:

All blocks in the second and third variogram running (pass=2 and 3)

- Number of samples used in the interpolation: minimum of 2 for Orogenic Domain and 4 for Lode Domain, and maximum of 24 for both.
- Maximum number of samples per drillhole: between 2 and 3 samples per drillhole, 2 for Lode Domain and 3 for Orogenic Domain.
- Number of drillholes used for block interpolation: 1 drillholes for Orogenic Domain and 2 drillholes for Lode Domain



Using a cut-off of 0.5 g/t Au, a dry density of 2.7 t/m³ for the load domain (hydrothermal type) and 2.89 t/m³ for the orogenic domain, and a minimum thickness of 1m, Las Ánimas mine contains 1.19 Mt grading 1.88 g/t in the measured category, 2.53 Mt grading 0.8 g/t in the indicated category, 3.73 Mt grading 1.16 g/t in the combined category of measured and indicated, and an additional 0.43 Mt grading 0.70 g/t in the inferred category.

15: Mining Methods

Little is known of its development sequence, but examination of the mine shows that the initial primary adit was the San Carlos that was collared on the vein and development to the east and west were started. It appears that miners benched or drove an inclined shaft down to the 1927-meter level and then drove an exploration drift to the east until the vein petered out at about the present powder magazine location. This is evident by the old drill holes observed on the 27-meters level that were drilled from the east. A second level was driven to the east on the principal adit level and this adit carried over through the Fermin to the Las Ánimas mine. It is not known whether the 1927-meter level or the upper level was driven first.

Two portals were driven in from the Las Ánimas creek to access these adits (1927-meter level and 1955-meter level). The 1927 level became the main haulage level. Mining joined the 1927 and 1955 levels with all ore was taken out of the Las Ánimas portal on the 1927-meter level to the California stamp mill located above the Las Ánimas creek.

Mining was done initially using hand drill steel and later air powered jacklegs with a pseudo room and pillar mining method being employed. Pillar placement was at the miner's discretion and placement was not as based on geotechnical information. Overmining of spans resulted in local ground hanging wall failures. Where these type failures occurred, the miners simply went around the area of the failure and started again.

Mining in the Las Ánimas zone was more difficult as it was not accessed from below (1927-meter level) and the ore was hauled over an internal raise and literally pushed down to the level. A California stamp mill was installed in the upper workings of the Las Ánimas to pulverize the rock then using water and a series of flues to "flow" the ore to the 1927 level.

In early 1999, the Company initiated access to the mine to permit the use of the diesel mining equipment in the mine. Since that time, the company has completed slashing the adit and the 1927-meter level, ramping up to the 1987-level in the Las Ánimas mine, ventilation raising and stope raising.

Ramping totaling 570 meters was driven up at a 12% grade from the 1927-meter level to connect the old workings at the 1940-meter level and then on up to the 1987-meter level. Lateral development totaling 736 meters was driven on 11 levels to either explore for the easterly extent of the ore zone or development for mining.

The company processed the gravity concentrate by passing the gravity concentrate produced the Falcon Concentrator and the Jig over a Wilfley table in 3 passes to produce a super concentrate. Initially, this super concentrate was amalgamated in a special mill to produce a gold—silver amalgam that was distilled and refined to produce a gold/silver dore with a fineness of 700 gold,



250 silver and 50 impurities. This dore was sold to the metals broker. Currently, the Client is not using amalgamation in accordance with Colombian Laws.

With the initiation of the processing of the floatation concentrated using a cyanide leach method, the floatation concentrates super concentrated the gold/silver and produced a dore that had a fineness of 300 gold, 550 silver and 150 impurities.

Trace elements studies were conducted to identify problem elements that could be occurring. Elements such as Arsenic, Mercury, Selenium, and Bismuth were reported with only Bismuth being reported quantities greater than trace amounts. This was confirmed by the metals broker who tested the sulfide concentrate for purposes of sale to another processer.

Mill Flow Sheet

The mill flow sheet consists of crushing, grinding, gravity, floatation, and cyanide circuits to produce a sellable dore. Originally, the mill was designed as a with a gravity circuit only and after production commenced it was obvious that the other circuits were required. The mill circuit was upgraded to include floatation in 2004 and cyanide in 2006.

Crushing

The crushing circuit receives rock from the mine at a maximum size of 30 cm by 30 cm and reduces the feed to a size of 1.6 cm. This is accomplished by passing the feed through a 15 inch by 28-inch Jaw crusher on to a vibrating screen where the oversize is re-circulated through a 3-foot short head cone crusher and the undersize passes on to the fine ore feed pile.

16: Recovery Methods

Grinding and Gravity

The grinding circuit consists of a slot feeder passing the 1.6 cm mill feed to an 8 X 8 ball mill which grinds the mill feed to 80% passing 80 mesh slurry and feeds a jig to recover the coarse free gold. The slurry is then pumped to - a 10-inch cyclone that sizes the feed to 80% passing 80-100 mesh with the oversize returning to the mill for regrind and the undersize to the Falcon Superbowl concentrator to recover the free fine gold. Tailings from the Superbowl are passed to Floatation for further pressing and concentrates from the Jig and Superbowl are then passed over a wifely table 3 times to create a super concentrate for amalgamation.

Floatation

Tailings from the Superbowl are passed to a rougher floatation circuit consisting of a 3 Circular cells system and 4 bank Denver 8 floatation cells for cleaning. Tailings from cleaner cells return to the circuit for reprocessing and the middling pass on to the plant thickener for cyanide leaching.

Cyanidation

The cyanide circuit receives a thickened concentrate that passes to a 4' \times 6' ball mill for regrinding to -325 mesh using cyanide as the liquid media. From regrind mill, the slurry passes through 6 leach tanks having a retention time of 24 hours to the filter press where the leached solids and pregnant solution are separated, and the solids are sent to a wash tank for neutralization and



discharge. The pregnant solution is then filtered and sent to the Merrill Crowe unit for precipitation.

17: Project Infrastructure

On Site Infrastructure

Mine Facilities

The company permanent facilities at site consist of a crushing plant capable of handling the production of 400 tonnes per day; a processing plant containing grinding, gravity, floatation and cyanide circuits capable of processing 250 tonnes per day, a diesel repair facility capable of repairing and rebuilding the underground equipment, a compressor/generator building with an electrical substation, laboratory/office complex and a 10,000 gallon tank farm. Temporary facilities utilizing shipping containers exist in the form of the warehouse and mine facilities.

Construction of a modern mineral process plant was initially completed in 2001 and upgraded in 2003 and 2007 to include a floatation and cyanide circuits. Shortly after site clearing commenced, it became evident that areas of the site had poor ground stability and as a result construction was completed using severe geotechnical constraints to design the plant under weight and vibration restrictions.

The mineral processing plant consists of two buildings one for crushing and one for grinding, floatation, and cyanidation. The crushing building is a modern circuit that contains a jaw crusher, cone crusher and vibrating screen to crush mine feed (8 - 12 inches) to a mill feed of 0.5 inches. The crushing circuit is operated by 2 people per shift and can crush up to 400 tonnes per day.

The processing building contains an 8'x 8' ball mill, a jig and super bowl concentrator, a Wilfley table and 3 banks of sulfides to produce a high-grade gravity concentrate of sulfides and free gold and a medium grade sulfide floatation concentrate. Outside, under a steel roof exists the cyanide system that consists of a plant thickener, a regrind mill, a conditioner tank, a pregnant thickener, 6 leach tanks, a filter press, 2 wash (neutralizing) tanks, a pregnant solution tanks and 4 barren solution tanks designed to process 20 tonnes of concentrate per day. The cyanide circuit was designed and constructed to contain 100 % of the liquids contained in the tanks should a tank rupture or accidental discharge take place.

Diesel Repair Facility

The diesel repair facility consist of an undercover repair facility with sufficient area to work on 3 pieces of equipment at any given time, a tool room, and electrical room for the repair of motors, fans etc., an office and an oil/water separator to clean any waters contaminated by the washing of the equipment.

Compressor Building with Electrical Substation

The Compressor building houses 2-1000 Cfm electrical compressors (due to elevation the compressors are down rated by 20%). The building was acoustically designed to suppress the compressor noise by constructing double walls with a layer of dry sand between the walls.



Recently the substation was upgraded to receive 34.5 kVolt power from the local power distributor and this is transformed to 4,160 and 440 3-phase electrical power.

Laboratory

The laboratory is a modern laboratory with facilities to achieve full fire assay with gravimetric finish, quantitative assaying using the Leachwell process and facilities to conduct total cyanide assaying including assaying for weak acid degeneration (WAD) of cyanide complexes, Equipment installed in the lab includes a Perkins-Elmer Atomic Absorption Spectrometer, 3 lab foundation ovens in a vented fume hood, one high precision microbalance, one microbalance, one bottle roller and other lab equipment to achieve the functions required. In a separate facility (a sea container) equipment for the sample preparation includes a laboratory jaw crusher, a laboratory cone crusher, a laboratory rolls crusher, 2 ring-puck pulverisers (capable of pulverizing 7 samples simultaneously), and a gravimetric shaker with screens.

Office Complex

The office complex consists of 3 offices and a large communal working area with eight-individual separated working areas for the engineering and technical staff.

10,000 Gallon Tank Farm

Prior to the installation of the Enertolima 34.5 kVolt power line, power was supplied by 2 -750 Kw (625 kW downrated due to elevation) diesel fired generators. These generators burnt some 650-700 gallons per day of diesel fuel that required a tank farm of 10000 gallons be constructed.

Temporary Facilities

Temporary facilities installed at site include warehousing, sample preparation construction, and underground offices. These facilities were installed where geotechnical information indicated that a lightweight structure was required due to ground stability requirements.

Timber, Sand and Gravel

Timber is available locally from various suppliers and require short distance to transport. Sand and Gravel is available in Venadillo and requires a transport of approximately 30 km to the mine over rural roads. The mine produces its own gravel for construction by crushing the waste rock derived from development headings.

Water Supply

Enough groundwater is found through out the area to keep an adequate flow in most of the creeks. The Las Ánimas Creek is intermittent but quickly changes from a dry streambed to a raging torrent that will fill a 36-inch culvert as a result of the intense torrential rains.

Water is derived from two branches of the San Carlos Creek. The San Carlos Creek flows the year around and supplies enough water for the mine and plant operations. Small containment dams have been constructed enough to allow for sufficient water draw off but not impede the creek flow. By Colombian law, the company is allowed to draw off only 25% of the creeks flow in the dry season at any given time.



Electrical Power

The site is connected to a 34.5 kVolt line owned by the electrical provider "Celsia". Electrical power is supplied from the substation at Rio Rocio in the Magdalena River valley on new 34.5 kVolt line to Santa Isabel. The mine has installed a connecting 34.5 kVolt line from the Berlin access to the site and has established a substation capable of producing electrical 1.5 megawatts at 4160 and 440 volts.

Brief power outages are common and last for a few minutes. For emergency power, the mine has 2 SMDO diesel generators capable of producing 1.2 megawatts of power at 440 volts.

Wi-Fi

The site has Wi-Fi capabilities at the main offices.

Security

The site counts with a security office with a metal detector at the entrance of the mine and closed camera system.

Off Site Infrastructure

The Client has a HQ office at Ibagué with eight offices, a board room, and a shack with two independent offices.

18: Environmental Studies, Permitting and Social or Community Impact

The Client has all the necessary environmental permits to work on the mine. There are no known environmental issues that could materially impact the issuer's ability to extract the mineral resources or mineral reserves.

In order to increase production capacity, The Client has presented a proposal before the Environmental Authority, Cortolima, to improve and increase Tailings deposit size. The study is underway.

There are small communities in the area such as Santa Isabel, Junin, San Rafael and Colon. However, there are no social or community related requirements and plans that could affect the normal function of the project.

Following the recent law changes, The Client has presented a Social Plan (PGS) required by the Environmental as well as the Mining Authorities, which is under study.

The Client has always maintained particularly good relationship with the communities by supporting health, work, education, environmental and social programs.

19: Adjacent Properties

The Las Ánimas mine initiated production in 1921 and has been in intermittent production since then firstly as a low tonnage high grading operation run by contract miners then as a 200 tonne per day operated by the current owners. During the 1930's and 40's, it has been reported that as many as 21 California Stamp mills were operating in the Santa Isabel area which is indicative of small



high grading operations using simple gravity circuits (pulverizing with the stamp mills and using a sluice) to extract free gold. The production from the area was kept secret due to public order and little records were filed with the government but it is apparent this area was a major producer of gold in the past.

Numerous old adits have been located in the valley, but most have been simple exploration adits that were driven on the veins and most explored were abandoned after only a few meters of development due to low grades.

Eight small tonnage operations are in production or exploration in the Líbano area (19 km to the North - North East), one mine is in operation near Santa Teresa (some 10 km to the North - North East) and the Berlin Mine (currently shut down) approximately 700 meters to the east south east of the Las Ánimas Mine.

Líbano Area

Eight small underground operations working in the area but the production from each mine cannot more exceed than 20 tonnes of ore per day. Geologically these operations are similar to the Las Ánimas - mining small quartz veins and essentially looking for and extracting Bonanzas.

Santa Teresa

One small operation is working in the area, but little is known of the geology and the production. It can be assumed that this is along the strike of the Las Ánimas Vein, so the geology of the deposit is similar.

Sonsisa Mine

During Sector Resources Tenure at the Las Ánimas Mine (9 years), the Sonrisa Mine has changed ownership 3 times and has been in and out of production numerous times. It has been alleged that the mine owners have been associated with illicit operations in Colombia.

At peak operations, the mine employed 20 people and produced up to 10 tonnes per day of ore coming from a narrow vein like the Las Ánimas, but ground falls on more than one occasion has suspended operations. The cause of these ground falls is not known at they could be the result of faulting, poor rock conditions or bad mining practices.

The presence of these deposits in the vicinity of the areas of interest of the Client is not necessarily indicative of the mineralization on the area that is the subject of this report.

20: Interpretation and Conclusions

Las Ánimas mine appears to be the result of a combination of two geological events. The oldest one, an orogenic type of mineralization, associated with the metamorphic rocks of the Fm. Tierra Adentro. A second event, a quartz vein gold deposit with some base metals, associated to the post-Cretaceous Ibagué Batholite. It is also possible that during the Neogene volcanic period, part of the gold from the orogenic system was leached and remobilized into the quartz vein system.

From a regional point of view, the exploration licenses have the same potential to find both type of mineralization. The QP is suggesting an exploration program for both the surface and the mine.



The aim is to increase the resources, both in tonnage and in category, in the mine and to quickly define targets areas on surface where similar type of mineralization can be found.

The QP could not validate the previous database, because none of the owners of the mine implemented QC measures for the sampling. Also, there are some survey errors with the location of the drill holes in the mine that the Client is currently in the process of rectifying. For these reasons, the QP qualified the previously reported resources and reserves as historical.

The use of Machine Learning techniques (Rapidminer) highlighted the importance of the phyllite alteration to identify high grade zones of gold. It also differentiates the two types of mineralization and determine the most perspective elements related to the orogenic and the quartz vein gold mineralization. Finally, the method suggests a way to discriminate samples with potential higher gold values, reducing the amount of assaying and the turn around time for the results. The QP suggests the Client uses a portable XRF from Niton to screen these samples⁴.

While the QP considers that the technical personnel that worked on the mine before his first visit were well trained and capable, the total lack of QA&QC procedures hindered the results of their work. After the first visit, the Client engaged the QP to complete the full training of their staff and to implement a complete QC program. Currently, the full database has being validated and the topography corrected by the Client. This allowed for new and better estimations of the resources, both orogenic and hydrothermal.

Also, the QP considers that the Client should engage the help of a senior structural geologist to better understand the ore distribution.

Except for unforeseen events or Acts of God, the QP does not see any significant risks or uncertainties for the further access, right or ability to perform exploration and exploitation work on the Licenses.

21: Recommendations

In a report prior to the first visit of the QP, it was recommended that a single - phased diamond drilling program totaling 20,000 meters of which 10,500 metres to test the westerly and down dip extensions of the known vein and to locate mineralized veins known to exist above and below the present vein and the remaining 9,500 meters around the exploration lease to locate additional veins. The QP recommended in that report that prior to any drilling, a comprehensive approach including detailed structural analysis, rock sampling, and metallurgical studies of the orogenic type of mineralization should be completed. The Client is currently conducting these works and plans to continue the detailed exploration inside the mine. The QP suggest testing the volume between the surface and the mine, which may contain more of the orogenic type of mineralization in the greenschists.

For the exploration targets the QP recommends satellite image interpretation, geochemistry, geophysics, geological and structural mapping to define the location of other promising targets. If granted, this should be followed by drilling, pitting, and trenching to define potential new targets.

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⁴ https://buff.ly/2Mmg4g1



The budget does not include the cost of supportive and administration work, nor any amounts of money related to the purchase of the Licenses. The budget estimates US\$ 6,946,845 for Stage I, followed if granted, by US\$ 12,578,553 for Stage II for a total of US\$ 19,525,400. Say \$US 20M.



Item 1: Summary

This technical report documents an update of all the scientific and technical information concerning the activities status of claims TG5-08011, 500010, 500015, 500031,500214, 500463, 500470, the mining concession contract 0850-73, and mining contract concession14007 and 14008 (the "Licenses" or the "Property") in Santa Isabel, Ibagué, Tolima, Colombia, for Sector Ltd ("Sector", the "Client" or the "Company").

The Las Ánimas Mine Property has been in intermittent production beginning in 1921 until October 2018. Basically, the mine has been operated by various owners who either operated the mine or contracted sections of the mine(s) to contract miners who paid the owner a percentage based on of the gold sold.

Sector entered into an agreement with Fermin Duque Zabala on November 14, 1997 to conduct a feasibility study and if warranted purchase the Las Ánimas mineral property of 0.27 km2. Sector exercised the option to purchase the property July of 1998 upon the completion of financial and pre-mining feasibility studies by metallurgical and mining consultants as well as in-house personnel. Purchase of the mine property included the mining contract concession numbers 14007 and 14008.

Sector purchased additional land totaling 0.15 km² on August 14, 1998 from Luis Galindo Gomez and Mery Canon de Galindo for the protection of the access road and on April 5, 2000, Sector purchased an additional 0.01 km² due to road encroachment near to the property boundary. On September 26, 2005, Sector purchased the El Porvenir farm from Anabeiba Gomez Henao totaling 0.09 km². On December 2016 Sector added 0.03 km² to the land holdings.

The Client's current land holdings total 54.29 km² and including the claims- 110.28 km².

The Las Ánimas mine is located some 31 km north of Ibagué, Tolima, Colombia, and 1.8 km from the town of Santa Isabel. From Ibagué, access to the site is by National Highway #43 for 49 km and then 27 km by rural country paved road climbing in elevation from 500 meters to 2,100 meters. Access to the mine from the country paved road is by the company road for 2.8 km. The infrastructure at the site consists of a modern complex capable of crushing 400 tonnes of ore per day and milling 280 tonnes of ore per day. Power to the facility is supplied by a 34.5 kVolt power line from the local electric utility. The site also includes offices, maintenance shops, a warehouse, and a fully modern assay laboratory facility.

Mining Concession Contracts are licenses that the owner has either purchased or applied for from the government and this gives the owner the right to extract metals from within the defined area. The area of a mineral lease may incorporate the area where the owner has surface rights plus under other people' surface areas where they have not applied for the right to mine underground. Mining licenses do not give the right of disturbance to surface properties of others.

Explorations licenses are applied for and granted from the government for the sole right to explore for mineral deposits. This does not give the right of disturbance to the surface rights of people located on the exploration lease.

Mining concession contracts are licenses that the owner has either purchased or applied for from the government and this gives the owner the right to extract metals from within the defined area.



Table 1. Areas and expiration dates of the licenses and new claims.

Туре	Number	Area km²	Duration years	Granted	Expires	Owned by	Observation	
Concession Contract	14008	0.62	20	1990-05-30	2039-05-27	Sector Resources LTD	Can be extended 30 more years	
Concession Contract	14007	0.71	20	1993-03-09	2039-05-26	Sector Resources LTD	Can be extended 50 more years	
Exploration license	0850-73	6.11	2	2001-05-24	2003-05-24	Sector Resources LTD	In process for concession contract (Art.53 Law 1753 of 2015). The QP believes the extension will be granted.	
Claim	TG5-08011	11.09		2018-07-05		50% Rio La China SAS*		
Claim	500025	1.10		2020-01-15		Rio La China SAS*		
Claim	500010	5.97		2020-01-15		Rio La China SAS*		
Claim	500015	1.82		2020-01-15		Rio La China SAS*	Will be define as concession contract with	
Claim	500031	20.17		2020-01-15		Rio La China SAS*	validation for 30 years	
Claim	500214	21.47		2020-01-29		Sector Resources LTD		
Claim	500463	15.67		2020-04-03		Sector Resources LTD		
Claim	500470	25.55		2020-04-07		Sector Resources LTD		

^{*} Río La China SAS is 100% own by Sector Resources LTD

Note: Information taken from Agencia Nacional de Minería (https://buff.ly/2HHGb00)

Prior to Sector's ownership, the Las Ánimas mine was operative for more than 70 year. Sector converted the operation to a modern trackless mine capable of producing more than 200 tonnes per day at start up. The conversion of the old mine to present standards included the construction of a 2.8 kilometer access road, a modern crushing and processing facility under adverse geotechnical conditions, office buildings, shops, a modern laboratory with current technology and equipment and converting the old mine adits and drifts to accept the diesel trackless equipment. Precious Metal production since the start of production totals 1,309,401 grams of gold and 919,184 grams of silver sold to date.

As of December 17, 2007, the property reported 128,500 tonnes grading 1.70 g/t of gold in measured resources. Additionally, the property had 4,100 tonnes of ore reserves grading 4.86 g/t of gold in proven and probable reserves based on an economical cut-off of 3.5 g/t of gold. Comparisons of the actual grams of gold produced to the grams of gold produced by underground sampling is positive as increases of 20 - 40 percent were recorded monthly. The QP consider these resources and reserves as historical because the original dataset could not be validated and several errors in the collars of the holes inside the mine and the topographic survey of the mine itself.

After the first NI 43-101 technical report completed by the QP, the staff from Sector completed the validation of the historical database, a new survey of the mine and of all the drill holes, as well as conducted additional sampling in sectors of the mine that previously were not sampled. This new database was elaborated by M.Sc. José Áreas del Toro using GEMS v. 6.8 under the supervision of the QP.

Using a cut-off of 0.5 g/t Au, a dry density of 2.7 t/m³ for the load domain (hydrothermal type) and 2.89 t/m³ for the orogenic domain, and a minimum thickness of 1m, Las Ánimas mine contains 1.19 Mt grading 1.88 g/t in the measured category, 2.53 Mt grading 0.8 g/t in the indicated category, 3.73 Mt grading 1.16 g/t in the combined category of measured and indicated, and an additional 0.43 Mt grading 0.70 g/t in the inferred category.



Both the Las Ánimas Mine and the nearby Pava/Porvenir mine fit the classification of an orogenic type of gold in metamorphic rocks combined with a later event of hydrothermal veining associated to Cretaceous felsic intrusives. Only the hydrothermal vein has been mined. As a result of the previous philosophy of single vein deposit, there has been minor exploration for hanging wall and footwall veins to date. The potential to derive more ore from the orogenic type of mineralization is high.

Historically, the Santa Isabel area has supported many gold-producing mines in the 1920's to 40's but there has been little exploration work done in the area recently due to public disorder that existed in those days. Colombia has been known to have problems with public order. To alleviate this situation, the Company has worked with the national government to protect its workers, its assets, and the community. The Republic of Colombia has established a permanent Colombian army platoon in the community of Santa Isabel and a second army platoon in the vicinity of the mine site to maintain public order. The company also maintains a strong security force at site. The Company has taken the public position that it will not pay revolutionary forces for protection and that it will only work with the legally elected government and its representatives in regard to security.

Within the current exploration license, there exists one other mining concession contract (Sonrisa Mine) but at time of writing this report the mine was inactive. National and international companies have exploration licenses to the east and west of the property. The nearest active mine is near Santa Teresa. The only other active major precious metal mining district is at Líbano, which is located approximately 20 kilometers to the N-NE.

Historically, it is noted that between the 1920's and 1940's there were 21 reported active California Stamp Mills working in the Santa Isabel area but the locations of these mines and mills are not reported on a compiled map.

The purchase of the Las Ánimas Property also included the purchase of mining contract concession 14007 (0.71 km²) and 14008 (0.62 km²). Sector was also granted a mining concession contract 0850-73 (6.10 km²) that surrounds the mining contract concession and totals 7.43 km² in area and incorporates all of the within the defined area (less any existing Mining contract concession that were granted prior to the time of issuing the exploration lease). As a result of the re interpretation of existing geochemical surveys and a complete lineament analysis, the Client has applied for new licenses in the area (See Table 1). The current area own by the Client is 110.28 km².

Previously there has not been a formal exploration geophysical or diamond drilling program on the property to enhance the identification and/or up grading of known resources to an acceptable reserve classification. Drilling that has been done to date has been done underground to locate and define the known vein near the underground workings.

Sector has completed numerous metallurgical studies on the ore to determine that expected recoveries of better than 90% using a gravity, floatation, and cyanide circuits to extract the gold and silver. The ore grindability is moderate to high having a measured abrasion index of 0.298 and a measured work index of 16.5 kWh per metric tonne.



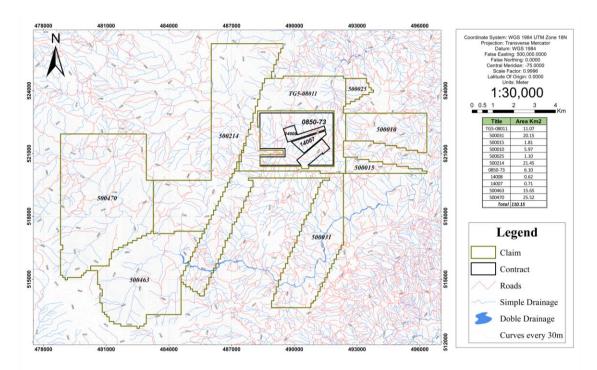


Figure 1. Location of licenses and claims of the Client in Ibagué, Colombia.

This technical report documents a summary of the scientific and technical information concerning mineral exploration, development and production activities status of the property for Sector Resources prepared by P.Geo. Ricardo A. Valls from Valls Geoconsultant, P. Geo. Dr. Vadim Galkine from Fenix Geoconsultant Inc (lineament analysis), and independent Sr. geologist and M. Sc. José Áreas del Toro (resource estimations), following the terms and definitions of the National Instrument 43-101. NI 43-101 was developed by the Canadian Securities Administrators in 2001. It established standards for all public disclosure an issuer makes of scientific and technical information concerning mineral properties/projects. NI 43-101 takes into consideration CIM Exploration Best Practices Guidelines. The QP considers the NI 43-101 and the CIM Exploration Best Practices Guidelines to be an internationally recognized reporting standard that is recognized and adopted worldwide for market-related reporting, technical explanations, and financial investment.

In a report prior to the first visit of the QP, it was recommended a diamond drilling program totaling 20,000 meters of which 10,500 metres to test the westerly and down dip extensions of the known vein and to locate mineralized veins known to exist above and below the present vein and the remaining 9,500 meters around the exploration lease to locate additional veins.

The QP recommended in his first NI 43-101 report that prior to any drilling, a comprehensive approach including detailed structural analysis, rock sampling, and metallurgical studies of the orogenic type of mineralization should be completed. The Client is currently conducting these works and plans to continue the detailed exploration inside the mine. The QP suggest testing the volume between the surface and the mine, which may contain more of the orogenic type of mineralization in the greenschists rocks.



For the exploration targets the QP recommends satellite image interpretation, geochemistry, geophysics, geological and structural mapping to define the location of other promising targets. If granted, this should be followed by drilling, pitting, and trenching to define potential new targets. The proposed budget concentrates on the technical work and does not include any cost of supportive and administration work, nor any amounts of money related to the purchase of the Licenses. The budget estimates US\$ 6,946,845 for Stage I, followed if granted, by US\$ 12,578,553 for Stage II for a total of US\$ 19,525,400. Say US\$20 million.



Item 2: Introduction

At the request of William Dell'Orfano, President and CEO of Sector Ltd., a technical report has been prepared by Ricardo Valls, M.Sc. P.Geo. of Valls Geoconsultant to present a summary of the technical aspects of the Licenses 08011, 14007, and 14008 in Santa Isabel, Tolima, Colombia.

Valls Geoconsultant ("VG") is a sole proprietorship consulting company located in Toronto, Canada. Sector hired Ricardo A. Valls from VG to undertake a technical study of the technical information related to the Las Ánimas Mine in Santa Isabel. Sector is registered in the Grand Cayman Islands and has an office at 749 East Industrial Park Drive, Manchester, New Hampshire, USA. Sector owns the Las Ánimas Mine property.

The Qualified Person (QP) visited the site on July 2-5, 2019 and again in March 12-17, 2020. On both occasions, the QP visited all the Property including the mine, and studied the local geology confirming the presence of the units that host gold mineralization in the area. The QP also trained the local staff in QA and QC best practices (Valls Álvarez, 2014) as well as CIM Best Exploration practices (CIM, 2000). This technical report is based on information supplied from the internal company reports and maps generated by the Client, on publicly available information, as well as on maps generated by the QP. Other information is generated by copies of legal documents on file at the Ibagué Office of the Client in Colombia. The original of the legal documents are on file at various Notaries in Colombia or with Colombian Governmental agencies such as Cortolima, Agencia Nacional Minera, and the town of Santa Isabel.

All coordinates in this technical report correspond to the WGS 84 18N datum. The QP has adhered to the metric system, all gold assays stated are in grams of gold per metric ton (tonne), and all costs are expressed in US dollars.



Item 3: Reliance on Other Experts

This report represents the professional opinion of Ricardo A. Valls, M.Sc. P. Geo. from Valls Geoconsultant. This document has been prepared based on a scope of work agreed with the Client and is subject to inherent limitations considering the scope of work, the methodology, and procedures used. This document is meant to be read as a whole, and portions thereof should not be read or relied upon unless in the context of the whole.

The QP has seen the registration of the Mining Concession Contracts and Claims in the Colombian Cadastre of Mines⁵ and on September 28, 2020 the QP received a legal opinion from Arturo Perdomo Gongora, legal representative of the Company confirming the validity and legal status of the Licenses. The QP is relying on the Title Opinion with respect to the ownership and good standing of these licenses under the section of this technical report entitled "Property Description and Location".

The QP worked closely with Sector's senior geologists Yadira Gerónimo, Wendy Yineth Gil Carvajal, Sebastian Castaño Posada, Oscar Forero Salinas, and other staff from the office and the mine.

The QP also worked closely with P. Geo. Dr. Vadim Galkine in the interpretation of the lineament analysis and with M. Sc. José Áreas del Toro in the estimation of the mineral resources of the Las Ánimas mine.

Finally, the reader should notice the signature date of this report, which is the cut-off date for the information that is included in this technical report.

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⁵ http://www.cmc.gov.co:8080/CmcFrontEnd/consulta/busqueda.cmc



Item 4: Property Description and Location

The mine is located 1.8 kilometers east of Santa Isabel, Tolima, Colombia or 31 kilometers NNE of Ibagué, the capital city of Tolima. The physical property exists between 1,720 meters and 2,200 meters above mean sea level and covers an area of 0.65 km².

The Client constructed an access road in 1988 consisting of 2.80 km from the Berlin cutoff to the mine portal. This gravel road cuts into the steeply dipping hillside and requires continuous maintenance due to small landslides created by torrential rains during the rainy season.



Figure 2. Sector maintains a gravel road to the Las Ánimas mine.

Stabilization of the road is ongoing with the construction of gaviones to provide proper road base that will support trucks carrying loads of up to 20 tonnes.

Access to the property is gained by traveling 49 Km from the outskirts of Ibagué on National Highway No. 40 then traveling 27 km on a rural country paved road from Venadillo to the Berlin cutoff and then by traveling 2.8 km on the Company road to the mine. The National highway is designed to handle 52 tonne loads. The rural and mine access road is designed to handle 20 tonne loads.



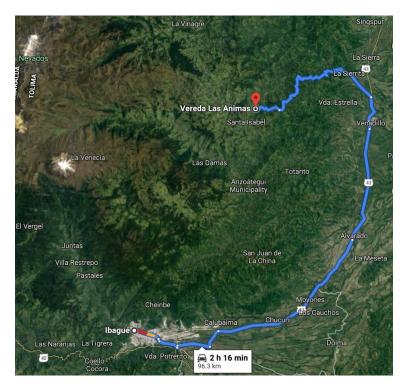


Figure 3. Access to Santa Isabel, Tolima, Colombia.

By Colombian law, a royalty of 4.0% is payable to the Government of Colombia based on the selling price of Central Bank of Colombia (80% of the London Fix) for both gold and silver. This equates to a royalty of approximately 3.2% based on the London Fixed selling price.

The royalty is deducted from the final price of sale to the metals broker in Colombia and is paid by the metals broker directly to Agencia Nacional de Minería (the national mining registry who has the responsibility to dispense the royalty as defined by Colombian law. The royalties are return to the municipality from which the metal is extracted, according to the General Royalty System. No other royalties are paid.

Sector has no other encumbrances, royalties, or agreements to pay levied against the property. On July 23, 1999, Sector received the approval to mine and constructed a modern 200 tonne per day plant based on a gravity circuit. Since that date, metallurgical work has shown that a floatation circuit and a cyanide circuit will increase extraction and the Company has submitted for approval all the necessary documents to permit the additional circuits and the Company is awaiting final approval in writing. The floatation and cyanide circuits have been installed with total concern for the environment addressed and the circuits designed for 100% containment. The Company has adopted the South African System of Cyanide Management for control of the process waters discharged to the environment.

Sector has in place an Insurance Policy in effect that is placed with Cortolima in case of environmental problems caused by the operation. This policy is paid yearly.





Figure 4. Google Earth Pro map of the area and location map of the licenses.

Table 2. UTM location of the Client's licenses.

Licence	UTM E	UTM N	Licence	UTM E	UTM N
	491852.84	522945.33		490466.15	521020.56
	491856.13	520446.71		491349.68	521767.31
	490652.64	520445.13	0850-73	491527.38	521918.46
	491355.64	521037.1	0830-73	491473.19	522085.3
	491355.73	520962.76		489974.06	521596.39
	491693.17	521247.05		489857.78	0466.15 521020.56 1349.68 521767.31 1527.38 521918.46 1473.19 522085.3 9974.06 521596.39 9857.78 521558.46 1527.77 521917.97 1350.07 521766.82 0912.85 521397.7 0632.49 521161.01 0465.54 521020.06 0370.81 521219.47 0012.08 521421.65 9858.17 521557.96 0240.32 521682.76 0492.45 521764.82 90720.7 521839.26 1473.58 522084.8 1527.77 521917.97 1485.49 522141.78 9680.27 52155.73 9474.55 522185.1 9997.04 522355.7 0145.56 521899.15 0431.28 521992.48 1428.29 522317.61
	491656.55	521290.49		491527.77	521917.97
	491663.95	521296.73		491350.07	521766.82
	491322.92	521702.06		489857.78 521558.4 491527.77 521917.9 491350.07 521766.8 490912.85 521397. 490632.49 521161.0 490465.54 521020.0 490370.81 521103.9 490240.38 521219.4 490012.08 521421.6 489858.17 521557.9 490492.45 521764.8 490720.7 521839.2 491473.58 522084.	521397.7
	490114.58	520685.43		490632.49	521161.01
	490317.11	520444.69		490465.54	521020.06
	488358.08	520442.11		490370.81	521103.95
	488357.55	520841.89	14007	490240.38	521219.47
	489556.88	520843.47	14007	490012.08	521421.65
0850-73	489556.36	521243.24		489858.17	521557.96
	488357.03	521241.67		490240.82	521682.76
	488354.79	522940.71		490492.45	521764.82
	491852.84	522945.33		490720.7	521839.26
	489996.65	522356.2		491473.58	522084.8
	489474.17	522185.61		491527.77	521917.97
	489610.43	521766.73		491485.49	522141.78
	489634.57	521692.53		489680.27	521552.73
	489679.89	521553.23		489474.55	522185.1
	491485.11	522142.28	1.4000	489997.04	522355.7
	491427.91	522318.11	14008	490145.56	521899.15
	490430.89	521992.98		490431.28	521992.48
	490145.17	521899.65		491428.29	522317.61
	489996.65	522356.2		491485.49	522141.78
	489857.78	521558.46		•	



Table 3. UTM location of the Client's claims.

Application	UTM E	UTM N	Application	UTME	UTM N	Application	UTME	UTM N	Application	UTME	UTM N	Application	UTM E	UTM N
Application	495342.17	521271.64	Application	489907.38	516297.97	Application	485249.28	516519.79	Application	489132.31	525472.70	Application	482033.01	516741.54
	494898.57	521271.67		489907.41	516519.04		485360.19	516519.76		500214 48913.28 489021.39 489021.34 488910.45 488910.40 488577.71	525251.63		482032.98	516631.00
	494898.57	521382.21		490018.32	516519.03		485360.23	516740.84			525251.64		481811.17	516631.05
	494344.07	521382.25		490018.35	516740.10		485471.14	516740.82			524920.03		481811.14	516520.51
	494344.08 493789.57	521492.78 521492.83		490129.25 490129.30	516740.09		485471.18 485582.09	516961.89	500214		524920.04 524588.43		481589.32 481589.30	516520.56 516410.03
	493789.58	521492.83		490129.30	517071.70 517071.69		485582.13	516961.87 517182.95			524588.48		481367.48	516410.03
500010	492458.78	521603.48		490240.23	517292.76		485693.04	517182.93		488577.68	524367.40		481367.45	516299.54
	492458.91	522929.94		490351.14	517292.75		485693.08	517404.00		488466.78	524367.42		481256.55	516299.57
	496340.35	522929.65		490351.18	517624.36		485803.98	517403.98		488466.73	524035.81		481256.47	515967.95
	496340.26	521050.51		490462.08	517624.35		485804.03	517625.06		485693.04 485582.13 485582.09	517182.93		481145.56	515967.98
	495896.66 495896.67	521050.54 521161.07		490462.11 490573.02	517845.42 517845.41		485914.93 485914.97	517625.04 517846.11			517182.95 516961.87		481145.48 480258.20	515636.37 515636.59
	495342.16	521161.11		490573.04	518066.49		486025.88	517846.09		485471.18	516961.89		480258.15	515415.51
	495342.17	521271.64		490683.95	518066.47		486025.92	518067.17		485471.14	516740.82		480036.33	515415.57
	495453.01	520276.80		490683.96	518177.01		486136.82	518067.15		485360.23	516740.84		480036.30	515305.03
	496118.42 496118.42	520276.76		490794.87 490794.92	518177.00 518619.15		486136.86	518288.23 518288.21		485360.19	516519.76	500470	479925.39	515305.06 515194.52
	496118.42	520166.22 520166.21		490794.92	518619.13		486247.77 486247.81	518509.28		485249.28 485249.24	516519.79 516298.71	300470	479925.36 479814.45	515194.52
	496340.22	520055.68		490905.85	518840.21	500031	486358.71	518509.26		485138.33	516298.73		479814.42	515084.01
	492458.63	520055.96		491016.75	518840.20		486358.75	518730.34		485138.29	516077.66		479148.96	515084.18
	492458.70	520829.72		491016.78	519061.27		486469.65	518730.32		485027.38	516077.68		479148.93	514973.65
500015	493013.21 493013.20	520829.67 520719.13		491127.68 491127.72	519061.26 519392.87		486469.69 486580.60	518951.39 518951.37		485027.34 484916.43	515856.60 515856.62		479038.02 479038.05	514973.68 515084.21
500015	493567.71	520719.13		491238.63	519392.86		486580.64	519172.45		484916.39	515635.55		478927.14	515084.24
	493567.70	520608.54		491238.65	519613.93		486691.54	519172.43		484805.48	515635.57		478927.17	515194.78
	494233.11	520608.49		491349.55	519613.92		486691.58	519393.51		484805.44	515414.49		478816.26	515194.81
	494233.10 494898.51	520497.95 520497.91		491349.57 491682.28	519724.46 519724.42		486802.48 486802.52	519393.49 519614.56		484694.53 484694.49	515414.52 515193.44		478816.59 478927.50	516410.73 516410.70
	494898.51	520497.91		491682.28	519724.42		486913.42	519614.54		484583.58	515193.44		478927.56	516631.78
	495453.02	520387.34		487800.68	519835.47		486913.46	519835.62		484583.21	513314.32		478816.65	516631.81
	495453.01	520276.80		487800.67	519724.94		487024.36	519835.60		482919.52	513314.67		478818.10	521937.63
	493568.01	524366.82		488022.47	519724.90		487024.40	520056.68		482919.42	512872.51		482921.41	521936.62
	493568.00 493678.89	524145.75 524145.74		488022.42 487911.52	519393.29		487135.30 487135.32	520056.66		482808.51 482808.49	512872.54		482920.92 483253.63	519725.86 519725.79
	493678.89	524145.74		487911.32	519393.31 519172.23		491238.71	520167.20 520166.62		482586.66	512762.00 512762.05		491904.43	523040.53
	493789.78	524035.19		487800.58	519172.25		491238.70	520056.09		482586.63	512651.51		488244.78	523041.00
	493789.77	523924.66		487800.54	518951.17		492347.73	520055.97		482475.72	512651.54		488244.67	522267.24
	493567.98	523924.67		487689.64	518951.19		488466.73	524035.81	482475.75 481699.35 481699.38	482475.75	512762.07		488355.57	522267.22
	493567.97 493235.28	523814.14 523814.16		487689.61 487578.70	518730.12 518730.13		488355.83 488355.77	524035.82 523593.67		512762.25 512872.79		488355.40 489464.41	521161.84 521161.68	
	493235.27	523703.63		487578.65	518398.52		488244.87	523593.69		481366.64 481366.67 481144.84 481144.89 481033.98 481034.01 480923.09 480923.12 480812.21 480812.21 480812.40 480701.49 480812.48 480701.57 480701.57	512872.87		489464.38	520940.61
500025	493124.37	523703.64		487467.74	518398.54		488244.82	523262.08			512983.41		488355.37	520940.77
	493124.36	523593.10		487467.71	518177.46		488133.92	523262.09			512983.46		488355.28	520388.08
	492902.56 492902.55	523593.12 523482.58		487356.80 487356.77	518177.48 517956.40		488133.87 488022.97	522930.48 522930.50			513204.53 513204.56		490351.52 490351.51	520387.80 520277.27
	492902.33	523482.60		487245.86	517956.40		488022.97	522488.35			513204.36		490684.21	520277.22
	492680.75	523372.06		487245.82	517735.35		487912.00	522488.36			513315.13		490684.23	520387.76
	492458.95	523372.09	500031	487134.92	517735.37		487911.95	522156.75			513425.66		491904.15	520387.63
	492459.07	524588.00		487134.90	517624.83		487801.05	522156.77	500463		513425.69		492348.19	524698.55
	493457.14 493457.12	524587.91 524366.83		487023.99 487023.92	517624.85 517182.70		487801.00 487690.10	521825.15 521825.17			513867.84 513867.87		492348.18 492459.07	524588.01 524588.00
	493568.01	524366.82		486913.01	517182.71		487690.04	521493.56			514199.48		492458.94	523261.55
	492347.73	520055.97		486912.98	516961.64		487579.14	521493.58			514199.46		492348.04	523261.56
	492347.39	516629.30		486802.07	516961.66		487579.09	521161.96			514531.07		492348.01	522929.95
	492236.48 492236.46	516629.31 516408.24		486802.05 486691.14	516851.12 516851.14		487468.19 487468.15	521161.98 520940.91			514531.10 514752.17		492458.91 492458.78	522929.94 521603.48
	492125.55	516408.25		486691.09	516519.53		487357.25	520940.91			514752.20		492347.88	521603.49
	492125.53	516187.18		486580.18	516519.55		487357.20	520609.31		480590.88	515415.43		492347.80	520829.73
	492014.62	516187.19		486580.12	516187.93		487246.30	520609.33		480258.15	515415.51		492458.70	520829.72
	492014.60	515966.11 515966.12		486469.21	516187.95		487246.24	520277.71		480258.20 481145.48	515636.59 515636.37		492458.63	520055.96
	491903.69 491903.67	515745.05		486469.17 486358.27	515966.88 515966.90		487135.34 487135.30	520277.73 520056.66		481145.56	515967.98	TG5-08011	491238.70 491238.71	520056.09 520166.62
	491792.76	515745.06		486358.23	515745.82		487024.40	520056.68		481256.47	515967.95		487357.13	520167.16
	491792.74	515523.99		486247.32	515745.84		487024.36	519835.60		481256.55	516299.57		487357.20	520609.31
	491681.83	515524.00		486247.28	515524.76		486913.46	519835.62		481367.45	516299.54		487468.10	520609.29
	491681.80 491570.89	515302.92 515302.93		486136.37 486136.33	515524.78 515303.71		486913.42 486802.52	519614.54 519614.56		481367.48 481589.30	516410.08 516410.03		487468.17 487579.07	521051.44 521051.42
	491570.89	515302.93		486025.42	515303.71		486802.48	519014.30		481589.30	516520.56		487579.07	521051.42
	491459.96	515081.87		486025.38	515082.65	500214	486691.58	519393.51		481811.14	516520.51		487690.03	521383.02
	491459.94	514860.80		485914.47	515082.67		486691.54	519172.43	481811.17 482032.98 482033.01		516631.05		487690.10	521825.17
	491349.03	514860.81 514639.73		485914.41 485803.50	514751.06 514751.08		486580.64 486580.60	519172.45 518951.37		516631.00 516741.54		487801.00 487801.05	521825.15 522156.77	
		514639.75			514731.08		486469.69	518951.37			516741.34		487911.95	522156.77
	491238.07	514418.67		485692.55	514530.02		486469.65	518730.32	482254.85 482476.66	516852.02		487912.00	522488.36	
	491127.16	514418.68		485692.49	514198.41		486358.75	518730.34		516851.97		488022.90	522488.35	
500031	491127.13 491016.22	514197.61		485470.67	514198.45 514308.99		486358.71	518509.26		482476.69	516962.51		488022.97 488133.87	522930.50 522930.48
	491016.22	514197.62 513976.55		485470.69 485359.78	514308.99		486247.81 486247.77	518509.28 518288.21		482698.50 482698.53	516962.46 517073.00		488133.87	522930.48 523262.09
	490905.28	513976.56		485359.80	514419.55		486136.86	518288.23		482920.34	517072.95		488244.82	523262.08
	490905.27	513866.02		485137.98	514419.59		486136.82	518067.15		482920.36 483142.18	517183.49		488244.87	523593.69
		513866.03		485138.00	514530.13		486025.92	518067.17					488355.77	523593.67
	490794.33 488908.83	513644.96 513645.20		485027.09 485027.11	514530.15 514640.69		486025.88 485914.97	517846.09 517846.11			517293.98 517293.95		488355.83 488466.73	524035.82 524035.81
		513976.82		484805.29	514640.69			517625.04			517183.42		488466.78	524367.42
	489019.79	513976.80		484805.31	514751.27		485804.03	517625.06		484251.25	517183.21		488577.68	524367.40
	489019.84	514308.41		484694.40	514751.29		485803.98			484251.27	517293.74		488577.71	524588.48
	489130.75	514308.40			514861.83		485693.08			485693.06 485693.04	517293.47		489464.88 489464.89	524588.35
	489130.79 489241.71	514640.01 514639.99		484583.51 484583.58	514861.85 515193.46		485693.06 484251.27	517293.47 517293.74	-	483253.63	517182.93		489464.89 492348.19	524698.89 524698.55
	489241.75	514971.61		484694.49	515193.44		484251.25	517183.21		483253.11	517293.95		172570.17	52-10/0.55
	489352.66	514971.59		484694.53	515414.52		483253.09	517183.42		483142.20				
	489352.71 489463.62	515303.20 515303.19		484805.44 484805.48	515414.49 515635.57		483253.63 486026.22	519725.79 519725.24		483142.18	517183.44 517183.49			
	489463.62 489463.65	515303.19 515524.26		484805.48 484916.39	515635.57		486026.22 486027.40	519725.24 526246.97	500:50	482920.36 482920.34				
	489574.55	515524.25		484916.43	515856.62		489465.11	526246.42	500470	482698.53	517073.00			
		515745.32			515856.60			526025.34		482698.50	516962.46			
	489685.49 489685.54	515745.31 516076.92		485027.38 485138.29	516077.68 516077.66		489354.18 489354.15	526025.36 525804.28		482476.69 482476.66	516962.51 516851.97			
	489796.44	516076.91		485138.33	516298.73		489243.26	525804.30		482254.85	516852.02			
	489796.47	516297.98		485249.24	516298.71		489243.21	525472.69		482254.82	516741.48			



As far as it has been disclosed, all permits have been acquired to conduct the work proposed for the property and payments have been made to keep the Licenses in good standing. There is no known environmental liability to the Client. The QP has been told by the representatives of the Company that there are no royalties, back-in rights, payments or other agreements and encumbrances to which the any of the Licenses is subjected except for legislated government royalties.

Except for unforeseen events or Acts of God, the QP does not see any significant risks or uncertainties for the further access, right or ability to perform exploration work on the Licenses.



Item 5: Accessibility, Climate, Local Resources, Infrastructure and Physiography

Item 5.1: Accessibility, Climate, and Vegetation

The property is located 1.8 kilometers east of Santa Isabel, Tolima, Colombia or 31 kilometers NNE of Ibagué, the capital city of Tolima. The physical property exists between 1,720 meters and 2,200 meters above mean sea level and covers an area of 0.64 km².

Access to the property is gained by traveling 49 Km from the outskirts of Ibagué on National Highway No. 40 then traveling 27 km on a rural country paved road from Venadillo to the Berlin cutoff and then by traveling 2.8 km on the Company road to the mine. The National highway is designed to handle 52 tonne loads. The rural and mine access road is designed to handle 20 tonne loads.



Figure 5. Access road to the Client's property.

The Company constructed an access road consisting of 2.8 km from the Berlin Farm to the mine portal. This road is gravel and is cut into the steeply dipping hillside that requires continual maintenance due to small landslides created by the torrential rains of the rainy season. Stabilization of the road is ongoing with the constructions of gaviones to provide a proper road base that will support trucks carrying loads of up to 20 tonnes.



Climate

The climate at the property can best be described as temperate with the mean annual daytime temperature to be $20-21^{\circ}$ C with high temperatures of 28-30 degrees being recorded. Night temperature can range to the near freezing and snow has been reported in the area. Lower elevations cause the climate to become sub-tropical and higher elevations become alpine. The semi-dormant but active Volcano – Nevada de Tolima – some 28 km to the west reaches elevations of 5300 meters and is snow covered the year around.

Commonly the area can be encompassed in clouds as the movement of weather systems is from east to west and clouds tend to back up as they hit the Central range of the Andean Cordillera. Rainfall can be intense (up to 3 cm in one hour) and there are two distinct wet seasons that occur between April and June and September to December. Electrical storms are common with lightning strikes occurring. Annual rainfall at Santa Isabel is 1539 mm of rain (60.5 inches of rain).



Santa Isabel

Average Rainfall Amount (mm) and Rainy Days

Zoom Im 3m 6m YTD 1y All

+ 300mm

+ 200mm

+ 100mm

2010

Rain (mm) ● Days

Figure 6. The average temperature in the area.

Figure 7. The average rainfall (mm) in the area⁶.

Altitude affects both temperature and vegetation. In fact, altitude is one of the most important influences on vegetation patterns in Colombia. The mountainous parts of the country can be divided into several vegetation zones according to altitude, although the altitude limits of each zone may vary somewhat depending on the latitude.

The "tierra caliente" (hot land) is below 1,006 m. It is the zone of tropical crops such as bananas. The tierra templada (temperate land) extends from an altitude of 1,006 to 2,012 m. It is the zone of coffee and maize. Wheat and potatoes dominate in the "tierra fría" (cold land), at altitudes from 2,012 to 3,200 m. In the "zona forestada" (forested zone), which is located between 3,200 and 3,901 m, trees are cut for firewood. Treeless pastures dominate the páramos, or alpine grasslands, at altitudes of 3,901 to 4,602 m. Above 4,602 m the temperatures are below freezing. It is the "tierra helada", a zone of permanent snow and ice.

Vegetation also responds to rainfall patterns. A scrub woodland of scattered trees and bushes dominates the semiarid northeast. To the south, savannah vegetation (tropical grassland) covers the Colombian portion of the llanos. The rainy areas in the southeast are blanketed by tropical

⁶ https://www.worldweatheronline.com/ibague-weather-averages/tolima/co.aspx



rainforest. In the mountains, the spotty patterns of precipitation in alpine areas complicate vegetation patterns. The rainy side of a mountain may be lush and green, while the other side, in the rain shadow, may be parched.

The local vegetation supports both agriculture and livestock pasture. The principal economic activity in the area is the exploitation of emeralds, agriculture, and cattle industry. The area can be operated all year around.

Item 5.2: Physiography, Infrastructure, and Local Resources

The topography of the Central Range of the Andean Cordillera can best be described as steep sided, narrow valleys cut by fast flowing streams in the mountainous areas to broad valleys in the low river valleys. Throughout the area, the terrain can be described as rugged as the elevations range from less than 500 meters at Venadillo rising sharply to the mountain peaks which range in elevations from 2,000 meters to the 5,280 meter elevation of the Nevada del Tolima Volcano located 28 km WSW of the mine. At the mine site, the steep sided valleys of the San Carlos and the Los Ánimas creeks show slopes that are measured to be 45 – 55 degrees and are covered by vegetation ranging scrub trees to grass lands. At the higher elevations above the mine site, the hillsides flatten into small bowl structures and are generally cleared for cultivation or ranching.



Figure 7. Typical landscape of the area.



Regional Infrastructure

The Las Ánimas mine is situated in the Municipality of Santa Isabel that has little facilities to support the mining industry other than providing a labor force for the construction and mining efforts and minor supplies. The nearest supply center for the mine is Ibagué, the capital city of the Department of Tolima, is some 90 km distance by road or approximately 2 hours of travel time. Ibagué, is a modern city of some 700,000 people, that is serviced by modern all-weather highways and 2 regional airlines with regional connections to Bogota and Medellin.

General parts and materials are bought locally in Ibagué but specific parts for the equipment have to be brought from Bogota, Cali, Pereira, and Medellin or imported from the United States. The Company has determined that in the case of parts for the mining equipment, it is cost effective to import the parts directly.

See more details of the project infrastructure on Item 18.



Item 6: History

The Los Ánimas mine property has been in intermittent production beginning in 1921 to today. Basically, the mine has been operated by various owners who either operated the mine or contracted sections of the mine(s) to contract miners who paid the owner a percentage based on of the gold sold.

Sector entered into an agreement with Fermin Duque Zabala on November 14, 1997 to conduct a feasibility study and if warranted purchase the Las Ánimas mineral property. Sector exercised the option to purchase the property July of 1998 upon the completion of financial and pre-mining feasibility studies by metallurgical and mining consultants as well as in-house personnel. Purchase of the mine property included the mining contract concession numbers 14007 and 14008.

Sector purchased additional land totaling 0.20 km² on August 14, 1998 from Luis Galindo Gomez and Mery Canon de Galindo for the protection of the access road and on April 5, 2000, Sector purchased an additional 0.01 km² due to road encroachment near to the property boundary. On September 26, 2005, Sector purchased the El Porvenir farm from Anabeiba Gomez Henao totaling 0.09 km². On December 2016 added 0.03 km² to the land holdings.

The Client's current land holdings total 54.29 km² and including the claims- 110.28 km².

Table 4 shows a summary of the amount of work completed by the Client prior to the first visit of the QP to the project.

Table 4. Summary of exploration work completed by the Client at Las Ánimas mine.

			Ex	ploration activi	ties				
	Mappii	ng	Loggir	Logging		Other surveys and studies			
	Description	Amount	Description	Amount	Thesis	Geomechanical	Hydrological	Hydrogeological	Laboratory
Surface	Surface mapping and inventory of old mining works.	1 km²	194 stations	17			DAM studies	Basic study	
Underground	Underground mapping and structural studies	2.4 km²	Channel, chips, course of pile, stock pile, and others.	49,850	Three thesis of petrographic studies and fluid inclusion determinations.	Punctual geomechanical classification of the mine.		Basic study	All samples were analyzed internally at the mine laboratory.
Diamond drilling	Logging and sampling	13,932	Lithology and structures	1,801					

Table 5 shows the resources and reserves identified by the Client. The QP considers these estimations as historical.

Table 5. Historical reserves and resources of Las Ánimas Mine.

Classification	Tonne	Grade	Au (gr)
Proven mineral reserves	39,021	5.03	196,415
Probable mineral reserves	15,251	6.94	105,812
Measured mineral resources	267,972	2.09	560,762

Note: cutoff 2 g/t, dry density 2.7 g/t



Table 6 shows the historical production from the mine to present date.

Table 6. Yearly production from Las Ánimas mine.

Year	Tons	Gold, g	Silver, g	Gold, US\$	Silver, US\$
2001		2,438	963	21,548 \$	131 \$
2004	20,409	11,641	3,428	159,744 \$	618\$
2005	40,151	117,773	34,961	1,690,306\$	7,106\$
2006	52,003	173,789	80,588	3,464,397 \$	26,403 \$
2007	50,348	119,983	103,360	2,704,150 \$	47,369\$
2008	19,012	84,662	95,453	2,047,531 \$	47,643 \$
2009	57,943	153,102	81,232	4,953,488 \$	48,425 \$
2010	61,451	117,217	108,680	4,520,845 \$	77,441 \$
2011	33,650	69,737	43,323	3,477,858 \$	54,143 \$
2012	37,414	122,453	80,145	6,576,834 \$	77,897 \$
2013	42,050	102,397	68,681	4,348,378 \$	47,167\$
2014	35,255	64,134	70,420	2,156,063 \$	32,982 \$
2015	14,885	37,826	25,424	1,230,743 \$	10,042 \$
2016	17,850	58,948	41,350	2,388,184 \$	20,668 \$
2017	19,266	56,359	59,539	2,207,698 \$	27,761 \$
2018	7,367	16,941	21,637	620,441 \$	8,111 \$
TOTAL	509,055	1,309,401	919,184	42,568,209 \$	533,905 \$



Item 7: Geological Setting and Mineralization

Item 7.1: General Geology

The Andean Cordillera is an uplifted mountain chain that is similar to that of the Sierra Nevada's mountains of California, the Cascades Mountains of Washington and Oregon, and the Coast Mountain Range of British Colombia and Alaska. It is comprised of recent sediments, recent to old volcanic rocks (extrusions and pyroclastics), meta-sediments, meta-volcanic and plutonic rocks. These have been folded, faulted, intruded, and metamorphosed to create all types of geological terrains. The degree of metamorphism grades from low to high depending upon the proximity of the pluton.

In Colombia, the Andean Cordillera splits into three distinct mountain ranges that are divided by major crustal faults and/or tectonic plate boundaries. The QP has defended the idea of the influence of the displacement of the Caribbean Plate as the mechanism for the splitting of the Andean Cordillera in Colombia (Valls, 2013).

Wide valleys are found along the major crustal faults that soon yield to high rugged, steep sided mountains. Geologically, the area has been uplifted, folded, and faulted. Recent sediments in the valleys are commonly overlying both intrusive and high grade metamorphosed meta-sediments and meta-volcanics. The entire area has been intruded by batholiths and stocks that range in composition from ultra basic (gabbros) to acidic (granodiorites). The meta-volcanics occur throughout the region as metamorphosed pyroclastics and flows. Recent volcanic action has resulted in overlying tuffs, pyroclastics and basaltic flows. Compositionally, the meta-volcanics are andesitic to basaltic in composition but high degrees of metamorphism have destroyed any crystalline structure of the original rocks.

Tectonically, the entire region is highly active with movements both on the major fault planes and active volcanism is occurring. Earthquakes that measure greater than 5 on the Richter scale occur regularly in the region and the area is classified as moderate to high risk for major earthquakes. The most notable earthquake in recent times was the Armenia Earthquake of January 1999 that registered 6.2 on the Richter scale and resulted in the loss of life of some 2,500 people. Volcanism is active all along the Andean Cordillera with quiet but non- dormant Volcanoes such as the Nevada Del Tolima, Nevada EI Ruiz and Nevada Santa Isabel all located within 40 km. of the mine. Volcanic action by EI Ruiz in 1985 resulted in the melting of the snowcap and caused a mudslide that buried the town of Armero causing the deaths of some 25,000 people.



Item 7.2: Regional Geology

The region consists of late stage tertiary sediments (glacial and alluvial) deposited on massive andesite to basaltic flows or in river valleys and intruded by acidic intrusions of the El Bosque and Ibagué batholiths that have resulted in high temperature contact metamorphism of the volcanic flows. Geological mapping in the area has shown the development of greenschist, amphibolite and black schist facies of metamorphism suggesting extreme high temperature of the intrusion.

Injected into the meta-andesites along fractures and shears is a multistage quartz injection that bears mineralization in the form of gold/silver electrum and base metal sulfides. These veins have been or are being mined in Líbano (18 kilometers NNE), Santa Teresa (10 Km to the NE) and the Sonrisa Mine (1 km to the SSE) as well as the Las Ánimas mine. It has been suggested by geologists who examined the different mines that this is the same structure. Major faulting has not been mapped in the area but recent work by Sector 's Geologists suggests that the area has been faulted with most movement indicating normal faulting in direction (Figures 22 and 23).

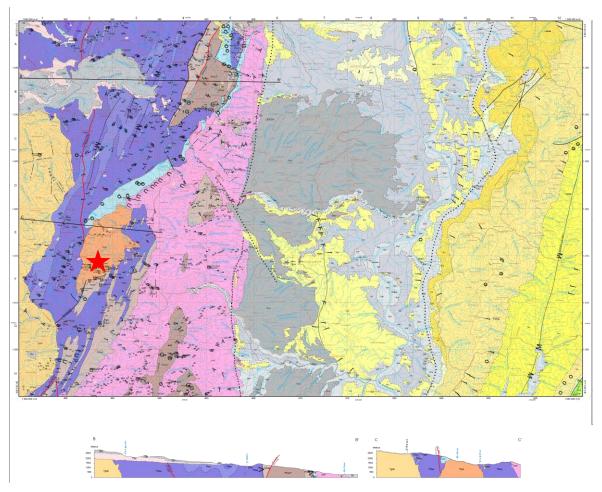


Figure 8. Regional geology map. The red star marks the locatioon of the licences of the Client.



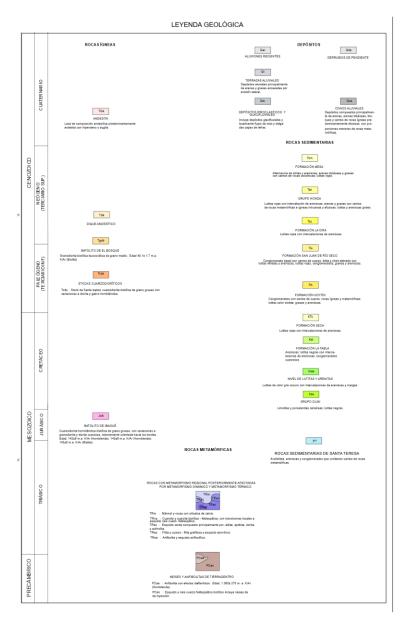


Figure 9. Stratigraphic column for the regional geological map.

The proximity of the Sonrisa mine to the Las Ánimas mine and the similarity of the geology suggest the two mines to be connected. Structurally this is only possible with the existence of major fault that caused a down drop of the Las Ánimas structure of at least 100 meters. Faulting and displacements of up 30 meters have been identified in the Las Ánimas mine,

Figure 10 shows the main lineaments (in blue) and secondary lineaments (in brown) from the recently concluded lineament analysis confirming the existence of such structure between Las Ánimas and Sonrisa mina (red star).



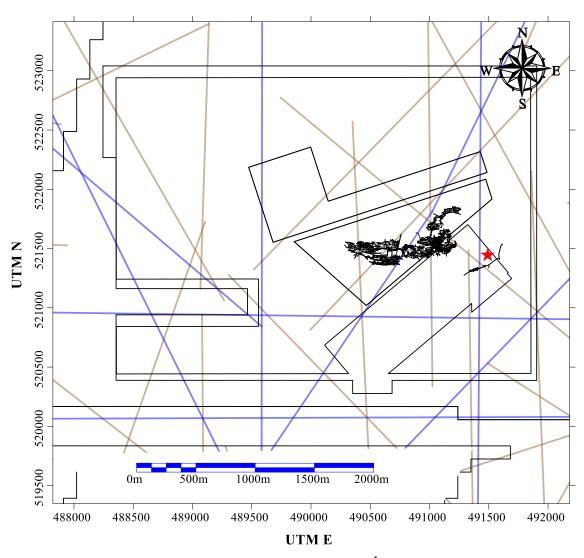


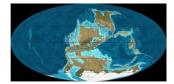
Figure 10. Main and secondary lineaments between Las Ánimas and Sonrisa mines.



Item 7.3: Paleogeological Reconstruction

Based on the stratigraphic column shown in Figure 9, the QP suggests the following Paleogeological reconstruction.

Era: Paleozoic Period: Carboniferous



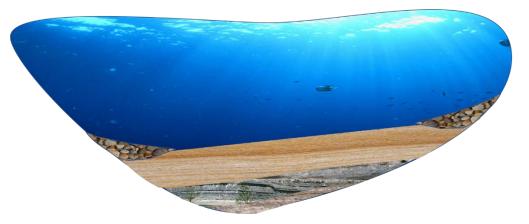


Figure 11. During the Carboniferous Period the region was represented by an open sea.

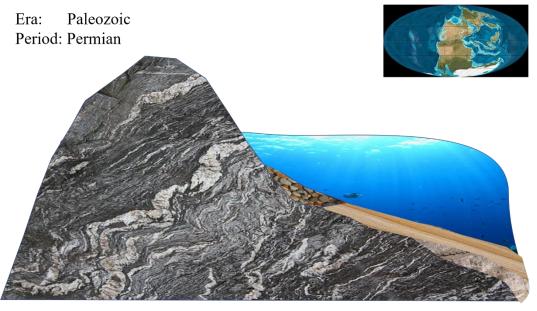


Figure 12. During the Permian Period due to regional metamorphism, part of the marine sediments converts to amphibolites. The sea environment persists in certain parts.



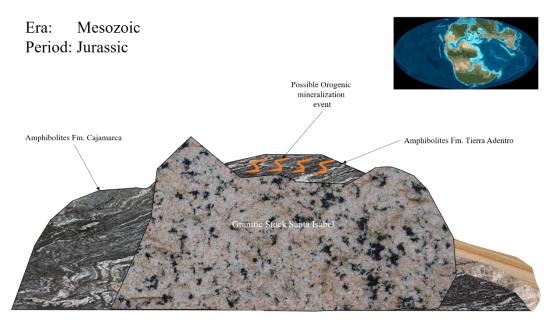


Figure 13. The main event of the Jurassic Period is the intrusion of the Santa Isabel Granitic Stock and the formation of the orogenic gold mineralization in the Amphibolites.

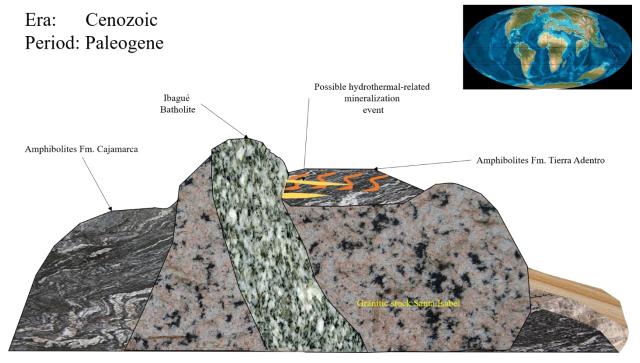
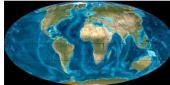


Figure 14. Probably between the Cretaceous and the Paleogene Period we have the intrusion of the Ibagué Batholite. The QP believes that the main quartz vein system observed in the mine is related to the hydrothermal fluids associated with this new intrusive.



Era: Cenozoic Period: Neogene



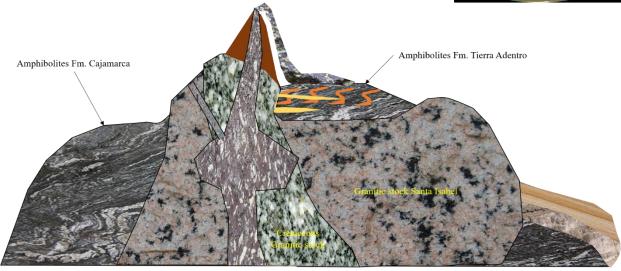


Figure 15. The last geological event is related to a volcanic event during the Neogene Period. The QP believes that the hydrothermal activity from this event could contribute to the remobilization of the gold from the orogenic type to the vein system, which was tectonically reactivated during this last magmatic event.

Item 7.4: Property Geology

The geology at the site is described as a high-grade metavolcanic comprising both hanging wall and the footwall of the quartz ore vein(s) in the Las Ánimas/Porvenir mine. The metavolcanic is believed to be andesitic in composition; however, some geologists have suggested that it is a metamorphosed tuff. The degree of metamorphism has been so high that the original composition and crystal structure has been destroyed. Intruding into the area are the granodiorites of the Ibague Batholith and the quartz diorites of the Santa Isabel Stock.

The veins range from 0.4 to 4.0 meters in thickness and exhibit a boudinage structure and multistage quartz injection. Sulfide mineralization occurs predominately in bands along the footwall and hanging wall contact zones. Locally, the sulfides have intruded into the contact zone. The sulfide content of the vein ranges from less than 0.5% to 5.0% or greater in local areas. Sector's geologists believe that the vein exhibits at least 5 stages of quartz injection with the first two injections being gold bearing associated with the sulfides.

The quartz or silica is of a high quality (95%+) in composition and is of economical value. Generally, the quartz is milky white in color, massive in nature and texture with little impurities. The sulfides occur in sub-parallel veinlets concentrated near the wall rock contacts. Near to the middle of the vein, the sulfides die out and the vein expresses a brecciated or sheared texture that has been healed by the next injection. Large euhedral quartz crystals occur randomly in the mine in vugs located near the center of the vein.



Structurally, the vein was originally thought to be a tabular single vein structure dipping to the south at 28-35 degrees and striking basically east- west. It was also thought that the vein in the Pava/Palmitas and the Las Ánimas/Porvenir were the same vein. Recent exposures in the Las Ánimas mine shows the vein to bifurcate along both strike and dip confirming the presence of more than one vein which is the result of regional compressional cymoidal shearing followed by mineralized quartz injection.

In the Las Ánimas/Porvenir mines, geological mapping has shown that the dip and strike of the vein is neither constant nor tabular, but cymoidal in orientation. This proves that a multi-vein structure exists but the dimensions of the cymoids have not been fully determined by drilling. This combined with a structure viewed in the Pava/Palmitas and a quartz outcropping in the Las Animas Creek some 30 to 40 meters below the present portal indicates that ore-bearing quartz structures occur in both the hanging workings. wall and the footwall of the present workings.

Mining exposure, underground diamond drilling and ongoing geological mapping of the Las Ánimas/Porvenir has defined numerous distinct brittle fault structures. Offsets determined to this point indicated the movement to be reverse in nature with displacements from a few centimeters to 30 meters or more. Further exposure by mining and/or surface and underground diamond is required to fully define the structural component of the ore body. Work has focused on determining the general trends of the ore grade and sub ore grade mineralization and it appears that the ore grade mineralization is deposited in a series of side slipping cymoids that are plunging at about W 30° S and this explains the location of the Las Ánimas, the Fermin and the Porvenir deposits. All these mineralized zones are interconnected but offset along a series of faults that appear to have created a damming of the mineralized fluids. Once these faults are crossed, the grade falls off to 1-2 grams per tonne. High grade ore chutes or bonanzas as they are known locally appear to be associated with cross shearing between the boundary faults (τ shears).



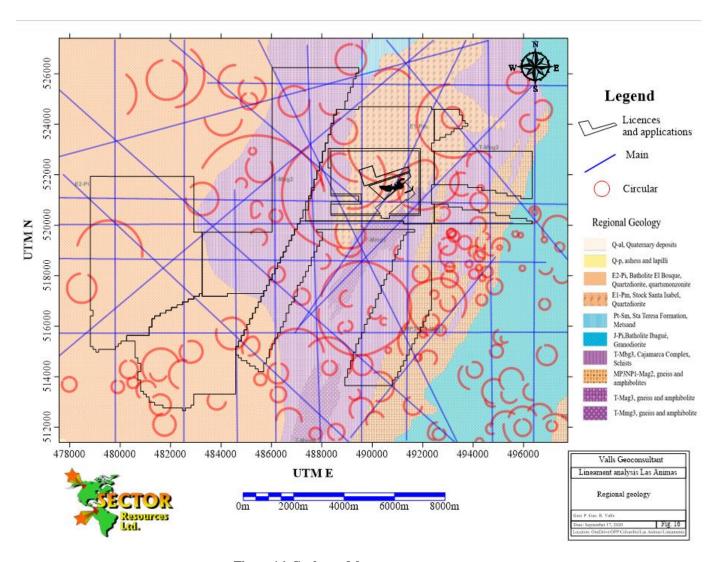


Figure 16. Geology of the property.

Item 7.5: Structural Geology

Structural Controls on Ore Zones

As stated earlier, the Pava/Palmitas, the Las Ánimas, the Fermin and the Porvenir ore zones are structurally controlled by regional compressional shearing or faulting that appears to be reverse in movement. These faults are generally sharp with little gouge or brecciation noted.

Northern Boundary Fault

The Las Ánimas, Fermin and Porvenir ore zones are all bounded a well-defined fault on the north that strikes basically east -west and dips to the north with a dip varying from 60° to the west end of the cymoid to 30° on the easterly end of the cymoid. Displacements are variable with 1 meter being measured to the west and more than 5 meters being measured in the east.



Southern Boundary Fault(s)

The southern boundary of the Las Animas ore zone is defined by a strong fault dipping to the south at about 65°. This fault cuts off the ore zone and shows a definite normal movement as draw down movement is observed (steepening of the dip) is observed within 5 meters of the fault. Diamond Drilling has located a displaced vein some 30 meters below and this is indicative of multi-directional movement along the dip of the fault.

Faults and Slips

Faulting within the ore zones is minor causing displacements up to one meter. Generally, it is thought that faulting is related to the major cymoid structures as transversal shearing (τ) created by the regional compressional stresses.

One thought is that the transversal shearing on an ENE trend may be the transversal shearing network that provides for the deposition of the Bonanzas.

Folding

There is a suggestion of major folding in the area but within the mine all the folding appears to be the result of localized fault movement or the formation of the major cymoid.

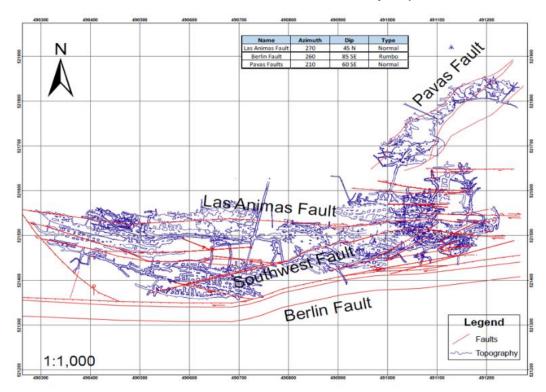


Figure 17. Structural geology at the Las Ánimas mine.



Item 7.6: Mineralization

Mineralization of the quartz vein suggests that at least 5 stages of quartz injection have occurred. Gold mineralization occurs both as freely deposited electrum and as associated with sulfide deposition of pyrite and chalcopyrite. The primary gold mineralization is deposited along mineralized shear planes that parallel the hanging wall and footwall contacts. The secondary mineralization is associated with massive clots of pyrite and chalcopyrite that appears locally with the total vein. The native gold or bonanza appears to be a remobilized deposition or a later stage of injection. A fourth stage of quartz injection is associated with galena and sphalerite and is devoid of gold mineralization. The final stage of mineralization appears as milky to massive crystalline quartz in the middle of the vein and is basically barren of any gold mineralization. Areas where euhedral pyrite

Later testing by the Company at Ingeominas, showed that the ore was not as simple as previously noted. The free gold was in a form of an electrum having a 70/30 mixture of gold to silver and more gold was associated with the sulfides. Originally, the sulfides identified included pyrite, chalcopyrite, galena, and sphalerite. Additional sulfides identified in the Ingeominas study included tetrahedrite, pyrrhotite, marcasite and possibly other isomorphs of the above-mentioned minerals. The association of gold with the sulfide minerals appears to be increasing with depth.



Figure 18. Mineralization in the property.



The metamorphism of the host rocks is upper greenschist to amphibolite facies, which has high feldspartization, silicification and carbonatization. Locally, limonitization occurs particularly along and around the faults and slips but is also evident in vugs found within the major quartz vein.

Sulfide mineralization is confined primarily to the ore veins and is found in sheared bands along the hanging wall - footwall contacts and in localized concentrations (clots) within the quartz vein. Disseminations of sulfides within the middle of the vein (last stage of quartz injection) are minimal.

The metamorphic rock typically has a pyrite halo penetrating some 15 - 20 cm from the ore veins into the wall rock. This pyrite is typically small subhedral pyrite crystals that range up 3 mm in dimension and carries little economic value.

Company geologists identified early on that a potential halo of tungsten minerals exist surrounding the higher-grade areas. Testing showed to be economical only in large quantities, but it could be adapted as an exploration tool.



Item 8: Deposit Types

Item 8.1: Orogenic Gold (Au-Quartz Veins (Ash & Alldrick, 1996))

Identification Synonyms: Mother Lode veins, greenstone gold, Archean lode gold, mesothermal gold-quartz veins, shear-hosted lode gold, low-sulphide gold-quartz veins, lode gold.

Geological characteristics

Capsule description:

Gold-bearing quartz veins and veinlets with minor sulphides crosscut a wide variety of host rocks and are localized along major regional faults and related splays. The wall rock is typically altered to silica, pyrite, and muscovite within a broader carbonate alteration halo.

Tectonic settings:

Phanerozoic: Contained in moderate to gently dipping fault/suture zones related to continental margin collisional tectonism. Suture zones are major crustal breaks which are characterized by dismembered ophiolitic remnants between diverse assemblages of island arcs, subduction complexes and continental-margin clastic wedges.

Archean: Major trans crustal structural breaks within stable cratonic terranes. May represent remnant terrane collisional boundaries.

Depositional environment/Geological setting:

Veins form within fault and joint systems produced by regional compression or transpression (terrane collision), including major listric reverse faults⁷, second and third-order splays. Gold is deposited at crustal levels within and near the brittle ductile transition zone at depths of 6-12 km, pressures between 1 to 3 kilobars and temperatures from 200 to 400 °C. Deposits may have a vertical extent of up to 2 km and lack pronounced zoning.

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⁷ https://buff.ly/31SrewJ



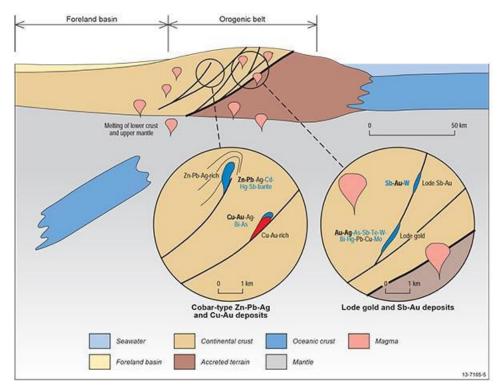


Figure 19. Diagrammatic sketch of the orogenic mineral system illustrating the relative location of deposits types within the overall setting and the likely distribution of critical and other commodities within and around these deposit types (From https://buff.

Age of mineralization:

Mineralization is post-peak metamorphism (i.e. late syncollisional) with gold quartz veins particularly abundant in the Late Archean and Mesozoic.

Host/Associated rock types:

Lithologically highly varied, usually of greenschist metamorphic grade, ranging from virtually undeformed to totally schistose.

Phanerozoic: Mafic volcanics, serpentinite, peridotite, dunite, gabbro, diorite, trondhjemite/plagiogranites, graywacke, argillite, chert, shale, limestone and quartzite, felsic and intermediate intrusions.

Archean: Granite-greenstone belts - mafic, ultramafic (komatiitic) and felsic volcanics, intermediate and felsic intrusive rocks, graywacke and shale.

Deposit form: Tabular fissure veins in more competent host lithologies, veinlets and stringers forming stockworks in less competent lithologies. Typically occur as a system of echelon veins on all scales. Lower grade bulk-tonnage styles of mineralization may develop in areas marginal to veins with gold associated with disseminated sulphides. May also be related to broad areas of fracturing with gold and sulphides associated with quartz veinlet networks.



Texture/Structure:

Veins usually have sharp contacts with wall rocks and exhibit a variety of textures, including massive, ribboned, or banded and stockworks with anastamosing gashes and dilations. Textures may be modified or destroyed by subsequent deformation.

Ore mineralogy (Principal and subordinate):

Native gold, pyrite, arsenopyrite, galena, sphalerite, chalcopyrite, pyrrhotite, tellurides, scheelite, bismuth, cosalite, tetrahedrite, stibnite, molybdenite, gersdorffite (NiAsS), bismuthimite (Bi2S2), tetradymite (Bi2Te2S).

Gangue mineralogy (Principal and subordinate):

Quartz, carbonates (ferroan-dolomite, ankerite ferro-magnesite, calcite, siderite), albite, mariposite (fuchsite), sericite, muscovite, chlorite, tourmaline, graphite.

Alteration mineralogy:

Silicification, pyritization and potassium metasomatism generally occur adjacent to veins (usually within a metre) within broader zones of carbonate alteration, with or without ferroan dolomite veinlets, extending up to tens of metres from the veins. Type of carbonate alteration reflects the ferromagnesian content of the primary host lithology; ultramafics rocks - talc, Fe-magnesite; mafic volcanic rocks - ankerite, chlorite; sediments - graphite and pyrite; felsic to intermediate intrusions - sericite, albite, calcite, siderite, pyrite. Quartz-carbonate altered rock (listwanite) and pyrite are often the most prominent alteration minerals in the wall rock. Fuchsite, sericite, tourmaline and scheelite are common where veins are associated with felsic to intermediate intrusions.

Weathering:

Distinctive orange-brown limonite due to the oxidation of Fe-Mg carbonates cut by white veins and veinlets of quartz and ferroan dolomite. Distinctive green Cr-mica may also be present. Abundant quartz float in overburden. 32

Ore controls:

Gold-quartz veins are found within zones of intense and pervasive carbonate alteration along second order or later faults marginal to trans crustal breaks. They are commonly strongly associated with, late syncollisional, structurally controlled intermediate to felsic magmatism. Gold veins are more commonly economic where hosted by relatively large, competent units, such as intrusions or blocks of obducted oceanic crust. Veins are usually at a high angle to the primary collisional fault zone.

Phanerozoic: Secondary structures at a high angle to relatively flat lying to moderately dipping collisional suture zones.

Archean: Steep, trans crustal breaks; best deposits overall are in areas of greenstone.

Associated deposit types:

Gold placers, sulphide manto Au, silica veins; iron formation Au in the Archean.



Genetic model:

Gold quartz veins form in lithologically heterogeneous, deep trans crustal fault zones that develop in response to terrane collision. These faults act as conduits for CO2-H2O-rich (5-30 mol% CO2), low salinity (<3 wt% NaCl) aqueous fluids, with high Au, Ag, As, (±Sb, Te, W, Mo) and low Cu, Pb, Zn metal contents.

These fluids are believed to be tectonically or seismically driven by a cycle of pressure build-up that is released by failure and pressure reduction followed by sealing and repetition of the process (Sibson et al., 1988). Gold is deposited at crustal levels within and near the brittle-ductile transition zone with deposition caused by sulphidation (the loss of H2S due to pyrite deposition) primarily as a result of fluid-wall rock reactions, other significant factors may involve phase separation and fluid pressure reduction. The origin of the mineralizing fluids remains controversial, with metamorphic, magmatic and mantle sources being suggested as possible candidates. Within an environment of tectonic crustal thickening in response to terrane collision, metamorphic devolatization or partial melting (anatexis) of either the lower crust or subducted slab may generate such fluids.

Comments: These deposits may be a difficult deposit to evaluate due to "nugget effect", hence the adage, "Drill for structure, drift for grade".

Exploration Guides

Geochemical signature:

Elevated values of Au, Ag, As, Sb, K, Li, Bi, W, Te and B \pm (Cd, Cu, Pb, Zn and Hg) in rock and soil, Au in stream sediments.

Geophysical signature:

Faults indicated by linear magnetic anomalies. Areas of alteration indicated by negative magnetic anomalies due to destruction of magnetite as a result of carbonate alteration. 33

Other Exploration Guides:

Placer gold or elevated gold in stream sediment samples is an excellent regional and property-scale guide to gold-quartz veins. Investigate broad 'deformation envelopes' adjacent to regional listric faults where associated with carbonate alteration. Alteration and structural analysis can be used to delineate prospective ground. Within carbonate alteration zones, gold is typically only in areas containing quartz, with or without sulphides. Serpentinite bodies, if present, can be used to delineate favourable regional structures. Largest concentrations of free gold are commonly at, or near, the intersection of quartz veins with serpentinized and carbonate-altered ultramafic rocks.

Economic factors

Typical grade and tonnage:

Individual deposits average 30,000 t with grades of 16 g/t Au and 2.5 g/t Ag (Berger, 1986) and may be as large as 40 Mt. Many major producers in the Canadian Shield range from 1 to 6 Mt at grades of 7 g/t Au (Thorpe and Franklin, 1984).

Economic limitations:

These veins are usually less than 2m wide and therefore, only amenable to underground mining.



Importance:

These deposits are a major source of the world's gold production and account for approximately a quarter of Canada's output. They are the most prolific gold source after the ores of the Witwatersrand basin.

Item 8.2: Plutonic-related Au Quartz veins and Veinlets (Lefebure & Hart, 2005)

Identification Synonyms:

Intrusion-related gold systems, gold porphyries, plutonic-related gold quartz veins. Plutonic-related gold, Au-lithophile element deposits, Fort Knox-type Au, high arsenic and/or bismuth plutonic-related mesothermal gold deposits, intrusion-hosted gold vein and brittle shear zone deposits.

Geological characteristics

Capsule Description:

Gold mineralization hosted by millimetre to metre-wide quartz veins hosted by equigranular to porphyritic granitic intrusions and adjacent hornfelsic country rock. The veins form parallel arrays (sheeted) and less typically, weakly developed stockworks; the density of the veins and veinlets is a critical element for defining ore. Native gold occurs associated with minor pyrite, arsenopyrite, pyrrhotite, scheelite and bismuth and telluride minerals.

Tectonic Settings:

Most commonly found in continental margin sedimentary assemblages where intruded by plutons behind continental margin arcs. Typically developed late in orogeny or post-collisional settings.

Depositional Environment / Geological Setting:

Veins form in tensional fractures and shears within, and near, the apices of small (<3 km2) granitoid intrusions at depths of 3-8 kilometres.

Age of Mineralization:

Any age, although they are best known (preserved?) in Paleozoic to Mesozoic rocks. Cenozoic deposits generally not yet exposed by erosion.

Host / Associated Rock Types:

The host rocks are granitic intrusions and variably metamorphosed sedimentary rocks. Associated volcanic rocks are rare. The granitoid rocks are lithologically variable, but typically granodiorite, quartz monzonite to granite. Most intrusions have some degree of lithological variation that appear as multiple phases that can include monzonite, monzogranite, albite granites, alkali syenite and syenite. The more differentiated phases commonly contain feldspar and quartz and less than 5% mafic minerals.



Some deposits have abundant associated dykes, including lamprophyres, pegmatites, aplites and phases that have been fractionated from the main intrusion. Medium-to coarse-grained intrusions are commonly equigranular but can contain mega crystals of potassium feldspar or porphyritic phenocrysts of quartz, plagioclase, or biotite. Biotite is common, hornblende is only locally observed, pyroxene is rare, and muscovite and tourmaline are common in more highly fractionated phases, aplites or pegmatites. The intrusions have a reduced primary oxidation state. Evidence of fluid saturation, such as miarolitic cavities, locally up to several centimetres, can be common; some intrusions exhibit much larger ones. Many of the granitoid intrusions have contact metamorphic aureoles that extend up to several km from the intrusion and can be much larger than the surface exposure of the intrusion. The stocks generally intrude variably metamorphosed sedimentary rocks (sandstone, shale, carbonate), however, some cut sequences which include metavolcanic rocks. In some cases, the deposits are hosted by relatively high-grade metamorphic rocks including orthogneiss that may reflect the emplacement of the intrusions and veins at greater depths.

Deposit form:

Mineralization can be divided into intrusion-related, epizonal and shear-veins. Intrusion-related mineralization typically occurs widespread sheeted vein arrays. The arrays typically consist of numerous sheeted, or less commonly stockwork, veinlets and veins that form zones that are 10's of metres wide, and continuous for several 10's of metres. The veins are commonly hairline to centimetres wide, while some veins may be up to tens of metres thick. Epizonal mineralization is typically less focused, and may be disseminated, or occur as replacements. The thicker shear-veins veins are typically in fault zones outside of the pluton. The sheeted and stockwork zones extend up to a kilometre in the greatest dimension, while individual veins can be traced for more than a kilometre in exceptional cases.

Texture / Structure:

The sheeted veins are planar and often parallel to regional structures. The veins are generally extensional with no offset of walls, although some vein systems may also include shear-hosted veins. The veins may have minor vugs and drusy quartz. While most veins and structures are steeply dipping, shallowly dipping pegmatite and quartz bodies occur in some deposits, particularly those in the plutonic apices.

Ore Mineralogy (Principal and subordinate):

Sulphide minerals are generally less than 3% and can be less than 1%. Several deposits/intrusions have late and/or peripheral arsenopyrite, stibnite or galena veins. Native gold, sometimes visible, occurs with associated minor pyrite, arsenopyrite, loellingite, pyrrhotite, variable amounts of scheelite or more rarely wolframite, and sometimes molybdenite, bismuthinite, native bismuth, maldonite, tellur-bismuthinite, bismuth, tellurides, tetradymite, galena and chalcopyrite.

Epizonal veins are arsenopyrite-pyrite rich and lack associated Bi, Te and W minerals. The thicker, solitary veins typically contain higher percentages (<20%) of sulphide minerals. Generally, sulphide mineral content is higher in veins hosted in the country-rocks.



Gangue Mineralogy (Principal and subordinate):

Quartz is the dominant gangue mineral with associated minor sericite, alkali feldspar, biotite, calcite, and tourmaline. In some deposits the quartz veins grade into pegmatite dykes along strike - a relationship that has been referred to as vein-dykes or pegmatite veins. The pegmatites in some deposits can carry significant amounts of gold or scheelite, although they do not usually constitute ore. Many "veins" may lack gangue and are simply sulphide mineral coatings on fracture surfaces.

Alteration Mineralogy:

These deposits are characterized by relatively restricted alteration zones which are most obvious as narrow alteration selvages along the veins. The alteration generally consists of the same non-sulphide minerals as occur in the veins, typically albite, potassium feldspar, biotite, sericite, carbonate (dolomite) and minor pyrite. Pervasive alteration, dominated by sericite, only occurs in association with the best ore zones. The wall rocks surrounding the granitoid intrusions are typically hornfelsic and if carbonaceous, contain disseminated pyrrhotite. Alteration appears to be more extensive with shallow depths of emplacement or greater distances from the intrusion. Epizonal deposits may have clay alteration minerals.

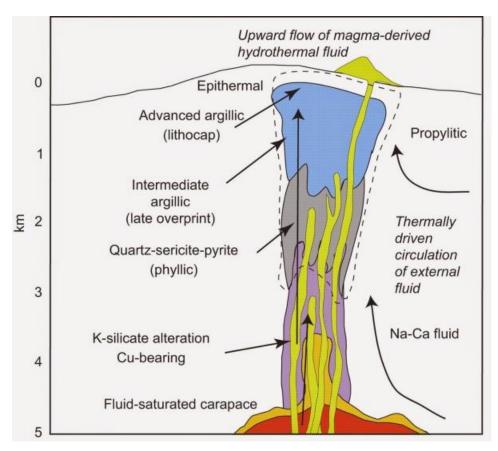


Figure 20. Typical alterations according to http://earthsci.org/mineral/mindep/vein/vein.html.



Weathering:

The quartz veins resist weathering and can form linear knobs. Since alteration zones are frequently weak and the veins often contain only minor sulphide minerals, associated gossans or colour anomalies are rare. However, oxidized sulphide-rich epizonal mineralization may yield gossans.

Genetic Models:

The veins are genetically related to proximal granitoid intrusions, which explains their association with tungsten, bismuth and other lithophile elements, and the transitional relationships with pegmatites seen in some deposits. Mineralization likely formed from late stage fluids that accumulated in late-stage melts of differentiating granitic intrusions at depths of 2 to 8 km below the surface. These fluids typically contain elevated CO2 and have lower salinities which enable them to transport gold and/or tungsten and only limited amounts of base metals. At some point following sufficient differentiation to concentrate anomalous concentrations of elements, such as Au and W, the fluids are released along fractures that developed in response to regional stresses and faults that accommodated pluton emplacement.

Locally fluids infiltrate permeable or reactive rock units to form replacement mineralization or skarns.

Stockwork mineralization is not common but may have higher grades due to increased vein density. The deeper vein systems had little or no meteoric water input. In most deposits there are several other styles of mineralization, such as skarns and distal sulphide-rich veins that can be related to the same granitic intrusions but have different metallogenic signatures as they formed from rapidly evolving fluids. These characteristics are typical of an intrusion-centred mineralizing system but are not characteristic of the shear-veins that do not show any metallogenic zonation or associated deposit types. The epizonal deposits may have evidence vectoring towards a higher-temperature zone, but typically form outside of the steep thermal gradients that are proximal to a cooling pluton.

Ore Controls:

The mineralization is strongly structurally controlled and spatially related to highly differentiated granitoid intrusion. Mineralization is commonly hosted by, or close to, the most evolved phase of the intrusion (differentiation index greater than 80).

Associated Deposit Types:

W and Au skarns, W veins, stibnite-gold veins, Au quartz veins, disseminated gold sediment-hosted deposits, and possibly polymetallic veins. The veins commonly erode to produce nearby placer deposits.

Exploration Guides

Geochemical Signature:

Placer gold in creeks draining plutons or hornfels is the best geochemical indicator. Analysis of heavy mineral or silt samples for W, Au, As and Bi is particularly effective. Elevated values of Au-W-Bi-As \pm (Sn-Sb-Ag-Mo-Cu-Pb-Te-Zn) can be found in stream sediments, soils, and rocks.



Geophysical Signature:

Aeromagnetic data may be entirely flat as reduced granites have no magnetic signature. If the country rocks are reducing (e.g. carbonaceous), aeromagnetic signatures may produce "donut" anomalies with high magnetic values associated with pyrrhotite in the contact metamorphic zone fringing a non-magnetic intrusion.

Other Exploration Guides:

The number of deposits correlates inversely with the surface exposure of the related granitoid intrusion because stocks and batholiths with considerable erosion are generally less prospective. Evidence of highly differentiated granites and fluid-phase separation, such as pegmatites, aplites, unidirectional solidification textures (USTs) and leucocratic phases, indicates prospective settings. Lamprophyres indicate regions of high extension and potentially good structural sites for mineralization. Gold, wolframite, and scheelite in stream gravels and placer deposits are excellent guides. The associated deposit types (e.g. skarns) can also assist in identifying prospective areas.

Economic Factors

Typical Grade and Tonnage:

The bulk mineable, intrusion-hosted low-grade sheeted vein deposits contain tens to hundreds of million tonnes of ~ 0.8 to 1.4 g/t Au. The epizonal deposits have slightly higher grades, 2-5 g/t Au and the shear veins have form high grade deposits contain hundreds of thousands to millions of tonnes grading ~10 to 35 g/t Au. Gold to silver ratios are typically less than 1. Some gold producing veins have produced W when it was deemed a strategic metal, or it reached unusually high commodity prices.

Economic Limitations:

The Fort Knox deposit has a low strip ratio, and the ore is oxidized to the depths of drilling (greater than 300 m). A carbon-in-leach gold absorption with conventional carbon stripping process is used to recover the gold. The refractory nature of the arsenic-rich mineralization below the oxidation zone could render an otherwise attractive deposit sub-economic. Intrusion-hosted deposits may have a high work index.

Importance:

These deposits represent a potentially important gold resource which is found in regions that have seen limited gold exploration in recent years. Several deposits are now known that contain more than 100 tonnes of gold. In virtually all regions the production of gold from placers related to these deposits has far exceeded the lode gold production.



Item 9: Exploration

Item 9.1: Exploration Works Prior 2019

Historically, little is known of any sampling that took place prior to the acquirement of the property by Sector Ltd in 1998 as no records were received from the previous owner. Since the acquisition, Sector has maintained an ongoing sampling program to monitor production and to create an ore resource/reserve base. In doing so, the company has employed channel chip samples, area chip samples and percussion drilling sludge samples in attempts to predict and monitor the production underground. Mill head samples are taken off the belt using an automatic cutter to monitor production and to correlate the mill feedback to predicted underground feed. Selected sampling points in the mill circuit are taken to monitor both the mill circuit and to correlate back to the sampled mill head as it is believed that the slurry sampling in the mill is a true homogenous sample.

The free and random nature of the free gold distribution in the quartz makes any chip or channel sample skeptical as the re-testing of the same sample resulted in low reproducibility. For this reason, the company is utilizing production drilling sludge sampling to generate average results based on large numbers of samples in hopes of overcoming the variability. Truck or muck sampling is not utilized as tests have shown this method to be unreliable due to the presence of coarse gold and the size fraction of the samples taken do not correlate well to actual grade.

Rock sampling in a gold mine is dependent upon the assay method used. Fire assaying is an exacting method of assaying, but the turnaround time is large and usually the area sampled has passed into the mill prior to the receipt of the results. For this reason, the company went to a quantitative method of using Leachwell with atomic absorption finish to determine an approximated grade. The fire assay method is still employed for geology samples, but all production samples are done using the Leachwell method.

Although the area has been actively mined for over 80 years, little active exploration has been conducted over the last 20 years due to the presence of public disorder.

Sector Resources has minimal surface exploration in the area due to the concentration of resources being directed to mining the Las Ánimas Mine. Company Geologists have prospected the area for outcrops and has located and surveyed numerous old adits that were driven years before in attempt to correlate or connect to the Las Ánimas vein.

Chip Area Sampling

This type of sampling was employed early in the development but was discontinued when it was found that the samples were being biased by the sampler, as it was easier to sample the mineralized fractured quartz than the massive un-mineralized quartz. This resulted in the possibility of reporting higher grades than were actually there.

Channel Sampling

Proper channel sampling is employed when reserves are generated however a question exists on the reproducibility because of randomly deposited visible gold and the distance between sampling lines are too far apart to accurately predict the grade of a given ore block



Sludge Sampling

To get quick results from the active mining locations in the underground, the company went to taking sludge samples from the production holes as they were being drilled on the face or in the stopes. This method relies upon the collection of drill cuttings from selected holes at a given heading and assaying the sludge samples using the leach well method with an atomic absorption finish. This method allows drill sludge to be processed directly without any sample preparation and result in more assays to be processed daily in comparison to the traditional fire assay method.

Due to the variability of the assays caused by visible gold, this method relies on obtaining more samples to approximate the grade. For this reason, the results from using the Leachwell method is deemed to be a quantitative not a qualitative method. Correlations to the actual production are made monthly and this method generally understates the actual grade produced by some 20-30% when compared to the actual gold grams produced, the gold placed in inventory and the gold lost to tails.

Mill Head Sampling

The mill head sampling achieved by having an automatic cut of the belt on a frequency of every 10 minutes. This results in cutting out some 6.7 kilograms of sample per hour. The sample is reduced in size to a 500-gram sample using the cone and quartering method and this 500-gram sample is crushed and pulverized and cut down to the required 30 grams for assaying.

Results from the mill head sample are quite variable and internal mill slurry sampling, which is thought to be more homogenous, do not always reflect similar values. Correlation of the mill head to actual gold produced plus inventory changes plus gold lost to tails usually shows the gold entering the mill to be 30 to 40% lower than the actual gold produced.

Topography Surveying in the Area

In the general region, surface topographies have been generated primarily by air photo interpretation. Little surface survey has taken place with the exceptions of topographic surveys for road building, power line building and where companies such as Sector Resources require specific surveys.

Underground Development

The first recorded mining on the property was in 1921 but records are sketchy as to where the initial mining took place. Mining was initially done by hand using hand drills and small rail cars to move the material to the surface. Initial drifts were small with the portals measuring 1.8 meters by 1.5 meters. The blasted material was hand cobbed underground and wherever possible waste was and sub ore grade material was left underground. Sub-ore is estimated to be 10 grams or less as the selling price was 35 USD per ounce.

Little is known about the previous owners except for the last three owners who were Fermin Duque Zabala (1993-1997), Rosalba Bolivar de Cardona (1993), and Alfonso Cardona Arango (1972-1993). Generally, the owners contracted a miner for a percentage of the gold produced. Mining records from the period 1921 to 1997 were poorly kept or kept secret as a protection. Production records by the government were non-existent until recently when taxes and royalties were levied.

The Las Ánimas/Porvenir Mine is by far the bigger of the two different mines on the property. Little is known of the development sequence but examination of the mine shows that the initial



primary adit was the San Carlos that was collared on the vein and development to the east and west were started. It appears that miners benched or drove an inclined shaft down to the 1927-meter level and then drove an exploration drift to the east until the vein petered out at about the present powder magazine location. This is evident by the old drill holes observed on the 27 meters level that were drilled from the east. A second level was driven to the east on the principal adit level and this adit carried over through the Fermin to the Las Animas Mine. It is not known whether the 1927-meter level or the upper level was driven first.

Two portals were driven in from the Las Animas creek to access these adits (1927-meter level and 1955-meter level). The 1927 level became the main haulage level. Mining joined the 1927 and 1955 levels with all ore was taken out of the Las Animas portal on the 1927-meter level to the California stamp mill located above the Las Animas creek.

Mining was done initially using hand drill steel and later air powered jacklegs with a pseudo room and pillar mining method being employed. Pillar placement was as the miner's discretion and placement was not as based on geotechnical information. Overmining of spans resulted in local ground hanging wall failures. Where these type failures occurred, the miners simply went around the area of the failure and started again.

Mining in the Las Ánimas zone was more difficult as it was not accessed from below (1927-meter level) and the ore was hauled over an internal raise and literally pushed down to the level. A California stamp mill was installed in the upper workings of the Las Ánimas to pulverize the rock then using water and a series of flues to "flow" the ore to the 1927 level.

In early 1999, the Company initiated access to the mine to permit the use of the diesel mining equipment in the mine. Since that time, the company has completed slashing the adit and the 1927 meter level, ramping down to below the 1908 meter level in the Porvenir mine, ramping up to the 1987 level in the Las Ánimas Mine, ventilation raising and stope raising.

Development totals as follows:

1) Ramping 949 m
2) Lateral Development 1,532 m
3) Slash Development 357m
Total development 2,838m

Porvenir Mine

Upon completion of the mine access road in December of 1998, Sector Resources brought in underground mining equipment and proceeded to slash the Las Animas 1927-meter portal and adit from 1.8 meters x 1.5 meters to a width of 3.2 x 3.2 meters to accommodate the diesel equipment purchased. Upon reaching the ore zone, services were installed and slashing of the 1927-meter level to the west was commenced and continued over to the San Carlos Raise to provide ventilation and a secondary access. A total of 357 meters of small drift was slashed to allow for production to commence.

Ramping in the Porvenir total 379 meters of ramp to the 1900 level to allow for the development of 3 levels (1918, 1915 and 1908 levels) with a total of 809 meters of lateral development completed to date.



Las Animas Mine

Ramping totaling 570 meters was driven up at a 12% grade from the 1927-meter level to connect the old workings at the 1940-meter level and then on up to the 1987-meter level. Lateral development totaling 736 meters was driven on 11 levels to either explore for the easterly extent of the ore zone or development for mining.

Item 9.2: Exploration Works Post 2019

As the result of the processing of the previous existing geochemical data (stream sediments), the QP and the staff of Sector identified new prospective targets that the Client verified and continued to file new claim applications.

The staff of Sector conducted a detail stream sampling of the proposed targets using a sampling technique designed by the QP that allows *in situ* concentration of the samples⁸. All the data were studied using a combination of normal statistical methods including Principal Component Analysis (PCA), and Factor analysis (FA), together with more advance methods like Compositional Data Analysis and Machine Learning (ML). All these data and their process is contained in the digital support for this report.

Because the results of this survey will be interpreted in combination with the lineament analysis (see Item 24) preliminary maps will not be present here now.

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⁸ https://youtu.be/uEBOOifOPvA



Item 10: Drilling

Sector Resources purchased a small underground Diamond Drill (Atlas Copco Diamec 232) in 2003 and it has been in use since that time for the underground ore definition and for the localized exploration within fifty meters of the known ore vein. In ore definition, the drill has been primarily used to locate fault displacements of the vein to allow for the continuation of mining. Localized exploration has utilized the drill to define known ore veins that were exposed on surface below the active mining zone. Grass roots exploration drilling has not been conducted from the underground as the maximum length drillable by the Diamec 232 drill is about 130 meters. The Client purchased a Chinese made diamond drill HYKD-3A capable of reaching 250m. In total, the Client has drilled 5,320m with the HYKD and 10,911m with the Diamec.

Item 10.1: Historic Diamond Drilling

There has been no surface diamond drilling conducted on the property.

Item 10.2: Underground Diamond Drilling

The company has been conducting diamond drilling underground for support of the mining operations and increase reserves. This drilling has been in the form of short 20 - 50-meter holes for the location of the vein that has been displaced by faulting. A total of about 16,298 meters have been drilled for this purpose. The use of the diamond drill for pure exploration purposes has been minimal.

Appendix 1 shows the collars of these holes. Figure 21 shows the spatial distribution of these holes in the mine.

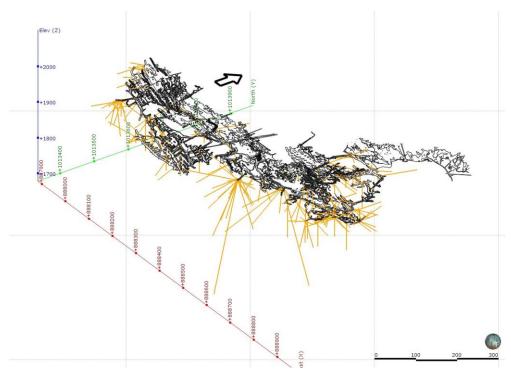


Figure 21. Location of the drill holes inside the Las Ánimas mine.



Table 7. Best intersections of the drilling program.

Hole	From	To	Width, m	Au, g/t	Hole	From	To	Width, m	Au, g/t
MH08172	0	0.9	0.9	2974	MH04061	0	2	2	149.54
MH01690	0	0.8	0.8	1674	MH01119	0	1.3	1.3	148.3
MH02836	0	0.6	0.6	1337.1	MH04349	0	1.5	1.5	148.25
DDH-089	26.7	27.3	0.6	874.8	MH19124	0	0.5	0.5	147.84
MH03376	0	0.45	0.45	818.76	MH07879	0	0.8	0.8	146.47
MH19620	0	0.6	0.6	658.21	MH14716	0	1.9	1.9	143.29
MH09273	0	1	1	562.91	MH14766	0	0.9	0.9	142.78
DDH-232	17.8	18.6	0.8	408.98	MH11683	0	2.4	2.4	136.84
MH03916	0	1.35	1.35	386.22	MH03254	0	1.2	1.2	135.9
MH08902	0	0.75	0.75	383.02	MH01620	0	1	1	135.07
MH05161	0	1	1	345.23	MH08910	0	1.2	1.2	134.02
DDH-134	7.78	9.28	1.5	291.82	MH03824	0	0.7	0.7	133.02
MH05210	0	0.8	0.8	274.46	MH14713	0	0.6	0.6	132.62
MH07372	0	1.2	1.2	265.58	MH06699	0	1.2	1.2	124.18
MH01644	0	0.8	0.8	258.5	MH11899	0	3	3	121.85
MH07389	0	0.5	0.5	257.07	MH11422	0	2.5	2.5	119.46
MH01214	0	1.7	1.7	250.32	MH16949	0	1.8	1.8	114.59
MH06728	0	0.9	0.9	230.09	MH08906	0	1.5	1.5	113.98
MH01728	0	1.3	1.3	226.96	MH04332	0	2	2	113.01
MH06990	0	1.1	1.1	219.17	MH01645	0	0.8	0.8	112.04
MH00949	0	1.4	1.4	203.59	MH02363	0	0.8	0.8	111.4
MH14824	0	0.8	0.8	198.22	MH04985	0	1.2	1.2	111.3
MH02565	0	1.5	1.5	197.34	MH03750	0	1.1	1.1	109.46
MH06279	0	0.9	0.9	171.4	MH14630	0	1.3	1.3	108.77
MH04546	0	1.8	1.8	171.06	MH03740	0	0.9	0.9	107.22
DDH-056	55.9	57.4	1.5	170.61	MH13516	0	0.7	0.7	105.49
MH03711	0	1	1	168.1	MH03778	0	1.2	1.2	103.59
MH06443	0	1.5	1.5	166.85	MH13632	0	1.5	1.5	103.53
MH12686	0	1.2	1.2	165.52	MH11423	0	2.5	2.5	103.05
MH14618	0	1.2	1.2	165.52	MH02928	0	0.9	0.9	102.5
MH01656	0	1.1	1.1	156.3	MH01175	0	1.7	1.7	102.04
MH06767	0	1.2	1.2	153.41	MH01744	0	1.5	1.5	101.26
MH03067	0	0.7	0.7	152.74	-				



Item 11: Sample Preparation, Analyses and Security

The Client was not been able to identify sample data taken by the previous owners therefore they considered the old workings as non-reproducible and new samples were collected where warranted. In most cases the old workings where no mining was planned were left unsampled.

Due to the slow turnaround time of qualified commercial laboratories in Colombia, the Client decided to develop its own lab on site with acceptable sample preparation procedures and proper quality control procedures to generate acceptable results within an acceptable time frame. However, the Client did not implement similar QA&QC procedures for the collection of samples. This is one of the reasons why the QP considers the existing resources and reserves as historical.

The QP introduced a system for QA&QC for the sampling procedure (Valls Álvarez, 2014).

Item 11.1 Sample Preparation Procedures

Item 11.1.1: Sample Preparation procedures Prior 2019

As mentioned before, the Client did not implement QA&QC procedures during sampling. Samples from the walls were taken using an electrical saw, the material collected on bags and sent to the preparation laboratory of the mine. In the case of the drill holes, after logging, all the material of the core was sampled, metre by metre, within identical lithologies.



Figure 22. Sampling of the walls inside the mine using an electric saw.

Equipment used in the sample preparation now includes a laboratory jaw crusher, a laboratory cone crusher, a rolls crusher, a Jones Riffle splitter, and a ring and puck pulverized to reduce the rock sample to 100% passing –200 mesh.



Initially the sample preparation procedures called for cone and quartering of the sample down to an acceptable size then crushing and pulverizing the sample to 100% passing minus 100 mesh. Due to the variability caused by native gold, the procedures were changed to crushing the entire sample down to -20 mesh, then splitting the sample down using a Jones riffle splitter down to 100 gram lots and pulverizing the 100 gram lot to 100% passing -200 mesh prior to splitting the sample to 30 gram fire assay lots and retaining the second assay pulp for checks.

Item 11.1.1.1: Fire Assay Sample Preparation

Working with Chief Assayer of ALS Chemex in Vancouver, British Colombia, the sample preparation procedures were revised to identical to that of ALS Chemex.

For quality control, standard assay checks were purchased and are run every 20 assays. In addition, the lab re-assays pulps on a regular based for checks on reproducibility. Occasionally assay pulps are sent to Vancouver for checking as a backup.

Assaying of Dore drillings is conducted on each bar by Sector 's and the Metal Broker's lab on identical samples drilled from the bar. Umpire assaying is available if the discrepancy between the 2 labs assays is significant. To date, only 2 assays from the dore drilling have gone for umpire assay.

Item 11.1.2 Leachwell Assay Sample Preparation

The Leachwell assay sample preparation procedure is identical to that of the fire assay procedure for rock assays. Drill sludge samples are not dried and are taken as being pulverized.

Item 11.1.2: Sample Preparation procedures Post 2019

After having the samples properly packed and labeled in their respective bags, these are deposited in fiber bags which cannot weigh more than 25 Kg for health and safety issues at work. The bags are marked with bag number, the consecutive samples that go in the bag (e.g. 10500-105008), and finally they are closed with a security tag which is referenced in the sample request form that is sent to the laboratory for safety purposes. Each bag is also weighted at camp. This is later compared with the weight reported by the lab when they get the samples.

After having the bags ready, they are collected by Sector personnel and taken to the city of Ibague. They are subsequently transferred to ACT Labs in Rionegro, Medellín by TTC a local transport company. The sample request is sent to the laboratory physically and via email where they will be reviewed and give the go-ahead that the shipment is complete and the bags arrived sealed All samples of the shipments are recorded in CampControl (https://www.campcontrol.com) to satisfy the requirements of the chain of custody (Fig. 23, Table 8).



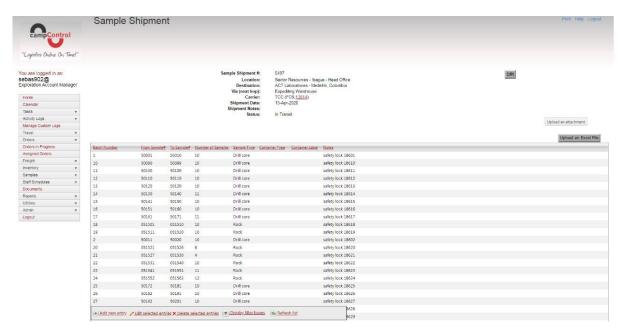


Figure 23. Using CampControl to comply with the requirements of the chain of custody.

Table 8. Example of CampControl registry of sample batches.

Batch Number	From Sample#	To Sample#	Number of Samples	Sample Type	Container Type	Container Label	Notes
1	50001	50010	10	Drill core			safety lock 18601
2	50011	50020	10	Drill core			safety lock 18602
3	50021	50030	10	Drill core			safety lock 18603
4	50031	50040	10	Drill core			safety lock 18604
5	50041	50050	10	Drill core			safety lock 18605
6	50051	50059	9	Drill core			safety lock 18606
7	50060	50069	10	Drill core			safety lock 18607
8	50070	50079	10	Drill core			safety lock 18608
9	50080	50089	10	Drill core			safety lock 18609
10	50090	50099	10	Drill core			safety lock 18610
11	50100	50109	10	Drill core			safety lock 18611
12	50110	50119	10	Drill core			safety lock 18612
13	50120	50129	10	Drill core			safety lock 18613
14	50130	50140	11	Drill core			safety lock 18614
15	50141	50150	10	Drill core			safety lock 18615
16	50151	50160	10	Drill core			safety lock 18616
17	50161	50171	11	Drill core			safety lock 18617
18	51501	51510	10	Rock			safety lock 18618
19	51511	51520	10	Rock			safety lock 18619
20	51521	51526	6	Rock			safety lock 18620
21	51527	51530	4	Rock			safety lock 18621
22	51531	51540	10	Rock			safety lock 18622
23	51541	51551	11	Rock			safety lock 18623
24	51552	51563	12	Rock			safety lock 18624
25	50172	50181	10	Drill core			safety lock 18625
26	50182	50191	10	Drill core			safety lock 18626
27	50192	50201	10	Drill core			safety lock 18627
28	50202	50211	10	Drill core			safety lock 18628
29	50212	50217	6	Drill core			safety lock 18629
		TOTAL:	280		CONTAINERS:	29	



Item 11.2 Analysis

Item 11.2.1 Analysis Prior 2019

Item 11.2.1.1 Fire Assay Procedures

Sector chose to follow the standard procedures for fire assaying and complete with full gravimetric procedures to complete the assay. This applies to all geological samples that were used for reserve estimations and all dore assays that were used for checking of gold and silver produced.

Item 11.2.1.2 Leachwell Assay Procedures

The Leachwell assaying procedure is a qualitative procedure that utilizes cyanide to generate pregnant liquor that is assayed using a Perkins and Elmer Atomic Absorption 200 model spectrometer. The procedure uses a bigger sample (200 grams vs. 30 grams for fire assay) and the Leachwell (a patented prepared dry chemical is added to the sample as well as water into a bottle that is rolled for 2 hours on a bottle roller. After 2 hours the pregnant liquor is drawn off and analyzed.

This method is qualitative only and Sector used this method for all the production samples to give an indication of the grade only. The difference in the two methods is the sample preparation procedure as the Leachwell method does not have to be pulverized to -200 mesh. In addition, raw sludge samples can be rolled without drying or sample preparation, allowing for an assay to be returned prior to the blasted muck being sent to the mill.

Item 11.2.2 Analysis Post 2019

After the visit of the QP to the site and the laboratory, it was suggested that all samples should be sent to a certified laboratory for sample preparation and analysis. The Client engaged ACT Labs in Medellín, Colombia.

All samples were analyzed for multielements by the Ultratrace 1 (UT 1) method and for gold by FA (1-A2).

A complete sequence of QC procedures was introduced after the visit of the QP (Simón, 2006; Valls Álvarez, 2011)



Item 12: Data Verification

In the past, data verification was achieved by internal assay checks and was released only to the Geology Department for diamond drill and underground production reporting, to the Mill Department for production control in the plant and to Mine Management. Data checks were carried out on an ongoing basis and Management compiles comparisons of gold produced to mill heads monthly. Where required assays were sent out for crosschecking.

For security reasons, the data is issued on a need to know basis and not for general issue. This is done due to the ongoing presence of public disorder that exists in the area.

The QP conducted an audit of the chain of custody of the samples from the field to the reporting stage and, with the exception of not having include QA&QC during the sampling procedure, the procedures are compliant with the requirements of the Best Practices of the industry (CIM, 2000).

The QP also took independent samples from the quartz veins, the orogenic type of mineralization and from a barren zone. Samples were independently analyzed by ACT Labs in Medellin and confirmed the presence of gold, however in lower grades.

After the first visit, the Client introduced a complete QC program. During the period after the new procedures were implemented, only one standard fail (Fig. 24) and a total of 25 samples before and 25 samples after the failed standard was repeated by the laboratory.

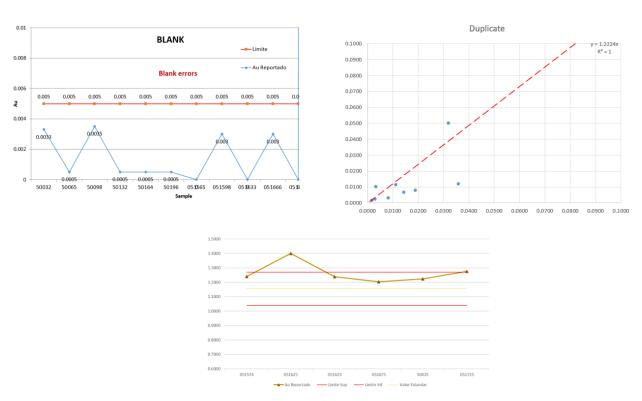


Figure 24. Results of the QC samples during the 2020 soil sampling campaign.



Item 13: Mineral Processing and Metallurgical Testing

With the option to purchase in place in 1997, the Client commissioned RDI of Wheatridge, Colorado to do metallurgical testing on samples that were taken in the Porvenir/Las Ánimas mine. With positive results from this sampling the decision to proceed was made. The Client then contracted Bharti Engineering of Sudbury Ontario to achieve a complete mining feasibility study on the property.

The test work conducted by both RDI and Lakefield Research showed the ore from the Las Ánimas mine was amenable to conventional milling techniques. The samples provided showed that the gold was essentially free with only a small proportion locked with the sulfide minerals. Besides these two studies, the Client contracted Ingeominas and Orepro for similar studies in 2001.

Test work showed that most of the gold occurs as free gold in a quartz matrix and minor amount occurs locked with sulfides. Later testing shows that more gold is more associated with sulfides as the deposit goes to depth.

Testing has shown the Bond Work Index of the ore to be 16.5 kWh/tonne. The abrasion index of the ore is 0.2972.

Test work shows that with grinding to 80% passing -80 mesh gave a recovery of better than 85% of the gold available.

Using a floatation circuit to concentrate the 80% passing 80 mesh tails from the gravity circuit, the recovery increased to better than 90%. Later testing showed that regrinding of the floatation concentrates to 80% passing minus 325 mesh and cyanide leaching the slurry increased the recovery to 95%.



Item 14: Mineral Resource Estimates

Item 14.1: Historical Resources and Reserves

At the time of acquisition, no ore reserves were available due simply to lack of data. A Colombian consulting geologist (Gabriel Paris) did an estimation of the tonnage of quartz vein that was exposed in the Pava/Palmitas and Las Ánimas veins.

Mr. Paris stated that 500,000 tonnes of quartz vein were available, but a grade could not be calculated due to the lack of previous production data available and the lack of sampling data as per se.

In house geological personnel have calculated resources at various times during the past 4 years upon which the mining has been based. In most cases the Client has been consuming the resources generated with production on a per year basis.

The drifting and development program conducted by the Client was followed by an ongoing sampling program to generate resources or reserves ahead of mining. For the most part resources generated were mined within months of accessing and as a result the mine cannot has no more than 50,000 to 70,000 tonnes of resources blocked out ahead of mining in any given year. A lack of diamond drilling data ahead of development further limits the development of sufficient resources to maintain a sufficient reserve base.

Sampling underground for the establishment of ore reserves was based upon channel sample approach on 5-meter centers.

The minimum mining width was established in the stopping area to be 1.5 meters wide based upon the equipment used. Stopping over the past 2 years has shown this mining width to be feasible. Where widths of intersections are less than the minimum mining widths, the intersection is recalculated to the minimum mining width using a dilution grading at 0.0 Au/grams per tonne.

Initial estimations of the resource were conducted using a 0.0 cut-off grade. Later economic estimations used an economical cut-off grade of 3.5 g/t based on a \$625 USD per troy ounce of gold and 200 tonnes per day mined.

The specific gravity applied for *in situ* ore was estimated to be 2.70 t/m3. This was based on a theoretical calculation of mineral content and not on air picometer testing.

Development dilution factors are variable due to the width of the vein exposed but dilution factors in stopping are generally 15% maximum due in part to a well- defined structural contact on the hanging wall that permits breaking to the contact only.



Item 14.2: Current Mineral Resource Estimates

Item 14.2.1: Definition of Mineral Resources by Eng. José Áreas del Toro.

Mineral Resources are sub-divided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories. An Inferred Mineral Resource has a lower level of confidence than that applied to an Indicated Mineral Resource. An Indicated Mineral Resource has a higher level of confidence than an Inferred Mineral Resource but has a lower level of confidence than a Measured Mineral Resource.

A 'Mineral Resource' is a concentration or occurrence of material of intrinsic economic interest in or on the earth's crust in such form, quality, and quantity that there are reasonable Prospects for eventual economic extraction. Mineral Resources are further sub-divided, in order of increasing geological confidence, into Inferred, Indicated, and Measured categories. 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 to 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. These assumptions must be presented explicitly in both public and technical reports. Current norms define three levels of resources.

Inferred Mineral Resource is that part of a mineral resource for which tonnage, grade, and mineral content can be estimated with a low level of confidence. It is inferred from geological evidence and assumed but not verified geological/or grade continuity. It is based on information gathered through appropriate techniques from location such as outcrops, trenches, pits, workings, and drill holes which may be of limited or uncertain quality and reliability. Due to the uncertainty that may be attached to Inferred Mineral Resources, it cannot be assumed that all or any part of an Inferred Mineral Resource will be upgraded to an Indicated or Measured Mineral Resource as a result of continued exploration. Confidence in the estimate is insufficient to allow the meaningful application of technical and economic parameters or to enable an evaluation of economic viability worthy of public disclosure. Inferred Mineral Resources must be excluded from estimates forming the basis of feasibility or other economic studies.

Indicated Resources are simply economic mineral occurrences that have been sampled (from locations such as outcrops, trenches, pits and drill holes) to a point where an estimate has been made, at a reasonable level of confidence, of their contained metal, grade, tonnage, shape, densities, and physical characteristics.

Measured Resources are Indicated Resources that have undergone enough further sampling that a 'competent person' has declared them to be an acceptable estimate, at a high degree of confidence, of the grade, tonnage, shape, densities, physical characteristics, and mineral content of the mineral occurrence.



Based in the above definitions, we have identified Measured, Indicated and Inferred Mineral Resources for the "Las Animas" mine, based in the density information. In the mine exists a total of 36,743 composited samples, 2,152 from drill holes core samples and 34,591 channels samples took from mining excavations. Other relevant aspect used was the mineral continuity (spatial correlation) from variography studies, using composites as mentioned above for both "Lode" and "Orogenic" domain We defined some criteria for the resource classification as fallow:

For the "Las Animas" mine, the resource classification was based on the following criteria:

- 1. Passes according to ellipsoids ratios (ellipsoids expansion) defined from variograms ranges and determining using multiplicative coefficients: 0.5, 1 and 1.5 to obtain first, second and third passes. In both cases, for Lode Domain and for Orogenic Domain, the Median Indicator Semi-variograms ranges were used, according to interpolation method employed in block grade estimation, "Multiple Indicator Kriging", and:
- 2. Number of samples used in the interpolation
- 3. Maximum number of samples per drillhole
- 4. Number of drillholes used for block interpolation.

Measured resources:

All blocks in the first variogram running (pass=1) which match with the following criteria:

- Number of samples used in the interpolation: minimum of 12 and maximum of 24.
- Maximum number of samples per drillhole: between 2 and 3 samples per drillhole.
- Number of drillholes used for block interpolation: 3 drillholes for Orogenic and 6 drillholes for Lode Domain.

Indicated resources:

All blocks in the in the first and second variogram running (pass=1 and 2)

- Number of samples used in the interpolation: minimum of 8 and maximum of 24.
- Maximum number of samples per drillhole: between 2 and 3 samples per drillhole.
- Number of drillholes used for block interpolation: 3 drillholes for Orogenic and 4 drillholes for Lode Domain.

Inferred resources:

All blocks in the second and third variogram running (pass=2 and 3)

- Number of samples used in the interpolation: minimum of 2 for Orogenic Domain and 4 for Lode Domain, and maximum of 24 for both.
- Maximum number of samples per drillhole: between 2 and 3 samples per drillhole, 2 for Lode Domain and 3 for Orogenic Domain.
- Number of drillholes used for block interpolation: 1 drillholes for Orogenic Domain and 2 drillholes for Lode Domain



Item 14.2.1.1: Introduction

An independent report with all the details of this procedure will be delivered separately to the Client.

Item 14.2.1.2: Database

The database was obtained from the Client in ASCII format.

Table 9. Structure of the database.

Table	Content		
Collars WGS84 (18N)	Collars of the holes.		
Survey	Down hole survey		
Lithology	Lithological codifying (interval table).		
Assays	Results for a selection of elements including gold, silver and base metals elementsm (Cu, Zn, Co and Ni).		

Other auxiliary tables such as those of composites were generated and provide information within the database.

The database contains information of 20,359 drillholes which depths are between 5 m and 305.6 m to an average depth of 5.59 m, from different sources, 210 drill holes core (1,976 assays records) and 19,990 channels samples (20,233 assays records) took from mining excavations, which are vertically oriented. The Drillholes core have generally oriented in fan fashion and have a variety of angles.



Item 14.2.1.3: Making of the Geological Model

Based on type and source of mineralization, we grouped the existing data in two populations or domain, termed: "Lode Domain" and "Orogeny Domain". Each domain was modeled separately in the three dimensional space, by means of vertical sections every 12.5 meters oriented in the North – South direction perpendicular to the main geological structures (the Lode and the faults), From there, an *a priori* probability model estimated by multi gaussian Kriging (Leuangthong, O. and Srivastava, R M., 2012) to generate an iso-probability shell at 0.1 g/t which represent the conceptual envelope of Au mineralization, together an manual digitalization in each section to obtain finally the Au mineral outline, tied them to create the wireframe witch represent the mineral envelopes for both domains.

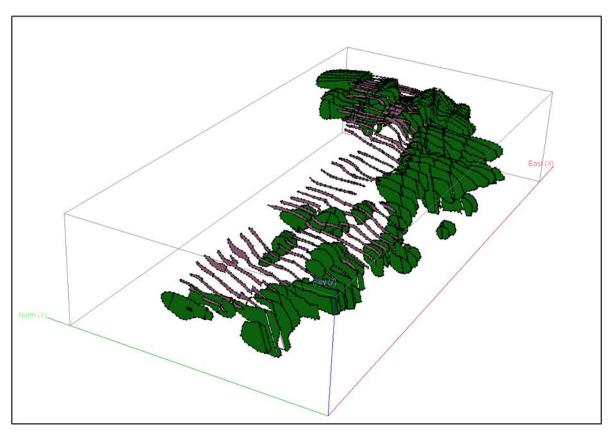


Figure 25. 3D rings to build the geological model of the Las Animas Mine. "Lode Domain" is in pink color, and "Orogenic Domain" is green.



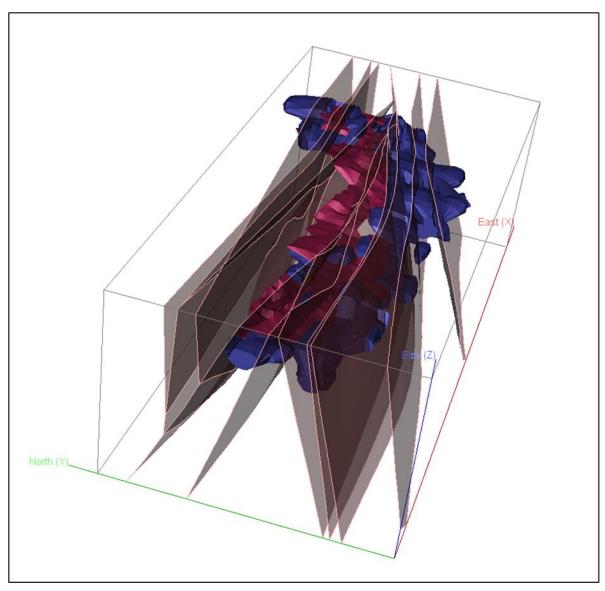


Figure 26. 3D geological model of the Las Animas Mine. "Lode Domain" is red, "Orogenic Domain" in Blue, and the fault planes are in brown.

The faults were created by the team the "Las Animas" mine using Leapfrog software.

Figures 27 - 30 show some sections across of the model. "Lode Domain" in pink color, and "Orogenic Domain" in green color.



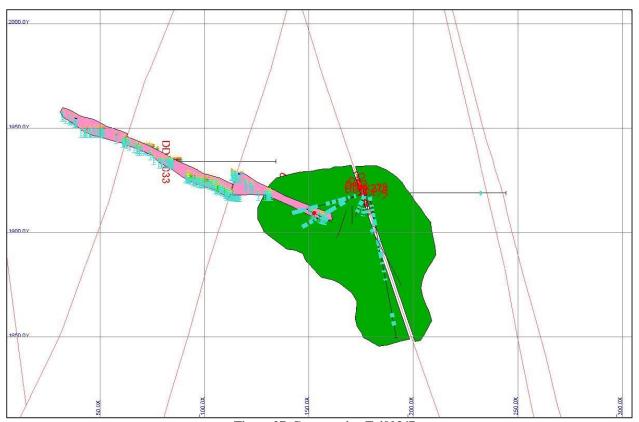


Figure 27. Cross section E 490367.

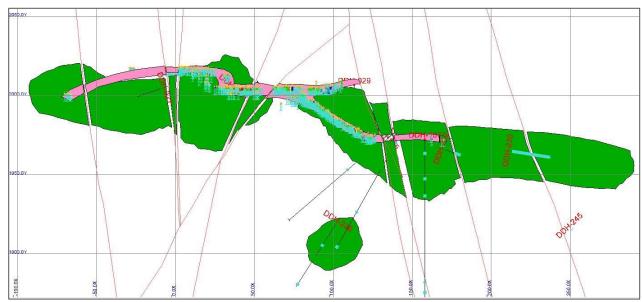


Figure 28. Cross section E 491067.



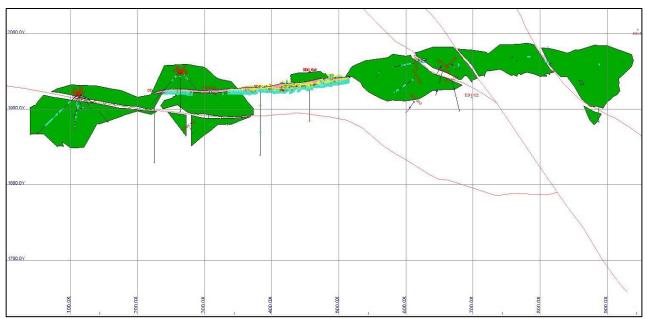
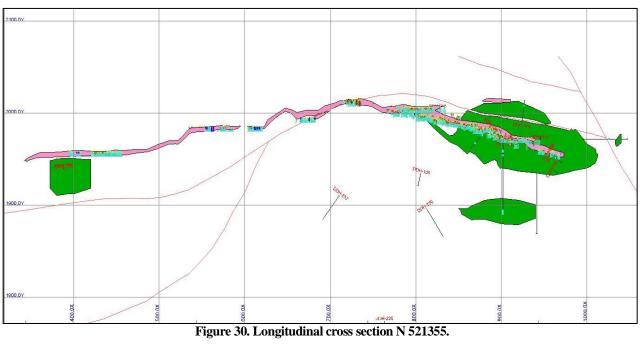


Figure 29. Longitudinal cross section N 521330.





Item 14.2.1.4: Exploratory Data Analysis

The EDA was completed by means of statistical analysis to investigate about behavior and distribution followed by data. We used the most commonly method in practice, namely the realization of a basic statistics (determination of measures of central tendency, measures of spread) for the variable in question, in our case was doing for the Gold grade separately for both domain that is, Lode and Orogenic domain respectively.

The exploratory statistical analysis was assessment by means of frequency histograms and probability plots, as fallow:

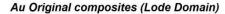
Were analyzed 34,591 and 2,152 data values localized inside the envelopes in both, Lode Domain and Orogenic Domain respectively, the measures of central tendency as Mean, Median, Standard Deviation and quartiles were determinate, and results are as fallow:

Table 10. Results of the EDA.

Statistical parameter	Lode Domain	Orogenic Domain	
Count	34,591.00	2,152.00	
Minimum	0.01	0.01	
Maximum	2,974.00	874.80	
Average	2.93	1.86	
Standard Deviation	23.51	29.15	
Coefficient of Variation	8.04	15.71	

According to the statistical resulted of the measures of central tendency, dispersion parameter and frequency histogram, the statistical Gold grade behavior in both domains fallow a positively skewed distribution. This behavior is typical of all statistical distribution of precious metal, that is, existence of a tail of high grade data values to the right part of histogram (values larger than upper quartile: 75 Percentile) and existence of a high frequency data low values to the left part (data value totally below upper quartile in this case equal to 1.11 g/t and 0.38 g/t). This characteristic explains the existence of a high coefficient of variation (equal to 8.04 in Lode Domain and 15.71 in Orogenic Domain), which denote the existence the high variability for this element. This affects the estimation and because of that, outliers and capping were used.





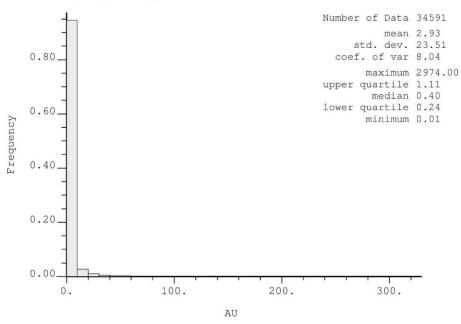


Figure 31. Frequency histogram for Au in the Lode Domain (Original composites).

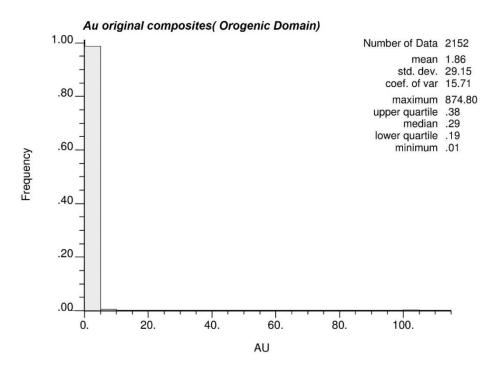


Figure 32. Frequency histogram for Au in Orogenic Domain (Original composites).



To attenuate the impact due to outlier presence and high grade data influence in the final estimated, a the probability plot analysis was done, determining as the cut-off value for capping: 171.4 g/t and 4.55 g/t to Lode Domain and Orogenic Domain respectively. This analysis was based in the visual examination of cumulative probability curve versus point data value position in the graph. The cut-off values selected correspond at 99.9 and 98.9 probability according to cumulative probability value to Lode Domain and Orogenic Domain, respectively.

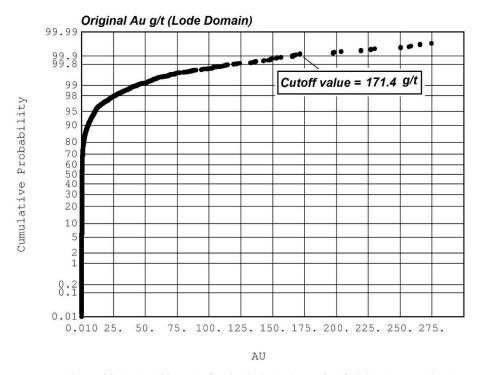


Figure 33. Probability plot for Au in Lode Domain (Original composites).



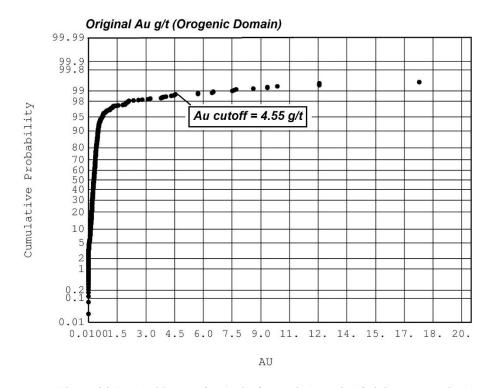


Figure 34. Probability plot for Au in Orogenic Domain (Original composites).

Item 14.2.1.6: Block Model Construction

The estimation process was done according to different strategies, an strategy to the Lode Domain and other for the Orogenic Domain.

The Lode Domain Au grade model construction and estimation was done in two steps, firstly an unfolding transformation to data composite was necessary, taking account the folded and faulted nature of the Lode. All unfolding process was completed according to Gemcom software implementation.



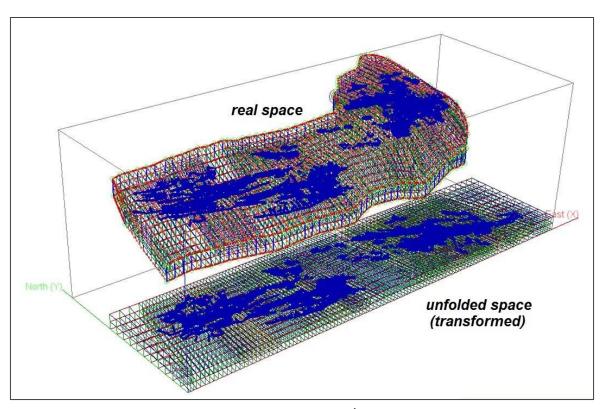


Figure 35. Block model for Las Ánimas mine.

The general procedure (Carew, 2011) fallowed for creating and estimating the block model to the Lode Domain was:

- 1. Creation of polylines to define the slabs (region of space that is equivalent to a cube)
- 2. Creation an unfolding transformation
- 3. According to the unfolding transformation created, unfolding composites into the unfolded space.
- 4. Variography performed on unfolded composites.
- 5. Creation of unfolded block model and interpolate.
- 6. Finally, back transform centroids of unfolded block model interpolated, to the real space
- 7. Construction the block model in the real space and assignation of interpolated centroids to blocks by averaging the points (centroids) localized inside it.

An unfolded Block Model was created to estimate de Au grades in the unfolded space, the block model geometry parameter for this are presented as fallow:

Fifty-three (53) rows of 5 m each (in the direction of the Y), 225 columns of 5 m each (in the direction of X) and 73 levels of 1m each (vertical), thus having a cubed unfolded space. The coordinates for the lower left are UTM E 490317, UTM N 521356, and a maximum elevation of 1640.5 m, no rotated.

In case of the Orogenic Domain, both variography and Au grade estimation was done in the real space due to characteristics of mineralization characterized by small veins and disseminations in the parent rock.

The block model constructed in the real space is compose of 49 rows of 10 m each (in the direction of the Y), 109 columns of 10 m each (in the direction of X) and 240 levels of 1m each (vertical),



thus having a cubed space that accommodates any interpretation or projection in the deposit. The coordinates for the lower left are UTM E 420228, UTM N 521271, and a maximum elevation of 2040 m, no rotated.

To determine the spatial correlation and anisotropy parameters to employ in the estimation process, we completed variography study within each domain.

The variography for Las Animas mine was determined using Gemcom TM, semi-variograms for each domain were calculated and fitted, separately. Due to interpolation method employed, that is, Multiple Indicator Kriging. Ten Indicators semi-variograms were calculated and fitted for each domain.



 ${\bf Table~11.~Semi-variogram~calculation~parameters~for~Lode~Domain}$

Percentile	Cut-off (g/t)	Direction	Lag (m)	Azimuth (grades)	Plunge (grades)	Spread angle (grades)	Spread limit (m)
		Dir 1	5	90	0	45	50
10	0.16	Dir 2	5	0	0	45	50
		Dir 3	5	0	90	45	50
		Dir 1	5	90	0	45	50
20	0.22	Dir 2	5	360	0	45	50
		Dir 3	5	360	90	45	50
		Dir 1	5	78	0	45	50
30	0.27	Dir 2	5	348	0	45	50
		Dir 3	5	348	90	45	50
		Dir 1	5	72	0	45	50
40	0.32	Dir 2	5	342	0	45	50
		Dir 3	5	342	90	45	50
		Dir 1	5	83	0	45	50
50	0.40	Dir 2	5	353	0	45	50
		Dir 3	5	353	90	45	50
		Dir 1	5	68	0	45	50
60	0.51	Dir 2	5	338	0	45	50
		Dir 3	5	338	90	45	50
		Dir 1	5	60	0	45	50
70	0.81	Dir 2	5	330	0	45	50
		Dir 3	5	330	90	45	50
		Dir 1	5	20	0	45	50
80	1.68	Dir 2	5	290	0	45	50
		Dir 3	5	290	90	45	50
		Dir 1	5	20	0	45	50
90	5.08	Dir 2	5	290	0	45	50
		Dir 3	5	290	90	45	50
		Dir 1	5	20	0	45	50
95	10.59	Dir 2	5	290	0	45	50
		Dir 3	5	290	90	45	50



Table 12. Semi-variogram calculation parameters for Orogenic Domain.

Percentile	cutoff (g/t)	Direction	Lag (m)	Azimuth (grades)	Plunge (grades)	Spread angle (grades)	Spread limit (m)
		Dir 1	5	0	0	22.5	50
10	0.12	Dir 2	5	270	0	22.5	50
		Dir 3	5	90	90	22.5	50
		Dir 1	5	270	-90	22.5	50
20	0.17	Dir 2	5	180	0	22.5	50
		Dir 3	5	270	0	22.5	50
		Dir 1	5	135	0	22.5	50
30	0.21	Dir 2	5	45	0	22.5	50
		Dir 3	5	45	90	22.5	50
		Dir 1	5	135	0	22.5	50
40	0.25	Dir 2	5	45	0	22.5	50
		Dir 3	5	45	90	22.5	50
		Dir 1	5	0	0	22.5	50
50	0.29	Dir 2	5	270	0	22.5	50
		Dir 3	5	90	90	22.5	50
		Dir 1	5	286	90	22.5	50
60	0.32	Dir 2	5	0	0	22.5	50
		Dir 3	5	270	0	22.5	50
		Dir 1	5	90	-90	22.5	50
70	0.36	Dir 2	5	0	0	22.5	50
		Dir 3	5	90	0	22.5	50
		Dir 1	5	90	-90	22.5	50
80	0.41	Dir 2	5	0	0	22.5	50
		Dir 3	5	90	0	22.5	50
		Dir 1	5	0	0	22.5	50
90	0.51	Dir 2	5	270	0	22.5	50
		Dir 3	5	90	90	22.5	50
		Dir 1	5	90	0	22.5	50
95	0.72	Dir 2	5	0	0	22.5	50
		Dir 3	5	0	90	22.5	50



Table 13. Semi-variogram model parameters fitted for Lode Domain.

			Sill			Ranges		_
Percentile	Nugget					• • •		Type
		1st. S	2nd. S	3rd. S	1st. S	2nd. S	3rd. S	
P10	0.006	0.075	0.001	0.009	3.2	12.4	49.0	Exponential
P20	0.103	0.026	0.031	0.004	3.2	24.0	37.3	Exponential
P30	0.099	0.057	0.049	0.002	3.1	31.1	47.6	Exponential
P40	0.077	0.079	0.046	0.040	3.0	18.2	51.0	Exponential
P50	0.055	0.129	0.008	0.065	3.3	26.2	71.5	Exponential
P60	0.051	0.123	0.010	0.060	3.8	30.5	60.2	Exponential
P70	0.022	0.128	0.006	0.056	3.0	23.7	66.7	Exponential
P80	0.028	0.093	0.004	0.035	3.3	24.5	61.0	Exponential
P90	0.015	0.047	0.007	0.020	1.8	9.46	50.4	Exponential
P95	0.010	0.027	0.002	0.008	2.1	16.4	46.2	Exponential

Table 14. Semi-variogram model parameters fitted for Orogenic Domain.

			Sill			Ranges		
Percentile	Nugget							Type
		1st. S	2nd. S	3rd. S	1st. S	2nd. S	3rd. S	
P10	0.002	0.028	0.068	-	15.9	37.3	-	Spherical
P20	0.005	0.084	0.062	-	22.3	44.7	-	Exponential
P30	0.010	0.068	0.137	-	19.0	64.2	-	Spherical
P40	0.026	0.042	0.171	-	7.8	40.9	-	Spherical
P50	0.048	0.075	0.127	-	19.5	50.7	-	Spherical
P60	0.044	0.060	0.127	-	15.1	75.0	-	Spherical
P70	0.032	0.031	0.147	-	9.93	74.2	-	Exponential
P80	0.022	0.074	0.051	-	37.1	67.2	-	Exponential
P90	0.032	0.023	0.031	-	43.3	93.91	-	Spherical
P95	0.020	0.0001	0.028	-	42.6	116.27	-	Spherical



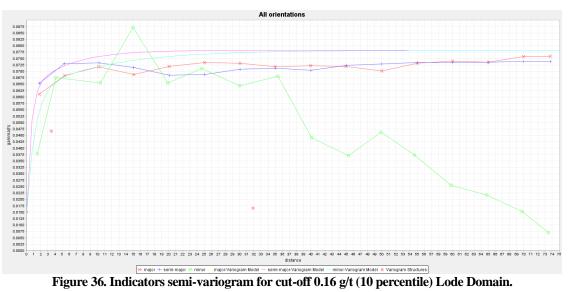
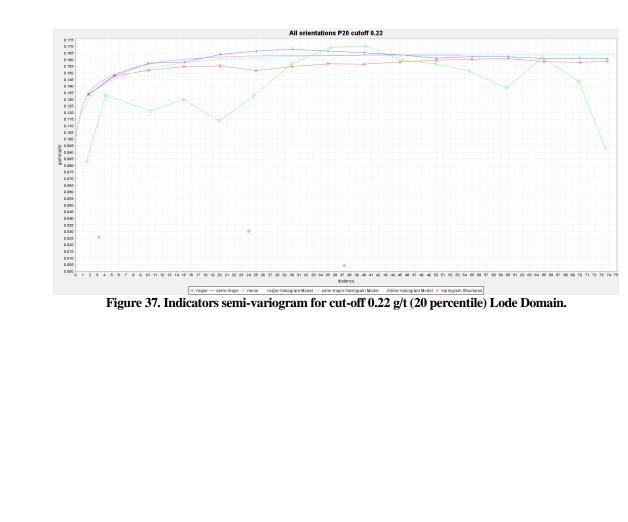


Figure 36. Indicators semi-variogram for cut-off 0.16 g/t (10 percentile) Lode Domain.





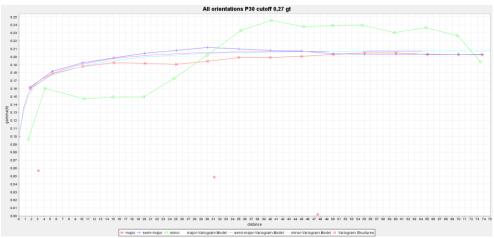


Figure 38. Indicators semi-variogram for cut-off 0.27 g/t (30 percentile) Lode Domain.



Figure 39. Indicators semi-variogram for cut-off 0.32 g/t (40 percentile) Lode Domain.

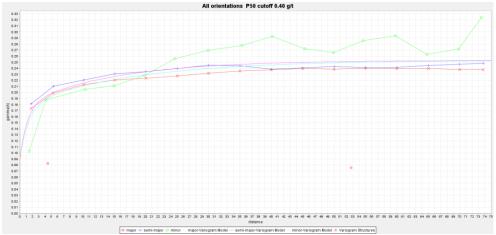


Figure 40. Indicators semi-variogram for cut-off 0.40 g/t (50 percentile) Lode Domain.



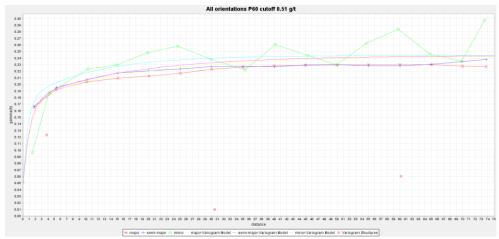


Figure 41. Indicators semi-variogram for cut-off 0.51 g/t (60 percentile) Lode Domain.

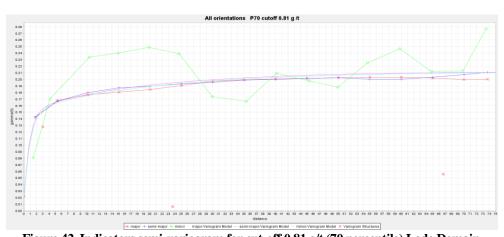


Figure 42. Indicators semi-variogram for cut-off 0.81 g/t (70 percentile) Lode Domain.

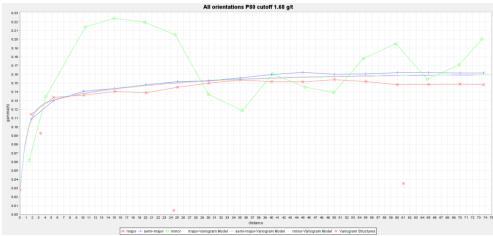


Figure 43. Indicators semi-variogram for cut-off 1.68 g/t (80 percentile) Lode Domain.





Figure 44. Indicators semi-variogram for cut-off 5.08 g/t (90 percentile) Lode Domain.

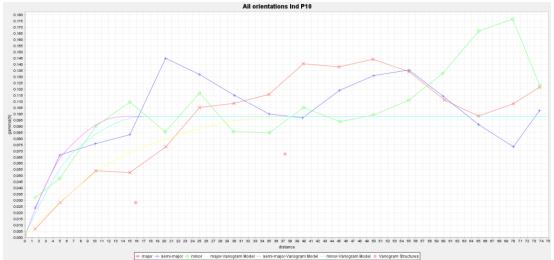


Figure 45. Indicators semi-variogram for cut-off 0.12 g/t (10 percentile) Orogenic Domain.



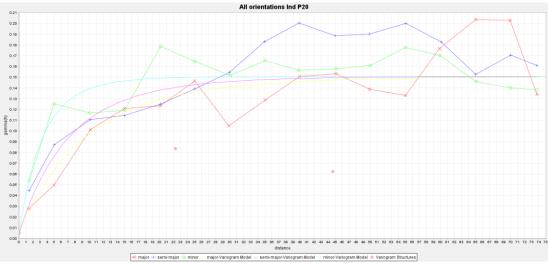


Figure 46. Indicators semi-variogram for cut-off 0.17 g/t (20 percentile) Orogenic Domain.

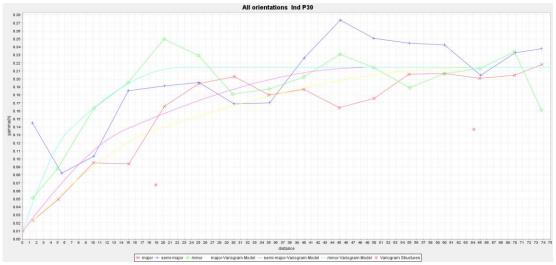


Figure 47. Indicators semi-variogram for cut-off 0.21 g/t (30 percentile) Orogenic Domain.



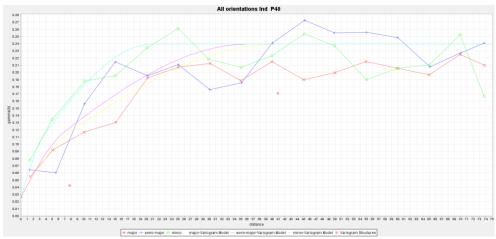


Figure 48. Indicators semi-variogram for cut-off 0.25 g/t (40 percentile) Orogenic Domain.



Figure 49. Indicators semi-variogram for cut-off 0.29 g/t (50 percentile) Orogenic Domain.

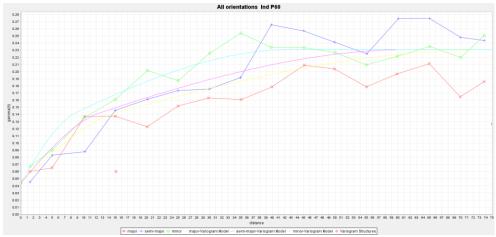


Figure 50. Indicators semi-variogram for cut-off 0.32 g/t (60 percentile) Orogenic Domain.



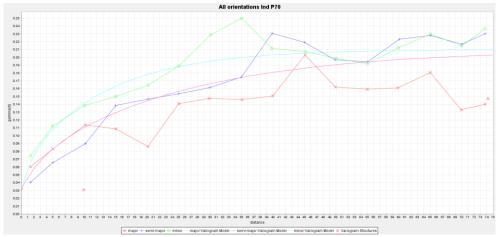


Figure 51. Indicators semi-variogram for cut-off 0.36 g/t (70 percentile) Orogenic Domain.

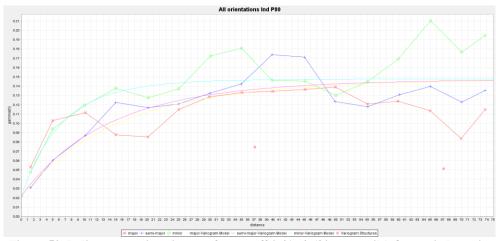


Figure 52. Indicators semi-variogram for cut-off 0.41 g/t (80 percentile) Orogenic Domain.

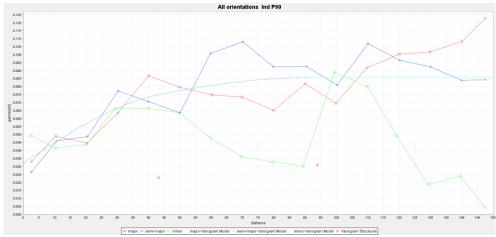


Figure 53. Indicators semi-variogram for cut-off 0.51 g/t (90 percentile) Orogenic Domain.



The Multiple Indicator Kriging to single model (Gemcom Software International Inc. ,1998) was used to interpolate the Au grades into the block model for both Domains, using the full set of indicator semi-variograms models, this is a kind of nonlinear estimator that is frequently used in the industry for estimating of skewed distribution of data.

Additionally, the nearest neighbor interpolator was used for assigning the Au grade to blocks, obtaining a decluttered Au grade model for comparing proposes.

The estimations were designed for three passes inside the maximum size of the search ellipse. In each pass a minimum and maximum number of samples were required as well as a maximum number of samples from a borehole to satisfy the estimation criteria.

The final estimated block model was validated thorough visual inspection and Swath plots Gonzáles, M. A., 2019), done according to main directions resulting a good coincidence between Au content estimated and Au from composites the same manner occur for Swath plots:

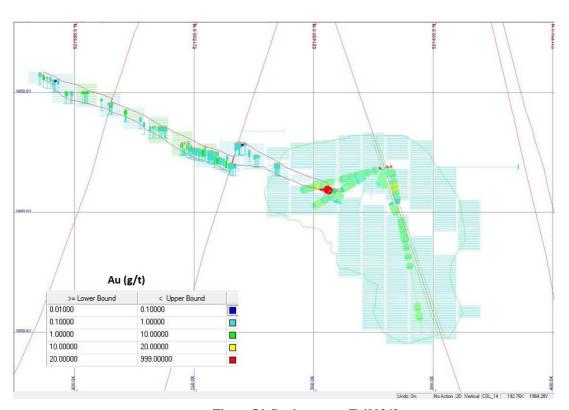


Figure 54. Section across E 490363.



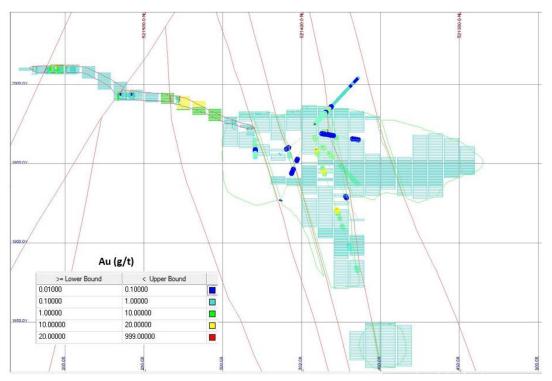


Figure 55. Section across E 490923.

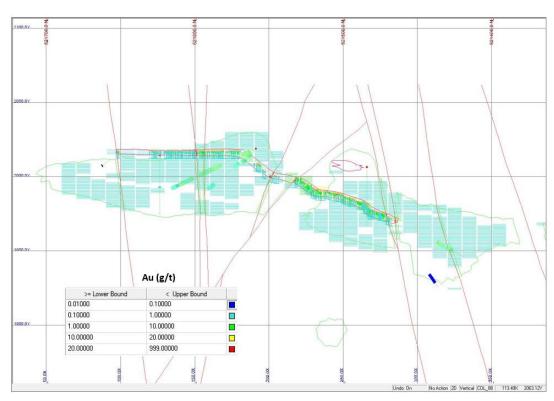
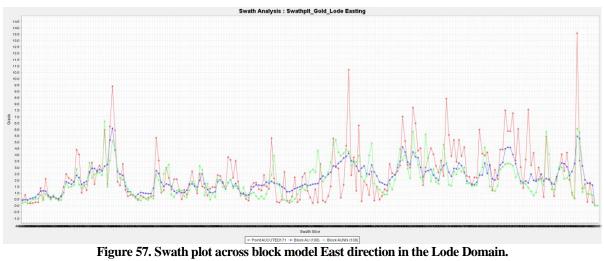


Figure 56. Section across E 490043.





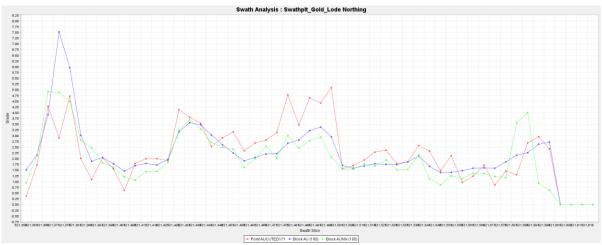
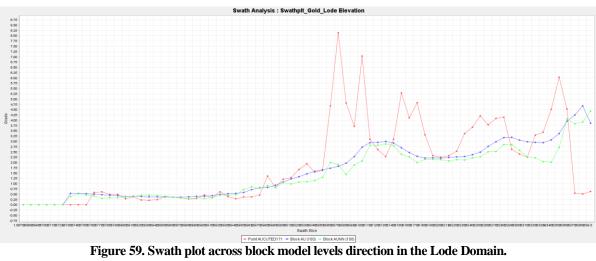
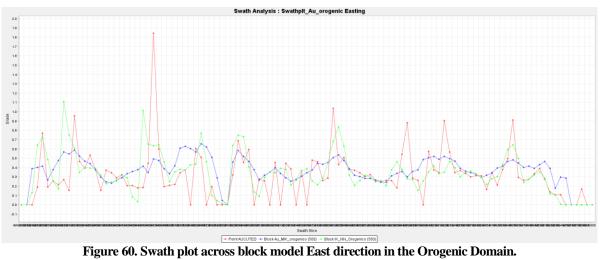


Figure 58. Swath plot across block model North direction in the Lode Domain.







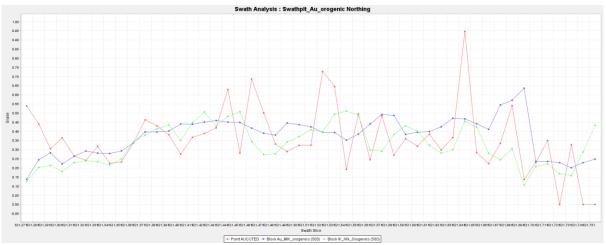
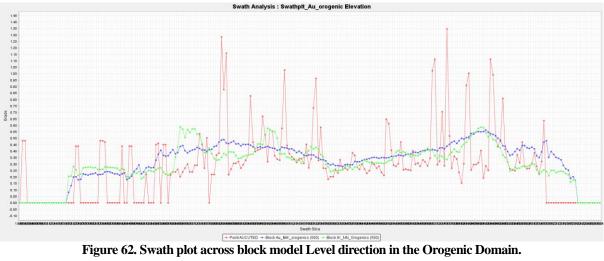


Figure 61. Swath plot across block model North direction in the Orogenic Domain.





Item 14.2.2: Mineral Resources

Once the 3D model of the deposit was completed, with the grades and densities, the volume of the block was determined using the volumetric tool from GEMCOM and the method of needles with a regular grid, and an integration level of 3 (36 needles per cell of 50 x 25 m), and the densities and grades were used for the estimation.

Table 15. Total resources on Las Ánimas mine.

Domain	Category	Cut-off, g/t	Volume, m3	Density, t/m ³	Tonnage, t	Au, g/t
		0.10	371,813	2.70	1,003,895	2.01
	Measured	0.25	362,413	2.70	978,516	2.06
	Measured	0.50	278,149	2.70	751,003	2.57
		0.75	218,572	2.70	590,144	3.10
		0.10	57,007	2.70	153,918	1.93
	Indicated	0.25	55,217	2.70	149,086	1.98
	murcated	0.50	42,436	2.70	114,576	2.46
Lode		0.75	33,752	2.70	91,130	2.94
Loue		0.10	428,820	2.70	1,157,814	2.00
	Measured + Indicated	0.25	417,630	2.70	1,127,602	2.05
	Measured + Indicated	0.50	320,585	2.70	865,579	2.56
		0.75	252,323	2.70	681,273	3.08
		0.10	478	2.70	1,292	1.34
	Inferred	0.25	478	2.70	1,292	1.34
	merred	0.50	478	2.70	1,292	1.34
		0.75	478	2.70	1,292	1.34
	Measured	0.10	501,618	2.89	1,449,676	0.44
		0.25	424,379	2.89	1,226,455	0.49
		0.50	153,518	2.89	443,668	0.71
		0.75	47,321	2.89	136,757	0.94
	Indicated	0.10	2,463,655	2.89	7,119,964	0.47
		0.25	2,249,282	2.89	6,500,424	0.50
		0.50	836,668	2.89	2,417,972	0.72
Orogenic		0.75	277,374	2.89	801,610	0.96
Orogenic	Measured + Indicated	0.10	2,965,273	2.89	8,569,639	0.47
		0.25	2,673,660	2.89	7,726,879	0.50
		0.50	990,187	2.89	2,861,640	0.72
		0.75	324,695	2.89	848,931	1.06
		0.10	883,433	2.89	2,553,122	0.39
	Inferred	0.25	770,240	2.89	2,225,994	0.41
	merred	0.50	148,104	2.89	428,020	0.70
		0.75	46,321	2.89	133,869	0.91

Category	Tonnage, t	Au, g/t	Au, kg	Au, oz
Measured	1,194,670	1.88	2,245	79,185
Indicated	2,532,548	0.80	2,030	71,617
Indicated+Measured	3,727,219	1.16	4,308	151,956
Inferred	429,312	0.70	300	10,565

Notes:

- 1. CIM definitions were followed for Mineral Resources.
- 2. Mineral resources are estimated at a cut-off grade of 0.5 g/t Au (highlighted in red in the table).
- 3. Mineral resources are estimated using a gold price of \$1,100/oz., and a US\$/C\$ exchange rate of 1.00:1.00.
- 4. A minimum mining width of 1.0m was used.
- 5. A dry density of 2.70 t/m³ for the load domain and 2.89 t/m³ for the orogenic domain was used.
- 6. The numbers may not add due to rounding.
- 7. There are no known environmental, permitting, legal, taxation, political, or other relevant issues that would materially affect these estimates.



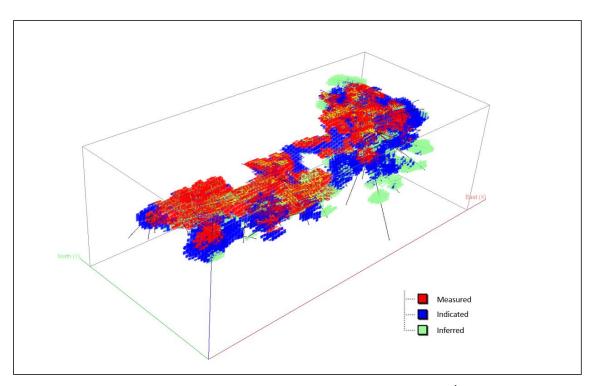


Figure 63. Measured, indicated, and inferred mineral resources at Las Ánimas mine.

 ${\bf Table~16.~Tonnage~and~grade~in~the~Lode~Domain.~Measured~Resources.}$

Cutoff	Cumulative volume	Cumulative tonnes	Grade above cutoff
0	368,860	995,922	2.37
0.1	368,860	995,922	2.37
0.2	366,196	988,729	2.38
0.3	346,429	935,358	2.47
0.4	310,470	838,268	2.66
0.5	275,324	743,375	2.87
0.6	245,854	663,805	3.08
0.7	224,269	605,527	3.26
0.8	209,285	565,068	3.41
0.9	195,542	527,964	3.57
1.0	182,049	491,531	3.72
1.1	170,318	459,859	3.88
1.2	161,932	437,216	4.00
1.3	153,979	415,744	4.11



Table 17. Tonnage and grade in the Lode Domain. Measured Resources. Indicated Resources

Cutoff	Cumulative volume	Cumulative tonnes	Grade above cutoff
0.0	56,237	151,840	2.36
0.1	56,237	151,840	2.36
0.2	56,127	151,543	2.36
0.3	52,951	142,969	2.44
0.4	48,129	129,949	2.61
0.5	41,788	112,827	2.89
0.6	38,051	102,737	3.06
0.7	34,532	93,235	3.26
0.8	32,726	88,359	3.38
0.9	30,941	83,541	3.50
1.0	29,312	79,141	3.61
1.1	27,522	74,309	3.73
1.2	26,536	71,647	3.81
1.3	25,833	69,748	3.85

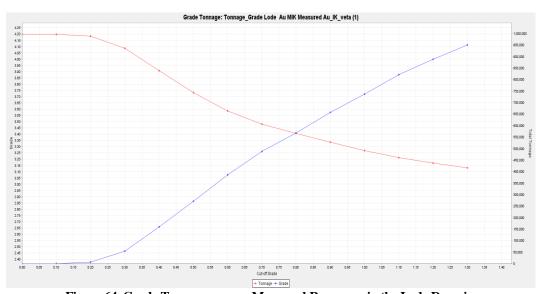


Figure 64. Grade Tonnage curves, Measured Resources in the Lode Domain.



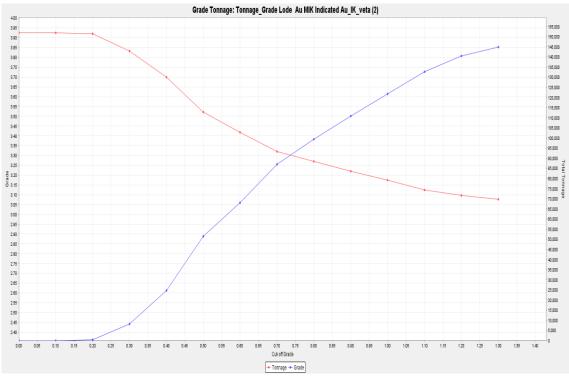


Figure 65. Grade Tonnage curves, Indicated Resources in the Lode Domain.



Table 18. Tonnage and grade in the Orogenic Domain. Measured Resources. Indicated Resources.

Cutoff	Cumulative volume	Cumulative tonnes	Grade above cutoff
0.0	505,854	1,461,918	0.44
0.1	486,414	1,405,738	0.45
0.2	358,761	1,036,820	0.53
0.3	236,694	684,045	0.62
0.4	155,259	448,699	0.71
0.5	102,554	296,380	0.79
0.6	61,724	178,382	0.89
0.7	36,713	106,099	0.99
0.8	20,739	59,936	1.11
0.9	13,119	37,913	1.21
1.0	8,041	23,238	1.31
1.1	5,606	16,202	1.39
1.2	505,854	1,461,918	0.44
1.3	486,414	1,405,738	0.45



Table 19. Tonnage and grade in the Orogenic Domain. Indicated Resources. Indicated Resources.

Cutoff	Cumulative volume	Cumulative tonnes	Grade above cutoff
0.0	2,470,939	7,141,013	0.48
0.1	2,436,567	7,041,680	0.48
0.2	1,975,696	5,709,763	0.54
0.3	1,302,475	3,764,152	0.63
0.4	840,373	2,428,678	0.73
0.5	552,758	1,597,471	0.82
0.6	350,043	1,011,625	0.91
0.7	213,402	616,733	1.01
0.8	134,565	388,893	1.11
0.9	85,124	246,010	1.21
1.0	56,717	163,913	1.29
1.1	36,025	104,113	1.38
1.2	2,470,939	7,141,013	0.48
1.3	2,436,567	7,041,680	0.48



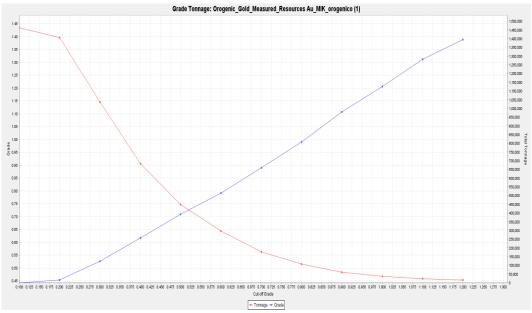


Figure 66. Grade Tonnage curves, Measured Resources in the Orogenic Domain.

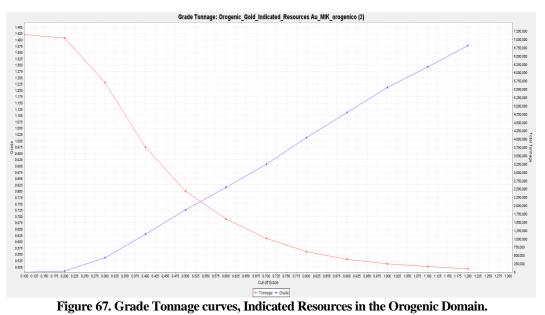


Figure 67. Grade Tonnage curves, Indicated Resources in the Orogenic Domain.



Item 15: Mineral Reserve Estimates

This section is not applicable.



Item 16: Mining Methods

Little is known of its development sequence, but examination of the mine shows that the initial primary adit was the San Carlos that was collared on the vein and development to the east and west were started. It appears that miners benched or drove an inclined shaft down to the 1927-meter level and then drove an exploration drift to the east until the vein petered out at about the present powder magazine location. This is evident by the old drill holes observed on the 27-meters level that were drilled from the east. A second level was driven to the east on the principal adit level and this adit carried over through the Fermin to the Las Ánimas mine. It is not known whether the 1927-meter level or the upper level was driven first.

Two portals were driven in from the Las Ánimas creek to access these adits (1927-meter level and 1955-meter level). The 1927 level became the main haulage level. Mining joined the 1927 and 1955 levels with all ore was taken out of the Las Ánimas portal on the 1927-meter level to the California stamp mill located above the Las Ánimas creek.

Mining was done initially using hand drill steel and later air powered jacklegs with a pseudo room and pillar mining method being employed. Pillar placement was at the miner's discretion and placement was not as based on geotechnical information. Overmining of spans resulted in local ground hanging wall failures. Where these type failures occurred, the miners simply went around the area of the failure and started again.

Mining in the Las Ánimas zone was more difficult as it was not accessed from below (1927-meter level) and the ore was hauled over an internal raise and literally pushed down to the level. A California stamp mill was installed in the upper workings of the Las Ánimas to pulverize the rock then using water and a series of flues to "flow" the ore to the 1927 level.

In early 1999, the Company initiated access to the mine to permit the use of the diesel mining equipment in the mine. Since that time, the company has completed slashing the adit and the 1927-meter level, ramping up to the 1987-level in the Las Ánimas mine, ventilation raising and stope raising.

Ramping totaling 570 meters was driven up at a 12% grade from the 1927-meter level to connect the old workings at the 1940-meter level and then on up to the 1987-meter level. Lateral development totaling 736 meters was driven on 11 levels to either explore for the easterly extent of the ore zone or development for mining.

The company processed the gravity concentrate by passing the gravity concentrate produced the Falcon Concentrator and the Jig over a Wilfley table in 3 passes to produce a super concentrate. Initially, this super concentrate was amalgamated in a special mill to produce a gold–silver amalgam that was distilled and refined to produce a gold/silver dore with a fineness of 700 gold, 250 silver and 50 impurities. This dore was sold to the metals broker. Currently, the Client is not using amalgamation in accordance with Colombian Laws.

With the initiation of the processing of the floatation concentrated using a cyanide leach method, the floatation concentrates super concentrated the gold/silver and produced a dore that had a fineness of 300 gold, 550 silver and 150 impurities.



Trace elements studies were conducted to identify problem elements that could be occurring. Elements such as Arsenic, Mercury, Selenium, and Bismuth were reported with only Bismuth being reported quantities greater than trace amounts. This was confirmed by the metals broker who tested the sulfide concentrate for purposes of sale to another processer.

Mill Flow Sheet

The mill flow sheet consists of crushing, grinding, gravity, floatation, and cyanide circuits to produce a sellable dore. Originally, the mill was designed as a with a gravity circuit only and after production commenced it was obvious that the other circuits were required. The mill circuit was upgraded to include floatation in 2004 and cyanide in 2006.

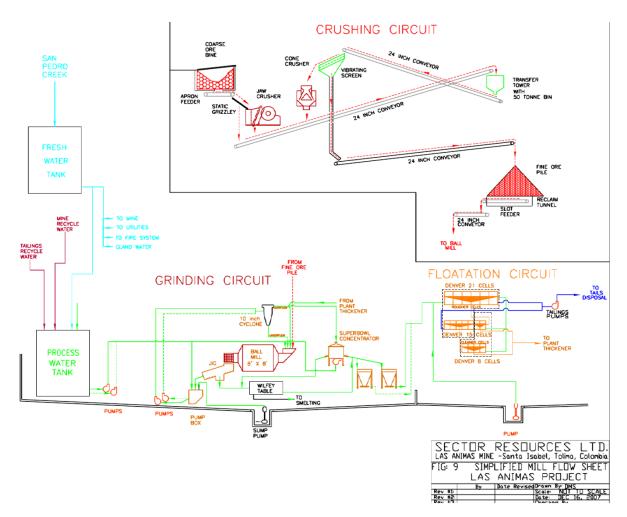


Figure 68. Simplified Mill Flow Sheet.



Crushing

The crushing circuit receives rock from the mine at a maximum size of 30 cm by 30 cm and reduces the feed to a size of 1.6 cm. This is accomplished by passing the feed through a 15 inch by 28-inch Jaw crusher on to a vibrating screen where the oversize is re-circulated through a 3-foot short head cone crusher and the undersize passes on to the fine ore feed pile.



Item 17: Recovery Methods

Grinding and Gravity

The grinding circuit consists of a slot feeder passing the 1.6 cm mill feed to an 8 X 8 ball mill which grinds the mill feed to 80% passing 80 mesh slurry and feeds a jig to recover the coarse free gold. The slurry is then pumped to - a 10-inch cyclone that sizes the feed to 80% passing 80-100 mesh with the oversize returning to the mill for regrind and the undersize to the Falcon Superbowl concentrator to recover the free fine gold. Tailings from the Superbowl are passed to Floatation for further pressing and concentrates from the Jig and Superbowl are then passed over a wifely table 3 times to create a super concentrate for amalgamation.

Floatation

Tailings from the Superbowl are passed to a rougher floatation circuit consisting of a 3 Circular cells system and 4 bank Denver 8 floatation cells for cleaning. Tailings from cleaner cells return to the circuit for reprocessing and the middling pass on to the plant thickener for cyanide leaching.

Cyanidation

The cyanide circuit receives a thickened concentrate that passes to a 4' x 6' ball mill for regrinding to -325 mesh using cyanide as the liquid media. From regrind mill, the slurry passes through 6 leach tanks having a retention time of 24 hours to the filter press where the leached solids and pregnant solution are separated, and the solids are sent to a wash tank for neutralization and discharge. The pregnant solution is then filtered and sent to the Merrill Crowe unit for precipitation.

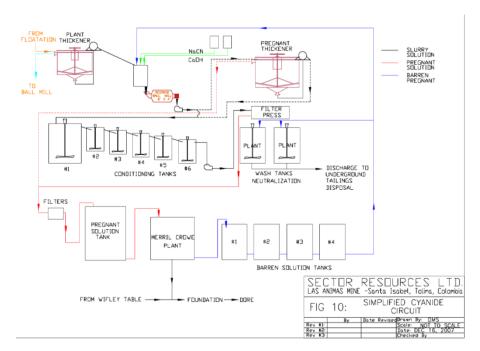


Figure 69. Simplified Cyanide Circuit.



Item 18: Project Infrastructure

On Site Infrastructure

Mine Facilities

The company permanent facilities at site consist of a crushing plant capable of handling the production of 400 tonnes per day; a processing plant containing grinding, gravity, floatation and cyanide circuits capable of processing 250 tonnes per day, a diesel repair facility capable of repairing and rebuilding the underground equipment, a compressor/generator building with an electrical substation, laboratory/office complex and a 10,000 gallon tank farm. Temporary facilities utilizing shipping containers exist in the form of the warehouse and mine facilities.

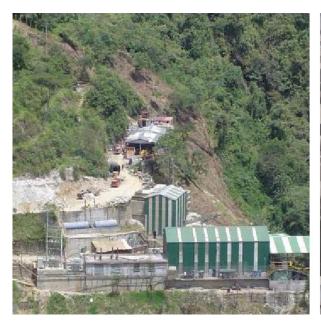




Figure 70. Las Ánimas Mine site.

Construction of a modern mineral process plant was initially completed in 2001 and upgraded in 2003 and 2007 to include a floatation and cyanide circuits. Shortly after site clearing commenced, it became evident that areas of the site had poor ground stability and as a result construction was completed using severe geotechnical constraints to design the plant under weight and vibration restrictions.

The mineral processing plant consists of two buildings one for crushing and one for grinding, floatation, and cyanidation. The crushing building is a modern circuit that contains a jaw crusher, cone crusher and vibrating screen to crush mine feed (8 - 12 inches) to a mill feed of 0.5 inches. The crushing circuit is operated by 2 people per shift and can crush up to 400 tonnes per day.

The processing building contains an 8'x 8' ball mill, a jig and super bowl concentrator, a Wilfley table and 3 banks of sulfides to produce a high-grade gravity concentrate of sulfides and free gold and a medium grade sulfide floatation concentrate. Outside, under a steel roof exists the cyanide system that consists of a plant thickener, a regrind mill, a conditioner tank, a pregnant thickener, 6 leach tanks, a filter press, 2 wash (neutralizing) tanks, a pregnant solution tanks and 4 barren



solution tanks designed to process 20 tonnes of concentrate per day. The cyanide circuit was designed and constructed to contain 100 % of the liquids contained in the tanks should a tank rupture or accidental discharge take place.

Diesel Repair Facility

The diesel repair facility consist of an undercover repair facility with sufficient area to work on 3 pieces of equipment at any given time, a tool room, and electrical room for the repair of motors, fans etc., an office and an oil/water separator to clean any waters contaminated by the washing of the equipment.



Figure 71. Diesel repair facility at Las Ánimas Mine.

Compressor Building with Electrical Substation

The Compressor building houses 2-1000 Cfm electrical compressors (due to elevation the compressors are down rated by 20%). The building was acoustically designed to suppress the compressor noise by constructing double walls with a layer of dry sand between the walls.

Recently the substation was upgraded to receive 34.5 kVolt power from the local power distributor and this is transformed to 4,160 and 440 3-phase electrical power.

Laboratory

The laboratory is a modern laboratory with facilities to achieve full fire assay with gravimetric finish, quantitative assaying using the Leachwell process and facilities to conduct total cyanide assaying including assaying for weak acid degeneration (WAD) of cyanide complexes, Equipment installed in the lab includes a Perkins-Elmer Atomic Absorption Spectrometer, 3 lab foundation ovens in a vented fume hood, one high precision microbalance, one microbalance, one bottle roller



and other lab equipment to achieve the functions required. In a separate facility (a sea container) equipment for the sample preparation includes a laboratory jaw crusher, a laboratory cone crusher, a laboratory rolls crusher, 2 ring-puck pulverisers (capable of pulverizing 7 samples simultaneously), and a gravimetric shaker with screens.



Figure 72. The entrance to the lab is secured by an iron door.



Figure 73. Electrical furnace to dry samples.





Figure 74. Crusher.



Figure 75. Pulveriser.



Figure 76. Furnace for melting.



Figure 77. Perkins Elmer atomic absorption spectrometer.





Figure 78. Bottle roller for Leachwell assays.



Figure 79. Microbalance Station.



Figure 80. Standards used at the lab.

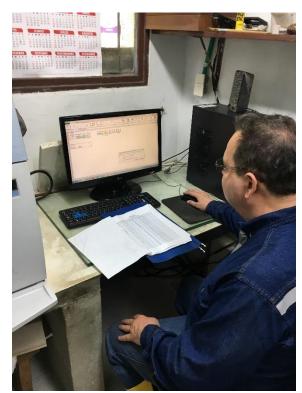


Figure 81. Audit of the database by the QP.



Office Complex

The office complex consists of 3 offices and a large communal working area with eight-individual separated working areas for the engineering and technical staff.

10,000 Gallon Tank Farm

Prior to the installation of the Enertolima 34.5 kVolt power line, power was supplied by 2 -750 Kw (625 kW downrated due to elevation) diesel fired generators. These generators burnt some 650-700 gallons per day of diesel fuel that required a tank farm of 10000 gallons be constructed.

Temporary Facilities

Temporary facilities installed at site include warehousing, sample preparation construction, and underground offices. These facilities were installed where geotechnical information indicated that a lightweight structure was required due to ground stability requirements.

Timber, Sand and Gravel

Timber is available locally from various suppliers and require short distance to transport. Sand and Gravel is available in Venadillo and requires a transport of approximately 30 km to the mine over rural roads. The mine produces its own gravel for construction by crushing the waste rock derived from development headings.

Water Supply

Enough groundwater is found through out the area to keep an adequate flow in most of the creeks. The Las Ánimas Creek is intermittent but quickly changes from a dry streambed to a raging torrent that will fill a 36-inch culvert as a result of the intense torrential rains.

Water is derived from two branches of the San Carlos Creek. The San Carlos Creek flows the year around and supplies enough water for the mine and plant operations. Small containment dams have been constructed enough to allow for sufficient water draw off but not impede the creek flow. By Colombian law, the company is allowed to draw off only 25% of the creeks flow in the dry season at any given time.

Electrical Power

The site is connected to a 34.5 kVolt line owned by the electrical provider "Celsia". Electrical power is supplied from the substation at Rio Rocio in the Magdalena River valley on new 34.5 kVolt line to Santa Isabel. The mine has installed a connecting 34.5 kVolt line from the Berlin access to the site and has established a substation capable of producing electrical 1.5 megawatts at 4160 and 440 volts.





Figure 82. Electrical Substation.

Brief power outages are common and last for a few minutes. For emergency power, the mine has 2 SMDO diesel generators capable of producing 1.2 megawatts of power at 440 volts.

Wi-Fi

The site has Wi-Fi capabilities at the main offices.

Security

The site counts with a security office with a metal detector at the entrance of the mine and closed camera system.

Off Site Infrastructure

The Client has a HQ office at Ibagué with eight offices, a board room, and a shack with two independent offices.





Figure 83. Main office of the Client at Ibagué.



Item 19: Market Studies and Contracts

The Client does not have a buyer's contracts to purchase the produced gold from the mine. No other market studies have been completed.



Item 20: Environmental Studies, Permitting and Social or Community Impact

The Client has all the necessary environmental permits to work on the mine. There are no known environmental issues that could materially impact the issuer's ability to extract the mineral resources or mineral reserves.

In order to increase production capacity, The Client has presented a proposal before the Environmental Authority, Cortolima, to improve and increase Tailings deposit size. The study is underway.

There are small communities in the area such as Santa Isabel, Junin, San Rafael and Colon. However, there are no social or community related requirements and plans that could affect the normal function of the project.

Following the recent law changes, The Client has presented a Social Plan (PGS) required by the Environmental as well as the Mining Authorities, which is under study.

The Client has always maintained particularly good relationship with the communities by supporting health, work, education, environmental and social programs.



Item 21: Capital and Operating Costs

Sector has completed a scoping study of the mine in 2020 The QP will present here a summary of that study. The complete scoping study can be requested from the Client.

Item 21.1: Operating Costs.

According to historical information the overall operating cost of Sector is US\$ 79.31 per ton including off-site transportation, processing costs. Additional administrative and corporate expenses of US\$12.30 per ton. The calculated operating and administrative costs are summarized in the Table below.

Inflation varied between 9.2%-3.5% in Colombia over the period from 2000-2019 with an estimated rate of inflation for 2019 of 3.50%. Although Colombia has historically been one of the most stable economies in South America the operating and capital costs were calculated in US\$ to help negate the effect of inflation.

Table 20. Summary of operating costs.

Item	US \$/ Tonne
Administration	12.30
Mine	47.98
Mill	13.56
Maintenance	17.77
Total	91.61

Item 21.2: Capital Costs

The Las Ánimas project additional capital costs are estimated at \$2.5 Million which includes a 15% contingency. A summary is shown below in Table 8. The costs include the upgrade of the processing plant from 240 tons/day to 400 tons/day and Tailing Dam construction. A summary of the capital costs is shown in the table below.

Table 21. Cash flows and sensitivities.

Item	US\$
Upgrade processing plant	\$ 1.750,000
Tailings dam construction	\$ 425,000
Contingency (15%)	\$ 300,000
Total	S 2,500,000



Item 22: Economic Analysis

The sensitivity economic analysis started with a gold grade of 2.56 g/t which is the average grade of the Measured and Indicated Resources at cut off of 0.5 grams/ton. It is also included a conservative performance with grade of 3.08 g/t and 3.5 g/t. The net income before taxes under this analysis varies from \$3.5 millions to \$7.9 millions per year

Since, the crushing system has a capacity of 400 tons/day, Sector has evaluated another scenery increasing processing plant capacity to 400 tons/day. It includes grades of 2.56 gr/ton, 3.08 g/t and 3.5 g/n. The net income before taxes under this analysis varies from \$7.0 millions to \$14.3 millions per year

A Net Present Value Analysis is presented on table 22 at 10% discount. It considers the total tonnage of the actual Measured and Indicated Resources certified by the QP. The NPV varies from \$21.8 to 48.8 million for plant capacity of 240 tons/day and \$30.7 to \$62.6 million for plant capacity of 400 tons/day.

It is important to mention again that the Gold Price for all this economical analysis has been flatten to \$1,900/oz over the 10 years.

The assumptions used in the cash flow were as follow:

- 1. Processing Plant Recovery of 93%
- 2. Smelting Cost of 2.5% of the Gold Price
- 3. Net Royalty Payment of 3.2%
- 4. The processing plant will be in operation 52 weeks per year and 7 days per week
- 5. Fixed Gold Price of \$1,900 per ounce



Table 22. Cash flows and sensitivities.

Production Variables	KEYINPUTS
Operating Days/Week	7.00
Operating Weeks /Year	52.00
Dilution Factor	10%
Milling Rate Capacity	1.00
% Gold Recovery	93%

	Tons/Day	Grade	rade Gold Price				
Scenario 1	240	2.56	\$	1,900			
Scenario 2	240	3.08	\$	1,900			
Scenario 3	240	3.50	\$	1,900			
Scenario 4	400	2.56	\$	1,900			
Scenario 5	400	3.08	\$	1,900			
Scenario 6	400	3.50	\$	1,900			

SENSITIVITY FINANCIAL ANALYSIS

Scenarios	1	2	3	4	5	6
Tons per day	240	240	240	400	400	400
Tons per Year	87,360	87,360	87,360	145,600	145,600	145,600
Gold price (\$/ounce)	1,900.00					
Smelting Cost+ Royalty Fees	108.30					
Net Price	1,791.70					
Grade (gr/ton)	2.56	3.08	3.50	2.56	3.08	3.50
Grade (oz/year)	6,687.03	8,045.33	9,142.42	11,145.05	13,408.89	15,237.37
Cost/ Oz	1,265.95	1,052.22	925.95	1,164.08	968.82	852.56
Cost/ Ton	90.36	90.36	90.36	82.48	82.60	82.60
	Yearly	Yearly	Yearly	Yearly	Yearly	Yearly
Net income before Taxes	\$ 3,555,677	\$ 5,989,583	\$ 7,955,430	\$ 7,061,482	\$ 11,100,919	\$ 14,377,331

Note:

 $Gold\ price\ (\$/ounce)\ 1,900,\ smelting\ cost+royalty\ fees\ 108.30,\ net\ price\ \$1,791.70$

Not	Income	hafara	Tovac	Flow

Scenarios	1	2			3	4	5	6
Tons per Year	87,360		87,360		87,360	145,600	145,600	145,600
Year 1	\$ 3,555,677	\$	5,989,583	\$	7,955,430	\$ 7,061,482	\$ 11,100,919	\$ 14,377,331
Year 2	\$ 3,555,677	\$	5,989,583	\$	7,955,430	\$ 7,061,482	\$ 11,100,919	\$ 14,377,331
Year 3	\$ 3,555,677	\$	5,989,583	\$	7,955,430	\$ 7,061,482	\$ 11,100,919	\$ 14,377,331
Year 4	\$ 3,555,677	\$	5,989,583	\$	7,955,430	\$ 7,061,482	\$ 11,100,919	\$ 14,377,331
Year 5	\$ 3,555,677	\$	5,989,583	\$	7,955,430	\$ 7,061,482	\$ 11,100,919	\$ 14,377,331
Year 6	\$ 3,555,677	\$	5,989,583	\$	7,955,430	\$ 7,061,482	\$ 11,100,919	\$ 14,377,331
Year 7	\$ 3,555,677	\$	5,989,583	\$	7,955,430			
Year 8	\$ 3,555,677	\$	5,989,583	\$	7,955,430			
Year 9	\$ 3,555,677	\$	5,989,583	\$	7,955,430			
Year 10	\$ 3,555,677	\$	5,989,583	\$	7,955,430			

Net present	value analys	is with measure	d & indicated	l resources

Scenarios	1	2	3	4	5	6
NVP @ 10%	\$ 21,848,094	\$ 36,803,393	\$ 48,882,674	\$ 30,754,595	\$ 48,347,396	\$ 62,617,024





Item 23: Adjacent Properties

The Las Ánimas mine initiated production in 1921 and has been in intermittent production since then firstly as a low tonnage high grading operation run by contract miners then as a 200 tonne per day operated by the current owners. During the 1930's and 40's, it has been reported that as many as 21 California Stamp mills were operating in the Santa Isabel area which is indicative of small high grading operations using simple gravity circuits (pulverizing with the stamp mills and using a sluice) to extract free gold. The production from the area was kept secret due to public order and little records were filed with the government but it is apparent this area was a major producer of gold in the past.

Numerous old adits have been located in the valley, but most have been simple exploration adits that were driven on the veins and most explored were abandoned after only a few meters of development due to low grades.

Eight small tonnage operations are in production or exploration in the Líbano area (19 km to the North - North East), one mine is in operation near Santa Teresa (some 10 km to the North - North East) and the Berlin Mine (currently shut down) approximately 700 meters to the east south east of the Las Ánimas Mine.

Líbano Area

Eight small underground operations working in the area but the production from each mine cannot more exceed than 20 tonnes of ore per day. Geologically these operations are similar to the Las Ánimas - mining small quartz veins and essentially looking for and extracting Bonanzas.

Santa Teresa

One small operation is working in the area, but little is known of the geology and the production. It can be assumed that this is along the strike of the Las Ánimas Vein, so the geology of the deposit is similar.

Sonsisa Mine

During Sector Resources Tenure at the Las Ánimas Mine (9 years), the Sonrisa Mine has changed ownership 3 times and has been in and out of production numerous times. It has been alleged that the mine owners have been associated with illicit operations in Colombia.

At peak operations, the mine employed 20 people and produced up to 10 tonnes per day of ore coming from a narrow vein like the Las Ánimas, but ground falls on more than one occasion has suspended operations. The cause of these ground falls is not known at they could be the result of faulting, poor rock conditions or bad mining practices.

Figure 84 shows the location of various mine in the area.



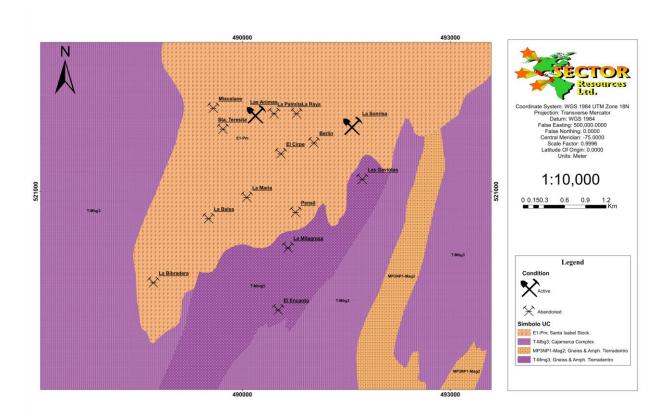


Figure 84. Location of other deposits in the area.

The presence of these deposits in the vicinity of the areas of interest of the Client is not necessarily indicative of the mineralization on the area that is the subject of this report.



Item 24: Other Relevant Data and Information

Item 24.1: Lineament analysis by P. Geo. Dr. Vadim Galkine

Item 24.1.1 Complex Structural Analysis

Dr. Galkin conducted the Lineament Analysis and Modeling as if there were no geological data available for the area. The method of Complex Structural Analysis⁹ (Fig. 85) used here includes the following consequent techniques:

- Lineament (fault and fractures) Analysis using aerial and satellite data of various sources. The analysis itself is a purely manual procedure. Hence, apart from occasional human errors and distortions or the flaws of the images, no artificial systemic errors (such as automatic processing bias) affect the results.
- Physical (analogue) modeling of the main lineament/structural frame mechanical response to the different geodynamic conditions.
- Processing of the data with various computer programs (proprietorship and commercial) and creating contour maps of lineament densities and strain levels for the area.
- Analyzing the data and outlining the areas which should be the Primary Exploration Targets from the standpoint of the method.
- Analyzing the resulted maps along with geological, geophysical, and geochemical data. This part was completed by P. Geo. Ricardo Valls and will be explained later.

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⁹ www.remoteexploration.com



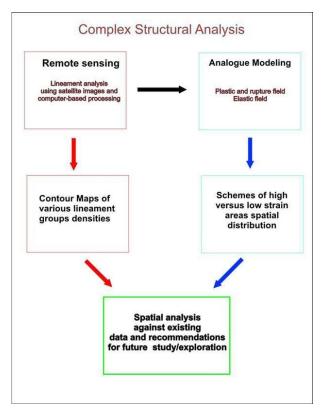


Figure 85. Complex structural analysis.

The application of the method to the area in question seems to be very logical. Most gold occurrences are associated with deformational structures. The outlining and analysis of the spatial distribution of lineaments (modern and old faults and fractures) constitute the quintessence and main purpose of the Complex Structural Analysis technique.

To eliminate the boundary effect that distorts the automatic contouring, the agreed area for the analysis was of 520 km² which is larger than the studied object itself.

Item 24.1.2: Structural Lineament Analysis

Lineaments can be defined as linear surface features visible on a map. Accordingly, one may speak of topographic, photo-, satellite, geological, geophysical lineaments etc. In our study we deal with photo- and topographic lineaments. These linear features, as a matter of fact, represent the surface reflection (projection) of either a geological body (such as a dyke or a layer, bed, intrusion) or of a plane of anomalous physical property - such as fault rupture, zone of mechanical weakness (or hardness), zone of high (low) permeability etc. Hence, by studying lineaments, we indirectly study the surface pattern of the physical properties, mainly – the distribution of fractures and faults projection on the earth's surface.

Lineament analysis as a method of obtaining new geological information has been in existence for at least 50 years. "Pros" and "contras" of the method have been discussed in numerous papers. The method is a "mainstream" in hydrogeology, where the direct links between water accumulation and fractures density pattern has been proved. Direct link with mineralization is not that



straightforward, since the mineralization is often geologically old, and the lineaments observed are believed to be of somewhat recent age. On the other hand, more and more data are being published that prove the fact that the visible lineaments inherit to rather larger extent the pattern of pre-existing fractures.

In 1980s a lot of papers were published with the results showing that statistically relevant correlation exists between regional (or even global) network of lineaments and spatial distribution of the mineral deposits (Selby, 1987). Even relatively recently (Chernicoff, Richards, Reviews, & 2002, n.d.), argued that there exists an un-doubtful crustal lineament control on magmatism and mineralization in north-western Argentina. We will leave that discussion outside the scope of the current study. Let us note, nevertheless, that while there might be a disagreement amongst the geologists about spatial correlation of mineral deposits versus lineaments of unknown nature, everybody agrees that a lot of ore deposits are controlled by lineaments which reflect fault and fracture networks.

Anyhow, it seems to have become a conventional view that, if taken in combination with other geological methods and applied with precaution, the technique might provide a researcher with the new kind of valuable information which would have remained hidden otherwise. This study takes into consideration only lineaments and their distribution, without preliminary geological/geophysical/geochemical data analysis.

All lineaments were divided (ranged) into four groups - main, secondary tertiary and circular. The drawing has been done in ArcGIS environment in real coordinate world. When necessary, the source images were georeferenced using ArcMap Tools, as well as other georeferencing software.

Tertiary lineaments are straight lines due to changes in surface pattern or color nuances in the images. The length of tertiary lineaments is usually in the range of 1/100 - 1/20 (with few outliers being shorter or longer) of the size of the area of the study. Sometimes, substantial portions of the area under the study are covered with cultivated fields, residential areas, and roads. Drawing the tertiary lineaments in these areas is impossible, and roads/power lines, etc. must not be mixed up with natural lineaments. Such areas are either excluded from tertiary lineament analysis or are considered with precaution during the interpretation.



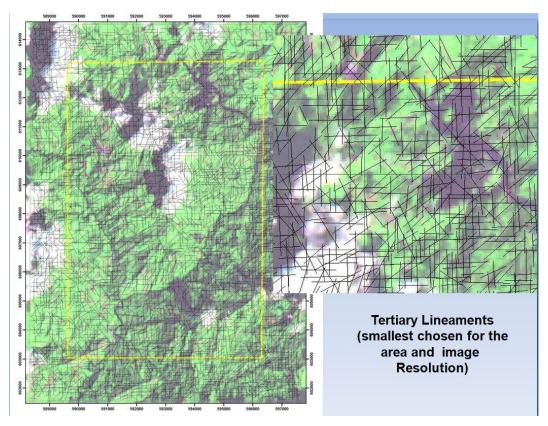


Figure 86. Tertiary lineaments.

Secondary lineaments are straight lines due to changes in surface pattern or color nuances extended through several hundred meters. The length of tertiary lineaments is usually in the range of 1/20 to 1/5 (with few outliers shorter and longer) of the size of the area of the study.



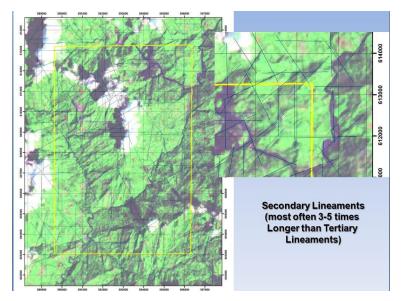


Figure 87. Secondary lineaments.

Main lineaments can be clearly traced through at least 1/3 of a map or longer, and often may be represented as series of closely placed parallel lineaments.

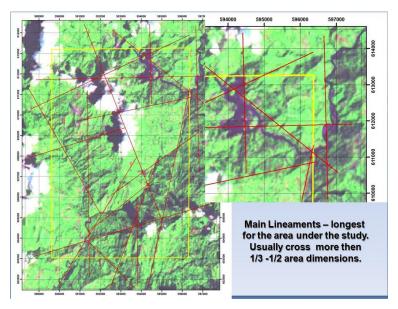


Figure 88. Main lineaments.



Circular lineaments can be seen and drawn using both the colour changes and the pattern. Circular lineaments played an important role in this study. Their diameter varies broadly.

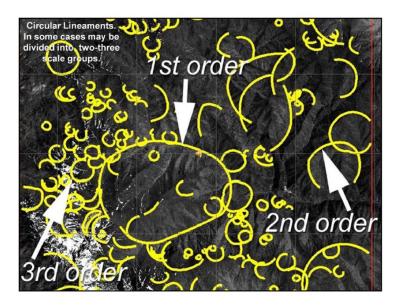


Figure 89. Circular lineaments.

The lower limit for the lineament's length (the minimal length of tertiary lineament) is scale dependent. The image with 0.3-1.3 m/pi resolution allows seeing and drawing noticeably short lineaments – 4-5 m long. The number of the features to draw would become enormous - hundreds of thousands and/or millions. Since the analysis is done manually, it would take several months of work for one person, which is unreasonable. That is why the researcher should spend some time just evaluating the right scale with which to start.

The total number of different groups of lineaments, and the number of intersections between each type of the main 4 groups of lineaments are calculated and exported as an Excel file.

4	A	В	С	D	Е	F	G	Н	I	J	K	L	M	N	0	P	0	R	s	Т	U
4	UTM E	UTM N	M	S	T	ALL	MM	MS	MT	SS	ST	TT	C	CC	MC	SC	TC	All Inters	Mw	Sw	ALLW
5	477578	511398	0.14	0.43	3.63	4.16	0.00	0.03	0.14	0.03	0.37	2.22	0.09	0.00	0.00	0.00	0.25	3.06	1.38	1.30	6.94
6	477782	511398	0.14	0.43	3.63	4.17	0.00	0.02	0.14	0.03	0.37	2.23	0.09	0.00	0.00	0.00	0.24	3.09	1.42	1.30	6.91
7	477986	511398	0.14	0.44	3.59	4.11	0.00	0.02	0.14	0.03	0.37	2.23	0.06	0.00	0.00	0.00	0.23	3.11	1.43	1.32	6.60
8	478189	511398	0.13	0.56	3.69	4.29	0.00	0.04	0.12	0.00	0.75	2.38	0.08	0.00	0.00	0.00	0.22	3.56	1.28	1.69	7.06
9	478393	511398	0.14	0.57	3.72	4.35	0.00	0.04	0.13	0.00	0.76	2.40	0.07	0.00	0.00	0.00	0.20	3.33	1.34	1.72	7.25
10	478597	511398	0.12	0.70	3.74	4.42	0.00	0.02	0.12	0.06	1.16	2.58	0.04	0.00	0.00	0.00	0.05	4.05	1.23	2.10	7.32
11	478801	511398	0.14	0.72	3.78	4.51	0.00	0.02	0.13	0.06	1.18	2.61	0.04	0.00	0.00	0.00	0.05	4.15	1.36	2.16	7.66
12	479004	511398	0.16	0.72	3.85	4.65	0.00	0.05	0.21	0.06	1.07	2.70	0.08	0.00	0.03	0.00	0.21	4.46	1.57	2.17	8.41
13	479208	511398	0.17	0.74	3.90	4.75	0.00	0.05	0.21	0.06	1.09	2.73	0.08	0.00	0.03	0.00	0.23	4.54	1.69	2.23	8.92
14	479412		0.16	0.71	3.80	4.65	0.00	0.03	0.14	0.06	0.98	2.61	0.07	0.03	0.00	0.00	0.13	4.05	1.59	2.13	8.72
15	479616	511398	0.18	0.71	3.99	4.93	0.00	0.05	0.22	0.03	0.98	3.02	0.18	0.03	0.03	0.02	0.57	4.54	1.58	2.13	10.08
16	479819	511398	0.17	0.72	4.04	5.02	0.00	0.05	0.22	0.03	1.00	3.04	0.20	0.03	0.03	0.02	0.62	5.13	1.67	2.16	10.30
17	480023	511398	0.14	0.72	3.88	4.91	0.00	0.03	0.14	0.03	1.00	2.87	0.25	0.03	0.00	0.02	0.71	4.94	1.44	2.17	10.32
18	480227	511398	0.13	0.75	4.03	5.10	0.00	0.02	0.13	0.03	1.07	3.01	0.28	0.03	0.00	0.02	0.81	5.22	1.33	2.25	10.84
19	480431	511398	0.15	0.72	3.88	4.95	0.00	0.02	0.13	0.03	1.01	2.80	0.28	0.03	0.00	0.02	0.79	4.91	1.51	2.15	10.86
20	480635	511398	0.20	0.77	4.06	5.25	0.00	0.02	0.23	0.09	1.26	3.12	0.32	0.03	0.00	0.09	0.88	5.79	2.00	2.32	11.93
21	480838	511398	0.20	0.76	4.08	5.25	0.00	0.02	0.23	0.09	1.25	3.13	0.34	0.03	0.00	0.09	0.93	5.83	1.97	2.27	12.19
22	481042	511398	0.19	0.72	3.81	4.97	0.00	0.02	0.29	0.09	1.29	2.86	0.33	0.03	0.00	0.05	0.86	5.59	1.90	2.17	11.80
23	481246	511398	0.20	0.75	3.94	5.14	0.00	0.02	0.30	0.12	1.41	3.01	0.36	0.03	0.00	0.09	0.93	6.02	1.98	2.25	12.35
24	481450	511398	0.20	0.71	3.91	5.04	0.00	0.02	0.30	0.12	1.41	3.01	0.35	0.03	0.00	0.09	0.90	6.02	1.97	2.12	12.09
25	481653	511398	0.13	0.68	4.09	5.11	0.00	0.02	0.23	0.09	1.40	3.00	0.39	0.03	0.00	0.05	0.89	5.82	1.25	2.04	11.71
26	481857	511398	0.14	0.66	4.12	5.11	0.00	0.03	0.24	0.09	1.40	3.03	0.39	0.03	0.00	0.05	0.86	5.80	1.38	1.99	11.65
27	482061	511398	0.16	0.61	4.02	4.97	0.00	0.05	0.28	0.09	1.49	3.19	0.40	0.03	0.00	0.07	0.93	6.27	1.61	1.82	11.64
28	482265	511398	0.17	0.57	4.13	5.04	0.00	0.05	0.28	0.09	1.49	3.43	0.40	0.03	0.00	0.07	0.89	6.44	1.72	1.71	11.50
29	482468	511398	0.19	0.54	4.04	4.91	0.00	0.03	0.25	0.09	1.44	3.28	0.38	0.03	0.00	0.07	0.85	6.10	1.93	1.61	11.17
30	482672	511398	0.25	0.47	4.11	5.00	0.00	0.07	0.44	0.06	1.30	3.26	0.42	0.03	0.00	0.07	0.79	6.15	2.55	1.42	11.70
31	482876	511398	0.25	0.47	4.15	5.00	0.00	0.07	0.45	0.06	1.30	3.28	0.40	0.03	0.00	0.07	0.75	5.92	2.50	1.41	11.27
32	483080	511398	0.24	0.47	3.80	4.59	0.00	0.07	0.47	0.06	1.19	2.79	0.27	0.03	0.00	0.07	0.54	5.33	2.43	1.42	9.98
33	483283	511398	0.25	0.46	3.95	4.69	0.00	0.07	0.47	0.06	1.26	2.92	0.28	0.03	0.00	0.07	0.54	5.43	2.45	1.37	9.97
34	483487	511398	0.24	0.47	3.92	4.63	0.00	0.08	0.47	0.06	1.22	2.92	0.25	0.00	0.00	0.07	0.52	5.33	2.41	1.40	9.50

Figure 90. Section of an Excel table with the calculation and weighting of the lineaments.



Calculation and interpretation were done with specially designed software written for ArcView 3.2 using different averaging window size.

Next, the table data was processed and interpreted with the help of the Surfer software. We used Kriging method for gridding. The resulting maps are contour maps of lineament (lineament intersections) densities. The maximums on such maps represent the areas with the highest lineament population (density) and therefore, with the highest permeability for any fluid flow passing through the system. An amount of fluid flowing through the zone with maximum lineament (intersections) density is larger in comparison to the minimum, and the mineralization is more likely to occur in the maximum density zone.

We also used weighting procedure during the interpretation.

Weighing is somewhat arbitrary and reflects the researcher's conception of the lineament's nature and origin. From the mechanical standpoint, fractures, and faults which we observe as lineaments form in some hierarchic order, usually from the smallest – first in time, and then to the largest. The fracture's shape in the homogeneous body must be close to a square or disc. So, the lineament, say, 200 m long may cut into the rock down to approximately 200 m, and the main lineament 6 km long, accordingly, to 6 km down. Such a conception may be an oversimplification, yet the tendency of the longer and wider lineaments to penetrate deeper than shorter ones is a well-established geological fact.

An amount of fluid flowing through the main lineament is larger than through the tertiary ones, so the mineralization is more likely to occur in the vicinity of the main lineament. Thus, it makes sense to weight (assign the *importance* value) the main lineament heavier than secondary, and much heavier than tertiary. In our processing we used the following weighting coefficients: tertiary – 1, secondary – 3, main – 10, circular -10. Accordingly, the intersections became weighted, since the weighted numbers for different groups changed. In the areas where the mineralization is controlled by intrusive magmatism and volcanism, it is reasonable to weight the circular structures heavier than small linear structures. The circular structures may reflect location of eroded intrusive bodies, volcanoes, or their projections onto the surface.

By the same token, if the geological data suggest that the mineralization occurs at shallow depth and is related to rather small intrusive bodies, then the role (weight) of tertiary/secondary lineaments and their intersections would become more important (have heavier weight). Since this study does not involve detailed geological, geophysical, or geochemical considerations, we show contour maps built with different weighing procedures.

The locations with the maximal densities of lineaments and intersections are considered as the most favorable for mineralization to occur, since those areas must have the highest permeability for the circulating fluid.

Application of different averaging window sizes gives some ideas about the regional significance of the max/min density zones. Sometimes, when moving from smaller to larger averaging window size the maximums disappear and/or shift to another location. In such a case one can reasonably assume that the maximums reflect the very local (and relatively shallow) structural situation. As often, though, the maximums stay at the same location, just growing. Such a pattern suggests the existence of deeper and more regional source of the tectonic disturbance in the area.



Again, depending on the geological model accepted for the mineralization in the study area, either smaller or larger window results may be chosen as more important from the exploration standpoint.

The pattern and the spatial distribution of zones with different lineament densities are important. Lineament analysis does not give the exact targets for immediate drilling, rather provides some clues for further ground exploration.

An important question should be discussed regarding maximum cut-offs. The method is not intended to obey to strict statistical rules. And every region is geologically unique. Same can be said about the lineaments. Their distribution can be fairy even, and in such a case the min-max values of their densities will not be of a huge difference. The cut-offs, say, 60-75% of the max value (or even higher) could be appropriate to map the maximums. As another extreme – the lineament distribution can be very uneven, and cut-offs of 30% of max value can be used. We do not want the maximum to be neither too small size nor too large. In the first case, one cannot be sure that there was no error made during the manual procedure of drawing or during the processing. In the second case, one can obtain maximums (targets) which cover more than 50% of the area, and that would not make sense from the exploration standpoint. So, the mapping of the maximums is a compromise between the statistics and practicality. Understanding of this issue becomes particularly important when we walk down the size of the averaging window. The smaller the size the more cautious one will have to be sometimes in terms of choosing the cut-offs.

It is obvious that the weighting procedure makes sense only when we consider more than three different groups of the lineaments together. Clearly, if we look only at, say, secondary and main and tertiary lineaments intersections, the spatial distribution of the maximums will stay the same regardless of the maximum magnitudes.

Item 24.1.3: Analysis of lineament orientations

Processing of the directional data involves construction and analyzing of rose diagrams and their spatial variations.

Rose diagram is a circular histogram plot. It displays directional data and the frequency of each class. Radial distance indicates the relative frequency of an observation at a certain azimuth.

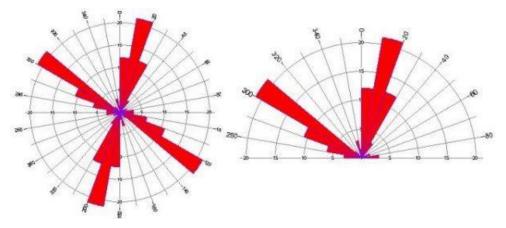


Figure 91. Full and half rose diagrams.



Rose diagrams are commonly used in sedimentary geology to display paleocurrent data, or the orientation of particles. In structural geology rose diagrams are used to plot the orientation of joints and dykes. Wind directions and frequencies (meteorology and geography) can also be plotted on rose diagrams.

In this study rose diagrams were used to visualize the preferred directions and frequency of the lineaments, and their spatial distribution over the Project Property. Basically, the longer and narrower the peaks in any direction is, the stronger and more spatially bound is the lineament system.

Like lineament densities calculation, the counting and rose diagram drawings can be made with different averaging window sizes tertiary lineaments.

To process the lineaments and build the diagrams we used the originally designed software.

Rose diagrams give the general understanding of the relative importance of the lineaments with different orientation. Yet very often one wants to know the *distribution* over the property *of the lineaments with certain, specific orientations*. It is of particular value when there are known regional or property-scale patterns of the veins/breccias/faults with the mineralization. For instance, imagine that we know that the mineralization is most likely to occur along the local small structures with 30-40NE orientation. Then, the spatial distribution of the 30-40NE (most likely, tertiary) structures on the property becomes crucial for the further exploration.

Such analysis has not been done for the property since there is no regional scale data on the vein structures. Yet, when and if such data emerge the analysis can be easily done at the request of the Client.

To process the lineaments and build the diagrams we used a proprietorship software. An example is shown in Figure 92.



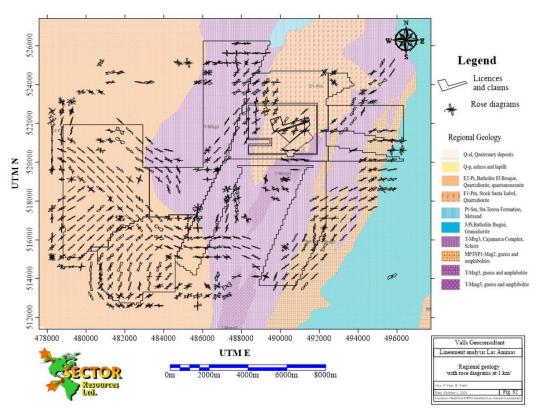


Figure 92. Rose diagrams of tertiary lineaments, 1 km averaging window.

At the given scale of the study, rose diagrams provide limited help with in targeting and exploration planning. When combined with the field observations and measurements of the fractures and faults on the ground, they become an important instrument revealing linear structures favorable for mineralization.

Item 24.1.4: Physical Modelling

Earth main crust and/or uppermost mantle heterogeneities, such as deep faults and fault zones as well as favorable pattern of faults and their intersection, are considered to be the locations of magma generation and penetration, of sedimentary basins development, of high permeability zone formation, of metamorphic processes and fluid flow canalization.

The spectrum of deposit types that are controlled by the geometry and pattern of faults is extremely wide ranged – from diamonds and PGM to oil and gas, gems, etc.

It is useful then, to apply structural exploration method where we find and outline all major faults in the area of interest, and outline zones of maximal faults densities and "knots" of fault intersections. The resulted spots should be the most favorable for finding deposits. There are, though, two problems for this procedure to be easily fulfilled.

The first problem. It is not always possible to establish all major faults at once, especially when we study an area with an overburden or due to the absence of any reliable geological data.



This problem is solved by the lineament analysis of relief, of air and satellite images, of radar images, of geophysical fields, etc.

Lineaments are superficial traces of buried faults. Their visibility even through hundreds of meters of overlaying sediments is well understood from the mechanical standpoint. Many specialists in mechanics believe that any fault with over 2 km length behaves as a very mobile structure, since even in a dormant tectonic environment the cumulative stress on it happens to become greater than the average strength of rocks. Once formed, such faults manifest themselves in tiny movements which are not significant in magnitude but still keep the faults active. These continuous movements can be seen through later structures as lineaments – faults or fracture zones with constant, often pendulum-like (pulsating) type of little displacements.

Thorough lineament analysis and subsequent processing of lineament data allows us to find the most important structures which control the system mechanical behavior.

The second problem. Theoretical consideration as well as experimental results and geological practice, indicate that only a few faults among many (fractures in experimental works) and their intersections play a controlling role in deposit location whereas others serve either as pathways for the deposit mass supply or don't affect the geological system at all. This phenomenon becomes clear from the following experiment.

Take a rubber eraser and make several cuts on one of its facets. Press the eraser from two opposite sides horizontally. See that along some cuts parallel or close to parallel to the direction of compression openings are forming whereas other cuts do not manifest themselves. Now, press eraser in a different direction, bend it, twist it. You will find several deformational patterns, despite the initial system of cuts being the same. This experiment is a good analogy for the faults /strain field interaction in nature, where the cuts represent faults and the strain field - pressure applied by your fingers.

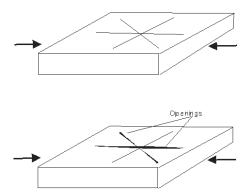


Figure 93. Deformations on a rubber eraser.

The First problem can be solved by the lineament analysis of relief, air- and satellite images, radar images, geophysical fields etc.

Lineaments are superficial traces of buried faults, and their visibility even through hundreds of meters of overlaying sediments is well explained from the mechanical standpoint. Many specialists in mechanics believe that a fault of a substantial length (say, 2 km) behaves as a mobile structure, since even in a dormant tectonic environment the cumulative stress on it becomes greater than the



average strength of rocks. Once formed, such faults manifest themselves in tiny movements which are not significant in magnitude, but they keep the faults active. Such continuous movements can be seen through later structures as lineaments – faults or fracture zones with constant, often pendulum-like (pulsating) type of small displacements.

Thorough the lineaments analysis and subsequent processing of lineament data we find the most important structures that control the system mechanical behavior.

To solve the Second problem and to find which high fracture density zones must be explored first and foremost we do additional discriminative analysis. We select those faults and their intersections, those high fracture density zones, which were the most geologically active and dominant in the area under study. There is no way to crack this problem theoretically since the real faulted volume behaves as a non-linear system for which mechanical equations proved to be insoluble.

There is, nevertheless, a way around, namely, tectonophysical (physical, analogue) modeling.

Physical modeling deals with simulation of real geotectonic processes by using analogue materials instead of rocks and substituting natural tectonic stresses, temperatures, and pressures by specifically selected laboratory conditions. While deforming selected models with initial fault structures again and again, we register all newly formed strain structures with a digital camera and analyze dozens of images to select and outdraw repeating zones of high strain.

Research indicates that regardless of the orientation of stress and chosen materials, we always find only a few zones of highest strain with an astonishingly stable spatial location.

These zones are called structural or tectonic concentrators. They indicate locations most favorable for any type of mineral deposits.

Analogue modeling is a simplification of nature. By using analogue modelling, the structures formed due to the deformation of rocks are modeled and investigated. The history of tectonophysical modeling goes back at least 140 years. H. M. Cadell was one of the first to make a model of faults and folds by using sand and clay. Today, we continue to use this technique to investigate relations between material properties and tectonic deformations of different scale.





Figure 94. H. M. Cadell's in 1886 turned the handle to move the wall to the left which caused the sand and clay to be compressed.

The result explained the structures he had observed in the field 10 .

Our lack of knowledge about real rocks is one of the major limitations to any kind of modeling of deformation. However, unlike their counterparts in nature, the initial undeformed stages of analogue models can be documented and compared to their later deformed stages. This comparison is essential to gain an understanding of the evolution of the resulting structures. Analogue modeling is a relatively simple and inexpensive technique which is valuable if its limitations are well understood.

A tectonic deformation consists of three consecutive stages: reversible elastic, plastic and permanent or irreversible. When the plastic stage is brief in time and insignificant in magnitude, we usually describe the deformation as brittle. It occurs under relatively low temperature and/or high stress and high strain rate.

During all these stages, mineralization in the heterogeneous geological medium (faults are the most important of heterogeneities) tends to be localized in the or close to these zones of low compressive and/or high tensional stresses. Mineralized fluids move from the zones of high compressive stress into zones of openings (ruptures, fractures, faults) and low compressive or high tensional stresses where they precipitate and form ore bodies.

When we use physical modeling to allocate the most favorable zones for deposit discovery, we find zones of high rupture deformation or zones with high density of fractures and openings, so called dilatation) zones, or in the areas of relatively low compressive stress compared to adjacent highly stressed zones.

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¹⁰ http://geologicalnotes.weebly.com/analogue-modelling.html



To cover all three stages of deformation in experiments we use two different materials and conduct two series of different experiments: reversible elastic deformation and irreversible plastic plus rupture deformation.

This models geological deformations which in nature occurs under different thermodynamic and tectonic conditions. We study separately twelve stress/strain regimes: a group of pure shear deformations with four different orientations of compression and a group of simple shear deformations with four different orientations of shearing.

Fig. 95 shows the general setup for twelve experiments with twelve different stress/strain orientation axes used in the series of plastic and elastic experiments:

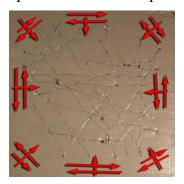


Figure 95. Twelve plastic/elastic deformation regimes. Principal model.

Item 24.1.4.1: Plastic Modelling

The model itself was made with clay dope whose mechanical properties satisfied the demands of *The Theory of Similarity* for this class of analogue modeling.

In the clay block with dimensions 20x20x2.5 cm a series of vertical cuts were made. These cuts represent the main lineaments (faults) obtained from the lineament analysis of the satellite images. The same fault-template was used in all experiments, yet its orientation relative to stress varied in each case.

Mainly Pure Shear Group. A mechanical sketch of this situation may be represented as shown in Fig. 96.



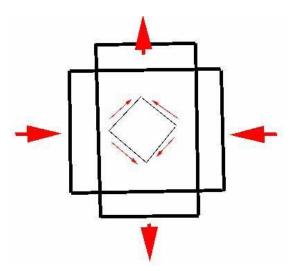


Figure 96. Mechanical sketch of the mainly pure shear group of deformations.

Mainly Simple Shear Group. A mechanical sketch of this situation may be represented as shown in Fig. 97.

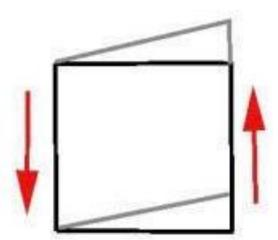


Figure 97. Sketch of the mainly simple shear group of deformations.

Simple shear is considered an ideal situation which seldom exists in earth crust, trans-pressure (additional compression perpendicular to the red arrow in the Fig. 125 above) or trans-tension occur. In our experiments, such an additional shortening was in the range of 10-20%.

The results of the experiments were recorded with digital camera, and the images we analyzed separately. Zones of openings along existing faults as well as new fractures and areas of high plastic deformations were outlined. Due to large distortions of initial pattern of faults during the deformation we copied these contours to the initial template and corrected their position to match with real lineaments pattern.

Zones of openings along existing faults as well as new fractures and areas of high plastic deformations are outlined. Due to large distortions of initial pattern of faults during the



deformation we copied these contours to the initial template and corrected their position to match the patterns of the real lineaments.

All contours of high deformations in eight experiments were overlaid in one picture, and divided into four districts of strain level was made as following:

- 1- White. Zones of zero strain. No strain was recorded in all experiments.
- 2- Blue. Zones of weak strain. Strain was recorded in only one experiment
- 3- Yellow. Zones of medium strain. Strain was recorded in three to four experiments
- 4- Red. Zones of high strain. Strain was recorded in five or more experiments.

Finally, the table of strain intensity was made, with the following values for strain levels:

Zones of zero strain - 0

Zones of weak strain - 1

Zones of medium strain - 3

Zones of high strain - 10.

For those cells which contained several areas of different strain-levels, simple weighting was applied.

In the interpretation of the results the actual location of zones of high strain and of high permeability and destruction of rocks was obtained from lineament scheme. In case of a mismatch between lineament densities and the location of high strain zones the regional geology data was considered to decide which result should overrule the other. The final targets were not be selected based on quantitative coefficients only.

Item 24.1.4.2 Elastic Modelling

Photoelasticity is an experimental method to determine the stress distribution in a material. The name photoelasticity reflects the nature of this experimental method: *photo* implies the use of light and optical techniques, while *elasticity* depicts the study of stresses and deformations in elastic bodies. Through the photoelastic-coating technique, its domain was extended to inelastic bodies.

Photoelastic analysis is widely used for problems in which stress or strain information is required for the extended regions of the structure. It provides quantitative evidence of highly stressed areas and peak stresses at surface and interior points of the structure. It also discerns areas of low stress level.

Elastic modelling is mostly used in cases where mathematical methods become quite cumbersome. The method helps to determine the critical stress points in a material and is often used for determining stress concentration factors in irregular geometries.

The method of elastic modelling is based on the property of birefringence which is exhibited by certain transparent materials. Birefringence is a property by virtue of which a ray of light passing through a birefringent material experiences two refractive indices. The property of birefringence or double refraction is exhibited by many optical crystals. Photoelastic materials exhibit the



property of birefringence only upon the application of stress and the magnitude of the refractive indices at each point in the material is causally related to the state of stress at that point. The first task was to develop a model made of such materials. The model had a similar geometry to that of the structure on which stress analysis was to be performed. This ensured that the state of the stress in the model was like the state of the stress in the structure.

When a ray of plane polarized light is passed through a photoelastic material, it gets resolved along the two principal stress directions, and each of these components experiences different refractive indices. The difference in the refractive indices leads to a relative phase retardation between the two component waves. The magnitude of the relative retardation is given by the *stress optic law:*

$$R = \mathcal{C}t(\sigma_{11} - \sigma_{22})$$

Where,

R is the induced retardation,

C is the stress optic coefficient,

t is the specimen thickness,

 σ_{11} is the first principal stress, and

 σ_{22} is the second principal stress.

The two waves are then brought together in a polariscope. The phenomenon of optical interference takes place, and we get a fringe pattern, which depends on relative retardation. By studying the fringe pattern, we determine the state of stress at various points in the material.

The birefringence of an anisotropic material can be estimated when observed and/or photographed in a Polariscope. A relationship between interference color and retardation can be graphically illustrated in the classical Michel-Levy interference color chart.

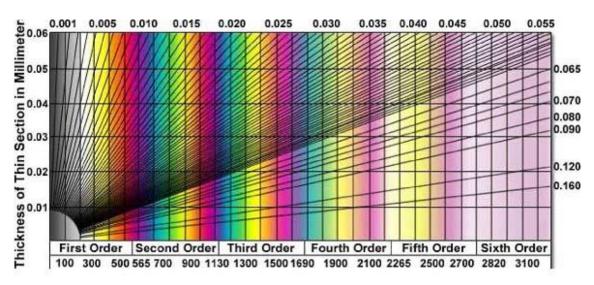


Figure 98. Michel-Levy interference color chart.



This graph plots retardation on the horizontal axis and specimen thickness on the vertical axis. Birefringence is determined by a family of lines that emanate radially from the origin, each with a different measured value of birefringence corresponding to thickness and interference color.

For our modeling we used the following chart. It shows the change in color due to increasing stress.

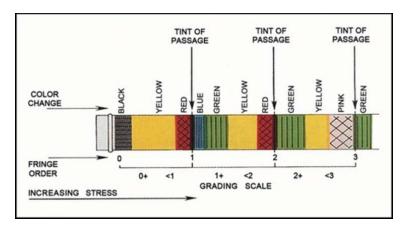


Figure 99. Colour chart.

In the elastic stress-field substances, such as fluid, mobile mineral components, magma, etc., move from the areas of high differential stress towards the areas of low stress. In the photoelastic modeling for the exploration targets we were looking therefore, for the low-stress areas and openings in the experiments.

Gelatin was used as the optically active and most suitable material for this type of modeling.

The device used for the modeling is shown in the Fig. 100.





Figure 100. Elastic Modeling setup.

The gelatin sample was placed between two polarizing plates perpendicular to each other and put on the light table. The deformation was applied to the sample and the interference image was photographed.

For exploration purposes we are interested only in a relative spatial estimation of the stress level in the sample, so the actual values of the stress magnitude were not measured/calculated.

When all the experiments were done, we outlined the areas of high, medium, and low stress/deformations for each of the experiments.

During modeling we deal mostly with the colors of the 1st and 2^{nd} isochromatic fringe orders. The low stress areas manifest the colors from black to red of the 1^{st} order and blue of the 2^{nd} one. It is important to recognize whether the fringe order is increasing or decreasing along the path of the fringe count.

Overlaying these patterns onto each other we find that zones where the deformation was high in more than half (>6) of the cases.

The repeating zones of high fracturing and openings (traps) in the plastic/rupture series and zones of low stress (or openings) in elastic series represent the most favorable places for the formation of ore deposits.

Although the results of the physical modeling may be used for exploration targeting independently, we used them as overlays over the results of lineament analysis. Locations where the highest densities of lineaments, lowest elastic strains and highest plastic/rupture strains occurred simultaneously were treated as the most favorable for any type of mineralization to occur.



Item 24.2: Complex lineament – geochemical interpretation of the area

All the geochemical and lineament data were studied using a combination of normal statistical methods like Dendograms, PCA, and FA, together with more advance methods like Compositional Data Analysis and ML. All these data and their process is contained in the digital support for this report. This complex interpretation was done by P. Geo. Ricardo Valls and P. Geo. Dr. Vadim Galkine.

Now we will show a series of maps constructed using SURFER v.19, from the regional base information to the predictive zones for further exploration.



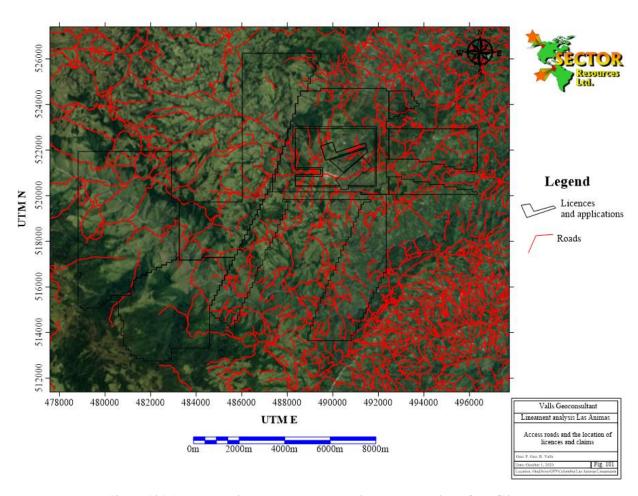


Figure 101. Base map with access roads to the licences and claims of the Client.



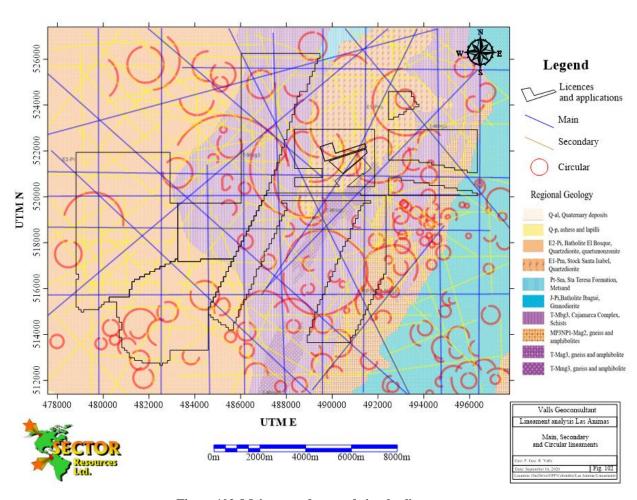


Figure 102. Main, secondary, and circular lineaments



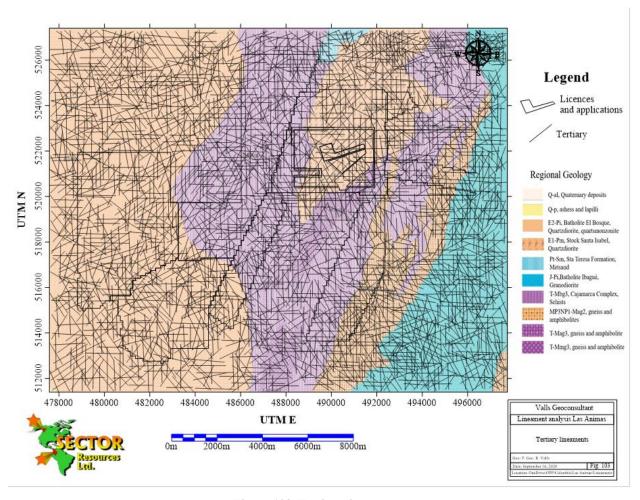


Figure 103. Tertiary lineaments.



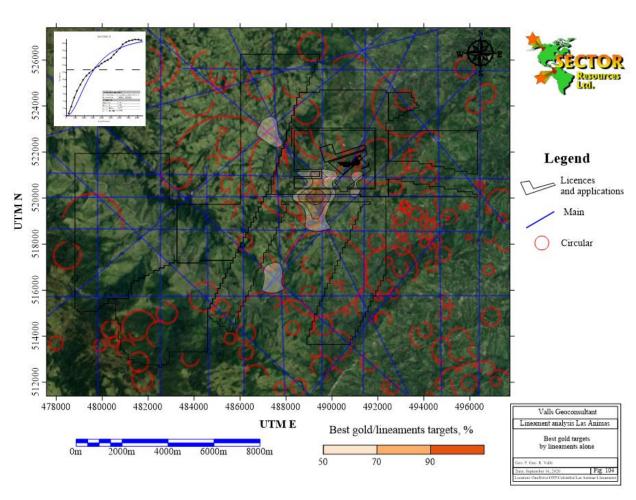


Figure 104. Best gold targets defined by lineaments alone.



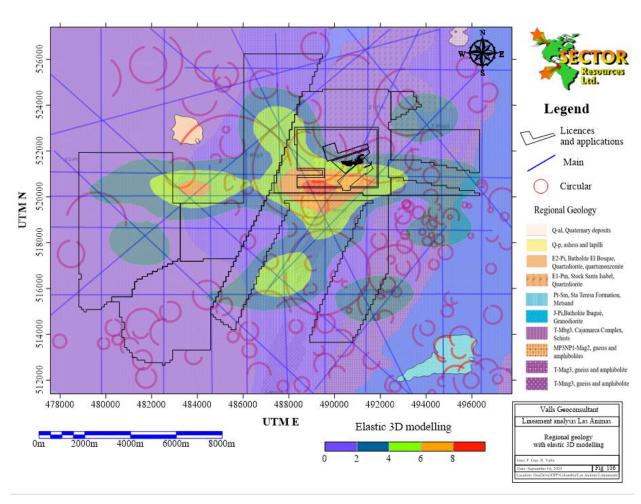


Figure 105. Elastic 3D modelling.



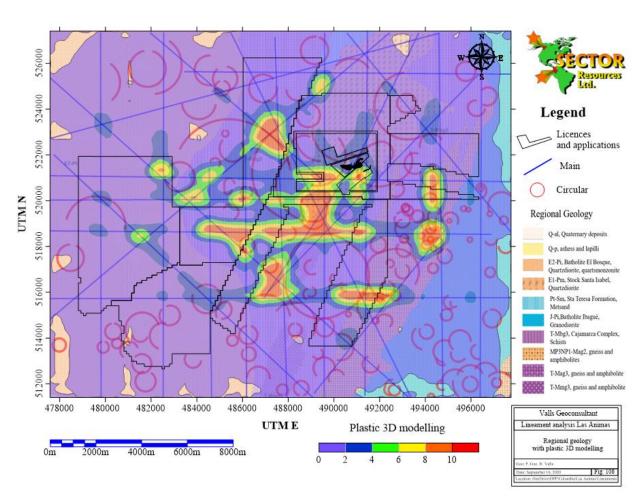


Figure 106. Plastic 3D modelling.



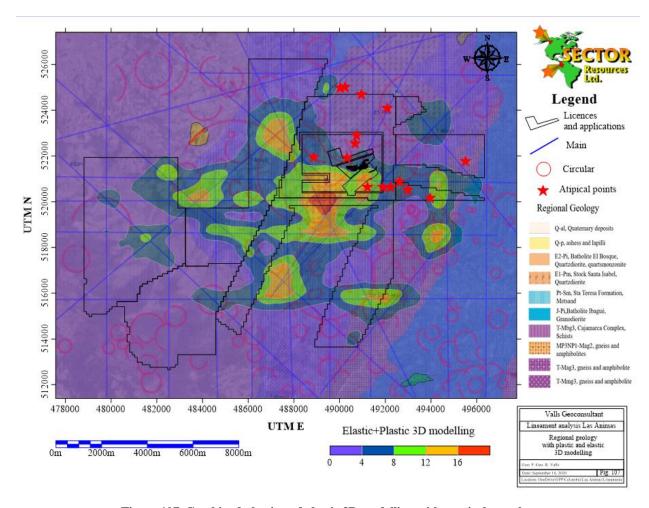


Figure 107. Combined plastic and elastic 3D modelling with atypical samples.

The QP prepared a full series of intermediate graphics that will be included in the digital dataset for the Client. Here we will present only the final two maps.



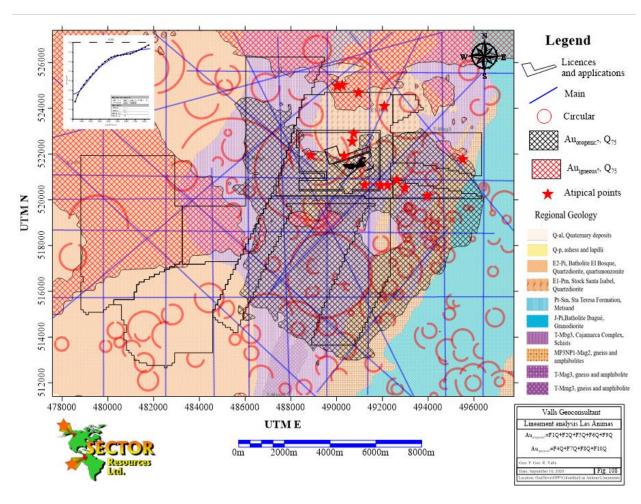


Figure 108. Orogenic and igneous gold targets in the region.



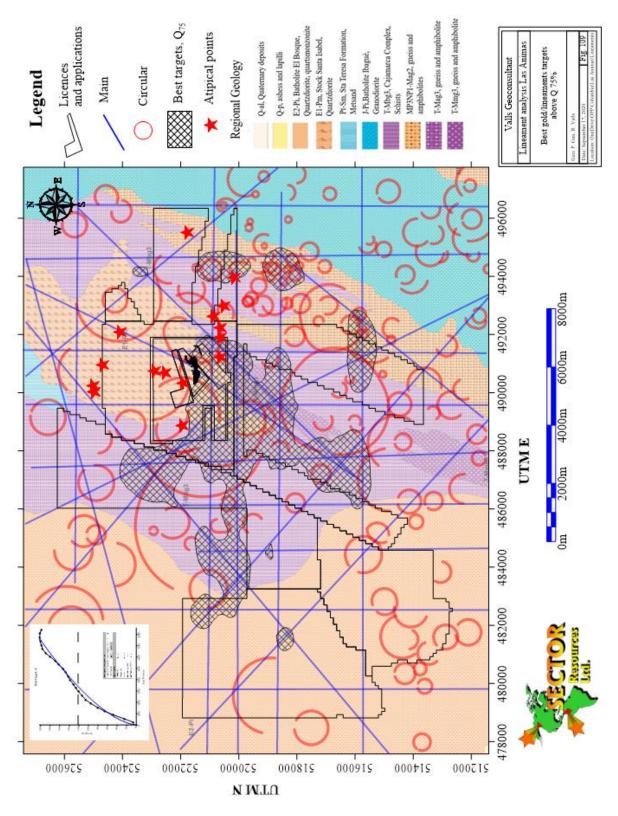


Figure 109. Targets above 75% of perspectivity for gold as the result of the complex geochemical-lineament analysis in the area.



Item 25: Interpretation and Conclusions

Las Ánimas mine appears to be the result of a combination of two geological events. The oldest one, an orogenic type of mineralization, associated with the metamorphic rocks of the Fm. Tierra Adentro. A second event, a quartz vein gold deposit with some base metals, associated to the post-Cretaceous Ibagué Batholite. It is also possible that during the Neogene volcanic period, part of the gold from the orogenic system was leached and remobilized into the quartz vein system.

From a regional point of view, the exploration licenses have the same potential to find both type of mineralization. The QP is suggesting an exploration program for both the surface and the mine. The aim is to increase the resources, both in tonnage and in category, in the mine and to quickly define targets areas on surface where similar type of mineralization can be found.

The QP could not validate the previous database, because none of the owners of the mine implemented QC measures for the sampling. Also, there are some survey errors with the location of the drill holes in the mine that the Client is currently in the process of rectifying. For these reasons, the QP qualified the previously reported resources and reserves as historical.

The use of Machine Learning techniques (Rapidminer) highlighted the importance of the phyllite alteration to identify high grade zones of gold. It also differentiates the two types of mineralization and determine the most perspective elements related to the orogenic and the quartz vein gold mineralization. Finally, the method suggests a way to discriminate samples with potential higher gold values, reducing the amount of assaying and the turn around time for the results. The QP suggests the Client uses a portable XRF from Niton to screen these samples¹¹.

While the QP considers that the technical personnel that worked on the mine before his first visit were well trained and capable, the total lack of QA&QC procedures hindered the results of their work. After the first visit, the Client engaged the QP to complete the full training of their staff and to implement a complete QC program. Currently, the full database has being validated and the topography corrected by the Client. This allowed for new and better estimations of the resources, both orogenic and hydrothermal.

Also, the QP considers that the Client should engage the help of a senior structural geologist to better understand the ore distribution.

Except for unforeseen events or Acts of God, the QP does not see any significant risks or uncertainties for the further access, right or ability to perform exploration and exploitation work on the Licenses.

¹¹ https://buff.ly/2Mmg4g1



Item 26: Recommendations

In a report prior to the first visit of the QP, it was recommended that a single - phased diamond drilling program totaling 20,000 meters of which 10,500 metres to test the westerly and down dip extensions of the known vein and to locate mineralized veins known to exist above and below the present vein and the remaining 9,500 meters around the exploration lease to locate additional veins. The QP recommended in that report that prior to any drilling, a comprehensive approach including detailed structural analysis, rock sampling, and metallurgical studies of the orogenic type of mineralization should be completed. The Client is currently conducting these works and plans to continue the detailed exploration inside the mine. The QP suggest testing the volume between the surface and the mine, which may contain more of the orogenic type of mineralization in the greenschists.

For the exploration targets the QP recommends satellite image interpretation, geochemistry, geophysics, geological and structural mapping to define the location of other promising targets. If granted, this should be followed by drilling, pitting, and trenching to define potential new targets.

The budget does not include the cost of supportive and administration work, nor any amounts of money related to the purchase of the Licenses. The budget estimates US\$ 6,946,845 for Stage I, followed if granted, by US\$ 12,578,553 for Stage II for a total of US\$ 19,525,400. Say \$US 20M.



Table 23. Proposed exploration budget for the Property.

Stage I Activity	Unit	1	2	3	4	5	6	7	8	9	10	11	12	Total
Petrographic studes Thin and polished sections	Unit		15	15	20									50
Thin and polished sections	US\$		600	600	800									2000
Geophysics														
GPR	L km		23	23										45
GPR	US\$		9,000	9,000										18000
Drill Camp Setup	US\$		25,000											25000
QA&QC preparations														
Training technical staff	US\$		6,000								6,000			12000
Buying standards (10 kg www.cdnlabs.com)	US\$	1,000								1,000				2000
Geological work	TICC	10000	10.000											2000
Structural Analysis of Deposit Acquire satellite image and DEM of all mining	US\$	10000	10,000											20000
concession	US\$	3000	6000											9000
Satellite Analysis	US\$	3000	5000	5000										10000
Complex System Approach: Mapping Soil														
Sampling and Geophysics of New Deposits	Unit	125	125	125	125	125	125	125	125					1000
Complex System Approach: Mapping Soil														
Sampling and Geophysics of New Deposits	US\$	100000	100000	100000	100000	100000	100000	100000	100000					800000
Define Final Resources Targets and Potential														
Volumes	US\$											5000	10000	15000
Trenching														
TLB with Auger TLB running cost incl operator, Acc, feeding	US\$ Unit		80,000	80,000	250	250	250	250						160000 1000
Trench all included except analysis	US\$				22,500	22,500	22,500	22,500						90000
Drilling	COO				22,300	22,500	22,300	22,500						70000
Mobilization and De-Mobilization	US\$							20,000					20,000	40000
DDH Metres	Unit							.,	6,250	6,250	6,250	6,250	6,250	31250
DDH All included except analysis	US\$								937,500	937,500	937,500	937,500	937,500	4687500
Laboratory analysis														
HMC	Unit	30	30	30										90
HMC FA	US\$	297	297	297										891
HMC mineralogical analysis	US\$	6,600	6,600	6,600										19800
Soil/stream enzyme leach	Unit	125	125	125	125	125	125	125	125					1000
Soil/stream enzyme leach Rock samples	US\$ Unit	5,363 50	5,363 50	5,363 50	5,363 50	5,363 50	5,363 50	5,363 50	5,363 50					42900 400
Rock samples Rock sample analysis	US\$	3,245	2,970	2,970	2,970	2,970	2,970	2,970	2,970					24035
Environmental Permit for Exploration	US\$	3,243	2,970	5000	2,970	2,970	2,970	2,970	2,970		5000			10000
Update NI 43101	US\$			2000							5000	10000	20000	30000
Contigency Cost	US\$	19,426	38,524	32,224	19,745	19,625	19,625	22,625	156,875	140,775	142,275	142,875	148,125	902719
Travel	US\$	5,000	-	-	5,000	-	-	5,000	-	-	5,000	-	5,000	25000
Total	US\$	154,261	295,721	247,421	156,948	151,008	151,008	179,008	1,209,258	1,085,525	1,102,025	1,101,625	1,146,875	\$6,946,845
Stage II														
Activity	Unit	1	2	3	4	5	6	7	8	9	10	11	12	Total
Drilling														
Mobilization and De-Mobilization	US\$				20,000								20,000	40000
DDH Metres	Unit	6,250	6,250	6,250										18,750
DDH All included except analysis	US\$	937,500	937,500	937,500										2,812,500
Laboratory analysis														
Rock samples	Unit	6,250	6,250	6,250										18,750
Rock samples Rock sample analysis	US\$	6,250 405,625	6,250 405,625	6,250 405,625								100,000		1,216,875
Rock samples Rock sample analysis Metallurgical test	US\$ US\$									100,000	100,000	100,000		1,216,875 100,000
Rock samples Rock sample analysis Metallurgical test BFS	US\$									100,000	100,000	100,000 100,000	-	1,216,875
Rock samples Rock sample analysis Metallurgical test	US\$ US\$									100,000	100,000		:	1,216,875 100,000
Rock sample analysis Metallurgical test BES Existing Mine Development and Delineation of Ore	US\$ US\$				3,000	3,000	3,000	3,000	3,000	100,000	100,000		-	1,216,875 100,000 300,000
Rock sample analysis Metallurgical test BFS Existing Mine Development and Delineation of Ore Zones	US\$ US\$ US\$				3,000 3,000	3,000 3,000	3,000 3,000	3,000 3,000	3,000 3,000	100,000	100,000		:	1,216,875 100,000 300,000
Rock samples Rock sample analysis Metallurgical test BFS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine	US\$ US\$ US\$									100,000	100,000		:	1,216,875 100,000 300,000 15,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine	US\$ US\$ US\$ US\$ US\$ US\$ US\$		405,625	405,625	3,000	3,000 100	3,000	3,000 200	3,000 200	200	100,000		:	1,216,875 100,000 300,000 15,000 15,000 1,000
Rock samples Rock sample analysis Metallurgical test BFS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine	US\$ US\$ US\$ US\$ US\$ US\$ US\$ US\$		405,625	405,625	3,000 100 15,000	3,000 100 15,000	3,000 200 30,000	3,000 200 30,000	3,000 200 30,000	200 30,000	100,000		:	1,216,875 100,000 300,000 15,000 15,000 1,000 150,000
Rock samples Rock sample analysis Metallurgical test BPS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis	US\$ US\$ US\$ US\$ US\$ US\$ US\$ US\$ US\$		405,625	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000		:	1,216,875 100,000 300,000 15,000 15,000 1,000 150,000 64,900
Rock samples Rock sample analysis Metallurgical test BRS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis	US\$		405,625	405,625	3,000 100 15,000	3,000 100 15,000	3,000 200 30,000	3,000 200 30,000	3,000 200 30,000	200 30,000	100,000	100,000	-	1,216,875 100,000 300,000 15,000 15,000 15,000 1,000 150,000 64,900 15,000
Rock samples Rock sample analysis Metallurgical test BFS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis Reflex Analysis New Resources and Reserves Estimation	US\$ US\$ US\$ US\$ US\$ US\$ US\$ US\$ US\$		405,625	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000		10000	1,216,875 100,000 300,000 15,000 15,000 15,000 1,000 150,000 64,900 15,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart	US\$	405,625	405,625	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 1,000 150,000 64,900 15,000
Rock samples Rock sample analysis Metallurgical test BRS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design	US\$		405,625	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 1,000 150,000 64,900 15,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart	USS USS USS USS USS Metres USS USS USS USS USS USS USS USS USS US	405,625	405,625	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of	US\$	405,625	10,000	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 150,000 64,900 15,000 15,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation	USS USS USS USS USS Metres USS USS USS USS USS USS USS USS USS US	405,625	10,000	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 15,000 500,000
Rock samples Rock sample analysis Metallurgical test BRS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Restart Facility working capital needed for operation	US\$ US\$ US\$ US\$ US\$ US\$ US\$ Metres US\$ US\$ US\$ US\$	405,625 50000 250000	405,625 10,000 250000	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 15,000 500,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Man	USS USS USS USS Metres USS USS USS USS USS USS USS USS USS US	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 50,000 500,000
Rock samples Rock sample analysis Metallurgical test BRS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Restart Facility working capital needed for operation	US\$ US\$ US\$ US\$ US\$ US\$ US\$ Metres US\$ US\$ US\$ US\$	405,625 50000 250000	405,625 10,000 250000	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 50,000 500,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Start up Maintenance existing Plant Equipment	USS USS USS USS USS Wetres USS USS USS USS USS USS USS USS USS US	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490 1,500	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 50,000 500,000 3,500,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Start up Maintenance existing Plant Equipment New Plant Processing Plant Design for 400 ton/day	USS USS USS USS USS Wetres USS USS USS USS USS USS USS USS USS US	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 50,000 500,000 3,500,000
Rock samples Rock sample analysis Metallurgical test BPS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis Reflex Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Start up Maintenance existing Plant Equipment New Plant Processing Plant Design for 400 ton'day Update Environmental Permits to 400 ton'day	USS	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490 1,500	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 50,000 500,000 250,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Start up Maintenance existing Plant Equipment New Plant Processing Plant Design for 400 ton/day Update Environmental Permits to 400tons/day: Water intake and discharge	USS USS USS USS USS Wetres USS USS USS USS USS USS USS USS USS US	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490 1,500	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 50,000 500,000 250,000
Rock samples Rock sample analysis Metallurgical test BRS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Inderground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Sart up Maintenance existing Plant Equipment New Plant Processing Plant Design for 400 ton/day Update Environmental Permits to 400tons/day: Water intake and discharge Acquisition and Installing of New Equipment for	USS	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490 1,500	3,000 100 15,000 6,490 1,500	3,000 200 30,000 12,980 3,000	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 15,000 50,000 500,000 500,000 50,000 50,000
Rock samples Rock sample analysis Metallurgical test BTS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Start up Maintenance existing Plant Equipment New Plant Processing Plant Design for 400 ton/day Update Environmental Permits to 400tons/day: Water intake and discharge Acquisition and Installing of New Equipment for 4000/day	USS	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490 1,500	3,000 100 15,000 6,490	3,000 200 30,000 12,980	3,000 200 30,000 12,980 3,000	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 50,000 50,000 50,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000 15,000
Rock samples Rock sample analysis Metallurgical test BRS Existing Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Development and Preparation for 3 months of Production Restart Facility working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Start up Maintenance existing Plant Equipment New Plant Processing Plant Design for 400 ton/day Update Environmental Permits to 400tons/day: Water intake and discharge Acquisition and Installing of New Equipment for 400/day	USS	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490 1,500	3,000 100 15,000 6,490 1,500	3,000 200 30,000 12,980 3,000	3,000 200 30,000 12,980	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 50,000 250,000 50,000 1,500 50,000
Rock samples Rock sample analysis Metallurgical test BRS Eksisting Mine Development and Delineation of Ore Zones Additional Sampling inside the Mine Additional Mapping Inside the Mine Underground Perforation Design Drilling inside the mine Drilling inside the mine Sampling Analysis Reflex Analysis New Resources and Reserves Estimation Existing Mine Restart Mining Plan Design Drevelopment and Preparation for 3 months of Production Restart Facility — working capital needed for operation Existing Mine Infrastructure Upgrade Processing Plant Sant up Maintenance existing Plant Equipment New Plant Processing Plant Design for 400 ton/day Update Environmental Permits to 400tons/day: Water intake and discharge Water intake and discharge Test Production of New Equipment for 400 day Test Production of the Orogenic Material Metallurgic and process testing for the new 400	USS	405,625 50000 250000	405,625 10,000 250000 1500000	405,625	3,000 100 15,000 6,490 1,500	3,000 100 15,000 6,490 1,500	3,000 200 30,000 12,980 3,000	3,000 200 30,000 12,980 3,000	3,000 200 30,000 12,980	200 30,000 12,980	100,000	100,000	10000	1,216,875 100,000 300,000 15,000 15,000 15,000 15,000 15,000 50,000 50,000 50,000 15,000 50,000 50,000
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Item 27: References

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Item 28: Certificate of Qualifications

To Accompany the Report titled "Update of the NI 43-101 Technical Report on Las Ánimas Mine, Ibagué, Colombia" Technical Report for Sector Resources LTD

April 22nd, 2024

- I, Ricardo A. Valls, P. Geo, do hereby certify that:
- 1. I am currently employed as a consultant by:

Valls Geoconsultant.

1008-299 Glenlake Ave,

Toronto, Ontario, Canada

M6P 4A6

- 2. I am a Professional Geologist in the Province of Ontario, member of the Association of Professional Geoscientists of Ontario (0160), the Geological Association of Canada (A6129), the Mineralogical Association of Canada, the Association of Exploration Geochemistry, the International Association of Applied Geochemistry, the Prospectors and Developers Association of Canada, and the Society of Economic Geologists.
- 3. I am a graduate of the Moscow Institute of Mineral Prospecting in Moscow, Russia, as a Mining Engineer and Geologist in 1983, and in the same year, I obtained the degree of M.Sc. in Economic Geology from the same Institute.
- 4. I have practiced my profession as a geologist continuously for 37 years. As a professional geologist, I have extensive geological, geochemical, and mining experience, managerial skills, and a solid background in research techniques, and training of technical personnel. I have been involved in various projects worldwide (Canada, Africa, Russia, Indonesia, the Caribbean and Central and South America). Projects included regional reconnaissance, local mapping, diamond drilling and RC-drilling programs, open pit and underground mapping and sampling, geochemical sampling and interpretation, and several exploration techniques pertaining to the search for gold and other precious metals, diamonds, emeralds, and other gems, PGM, nickel, base metals, industrial minerals, oil & gas, and other magmatic, hydrothermal, porphyritic, VMS and SEDEX ore deposits.
- 5. I have read the definition of "Qualified Person" in National Instrument 43-101 and certify that by reason of my education, professional association affiliation, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
- 6. I have read the National Instrument 43-101 and this technical report and certify that it has been prepared in compliance with this instrument.
- 7. I am responsible for all the items of the technical report titled "Update of the NI 43-101 Technical Report on Las Ánimas Mine, Ibagué, Colombia", dated April 22nd, 2024. Prior to



visiting the area for 10 days on July 2-5, 2019 and again in March 12-17, 2020, I did not have any prior involvement with the property which is the subject of this technical report.

- 8. I have no interest of any kind in the project, nor in the issuer company that owns the property. I am independent of Sector Resources LTD applying all tests in Section 1.5 of NI 43-101.
- 9. I am not aware of any material fact or material change in the subject matter of the Report that is not reflected in the Report, the omission to disclose which could potentially make the Report misleading.
- 10. At the effective date of the technical report, to the best of my knowledge, information, and belief, the technical report contains all scientific and technical information that is required to be disclosed to make the technical report not misleading.

Dated this April 22nd, 2024.

Name of Qualified Re



To Accompany the Report titled "Update of the NI 43-101 Technical Report on Las Ánimas Mine, Ibagué, Colombia"

Technical Report for Sector Resources LTD

April 22nd, 2024

- I, Dr. Vadim Galkine, P. Geo, do hereby certify that:
- 1. I am currently employed as a consultant by:

Fenix Geoconsult Ltd.

204-132 Richmond Street West,

Toronto, Ontario, Canada

M5H 2L3

- 2. I am a Professional Geologist in the Province of Ontario and a member of the Association of Professional Geoscientists of Ontario (1828).
- 3. I am a graduate of the Lomonosov Moscow State University in Russia (1982), with an Hon. BSc in Earth Science/Geology. I am a Ph.D., having received the degree in 1988 in Geology from Lomonosov Moscow State University. I also earned a Doctor of Science degree in Geotectonics from the Lomonosov Moscow State University in 1997.
- 4. I have practiced my profession as a Geologist continuously for 30 years. As a professional geologist with thirty years of experience in the mining industry, I have been involved in various projects world-wide (specifically in Canada, Iran, Russia, Tajikistan, Uzbekistan, Kirghizia, Kazakhstan, New Caledonia, Africa and Central and South America). These projects included regional reconnaissance, local mapping, structural and lineament analysis, and several exploration techniques pertaining to the search for gold and other precious metals in magmatic and placer type deposits.
- 5. I have read the definition of "Qualified Person" in National Instrument 43-101 and certify that by reason of my education, professional association affiliation, and past relevant work experience, I fulfill the requirements to be a qualified person for the purposes of NI 43-101.
- 6. I am presently a Consulting Geologist and have been so since 2005.
- 7. I have not visited the area described in this report but had have access to all the information.
- 8. I am the QP responsible for the preparation of the Item 24 of the technical report titled "Update of the NI 43-101 Technical Report on Las Ánimas Mine, Ibagué, Colombia" and dated on April 22nd, 2024 (the "Technical Report") relating to the studied area. I have read NI 43-101, and the Technical Report has been prepared in compliance with NI 43-101 and Form 43-101F1.
- 9. I am independent of the Client, applying the test set out in Section 1.4 of NI 43-101. I have had no prior involvement with the property that is the subject of the Technical Report, apart from completing a lineament study of the area.



- 10. In the disclosure of information relating to permitting, legal, title and related issues I have relied, and believe that I have a reasonable basis to rely, on information provided by the Client.
- 11. I am not aware of any material fact or material change with respect to the subject matter of this technical report which is not reflected in the report, the omission to disclose which would have made this technical report misleading.

Dated this 22nd Day of April,2024.

(Signed and Sealed) "Vadim Galkine"

Dr. Vadim Galkine



Ph. D., P. Geo.



To: Ontario Securities Commission
Alberta Securities Commission
British Columbia Securities Commission

I, Ricardo A. Valls do hereby consent to the public filing of the technical report entitled "Update on the NI 43-101 Technical Report Las Ánimas Mine, Ibagué, Colombia" and dated April 22nd, 2024 (the "Technical Report") by Sector Resources Ltd. (the "Issuer"), with the TSX Venture Exchange under its applicable policies and forms in connection with the filling of a NI 43-101 technical report to be entered into by the Issuer and I acknowledge that the Technical Report will become part of the Issuer's public record.

Signed and dated, this 22^{nd} day of April 2024.

Ricardo A. Valls, M.Sc., P.Geo.



Appendix 1. Collars of all drill holes

Drill Hole	UTM E	UTM N	Elevation	Depth	Azimuth	Dip
1	888037.01	1013581.64	1961.07	10.40	210.00	0.00
2	888597.39	1013499.78	1992.91	21.28	220.00	-45.00
3	888679.23	1013609.62	2022.97	12.15	40.00	-70.00
4	888677.64	1013646.39	2022.07	29.00	0.00	0.00
5	888678.45	1013616.45	2022.16	24.00	30.00	-50.00
6	888646.55	1013584.10	2029.67	50.80	180.00	-35.00
7	888607.75	1013573.33	2026.37	29.00	0.00	25.00
8	888717.37	1013579.81	2021.41	24.60	18.00	-15.00
9	888680.68	1013554.80	2021.58	14.30	0.00	-90.00
10	888664.85	1013568.57	2023.52	6.50	0.00	-90.00
11	888653.40	1013561.36	2022.60	15.15	0.00	-90.00
12	888605.84	1013529.37	2004.20	46.55	140.00	-28.00
13	888653.04	1013528.12	2011.70	17.85	195.00	-70.00
14	888633.17	1013577.90	2025.07	16.40	0.00	-90.00
15	888631.00	1013583.79	2029.82	18.10	0.00	-25.00
16	888729.18	1013589.31	2021.56	19.50	0.00	0.00
17	888678.30	1013620.15	2025.96	34.90	0.00	-44.00
18	888677.40	1013646.52	2029.29	19.00	0.00	0.00
19	888674.56	1013640.02	2028.07	40.00	315.00	-35.00
20	888676.19	1013642.63	2028.31	114.70	0.00	0.00
21	888676.95	1013642.07	2028.91	95.00	40.00	-15.00
22	888677.63	1013612.74	2028.16	27.55	0.00	-90.00
23	888737.81	1013599.69	2014.49	13.20	0.00	-90.00
24	888741.29	1013607.14	2014.16	25.00	0.00	-15.00
25	888636.25	1013553.53	2020.14	22.00	0.00	-90.00
26	888678.92	1013544.49	2017.24	15.00	0.00	-90.00
27	888751.70	1013545.50	2022.53	39.10	0.00	-90.00
28	888734.31	1013546.57	2021.39	52.00	0.00	-90.00
29	888717.32	1013548.07	2022.77	40.00	0.00	-90.00
30	888581.86	1013503.83	1989.13	20.00	0.00	-90.00
31	888526.24	1013495.38	1982.59	10.40	0.00	-90.00
32	888160.51	1013527.79	1950.87	75.00	190.00	-30.00
33	888021.28	1013567.53	1948.31	50.30	196.00	0.00
34	887982.42	1013575.44	1945.25	70.20	196.00	-12.00
35	888161.22	1013472.54	1948.57	51.40	0.00	-90.00
36	888161.78	1013472.07	1951.75	54.50	196.00	-50.00
37	888159.56	1013472.99	1949.00	81.10	262.00	-45.00
38	888163.57	1013473.84	1948.90	98.06	82.00	-45.00



Drill Hole	UTM E	UTM N	Elevation	Depth	Azimuth	Dip
39	888357.11	1013480.61	1965.98	65.35	0.00	-90.00
40	888357.55	1013484.41	1965.80	99.50	0.00	45.00
41	888359.25	1013488.10	1967.70	64.45	196.00	-45.00
42	888357.17	1013480.42	1966.82	74.40	196.00	0.00
43	888718.26	1013659.42	2025.70	31.00	35.00	-15.00
44	888710.48	1013620.94	2018.99	32.70	17.00	-50.00
45	888692.39	1013615.40	2016.88	14.70	0.00	-30.00
46	888747.84	1013684.73	2024.93	39.50	0.00	-90.00
47	888747.85	1013684.50	2025.42	18.70	0.00	-90.00
48	888738.94	1013649.68	2023.10	45.00	0.00	-90.00
49	888556.57	1013463.99	1983.55	59.30	196.00	-60.00
50	888557.13	1013465.56	1983.29	35.00	0.00	-90.00
51	888558.36	1013465.91	1983.51	48.00	90.00	-45.00
52	888800.18	1013584.62	2001.16	48.00	16.00	-20.00
53	888020.84	1013484.00	1919.99	43.20	0.00	-90.00
54	888020.10	1013486.46	1919.91	79.70	16.00	-45.00
55	888021.58	1013484.17	1920.21	50.20	106.00	-45.00
56	888017.61	1013484.00	1920.33	63.10	270.00	-37.00
57	888017.99	1013483.46	1920.32	65.30	220.00	-55.00
58	888017.90	1013484.95	1920.33	64.25	290.00	-45.00
59	888021.58	1013479.88	1932.53	60.50	150.00	-45.50
60	888020.19	1013479.44	1933.42	76.20	196.00	0.00
61	887971.19	1013535.26	1922.85	20.30	196.00	-35.00
63	888756.70	1013616.81	2025.04	52.80	60.00	-45.00
64	888756.93	1013615.23	2024.85	64.70	13.00	-45.00
66	888801.74	1013704.62	2020.49	24.60	0.00	-90.00
67	888772.40	1013715.53	2023.94	40.44	0.00	-80.00
68	888758.93	1013653.66	2022.04	40.00	0.00	-90.00
69	888753.83	1013710.55	2024.82	26.20	30.00	-35.00
70	888736.58	1013678.63	2022.48	43.60	0.00	-45.00
71	888733.13	1013680.74	2022.70	48.00	0.00	-90.00
72	888731.62	1013604.45	2018.36	29.54	13.00	-65.00
73	888745.58	1013606.21	2013.61	33.40	70.00	-45.00
74	888822.04	1013550.90	1968.15	56.48	13.00	60.00
75	888816.48	1013549.96	1965.38	55.64	240.00	-40.00
76	888826.10	1013550.04	1975.75	36.20	90.00	0.00
77	888294.10	1013532.15	1953.11	29.50	193.00	20.00
78	888294.03	1013532.26	1952.51	30.30	193.00	40.00
79	888297.51	1013536.06	1951.90	19.50	0.00	-90.00
80	888297.23	1013537.65	1952.00	10.70	0.00	-90.00



Drill Hole	UTM E	UTM N	Elevation	Depth	Azimuth	Dip
81	888261.27	1013449.88	1947.05	40.95	13.00	-20.00
82	888800.51	1013651.69	2013.83	74.40	0.00	-90.00
83	888801.28	1013653.63	2014.54	43.23	13.00	-45.00
84	888796.40	1013582.48	1986.10	60.70	315.00	-30.00
85	888797.29	1013582.17	1985.83	68.00	315.00	-12.00
86	888797.16	1013582.99	1985.62	54.80	0.00	0.00
87	888832.62	1013581.98	1986.91	14.50	16.00	-12.00
88	888787.57	1013574.24	1996.90	32.80	253.00	-45.00
89	888025.61	1013519.60	1921.44	53.10	225.00	-20.00
90	888053.82	1013502.01	1934.97	48.50	160.00	-20.00
91	888051.89	1013501.73	1934.73	54.80	225.00	-20.00
92	888207.80	1013475.97	1940.01	49.15	180.00	-40.00
93	888206.66	1013478.41	1939.51	45.20	0.00	-90.00
94	888209.61	1013477.76	1940.14	46.70	90.00	-50.00
95	888208.95	1013476.92	1940.21	55.70	135.00	-30.00
96	888134.67	1013577.22	1955.52	27.60	45.00	-15.00
97	888134.47	1013557.08	1954.72	86.50	45.00	-30.00
98	888131.93	1013554.31	1956.26	50.00	225.00	-40.00
99	888684.25	1013664.43	2019.17	79.00	200.00	-45.00
100	888683.11	1013652.16	2018.72	80.00	0.00	-90.00
100A	888685.37	1013647.10	2018.72	10.00	0.00	-90.00
102	888598.77	1013496.57	1990.19	61.10	180.00	-80.00
103	888600.57	1013498.35	1990.50	59.10	100.00	-40.00
105	888716.31	1013521.43	1987.59	79.90	348.00	-40.00
106	888714.42	1013512.32	1987.84	80.00	348.00	-60.00
107	888710.43	1013495.32	1987.95	100.00	0.00	-90.00
108	888287.71	1013431.15	1933.55	40.00	0.00	-90.00
109	888715.03	1013510.50	1990.75	38.43	180.00	-45.00
110	888714.09	1013498.86	1989.00	26.40	170.00	0.00
111	888283.90	1013475.66	1941.01	80.00	0.00	-90.00
112	888179.07	1013465.86	1937.39	73.70	0.00	-90.00
113	888660.93	1013513.56	1991.17	53.50	170.00	0.00
114	888125.82	1013482.89	1937.87	92.60	0.00	-90.00
115	888842.86	1013577.23	1985.97	100.10	0.00	-90.00
116	888846.98	1013578.08	1969.10	100.50	90.00	0.00
117	888836.51	1013593.46	1968.40	30.00	270.00	0.00
118	888844.94	1013575.44	1969.10	75.62	180.00	0.00
119	888846.65	1013579.51	1969.10	100.00	0.00	0.00
120	888845.83	1013579.36	1969.38	80.80	45.00	-30.00
121	888765.98	1013536.56	1974.22	99.45	180.00	20.00



Drill Hole	UTM E	UTM N	Elevation	Depth	Azimuth	Dip
122	888655.88	1013668.79	2020.77	33.75	350.00	-10.00
123	888856.71	1013688.77	2020.80	70.10	13.00	-10.00
124	888834.58	1013604.86	1987.27	54.72	16.00	-40.00
125	888833.48	1013605.15	1987.45	31.32	75.00	-35.00
126	888834.57	1013604.85	1987.50	70.30	16.00	-25.00
127	888803.07	1013569.14	1986.52	81.38	0.00	-90.00
128	888804.66	1013568.92	1988.79	68.23	150.00	59.00
129	888802.64	1013568.89	1988.94	46.05	232.00	60.00
130	888789.49	1013557.37	1989.32	46.86	230.00	65.00
131	888790.07	1013555.10	1987.55	77.10	150.00	25.00
132	888789.82	1013556.74	1985.89	52.07	0.00	-90.00
133	888788.46	1013530.46	1974.95	92.40	0.00	-90.00
134	888790.10	1013530.64	1975.21	21.84	160.00	-55.00
135	888790.28	1013530.64	1975.61	39.40	85.00	-35.00
136	888790.08	1013530.59	1975.17	11.53	85.00	-55.00
137	888796.17	1013543.33	1979.77	29.88	240.00	-55.00
138	888793.41	1013543.96	1979.71	22.08	330.00	-50.00
139	888795.32	1013543.79	1982.54	27.31	160.00	50.00
140	888824.10	1013549.68	1976.57	38.25	240.00	-50.00
141	888824.00	1013547.01	1977.02	68.83	235.00	-10.00
142	888825.24	1013546.66	1964.64	78.40	180.00	0.00
143	888823.70	1013548.18	1977.39	75.27	255.00	-25.00
144	888826.42	1013548.74	1976.53	42.70	12.00	75.00
145	888824.19	1013551.78	1979.36	52.45	70.00	-30.00
146	888826.80	1013549.21	1976.70	53.89	80.00	-20.00
147	888751.35	1013864.48	1987.83	7.35	270.00	45.00
148	888724.50	1013525.38	1988.19	60.70	145.00	-50.00
149	888724.50	1013525.38	1988.11	62.90	150.00	-25.00
150	888194.29	1013461.86	1922.18	39.00	20.00	-70.00
151	888193.67	1013459.55	1922.84	63.60	200.00	0.00
152	888194.97	1013459.48	1923.54	34.71	200.00	25.00
153	888285.31	1013430.85	1933.69	15.14	260.00	-35.00
154	888292.47	1013431.48	1934.39	18.35	110.00	-35.00
155	888291.74	1013444.51	1930.15	68.70	190.00	-50.00
156	888336.37	1013437.26	1924.20	68.00	190.00	-30.00
160	887927.79	1013586.90	1935.99	41.40	50.00	-4.00
161	887925.70	1013583.57	1936.23	29.45	345.00	-4.00
162	887928.89	1013586.92	1935.79	22.53	20.00	-10.00
163	887926.64	1013586.72	1935.82	16.10	200.00	18.00
164	887957.39	1013559.02	1944.33	24.60	200.00	10.00



Drill Hole	UTM E	UTM N	Elevation	Depth	Azimuth	Dip
165	888289.44	1013576.24	1953.02	118.88	14.00	-60.00
166	888289.49	1013576.17	1952.57	99.72	0.00	-10.00
167	888860.82	1013575.31	1971.83	6.24	95.00	-15.00
168	888858.09	1013566.48	1971.76	16.68	80.00	-35.00
169	888870.07	1013584.32	1971.07	8.10	170.00	-35.00
170	888867.51	1013601.22	1971.95	72.90	305.00	-10.00
171	888867.29	1013601.04	1974.09	54.72	300.00	0.00
172	888867.46	1013601.32	1972.57	8.40	300.00	11.00
174	888868.75	1013601.63	1972.89	57.02	335.00	0.00
175	888868.06	1013601.51	1972.57	57.73	345.00	-10.00
176	888868.64	1013601.73	1972.56	45.35	70.00	0.00
177	888871.11	1013599.42	1972.10	24.50	180.00	0.00
178	888788.71	1013492.78	1953.79	57.70	0.00	-90.00
179	888787.99	1013494.43	1953.79	31.10	0.00	-35.00
180	888788.41	1013495.37	1953.79	84.17	0.00	-75.00
181	888788.40	1013495.00	1953.79	69.00	180.00	-75.00
182	888788.52	1013492.62	1953.79	61.15	0.00	-53.00
183	888788.43	1013495.58	1956.29	25.10	180.00	45.00
184	888788.71	1013493.95	1956.29	53.40	180.00	20.00
185	888788.71	1013493.95	1956.29	39.00	0.00	90.00
186	888787.01	1013500.25	1956.29	49.10	0.00	65.00
187	888786.98	1013500.29	1953.79	52.00	0.00	-90.00
188	888813.05	1013559.95	1970.03	40.00	150.00	35.00
189	888826.68	1013549.32	1964.64	56.98	180.00	0.00
191	888135.88	1013447.26	1922.16	22.35	0.00	-90.00
192	888161.33	1013425.22	1920.31	17.89	110.00	-30.00
193	888160.79	1013424.56	1920.44	18.00	200.00	-65.00
194	888160.77	1013424.55	1920.46	24.65	200.00	-48.00
195	888162.83	1013425.46	1920.85	18.17	290.00	-30.00
196	888160.01	1013426.55	1920.75	96.50	25.00	-35.00
197	888162.24	1013426.77	1920.14	97.05	262.00	0.00
198	888469.96	1013505.45	1964.12	105.00	199.00	-25.00
199	888470.72	1013505.96	1964.22	74.79	195.00	-18.00
200	888470.62	1013508.47	1976.43	12.70	60.00	0.00
201	888663.43	1013710.49	2013.06	34.34	35.00	-70.00
202	888801.72	1013652.68	2013.80	30.15	260.00	-25.00
203	888577.16	1013486.62	1985.36	46.26	260.00	-10.00
204	888577.15	1013486.62	1985.51	42.64	170.00	-40.00
205	888577.30	1013486.37	1985.42	48.60	270.00	-50.00
206	887933.07	1013611.50	1933.80	37.00	235.00	0.00



Drill Hole	UTM E	UTM N	Elevation	Depth	Azimuth	Dip
207	887933.08	1013611.47	1933.80	74.70	225.00	-25.00
208	887932.45	1013612.66	1933.90	91.15	300.00	-50.00
209	887932.46	1013612.64	1933.90	49.63	205.00	-45.00
230	888662.75	1013511.67	1979.57	153.50	153.00	-8.00
231	888663.03	1013511.13	1979.76	57.90	155.00	-6.60
232	888663.98	1013511.97	1979.38	86.50	129.00	-12.00
233	888661.31	1013511.37	1979.61	45.80	182.00	-10.00
234	888661.34	1013511.39	1979.57	112.50	185.00	-11.00
235	888661.50	1013515.86	1978.09	305.60	3.00	-76.00
236	888663.48	1013515.85	1978.39	163.25	45.00	-48.00
237	888659.64	1013516.07	1978.27	157.30	316.00	-43.00
238	888662.16	1013511.60	1979.64	186.70	175.00	-17.00
239	888562.42	1013449.31	1974.63	65.30	200.00	-15.00
240	888562.42	1013449.31	1974.63	126.10	145.00	-25.00
241	888562.42	1013449.31	1974.63	90.30	200.00	-25.00
242	888561.66	1013451.23	1973.59	214.8	160	-9
243	888562.06	1013451.14	1972.21	145.95	160	-45
244	888561.64	1013451.29	1972.75	283.45	160	-70
245	888561.14	1013452.50	1972.62	156.25	110	-20
246	888559.84	1013452.16	1972.41	202.95	263	-16
247	888560.86	1013451.44	1972.40	106.2	287	-9
248	888561.00	1013451.97	1972.40	96.15	287	-30
249	888561.26	1013453.68	1972.16	85.2	247	-26
250	888560.57	1013451.56	1972.41	41.6	220	-32
251	888560.44	1013452.50	1972.62	81.3	240	-50
252	888561.39	1013451.89	1972.68	116.4	220	-50
253	888560.26	1013451.81	1972.36	96.5	287	-50
254	888561.19	1013451.49	1972.18	94.15	334	-34
255	888561.33	1013452.94	1972.35	133.1	334	-54
256	888560.65	1013452.91	1972.91	49.25	34	-32
257	888561.02	1013452.98	1972.88	79.8	34	-64
258	888561.86	1013453.56	1972.10	85.05	82	-50
259	888562.09	1013453.02	1972.34	80.5	82	-65
260	888562.31	1013451.43	1973.12	116.05	110	-50
261	888561.93	1013450.93	1973.05	96.3	160	-60
262	888561.74	1013451.27	1975.67	105.05	160	45
263	888561.66	1013451.05	1975.67	64.85	160	45
264	888561.91	1013451.16	1975.60	30.65	160	45
265	888560.91	1013453.45	1972.38	210.4	0	-90
266	888560.59	1013453.62	1972.10	30.1	340	-75



Drill Hole	UTM E	UTM N	Elevation	Depth	Azimuth	Dip
267	888560.98	1013454.06	1972.26	30.3	20	-75
268	888561.31	1013450.97	1973.12	31.9	160	45
269	888561.29	1013451.27	1973.09	32.05	160	45
270	888562.37	1013451.21	1973.06	73.2	160	-20
271	888562.64	1013451.34	1972.87	81.3	160	-55
272	888562.45	1013451.48	1972.39	72.3	160	-51
274	888011.93	1013480.21	1921.79	31.85	350	-30
275	888012.11	1013480.55	1922.42	34.05	355	-15
276	888010.07	1013477.08	1922.25	58.2	280	-44
277	888010.65	1013477.44	1922.67	60.4	292	-42
278	888010.10	1013476.55	1922.33	76.75	266	-40
279	888011.67	1013475.41	1922.54	70.85	212	-79
280	888014.65	1013476.81	1922.70	37.1	87	-27
281	888013.51	1013474.66	1921.78	114.2	152	-37