

2010 Resource and Reserve Update Yauliyacu Mine, Peru

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1.0 SUMMARY

The Yauliyacu mine has been in continuous production for over 100 years. Despite this long mining history, the mine has successfully replaced production and expanded reserves, which is a testament to the richness of the deposit and the dedication of both management and the technical staff. The mine continues to be a profitable operation with a significant mine life remaining.

In March of 2006, Silver Wheaton Corp. (SLW) completed a transaction with Glencore International AG (Glencore) for the purchase up to 4.75 million ounces of silver per year from the Yauliyacu mine, for a period of 20 years. SLW made an upfront payment of US\$285 million, comprised of US\$245 million in cash and US\$40 million promissory note as well as an ongoing production payment of US\$3.90/ ounce subject to an inflationary adjustment beginning after three years.

The currently defined Measured plus Indicated Yauliyacu Resource is 4.5 million tonnes grading 3.28% zinc, 0.90% lead, 0.37% copper and 152.3 g/t silver. The Inferred Resource is 16.8 million tonnes grading 3.46% zinc, 1.34% lead, 0.37% copper and 176.6 g/t silver. These Resources are exclusive of Mineral Reserves. Note that Yauliyacu has switched from a December 31st to a July 31st reporting period so that budgeting and mine planning, which is typically completed in Q3, utilizes the most up to date Resource and Reserve estimates.

Category	Tonnes	Zn%	Pb%	Cu%	Ag g/t
Measured	199,950	3.64	0.79	0.47	150.1
Indicated	4,259,580	3.27	0.91	0.37	152.4
M&I	4,459,530	3.28	0.90	0.37	152.3
Inferred	16,753,640	3.46	1.34	0.37	176.6

 Table 1 -Yauliyacu July 31, 2010 Mineral Resources

The currently defined Proven plus Probable Yauliyacu Reserve is 3.3 million tonnes grading 2.12% zinc, 1.05% lead, 0.21% copper and 118.0 g/t silver.

Table 2 -Yauliya	acu July 31, 2010 Mineral	Reserves
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Category	Tonnes	Zn%	Pb%	Cu%	Ag g/t
Proven	1,188,680	2.14	1.03	0.21	98.6
Probable	2,122,230	2.10	1.06	0.20	128.8
P&P	3,310,910	2.12	1.05	0.21	118.0

During 2010 Yauliyacu processed 1,312,173 tonnes grading 2.28% zinc, 0.91% lead, 0.22% copper and 75.4 g/t silver (Table 3). Exploration drilling during the year amounted to 19,831 m which was focused primarily on infill drilling.

Section	Tonnes	Zn%	Pb%	Cu%	Ag g/t
I	349,461	1.43	0.72	0.14	96.6
II	365,422	2.05	1.14	0.18	89.0
IV	183,183	2.41	0.93	0.16	51.3
V	350,022	3.08	0.53	0.34	41.0
VI	41,474	3.14	1.15	0.33	150.7
Canchas	22,610	4.36	5.39	0.24	120.0
Total	1,312,173	2.28	0.91	0.22	75.4

Table 3 -2010 Production

This report is intended as a supporting document to the updated resources and reserves detailed in SLW's 2010 Annual Information Form (AIF). This report also provides an operational update since SLW's March 2010 technical report.

The authors consider the geological database appropriate for use in a Canadian Institute of Mining, Metallurgy and Petroleum (CIM) compliant resource based on validations made personally and the detailed continuous checks made by the Yauliyacu Laboratory and Geology Department.

Mineral resources and reserves at Yauliyacu have been estimated in accordance with CIM Standards for Mineral Resources (CIM, 2005). Modeling methods and parameters were used in accordance with the principles accepted in Canada. Geological volume models were created by Glencore from drillhole logs, underground sampling and mapping. Statistical and grade continuity analyses were completed to characterize the mineralization and subsequently used to develop grade interpolation parameters. The mineralized units were partitioned into various veins and mineralized zones reflecting the relative metal abundances and elemental correlations within the host rock units.

Two methods are used in the estimation of resources at Yauliyacu. The conventional modeling method utilizes AutoCAD to create area estimates and average vein widths were applied from the sampling to estimate block volumes. The volume models were created utilizing drillhole logs, channel samples, underground mapping and interpretations. In situ grades were estimated by length weighting the block channel and drillhole samples. Grade capping was applied to control outliers. Grades were diluted twice, first by multiplying by the estimated dilution factor and then by the Mine Call Factor (MCF), both of which are specific to the planned mining method. Block density values were estimated from an empirical formula based on the concentrations of lead, zinc and copper. Block tonnage was estimated by multiplying the volume by the density by the MCF to create a mineable diluted tonnage specific to the planned mining method for that block.

The second method is the 3D block modeling method which has been used only for the Horizontes zones of the lower mine. Wireframe interpretations of the Horizontes zones have been generated using the Datamine mining software on 12.5 m sections. Drillhole and channel data was composited on 1.0 m intervals and grades were estimated into $2 \times 1 \times 2$ m blocks using the Inverse Distance Squared (ID²) method of interpolation. Hard boundaries were applied to the different zones. An average density of 2.8 g/cc was applied to these mineralized blocks.

A mineral resource classification scheme consistent with the logic of CIM guidelines (CIM, 2005) was applied to the estimates, classifying them as Measured, Indicated and Inferred mineral resources reported above cut-off values that are supported by the known Yauliyacu mining economics.

The conversion of mineral resources to reserves has been done according to CIM standards (CIM, 2005) outlining the economically mineable portions of the Yauliyacu orebodies giving full consideration to mining dimensions, diluting materials, mining recovery, scheduling, smelter treatment and refining charges.

2.0 INTRODUCTION

Silver Wheaton Corp. (SLW) is a Canadian based public mining company that earns most of its revenue from silver production with a small contribution from gold production. SLW currently has contracts for silver streams on 16 mines and three development projects in Canada, USA, Mexico, Peru, Chile, Argentina, Portugal, Sweden and Greece. In 2006, SLW purchased from Glencore, up to 4.75 million ounces per year for a period of 20 years as produced from the Yauliyacu mine. Los Quenuales (Quenuales), a subsidiary of Glencore is the owner (97%) and operator of the Yauliyacu mine.

Yauliyacu is a base metal deposit located approximately 2.5 hours by road travel, northeast of Lima, Peru within the Andean Cordillera at elevations of between 4,000 to 5,000 m above sea level (masl).

Yauliyacu resource and reserve estimation work was undertaken in accordance with CIM Mineral Resource and Mineral Reserve definitions that are referred to in National Instrument (NI) 43-101, Standards of Disclosure for Mineral Projects. This Technical Report has been prepared in accordance with the requirements of Form 43-101F1 and is intended to update the Mineral Resource and Reserve statements taking into account new drill information and mine production since the March 2010 Technical Report.

Mr. Samuel Mah, P.Eng. and Mr. Neil Burns, P.Geo., both employees of SLW are the Qualified Persons responsible for the preparation of this Technical Report. Mr Mah is the Director of Engineering and Mr. Burns is the Director of Geology. The estimation of resources and reserves at Yauliyacu was directed by Pedro Dueñas (Yauliyacu Geological Superintendent). Mr. Mah and Mr. Burns were last on site from February 20th to 22nd, 2011



to audit the resource and reserve updates. During the past 12 months Mr. Mah and Mr. Burns have been to site twice.

This report is intended for use by SLW as a NI 43-101 Technical Report. This report is intended to be read as a whole, and sections or parts thereof should therefore not be read or relied upon out of context.

The authors have not reviewed the land tenure situation or independently verified the legal staus and / or ownership of the properties or agreements that pertain to Yauliyacu. The results and opinions expressed in this report are based on the authors' field observations and technical data provided by Yauliyacu staff. The authors have reviewed and verified all information to a sufficient level and believe the data can be used in a CIM compliant resource estimate.

All measurement units are in metric and the currency is expressed in US dollars unless stated otherwise.

3.0 RELIANCE ON OTHER EXPERTS

No disclaimer statement was necessary for the preparation of this report. The authors have not relied upon reports, opinions or statements of legal or other experts who are not qualified persons.

4.0 **PROPERTY DESCRIPTION AND LOCATION**

The following descriptions are excerpts from WGM's March 2008 technical report entitled "A Technical Review on the Yauliyacu Lead / Zinc Mine, Junin Province, Peru for Silver Wheaton Corp." (WGM, 2008).

4.1 Location

The Yauliyacu mine is located at latitude 11°38'S and longitude 76°14'N at an elevation of 4,250 masl in the District of Chicla, Huarochiri Province in the Department of Lima (Figure 1).

4.2 **Property Description**

The mining concessions of the silver agreement consist of 21 surveyed concessions totalling 14,194.02 hectares as shown in Figure 2 and as listed in Table 4. Note that the small concessions areas within the larger concessions block (totalling approximately 208.5 ha) are not included in the total 14,194.02 ha. Quenuales holds other mining concessions in the area that are not included in the silver agreement between SLW and Quenuales.

Table 4 -Mining Concessions

Concessions	Net (ha)
Casapalca 1	851.88
Casapalca 2	783.03
Casapalca 3	1,000.64
Casapalca 4	681.76
Casapalca 5	808.54
Casapalca 6	759.53
Casapalca 8	998.62
Casapalca 12	816.8
Casapalca 13	926.02
Casapalca 14	900
Casapalca 15	931.97
Casapalca 16	814.38
Casapalca 17	950.83
Casapalca 18	169.04
Casapalca 19	121.67
Centromin 18	799.74
Centromin 19	770.67
Casapalca 20	86.42
Milagros Alexandra 1	790.12
Los Balkanes 1-82	221.2
Los Balkanes 1-82A	11.16
Total Mining Concessions	14,194.02

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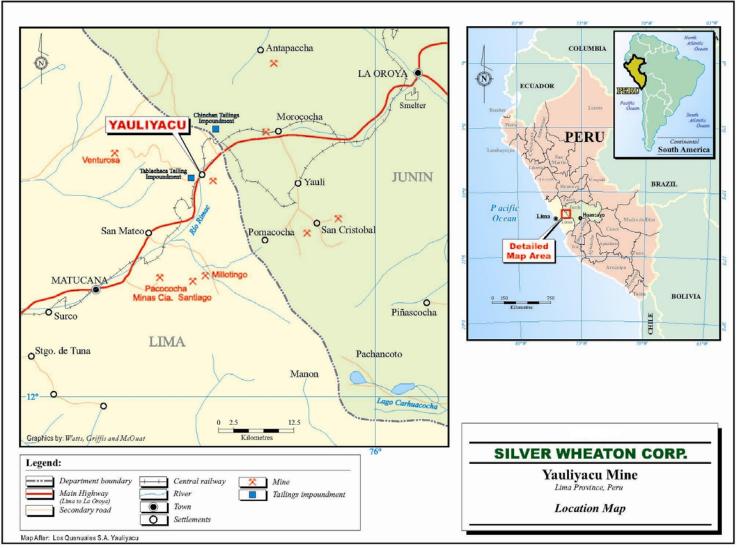


Figure 1 -Location Map, Yauliyacu Mine (WGM, 2008)

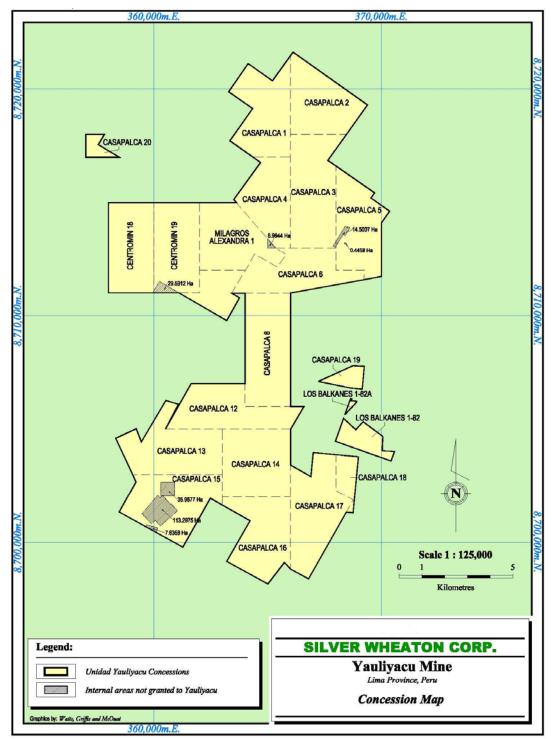


Figure 2 -Concession Map, Yauliyacu mine (WGM, 2008)

4.2.1 Environmental Aspects

Environmental matters in mining activities are regulated by Supreme Decree N° 016-93.EM as amended (Environmental Regulations).

According to the Environmental Regulations, the competent authority in the mining sector is the Ministry of Energy and Mines (MEM), which is the only governmental body in charge of:

- a) Establishing the environmental protection policies for mining activities and issuing the corresponding rules.
- b) Approving the Environmental Impact Assessment (EIA) and the Program for Environmental Management and Adjustment (PAMA), and authorizing their execution.
- c) Entering into administrative-environmental stability agreements with the holders of mining activities on the basis of the EIA or PAMA approved.
- d) Controlling the environmental effects produced by mining activities on operational sites and influence areas, determining the holder's liability, in case of violations to the applicable environmental provisions, and imposing the sanctions provided for therein.

Concessionaires are required to:

- a) Submit an EIA when applying for a mining and/or processing concession, permits to broaden operations or size of a processing plant in more than 50% processing. The EIA must be executed by an Environmental Auditor registered in the MEM, establishing the terms and procedures for execution, investment, monitoring and efficient control of mining activities, and containing an annual investment program that cannot represent less than one percent (1%) of the annual sales of the mining entity.
- b) Submit to the MEM, in an annual basis, information on the generation of emissions and/or disposal of wastes, together with a Consolidated Annual Statement, before June 30, as well as, describe measures taken by the holder in order to comply with the EIA approved by the MEM.

Non-compliance with environmental rules in force may cause the holder to be subject to administrative sanctions.

5.0 ACCESSIBILITY, CLIMATE, LOCAL RESOURCES, INFRASTRUCTURE AND PHYSIOGRAPHY

The following descriptions are excerpts from WGM's March 2008 technical report entitled "A Technical Review on the Yauliyacu Lead / Zinc Mine, Junin Province, Peru for Silver Wheaton Corp." (WGM, 2008).

5.1 Accessibility

The Yauliyacu Mine is accessible by paved road approximately 2.5 hours from the capital city of Lima, along the central highway (Carrretera Central) that runs east from Lima to the mine and continues up and over the Andean Cordillera into the Peruvian jungle. The central highway runs parallel to the valley of the Rio Rimac, as does a railroad that was built to service the La Oroya smelter and the Cerro de Pasco mines.

Numerous daily, worldwide flights to and from various countries arrive at Lima's International Airport. Access is also possible from Callao, the port city of Lima located 10 km northwest from the centre of Lima, on the Pacific coast.

5.2 Climate

The western slopes of the Andes, in Central Peru, present strong topographic and climatic contrasts. Along the continental divide, the snow covered peaks (above 4,500 masl) present a frigid to glacial climate, while areas between 4,000 to 4,500 m (altiplano) exhibit cold (boreal) climates. In the valleys below 4,000 masl, the climates vary from temperate to hot in the deep valleys near the coast. The snow capped peaks and altiplano areas show a marked variation in temperature between day and night, while in the valleys the temperature variations are more moderate. In general, the average temperature varies between 6° and 16°C from the peaks to the coast. The mine property at 4,200 masl exhibits a cold climate during the dry season, May to November with below freezing night-time temperatures. During the wet season the temperature is more temperate, the highest temperatures being recorded in November and December.

The rainy season corresponds to the austral summer, with maximum precipitation occurring between the months of December to April, characterized by abundant rainfall between elevations of 2,500 to 3,900 masl. Above 3,900 masl, the precipitation is in the form of snow and hail. Often the rainfall is accompanied by electrical storms.

The dry period corresponds to the months of May through November, although occasional precipitation does occur during this period in the altiplano and along the continental divide. Virtually no rainfall occurs between June to August, which are also the coldest months.

5.3 Local Resources

The property area is sparsely inhabited by predominantly experienced miners. Inhabitants located along the valleys are engaged in the raising of livestock and in agriculture, typically cultivating potatoes, beans, corn and wheat along the river margins using irrigation canals along the adjacent valley walls. The major agricultural production comes from the cultivated terraces along the sides of the rivers.

Vegetation in the area is intimately related to the climate and elevation. In the Altiplano, agriculture disappears and natural pastures exist for grazing sheep, cows and llamas. Occasional small forests can be found at the heads of the valleys.

Water in the major valleys flows year round, the product of glacial melts at the headwaters, and is generally readily available. For example, the Rio Rimac flows year round and is a major water source of the city of Lima. The water for agriculture along the slope, however, is brought downstream from the rivers by a series of far reaching aqueducts.

A high voltage power line, belonging to Electro-Andes S.A. provides power to the mine. There are plans for the mine to participate in the building of a gas turbine electrical generator that will be connected to electrical grid. This will assure sufficient electrical power during low precipitation periods through Peru's hydroelectric power generators.

5.4 Infrastructure

The Yauliyacu Mine is a well developed mine with the complete infrastructure typical of an operating mine consisting of process plant, mine offices, various repair shops, an assaying laboratory, living quarters, dining facilities, medical centre, etc. The mine operates year round and has been in operation more than 100 years. The underground mine is developed on 26 levels, the lowest level is the 3900 level located at 3,649 masl. There are four principal levels above the 3900 level: levels 2700; 1700 (where the mine offices, concentrator, main horizontal access and ore extraction are located); 800, and 200. The levels between these principal levels are unevenly spaced with an average distance of approximately 60 m.

Tailings are pumped approximately six km from the process plant at 4,210 masl to the Chinchan tailings pond area at an approximate elevation of 4,465 masl.

The Graton Tunnel, built by the Cerro de Pasco Mining company, extends from the Rio Rimac for 11.5 km under the Yauliyacu Mine. The tunnel connects to the mine above to assist in drainage and ventilation.

5.5 Physiography

The altitude in the Andean Cordillera plays an important role in the climate, as it does with the types of vegetation and the agricultural uses of the land.

The western flank of the Andes is characterized by abrupt topography with an alignment of continuous chains of mountain peaks that limit, to the east, the steep and deep valleys that descend down to the Pacific coast in a west to southwest direction. These valleys vary in altitude from 800 masl (the elevation of the mountain spurs at the coastal plain) to 4,000 masl (head of the valleys on the edge of the altiplano). The altiplano above 4,000 masl is characterized by an area of moderate relief with land forms produced by glacial and fluvial glacial forces. The altiplano is made up of pampas, hills and chains of smooth harmonious mountains that increase in elevation progressively towards the continental divide.

6.0 History

The following descriptions are excerpts from WGM's March 2008 technical report entitled "A Technical Review on the Yauliyacu Lead/ Zinc Mine, Junin Province, Peru for Silver Wheaton Corp." (WGM, 2008).

Mining in the Casapalca district dates back to the early Spanish colonial period when it was restricted to outcropping, or near surface, veins. It is believed the Spanish primarily recovered native silver from rich hydrothermal veins or from the oxidized zones.

Modern style mining began at the end of the 19th century in 1887 with Cia de Minas Los Andes (of Backus and Johnston) on the Rayo vein. Cia Backus and Johnston started the exploration, development and exploitation of several of the mineralized structures in the Casapalca district (Carlos Francisco, Carmen, Bella Union and Aguas Calientes).

In 1921, Cerro de Pasco Corp. (CPC) acquired the Casapalca mine and most of the mining permits and licenses. The current Yauliyacu permits and licenses are from these original land holdings. CPC also built the Graton tunnel.

In January 1974, Centromin Peru (Centromin), a state owned company gained ownership of the Casapalca mining district and through development and selective mining on a massscale increased production to 64,000 tonnes per month. In 1997, Empresa Mineral Yauliyacu SA, whose largest shareholder is Quenuales International, purchased the mine. In the purchase deal agreement, the Casapalca mining district was split into two mining areas, the Yauliyacu and Casapalca mines. The Casapalca mine is now owned by Cia. Minera Casapalca S.A., a privately owned company. Although both mines are connected underground, Casapalca operates from its own separate accesses.

In 1998, Yauliyacu implemented a radical improvement action plan and increased the production to 90,000 tonnes per month. New orebodies were delineated that were amenable to more bulk mining methods such as sub-level stoping.

The geology of the Casapalca area was first mapped in 1928 by H.E. McKinsey and J.A. Noble. In 1932, their publication "Veins of Casapalca" outlined the general structures and mineralization of the district. There has been a series of studies on the deposit between 1960 to 1980 including those of Sawkins (1974) and Alverez (1980) whose studies concentrated on fluid inclusions and metal zoning.

Figure 3 shows the Yauliyacu production since 1920.

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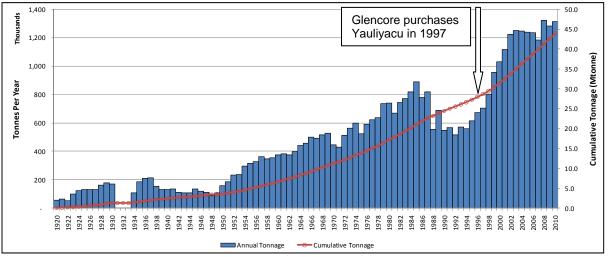


Figure 3 -Historical Production (1920 – 2010)

7.0 GEOLOGICAL SETTING

The following descriptions are excerpts from WGM's March 2008 technical report entitled "A Technical Review on the Yauliyacu Lead / Zinc Mine, Junin Province, Peru for Silver Wheaton Corp." (WGM, 2008).

7.1 Regional Geology

The regional geological setting of the western side of the Andean Cordillera of central Peru (Figure 4) is an area of deep valleys with steep slopes, and elevations varying from 800 masl on the west side, to more than 5,400 masl on the east side at the continental divide. The development of the geomorphology occurred in the Cenozoic and gave rise to the following units:

- Dissected western Andean slopes
- Zone of the altiplano
- Remnants of the Puna plain
- Valleys and the zones of the high peaks

The stratigraphic sequence includes rock units from the Paleozoic up to present on the eastern side of the continental divide, and from the Mesozoic on the western side. The oldest rocks are exposed in the centre of the Yauli dome and are those of the Excelsior Group, a pelitic sequence regionally metamorphosed by the Hercinian tectonic disturbance (upper Devonian). Overlying discordantly is a volcanoclastic series represented by the Mitu Group, the result of intensive erosion at the end of the Hercinian event. As a result of the Hercinian orogeny, a zone was uplifted and basins were formed on the east and west flanks. These basins lasted until Albian times (lower Cretaceous).

Mesozoic sedimentation began with a marine transgression, represented in the east by the limestones of the Pucará Group. During lower Cretaceous there were two principal facies being accumulated: 1) the western basin, represented by the Formations Chimú, Santa, Carhuaz and Farrat, mainly sandstones and limestones; and 2) the eastern basin, represented by the Goyllarisquizga Group of sandstones-quartzites and interbedded shales.

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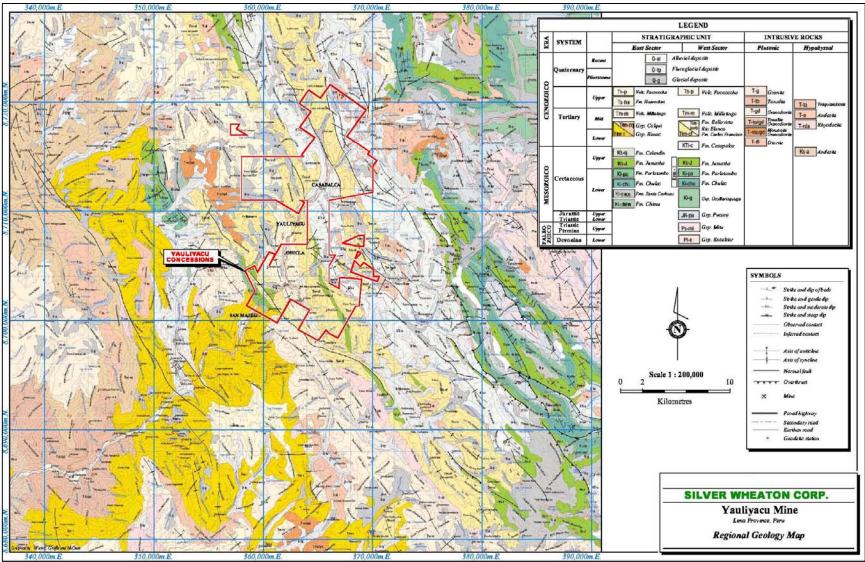


Figure 4 -Regional geology (WGM, 2008)



During the Lower Cretaceous (Albiano), a general marine transgression occurred, caused by the sinking of the basin, which gave rise to deposition in both basins. This deposition consisted of calcareous sequences comprised of the Pariahuanca, Chúlec, Pariatambo, Jumasha and Celendin Formations. At the same period in the most western part of the basin volcanics interbedded with sediments (Quilmaná Group) were deposited. At the end of the Cretaceous and start of the Tertiary during uplift of the Andean mountains, emplacement of large plutonic bodies took place (coastal batholiths). In the eastern sector, deposition of a molasse sequence (Casapalca Formation) resulted from erosion of the uplifted Andean mountains.

Deformation took place in the Eocene (Incaica phase) in the form of folding of the Mesozoic sequence (including the red beds of the Casapalca Formation).

In its final stage, the tectonic event produced magmatic extrusives that covered the area. Volcanic ashes and lava flows were interbedded with the continental sediments, represented by the Rímac and Colqui Groups (western basin), and volcanics of the Carlos Francisco, Bellavista and Rio Blanco Formations to the east.

The tectonic activity at the end of the Oligocene folded these units and generated new faults that followed the pre-existing structural model. The region was subsequently overlain by a volcanic-sedimentary sequence (Millotingo), which was later affected by the Quichuana tectonic phase which resulted in explosive volcanism of the Huarochirí Formation.

Near the end of the Quichuana tectonic phase (between the Miocene-Pliocene), a centre of explosive eruptions and lava flows occurred, which marked the end of the Andean deformation cycle and start of the orogeny that produced the Puna surface. The Puna surface was gradually uplifted to 4,000 masl (Pliocene-Pleistocene) by a system of gravitational (horst-type) faults.

Cenozoic structural development occurred in the form of faulting, folding and emplacement of plutonic and hypabyssal bodies. Mineralizing solutions, related to the magmatism that followed the Miocene deformation, were introduced probably before the deformation of the Lower Pliocene.

Many of the mineral deposits were emplaced in Tertiary volcanic rocks as fracture infillings by hydrothermal solutions.

Fluvial and glacial erosion intensified with uplift during Pliocene-Pleistocene, resulting in deeply incised valleys. The present morphology of the Andes is closely related to the stages of glacial erosion.

7.2 **Property Geology**

Property geology (Figure 6) is underlain by a series of Tertiary age bedded rocks that consist principally of sandstones, calcareous shales, limestone, breccias, tuffs and lavas (approximately 5,400 m thick).

The stratigraphy is exposed in a series of anticlines and synclines that are part of the Casapalca Anticlinorium. The axis of this principal structure strikes N20°W, generally paralleling the Andes mountains (Figure 7).

Millions of years				
1.8		Quaternary		
64	Cenozoic	Tertiary	Intrusive Rocks	Taruca Dykes
			Rio Blanco Formation Bellavista Formation	
			Carlos Francisco Formation	Yauliyacu Member Carlos Francisco Member Tablachaca Volcanics
			Casapalca Formation	Carmen Conglomerate Member Capas Rojas (Red Beds) Member
250	Mesozoic	Cretaceous	Jumasha Formation Gollarisquiza Formation	

The stratigraphic column is shown in Figure 5.

Figure 5 - Stratigraphic Column

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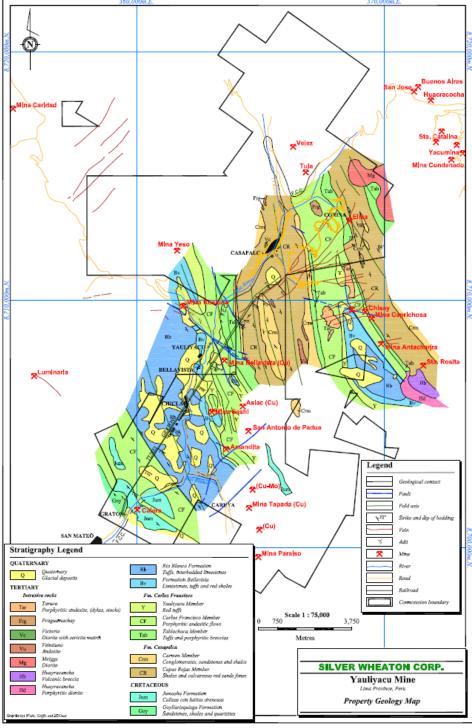


Figure 6 - Property geology (WGM, 2008)

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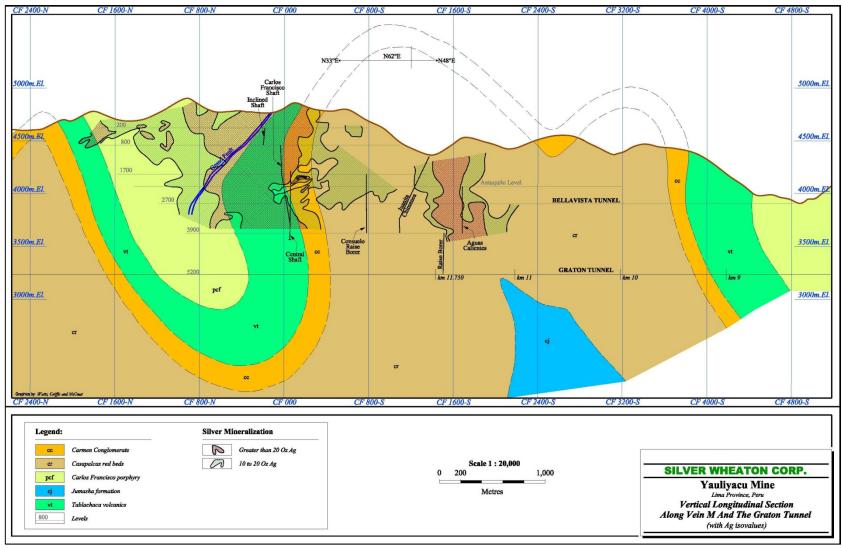


Figure 7 -Vertical longitudinal section along Vein M and the Graton Tunnel

7.3 Tertiary

The oldest rocks outcropping in the property are the Casapalca Formation that form the broad Casapalca anticline and are cut by the Rio Rimac. The formation is composed of a series of clastic continental sedimentary rocks interpreted to have been deposited in a distal fluvial system. The older Capas Rojas (Red Beds) Member (1,300 to 1,400 m thick) is composed of intercalated shales and calcareous sandstones whose characteristic red colour is due to finely disseminated hematite. The sandstones range in grain size from fine to coarse and commonly exhibit laminar and cross stratification. It should be noted that there is no economic mineralization in the Capas Rojas Member. Overlying the Capas Rojas is the Carmen Member, made up of a series of conglomerate and limestone units interbedded with sandstones, shales, tuffs and volcanic conglomerates that vary in thickness from 80 to 200 m. Conglomerates are also present as lenses composed of cobbles, rounded quartzites and limestones gravels in a sandy clay matrix with a calcareous cement.

Replacement of limestone clasts with a calcareous matrix occurs where the mineralized veins cross-cut the coarse sandstone and conglomerate layers.

The Carlos Francisco Formation consists of a thick series of volcanic rocks overlying the sedimentary rocks and has been divided into three members:

- The Tablachaca Member (overlying the Carmen Member) is composed of a 150 to 200 m thick succession of volcanic rocks made up of tuffs, breccias, agglomerates and extrusive porphyritic rocks.
- Volcanics of the Carlos Francisco Member are up to 450 m thick and overlie the Tablachaca Member. They consist of massive andesitic flows and fragmentals (breccias). Intercalated layers of breccias and porphyritic andesites indicate the top, bottom and center of the flow. The breccia beds consist of angular, porphyritic fragments that are generally a green colour and are enclosed in a matrix of red coloured, porphyritic rock.
- The Yauliyacu Member is composed of tuffs and conformably overlies the Carlos Francisco volcanics. The tuffs are fine grained and red in colour with a vertical thickness of 50 m.

The Bellavista Formation overlies the Carlos Francisco Formation and outcrops in the southern part of the property. It exhibits a varied vertical arrangement of sediments and volcanics. The principal sediment facies are limestones and siliciclastics (sandstones to siltstones) while the volcanics range in composition from tuffs to andesites. A prominent characteristic of the formation is the presence of thin beds of grey to occasionally dark grey limestones. The dark grey limestone beds contain nodules of quartz or fragments of fine grain tuffs and red shales.

The Rio Blanco Formation overlies the Bellavista Formation and is composed predominately of finely bedded volcanic (mainly red, lapilli tuffs with interbedded breccia units). The base of the formation is marked by interbedded limestone.

The Quaternary geology in the Casapalca area is represented by a series of glacial deposits and recent formations.

7.4 Intrusives

Various intrusives of Tertiary Age are commonly observed in the northern part of the Yauliyacu property. These intrusives are of intermediate composition and chemically similar. They all have a high soda content but vary in texture and alteration.

In the southeast part of the property, dykes and stocks of the Taruca porphyry intrude the volcanics. A north-south elongated stock outcrops on the Taruca Mountain.

Three major sub-parallel inverse faults cut the area: 1) the Infiernillo strikes N38°W and dips 70°SW, 2) the Rosaura strikes N43°W and dips 80°SW (contains mineralization); and 3) the Americana strikes N38°W and dips 70°NE. In the southwest of the district, the Rio Blanco Fault has a strike close to N35°E, paralleling the M and C vein systems. The Grand Fault strikes N55°W and displaces the veins.

Hydrothermal and polymetallic vein mineralization of the Casapalca District occurs as either narrow veins or disseminated orebodies within late Cretaceous to Tertiary volcaniclastic and fluvial sediments. Mineralization crosses the stratigraphic sequence but it is concentrated within the Casapalca and Carlos Francisco Formations.

8.0 **DEPOSIT TYPES**

The following descriptions are excerpts from WGM's March 2008 technical report entitled "A Technical Review on the Yauliyacu Lead/ Zinc Mine, Junin Province, Peru for Silver Wheaton Corp." (WGM, 2008).

The Yauliyacu deposit is described as a hydrothermal polymetallic vein type deposit, believed to result from circulating hydrothermal fluids. These fluids extracted, transported and then precipitated sulphide minerals into open space fillings and replacement bodies. Chloride-rich brines and recirculating meteoric waters interacted to produce the ore fluids. Sulphides precipitated as a result of decreased pressure and temperature, reaction with the wallrock, or a mixing of fluids. The origin of the metals is thought to be either magmatic or dissolved from the country rocks.

This type of deposit is characterized by changes in mineralization and mineralogical continuity along the vein system. As the hydrothermal fluids precipitate sulphides, the chemical composition changes, thus producing a continually varying chemical and mineralogical deposition along the vein.

9.0 MINERALIZATION

The following descriptions are excerpts from WGM's March 2008 technical report entitled "A Technical Review on the Yauliyacu Lead/ Zinc Mine, Junin Province, Peru for Silver Wheaton Corp." (WGM, 2008).

Casapalca mineralization occurs in two forms: hydrothermal polymetallic veins and disseminated orebodies. The veins are up to five km along strike on surface of which four km have been exposed underground. Typically, the veins are 0.3 to 1.2 m in width with a known vertical range over two km. The major vein structures dip 60° to 80°NW. Strike slip faulting, prior to the mineralization event, controlled the vein structures with the formation of duplexes (a strike slip duplex is a set of horizontally stacked horsts bounded on both sides by segments of the main fault). Hydrothermal brecciation of the host rock occurs between faults.

In the veins, the ore forming minerals are mainly sphalerite, galena, tetrahedrite, tennantite and chalcopyrite. The typical gangue minerals are pyrite, quartz, calcite, rhodocrosite, dolomite, sericite and manganiferous calcite.

Mineralogical study of vein mineralization indicates a cross cutting relationship with the following four stages of fluid movement and precipitation:

- 1. NE-SW veins with Zn, Pb, Ag and Cu polymetallic mineralization
- 2. N-S veins with Cu mineralization
- 3. E-W veins with Ag and Pb mineralization
- 4. Gangue fluid deposition of quartz and carbonates

The mineral paragenesis is shown in Figure 8. Mineralization temperature is interpreted to have commenced at 370°C and terminated at approximately 200°C. The salinity of the mineralizing fluids is estimated to range from 4 - 40% NaCl weight equivalent.

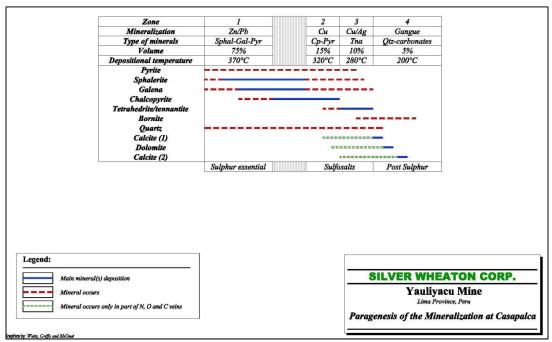


Figure 8 -Paragenesis of the Mineralization at Casapalca (WGM, 2008)

The main mineralized veins within the Casapalca District are referred to as the principal veins (denoted as L, M, N and N3 veins) and are located in the central mine. The L and M veins strike N20E and dip moderately to the west. The N and N3 veins strike EW and dip steeply to the north. Offshoots and splays from the main vein structures are a common. Strong hydrothermal alteration is typical in the form of silicificaton, pyritization and sericitization proximal to the veins with distal propylitic alteration.

Disseminated mineralization was discovered in the late 1980s and are referred to as cuerpos. These have proven to be an important part of the Yauliyacu reserve. There are three different types of Cuerpos:

- 1. Stockwork and disseminated mineralization in the hangingwall and footwalls of the large veins. These range from less the 1 m to 8 m in width.
- 2. Stockwork and disseminated mineralization in sigmoidal shaped structures occurring at strong bends in the veins
- 3. Stratiform replacement of limestone clasts and the matrix in conglomerates and coarse grained sandstones (Carmen Member) close to cross-cutting veins. Large orebodies often occur between two main vein systems, implying that the mineralizing solutions encountered susceptible horizons (sandstones and conglomerates) with suitable porosity and permeability to permit sulphide



deposition. These orebodies can be up to 120 m in length, 15 to 20 m wide and 80 m in depth. This type of mineralization has dominant propylitic alteration with abundant epidote.

Mineralization at the Yauliyacu Mine is zoned vertically and laterally. Vertical zoning occurs with high grade silver near surface and high grade zinc in the lowest levels of the mine. Zoning exists laterally (Figure 8) centered on the Casapalca Red Beds Zone 1 and grades away on both sides proximally into Zone 2 and distally to Zone 3.

10.0 EXPLORATION

Throughout the mine life at Yauliyacu, the focus of exploration has been the continued expansion of mineralized zones (Vetas, Cuerpos, and Horizontes) within the mining lease. Over the years the mine has been extremely successful at replacing production, as well as, expanding resources and reserves. Figure 9 displays the resource tonnage since 1999. The large increase in 2007 was due to the new Horizontes mineralization and expanded resources at depth.

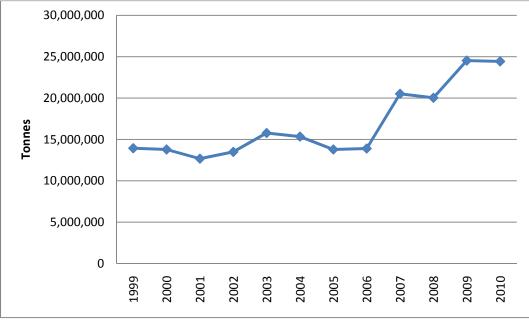


Figure 9 - Historic Resource Tonnage (inclusive of Reserves)

The majority of exploration at Yauliyacu takes place within the mine due to the rugged terrain and current depth of mining and mineralization. However, surface trenching is an important tool in locating new veins and the upper extensions of veins defined at depth. The main forms of underground exploration are drilling and development.

During 2010, diamond drilling totalled 19,831 m and exploration development totalled 4,872 m. Development resulted in the definition of 1,246,700 tonnes of resources for an average ratio of 255.89 tonnes per metre of advance. Details of the resource ratio per metre of diamond drilling is described in Section 11.0.

Exploration at depth remains a priority and with success will result in the deepening of the Pique Central shaft down to the Graton Tunnel level. The Ricardito Tunnel has been slashed (4.5 x 4.0 m) to allow access for the larger mining equipment. The enlarged tunnel



has improved ventilation and productivity in the lower mine. The long section in Figure 10 shows the general silver distribution and the 2011 drill targets.

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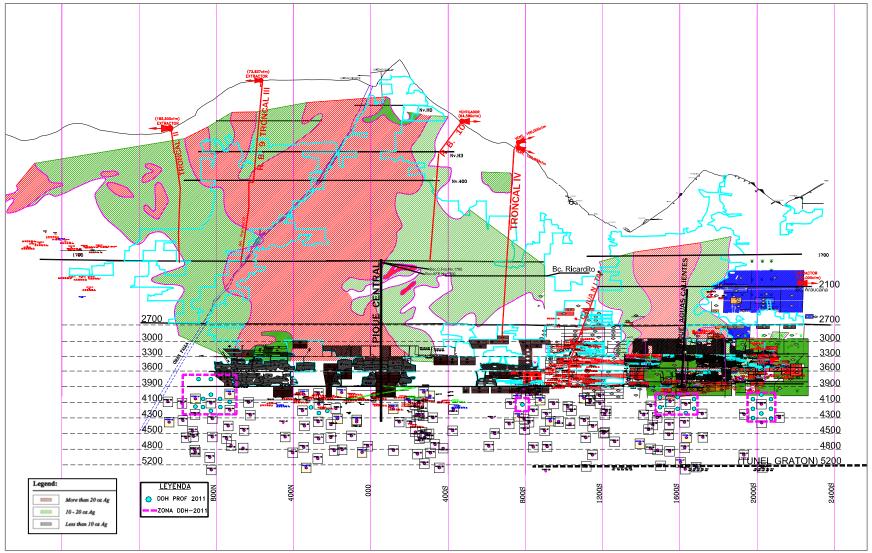


Figure 10 -Long Section Showing Diamond Drilling and Development

11.0 DRILLING

As in most underground mines, diamond drilling is vital to the continued operation of Yauliyacu. Limited resources and reserves can be drilled at a time, due to access constraints within the underground development. Thus, a focused annual drilling program is required. The drilling budget for 2010 was \$1.17 million with realized expenditure of \$1.242 million for a total of 19,831 m of drilling.

This drill program focused entirely above the 3,900 level and defined 1,448,220 tonnes of resources for a conversion rate of 73.0 tonnes per metre. No deep drilling was completed in the lower mine during 2010.

The drilling budget for 2011 is 18,000 m (Table 5) with total expenditure of \$1.17 million (Table 6).

Section	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
I, III	315	315	315	315	315	315	315	315	315	315	315	315	3,780
Ш	330	330	330	330	330	330	330	330	330	330	330	330	3,960
IV	355	340	330	345	350	340	330	330	330	340	350	220	3,960
V	360	360	360	360	360	360	360	360	360	360	360	360	4,320
VI	165	165	165	165	165	165	165	165	165	165	165	165	1,980
Total	1,525	1,510	1,500	1,515	1,520	1,510	1,500	1,500	1,500	1,510	1,520	1,390	18,000

Table 5 -2011 Diamond Drilling Budget by Section (metres)

Table 6 -2011 Diamond Drilling Budget by Section (US\$000)

Section	Jan	Feb	Mar	Apr	Мау	Jun	Jul	Aug	Sep	Oct	Nov	Dec	Total
I, III	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$20	\$246
П	\$21	\$21	\$21	\$21	\$21	\$21	\$21	\$21	\$21	\$21	\$21	\$21	\$257
IV	\$23	\$22	\$21	\$22	\$23	\$22	\$21	\$21	\$21	\$22	\$23	\$14	\$257
V	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$23	\$281
VI	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$11	\$129
Total	\$99	\$98	\$98	\$98	\$99	\$98	\$98	\$98	\$98	\$98	\$99	\$90	\$1,170

11.1 Core Size

The majority of underground drilling uses BQ size core. When large underground openings are encountered, the void is cased with NQ and the hole is continued with BQ. Deep holes from either surface or underground typically begin with HQ and reduce down to NQ.

11.2 Collar Surveying

The Geology Department marks underground drillhole collars with a painted triangle. When the collar position has been measured by the Survey Department, a circle is painted around the triangle. Collar locations are provided to the Geology Department who then plot the location to verify accuracy and communicate back to the Survey Department if holes do not plot where anticipated.

11.3 Downhole Surveying

Short underground holes of 150 m or less are typically not downhole surveyed because the historic drilling indicates the deviation is minimal. Longer holes are downhole surveyed using a Reflex Easyshot instrument on regular intervals.

11.4 Contractors

All Yauliyacu diamond drilling is completed by contractors. In 2010, the mine was exploring with four rigs operated by Remicsa Drilling S.A. (Remicsa), Lima, Peru. Remicsa's rigs consisted of one LM 45 rig and three Meter Eater rigs.

The current cost of drilling is \$54, \$59 and \$69 per metre for the first 100 m of BQ, NQ and HQ respectively. Costs increase by \$2 per metre for each subsequent 100 m interval.

11.5 Core Recovery

Core recovery is quantified on a regular basis by the core shack helpers by comparing the recovered core between blocks to the drilled interval. Recovery is considered excellent at Yauliyacu both within the sandstones and volcanics, averaging over 95%.

11.6 Logging Procedures

The following bullets describe the current logging procedures at Yauliyacu:

 Drill core is transported from the drills to the core shack located within the mining facility between the plant and the administration offices.

- Core boxes are ordered and cleaned ensuring the hole and box numbers are clearly labelled and the downhole position blocks are properly placed.
- Core recovery and Rock Quality Designation (RQD) measurements are collected.
- A lithological log which includes rock type, color, texture, alteration, structure and mineralization is entered into handheld Portable Data Accessory (PDA) units utilizing the DH Lite program (part of Datamine's DH Logger).
- Sample intervals are marked on the boxes using a permanent black felt pen. The minimum sample interval is 0.05 m and maximum is 1.0 m. Lithological contacts are respected during sampling.
- Core is wet with water and digitally photographed.
- Core sample intervals selected for analyses are halved using a diamond blade saw. The core is inspected by a geologist prior to cutting and when necessary a cut line is marked to ensure representative halving.
- The cut core is permitted to dry.
- Sample tags are written for each analysis interval. One portion of the tag remains with the archived portion of the core and the other is placed in a plastic sample bag with the analysis portion of the core. Sample bags are secured with masking tape.
- When drilling new areas quality control samples are inserted according to the following proportions:
 - Standards every 50th sample
 - Blanks –every 25th sample
 - Duplicates –every 25th sample
- Sample batch forms are completed detailing the delivery date, number of samples and sample number intervals. The sample preparation laboratory has a similar sample receipt sheet, which confirms the samples received upon delivery.
- A program of reducing archived core is in place whereby the barren core intervals from old mining areas are reduced to save space in the core shack. All core from new mining areas is archived.

Table 7 details the codes currently used in producing the lithological logs. Glencore intends on standardizing logging codes company-wide during 2011.



	Rocktype	Min	eralization Style	Mineraliza		Altera	ition Type	Alteration	Mineralization
Rock type Code	Description	Min-style Code	Description	Min-type Code		Alt-type Code	Description	Alt-Min Code	
Agl	Aglomerate	Ban	Banded	Bar	Barite	Ca	Carbonate	Act	Actinolite
And	Andesite	Ban_Dis	Banded and disseminated	Bor	Bornite	Dca	Descarbonatization	Alu	Alunite
Arn	Sandstone	Сх	Crystalized	Cal	Calcite	CI	Chlorite	Ank	Ankerite
Arn_Ca	Calcareous sandstone	Cx_Frac	Crystals in fractures	Ср	Chalcopyrite	Ep	Epidote	Cao	Kaolin
Arn_Hz_Btm	Sandstone w bituminous lenses	Cx_Mas	Crystals in massive	Csn	Chalcocite	Kao	Kaolinite	CI	Chlorite
Arn_Hz_Lut	Sandstone w shale lenses	Dis_Nod	Disseminated and nodules	С	Carbon	Pr	Propylitic	Q	Quartz
Arn_Hz_Mrg	Sandstone with marl lenses	Dis_Ven	Disseminated and veinlets	Cer	Cerussite	Py	Pyrite	Dik	Dickite
Arn_Qz	Silicified sandstone	Dis	Disseminated	Cin	Cincita	Se	Sericite	Dol	Dolomite
Ba_An	Basaltic andesite	Mas	Massive	Cov	Covelite	Si	Silicic	Epd	Epidote
Bx_Sed	Sedimentary breccia	Mas_Dis	Massive and disseminated	Q	Quartz	Arg_Md	Moderate argillic	Gnt_V	Green granite
Bx_Vol	Volcanic breccia	Mas Ven	Massive and veinlets	Dol	Dolomite	Arg_Av	Advanced argillic	Hed	Hedenbergite
Cgl	Conglomerate	Nod	Nodules	Esf	Sphalerite	Ox_Sup	Supergene oxidation	Hm	Hematite
Ciz	Limestone	Nod Mas	Nodules and massive	Esp	Specularite	Int	Temperature	Iva	Ilvaite
Ciz Dol	Dolomitic limestone	Nod_Ven	Nodules and veinlets	Gal	Galena	Dol	Dolomitization	Mag	Magnetite
Clz_Lut	Shaley limestone	Stock	Stockwork	Goe	Goethite	Sk	Skarn	ox	Oxides
Cob	Cover moraines	Ven	Veinlets	Hm	Hematite	Ser	Sericite	Pv	Pyrite
Cua	Quaternary sediments	Ven Est	Veinlets parallel to bedding	Hmf	Hemimorphite	Fil	Phyllic	Pirf	Pyrophyllite
Dac	Dacite	Miner	alization Intensity	Lm	Limonite	Prop	Propylitic	Px	Pyroxene
Hfe	Hornfels	Min Inten Code		Mal	Malachite	Pot	Potassic	Serc	Sericite
Int	Intrusive	L	Low	Mc	Marcasite	Vua Sil	Vuggy silica	Sid	Siderite
Jas	Jasper	M	Moderate	Mm	Marmatite	Struc	ture Type	Smt	Smithsonite
Lim	Limonite	1	Intense	Orp	Orpiment	Struct-type Code	Description	Spt	Serpentine
Lut	Shale	A	Iteration Style	Py	Pyrite	D	Weak	Sul_Mas	Massive sulfides
Mat Terr	Earthy material	Alt-Style Code	Description	Po	Pyrrhotite	м	Moderate argillic	Trem	Tremolite
Mrg	Marl	Ban	Banded	Pro	Proustite	1	Intense	Ys	Gypsum
Vits	Metasomatite	Per T	Totally pervasive	Pyg	Pyrargyrite	Ciz	Shear	Woll	Wollastonite
Ωz	Quartz	Per_P	Partially pervasive	Rj	Realgar	Con	Contact	Stage of	Mineralization
Rell Det	Relleno detritico	Ven	Veinlet controlled	Rhc	Rhodochrosite	F	Fault	Stage Code	Description
Sht	Shotcrete	Alte	eration Intensity	Rhd	Rhodolite	Fr	Fracture	1	Stage 1
Tuf	Tuff	Alt-Inten Code	Description	Sid	Siderite	Fam Ff	Group fractures	2	Stage 2
Γuf_An	Andesitic tuff	D	Weak	Smt	Smithsonite	Veta	Vein	3	Stage 3
		р м	Weak to moderate	Stb	Stibnite	Ven	Veinlet		
		M	Moderate	Ten	Tennantite	Tx_FI	Flow texture		
		M_I	Moderate to intense	Tet	Tetrahedrite	Est	Stratified		
			Intense			Etl	Stylolite	1	

Table 7 – Logging Codes

11.7 Security Procedures

In the authors' opinion, the core transfer procedures and security measures in place at Yauliyacu conform to industry standard practice, or better. After taking custody of the drillcore, Yauliyacu geologists conduct an industry compliant program of geological and geotechnical logging, photography and sampling.

12.0 SAMPLING METHOD AND APPROACH

12.1 Exploration drilling sampling

The exploration drilling sampling procedures are described in Section 11.6. The core sampling method is consistent with industry standards. All core designated for sampling is cut with a diamond blade saw and flushed with fresh water. The core is cut so that it approximately halves the mineralization. If mineralization is not homogenous, a geologist marks a cutting line directly on the core. One half is selected for analytical analyses and the remainder is archived in the core box. All core are considered to be representative of the mineralization that was drilled. Diamond drill core sampling is the industry standard practice for mineral deposits of potential economic significance where ground quality permits acceptable core recovery.

Sample intervals are selected according to lithology and mineralization intensity. In many cases, the sample intervals are equivalent to the driller's depth markers, except where abrupt changes in lithology or mineralization occur. In these cases, the sample intervals reflect the extent of lithological types and mineralization within the block markers.

12.2 Underground sampling

The mine utilizes the following mining methods which are further described in Section 19.1.1:

- Conventional Cut and Fill along veins (CRVC)
- Mechanized Cut and Fill in Cuerpos (CRCM)
- Shrinkage (SHR)
- Sub-levels in Cuerpos (SLC)
- Open Stope (OPS)
- Sub-level in Veins (SLV)
- Conventional Cut and Fill with Support (CRVCS)

Underground sampling is an important grade control tool at Yauliyacu. The main sampling method is channel sampling. Channel samples are collected by the Geology Department using hammer and chisel perpendicular to the veins on 1.0 to 2.0 m intervals with samples varying in length from 0.1 to 1.0 m with a minimum weight of 3.0 kg. Locations are marked using spray paint. Sample intervals are chosen to preserve changes in lithology and mineralization intensity. Where possible additional samples are taken into the adjacent

host rock so that the economic limits of the mineralization can be properly defined. Care is taken to ensure that the sulphides and host rocks are representatively sampled since the host rocks tend to be much harder than the sulphides. Samples are sent to the laboratory and prepared according to the procedures described in Section 13.1.

In 2009 the mine began new quality control measures for the channel sampling whereby the supervisor randomly selects channel samples for duplicate sampling. Analysis of the duplicate channel sampling is detailed in Section 14.1. Also, the Geology Department noted that the size of samples collected was often quite variable. The preparation lab now weighs all channel samples and contacts the Geology Department when samples of less than 2.0 kg are received.

Lab turnaround is typically the following day. After analyses are received, the economic widths of the channels are marked with spray paint.

Muck pile and scoop / truck sampling is also done on a regular basis to help reconcile mined grades with the process plant.

12.3 Grade Control

Each of the five sections of the mine have a specific geologist who is dedicated to the drilling and grade control. Each geologist has three helpers who paint contacts, place plaques in waste piles and collect samples (channel and muck). Plaques are placed in waste piles to ensure waste material is not sent to the Process Plant. The plaques are made of metal and are numbered. The helpers note where the numbered plaques are placed and the Process Plant notifies the Geology Department when a plaque is collected from the conveyor belt magnet.

The grade control geologists map all development advances within their section of the mine and assist in optimizing grade through visual observations and sampling analyses.

12.4 Opinion on the Adequacy of Sampling Method and Approach

The authors have reviewed the sampling methods for exploration drilling, underground sampling and grade control and believe them to be at or above industry standard levels.

13.0 SAMPLE PREPARATION, ANALYSES, AND SECURITY

13.1 Sample Preparation

The sample preparation laboratory is located within the mine site analytical laboratory building. Separate areas exist for the preparation of Mine and Process Plant samples. The following points describe the preparation procedures for mine samples, which include drillcore, channel and muck samples:

- Samples are arranged on metal trays and dried in one of two large ovens.
- Samples are passed through a jaw crusher, which reduces the material to a minimum of 70% passing 8.0 mm (2.5 US Mesh). A separate jaw crusher is used for exploration samples.
- Samples are then passed through a roller crusher, which reduces to a minimum of 90% passing 2.0 mm (10 US Mesh).
- The jaw and roller crushers are cleaned with compressed air and coarse quartz is passed through after every 5th sample. If high grade material is noticed quartz is passed through the crushers after each high grade sample.
- The crushed sample is reduced to 300 grams using a riffle splitter.
- The sample split is then milled using a Rocklabs pulverizer to a minimum of 98% passing 0.104 mm (140 US Mesh).
- The pulverizer dishes are emptied under an enclosed vent hood to minimize dusts and contamination. There is a separate Rocklabs pulverizer and vent hood for exploration samples.
- No further reduction occurs and the 250 to 300 gram sample is placed in a paper bag and sent to the analytical lab.

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Figure 11 -Sample Preparation Equipment, Mine

The following points describe the preparation of Process Plant samples:

• Plant samples are collected every six hours.

- Separate filter presses are used to dry the bulk and zinc concentrates.
- Samples are then milled using a Rocklabs pulverizer to a minimum of 98% passing 0.104 mm (140 US Mesh).
- A 250 to 300 gram sample is then placed in a paper sample bag and sent to the analytical lab.



Figure 12 -Sample Preparation Equipment, Plant

13.2 Sample Analyses

All Yauliyacu samples are analyzed at the mine site analytical laboratory. The following two methods of analysis are routinely done:

- 1. Fire Assay (FA) for gold and silver.
- 2. Atomic Absorption Spectrometer (AAS) for zinc, lead, copper, silver and iron. Samples returning silver results of \geq 40 g/t are Fire Assayed.

The laboratory is planning to purchase an X-ray fluorescence (XRF) machine during 2011. XRF analyses is a widely used physical method that has advantages over atomic absorption as it does not have difficulties related to small sample size, incomplete dissolution, matrix effects and sample inhomogeneity. XRF allows for the analyses of a greater number of elements than is currently possible with the AAS equipment. XRF has higher detection limits, which will result in less Fire Assaying for gold and silver.

Due to its high altitude location, the balance room is temperature and humidity controlled to ensure precision.

The analytical laboratory obtained ISO 9001 certification in December 2009 and was recertified in December 2010.

13.3 Laboratory Quality Assurance/ Quality Control (QA/QC)

13.3.1 Sample Preparation

Sieve tests are completed on a daily basis to ensure the crushing and pulverizing equipment are achieving the desired size reductions. If the desired sieving percentage is not achieved, the equipment is recalibrated. The desired crush and grind sizes are critical in ensuring proper homogenization during splitting.

Blanks are routinely prepared in the preparation laboratory to monitor contamination. Efforts have been made in recent years to reduce contamination with strict procedures in place for the cleaning of equipment between each sample.

13.3.2 Analytical

The Yauliyacu laboratory has its own independent QA/QC system consisting of the following types of check analysis:

- Duplicates -every 10th sample
- Standard Reference Material (Standards) -every 5th sample for FA and every 25th wet sample analyses
- Blanks –every 50th sample
- External analyses –beginning in 2011, 10 15 randomly selected samples will be sent to external laboratories for comparative analyses

During 2011, the laboratory is planning to increase the frequency of Standards for wet sample analyses from every 25th to every 15th and Blanks from every 50th to every 25th.

The Standard material was prepared at the Yauliyacu site and sent out to a number of laboratories in Lima for Round Robin Analyses. Standards MR Bulk Yauli1, MR Bulk Ros1, MR GEO 1 and MR DDH 1 were analyzed at the following four laboratories:

- Laboratorios SGS del Perú SAC
- Laboratorios Inspectorate Services SAC
- Laboratorios CIMM Perú SA
- Laboratorios Alfred H. Knight



Standards MR GEO 2, MR GEO 3, MR DDH 2, MR DDH 2 and MR DDH 3 were analyzed at the following four laboratories:

- Laboratorios SGS del Perú SAC
- Laboratorios Inspectorate Services SAC
- Laboratorios CIMM Perú SA
- Laboratorios Minlab SRL

Upper and lower limits of ± 2 standard deviations from the mean for each Standard were determined from the Round Robin analyses. Table 8 and Table 9 display the accepted limits used in evaluating the FA and wet assay Standards respectively. Plots of a small dataset of the Duplicates and Standard analysis results from the Yauliyacu laboratory are located in Section 14.2 and Appendix A. The laboratory plans to generate new Standards in 2012 when it anticipates the majority of the current material will have been consumed.

Table 8 -Fire Assay	/ Standards. /	Accepted Limits
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	Standard Reference Materials								
Accepted Limits	MR Bulk Yauli1	MR Bulk Ros1	MR GEO3	MR GEO 4	MR GEO 5				
Ag g/t Lower	4,821.66	1,550.20	1,248.18	1,893.89	2,463.08				
Ag g/t Upper	4,898.80	1,564.51	1,291.73	1,961.70	2,504.76				
Au g/t Lower	0.42	1.69	0.37	0.42	0.48				
Au g/t Upper	0.50	1.80	0.43	0.48	0.56				

Table 9 – Wet Assay Standards, Accepted Limits

		Standard Reference Materials								
Accepted Limits	MR DDH 1	MR DDH 2	MR DDH 3	MR GEO1	MR GEO2	MR GEO3				
Zn% Lower	1.03	1.45	6.75	10.31	3.18	9.54				
Zn% Upper	1.11	1.53	6.91	10.61	3.40	10.12				
Pb% Lower	0.49	0.16	2.36	3.91	1.85	6.27				
Pb% Upper	0.53	0.18	2.46	4.09	1.91	6.63				
Cu% Lower	0.07	0.12	0.74	1.07	0.52	2.11				
Cu% Upper	0.09	0.14	0.78	1.15	0.56	2.19				
Ag oz/t Lower	1.75	0.56	7.09	19.31	8.82	40.13				
Ag oz/t Upper	1.91	0.64	7.39	19.71	9.26	41.53				

13.4 Geology Department Quality Assurance/ Quality Control (QA/QC)

The Geology Department is in the process of implementing a new QA/QC system consisting of Standards, Duplicates and Blanks.

Standard Reference material was collected at the Yauliyacu mine and composited into low, medium and high grade groups. The three resulting Standards were homogenized and sent to outside laboratories to confirm accepted average grades and standard deviation limits (Table 10).

Standard	Elements	Average	St	2 St De	v Limits
Standard	Liements	Average	Dev	Min	Max
	Ag opt	1.24	0.12	1.00	1.49
Low	Cu%	0.11	0.01	0.09	0.13
Grade	Pb%	0.36	0.02	0.32	0.39
	Zn%	0.77	0.03	0.70	0.84
	Ag opt	2.42	0.26	1.90	2.93
Medium	Cu%	0.39	0.02	0.35	0.42
Grade	Pb%	1.14	0.06	1.02	1.26
	Zn%	3.62	0.13	3.36	3.88
	Ag opt	31.86	1.40	29.06	34.66
High	Cu%	1.47	0.09	1.29	1.65
Grade	Pb%	4.72	0.26	4.20	5.24
	Zn%	9.09	0.46	8.17	10.01

Table 10 -Geology Department Standards –Accepted Limits

The following three different types of Duplicates are being analyzed:

- Coarse –created from a split at the primary crushing stage of sample preparation
- Fine –created from a split at the secondary crushing stage of sample preparation
- Pulp –created from a split at the pulverization stage of sample preparation

Blank material was collected from calcareous rocks in San Mateo, near the entrance of the Graton Tunnel. However, this material appears to contain elevated levels of base metals and silver.

Preliminary plots of the Geology Department Standards and Duplicates are located in Section 14.2.2 and Appendices B and C.

13.5 Data Security

The following data security procedures are in place:

- Samples sent from the core shack and received at the laboratory are both documented.
- Traceability records prevent errors in identification and ensure the sample history can be followed as part of the analytical chain of custody.
- All records and reports are archived.
- Rejects and pulps are archived in case a new analysis is required.
- The balances and climate monitoring systems are certified annually by an external group. The two AAS machines are certified twice a year.
- Analytical results are digitally transferred to a secure database to prevent data entry errors and tampering.
- In 2009, the laboratory implemented a new computer system for tracking the samples through the analyses steps. This system is very secure and also has the benefit of automatically shuffling the position of the QA/QC samples and the specific Standards used (Figure 13).

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		0004	GE-090160-0004	0004	177393	0.1960	Verdadero	
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Nro. Muestras	125	0017		STANDAR	MR GED3	0.2000	Verdadero	
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	225	0026	GE-090160-0023	0023	184463	0.2030	Verdadero	
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Figure 13 - Laboratory Sample Tracking Computer Program

 In 2011, the laboratory is scheduled to implement Thermo Fisher's "Laboratory Information Management Systems" (LIMS) which provides control of processes with rigorous testing and real-time monitoring. This software system will include bar code sample ticketing which will eliminate the potential for sample swapping through each of the sampling, preparation and analytical stages. Glencore plans to implement the LIMS system at all of its South American operations.

13.6 Opinion on the Adequacy of Sampling, Sample Preparation, Security and Analytical Procedures

The authors have toured the Yauliyacu sample preparation and analytical laboratories and were impressed by the order and cleanliness of the areas. In the authors' opinion the preparation, security and analytical procedures are at or above industry standard levels.

The authors have previously suggested replacing the roller crusher with a modern crusher such as a Rocklabs Boyd Crusher due to the difficulty in cleaning and susceptibility to cross contamination of samples. The laboratory has plans to replace the roller crusher in 2011.



The authors are pleased that the Geology Department is working towards implementing a new QA/QC system. The authors recommend formalizing the system as soon as possible with prescribed sample stream insertion points for the Standards, Duplicates and Blanks. A dedicated geologist should be assigned to monitoring the QA/QC results and consulting with the laboratory when results outside of the accepted limits are received. Sample batches should be reanalyzed when QA/QC failures are detected and unexplained. The authors also suggest sourcing a Blanks material that is truly blank.

14.0 DATA VERIFICATION

14.1 QA/QC Measures

All data generated from drilling and underground sampling is thoroughly checked by the Geology Department. Sample locations are examined on section and plan view to ensure correct plotting. Drill collar locations are checked to ensure they correspond to the drilling platforms and sample data are checked to ensure they correspond with the mining advance surveys. The new geological SQL database GEAS, has automated checks which look for interval errors and out of range analytical results during importing. All errors are reported back to the laboratory or the core shack for correction and care is taken to ensure all corrections are entered into the database.

The Laboratory has implemented a sample tracking program that automatically inserts Blanks, Standards and Duplicates into the sample stream. The Laboratory's independent QA/QC system is described in Section 13.3.2.

As described in Section 12.2 the Geology Department began a program of duplicate channel sampling during 2009. Figure 14 and Figure 15 are Q-Q plots comparing the channel samples taken with and without supervision during 2010. The plots do not show a bias between samples taken with supervision or without. Collecting representative chip samples requires dedication as the grades along one sample can vary considerably and the sulphide material is significantly softer than the host rock. In SLW's opinion, the duplicate channel exercise is worthwhile and provides further confidence in the channel sample data.

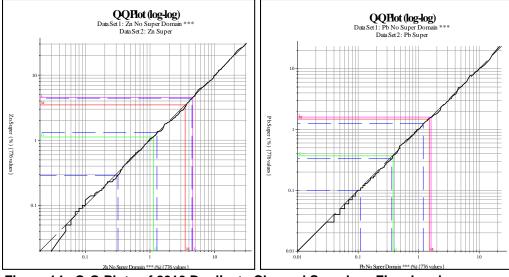


Figure 14 –Q-Q Plots of 2010 Duplicate Channel Samples –Zinc, Lead

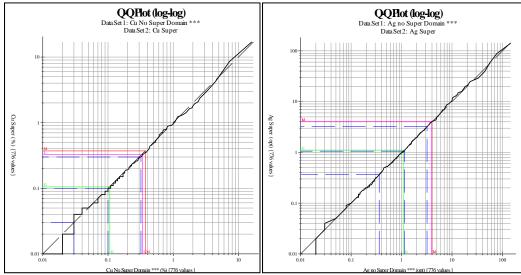


Figure 15 –Q-Q Plots of 2010 Duplicate Channel Samples –Copper, Silver

14.2 Verification by Authors

14.2.1 Laboratory QA/QC

In order to independently confirm the accuracy of the laboratory QA/QC program, the authors requested and received the laboratory analytical QA/QC data for 2010. The laboratory provided plots of the Standards analyses for silver, lead, copper and zinc with appropriate limit bars (Table 9).

The following are the Standards plots for silver which are generated automatically in the lab's software. Additional plots for lead, copper and zinc are located in Appendix A. Silver results for Standards MR DDH 1 and MR GEO 2 plot well within two standard deviations of the mean. However, results for the higher grade Standard, MR GEO 3 are much more variable with a number of results reaching the upper two standard deviations limit. These results will likely become less variable when the XRF machine is implemented.

2010 Resource and Reserve Update Yauliyacu Mine, Peru

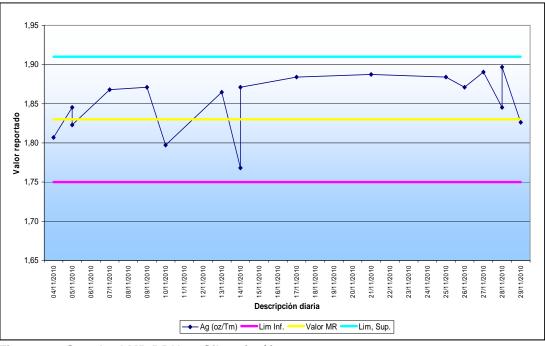


Figure 16 -Standard MR DDH 1 -Silver (oz/t)

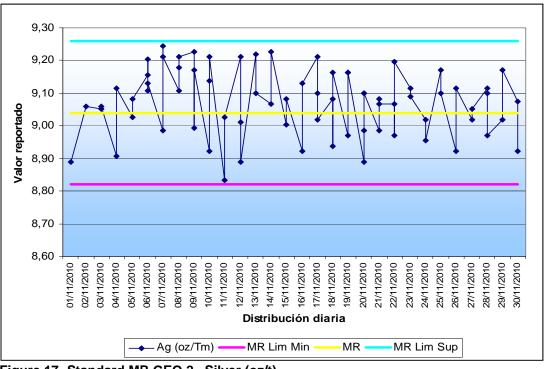


Figure 17 -Standard MR GEO 2 –Silver (oz/t)

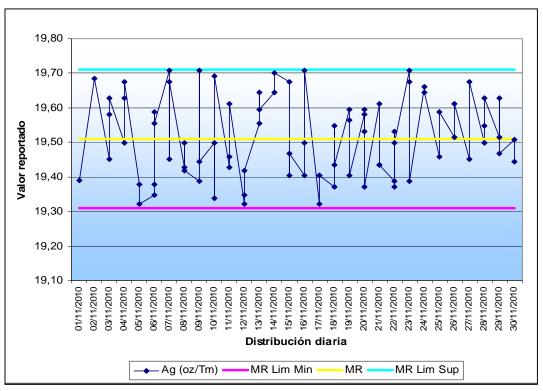


Figure 18 -Standard MR GEO 3 -Silver (oz/t)

14.2.2 Geology Department QA/QC

Although the Geology Department's QA/QC program has not been formally implemented, the authors requested a copy of the data collected to date. Figure 19 to Figure 21 are plots of the low, medium and high grade Standards results for silver with the corresponding accepted limit bars (Table 10). Silver results for the low grade Standard are centered around the mean and well within the two standard deviation limits with the exception of the first analysis which is close to the upper limit. Silver results for the medium grade Standard plot above the accepted mean and below the upper limit with the exception of the second analysis which plots below the lower limit. The high grade Standard has the highest variability of silver results with the majority of analyses plotting below the accepted mean and lower limit. High variability in silver results was also observed in the laboratory high grade Standard and as commented in Section 14.2.1 this variability should decrease when the XRF machine is implemented.

Appendix B contains additional Standards plots for zinc, lead and copper.

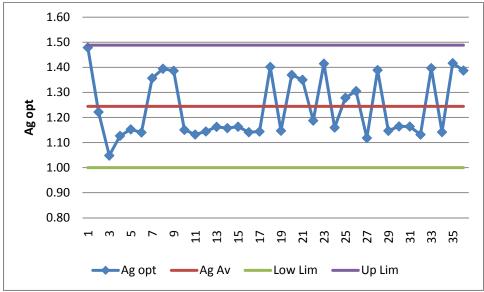


Figure 19 – Geology Department Low Grade Standard – silver

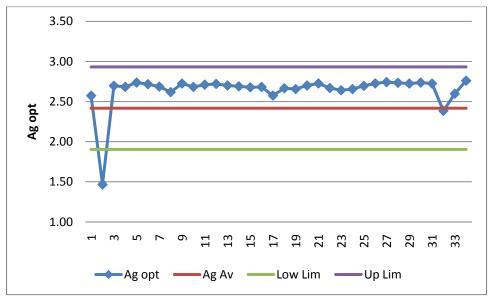


Figure 20 – Geology Department Medium Grade Standard – silver

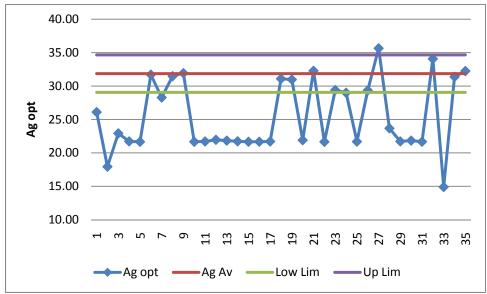


Figure 21 – Geology Department High Grade Standard – silver

Figure 22 to Figure 24 are Q-Q plots of the coarse, fine and pulp duplicates for silver. All plots show good correlation between original and duplicate analyses. As expected variability decreases as the splitting size fraction decreases in the sample preparation process from coarse to fine to pulp rejects.

Appendix C contains Q-Q plots of zinc, lead and copper for the coarse, fine and pulp duplicates.

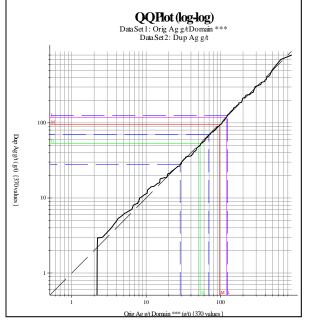


Figure 22 – Geology Department Coarse Duplicates, silver

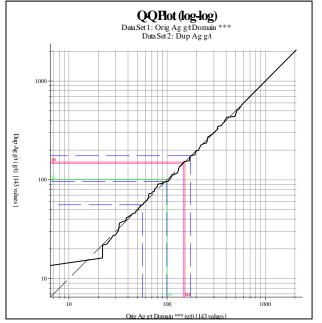


Figure 23 – Geology Department Fine Duplicates, silver

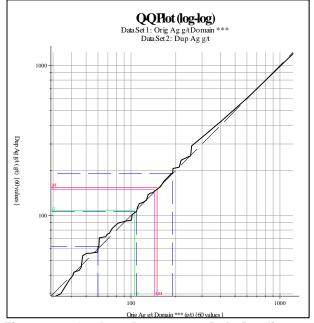


Figure 24 – Geology Department Pulp Duplicates, silver

14.3 Additional Verification

During WGM's due diligence visit to Yauliyacu in 2006 for SLW's silver stream acquisition, two representative quartered core samples were collected and analyzed at ALS Chemex Laboratory (ALS), Vancouver, BC, Canada. Table 11 shows a good comparison between the ALS and Yauliyacu laboratories.

Table 11 - WGM Independent Analyses, 2006

			Yauliyacu:			ALS Chemex:				Difference				
Drillhole	From	То	Zn%	Pb%	Cu%	Ag g/t	Zn%	Pb%	Cu%	Ag g/t	Zn%	Pb%	Cu%	Ag g/t
1206-16														
1706-12	115	115.5	5.41	4.01	0.68	536	5.09	3.38	0.53	357	-0.32	-0.63	-0.15	-179

14.4 Opinion on the Verification of Data

Based on the checks made by the Yauliyacu Geology Department, the authors and WGM, SLW concludes that the data has been verified to a sufficient level to permit its use in a CIM compliant resource estimate.

The authors believe that the Laboratory's QA/QC program adequately monitors the performance of the preparation and analytical laboratories to ensure contamination of samples does not occur and that results are both precise and accurate. The authors suggest that the Geological Department implement their new QA/QC program as soon as



possible and determine the reason for the Standards results falling outside of the accepted limits (homogenization, sample size, analytical technique, etc).

15.0 ADJACENT PROPERTIES

The following descriptions are summarized from WGM's March 2008 technical report entitled "A Technical Review on the Yauliyacu Lead/ Zinc Mine, Junin Province, Peru for Silver Wheaton Corp." (WGM, 2008) with minor updates made by SLW for details that have changed since WGM's report.

In the immediate area of the Yauliyacu Mine, there are the following three properties with mining/exploration activity:

- Cia. Minera Rosaura S.A. (Rosaura)
- Cia. Minera Casapalca S.A. (Casapalca)
- CIMALSA Mine

The Rosaura Mine concessions are owned by Quenuales and are optioned to Rosaura by Quenuales. It is agreed that any mineral reserves found on the Rosaura property will be processed at the Yauliyacu Mine, however the Rosaura mine was closed on November 25, 2008 due to low metal prices. Quenuales plans to mine 500 tpd from Rosaura during 2010 and process the ore at the Yauliyacu plant. In 2009 Glencore sold the Rosaura mill to Trevali Resources. The Rosaura mill will be dismantled and moved to Trevali's Santander mine located near Cerro de Pasco.

The Casapalca Mine is adjacent to Yauliyacu and exploits the same deposit. Casapalca produced 45,000 tonnes per month in 2005.

The CIMALSA mine, Calera Limestones is located to the south on the Yauliyacu property.

The following small concessions holdings do not have current mining/exploration activity but contain either minor open pits or outcrops with weak alteration:

- To the northwest of Concession Casapalca 1 are located adjacent concessions that were requested for non-metallics and contain a few isolated pits with no mineralization of importance.
- To the northeast of Concession Casapalca 2 are small adjacent concessions containing small pits that show weak propylitic alteration associated with structures of a few centimeters width.
- To the east of Concession Casapalca 3 and Casapalca 5 are small adjacent concessions claimed for metals showing isolated outcrops with propylitic and weak argilitic alteration.

- To the west of concession Centromin 18 are scattered outcrops and pits showing alteration associated metallic mineralization.
- To the west of concessions Centromin 19, Milagros Alexandra 1, Casapalca 4, and Casapalca 20 are scattered outcrops and pits showing weak alteration associated with metallic mineralization.
- To the east of concession Casapalca 20 are a few small isolated pits with argilitic alteration associated with centimeter wide structures.
- Adjacent to concessions Casapalca 19, Los Balcanes 1-81 and Balcanes 1-82a are outcrops with relatively important metallic mineralization present.
- To the west of concessions, Casapalca 12, 13 and 15, are a few outcrops and pits.
- To the east of concessions Casapalca 16, 17, 18, 12 and 8 are a few outcrops and pits.

16.0 MINERAL PROCESSING AND METALLURGICAL TESTING

16.1 Summary

The Yauliyacu Process Plant is located adjacent to the main mine access (4,210 masl) in steep mountainous terrain. The upgraded milling facility has a current capacity of 3,600 tpd. Several expansions have occurred from 1998 to 2001. A higher production throughput of 4,000 tpd is possible but is a function on the hardness of the ore.

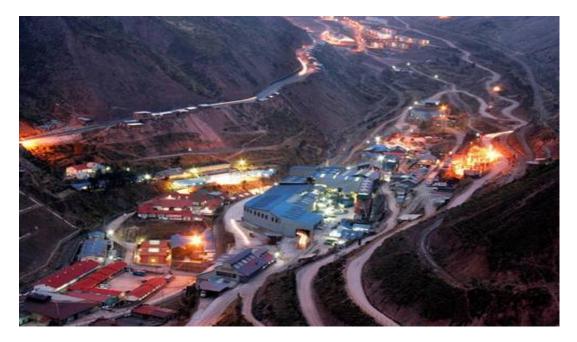


Figure 25 - Yauliyacu Process Plant and Administration Buildings

The Process Plant is capable of producing separate zinc, lead and copper concentrates. However, only two concentrates (zinc and bulk concentrates) have been produced since the second quarter of 2003, as the bulk concentrate received favourable smelter terms from the Doe Run smelter in La Oroya. The closure of the Doe Run smelter in 2009 has lead to a planned Q2 2011 re-commissioning of the Process Plant to separate the bulk concentrate into copper and lead concentrates.

Typical metallurgical recoveries and concentrate grades are shown in Table 12.

		Rec	overy		Concentrate Grade				
	Zn%	Pb%	Cu%	Ag %	Zn%	Pb%	Cu%	Ag g/t	
Bulk Concentrate		84.0	66.5	78.0		44.1	8.4	3,401	
Zinc Concentrate	85.6			7.1	55.3			153	

Table 12 -2010 Metallurgical Recovery by Concentrate

Highway trucks haul the bulk and zinc concentrates to the ocean port of Callao for transport overseas. At the mine, a new concentrate load-out facility was completed in October 2010 to enable rail transport directly to the coast. Since rail is more cost effective (estimated 25% savings), the majority of the concentrates will be handled by rail (approximately 80% in 2011).

The tailings is dewatered to a higher density and pumped approximately six km (178 mm diameter) using positive displacement pumps (700 Hp) to the Chinchan tailings facility.

The Yauliyacu mine has been in operation for over 100 years with historical production records since 1920. In 1974, the mine became part of a State owned mining company called Centromin. Over the next decade, production grew incrementally from 1,500 tpd to 2,500 tpd (Figure 3). At the end of the 1990's, the Mine and Process Plant were expanded to achieve 3,600 tpd.

Glencore purchased the Yauliyacu operation in 1996 from Centromin.

The high mechanical availability of the Process Plant of 96% is attributed to a strong commitment at the mine to ensure that at least one day per month is allocated for scheduled maintenance.

The budget for 2011 is to process 1.32 million tonnes at 1.00% lead, 2.32% zinc, 0.21% copper and 78 g/t silver grades. Figure 26 shows the decline of historic grades since 1920.

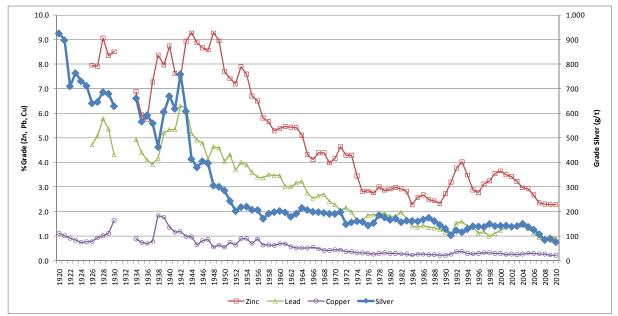


Figure 26 -Historical Grades (1920 - 2010)

16.2 **Process Description**

The different processes employed in the Process Plant are summarized by function in the flowsheet shown in Figure 27.

2010 Resource and Reserve Update Yauliyacu Mine, Peru

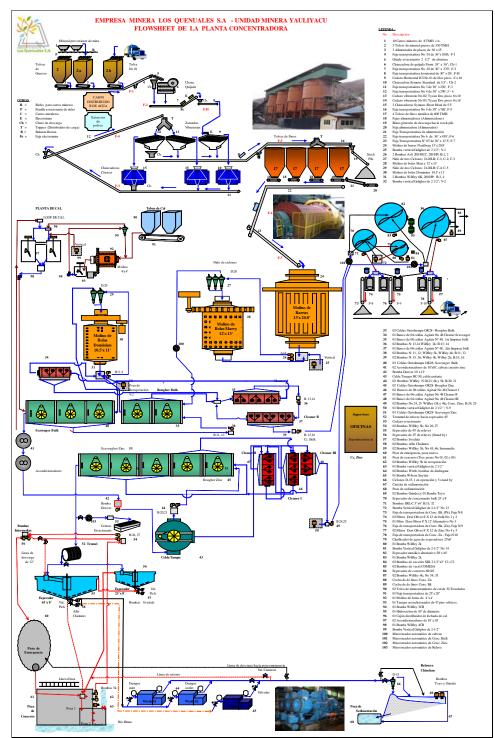


Figure 27 – Process Plant Flowsheet



16.2.1 Crushing

The run of mine ore (25-30 cm) is transported by rail from underground on the 1700 level (4,210 masl), to the two underground ore bins (live capacity of 400 tonnes each). There is also a surface ore bin which has a live capacity of 300 tonnes. This coarse ore is then transported to the process plant on a conveyor belt (914 mm wide) that feeds the three-stage crushing (jaw, cone, cone) in the Process Plant. Crushing is required to operate on average 20 hours per day.

Coarse ore from the bins are classified into a stationary grizzly (7.6 cm) with the over-sized material being resent to the crusher. The primary crushing consists of jaw crusher FIMA (91 x 61 cm) that reduces the ore from a close setting of 7.6 cm at a rate of 250 tonnes per hour. This crushed material is then pre-screened (SANDVIC vibrating double screen, upper deck 50 x 50 mm, lower deck 16 x 36 mm) and is further reduced to a P80 of minus 2 cm in the secondary cone crusher (Standard Symons crusher, 1.7 m diameter), which operates in open circuit. And finally, tertiary crushing is accomplished similarly with another cone crusher (Short-head Symons crusher, two units) with a P80 setting of minus 1.3 cm operating in closed circuit with another vibrating double screens (upper deck 20 x 50 mm, lower deck 14 x 38 mm).

The final crushed material is either conveyed to one of the four fine ore bins (400 tonne live capacity each) or stored in a surface stockpile (1,500 tonne capacity). This stockpile is used for blending or increasing production on an as needed basis.

16.2.2 Milling

Comminution is a two stage process. Primary grinding occurs in a Nordberg rod mill (4.0 x 6.3 m, 90 mm diameter rods) where ore is automatically fed at a controlled tonnage rate from the fine ore bin. Ore is wet ground to a P80 of 212 microns in this conventional rod mill circuit.

Alternatively, the rod mill discharge is classified by either a high frequency vibrating screen (Stack Sizer ZAF Derrick) or a hydro-cyclone pak. The undersize is sent directly to bulk flotation, while the coarse fraction is reground.

Secondary grinding occurs in a ball mill (3.7 m x 4.0 m, 64 mm diameter balls), which operates in closed circuit with 0.5 m diameter hydro-cyclones. The following initial reagents are added to this phase of grinding with further additions staged later on:

- Depressants: sodium bisulphate, zinc sulphate, sodium cyanide
- Primary and Secondary Collectors: xanthate Z-11, AP 4037, A 242
- Frother: MIBC



The overflow (P50 of minus 74 microns) is then sent to differential flotation.

16.2.3 Differential Flotation

For the first quarter of 2011, a bulk concentrate (lead and copper) will be produced first by passing through a series of rougher, scavenger and two cleaner stages. The final concentrate produced is then thickened (3.6 m length x 2.4 m diameter) to 70% solids and then dewatered using a drum filter (3.6 m length x 2.4 m diameter) to a typical moisture content of 9.0%.

Beginning in the second quarter of 2011, the lead and copper will be separated into its two respective concentrates (Figure 28). An existing rougher, cleaner and scavenger circuit will be re-commissioned to float the lead and depress the copper (inverse method). New reagents such as cyanide (CNNa) with lime will be introduced to optimize the concentrate quality. A dedicated thickener for each concentrate can be expected to produce similar results to the previous bulk concentrate.

Typical reagents used to in the bulk concentrate include the following:

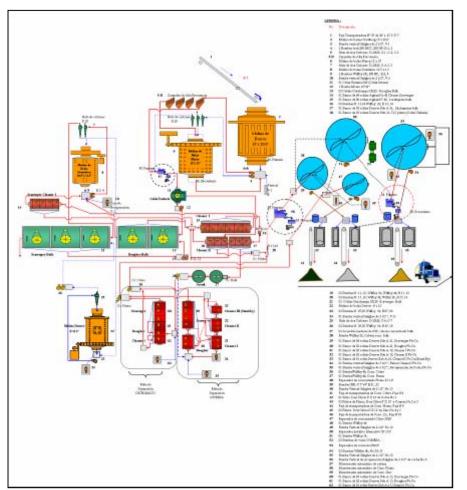
- Depressor: Sodium Bisulphite, Zinc Sulfate, Sodium Cyanide
- Primary Collector: Xanthate Z-11
- Secondary Collector: AP4037, PEB 208, AR1242
- Frother: Metil Isobutil Carbinol (MIBC)

The bulk concentrate underflow is sent for further conditioning prior to entering the zinc circuit using the following reagents:

- Activator: Copper Sulphate
- Depressor: Lime
- Collectors: Xanthate Z-11, AR-1242
- Frother: MIBC

Reagent control is maintained from 25 automated pump dispenser points.

Beginning in the second quarter of 2011, the lead and copper will be separated into its two respective concentrates (Figure 28). An existing rougher, cleaner and scavenger circuit will be re-commissioned to float the copper and depress the lead. Several new reagents are planned for testing in an effort to optimize the concentrate quality. A dedicated



thickener for each concentrate can be expected to produce similar results to the previous bulk concentrate.

Figure 28 -Copper and Lead Concentrate Flowsheet

Similarly, the zinc flotation process passes through a series of rougher, scavenger and three cleaner stages. The final concentrate produced is thickened (18.3 m diameter x 3.0 m height) to 65% solids and dewatered using a drum filter (3.6 m length x 2.4 m diameter) to a typical moisture content of 10%.

All recovered water is returned back as process water.



16.2.4 Concentrate Handling Facility

All concentrates are weighed and conveyed to storage sheds awaiting ground transportation. The storage area is enclosed with metal cladding. Portions of the roof have been replaced with transparent paneling to aid in drying the concentrate. Rehandling of the concentrates also assist with the drying process.

A combination of rail and highway trucks haul all concentrates to an ocean port (Callao) for transport overseas. Since rail haulage is the most economical method, negotiations are on-going to secure more time on the rail line as it is shared with other operations in the area (El Brocal, Volcan).

Additional concentrate handling and storage fees are accrued for the zinc concentrate blending at the port.

16.2.5 Backfill

The Yauliyacu mine operation has the capacity to produce both a hydraulic and paste backfill. The hydraulic backfill circuit is located in the Process Plant. It has not been used since 2000 as this created excessive water problems underground. At that time, the backfill bulkheads and the underground dewatering system were not able to handle the extra volume of water.

In the upper mine, a 1,850 tonne per day stand alone high density paste backfill plant was constructed in 2000. This paste backfill plant operated for about a year and a half before it was shut down in 2002 when the operating costs could not be justified. Since then, plans have been made to re-open the paste backfill plant in 2009 to target the filling of old mined stopes for stability. However, despite the benefits of using paste backfill to reducing the surface tailings storage requirements and providing passive support in the underground stopes, re-commissioning the paste backfill plant remains deferred to a future date. Approximately \$3-4 million is required to update the infrastructure (pumps and pipelines) and to conduct product testing to confirm the required strength criteria.

Currently the mine utilizes waste rock generated from underground development as backfill primarily for the cut and fill stopes. When convenient, waste rock is also placed in sub-level stopes.

16.2.6 Tailings

Final tailings are produced after the zinc concentrate is recovered. The tailings are dewatered (7.6 m diameter x 2.4 m height) from a slurry density of 30% to 54% solids and pumped in single stage along a 5.5 km length pipeline (15 cm diameter, steel pipe, lined) to the Chinchan tailings storage facility (TSF). There are three positive displacement pumps (three – 800 Hp Wirth pumps) aligned in parallel, of which only one pump is



required at any one time. Due to the expected high pressures (10.3 MPa) required to pump the tailings over this distance, extra efforts are made to ensure that no foreign materials are introduced into the tailings thickening stage to protect the pumps.

A control panel monitors the pressure at four key points along the pipeline (0.0, 0.4, 1.8, 3.0 kms) to detect any leaks. Remote control capabilities on a gate valve located 500 m away from the Process Plant enables tailings to be diverted in the event of a leak.

The tailings are cycloned (0.4 m diameter) at the Chinchan TSF to direct the coarser size fraction for building the containment structure itself and to deposit the overflow material upstream of the dam crest.

Two emergency water storage ponds (7,000 cubic metres, 500 cubic metres) can be found at the toe of the TSF. The larger pond has a capacity for two days of production.

A French drain system has been constructed at the base of the TSF to facilitate the collection and removal of water infiltrating the structure. Piezometers have been installed along the TSF to monitor groundwater levels. Minimal water levels have been recorded to date.

Reclaim water from both the French drains and the decant towers (located at the upstream extremity of the TSF) is pumped (two Esco pumps in a raft) into a settling pond. This water is returned by gravity through concrete pipes (1.0 m diameter) back to the Process Plant for recycling.

Surface drainage water from the catchment basin around the TSF is collected by ditches and re-directed downstream of the Rio Rimac. The Yuraccocha waterfall, located to the east of TSF, also drains into the Rio Rimac. The remaining water requirements of the Process Plant are sourced from this surface water catchment.

16.2.7 Instrumentation and Control

The analytical laboratory is located at the Yauliyacu Process Plant and is responsible for sample preparation, Fire Assay and wet chemistry (refer to Section 13.0).

Metallurgical accounting is done by sampling at predetermined points in the flowsheet on a 24 hour basis. All assays are conducted by wet chemistry.

Conveyor belt weightometers record the feed tonnage continuously. The concentrate load out facility also has a weightometer to record shipped concentrate by lots. QA/QC checks are regularly completed to assure appropriate scale operation and calibration.

16.3 Material Characteristics

16.3.1 Hardness (grindability)

The ore processed has a Bond Work Index (ball mill) between 14.5 and 15.8 kWh per tonne, which is considered a hard material. Compared to similar deposits in Peru, the Yauliyacu ore is harder than the average (Table 13).

Table 13 -Hardness

Mine	Bond Work Index	Comments
Attacocha	12.5	Medium (BWI = 9-14)
Milpo – Porvenir Mine	12.5	Medium
Morococha	13-14	Hard (BWI = 14-20)
Milpo – Cerro Lindo	11.2	Medium
Yauliyacu	14.5-15.8	Hard

Depending on the hardness, personnel at the process plant estimate the maximum production rate could approach 4,000 tpd without modifications to the crushing and grinding circuits.

16.3.2 Bulk Density

The average ore density is 2.82 g/cc. For a slurry with 54% solids and a P80 below 74 microns, the expected pulp density is 1.53 g/cc. Pumping this slurry to the TSF requires high pressure 10.3 MPa (1,500 psi) and does not lend itself to settling. Over the last 5 years, the tailings pipeline has been 'pigged' at least once to clear out any scaling within the pipe.

16.3.3 Deleterious Elements

Iron content affects metallurgy recovery in each of the concentrates. The head grade of pyrite processed in 2008 ranged from 6 to 7%, which is considered to be low. This resulted in a 9% and 5% iron content reporting to the bulk and zinc concentrates respectively. Personnel at the mine estimate that metallurgical problems would occur when the iron content exceeds 10% in the bulk concentrate and 6% in the zinc concentrate.

The presence of oxides also contribute to decreasing metal recovery and lowering concentrate quality. Blending of the ore is the method used to manage the effects of lead and zinc oxides. New laboratory test work and field observations suggests that finer grinding and / or the addition of cyanide as a reagent improves the metallurgical recoveries.

Since the host rock contains a significant amount of carbonates, the natural pH is neutral (pH = 7.5).

16.4 **Product Recovery**

The current Process Plant has been operating at 3,600 tpd since the last upgrade in 1998. Since then, metallurgical recoveries for all metals (Figure 29) produced have been relatively constant.

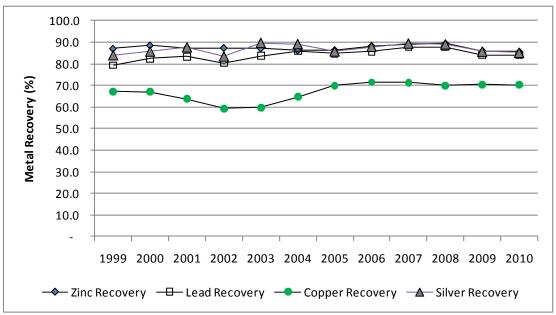


Figure 29 -Process Recovery for Produced Metals (1999-2010)

As expected, metallurgical recoveries vary slightly with the head grade. A scatter plot of the yearly data collected since 1999 was compiled by SLW. Figure 30 and Figure 31 show the relationship between head grade and recovery for the four payable metals.

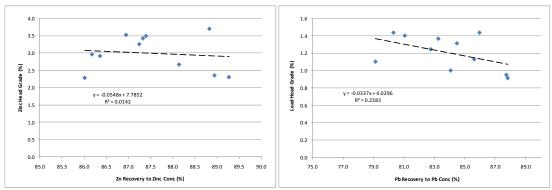


Figure 30 – Zinc and Lead Recovery and Grade Relationships

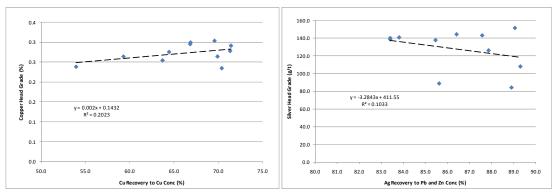


Figure 31 -Copper and Total Silver Recovery and Grade Relationships

During 2010, the zinc recovery was 85.6% in the zinc concentrate. Lead and copper recovery was 84.0% and 70.2% respectively in the bulk concentrate. The combined silver recovery in both concentrates totalled 85.1%.

The expected grade profile over the 2011 LOM mine plan does not vary significantly. It follows that the planned metal recoveries can be reasonably expected to yield similar results as in prior years. Quality and recovery complications can arise in the concentrates if the proportion of oxides is not controlled.

17.0 MINERAL RESOURCE AND MINERAL RESERVE ESTIMATES

17.1 Summary

Yauliyacu Mineral Resources and Mineral Reserves were estimated by the Geology Department staff under the direction of Pedro Dueñas (Yauliyacu Geology Superintendent). Yauliyacu Resources and Reserves were audited by Neil Burns and Samuel Mah who confirm that the estimates have been prepared in accordance with CIM Standards for Mineral Resources and Mineral Reserves (CIM, 2005).

Two dimensional (2D) conventional modeling methods and parameters were used in preparing the Resource estimates for the upper mine and 3D block modeling methods in the lower mine. Resource estimates were prepared in accordance with principles accepted in Canada.

The conventional modeling method utilized AutoCAD to create block area estimates and average vein widths were applied from the sampling to estimate the block volumes. The volume models were created utilizing drillhole logs, channel samples, underground mapping and interpretations. In situ grades were estimated by length weighting the block channel and drillhole samples. Grade capping was applied to control outliers. Grades are diluted twice, first by multiplying by the estimated dilution factor and then by the Mine Call Factor (MCF), both of which are specific to the planned mining method. Block density values are estimated from a formula based on the concentrations of lead, zinc and copper. Block tonnage is estimated by multiplying the volume by the density by the MCF to create a diluted tonnage specific to the planned mining method.

The 3D block modeling method has been used for the Horizontes zones of the lower mine only. A large portion of the mine workings from the upper levels are not in a 3D digital format which makes block modeling difficult. Wireframe interpretations of the Horizontes zones have been generated in the Datamine mining software on 12.5 m sections. Drillhole and channel data was composited on 1.0 m intervals and grades were estimated into 2 x 1 x 2 m blocks using the Inverse Distance Squared (ID²) method of interpolation. Hard boundaries were applied to the different zones. An average density of 2.8 g/cc was applied to the mineralized blocks.

A mineral resource classification scheme consistent with the logic of CIM (2005) guidelines has been applied. The Mineral Resource estimates are classified as Measured, Indicated and Inferred. The reporting of Mineral Resources at Yauliyacu implies a judgement by the authors that the resources have reasonable prospects for economic extraction, insofar as the technical and economic assumptions are concerned. The use of the term "Mineral Resource" makes no assumption of legal, environmental, socio-economic and governmental factors.

Mining cut-off values were determined based on a combination of economic, mining and geological factors specific to each mining method.

Stope designs were generated in AutoCAD taking into account access, cut-off values, planned and unplanned dilution and ore loss. Appropriate minimum mining widths were applied specific to the various mining methods.

Measured and Indicated Resources were converted to Proven and Probable Reserves according to CIM (2005) guidelines, taking into account relevant mining factors, cost, transportation, treatment charges and smelter payable considerations.

17.2 Database

Until recently, Yauliyacu drilling and mine sample data was stored in Excel. Currently, the drilling data is stored in a DH Logger database, which is associated with the Datamine geological and mining software. The mine has developed a robust SQL database (GEAS) into which all of the new drilling information has been imported and work is in process to import the remaining historic drill data. The database also stores the mine sampling data, as well as, the QA/QC data, and has all of the normal importing and data validation checks.

The Laboratory uploads the assay data to a secure database on the network from which the Geology Department imports the data directly to GEAS.

17.3 Conventional Method

17.3.1 Conventional Method - Volume Estimation

Block area dimensions are created on a longitudinal section applying a length of approximately 25 m in the horizontal directions. On average the distance between sublevels is 60 m which is typically divided into four, 15 m blocks. Widths are estimated from drillhole logs and mapped excavations. Average width estimates are multiplied by the area to produce a volume estimate for each block.

17.3.2 Conventional Method - Block Grade Estimation

In situ block grade estimation is done by length weighting all of the contained drilling and channel assay data. Assays that are more than 1.5 times the average block grade (calculated without the high grade sample) are considered outliers and are reset to the level of 1.5 times the average block grade. The average block grade is then calculated by including the topcut grade value(s).

Diluted block grades are estimated in the following two steps:

- 1. Multiplying the in situ block grade by the dilution factor specific to the planned mining method.
- 2. Multiplying the diluted block grade by the MCF specific to the planned mining method.

Table 14 shows the MCF for the two styles of mineralization and Table 15 shows the dilution factors for each mining method.

Table 14 -MCF for Grades

	MCF						
Style	Zn Pb Cu Ag						
Cuerpos	0.8	0.8	0.8	0.8			
Vetas	0.8	0.8	0.8	0.7			

Table 15 -Dilution Factors by Mining Method

	Dilution Factor					
Method	Description	Dilution Factor				
SLC	Sub-level in Cuerpos	0.90				
SLV	Sub-level in Vetas	0.90				
CRCM	Mechanized Cut and Fill in Cuerpos	0.85				
CRVC	Conventional Cut and Fill in Vetas	0.85				
SHR	Shrinkage	0.85				
OPST	Open Stoping	0.90				

17.3.3 Conventional Method - Density

Prior to 1999 average density values were applied to Vetas and Cuerpos. The Mine recognized that this method was not accurate because density was observed to vary greatly along a single Veta or Cuerpo.

In 1999, a density study was undertaken. A total of 72 samples, collected within 36 blocks, were sent to the CIMM-PERU SA laboratory in Lima for analytical and density analyses. The following formula was generated from these analyses:

$$\frac{\left(\left(100 - \left(\frac{Pb\%}{0.866} + \frac{Zn\%}{0.67} + \frac{Cu\%}{0.346}\right)\right) * 2.65\right) + \left(\left(\frac{Pb\%}{0.866}\right) * 7.5\right) + \left(\left(\frac{Zn\%}{0.67}\right) * 4.0\right) + \left(\left(\frac{Cu\%}{0.346}\right) * 4.2\right)}{100}$$

This formula is applied to the estimated grades of each block to produce a block density estimate.



During a recent visit to Yauliyacu, AMEC felt that the density formula may not be as robust as it could be because iron content is not considered. The Geology Department is currently collecting samples to send to a number of laboratories in Lima for density and analytical analyses. The Geology Department plans to develop a new formula that includes iron. SLW suggest applying a multiple regression formula of zinc, lead, copper, silver and iron against measured density.

17.3.4 Conventional Method - Tonnage Estimation

In situ block tonnage is estimated by multiplying the block volumes by the estimate block density.

Mineable tonnage is estimated by applying the mine recovery, dilution and mining loss factors shown in Table 16. External dilution is defined as waste over ore and is considered to have zero grade. For example a Cuerpos block to be mined with sub levels, with an in situ tonnage of 15,730 tonnes and an average width of 6.9 m would have a mineable tonnage of 15,398 tonnes as illustrated below. The mining losses accounts for the physical limitations of equipment when mucking.

Recovered Tonnes
$$(A) = 15,730$$
 (in situ tonnes) * 0.9 (mine recovery) = 14,157

External Dilution Tonnes (B) = 14,157 (recovered tonnes)
$$*\frac{1.0}{6.9}$$
 (% dilution) = 2,052

Mineable Tonnes = (A + B) * (1 - 0.05)(mining loss) = 15,398

Method	Mining Recovery	External Dilution (m)	Mining Losses
CRCM	85%	0.5	5%
CRVC	85%	0.3	5%
OPST	90%	0.1	5%
SHR	85%	0.3	5%
SLC	90%	1.0	5%
SLV	90%	1.0	5%

Table 16 - Mining Factors by Method

The amount of dilution presented in Table 16 accounts for wall slough (hangingwall, footwall, back and end walls if applicable) and backfill. Based on the authors' experience, the amount of dilution is likely to be underestimated for these mining methods. Blast damage alone can account for 0.25 m of external dilution for each applicable stope wall in good ground conditions. Excessive external dilution can occur depending on in situ ground conditions (i.e. rockmass, stress, structure). Due to the narrow nature of the Yauliyacu orebodies dilution will be a significant factor regardless of mining method. However, the authors observed that the diluting contact material is often mineralized to varying degrees, which likely reduces the underestimation of dilution.



The minimum mineable ore width at Yauliyacu is 0.8 m.

17.4 Block Modeling Method

Block modeling methods were used in estimating resources for the Horizontes zones of the lower mine. This is the first time block modeling methods have been used in resource estimation at Yauliyacu. At this time, none of these resources have been converted to reserves.

Wireframe interpretations were completed for the Horizontes zones using the Datamine mining software (Figure 32). Polyline interpretations were completed on 12.5 m sections incorporating drilling and channel sample data as well as geological mapping. A total of 40 drillholes and 192 channels were used in the interpretations. A total of 24 zones were interpreted.

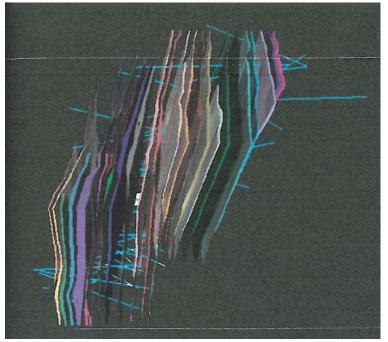


Figure 32 - Horizontes Wireframe Interpretation – Datamine

Drillholes and channels were composited on 1.0 m intervals from collar to toes. Compositing sample data of various lengths to a common length is important in providing equal support. Composites were flagged with codes specific to interpreted zone in which they occur.

A grade continuity analysis was conducted for each of the zones, however only four zones produced robust variograms. These variograms are displayed in Appendix D. The



orientations and ranges from these variograms were averaged to produce a search ellipse with a rotation of 0° Z, -20°Y and 0° Z. A search ellipse with dimensions of 25 m x 25 m x 25 m was used in estimating Measured and Indicated blocks and an expanded search ellipse was used for Inferred.

A 3D geology model was generated in Datamine by coding the geological wireframes to a block model with the dimensions shown in Table 17. Separate block models were generated for each zone.

Table 17 -Block Model Origin

Origin	Block Size	Number of Blocks
366,270 m X	2	370
8,711,070 m Y	1	245
3,610 m Z	2	135

Block grades for zinc, lead, copper and silver were interpolated used the Inverse Distance Squared method. An average density of 2.8 g/cc was applied to all zones.

Blocks were classified as Indicated if they were estimated with the original search ellipse and Inferred if estimated with the expanded search. The Horizontes Resources are detailed in Table 18.

	Tonnes				
	1,382,720				
Inferred	5,073,391	2.37	0.14	0.29	35.1

17.5 NSR Calculation

Block value is assigned according to the following formula which incorporates metal price, metallurgical recoveries, payable terms, deductions, refining, penalties, treatment charges and freight assumptions. Metal prices, concentrate grades and recoveries are shown in Table 19 and Table 20.

$$NSR = (Zn\% * 7.86) + (Pb\% * 5.5775) + (Cu\% * 16.752) + (Ag\frac{oz}{t} * 13.158)$$

Table 19 - Metal Price Assumptions

Element	US\$/t	US\$/lb	US\$/oz
Zn	1,800	\$0.82	
Pb	1,800	\$0.82	
Cu	6,500	\$2.95	
Ag			\$18.50

Table 20 – Concentrate Specifications 2010

Parameter	Zinc Concentrate	Bulk Concentrate
Zn% Conc Grade	55.40%	7.61%
Pb% Conc Grade	0.91%	45.60%
Cu% Conc Grade		8.81%
Ag g/t Conc Grade		3,841
Zn% Recovery	85.92%	
Pb% Recovery		84.21%
Cu% Recovery		70.23%
Ag% Recovery	7.58%	78.58%

17.6 Cut-off Determination

At Yauliyacu, four mining methods are employed to extract the two orebody types (Vetas, Cuerpos). On-site operating costs for each of these mining methods are derived from first principals that account for the key cost drivers (i.e. operating development, equipment, power, materials, ventilation, other mine services, supervision). The total on-site operating costs include the Mine, Process Plant, Maintenance, General and Administration costs. Off-site operating costs include all associated smelter, refining, treatment charges and transportation for each of the concentrates produced.

Mining cut-off values for each mining method are based on the cost assumptions shown in Table 21.

Method Mining Cost		Preparation	Plant, Admin, Others	Transport	Resource	Lima Office	Drilling	Devel, Explor	Reserve
	6631		Costs	Costs	Cut-off Costs		Amortization	Amortization	Cut-off
SLC	12.04	4.86	11.76	0.57	29.23	4.98	0.88	2.90	37.99
SLV	13.57	4.78	11.76	0.57	30.69	4.98	0.88	2.90	39.45
CR-CM	14.61	7.69	11.76	0.57	34.63	4.98	0.88	2.90	43.39
CR-VC	23.80	4.01	11.76	0.57	40.14	4.98	0.88	2.90	48.90
CR- VCS	37.16	4.66	11.76	0.57	54.15	4.98	0.88	2.90	62.91
OPS	23.35	5.38	11.76	0.57	41.06	4.98	0.88	2.90	49.82
SHR	20.10	5.56	11.76	0.57	37.99	4.98	0.88	2.90	46.75
DEVEL			11.76	0.57	12.33	4.98			17.31

 Table 21 -Cut-off Values by Mining Method, 2010 (per tonne processed)

17.7 Classification

The mine classifies resources and reserves following the Australasian Code for Reporting of Exploration, Mineral Resources and Ore Reserves (JORC, 2004). The authors reviewed the classification scheme and confirm that it is also consistent with the logic of CIM guidelines.

Yauliyacu Mineral Resources and Mineral Reserves are classified according to the following steps:

Step 1 –Informing Data

For the block modeling method (Horizontes zones only), blocks were classified as Indicated if they were estimated with the original search ellipse and Inferred if estimated with the expanded search.

For the conventional method resources are initially classified according to sample information and geological interpretation. If significant geological information exists on mining levels, without drilling information between levels, the blocks immediately above and below the level are classified as Indicated and the inner blocks as Inferred as illustrated in Figure 33. If there is drilling information between the levels, the blocks are initially classified as Measured and Indicated (Figure 34). Indicated and Inferred blocks are also classified away from mine workings where drilling information sufficiently provides the required confidence in the interpretation. If a block contains one drillhole it is classified as Inferred. If a block contains more than one drillhole and if good continuity exists, it is classified as Indicated.



Figure 33 -Classification Schematic Section, No Drilling Between Levels

Level	
Measured	≜
Indicated	
Indicated	Typically 60 m
Measured	↓
Level	



Step 2 – Accessibility

Resources are evaluated in terms of accessibility whereby resources that can be accessed by existing or near-term infrastructure are grouped as Accessible and those that come online later in the mine plan as Inaccessible.

Step 3 -Economics

All blocks with NSR values that meet the minimum resource cut-off value thresholds described in Section 17.5 and Table 21 are tabulated according to the classification categories described in Step 1 and are at least marginally economic at current metal prices.

Blocks from within the Accessible group described in Step 2 that meet the reserve cut-off value thresholds are tabulated as Reserves. Measured Resources are upgraded to Proven Reserves and Indicated Resources are upgraded to Probable Reserves. Inaccessible Resources that meet the reserve cut-off value thresholds are not upgrade to Reserves. No Horizontes blocks were upgraded to Reserves.

17.8 **Resource and Reserve Tabulation**

The currently defined Measured plus Indicated Yauliyacu Resource is 4.5 million tonnes grading 3.28% zinc, 0.90% lead, 0.37% copper and 152.3 g/t silver. The Inferred

Resource is 16.8 million tonnes grading 3.46% zinc, 1.34% lead, 0.37% copper and 176.6 g/t silver. These Mineral Resources are exclusive of Mineral Reserves.

Category	Tonnes	Zn%	Pb%	Cu%	Ag g/t
Measured	199,950	3.64	0.79	0.47	150.1
Indicated	4,259,580	3.27	0.91	0.37	152.4
M&I	4,459,530	3.28	0.90	0.37	152.3
Inferred	16,753,640	3.46	1.34	0.37	176.6

The currently defined Proven plus Probable Yauliyacu Reserve is 3.3 million tonnes grading 2.12% zinc, 1.05% lead, 0.21% copper and 118.0 g/t silver.

Category	Tonnes	Zn%	Pb%	Cu%	Ag g/t
Proven	1,188,680	2.14	1.03	0.21	98.6
Probable	2,122,230	2.10	1.06	0.20	128.8
P&P	3,310,910	2.12	1.05	0.21	118.0

The July 31, 2010 Reserves are compiled by Orebody Type, Mining Method, Level and Vein in Appendices E, F, G and H respectively.

17.9 Resource and Reserve Comparison 2009 – 2010

Table 24 compares the new 2010 Yauliyacu Resources and Reserves to the 2009 figures. The Proven plus Probable Reserves increased by 0.5 million tonnes while Measured plus Indicated Resources decreased by 2.0 million tonnes. The most dramatic change is the Inferred Resources which increased 1.4 million tonnes. In terms of silver metal, Proven plus Probable Reserves increased by 13.9%, Measured plus Indicated Resources dropped 49.5% and Inferred Resources increased by 21.7%.

	Decen	nber 31,	2009	Jul	y 31, 20	10	Difference			% Difference		
Category	Ktonnes	Ag g/t	Ag kozs	Ktonnes	Ag g/t	Ag kozs	Ktonnes	Ag g/t	Ag kozs	Ktonnes	Ag g/t	Ag kozs
Proven	1,013	106.12	3,455	1,189	98.60	3,768	176	-7.53	313	17.4%	-7.1%	9.0%
Probable	1,798	130.83	7,564	2,122	128.77	8,786	324	-2.06	1,222	18.0%	-1.6%	16.2%
P&P	2,811	121.93	11,020	3,311	117.94	12,554	500	-3.99	1,534	17.8%	-3.3%	13.9%
Measured	540	128.87	2,235	200	150.08	965	-340	21.21	-1,271	-62.9%	16.5%	-56.8%
Indicated	5,915	215.92	41,059	4,260	152.45	20,877	-1,655	-63.48	-20,182	-28.0%	-29.4%	-49.2%
M&I	6,454	208.64	43,294	4,460	152.34	21,842	-1,995	-56.30	-21,452	-30.9%	-27.0%	-49.5%
Inferred	15,355	158.32	78,159	16,754	176.63	95,142	1,399	18.31	16,984	9.1%	11.6%	21.7%

 Table 24 -Resource and Reserve Comparison 2009 – 2010

17.10 Reconciliation

The Geology Department does a monthly comparison of the mine production to the expectations of the reserve estimates. Mined grades are compiled from the channel and muck sampling and compared to the reserve estimates on a block by block basis. Mined tonnage is estimated by scoop and truck counts. Table 25 displays the 2010 reconciliation summarized by mining method. Note that the production figures do not account for mining outside of the reserves. Production tonnage is consistently below reserve estimates due to the fact that mining in the majority of blocks is ongoing (ie the blocks have not been exhausted). Production grades vary above and below estimated reserve grades but on average are lower. Typically channel sampling is biased high, however without a direct comparison to the mill it is not possible to judge the robustness of the reserve grade estimates.

Table 25 -2010 Mine -	Reserve Reconciliation
-----------------------	------------------------

	Reserve Estimates				Production				% Diff Metal							
Mining Method	Tonnes	Zn%	Pb%	Cu%	Ag g/t	\$/tms	Tonnes	Zn%	Pb%	Cu%	Ag g/t	\$/tms	Zn	Pb	Cu	Ag
OPS	16,470	2.72	1.83	0.30	70.3	\$52.59	13,463	1.96	1.25	0.21	85.5	\$48.15	-41%	-44%	-43%	-1%
SHR	13,590	2.30	1.52	0.33	251.0	\$104.06	3,412	1.42	0.85	0.21	166.1	\$67.39	-84%	-86%	-84%	-83%
SLC	628,020	1.91	0.84	0.15	93.9	\$47.39	582,449	1.70	0.81	0.15	82.7	\$42.51	-18%	-11%	-7%	-18%
SLV	191,060	2.71	0.90	0.29	43.2	\$40.01	112,029	2.48	0.61	0.35	39.5	\$37.23	-46%	-60%	-29%	-46%
CRVC	65,130	3.01	1.57	0.31	168.9	\$83.43	61,768	2.69	1.36	0.30	105.8	\$61.15	-15%	-18%	-8%	-41%
Total	914,270	2.18	0.93	0.20	90.6	\$49.35	773,121	1.89	0.83	0.19	78.7	\$43.44	-26%	-24%	-17%	-27%

When unexpected grades are encountered at the mill, the Geology Department samples the active areas to determine the source of the discrepancy. However, a true reconciliation of the mill to the mine is not routinely conducted because of the difficulty in tracking mined tonnes.

17.11 Opinion on the Resource and Reserve Estimation

The conventional method of resource estimation used at Yauliyacu is a "tried and true" method which has been in place for many years. Continued mining success and reconciliation with the plant validates the estimation practices. SLW supports the method, parameters and factors utilized. The only suggestion that SLW makes is for the gradual

replacement of the 2D vein projections with 3D interpretations to more accurately estimate vein volumes.

The introduction of block modeling is an important step towards incorporating a more rigorous geostatistical analysis in estimation. SLW supports the block model parameters and makes the following suggestions for improvements:

- Incorporate all of the Horizontes zones into a single block model with individual codes for each zone.
- Switch from the Inverse Distance interpolation method to Ordinary Kriging which utilizes the grade continuity analyses (variograms) and declusters the data.
- Conduct a more rigorous grade capping analysis such examining inflection points in cumulative distribution plots instead of the 1.5 times the block average method currently in use. The Coefficient of Variation (standard deviation divided by the mean) should be examined for each vein to ensure single grade populations are modeled.
- Increase the block size to approximately 5 m x 1 m x 5 m with appropriate subblocking to preserve interpretation volumes.
- Apply the same density formula used in the conventional estimation method to the block model instead of the average 2.8 g/cc density.

18.0 OTHER RELEVANT DATA AND INFORMATION

There is no other relevant data or information to report.

19.0 ADDITIONAL REQUIREMENTS FOR TECHNICAL REPORTS ON DEVELOPMENT PROPERTIES AND PRODUCTION PROPERTIES

19.1 Mining Operations

The underground mine is accessed from several adits located at various elevations (H1, H2, H3, 800, 1700, 1900, 2100, 2700 levels). Currently, the mine is divided into five operating Sections over the 26 levels (Figure 35). In general, the levels are spaced approximately 60 m apart. The primary access is the 1700 level, which is also where all the production exits the mine using an electric rail haulage system. Active mining at elevations below this horizon use mobile equipment to transport the ore to an internal winze system (Pique Central - vertical shaft from 3900 to 1700 level, Pique Aguas Calientes – inclined shaft from 3900 to 2100 level). A network of internal raises has been developed to handle the ore and / or waste generated in the upper mine (above 1700 level). Loading chutes installed at the bottom of these raises are pulled to load directly onto the rail cars for transport out of the mine.

At Yauliyacu, four mining methods are employed to extract the three orebody types (Vetas, Cuerpos, Horizontes). These include modern mechanized mining methods using trackless equipment wherever possible (cut and fill, sub-level open stoping) and other more selective captive techniques using hand-held equipment (shrinkage, narrow vein open stoping).

To meet the production capacity and provide sufficient flexibility, the operation strives to maintain in the order of 40 active stopes for production (18 Cuerpos, 22 Vetas). Development headings in ore number approximately 20 (10 Cuerpos, 10 Vetas).

Modern mine planning utilizes both Datamine and AutoCad to support production and mine development scheduling.

2010 Resource and Reserve Update Yauliyacu Mine, Peru

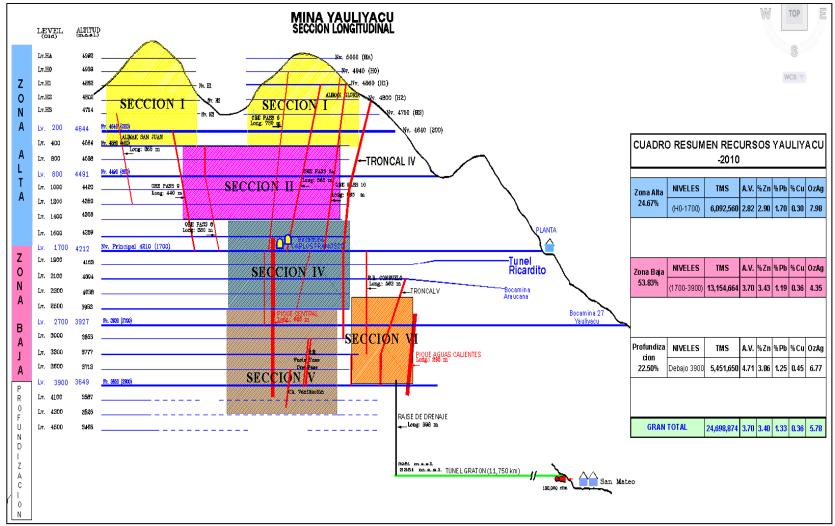


Figure 35 -Mine Long Section



19.1.1 Mining Methods

Depending on the continuity, dip and width of a mining block, the appropriate mining method is assigned that will optimally extract the ore. The following sections describe the salient points for each of the mining methods employed.

Cut and Fill (Veta or Cuerpos)

Conventional cut and fill mining techniques are utilized for their selectivity in poor to fair ground conditions with a Rockmass Rating (RMR) > 45. In Vetas, the narrow widths restrict the type of equipment to hand-held and small scale pneumatics. As mining widths allow (Cuerpos), micro-scoops can be used to improve on stope productivities. Ground support is limited to timber supports as there is generally not enough room to install rock bolts. The minimum mining block dip is 50°. Access to each 2.1 m cut is generally from the footwall side.

Approximately 6% of the 2011 production is planned from this mining method.

Shrinkage (Veta)

Shrinkage stoping provides the advantage of selectivity, but is only applicable in fair to good ground conditions (RMR > 60). Stopes are mined from bottom up taking horizontal slices (1.5 m cut height) while working off the broken blast muck. Only the swell material can be recovered from each blast so a high level of control must be exercised to keep the working elevation relatively even. A series of boxholes are established on the bottom horizon to control the amount of broken muck that can be pulled. The minimum mining block dip is 60° to ensure gravity feed.

Less than 1% of the 2011 production is planned from this mining method.

Open Stope (Veta)

Open stopes are established similarly to the shrinkage stopes with the exception that the majority of the broken ore is recovered from each blast. Workers prepare to take blasts while working on elevated wooden platforms wedged between hangingwall and footwall. Ground conditions are necessarily good to ensure the workers are safe while working at the face. Mining is accomplished with only hand-held pneumatic equipment. Access is gained from manways / ventilation routes established on either side of the stope. A series of 'Chinese hoppers' are developed on the bottom horizon to control the amount of broken muck that can be pulled.

Approximately 7% of the 2011 production is planned from this mining method.



Sub-Level Stoping (Veta or Cuerpos)

For Vetas or Cuerpos that are wide (greater than 2.0 m) and continuous, sub-level stoping is a method that provides high productivity but low selectivity. Stopes are established with 30 m sub-level spacing to enable drilling both uphole and downhole vertical rings. Blasting of 64 mm diameter holes on a 1 m x 1 m pattern yields a high powder factor. In general, ground conditions are considered to be fair (RMR > 55), which result in stable openings. Once the stope has been mined out, run of mine waste backfill is placed if it is conveniently available.

The bulk of the 2011 production (76%) is sourced from this mining method. The remainder of Process Plant feed comes from ore development.

19.1.2 Backfill Management

Currently, only run of mine waste is used as backfill primarily for the cut and fill methods. Waste rock is placed in empty sub-level stopes if readily available.

Plans to re-start the paste backfill plant are deferred until 2013.

Geotechnical concerns with stability are being monitored with the new micro-seismic system (ESG). Refer to Section 19.4.

19.1.3 Materials Handling

All the production exits the mine from 1700 level using an electric rail haulage system. Active mining at elevations below this horizon use mobile equipment to transport the ore to an internal winze (Pique Central, 640 m length) where it is skipped up to 1700 level. The shaft has 12 tonne skips and typically handles 45,000 tonnes per month of ore (plus 35,000 tonne per month waste). To the south, the Pique Aguas Calientes shaft is being refurbished to handle approximately 15,000 tonnes per month using 2.5 tonne skips. This shaft is scheduled for 4,000 tonnes per month in 2011. The remainder of the ore production comes from Zona Alta (Upper Mine) at a rate of 60,000 tonnes per month.

A system of internal ramps to the main haulage levels is developed (3.0 m x 3.0 m or 3.5 m x 3.5 m drifts) to accommodate for the mine haulage trucks (13 and 16 tonne capacity).

In the Upper Mine, a network of internal raises has also been developed to handle the ore and / or waste generated. Loading chutes installed at the bottom of these raises are pulled to load directly onto the rail cars for transport out of the mine.

Three trains (10 four tonne cars) are operated on 1700 level to meet the production target of 3,600 tpd.



19.1.4 Underground Mobile Equipment

Where applicable, mobile equipment is utilized for development and production. An extensive network of ramps and levels has evolved to extend across the mine's 5.0 km strike length. It is clear that much of the equipment is thinly distributed to cover such a large area. This is further complicated by the fact that some of the mining methods are captive and the equipment does not leave the stope until the mining is completed.

In cases where the orebody is narrow, specialty equipment such as micro-scoops are required. As well, some of the larger scoops are equipped with remote control to allow safe operation in the wider zones mined by sub-level open stoping.

The current mobile equipment fleet used for ore production is shown in Table 26. Equipment mechanical availabilities have been quite low for the 2.7 m³ scoops (72% in 2009, 65% in 2010) largely due to the aging fleet. Similar results are shown for the jumbos (71% in 2009, 53% in 2010).

In 2011, two new 2.7 m³ scoops and one new jumbo has been budgeted.

Equipment	Description	Units
Micro-Scoop	< 0.5 m ³ (1.0 yd ³)	5.0
Scoop	1.1 m ³ (1.5 yd ³)	1.0
Scoop	1.9 m ³ (2.5 yd ³)	5.0
Scoop	2.7 m ³ (3.5 yd ³)	8.0
Scoop	3.2 m ³ (4.2 yd ³)	4.0
Truck	13 tonne	1.0
Truck	16 tonne	1.0
Jumbo	Single Boom	3.0
LH Drill	Atlas Copco - Simba	3.0
LH Drill	Resemin – Raptor	3.0

Table 26 -Owner Mobile Equipment Fleet (2011)

Contractors supply their own equipment (i.e. waste development).

The rolling stock for production on 1700 level consists of a Goodman locomotive (12 tonne) and car (5.1 cubic metre) combination. To achieve the production target, three trains with 10 cars each are required. A similar electric rail haulage system (6 and 8 tonne locomotives, flat cars, other specialty carriers) is also used for the transport of personnel and materials in a drift parallel (AFE) to the Carlos Francisco drift.

19.1.5 Ventilation

Currently, the underground ventilation supplies 405 cubic metres per second (860,000 cfm) of fresh air from eight primary fans. The network is a complex pull system that pulls



exhaust air out of the mine using high pressure axial vane fans. Sections I and III of the upper mine are primarily ventilated by 'natural' ventilation.

Given the number of diesel mobile equipment used underground, the amount of ventilation is more than adequate. However, over such a large mine more ventilation is required to overcome the resistance and losses (i.e. leaks, short circuit) to deliver the air at depth. Ventilation studies completed by Bluhm Burton Engineering Ltd. support expanding the underground network by adding raises and primary fans strategically (August, 2007).

Throughout the mine, ventilation bulkheads, doors and regulators are used to control the flow of fresh air. Auxiliary fans are utilized as required.

Plans are in progress to expand the total mine ventilation capacity to 520 cubic metres per second (1,100,000 cfm) to enable mining below 3900 level. Three ventilation raise segments totalling 989 m in length $(3.5 \times 3.5 \text{ m})$ were completed to surface using Alimak equipment. The Troncal #4 raise was installed with two parallel fans (100 kcfm each) in September 2010.



Figure 36 -Troncal #4 Fan Installation (4,800 masl)

The Ricardito Tunnel (1900 level) was also slashed out (from 1.6 x 1.8 m to 4.5 x 4.0 m) to reduce air resistance and provide another access to Zona Baja. Construction of Troncal #3 (1700 level to 800 level) will continue throughout 2011 and breaking ground on Troncal



#1 (800 level to surface) is to start in June 2011. Extension of the Ricardito Tunnel from 1900 level to 2700 level is planned for 2012.

Overall, these ventilation improvements are expected to improve the removal of exhaust air and decrease the underground working temperatures at depth.

19.1.6 Mine Dewatering

The Yauliyacu mine extends from surface (5,000 masl) to its lowest operating elevation 3,470 masl (4500 level). Over this large vertical extent, water enters the mine from surface run off through various openings (i.e. adits, crown pillars, natural structures) and from groundwater. As well, the underground operation introduces water during mining (i.e. drilling) and dust control (i.e. water sprays).

Underground water management takes advantage of gravity to control the accumulation of water and hence requires minimal pumping. All mine levels are connected by combinations of ramps, raises, drainholes and / or mined out areas that double as waterways allowing water to reach the 3900 level (3,650 masl). At this elevation, the water is directed to the Graton raise that connects directly to the Graton Tunnel (11.5 km long). This tunnel was developed in the 1960's by Cerro de Pasco Corp. in part to access water for the city of Lima. The Graton tunnel serves to drain the mine water from above as well as providing ventilation. Water exits from the tunnel and enters the Rio Rimac, which flows to Lima. Since the Graton tunnel is one of the discharge points of the mine, water quality is monitored for contaminants.

A new settling pond installation is still planned for 3900 level. Flocculants can be added to this settling pond enhancing settling of solids prior to discharging to the Graton tunnel.

19.1.7 Mine Workforce

The mine operates on two schedules: support and operations. Support personnel (i.e. technical, management, administrative) work on a five days on and two days off schedule with eight hour shifts. Operations work to provide continuous coverage on a two week in and one week out rotation with twelve-hour shifts.

Currently, the operations and contractor workforce are members of two separate unions. Union representation of Yauliyacu workers has been in place for the past two years with membership approaching 300. In 2009, there was an 18 day strike (June) over compensation, which was resolved. No labour disruptions were experienced in 2010.

The Yauliyacu workforce has undergone significant changes in response to the market conditions (Table 27). At the end of 2008, there were 2,415 people on payroll (422 permanent, 1,993 contractors). Manpower levels decreased in 2009 to 1,827 people of which 540 are permanent and 1,287 are contractors. In 2010, the overall workforce

remained relatively the same. However, the workforce is expected to increase (permanent by 2%, contractor by 6%) for 2011.

Table 27 - Manpower Levels

	2008	2009	2010	2011
Permanent	409	540	534	543
Contractors	1993	1287	1275	1347
TOTAL:	2,402	1,827	1,809	1,890

19.1.8 Miscellaneous

The underground mine is connected with a fibre optical network to surface for each Section of the mine (Surface H2, 800, 1700, 2700). As well, there are three underground shop areas (800, 1900 and 3300) in addition to the main surface maintenance facility.

19.2 Production Rate Scenarios

Since the 2007 mine plan, there has been a fundamental shift in mining concept. Future expansion plans have been deferred with the sale of the Rosaura mill to Trevali Resources Corp. (Santander Project). Production is held relatively constant at 1.34 Mtpa with a 2% increase in production year over year (Figure 37).

Cuerpos are preferentially being mined earlier in the mine plan and eventually balance out with the vetas by 2017 (Figure 38).

As well, the mine sequence attempts to balance tonnage from each Section equally. The exception to this shows tonnage from Zona Alta to diminish over the next eight years while tonnage from Section 6 increases over the 10 year plan (Figure 39).

Yauliyacu has entered into a two-year custom milling contract (Jan 1, 2010) with Andes Mineral (Mina Esperada). Since only 1,450 tonne per month is processed from Mina Esperada (5.5% Zinc, 6.7% Lead, 125 g/t Silver), it is not expected to impact the capacity of the Process Plant.

2010 RESOURCE AND RESERVE UPDATE YAULIYACU MINE, PERU

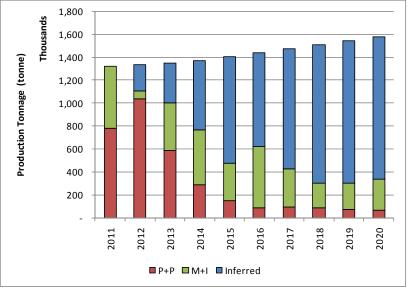


Figure 37 -2010 Mine Plan Production Profile (by resource category)

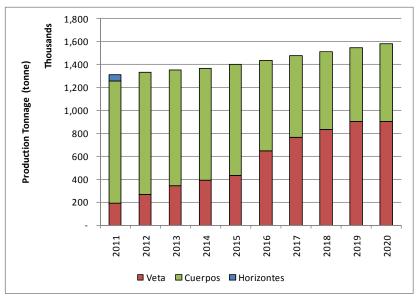


Figure 38 -2011 Mine Plan Production Profile (by ore type)

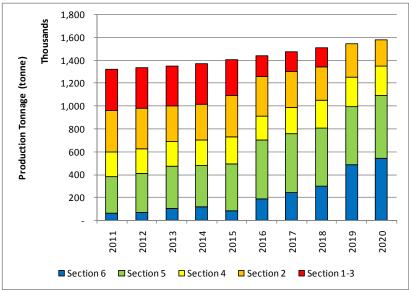


Figure 39 -2011 Mine Plan Production Profile (by Section)

In general, the expected base metal grades do not vary significantly (Figure 40) for the 2011 mine plan; therefore, the metallurgical recoveries are expected to be similar to prior years. Silver grades show an increasing trend over this time period as the proportion of Vetas mined increases.

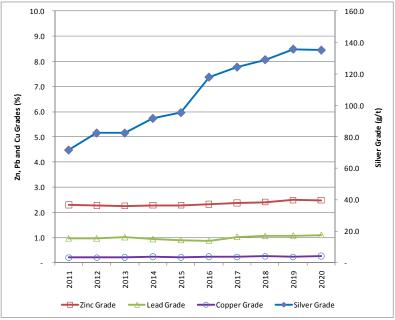


Figure 40 -2011 Mine Plan Grade Profile

Mine capital expenditures required to support the underground operation include the following items:

- Pique Central shaft skipping capacity (replace supports, change out guides and counter-weight to increase production from lower levels)
- Pique Aguas Calientes (refurbished to accommodate production from the lower southern portion of the mine)
- Upgrade the ventilation system (develop new ventilation raises to the lower levels of the mine)

19.3 Grade Control Method

In order to minimize ore dilution, maximize ore recovery, and thereby improve the operation's overall economics, grade control plays an important role throughout the mining process.

Grade control begins with the proper identification of the ore/waste contacts, channel sampling, driller reports, face sampling (includes mapping, visual inspections, chip samples); and muck samples (refer to Section 12.0).

Once the above information has been gathered and compiled, it is communicated to operational personnel through daily / weekly production meetings. In order to maintain the effectiveness of the grade control process; regular field inspections are undertaken by engineering / geology personnel and clear lines of communication are maintained with operational personnel, including equipment operators and front line supervisors.

19.4 Geotechnical

19.4.1 Rockmass, Strength and Structure

Geotechnical assessment of the mine plan (i.e. stopes, excavations and mine sequence) is prepared by the mine staff.

Active mine workings are being mapped and select drillcore are logged according to the Geological Strength Index (GSI) rockmass rating classification system (Hoek and Brown, 1980).

Regular structural mapping of the active mine workings documents the joint sets, rock fabric and major structures encountered.

Representative core samples have been laboratory tested to ascertain intact strength parameters (i.e. UCS, tensile, elasticity, cohesion). The uniaxial rock strength at Yauliyacu is observed to be very strong (100 - 200 MPa) and brittle.

Compiling all this geotechnical information into a database is beneficial for consideration in mine designs (Figure 41).

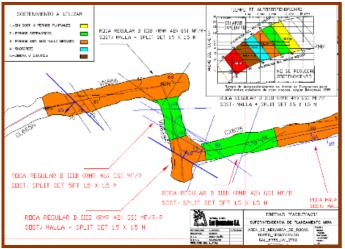


Figure 41 - Typical Geotechnical Data Collection

19.4.2 Ground Support Strategy

In general, the ground conditions observed in active production areas are considered to be 'good' with poorer ground occurring near major structures. Combine this with the fact that excavation spans are not very large, only minimal rock bolting (split sets in the back and/or walls) is required to maintain stability. Mesh and shotcrete can be applied where deemed appropriate (Figure 42). Timber sets are still used as passive support measures when poor ground conditions are encountered.



Figure 42 -Typical Ground Support (mesh + bolts, shotcrete + bolts)

Inherent to the cut and fill mining method, backfill is required to enable the mining of successive cuts. Hydraulic and paste backfill has been used in the past and is still available at the mine's discretion. However, the use of run-of-mine development waste is the predominant backfill media for all cut and fill stopes (Vetas, Cuerpos and Horizontes).

19.4.3 Seismic Risk

In recent years, several rock bursts have occurred in the underground mine primarily in the lower levels (1,300 m below surface). To date, only one seismic event was recorded that caused minor excavation damage (September 2009, 1900 and 2100 levels).

Experiencing micro-seismic and seismic events from mining at these depths is not uncommon in the industry. Observations made by mine personnel of possible factors contributing to these events include changes in rock characteristics (contact between volcanic and sediments), proximity of mined out openings and mine sequence (creation of a diminishing sill pillar).

In 2010, the ESG micro-seismic system was installed and is comprised of 24 uniaxial geophones (1700, 2100, 2500, 3300, 3500, 3900 levels) connecting surface to underground via an optic fibre network. Figure 43 shows a read out of a typical event.

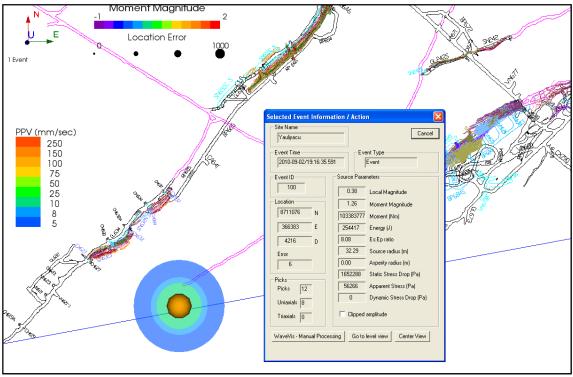


Figure 43 -Micro-Seismic Event Details

19.5 Electrical Supply and Distribution

Electrical power is provided to the mine by a private supply company called Electro Andes. Electro Andes supplies an overhead powerline rated at 50 kV to four of its own substations (SE Antuquito, Casapalca Norte, SE Casapalca and SE San Mateo) for distribution to the mine (Figure 44). Approximately 9 MW of power is supplied to the mine site (process plant = 2.8 MW, tailings = 1.2 MW, mine = 4.0 MW, other = 1.0 MW).

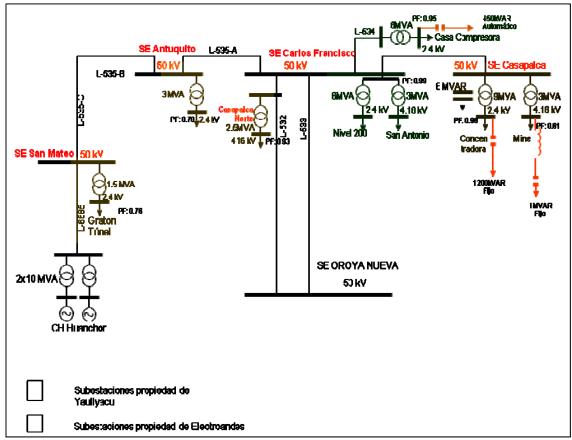


Figure 44 -Electrical Infrastructure

These sub-stations subsequently feed to either the minesite directly or to two other substations for further power transformations. Table 28 describes the power distribution to the mine site.

Table 28 - Yauliyacu Electrical System

Sub-Station	Power Transformation	End User
SE San Mateo (Electro-Andes)	50 kV to 2.4 kV	Graton Tunnel (3 fans)
SE Antuquito (Electro-Andes)	50 kV to 2.4 kV	Lower mine
SE Casapalca Norte (Electro-Andes)	50 kV to 4.16 kV	Camp site, Chinchan pumps
SE Casapalca (Electro-Andes)	50 kV to 2.4 kV and 4.16 kV	Mill and mine
SE Carlos Francisco (Yauliyacu)	50 kV to 2.4 kV and 4.16 kV	Level 200 compressors, San Antonio (fans)
SE Carlos Francisco (Yauliyacu)	50 kV to 2.4 kV	Mine compressors

Currently, line losses are in the order of 8%, which exceeds normal tolernances (3%). Therefore, upgrades to the electrical system will include step-up transformers and new cables. In 2010, two new sub-stations were installed underground.

19.6 Markets

The bulk concentrate is currently delivered to several smelters located abroad (Belgium, Spain, China). For many years, Yauliyacu delivered the bulk concentrate to the La Oroya (Doe Run) smelter in Peru until it was closed in 2009.

The zinc concentrate is trucked to the Callao port where it is blended with other concentrates prior to ocean transport.

A new rail load-out facility was completed in October 2010 (Figure 45) that enables all concentrates to be transported to Callao.



Figure 45 - Rail Load-Out Facility

19.7 Contracts

19.7.1 Silver Stream Agreement

On March 23, 2006, Silver Wheaton (Caymans) Ltd. entered into a silver purchase contract with Glencore International AG "Glencore" to purchase up to 4.75 million ounces of silver produced per year, for a period of 20 years, based on production from the Yauliyacu mining operation. In addition to the upfront cash payment of \$285 million, on-going



production payments equal to \$3.90 per ounce of silver delivered under the contract (subject to an inflationary price adjustment after March 23, 2009, currently \$3.98 per ounce of silver delivered). In the event that silver produced at the Yauliyacu Mine in any year totals less than 4.75 million ounces, the amount sold to Silver Wheaton in subsequent years will be increased to make up for the shortfall, so long as production allows.

During the term of the contract, Silver Wheaton also retains the right of first refusal on any future sales of silver streams from the Yauliyacu Mine and a right of first offer on future sales of silver streams from any other mine owned by Glencore at the time of the initial transaction. In addition, Silver Wheaton also has an option to extend the 20 year term of the Yauliyacu Silver Purchase Contract in five year increments, on substantially the same terms as the existing contract, subject to an adjustment related to silver price expectations at the time and other factors.

19.7.2 Goods and Services

There are four key contracts that provide development and mine services for the mine: Inversiones and Exploraciones Mineras, Martinez Contratistas Ingenieros, Gave Servicios Mineros and SIMAREG. All other relevant contracts are listed in Table 29.

In general, mining related contracts are established for a one year term, whereas nonmining related contracts are valid over a one and a half year term. There are 21 contractors being utilized at the mine, of which 11 are directly related to mining.

Contractor	Department	Function
Inversiones & Exploraciones Mineras S.A.C.	Mine	Development
Martinez Contratistas Ingenieros	Mine	Production
Gave Servicios Mineros	Mine	Development
SIMAREG S.R.L.	Mine	Mine Services
Minera BGM	Mine	Equipment Rental
Remicsa Drilling S.A.	Mine	Exploration
Top Survey S.A.C.	Mine	Surveying
Minera Almax	Mine	Mine Lamps
IMEX 2000	Mine	Equipment Maintenance
Renting	Mine	Equipment Rental
Montali	Mine	Alimak Rasing
Servicios Bertasol S.A.C.	Other	Surface Transportation
Santo Domingo	Other	Contractor Adminstrator
Inversiones y Representaciones Polo S.A.C.	Other	Equipment Rental
Servicios Integrales de Seguridad S.A.	Other	Security

Table 29 - Status Contractors

Aramark Peru SAC Fomeco Peru S.A.C. SG Natclar S.A.C. SGS Del Peru S.A.C Comité 2	Other Other Other Other Other Other	House Keeping / Catering Waste Management Medical Services Water Sample Analysis Transportation (drivers)
San Juan	Other	Civil Work
Canodan	l	l l

19.8 Environmental Considerations

19.8.1 Water Quality

The Yauliyacu mine has no issues with compliance of water quality (pH, metal content, suspended solids) at its discharge points.

Construction of a new water treatment plant (reverse osmosis circuit) was completed in 2010 to treat discharges from mine (1700 level), plant and tailings facility. The mine's management team are anticipating lower tolerance levels and stricter regulations that will likely be enforced in coming years.

Testing has been conducted on surface water run-off around waste dumps for potential acid rock drainage (ARD) problems. All results to date indicate there is no evidence of ARD issues. In general, the host rock contains low quantities of sulphides (i.e. pyrite) and high quantities of carbonates.

19.8.2 Air Quality

As well, there are no issues with air quality associated with the mine.

19.8.3 Noise Quality

Since the installation of the Troncal #4 ventilation raise, there are no longer any issues with noise levels at the mine.

19.8.4 Tailings Facility Management Plan

The Chinchan TSF (Figure 46) currently has a capacity of four years production (until 2014), which includes an additional five m lift. Technical studies are on-going for an additional 20 m lift (total dam height of 100 m) that is expected to increase capacity to 14 more years.

As an alternative, Yauliyacu has completed a scoping-level review of the Tablachaca tailings impoundment. Initial findings indicate the Chinchan TSF expansion is the preferred

option. Another possibility that requires further study is to consider restarting the paste tailing plant for disposal underground.

By 2011, the TSF option will be selected so that detailed engineering can begin in 2012. Construction for either option is expected to be approximately 12 months.



Figure 46 -Chinchan TSF (2010)

19.8.5 Closure and Reclamation Plan

Progressive and passive reclamation is on-going at the mine. Buildings identified in the closure plan and portions of waste dumps (H2, H3 and Jirca areas) are being reclaimed concurrently with mine operations.

In 2010, several raises were capped on surface (Figure 47).



Figure 47 -Reclamation of Ventilation Raise

19.9 Taxes and Other Revenue Elements

There are several taxes applicable under Peruvian law. The first is corporate income tax, which is applied at a rate of 30% on net earnings. The second tax, if applicable, is a worker participation tax that is administered according to government formulae to distribute a percentage of profits (up to 8%) back to the employees. By definition, contractors are excluded from consideration. In the past, Yauliyacu has elected to provide contractors with a bonus similar to that paid to employees to avoid potential problems associated with the obvious disparity in income.

19.10 Capital and Operating Costs

19.10.1 Capital Costs

For the 2011 mine plan, the capital expenditures are summarized in Table 30 below.

	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Sustaining	8,857	9,976	10,206	8,654	7,993	8,706	8,348	7,949	7,906	6,192
Explor & Dev	15,418	15,577	15,785	15,972	16,390	16,808	17,219	17,630	18,040	18,447
TOTAL	24,275	25,553	25,991	24,626	24,384	25,514	25,567	25,579	25,946	24,639

Table 30 -201 Mine Plan Capital Expenditures Forecast (US\$ 000's)



In the 2011 budget, the total capital is \$24.275 million, which is considerably more than the previous mine plan. The bulk of the capital will be spent on mine development and exploration drilling / development. Other capital projects ear-marked for this year include the following:

- Mine equipment and installations
- Plant equipment and installations
- Maintenance
- Closure plan and environment
- Safety
- Human resources
- Administration and warehouse

Capital being carried over from the previous year amount to \$0.075 million.

On-going Capital Projects

Mine

The bulk of the mine capital allocated for 2011 will be invested in mine infrastructure (Pique Central rehabilitation, on-going rehabilitation at Graton Tunnel, underground drainage and orepass chutes). As well, some new mine equipment (scoop, jumbo) and a cavity monitoring system will be purchased.

Mill

The plan for 2011 is to re-commissioned the copper and lead circuits to produce separate concentrates. Due to the difficulty in marketing a bulk concentrate, Yauliyacu will begin producing three concentrates by Q2.

A press filtering system is planned for installation in 2011.

A third Wirth pump recovered from the Rosaura mine was installed in 2010.

Tailings

An independent geotechnical analysis of the TSF operation in 2004 identified a number of deficiencies that have been addressed on an ongoing basis. In 2007, Yauliyacu engaged consultant Vector Peru S.A.C. (Vector) to confirm the stability of the Chinchan TSF. All recommendations resulting from the Vector study are being implemented.

In 2010, the buttress construction and slope recontouring reached 4,490 masl. As well, four piezometers were installed.

19.10.2 Operating Costs

The 2011 budget for on-site operating cost is \$32.41 per tonne processed (Table 31).

				-	
	2007*	2008	2009	2010	2011 B
Tonnage (000's)	1,185	1,320	1,283	1,312	1,320
Mine	17.65	18.99	18.53	19.06	19.99
Mill	5.14	6.00	6.14	6.45	6.53
Maintenance	0.84	0.66	0.61	0.68	0.71
G & A	3.88	4.31	4.76	5.33	5.18
TOTAL (actual)	27.51	29.96	30.04	31.52	
BUDGET	26.09	29.01	27.70	30.35	32.41
Variance (%)	5%	3%	8%	4%	

Table 31 – Annual On-Site Operating Cost and Budget

*2007 production was impacted by a labor disturbance at the neighboring Casapalca Mine resulting in production shortfall of 3% for the year.

Operating costs have increased yearly since 2002. Recent cost increases are primarily attributed to labour, exchange rate and supply costs.

Off-site operating costs include smelting, refining, treatment charges and transportation costs incurred for each concentrate produced. In 2010, the average off-site unit cost was \$17.00 per tonne processed. The terms for these costs is considered confidential and therefore are not included.

19.11 Forward Looking Study

A financial model was compiled by Silver Wheaton based on the 2011 mine plan and budget (Table 33). The financial model is pre-taxation and determines the net annual cash flows by calculating the NSR from the payable metals and deducting the operating costs and sustaining capital costs.

The 2011 mine plan is limited to a 10 year mine life and does not mine all of the known resources.

Most of the reserves are mined over the first four years. Additional tonnages sourced from the various resource categories (i.e. Measured, Indicated and Inferred) are included to meet the production targets.

Cautionary Note: This technical report uses Inferred in the mine plan, which are outside of the CIM/NI 43-101 classifications. The reader is cautioned that the grade and tonnage figures used are therefore, conceptual in nature and there is no certainty that a viable operation will be realized.

Table 32 shows the metal price forecast used for the economic model.

Metal	Units	2011	2012	2013	2014 +
Zinc	(US \$/lb)	\$1.10	\$1.05	\$1.00	\$0.95
Lead	(US \$/lb)	\$1.10	\$1.03	\$0.97	\$0.90
Copper	(US \$/lb)	\$4.50	\$3.83	\$3.17	\$2.50
Silver	(US \$/oz)	\$34.00	\$28.33	\$22.67	\$17.00

Table 32 - Metal Price Forecasts, 2010 Mine Plan

The financial model includes the following assumptions:

- Constant dollars (i.e. no inflation)
- Start date of January 1, 2011
- The production tonnages and grades were supplied by Yauliyacu
- Metallurgical recoveries for all metal reporting to the two concentrates were supplied by Yauliyacu
- Capital cost estimates were supplied by Yauliyacu
- On-site operating costs were estimated by Yauliyacu
- Off-site operating costs were determined from the smelter terms for all concentrates as provided by Yauliyacu
- Long-term metal prices were sourced from analyst consensus
- Up to 4.75 million ounces of silver produced per year (with provision for exceeding this amount in the event that less is delivered in any year under the agreement to SLW).



Table 33 -2011 Mine Plan Forward Looking Study

Year		Units	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020
Operating Days		(day/year)	351	351		351	351					35
Metal Prices		Units										
Zinc		(US\$/lb)	\$ 1.10				\$ 0.95					\$ 0.95
Lead		(US\$/lb)	\$ 1.10		\$ 0.97		\$ 0.90					\$ 0.90
Copper		(US\$/lb)	\$ 4.50	\$ 3.83	\$ 3.17		\$ 2.50					\$ 2.50
Silver		(US\$/oz)	\$ 34.00	\$ 28.33	\$ 22.67	\$ 17.00	\$ 17.00	\$ 17.00	\$ 17.00	\$ 17.00	\$ 17.00	\$ 17.00
Process Plant Feed	Totals	Units										
P+P	3,248,829	(tonne)	780.519	1,038,290	587,030	289.180	149,130	84.860	91,820	89.430	72,850	65,720
M+I	3,415,389	(tonne)	539,481	69,390	412,120	477,070	329,057	539,070	333,947		230,960	268,879
Inferred	7,660,033	(tonne)	-	225,940	352,230	603,470	925,060	814,643	1,048,854		1,240,412	1,244,880
Sub-Totals	14,324,251		1,320,000	1,333,620	1,351,380	1,369,720	1,403,247	1,438,573	1,474,621	1,509,389	1,544,222	1,579,479
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Process Plant Feed Grade		Units										
Average Feed Grade		(%Zn)	2.30	2.27	2.26	2.28	2.28	2.33	2.37	2.40	2.49	2.48
		(%Pb)	0.96	0.96	1.01	0.93	0.90	0.87	1.03	1.06	1.08	1.10
		(%Cu)	0.21	0.20	0.21	0.24	0.21	0.24	0.23	0.25	0.23	0.26
		(Ag g/t)	71.7	82.5	82.5	91.7	95.4	117.9	124.3	129.0	135.7	135.0
Bulk Concentrate	Totals	Units										
Concentrate		(dmt)	5,835	-	-	-	-	-	-	-	-	-
Lead Recovery		(%)	84.56	-	-	-	-	-	-	-	-	-
Copper Recovery		(%)	70.73	-	-	-	-	-	-	-	-	-
Silver Recovery		(%)	79.91	•	-	-	-	-	-	-	-	-
Lead Grade		(%)	44.5	-	-	-	-	-	-	-	-	-
Copper Grade Silver Grade		(%)	3,136	-	-	-	-	-	-	-	-	-
Net Smelter Revenue:	\$ 25,946	(g/tonne conc) (US\$ 000)	\$ 25,946	s -	s -	s -	- \$-	\$ -	\$ -	\$ -	\$ -	- \$-
Net Smeller Revenue.	φ 23,340	(03\$ 000)	\$ 23,340	φ -	\$ -	φ ~	ф -	÷ -	ф -	\$ -	φ -	÷ -
Lead Concentrate	Totals	Units										
Concentrate	Totalo	(dmt)	15,732	19,809	21,255	19,476	19,247	18,696	23,445	24,463	25,310	26,456
Lead Recovery		(%)	82.28	81.89	82.84	80.91	80.70	78.84	82.04		82.03	81.82
Silver Recovery		(%)	56.19	51.09	53.38	54.09	48.30	48.68	56.90		55.62	47.84
Lead Grade		(%)	52.9	53.0	53.2	53.0	52.9	52.8	53.0	53.3	53.9	53.8
Silver Grade		(g/tonne conc)	2,851	2,837	2,799	3,489	3,359	4,417	4,448	4,043	4,603	3,857
Net Smelter Revenue:	\$ 594,253	(US\$ 000)	\$ 58,854	\$ 62,662	\$ 54,786	\$ 46,082	\$ 44,245	\$ 53,017			\$ 74,736	\$ 67,977
—												
Zinc Concentrate Zinc Recovery	Totals	Units	85.90	86.35	86.19	86.14	86.30	86.51	86.64	86.55	87.04	86.67
Silver Recovery		(%) (%)	7.31	6.97	6.58	6.08	5.99	5.79	5.70		6.18	6.15
Concentrate			11,378	46,978	47,168	48,180	49,565	51,792	54,194		59,418	60,228
Zinc Grade		(dmt) (%)	55.5	40,978	55.7	40,100	49,565	51,792	55.9		59,418	56.4
Silver Grade		(g/tonne conc)	147.2	163.3	155.5	158.6	161.7	189.7	192.8		217.7	217.7
Net Smelter Revenue:	\$ 415,863	(US\$ 000)	\$ 43,733									\$ 47,395
		()			,			,				
Copper Concentrate	Totals	Units	0.404	0.007	0.050	0.400	0.400	4 000	4.007	5 000	4 705	5 000
Concentrate		(dmt) (%)	2,494 27.52	2,927 26.60	3,058 26.64	3,432 26.63	3,160 26,64	4,823 35.03	4,267	5,299 37.63	4,705 32.14	5,993 37.27
Copper Recovery Silver Recovery		(%)	21.52	26.60	20.64	26.63	26.64	35.03			25.01	37.27 31.22
Copper Grade		(%)	24.76	21.69	22.61	22.61	24.9	24.9	23.83		25.01	25.6
Silver Grade		(%) (g/tonne conc)	7,925	8,149	8,242	8,276	24.9	10,824	24.5		24.2	25.6
Net Smelter Revenue:	\$ 268,030	(US\$ 000)	\$ 25,080		\$ 20,995						\$ 30,435	
	,000	()	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,500	,	,500	,500	,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	,500	,	,
Total NSR:	\$ 1,304,092	(US\$ 000)	\$ 153,614	\$ 128,609	\$ 114,053	\$ 100,348	\$ 98,328	\$ 124,160	\$ 134,467	\$ 143,491	\$ 151,949	\$ 155,072
Mine Operating Costs	Totals	Units	¢ 00.001	A 00.007	¢ 00.500	A 00.404	¢ 00 70 1	¢ 00.010	¢ 00.057	¢ 00 700	¢ 04.704	¢ 00.000
Mine Dresses Blant		(US\$ 000)	\$ 26,381		\$ 26,509		\$ 26,704					\$ 32,636
Process Plant Maintenance		(US\$ 000)	\$ 8,617				\$ 8,851 \$ 930				\$ 10,499 \$ 1,106	\$ 10,806
Indirect		(US\$ 000) (US\$ 000)	\$ 940 \$ 6,836	\$ 911 \$ 6,953	\$ 921 \$ 7,028	\$ 928 \$ 6,967	\$ 930 \$ 7,062	\$ 985 \$ 7,462			\$ 1,106 \$ 8,373	\$ 1,139 \$ 8,618
Total Operating Costs:	\$ 465,188	(US\$ 000) (US\$ 000)	\$ 42,773		\$ 43,261						\$ 51,682	
Total operating costs.	φ 400,100	(000 000)	ψ 4 2,113	ψ 42,000	ψ 43,201	ψ 43,122	ψ 4 3,340	φ 40,045	ψ 4 0,001	÷ 50,099	ψ 31,002	φ JJ,199
Capital Costs	Totals	Units										
Less Exploration and Development		(US\$ 000)	\$ 15,418	\$ 15,577	\$ 15,785	\$ 15,972	\$ 16,390	\$ 16,808	\$ 17,219	\$ 17,630	\$ 18,040	\$ 18,447
Less Sustaining Capital		(US\$ 000)	\$ 8,857		\$ 10,206	\$ 8,654	\$ 7,993				\$ 7,906	\$ 6,192
Total Capital Costs	\$ 252,073	(US\$ 000)	\$ 24,275	\$ 25,553	\$ 25,991	\$ 24,626	\$ 24,384	\$ 25,514	\$ 25,567	\$ 25,579	\$ 25,946	\$ 24,639
Total Capital Costs	\$ 252,073	(US\$ 000)	\$ 24,275	\$ 25,553	\$ 25,991	\$ 24,626	\$ 24,384	\$ 25,514	\$ 25,567	\$ 25,579	\$ 25,946	\$ 24,639



The overall mine plan yields a positive cumulative pre-tax cash flow.

19.11.1 Sensitivity Analysis

A sensitivity study was conducted to test the robustness of the mine plan by varying three of the key economic parameters: metal prices, operating and capital costs. Figure 48 demonstrates that revenue from the Yauliyacu Mine is most sensitive to changes in silver price. For instance, a +20% change in silver prices leads to a 24% increase in net cash flow.

Previously, zinc was the most sensitive metal price to the operation. In the past year silver price has risen substantially whereas zinc had a modest increase.

In terms of costs, reducing the operating costs will exhibit a higher impact to the overall operation. Similarly, a -20% change in operating cost improves the net cash flow by 16%.

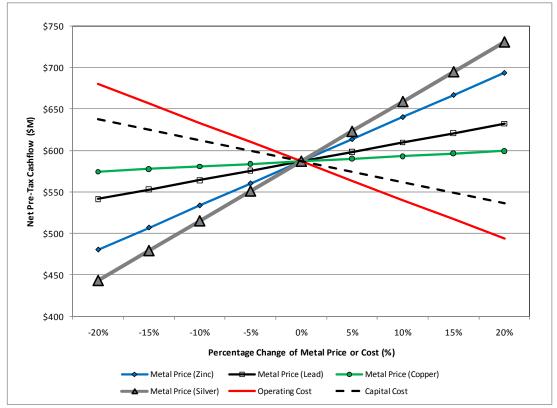


Figure 48 -Sensitivity Analysis of Three Key Economic Parameters

20.0 INTERPRETATION AND CONCLUSIONS

The Yauliyacu Mine has been in continuous operation for over 100 years, which is a testament to the commitment of the mine staff and richness of the deposit. The mine continues to be a profitable operation with a long remaining mine life.

The authors are satisfied that the sample database is appropriate for use in a CIM compliant resource estimate and that industry standard estimation methods have been used to generate block estimates of zinc, lead, copper, silver and iron grades, as well as density.

The Yauliyacu Mineral Resources have been classified as Measure, Indicated and Inferred and Mineral Reserves as Proven and Probable with respect to CIM (2005) standards. Resources were classified according to the geological and sample density that currently defines the deposit and the conversion to reserves outlines the economically mineable portions of the deposit giving full consideration to the mining dimensions, diluting materials, mining recovery, scheduling and payable terms.

Table 34 lists various NI 43-101 considerations with a short description of the related situation at Yauliyacu with the authors' opinion on the level of associated risk. Based on the data and methods in place, the authors have ranked each of the considerations as low risk, with the exception of bulk density and interpolation method, both of which the mine has plans to improve.

NI 43-101 Consideration	Data
Geological Interpretation and Domaining	Metal zonation well understood backed by
	20 years of successful mining
	LOW RISK
Sampling Techniques	All data from diamond core drilling and underground sampling
	LOW RISK
Drill Sample Recovery	Good recovery from diamond core drilling
	LOW RISK
Sub-sampling Techniques & Sample	Core cutting and sample preparation procedures done
Preparations	according to industry standards
	LOW RISK
Quality of Assay Data and Laboratory	The lab submits certified standards, duplicates and blanks to monitor accuracy, precision and contamination. The geology department plans to
Checks	implement a similar independent program.
	LOW RISK

Table 34 -Risk Factors Associated with the	e Yauliyacu Resource Estimate
--	-------------------------------

Location of Data Points	Collars are surveyed after drilling and longer diamond drillholes are down-hole surveyed						
	LOW RISK						
Assay Data Density and Distribution	Risk mitigated by classification scheme						
	LOW RISK						
Database Integrity	SQL database with lab data imported directly with automated validation checks.						
	LOW RISK						
Bulk Density	Block density estimated with a formula based on zinc, copper and lead grades. Mine working towards						
	improving formula to include iron.						
	MODERATE RISK						
Composites	Assay intervals are not composited in the conventional method, estimated grades are length weighted averaged from drillhole and channel sample data. Block model method uses 1.0 m composites						
	LOW RISK						
Block Size	Small block size of 2 m x 1 m x 2 m. Recommend increasing to 5 m x 1 m x 5 m.						
	LOW RISK						
Statistics	Good indication of single grade populations of the economic elements within the estimated blocks.						
	LOW RISK						
Grade Capping	Grade outliers are reset to 1.5 times the block average.						
	LOW RISK						
Variography	Used to define search ellipse for ID ² interpolation.						
	LOW RISK						
Search radii and number of samples	N/A						
	LOW RISK						
Data Clustering	Manually declustered in conventional method. Block model method uses ID ² which does not decluster, recommend switching to Ordinary Kriging.						
	LOW RISK						
Interpolation Method	Majority by conventional long section estimation method. First block model estimates completed on the Horizontes zones.						
	MODERATE RISK						

21.0 **RECOMMENDATIONS**

SLW recommends conducting new density measurements on existing core and compare the results to those obtained using the current density formula. The applicability of a multiple regression formula, which utilizes zinc, lead, copper, silver and iron grades to estimate density should be examined.

SLW believes the Laboratory's QA/QC program adequately monitors the performance of the preparation and analytical laboratories to ensure contamination of samples does not occur and that results are both precise and accurate. The authors recommend that the Geology Department formalize their new QA/QC system as soon as possible with prescribed sample stream insertion points for the Standards, Duplicates and Blanks. A dedicated geologist should be assigned to monitoring the QA/QC results and consulting with the laboratory when results outside of the accepted limits are received. Sample batches should be reanalyzed when QA/QC failures are detected and unexplained. The authors also suggest sourcing a Blanks material that is truly blank.

The current method of resource definition and classification is quite conservative. The authors observed many areas that contain sufficient information to qualify as Inferred Resources. Inferred Resources are important to the Mine Planning Department when laying out new development and infrastructure. If the planners do not have knowledge of these mineralized zones they can be sterilized or not fully optimized. The Geology Department should consider a less conservative approach to the definition of Inferred Resources.

The authors suggest the gradual replacement of the 2D vein projections with 3D interpretations to more accurately estimate vein volumes.

The introduction of block modeling for the purpose of resource estimation at Yauliyacu is an important milestone. SLW supports the block modeling techniques and parameters currently in place and offers the following suggestions for improvements:

- Incorporate all of the Horizontes zones into a single block model with individual codes for each zone.
- Switch from the Inverse Distance interpolation method to Ordinary Kriging which utilizes the grade continuity analyses (variograms) and declusters the data.
- Conduct a more rigorous grade capping analysis such examining inflection points in cumulative distribution plots instead of the 1.5 times the block average method currently in use. The Coefficient of Variation (standard deviation divided by the mean) should be examined for each vein to ensure single grade populations are modeled.



- Increase the block size to approximately 5 m x 1 m x 5 m with appropriate subblocking to preserve interpretation volumes.
- Apply the same density formula used in the conventional estimation method to the block model instead of the average 2.8 g/cc density.

SLW recommends continuing the current exploration program to upgrade and expand resource categories. Specific attention should be given to expanding high grade zones so that the mine has increased flexibility and can continue to adapt to the highs and lows of the metal market.

As mining progresses, stope stability is expected to be an issue. The formation of sill pillars, rib pillars and large empty stopes can lead to geotechnical challenges. In particular, dilution and mine-induced stress are becoming more evident at Yauliyacu. Microseismic monitoring will assist with identifiying the key geotechnical factors (i.e. mine sequencing, ground support, backfill) to stope stability. SLW supports the increased use of backfill in open stopes.

SLW suggests it would be helpful to replace the Schmidt Hammer test method with something more representative. The original Schmidt Hammer (used for testing concrete) has been adapted for rock strength testing. Industry best practice in North America estimates rock strength in the field by using a point load tester. This information, once calibrated to laboratory results, provides a quick and meaningful method for estimating rock strength in the field, which in turn enhances and/or improves mine designs.

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- JORC, 2004. Australasian Code for Reporting of Exploration Results, Mineral Resources and Ore Reserves (The JORC Code) 2004 Edition; Prepared by: The Joint Ore Reserve Committee of the Australasian Institute of Mining and Metallurgy, Australian Institute of Geoscientists and Mineral Council of Australia (JORC).
- WGM, 2008. A Technical Review on the Uauliyacu Lead / Zinc Mine, Junin Province, Peru for Silver Wheaton Corp. Prepared by Valasquez Spring, Robert Didur and Gordon Watts. Watts, Griffis and McOuat Limited Consulting Geologists and Engineers, March 28, 2008.

23.0 SIGNATURE PAGE

This report entitled "2010 Resource and Reserve Update Yauliyacu Mine, Peru" was prepared and signed by the following authors as of March 30, 2011.

feil 5



Neil R. Burns M.Sc., P.Geo. Director of Geology Silver Wheaton Corp.

S. G. L. MAH # 30530

Samuel Mah, M.A.Sc., P.Eng. Director of Engineering Silver Wheaton Corp.

GINE

24.0 CERTIFICATE OF AUTHORS

I, Neil R. Burns, Director of Geology of Silver Wheaton Corp., Suite 3150 666 Burrard Street, Vancouver, BC, V6C 2X8, do hereby certify that:

- 1. I am co-author of the report titled "2010 Resource and Reserve Update, Yauliyacu Mine, Peru", dated March 30, 2011 (the "Technical Report").
- 2. I graduated with a Bachelor of Science degree in Earth Sciences from Dalhousie University, Halifax, NS in 1995. Subsequently I obtained a Master of Science degree in Mineral Exploration from Queen's University in 2003.
- 3. I am a member of the Association of Professional Engineers and Geoscientists of British Columbia.
- 4. I have worked as a geologist for a total of fifteen years since graduating.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association and past relevant work experience, I fulfill the requirements to be a "qualified person" (as defined in NI 43-101) for the purposes of NI 43-101.
- 6. I last visited the Yauliyacu mine property on February 20th to 22nd, 2011 (audit the resource and reserve updates).
- 7. I am responsible for the preparation of Sections 1 to 15, parts of 17, 18, 20 and 21 of the Technical Report.
- 8. 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.
- Due to my position of Director of Geology with Silver Wheaton Corp. I am not considered independent of the issuer applying all of the tests in section 1.4 of the Instrument.
- 10. I have had previous involvement having co-authored the reports entitled "Resource and Reserve Update Yauliyacu Mine, Peru" dated March 25, 2009 and "2009 Resource and Reserve Update Yauliyacu Mine, Peru" dated March 26, 2010
- 11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in accordance with that instrument and form.

Dated at Vancouver, BC, Canada this 30 day of March, 2011.

Neil R. Burns M.Sc., P.Geo. Director of Geology Silver Wheaton Corp.



I, Samuel Mah, Director of Engineering of Silver Wheaton Corp., Suite 3150 666 Burrard Street, Vancouver, BC, V6C 2X8, do hereby certify that:

- 1. I am co-author of the report titled "2010 Resource and Reserve Update, Yauliyacu Mine, Peru", dated March 30, 2011 (the "Technical Report").
- 2. I graduated with a Bachelors degree (Class I) in Mining and Mineral Process Engineering from the University of British Columbia in 1994. In addition, I have obtained a Masters in Applied Science also at the University of British Columbia in 1997 specializing in rock mechanics.
- 3. I am a member in good standing with the Association of Professional Engineers and Geoscientists of British Columbia since 2006.
- 4. Upon graduation from university, I have practiced my profession continuously.
- 5. I have read the definition of "qualified person" set out in National Instrument 43-101 ("NI 43-101") and certify that by reason of my education, affiliation with a professional association (as defined in NI 43-101) and past relevant work experience, I fulfill the requirements to be a "qualified person" for the purposes of NI 43-101.
- 6. I last visited the Yauliyacu mine property on February 20th to 22nd, 2011 (audit the resource and reserve updates).
- 7. I am responsible for the preparation of Sections 16, parts of 17, 18, 19 and 22 of the Technical Report with contributions to Sections 1, 2, 3, 20 and 21.
- 8. 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.
- 9. Due to my position of Director of Engineering with SLW, I am not considered independent of the issuer applying all of the tests in Section 1.4 of the National Instrument 43-101.
- 10. I have had previous involvement having co-authored the reports entitled "Resource and Reserve Update Yauliyacu Mine, Peru" dated March 25, 2009 and "2009 Resource and Reserve Update Yauliyacu Mine, Peru" dated March 26, 2010.
- 11. I have read NI 43-101 and Form 43-101F1, and the Technical Report has been prepared in compliance with that instrument and form.

Dated at Vancouver, BC, Canada this 30 day of March, 2011.

Samuel Mah, M.A.Sc., P.Eng.

25.0 CONSENT OF QUALIFIED PERSONS

Neil R. Burns, M.Sc., P.Geo. Suite 3150 666 Burrard Street, Vancouver, BC V6C 2X8 Tel: (604) 639-9874 Fax: (604) 684-3123 Email: neil.burns@silverwheaton.com

March 30, 2011

British Columbia Securities Commission (Principal Regulator) Ontario Securities Commission Alberta Securities Commission Saskatchewan Securities Commission The Manitoba Securities Commission Autorité des marchés financiers New Brunswick Securities Commission Nova Scotia Securities Commission Securities Commission Securities Commission of Newfoundland and Labrador Registrar of Securities, Prince Edward Island Silver Wheaton Corp.

Re: Report Entitled "2010 Resource and Reserve Update, Yauliyacu Mine, Peru" dated March 30, 2011

Pursuant to Section 8.3 of National Instrument 43-101 Standards of Disclosure for Mineral Projects, this letter is being filed as the consent of Neil Burns, M.Sc., P.Geo., Director of Geology (Silver Wheaton Corp.), to the public filing of the technical report entitled "2010 Resource and Reserve Update, Yauliyacu Mine, Peru" dated March 30, 2011 (the "Report") and to extracts from, or a summary of, the Report in the written disclosure contained in Silver Wheaton Corp.'s annual information form (the "AIF") for the year ended December 31, 2010, dated as of March 23, 2011.

I hereby confirm that I have read the written disclosure contained in the AIF and that it fairly and accurately represents the information in the Report that supports the disclosure.

Sincerely,

Neil R. Burns M.Sc., P.Geo. Director of Geology Silver Wheaton Corp.





Samuel Mah, M.A.Sc., P.Eng. Suite 3150 666 Burrard Street, Vancouver, BC V6C 2X8 Tel: (604) 639-9874 Fax: (604) 684-3123 Email: sam.mah@silverwheaton.com

March 30, 2011

British Columbia Securities Commission (Principal Regulator) Ontario Securities Commission Alberta Securities Commission Saskatchewan Securities Commission The Manitoba Securities Commission Autorité des marchés financiers New Brunswick Securities Commission Nova Scotia Securities Commission Securities Commission Securities Commission of Newfoundland and Labrador Registrar of Securities, Prince Edward Island Silver Wheaton Corp.

Re: Report Entitled "2010 Resource and Reserve Update, Yauliyacu Mine, Peru" dated March 30, 2011

Pursuant to Section 8.3 of National Instrument 43-101 Standards of Disclosure for Mineral Projects, this letter is being filed as the consent of Samuel Mah, M.A.Sc., P.Eng., Director of Engineering (Silver Wheaton Corp.), to the public filing of the technical report entitled "2010 Resource and Reserve Update, Yauliyacu Mine, Peru" dated March 30, 2011 (the "Report") and to extracts from, or a summary of, the Report in the written disclosure contained in Silver Wheaton Corp.'s annual information form (the "AIF") for the year ended December 31, 2010, dated as of March 23, 2011.

I hereby confirm that I have read the written disclosure contained in the AIF and that it fairly and accurately represents the information in the Report that supports the disclosure.

Sincerely,

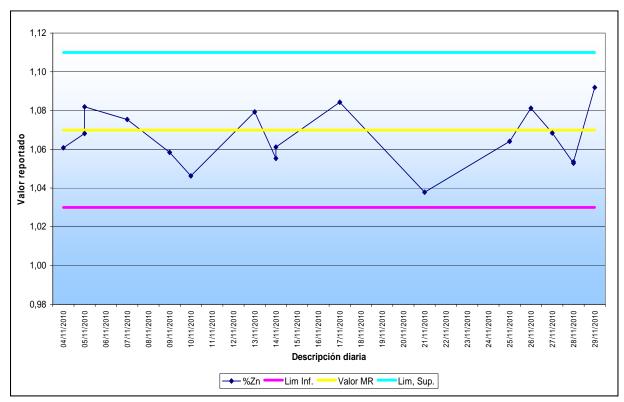
MAL Samuel Mah, M.A.Sc., P.E

Samuel Man, M.A.Sc., P.Eng. Director of Engineering Silver Wheaton Corp.

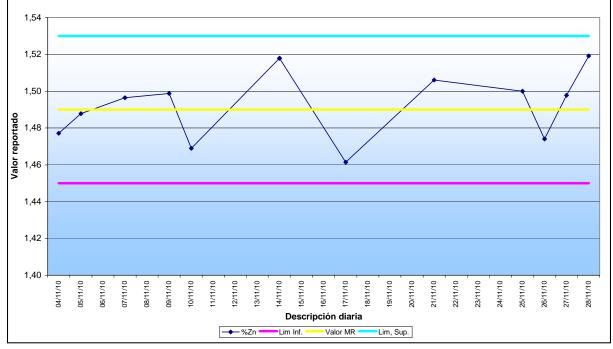


APPENDIX A

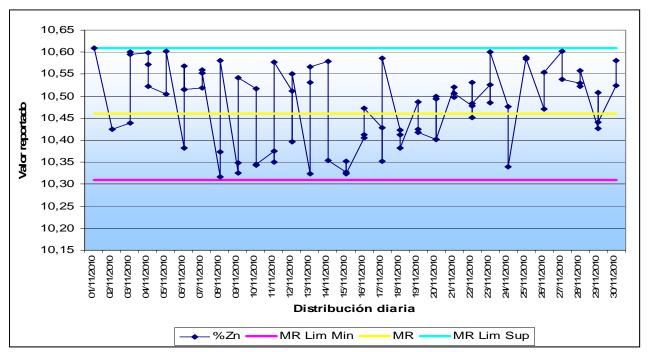
QA/QC –Laboratory Standard Plots



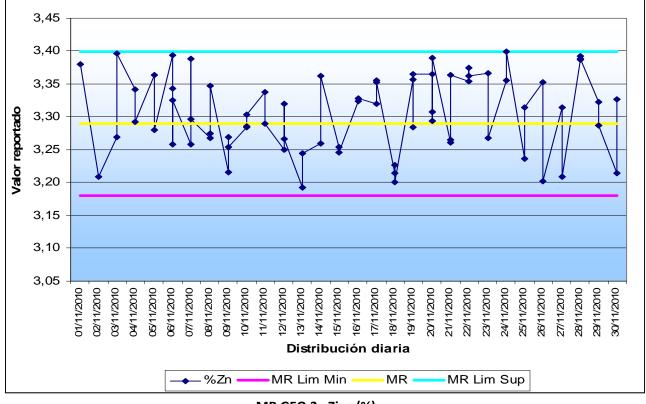
MR DDH 1 –Zinc (%)



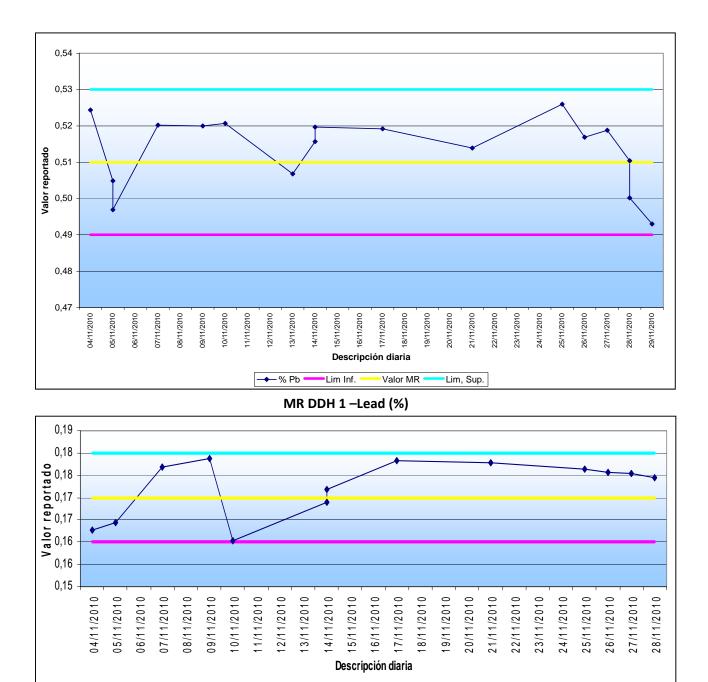
MR DDH 2 –Zinc (%)



MR GEO 1 –Zinc (%)

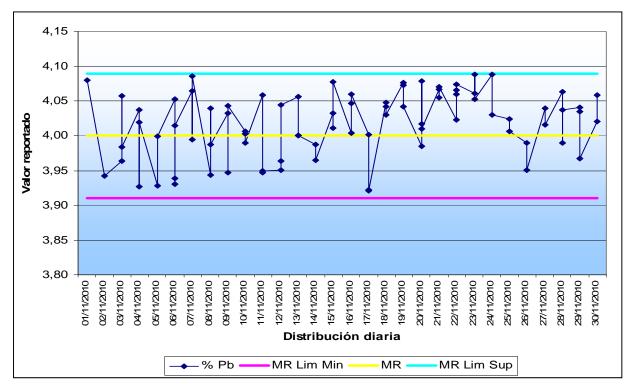


MR GEO 2 –Zinc (%)

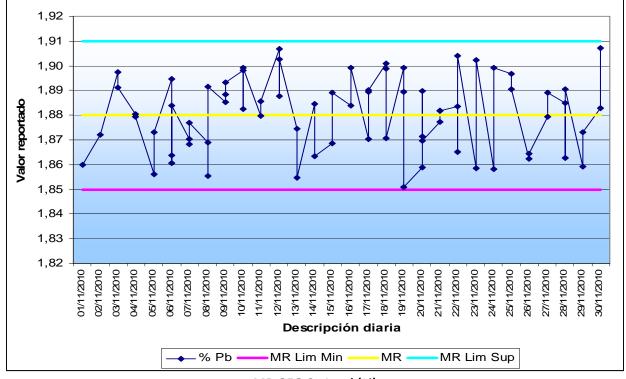




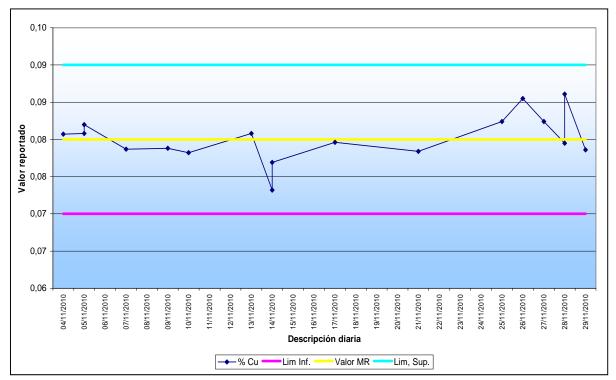
MR DDH 2 –Lead (%)



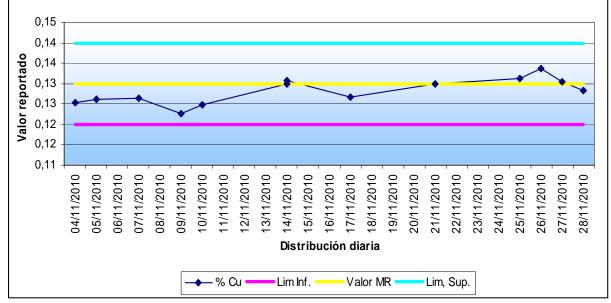
MR GEO 1 –Lead (%)



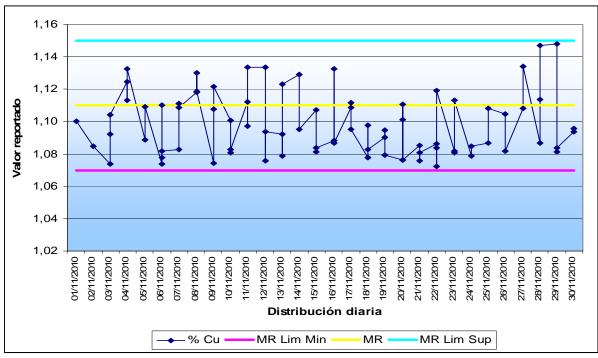
MR GEO 2 –Lead (%)



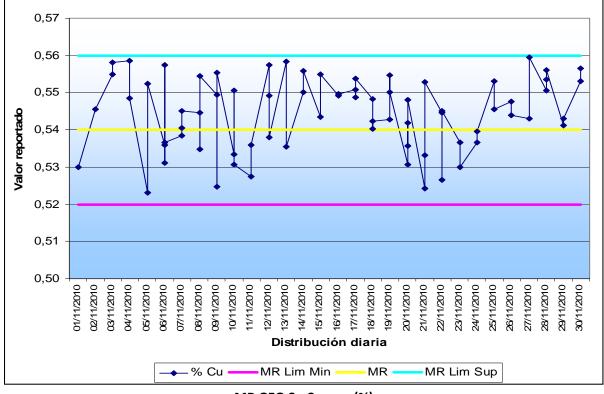
MR DDH 1 –Copper (%)



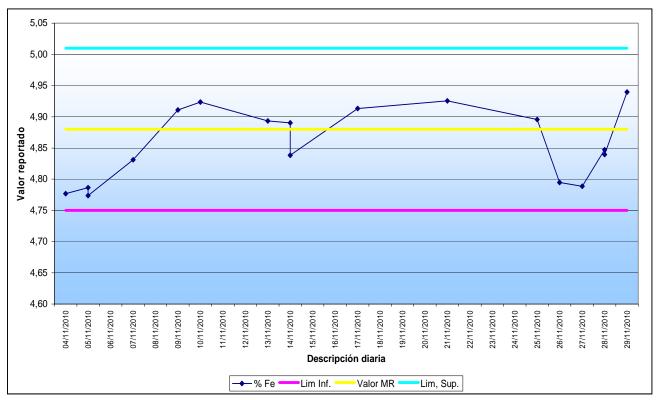
MR DDH 2 –Copper (%)



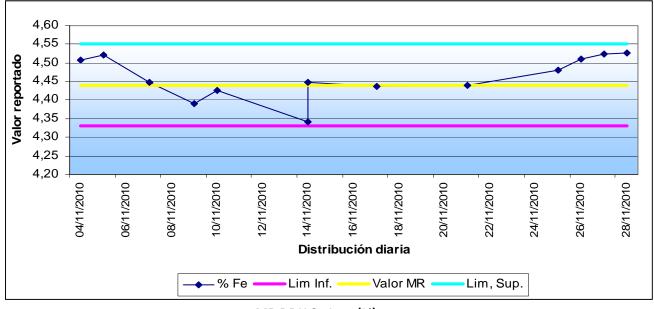
MR GEO 1 – Copper (%)



MR GEO 2 – Copper (%)



MR DDH 1 –Iron (%)

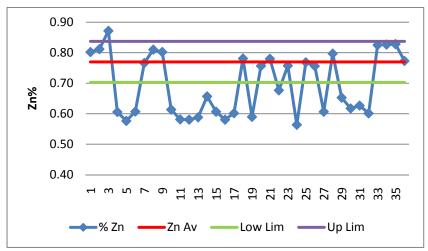


MR DDH 2 -Iron (%)

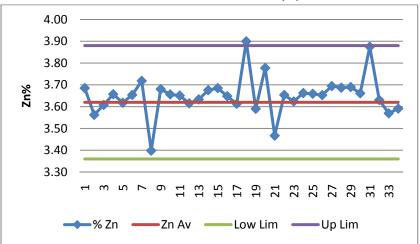


APPENDIX B

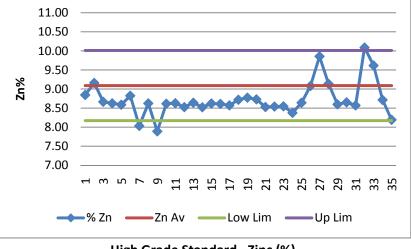
QA/QC Geology Department Standard Plots



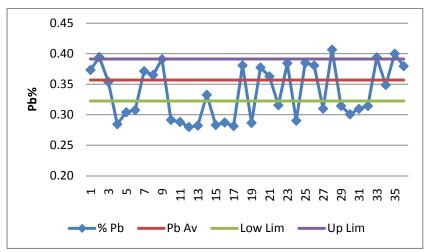
Low Grade Standard –Zinc (%)



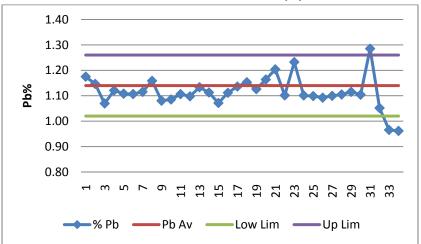
Medium Grade Standard –Zinc (%)



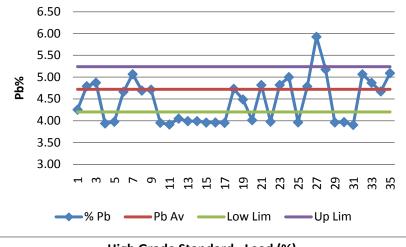




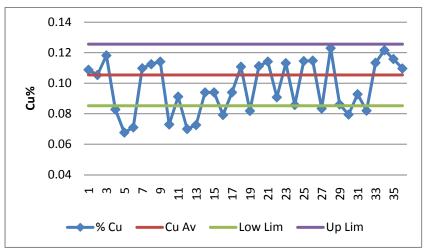
Low Grade Standard –Lead (%)



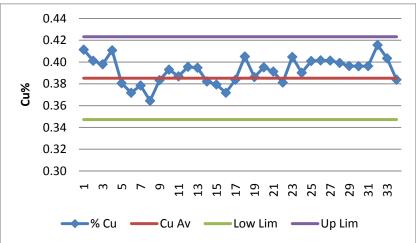
Medium Grade Standard –Lead (%)



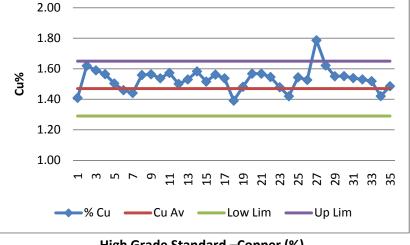
High Grade Standard –Lead (%)

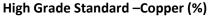


Low Grade Standard –Copper (%)



Medium Grade Standard –Lead (%)



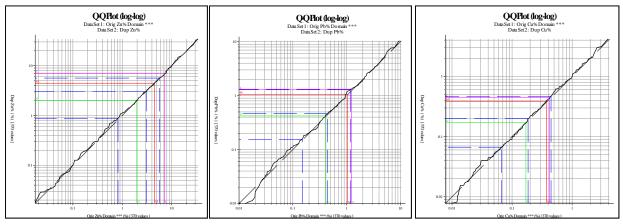




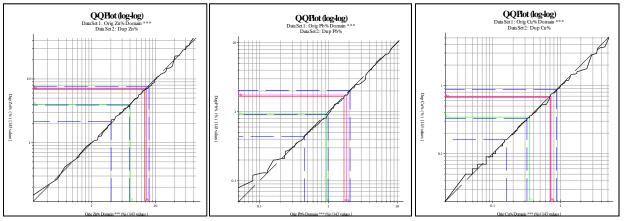
2010 Resource and Reserve Update Yauliyacu Mine, Peru

APPENDIX C

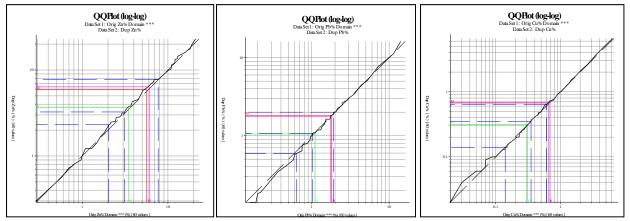
QA/QC Geology Department Duplicate Plots



Coarse Duplicates –Zinc (%), Lead (%), Copper (%)



Fine Duplicates –Zinc (%), Lead (%), Copper (%)



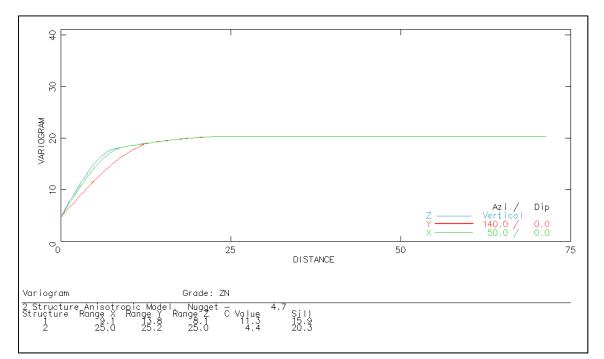
Pulp Duplicates –Zinc (%), Lead (%), Copper (%)



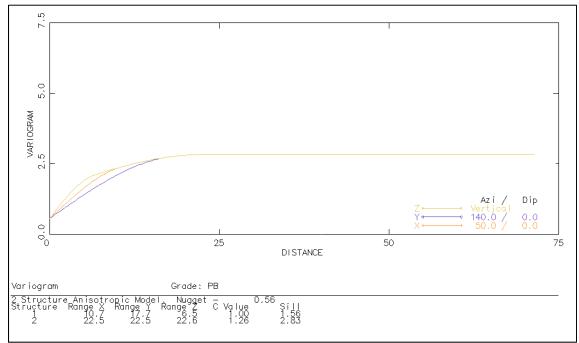
APPENDIX D

Variograms

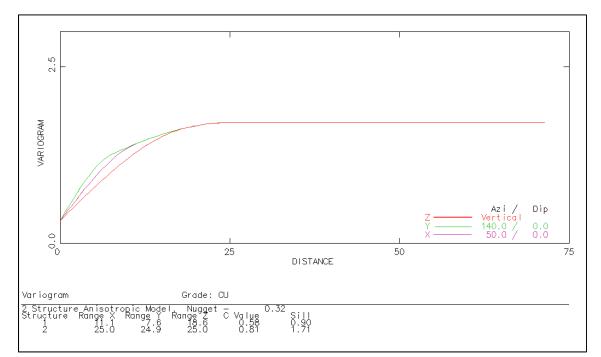
2010 RESOURCE AND RESERVE UPDATE YAULIYACU MINE, PERU



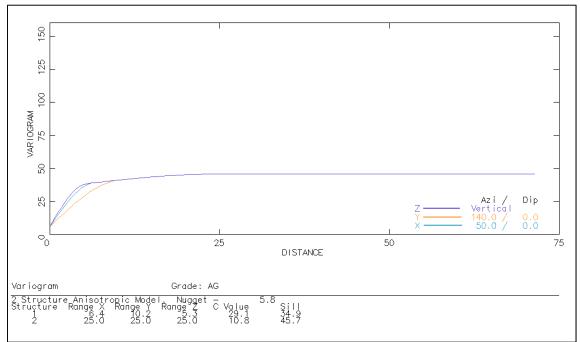
Veta M – Zinc Variogram



Veta M –Lead Variogram

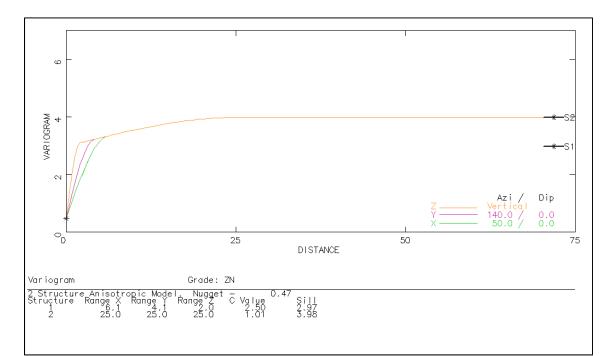


Veta M – Copper Variogram

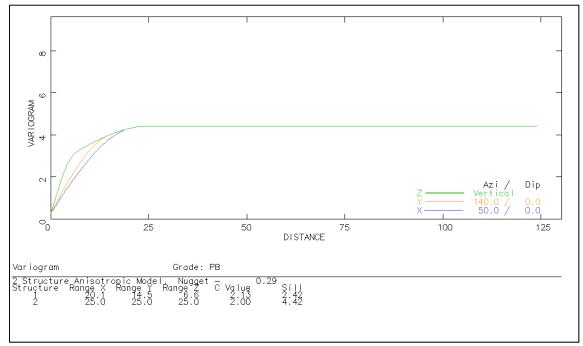


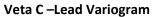
Veta M –Silver Variogram

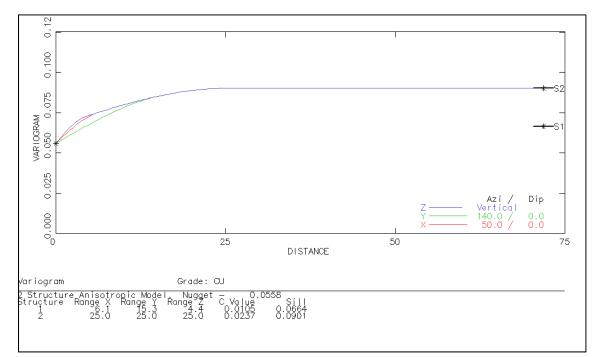
2010 Resource and Reserve Update Yauliyacu Mine, Peru



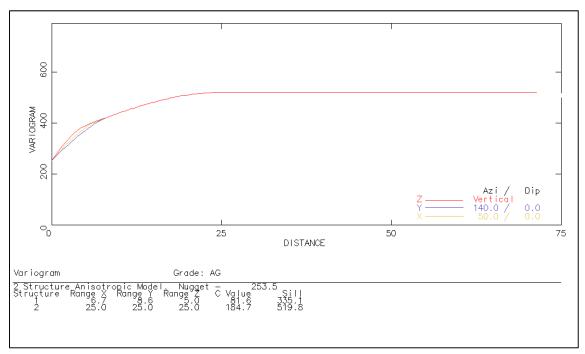
Veta C – Zinc Variogram







Veta C – Copper Variogram



Veta C – Silver Variogram



APPENDIX E

2010 Reserves by Orebody Type

Orebody Type	Category	Tonnes	Zn%	Pb%	Cu%	Ag g/t	NSR\$
	Proven	466,470	2.44	1.24	0.25	133.6	\$86.89
Vetas	Probable	906,760	2.35	1.42	0.26	174.2	\$104.40
	P&P	1,373,230	2.38	1.36	0.26	160.4	\$98.46
	Proven	722,210	1.94	0.88	0.19	76.0	\$55.46
Cuerpos	Probable	1,215,470	1.92	0.80	0.16	95.0	\$62.40
	P&P	1,937,680	1.93	0.83	0.17	87.9	\$59.81
GRAND TOTAL P&P		3,310,910	2.12	1.05	0.21	118.0	\$75.84



APPENDIX F

2010 Reserves by Mining Method

Category	Mining Method	Tonnes	Zn%	Pb%	Cu%	Ag g/t	NSR\$
	CR-CM	60,270	3.38	1.28	0.25	61.3	\$63.76
	CR-VC	249,530	2.70	1.25	0.26	115.8	\$81.49
	CR-VCS	31,940	1.83	1.01	0.21	267.5	\$136.68
Proven	OPS	142,260	2.28	1.31	0.26	121.9	\$81.26
	SHR	42,740	1.95	1.15	0.23	175.9	\$100.01
	SLC	538,170	1.65	0.82	0.16	76.5	\$52.65
	SLV	123,770	2.50	0.97	0.26	80.9	\$63.64
	Total	1,188,680	2.14	1.03	0.21	98.6	67.80
	CR-CM	80,160	1.84	0.78	0.11	251.5	\$127.03
	CR-VC	408,740	2.42	1.31	0.24	161.4	\$98.60
	CR-VCS	131,020	1.95	1.23	0.23	278.1	\$143.72
Probable	OPS	283,710	2.46	1.70	0.33	158.5	\$101.28
	SHR	83,290	2.28	1.30	0.17	127.0	\$81.67
	SLC	893,660	1.81	0.85	0.14	83.5	\$56.64
	SLV	241,650	2.35	0.60	0.24	85.9	\$62.24
	Total	2,122,230	2.10	1.06	0.20	128.8	80.34
GRAN	D TOTAL P&P	3,310,910	2.12	1.05	0.21	118.0	75.84



APPENDIX G

2010 Reserves by Level

Zone	Level	Tonnes	Zn%	Pb%	Cu%	Ag g/t	NSR\$
20116	HO	1,650	1.49	1.20	0.37	177.6	\$99.74
	H1	19,920	1.30	0.70	0.37	100.3	\$60.81
	H2	56,890	1.62	1.02	0.20	99.3	\$63.96
	H3	408,460	1.25	0.70	0.21	99.3 112.0	\$63.90 \$63.82
	200	351,680	1.74	0.90	0.10	116.8	\$71.24
Zona	200 400	103,160	2.01	1.15	0.19	121.7	\$71.24 \$77.45
Alta	400 600	167,070	1.70	0.99	0.22	99.4	\$64.54
Alla	800	160,630	1.49	1.12	0.22	99.4 153.3	\$04.54 \$85.47
	1000	309,770	1.95	1.08	0.10	156.8	\$90.21
	1200	177,990	2.00	1.08	0.15	128.5	\$90.21 \$78.40
	1200	15,180	2.00	0.78	0.15	126.5	\$78.40 \$78.40
		,					•
	1500	138,380	1.87	1.34	0.14	110.3	\$71.25
	1700 Tatal	45,110	1.91	1.31	0.19	151.9	\$89.80
	Total	1,955,890	1.69	0.98	0.17	124.9	\$74.46
	1900	112,930	2.66	1.83	0.31	127.6	\$90.28
	2100	68,050	3.44	2.07	0.34	84.8	\$80.09
	2300	180,830	2.55	0.99	0.19	53.4	\$51.35
	2500	126,080	2.08	1.04	0.17	74.5	\$56.47
Zona	2700	161,160	2.31	0.99	0.21	92.9	\$66.46
Baja	3000	237,080	3.09	1.41	0.25	155.1	\$101.83
	3300	100,090	3.04	0.97	0.18	63.5	\$59.32
	3600	82,110	3.30	1.43	0.24	135.6	\$95.22
	3900	267,870	2.67	0.63	0.35	128.3	\$84.69
	4100	18,820	2.54	1.37	0.30	188.5	\$112.34
	Total	1,355,020	2.73	1.15	0.25	108.0	\$77.83
GRAN	GRAND TOTAL		2.12	1.05	0.21	118.0	\$75.84



APPENDIX H

2010 Reserves by Vein

Code	Vein	Tonnes	Zn%	Pb%	Cu%	Ag g/t	NSR\$
105	C	503,150	2.36	0.97	0.28	147.1	\$90.87
300	C1	4,110	4.15	1.34	0.21	70.5	\$73.50
112	RM-C	2,390	2.12	1.98	0.40	366.1	\$189.28
262	RM-CT	40,060	1.23	0.94	0.17	281.2	\$136.74
250	RM-C5	3,950	0.80	0.34	0.03	201.6	\$93.95
310	RM-550-C	2,630	1.21	1.16	0.17	317.6	\$153.17
107	D	16,740	1.34	0.93	0.16	279.5	\$136.53
108	D1	3,500	3.28	2.75	0.42	404.7	\$219.34
115	F	4,090	4.75	1.35	0.27	67.5	\$77.94
109	Н	17,660	2.14	1.33	0.29	163.5	\$98.25
225	Haydecita	2,080	1.67	1.34	0.15	112.0	\$70.48
263	K	10,840	2.34	0.47	0.59	99.4	\$72.90
258	Kathia	5,900	3.84	0.73	0.20	50.1	\$58.79
110	L	59,500	1.39	0.70	0.16	151.1	\$81.48
143	RM-L1	35,600	4.52	3.03	0.22	93.1	\$95.54
172	RM-256L	5,070	2.78	2.38	0.41	80.3	\$76.01
111	RM-260L	29,700	2.54	1.51	0.29	170.9	\$105.61
255	RM-270L	1,880	3.86	3.07	0.70	370.8	\$216.03
290	RM-705L	4,090	1.53	2.37	0.33	60.7	\$56.43
264	RM-735L	32,220	2.29	1.34	0.16	60.3	\$53.69
124	M	272,380	3.10	1.27	0.33	100.2	\$79.45
211	RM-168M	4,200	2.25	0.52	0.24	62.5	\$51.05
192	RM-199M	3,920	4.13	0.60	0.34	65.9	\$69.40
167	RM-204M	4,760	3.05	1.17	0.22	61.9	\$60.29
154	RM-231M	87,720	3.46	2.13	0.23	76.1	\$75.15
238	RM-240M	20,640	2.67	1.65	0.43	268.2	\$150.90
305 117	RM-240M-T RM-241M	7,880	2.43 2.36	1.62	0.30	58.6 113.1	\$58.00
117	RM-241M RM-242M	12,390 35,370	2.30	2.27 3.05	0.52 0.27	103.7	\$87.69 \$87.61
114	RM-272M	26,410	3.74	2.62	0.27	149.7	\$109.51
289	RM-330M	13,040	1.73	1.10	0.13	95.9	\$63.99
302	RM-702M	1,390	1.84	2.23	0.22	46.0	\$53.75
291	RM-706M	7,150	0.72	0.61	0.05	204.4	\$96.41
256	RM-M	9,910	3.92	0.43	0.67	56.8	\$68.34
140	RM-M1	83,460	1.62	1.10	0.13	210.6	\$110.12
144	RM-M2	26,420	3.52	2.11	0.47	246.4	\$151.65
261	RM-M4	6,090	2.40	1.43	0.32	298.1	\$158.32
311	RM-M5	22,050	2.49	1.21	0.20	43.2	\$48.02
259	RM-M-Nor	9,550	1.75	0.72	0.09	121.3	\$70.53
304	RM-MT	8,220	1.72	0.67	0.16	156.8	\$86.25
243	M4	9,530	2.44	1.80	0.15	133.9	\$88.38
126	Ν	25,240	0.63	0.47	0.26	189.7	\$92.15
186	RM-295N	8,290	1.13	0.79	0.22	302.9	\$145.13
244	RM-747N	2,980	2.42	1.17	0.19	169.5	\$100.44
179	N3	12,390	1.72	1.26	0.25	223.7	\$119.35

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246	RM-N4	1,470	1.31	1.67	0.15	197.2	\$105.55		
128	0	13,130	2.48	1.53	0.33	217.6	\$125.71		
146	O4	6,950	4.06	0.48	0.66	152.7	\$110.25		
123	RM-O2	13,440	5.08	1.08	0.67	94.4	\$97.05		
130	Р	5,410	2.76	1.90	0.18	42.3	\$53.19		
293	P-Piso	5,140	1.35	0.71	0.28	85.5	\$55.45		
257	Rayo	190,490	0.97	0.57	0.02	228.1	\$107.70		
260	RM-Rayo T	11,890	0.91	0.59	0.03	289.9	\$133.49		
303	ROSITA	11,470	1.55	2.10	0.48	152.3	\$96.47		
306	Ruth	23,730	2.47	1.71	0.16	39.9	\$48.43		
205	S.Antonio	4,080	1.53	1.07	0.18	168.3	\$92.19		
190	Т	10,490	0.87	0.60	0.16	155.6	\$78.71		
247	RM-T1	7,260	1.76	0.89	0.11	167.3	\$91.43		
240	Hzte-Zarai	4,980	6.03	0.98	0.38	159.6	\$126.73		
296	RAMAL-CT-N	41,020	3.06	0.30	0.21	52.9	\$51.51		
207	Cpo-L	328,040	1.86	0.96	0.17	94.1	\$62.69		
301	Cpo-L-Piso	136,740	1.01	0.47	0.13	91.0	\$51.13		
180	Cpo-M	833,860	1.82	0.90	0.16	74.9	\$53.63		
298	Cpo-P	64,120	2.24	1.18	0.23	47.0	\$47.97		
308	Cpo.Rosario	30,210	2.46	0.40	0.11	47.2	\$43.41		
295	Cpo-Ruby	6,680	2.64	0.38	0.12	47.3	\$44.88		
191	Cpo. Sonia	1,030	6.69	1.31	0.70	104.5	\$115.83		
314	RM-742M	33,530	1.35	0.59	0.11	81.5	\$50.27		
315	RM-745M	6,980	1.84	0.68	0.11	78.4	\$53.26		
317	CPO-MARY	12,230	2.69	1.16	0.12	46.8	\$49.38		
GR	AND TOTAL	3,310,910	2.12	1.05	0.21	118.0	75.84		