

PAN AMERICAN SILVER CORP
Form 40-F
May 20, 2004
SECURITIES AND EXCHANGE COMMISSION

Washington, D.C. 20549

FORM 40-F

**REGISTRATION STATEMENT PURSUANT TO SECTION 12 OF THE
SECURITIES EXCHANGE ACT OF 1934**

**ANNUAL REPORT PURSUANT TO SECTION 13(a) OR 15(d) OF THE
SECURITIES EXCHANGE ACT OF 1934**

For the fiscal year ended December 31, 2003

Commission File Number 0-13727

Pan American Silver Corp.

(Exact name of Registrant as specified in its charter)

British Columbia

1044

Not Applicable

(Province or other Jurisdiction)

(Primary Standard Industrial

(I.R.S. Employer

of Incorporation or Organization)

Classification Code Number)

Identification No..)

1500 - 625 Howe Street

Vancouver, British Columbia

V6C 2T6

(604) 684-1175

(Address and telephone number of Registrants' principal executive offices)

CT Corporation System

111 Eighth Avenue, 13th Floor

New York, NY 10011

(212) 894-8940

(Name, address (including zip code) and telephone number

(including area code) of agent for service in the United States)

Securities registered or to be registered pursuant to Section 12(b) of the Act.

None

Securities registered or to be registered pursuant to Section 12(g) of the Act.

Title of each class	Name of each Exchange on which Registered:
Common Shares, No Par Value	The Nasdaq National Market

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act.

None

For annual reports, indicate by check mark the information filed with this Form:

Annual information form

Audited annual financial statements

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by this annual report.

The Registrant had 59,009,851 Common Shares

outstanding as at December 31, 2003

Indicate by check mark whether the Registrant by filing the information contained in this Form is also thereby furnishing the information to the Commission pursuant to Rule 12g3-2(b) under the Securities Exchange Act of 1934 (the "Exchange Act"). If "Yes" is marked, indicate the filing number assigned to the registrant in connection with such Rule.

Yes

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No

-

Indicate by check mark whether the Registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Exchange Act during the preceding 12 months (or for such shorter period that the Registrant was required to file such reports) and (2) has been subject to such filing requirements for the past 90 days.

Yes

-

No

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DOCUMENTS FILED UNDER COVER OF THIS FORM

Document No. 1:

Annual Information Form for the year ended December 31, 2003, dated May 19, 2004.

Document No. 2:

Audited Consolidated Financial Statements for the financial year ended December 31, 2003, prepared in accordance with Canadian generally accepted accounting principles, and reconciled to United States generally accepted accounting principles in accordance with Item 18 of Form 20-F.

Document No. 3:

Management's Discussion and Analysis of Financial Condition and Results of Operations for the year ended December 31, 2003.

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Document No. 1

**Annual
Information
Form**

For the Year
Ended December 31, 2003

Dated: May 19, 2004

1500-625 Howe Street

Vancouver, British Columbia

V6C 2T6

Web Site: www.panamericansilver.com

May 18, 2004

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INTRODUCTION

In this Annual Information Form, the term "Company" refers to Pan American Silver Corp. and the term "Pan American" refers to the Company and its subsidiaries.

Reporting Currency

Pan American's reporting currency is the United States dollar. Unless otherwise indicated, all currency amounts in this Annual Information Form are stated in United States dollars.

Accounting Policies

Financial information is presented in accordance with accounting principles generally accepted in Canada. Differences between accounting principles generally accepted in Canada and those generally accepted in the United States, as applicable to Pan American, are explained in Note 18 to the Consolidated Financial Statements of the Company. These financial statements, set out on pages 20 through 44, inclusive, of the Company's 2003 Annual Report, are incorporated by reference herein.

Conversion Table

In this Annual Information Form, imperial measures are used with respect to mineral properties located in the United States of America and metric units are used with respect to mineral properties located in Peru, Mexico, Bolivia and elsewhere, unless otherwise indicated. Conversion rates from imperial measures to metric units and from metric units to imperial measures are provided in the table set out below.

<u>Imperial Measure</u>	=	<u>Metric Unit</u>	<u>Metric Unit</u>	=	<u>Imperial Measure</u>
2.47 acres		1 hectare	0.4047 hectares		1 acre
3.28 feet		1 metre	0.3048 metres		1 foot
0.62 miles		1 kilometre	1.609 kilometres		1 mile
0.032 ounces (troy)		1 gram	31.1 grams		1 ounce (troy)
1.102 tons (short)		1 tonne	0.907 tonnes		1 ton
0.029 ounces (troy)/ton		1 gram/tonne	34.28 grams/tonne		1 ounce (troy)/ton

Glossary of Terms

The glossary of terms set forth on pages 68 to 72 of this Annual Information Form contains definitions of certain terms used herein.

Classification of Mineral Reserves and Resources

In this Annual Information Form, the definitions of proven and probable mineral reserves and measured, indicated and inferred resources are those used by Canadian provincial securities regulatory authorities and conform to the definitions utilized by the Canadian Institute of Mining, Metallurgy and Petroleum ("CIM") in the CIM Standards on Mineral Resources and Reserves Definitions and Guidelines adopted on August 20, 2000.

In this Annual Information Form, the terms "measured" and "indicated resources" are used. The Company advises U.S. investors that while such terms are recognized and permitted under Canadian securities rules, the U.S. Securities and Exchange Commission does not recognize them. **U.S. investors are cautioned not to assume that any part or all of the mineral deposits in these categories will ever be converted into reserves.**

This Annual Information Form also uses the term "inferred resources". The Company advises U.S. investors that while such term is recognized and permitted under provincial Canadian securities rules, the U.S. Securities and Exchange Commission does not recognize it. "Inferred resources" have a great amount of uncertainty as to their existence, and great uncertainty as to their economic and legal feasibility. It cannot be assumed that all or any part of an inferred mineral resource will ever be upgraded to a higher category. Under Canadian securities rules, estimates of inferred mineral resources may not form the basis of feasibility or other economic studies. **U.S. investors are cautioned not to assume that any part or all of an inferred resource exists, or is economically or legally mineable.**

DISCLOSURE REGARDING FORWARD-LOOKING STATEMENTS

This Annual Information Form and the documents incorporated by reference herein contain certain forward-looking statements relating to Pan American and its operations. All statements, other than statements of historical fact, are forward-looking statements. When used in this Annual Information Form, the words "anticipate", "believe", "estimate", "expect", "target", "plan", "budget", "may", "schedule" and similar expressions, identify forward-looking statements. Forward-looking statements are necessarily based upon a number of assumptions and estimates that, while considered reasonable by Pan American, are inherently subject to significant uncertainties and contingencies. This Annual Information Form contains forward-looking statements relating to, among other things, the sufficiency of current working capital and anticipated operating cash flow, the sufficiency of mineral reserves and resources at Quiruvilca, Huaron, La Colorada, and Alamo Dorado as well as other properties, the estimated operating costs of Pan American's producing mines, the estimated cost of and availability of funding for ongoing capital improvement programs, the estimated costs of the expansion of the La Colorada and Huaron mine operations and the development of the La Colorada project and proposed development of the Alamo Dorado project, estimated exploration expenditures to be incurred on Pan American's various silver exploration properties and compliance with environmental standards. Management's Discussion and Analysis of Financial Conditions and Results of Operations ("MD&A"), which is set out on pages 6 to 19 in the Company's 2003 Annual Report is incorporated by reference within this Annual Information Form. The MD&A also contains forward-looking statements relating to, among other things, forecast capital and non-operating spending, levels of silver and other metals production, production costs and metal prices. Such statements reflect the current views of Pan American with respect to future events and are subject to known and unknown risks, uncertainties and assumptions. Many factors, both known and unknown, could cause the actual results, performance or achievements of Pan American to be materially different from the results, performance or achievements that are or may be expressed or implied by such forward-looking statements including, without limitation, the factors identified in this Annual Information Form under the headings "Trends and Uncertainties" and "Competitive Conditions". Other such factors include, whether or not referenced in this Annual Information Form, changes in general economic and business conditions and changes in business strategy. Should one or more of these factors or uncertainties materialize, or should underlying assumptions prove incorrect, actual results, performance or achievements may vary materially from those described herein as anticipated, believed, estimated or expected. Pan American does not intend, and does not assume any obligation, to update these forward-looking statements to reflect changes in assumptions or changes in circumstances or any other events affecting such statements.

CORPORATE STRUCTURE

Incorporation

The Company was incorporated under the *Company Act* (British Columbia) on March 7, 1979 under the name Pan American Energy Corporation. On September 10, 1984 the Company's memorandum was amended to change the Company's name to Pan American Minerals Corp. and on April 11, 1995 the Company's memorandum was again amended to change the Company's name to Pan American Silver Corp.

Since 1979 the memorandum and articles of the Company have been amended on several occasions to increase the share capital of the Company and to update the form of articles.

The Company's head office is situated at 1500 - 625 Howe Street, Vancouver, British Columbia, Canada, V6C 2T6 and its registered and records offices are situated at 1200 Waterfront Centre, 200 Burrard Street, Vancouver, British Columbia, Canada, V7X 1T2. The Company's web site can be found at www.panamericansilver.com. The information on that website is not incorporated by reference into this annual information form.

Subsidiaries

A significant portion of the Company's business is carried on through its various subsidiaries. The following table shows, as at December 31, 2003, the principal subsidiaries of the Company including their respective jurisdictions of incorporation and the Company's percentage ownership in each such subsidiary:

<u>Name</u>	<u>Jurisdiction</u>	<u>Ownership (%)</u>
Aurifera Tres Cruces S.A. ("Tres Cruces S.A.")	Peru	50
Pan American Silver S.A.C. Mina Quiruvilca ("Mina Quiruvilca")	Peru	100 (voting)/ 99.7 (non-voting) ¹
Cia. Minera Huaron S.A. ("Minera Huaron")	Peru	99.85 (voting)
Corner Bay Silver Inc. ("Corner Bay")	Canada	100
Minera Corner Bay S.A. de C.V. ("Minera Corner Bay")	Mexico	100
Pan American Minerals, Inc. ("Pan American U.S.")	Nevada	100
Pan American Silver (Barbados) Corp. ("Pan American Barbados")	Barbados	100
Pan American Silver (Bolivia) S.A. ("Pan American Bolivia")	Bolivia	100 ²
Pan American Silver (Cyprus) Corp. Limited. ("Pan American Cyprus")	Cyprus	100
Pan American Silver Peru S.A.C. ("Pan American Peru")	Peru	100
Plata Panamericana S.A. de C.V. ("Pan American Mexico")	Mexico	100
Compania Minera Altivale S.A. ("Altivale")	Argentina	50
Minera Triton Argentine S.A. ("Triton")	Argentina	50

Srebro Magadana ("Dukat")

Russia

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The Company indirectly owns 99.7% of the total outstanding equity of Mina Quiruvilca.

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Pan American has granted EMUSA, a Bolivian mining company, the right to earn a 49% interest in Pan American Bolivia, by financing \$2.5 million in project expenses on the San Vicente property in Bolivia, including a feasibility study.

GENERAL DEVELOPMENT OF THE BUSINESS

Business of Pan American

Pan American is principally engaged in the exploration for, and the acquisition, development and operation of silver properties.

Pan American: (1) owns and operates the producing Quiruvilca silver mine in Peru; (2) owns a 99.85% interest in, and operates, the producing Huaron silver mine in Peru; (3) owns and operates the producing La Colorada silver mine located in Mexico; (4) mines and sells silver-rich pyrite stockpiles at a small-scale operation in central Peru; and (5) owns a 20% non-operating interest in the producing Dukat silver mine located in Russia. Pan American also either holds an interest in or may earn an interest in non-producing silver resource and silver exploration properties in Peru, Argentina, the United States and Mexico, including the significant Alamo Dorado deposit in Mexico and 50% of the Manantial Espejo deposit in Argentina.

Pan American employs a multifaceted strategy to ensure growth in reserves and production. The first part of Pan American's strategy is to increase its silver production profile through the acquisition of silver mines, silver development projects or silver producing companies. The second part of its growth strategy is to focus on exploration in and around existing properties. Finally, Pan American is also seeking to acquire additional silver properties having

significant silver reserves or resources or significant exploration potential.

Developments over the Last Three Financial Years

During the last three financial years the Company has undertaken the following:

- In April 2001, Pan American commenced milling operations at the rehabilitated Huaron mine. The Huaron mine reached commercial production levels on May 1, 2001.
- In August 2001, Pan American sold 9,321 hectares of the Huaron property for consideration having a value equal to \$3,700,000 to Volcan Compania Minera S.A.A. ("Volcan"). Such consideration consisted of \$200,000 in cash, \$500,000 in shares of Volcan, the remaining 27.2% interest in Minera Huaron that Pan American did not already own and other consideration. The acquisition of these shares brought Pan American's direct and indirect ownership in Minera Huaron to 99.85%.
- In October 2001, Pan American retired the outstanding balance of the \$12,000,000 Standard Bank loan facility taken out to re-start the Huaron mine. The \$6,300,000 remaining balance was re-paid by a four-year, \$6,500,000 loan provided by Banco de Credito del Peru ("Banco de Credito"). The majority of the assets of Minera Huaron are pledged as security for this loan.
- On January 29, 2002, Pan American updated the feasibility study for production from the La Colorada mine. The updated study indicated that capital costs of \$20.0 million would expand the current operations to 800 tonnes of ore per day to yield approximately 3.8 million ounces of silver per year for a minimum 10-year mine life.
- On March 4, 2002, Pan American acquired a 50% interest in the Manantial Espejo silver and gold exploration property in Argentina. Pan American's acquisition cost was \$1,912,000 which consisted of cash in the amount of \$662,000 and 231,511 common shares of the Company valued at \$1,250,000. In addition, Pan American paid 50% of the \$200,000 cost to eliminate a 1.2% net smelter return royalty over the property.

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- On March 11, 2002 Pan American completed a sale of 3.45 million shares to a syndicate of underwriters for net proceeds of \$15,599,000.
 - On May 21, 2002 Pan American entered into an agreement to acquire all of the issued and outstanding shares of Corner Bay Silver Inc. ("Corner Bay") which owned the Alamo Dorado deposit in Sonora, Mexico.
 - On June 14, 2002 Pan American entered into a \$10,000,000 project debt facility with International Finance Corporation ("IFC"), the funds from which are to be used to expand the La Colorada mine. The Company took its first draw from the facility in March of 2003.
 - On November 8, 2002 Pan American acquired silver bearing stockpiles (the "Stockpiles") located in central Peru from Volcan for 636,942 common shares of the Company, \$500,000 in marketable securities owned by Pan American, and \$317,000 in cash.
 - In December 2002 Polymetall advised Pan American that they had commenced mine production at Dukat.
 - On February 20, 2003 the Company completed its acquisition of Corner Bay and in connection therewith the Company issued 7,636,659 shares and 3,818,329 warrants to former Corner Bay shareholders and granted options to purchase up to 553,847 common shares of the Company to former employees of Corner Bay.

- In July and August 2003 the Company issued \$86.25 million of 5.25% convertible, unsecured senior subordinated debentures (the "Debentures") due July 31, 2009. Each US\$1,000 principal amount of Debentures is convertible into 104.4932 common shares of the Company (subject to adjustment in certain events) at the option of the holder at any time prior to the earlier of the close of business on July 31, 2009 and the last business day immediately preceding any date fixed for redemption, representing a conversion price of US\$9.57. On or after July 31, 2006, the Debentures may be redeemed in whole or in part by the Company, at its option on not more than 60 and not less than 30 days prior notice, at a price equal to par, plus accrued and unpaid interest, provided that the weighted average trading price of the common shares of the Company equals at least 125% of the conversion price. On redemption or upon maturity, the Company may, at its option, elect to satisfy its obligation to repay the principal amount of the Debentures by issuing and delivering freely tradable common shares of the Company. In addition, the interest payable on the Debentures may, at the Company's election, be payable by the application of the proceeds of the sale of the Company's common shares.
- On January 1, 2004 commercial production commenced at La Colorada.
- On January 1, 2004 Pan American assumed the operator role in respect of the Manantial Espejo development project in Argentina.
- On January 20, 2004 Pan American reached an agreement to purchase for approximately \$35 million 92.014% of the voting shares of Compania Minera Argentum S.A. ("Argentum"). Argentum will acquire, through a corporate restructuring undertaken pursuant to Peruvian company law, the Anticona and Manuelita mining units and related infrastructure and processing assets of Sociedad Minera

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Corona S.A. located in Central Peru. On February 24, 2004, Pan American entered into a further agreement to purchase all of the issued and outstanding shares of a corporation organized under Peruvian company law which holds mining concessions and operations that are complimentary to the Anticona and Manuelita mining units (collectively these concessions and mining operations and the Anticona and Manuelita mining units are referred to as the "Morococha property") for \$1.5 million in cash. These acquisitions are subject to regulatory approval and a number of conditions and are expected to close in June 2004.

- On February 27, 2004 the Company issued 3,333,333 common shares at a price of \$16.50 per share for proceeds of \$55 million.
- On March 30, 2004 the Company made a formal offer (the "Conversion Offer") to encourage conversion by holders of the Company's \$86.25 million outstanding principal amount of Debentures. Pursuant to the Conversion Offer, which is open from April 7, 2004 to May 21, 2004 (the "Conversion Period"), each holder who converts all or a portion of his or her Debentures during the Conversion Period will receive \$131.25 in cash plus 106.9290 common shares of the Company per \$1,000 principal amount of Debentures converted. To date, holders of approximately \$73 million principal amount of Debentures have converted their Debentures pursuant to the terms of the Conversion Offer.
- On April 28, 2004 Pan American repaid the \$3.5 million remaining balance on its loan from Banco de Credito relating to the initial development of the Huaron mine and notified IFC of its intention to prepay the \$9.5 million outstanding balance under its project debt facility used to expand the La Colorada mine.

Corporate Strategy

Pan American's corporate strategy is to become one of the world's leading primary silver mining companies. The key elements of Pan American's strategy are to:

- **Increase silver production** - Until 2001, Pan American's only source of silver production was its Quiruvilca mine. During 2001, Pan American commenced production at its Huaron and La Colorada mines and in 2002 acquired the right to mine and sell the Stockpiles. For the year ended December 31, 2001, silver production was approximately 6.9 million ounces compared to approximately 3.6 million ounces of silver in 2000. For the year ended December 31, 2002 Pan American increased its silver production to 7.8 million ounces. Pan American's silver production increased further during the year ended December 31, 2003 to 8.6 million ounces, an increase of 11% compared to 2002.
- **Acquire additional non-producing silver resources** - One of Pan American's objectives is to hold one of North America's largest inventories of non-producing silver resources as leverage to higher silver prices. Pan American holds or has control over non-producing silver resources at its Manantial Espejo property in Argentina, its Hog Heaven and Waterloo properties in the United States and its San Vicente property in Bolivia. Pan American actively seeks opportunities to increase its silver resource base by acquiring formerly producing silver mines with silver resources that could be re-opened should silver prices increase sufficiently to justify such a re-opening.
- **Acquire additional silver exploration properties** - One of Pan American's objectives is to acquire a portfolio of silver exploration properties. As at December 31, 2003, Pan American retains an option to acquire the San Vicente property in Bolivia. Pan American also owns a 50% interest in the Manantial Espejo exploration property in Argentina and has 100% interest in the Alamo Dorado development Project in Mexico. In addition, Minera Huaron holds approximately 41,280 hectares of exploration

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property in Peru. Finally, in the first quarter of 2004, Pan American entered into an agreement to acquire the Morococha property, which has significant exploration potential. Pan American is actively seeking to acquire additional silver exploration properties with bulk mineable targets that have the possibility of possessing over 50,000,000 ounces of silver mineralization to supplement its existing base of silver exploration properties.

Pan American's current activities are primarily focussed on Peru, Mexico, Bolivia and Argentina, with a secondary focus on the United States and the Americas generally.

Outlook for 2004

In 2004, Pan American will continue to take steps towards its stated corporate strategy of becoming one of the world's leading primary silver mining companies. In 2004, Pan American expects to maintain close to the current level of production at the Quiruvilca and Huaron mines, increase production at the La Colorada mine as its new oxide plant reaches designed capacity, add incremental production from the anticipated Morococha acquisition and continue to produce silver from its pyrite Stockpiles in Peru. The combined operations of these mines, assuming the Morococha

property acquisition closes by June 30, 2004, are expected to increase Pan American's silver production to approximately 11.6 million ounces in 2004. Pan American will also advance feasibility studies at the Manantial Espejo and San Vicente projects, complete a mill optimization study at the Alamo Dorado Project and investigate the technical and economic merits of an expansion at Huaron.

Pan American will continue to investigate, evaluate and where appropriate, acquire additional silver production, exploration and development properties.

NARRATIVE DESCRIPTION OF THE BUSINESS

Operations

Pan American's principal products and sources of revenue are silver rich zinc, lead and copper concentrates. In 2003, the Quiruvilca, Huaron, and La Colorada mines and the Stockpiles accounted for all of Pan American's production of concentrates. Information related to Pan American's segment revenues is set forth in Note 15 to the Consolidated Financial Statements and is referred to in the Company's MD&A.

Consolidated production for the year ended December 31, 2003 was as follows:

	<u>Quiruvilca</u>	<u>Huaron¹</u>	<u>La Colorada</u>	<u>Consolidated</u>
Tonnes milled	442,093	605,790	99,115	1,146,998
Grade				
Grams/tonne silver	201	251	435	248
% Zinc	3.30	3.75	1.96	3.38
% Lead	1.18	2.64	1.02	1.94
% Copper	0.6	0.38	-	0.43
Production				
Ounces silver	2,493,908	5,155,864	992,142	8,641,914
Tonnes zinc	12,509	18,855	433	31,797
Tonnes lead	4,361	14,246	383	18,990
Tonnes copper	1,811	1,332	-	3,143

1

includes 790,803 ounces of silver produced from the Stockpiles.

Operating Mines

Quiruvilca Mine

Ownership and Property Description

The Quiruvilca mine is owned by Pan American Peru and operated by Mina Quiruvilca, each a wholly-owned indirect subsidiary of the Company.

The Quiruvilca mine is an underground mine. The Quiruvilca mineral property consists of 158 mining concessions covering 8,581 hectares. Mina Quiruvilca also owns six mining concessions covering 3,472 hectares and holds surface and water rights in the area covering the mill and related workings. On March 25, 2004, Pan American sold mining concessions and surface rights in the vicinity of Quiruvilca mine to Barrick Gold Corporation for \$3,582,575 and for the assumption of \$67,425 of payments owing in respect of these mining concessions.

Location, Access, Climate and Infrastructure

The Quiruvilca mine is located in the District of Quiruvilca, Province of Santiago de Chuco, Department of La Libertad in northwestern Peru. The Quiruvilca mine is 76 kilometres east of the coastal city of Trujillo. The mine is centred at approximately 8° 00' 57" South Latitude and 78° 20' 33" West Longitude. The Quiruvilca mine lies in the Andean mountain range above the tree line. Elevations in the immediate area of the mine range from 3,450 metres to 4,075 metres above sea level.

Access to the Quiruvilca mine is by a 137 kilometre all weather road east from the city of Trujillo. The first 65 kilometres of the road are paved and the remaining 72 kilometres consist of a dirt road. The last major upgrade to the road was in 2003. Trujillo is connected to Lima by a paved all-weather highway.

The relief at the mine site is hilly and uneven with local slopes of more than sixty degrees, typical of the Peruvian Andes. Natural vegetation is mainly grasses, forming meadows. These meadows have permitted development of varied livestock operations.

The climate at the mine site is classified as "cold climate" or "boreal". Average minimum and maximum temperatures in the region range from 5.7 to 14.8 degrees Celsius. One of the characteristics of this climate is wet summers (highest rainfall occurs from January to April) and dry winters. The Quiruvilca mine operates throughout the entire year.

The primary source of power for the Quiruvilca mine is the Peruvian national power grid via a 65 kilometre 138kV line from the city of Trujillo to the Motil substation. A 20 kilometre 33kV line connects the mine site to the Motil substation. Pan American owns and operates a diesel generating system, which provides a back up source of power for the Quiruvilca mine.

Pan American is permitted to pump water from the Los Angeles Lake, to the east of the Andean divide to two dams east of the town of Quiruvilca as well as to other local rivers and streams in the area. Process water is drawn from these dams.

Peru's economy is dependent on mining and there is a sufficient local source of mining personnel and related infrastructure.

Royalties and Encumbrances

The Quiruvilca property is not subject to any royalties or encumbrances.

Quiruvilca has undetermined environmental liabilities and in connection therewith the Company has taken a charge against operations of approximately \$12.5 million.

Taxation

The principal taxes of Peru affecting Pan American include income tax, employee profit sharing taxes, annual fees for holding mineral properties, various payroll and social security taxes and a refundable value added tax. The overall tax burden in Peru is less than the Canadian tax burden.

History

Mineralization was first reported in the area of the Quiruvilca mine in 1789. Small-scale silver mining in the area was carried on from the 1870's until 1924. Between 1924 and 1925, Northern Peru Mining and Smelting Co. ("NPMS"), the predecessor to Mina Quiruvilca, which was formed by ASARCO, acquired certain mining concessions in the area and began mining operations. The operation was shut down in 1931. The Quiruvilca mine was re-opened in 1940 and has been in operation since that time. Since 1940 NPMS claimed additional mineral concessions in the area and purchased several adjacent mining concessions as well as surface and water rights in the area.

Initially, mining by NPMS focused on the copper bearing veins in the Enargite Zone (as defined below) but gradually focus was shifted to veins in the Zinc-Lead Zone (as defined below). In March 1967, the mill started to treat complex ores producing copper, lead and zinc concentrates.

Geology and Mineralization

The Quiruvilca mine is situated within the eastern edge of a major sequence of volcanic rocks, interpreted as part of the Calipuy Volcanic complex of the Mid-Miocene. This volcanic formation, with a thickness of about 2,000 metres, consists of andesite flows and flow breccias inter-layered with thin basalt flows and occasional tuffaceous lacustrine sediments.

The mineralization at Quiruvilca is contained in a series of narrow veins filling the fractures and faults. Over 130 veins have been identified in the mine area. At least three-quarters have been mined at some point in time. Although narrow, the veins at Quiruvilca tend to have an extensive lateral and vertical continuity with abundant splits, cymoid loops, pinch and swell structures. In some places, the veins show some thick ore shoots connected to thinner diagonal sub-economic to non-economic zones. The width varies up to two metres in the central zone to stringers in the

Zinc-Lead Zone (as defined below). The average width of veins currently being mined is 0.56 metres. The average dip of the veins is 70°, but range from vertical to 40°.

The mineralization exhibits strong metal zoning. The central copper zone, some 700 metres by 2,800 metres in area, consists of predominately enargite-pyrite, with lesser chalcopyrite, tennantite, tetrahedrite, sphalerite and galena (the "Enargite Zone"). The Enargite Zone is surrounded by a relatively narrow transition zone of tennantite, tetrahedrite, sphalerite and galena (the "Transition Zone"). The Transition Zone is in turn surrounded by a zinc-lead zone of predominately sphalerite and galena, which extends some 500 metres beyond the Transition Zone (the "Zinc-Lead Zone"). In recent years some 70% of the Quiruvilca mine's production has come from the Zinc-Lead Zone. An outer zone consists of stibnite, arsenopyrite and pyrite.

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Drilling, Sampling and Analysis

Exploration at the Quiruvilca property is conducted using a combination of diamond drilling and underground drifting. Three diamond drills are in continuous operation at the property, drilling BQ (36.4 mm diameter) sized holes between 50 and 350 meters in length. This is generally followed by underground by pass and cross-cutting at a 70 meter spacing. During 2003, 7,189.50 meters of drilling was done, along with 6,250 meters of drifting for reserve delineation and access.

Diamond drill core is split in half, with one half sent for assaying and one half retained in a secure on-site facility. The veins in the cross-cuts are channel sampled, and a two to three kilogram sample is sent for analysis.

Assaying is done at Quiruvilca's laboratory. The laboratory conducts a routine internal quality assurance/quality control program that includes external check samples and the routine submission of standards.

All sampling, whether diamond drilling or cross-cutting, is done under the direct supervision of the Quiruvilca mine geology department.

Mineral Reserves

Pan American's management estimates that proven and probable mineral reserves at the Quiruvilca mine as at December 31, 2003 are 631,000 tonnes with an average grade of 201 grams/tonne silver and 5.0% Zn, details of which are set out in the following table:

Quiruvilca Mineral Reserves ^{1,2,3}

<u>Reserve Category</u>	<u>Tonnes</u>	<u>Grams of Silver per Tonne</u>	<u>% Zinc</u>	<u>% Lead</u>	<u>% Copper</u>
Proven	407,000	209	4.86	1.70	0.44
Probable	224,000	186	5.26	1.60	0.46
TOTAL	631,000	201	5.00	1.66	0.45

1

Calculated using a price of \$5.00 per ounce of silver and \$900 per tonne of zinc.

2

Estimates of mineral reserves are calculated on the basis of blocks exposed by underground workings on one or more sides and having an in-place diluted value equal to or above the cutoff grade (\$25/tonne). Proven and probable mineral reserves are extrapolated between 15 and 30 metres down dip depending on vein continuity.

3

Mineral reserves were estimated by the engineering and geology staff of the Company's wholly-owned subsidiary, Mina Quiruvilca, under the supervision of an independent "qualified person", Donald F. Earnest, P.Geo. Mr. Earnest has reviewed and tested the information developed by the Company's operating subsidiary and, based upon those tests and reviews, Pan American is satisfied with the accuracy of the reserve calculations.

Management of the Company believes that reserves at the Quiruvilca Mine are sufficient for at least 18 months at current production rates. Management further believes that additional mineral resources will be converted to proven and probable reserves and mining will continue well beyond the 18 month period.

Reconciliation of Mineral Reserves

Mineral reserves are adjusted annually by the amount mined, by additions and deletions resulting from new geological information and interpretation and in connection with changes in operating parameters and metal prices. However, proven and probable mineral reserves are not usually revised in response to short-term cyclical price

variations of metal markets. The following is a reconciliation of the proven and probable mineral reserves at Quiruvilca to December 31, 2003:

Reconciliation of Mineral Reserves at Quiruvilca

	<u>Tonnes</u>
Opening balance, December 31, 2002	2,109,100 1
Additions	585,600 2
Losses	1,579,100 3
Tonnes mined from reserves	285,200
Low grade removed from reserves	<u>199,400</u>
Closing balance, December 31, 2003	<u>631,000</u>

1

December 31, 2002 reserves were calculated using a price of \$4.75 per ounce of silver and \$900 per tonne of zinc.

2

Additions are from tonnes added through exploration reinterpretation, mostly due to higher metal prices.

3

Losses during 2003 consisted of 1,248,121 tonnes of material that was moved to the resource category due to declining metal prices, 122,897 tonnes of material moved to the resource category due to the north zone shut down, and 314,925 tonnes of material that was moved to the resource category due to reinterpretation.

Mineral Resources

Pan American's management estimates that mineral resources at the Quiruvilca mine as at December 31, 2003 are as follows:

Quiruvilca Mineral Resources^{1,2}

<u>Resource Category</u>	<u>Tonnes</u>	Grams of Silver <u>per Tonne</u>	<u>% Zinc</u>	<u>% Lead</u>	<u>% Copper</u>
Measured	3,124,000	156	3.88	1.49	1.63
Indicated	900,000	179	4.72	1.77	1.11
Inferred	1,881,000	168	5.11	1.77	0.47

1

These resources are in addition to Quiruvilca mineral reserves.

Mineral resources were estimated by the engineering and geology staff of the Company's wholly-owned subsidiary, Mina Quiruvilca, under the supervision of an independent "qualified person" Donald F. Earnest, P.Geo. Mr. Earnest has reviewed and tested the information developed by the Company's operating subsidiary and based upon those reviews and tests, Pan American is satisfied with the accuracy of the resource calculations.

Mining

The Quiruvilca mine extends over an area that is four kilometres east/west by three kilometres north/south and from an elevation of 4,050 metres at the top of the mountain down to the 340 level (elevation 3,528 metres). Access to the mine is from four adits driven into the side of the mountain at elevations ranging from 3,648 metres to 3,870 metres.

Battery locomotives are used to haul ore and waste from the stopes and development headings to ore and waste passes. Ore from the upper levels of the mine is delivered to ore passes, which transfer it to the 220 level main haulage level. Trolley locomotives with 120 cubic foot mine cars are used to transport ore from the ore passes on the 220 level to coarse ore bins at the Crushing plant.

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Of the 61 veins presently being mined, 14 contributed approximately 70% of the production during calendar 2003. These 14 veins average 0.56 metres in width.

There are presently 61 active stopes in the mine using the cut and fill mining method, with approximately one-third in the drilling and blasting phase, one-third in the mucking phase and one-third in the filling phase at any given time. Two stoping methods are presently in use at the Quiruvilca mine. In stopes where the vein's mineable width is less than 1.0 metre, and where hydraulic backfill is not available, resuing is employed. In stopes where the vein's mineable width is more than 1.0 metre, the hydraulic backfill is employed.

Tailings from the mill are directed to the sand-fill plant located near the Santa Catalina tailings pond. The fines are removed with cyclones, and the coarse is directed to the storage tanks in the sand-fill plant. The sand-fill is pumped 2,700 metres to the Luz Angelica distribution plant, or a further 1,600 metres to the Central distribution plant through a 76 millimetre HDPE line. The distribution plants are equipped with 170 cubic metre storage tanks. When backfill is required underground, the fill is re-slurried and pumped underground. The monthly hydraulic backfill volume employed at the mine is 5200 m².

Milling

The mill flowsheet consists of three-stage-crushing, ball mill grinding and selective flotation of the ore to produce copper, lead and zinc concentrates, followed by thickening and filtering of the concentrates.

Present daily treatment capacity is 1,350 tonnes, with an operative mill working six days a week. Starting September 1st and according to the closure of the North zone, the daily treatment tonnage was reduced to the above-mentioned level from the prior 2,000 tonnes daily.