

BARRICK GOLD CORP  
Form 40-F  
May 16, 2003

**SECURITIES AND EXCHANGE COMMISSION**

**Washington, D.C. 20549**

**FORM 40-F**

- Registration statement pursuant to Section 12 of the Securities Exchange Act of 1934
- or
- Annual report pursuant to Section 13(a) or 15(d) of the Securities Exchange Act of 1934

**For Fiscal year ended: December 31, 2002**

**Commission File number: No. 1-9059**

**BARRICK GOLD CORPORATION**

(Exact name of registrant as specified in its charter)

**Ontario**  
(Province or other jurisdiction  
of incorporation or  
organization)

**1041**  
(Primary standard industrial  
classification code number, if  
applicable)

**Not Applicable**  
(I.R.S. employer  
identification number, if  
applicable)

**BCE Place  
TD Canada Trust Tower  
Suite 3700  
161 Bay Street, P.O. Box  
212  
M5J 2S1 Canada  
(800) 720-7415**

(Address and telephone number of registrant's principal executive office)

**Barrick Goldstrike Mines Inc.  
P.O. Box 29, Elko, Nevada 89803  
(702) 738-8043**

(Name, address and telephone number of agent for service in the United States)

Securities registered pursuant to Section 12(b) of the Act:

Title of each class  
**Common Shares**

Name of each exchange on which registered:  
**New York Stock Exchange**

Securities registered or to be registered pursuant to Section 12(g) of the Act: **None**  
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

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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 the annual report:

**Common Shares 541,398,522**

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 file number assigned to the registrant in connection with such rule.

Yes

No

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13(d) 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 in the past 90 days.

Yes

No

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**BARRICK GOLD CORPORATION**

**BCE Place  
Canada Trust Tower, Suite 3700  
P.O. Box 212  
Toronto, Ontario  
M5J 2S1**

**ANNUAL INFORMATION FORM**

**For the year ended December 31, 2002**

**Dated as of May 14, 2003**

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**BARRICK GOLD CORPORATION  
ANNUAL INFORMATION FORM**

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## **GLOSSARY OF TERMS**

### **Assay**

The chemical test of rock samples to determine the mineral content.

### **Autoclave system**

Oxidation process in which high temperatures and pressures are applied to convert refractory sulphide mineralization into amenable oxide ore.

### **Ball mill**

A large steel cylinder containing steel balls into which crushed ore is fed. The ball mill is rotated, causing the balls to cascade and grind the ore.

### **Bench**

Successive steps/horizontal increments mined as an open pit progresses deeper.

### **By-product**

A secondary metal or mineral product recovered in the milling process such as copper and silver.

### **Carbonaceous**

Containing carbon or coal, especially shale or other rock containing small particles of carbon distributed throughout the whole mass.

### **Carbon-in-leach (C-I-L)**

A process step wherein granular activated carbon particles much larger than the ground ore particles are introduced into the ore pulp. Cyanide leaching and precious metals adsorption onto the activated carbon occurs simultaneously. The loaded activated carbon is mechanically screened to separate it from the barren pulp, processed to remove the precious metals and finally prepared for reuse.

### **Carbon-in-pulp (C-I-P)**

A precious metals leaching technique in which granular activated carbon particles much larger than the ground ore particles are added to the cyanidation pulp after the precious metals have been solubilized. The activated carbon and pulp are agitated together to enable the solubilized precious metals to become adsorbed onto the activated carbon. The loaded activated carbon is mechanically screened to separate it from the barren pulp, processed to remove the precious metals and finally prepared for reuse.

### **Concentrate**

A very fine, powder-like product containing the valuable ore mineral from which most of the waste mineral has been eliminated.

### **Contained ounces**

Represents ounces in the ground before reduction of ounces not able to be recovered by the applicable metallurgical process.

### **Contango**

The positive difference between the spot market gold price and the forward market gold price. It is often expressed as an interest rate quoted with reference to the difference between inter-bank deposit rates and gold lease rates.

### **Crushing and grinding**

The process by which ore is broken into small pieces to prepare it for further processing.



**Cyanidation**

A method of extracting gold or silver by dissolving it in a weak solution of sodium cyanide.

**Deferred stripping costs**

Mining costs associated with waste rock removal that are deferred and amortized to operating costs over the life of an open pit mine.

**Development**

Work carried out for the purpose of opening up a mineral deposit. In an underground mine this includes shaft sinking, crosscutting, drifting and raising. In an open pit mine, development includes the removal of overburden.

**Dilution**

The effect of waste or low-grade ore which is unavoidably included in the mined ore, lowering the recovered grade.

**Doré**

Unrefined gold and silver bullion bars usually consisting of approximately 90 percent precious metals that will be further refined to almost pure metal.

**Drift**

A horizontal tunnel generally driven alongside an ore deposit, from a shaft, to gain access to the deposit.

**Drilling**

*Core:* drilling with a hollow bit with a diamond cutting rim to produce a cylindrical core that is used for geological study and assays. Used in mineral exploration.

*Reverse circulation:* drilling that produces rock chips rather than core. The chips are forced by air to surface through a double-walled drill pipe and are collected for examination.

*Conventional rotary:* drilling that produces rock chips similar to reverse circulation except that the sample is collected through a single-walled drill pipe.

*In-fill:* any method of drilling intervals between existing holes, used to provide greater geological detail and to help establish reserve estimates.

*Geotechnical:* diamond drilling targeted and utilized specifically for the collection of information used for mine engineering purposes.

**Exploration**

Prospecting, sampling, mapping, diamond-drilling and other work involved in searching for ore.

**Flotation**

A process by which some mineral particles are induced to become attached to bubbles and float, and other particles to sink, so that the valuable minerals are concentrated and separated from the uneconomic or valueless gangue or waste.

**Grade**

The amount of mineral in each ton of ore, expressed as troy ounces per ton or grams per tonne for precious metals and as a percentage for most other metals.

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*Cut-off grade:* the minimum metal grade at which an orebody can be economically mined (used in the calculation of ore reserves).

*Mill-head grade:* metal content of mined ore going into a mill for processing.

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*Recovered grade:* actual metal content of ore determined after processing.

*Reserve grade:* estimated metal content of an orebody, based on reserve calculations.

**Heap leaching**

A process whereby gold is extracted by heaping broken ore on sloping impermeable pads and continually applying to the heaps a weak cyanide solution which dissolves the contained gold. The gold-laden solution is then collected for gold recovery.

**Layback**

The amount of material which must be mined for the slope of a pit wall to be at a safe angle.

**LIBOR**

The London Inter-Bank Offered Rate for deposits.

**Lode**

A mineral deposit, consisting of a zone of veins, veinlets or disseminations, in consolidated rock as opposed to a placer deposit.

**Long-hole open stoping**

A method of mining involving the drilling of holes up to 30 meters or longer into an ore bearing zone and then blasting a slice of rock which falls into an open space. The broken rock is extracted and the resulting open chamber is not immediately filled with supporting material.

**Metric conversion**

Troy ounces	×	31.10348	=	Grams
Troy ounces per short ton	×	34.28600	=	Grams per tonne
Tons	×	0.90718	=	Tonnes
Feet	×	0.30480	=	Meters
Miles	×	1.60930	=	Kilometers
Acres	×	0.40468	=	Hectares
Fahrenheit		$(^{\circ}\text{F}-32) \times 5 \div 9$	=	Celsius

**Mill**

A processing facility where ore is finely ground and thereafter undergoes physical or chemical treatment to extract the valuable metals.

**Mineral reserve**

See Narrative Description of the Business Gold Mineral Reserves and Mineral Resources.

**Mineral resource**

See Narrative Description of the Business Gold Mineral Reserves and Mineral Resources.

**Mining claim**

That portion of applicable mineral lands that a party has staked or marked out in accordance with applicable mining laws to acquire the right to explore for and exploit the minerals under the surface.

**Net profits interest royalty**

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A royalty based on the profit remaining after recapture of certain operating, capital and other costs.

### **Net smelter return royalty**

A royalty based on a percentage of valuable minerals produced with settlement made either in kind or in currency based on the spot sale proceeds received less all of the offsite smelting, refining and transportation costs associated with the purification of the economic metals.

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**Open pit**

A mine where the minerals are mined entirely from the surface.

**Ore**

Rock, generally containing metallic or non-metallic minerals, which can be mined and processed at a profit.

**Orebody**

A sufficiently large amount of ore that can be mined economically.

**Ounces**

Troy ounces of a fineness of 999.9 parts per 1,000 parts.

**Oxide ore**

Mineralized rock in which some of the original minerals have been oxidized. Oxidation tends to make the ore more amenable to cyanide solutions so that minute particles of gold in the interior of the minerals will be readily dissolved.

**Qualified Person**

See Scientific and Technical Information .

**Ramp**

An inclined underground tunnel that provides access to and throughout an orebody for exploration, ventilation or exploitation purposes in an underground mine.

**Reclamation**

The process by which lands disturbed as a result of mining activity are reclaimed back to a beneficial land use. Reclamation activity includes the removal of buildings, equipment, machinery and other physical remnants of mining, closure of tailings impoundment, leach pads and other mine features, and contouring, covering and re-vegetation of waste rock piles and other disturbed areas.

**Reclamation and Closure Costs**

The cost of reclamation plus other costs, including without limitation certain personnel costs, insurance, property holding costs such as taxes, rental and claim fees, and community programs associated with closing an operating mine.

**Recovery rate**

A term used in process metallurgy to indicate the proportion of valuable material physically recovered in the processing of ore. It is generally stated as a percentage of the material recovered compared to the total material originally present.

**Reef**

A South African term for a continuous mineral deposit, especially gold bearing quartz.

**Refining**

The final stage of metal production in which impurities are removed from the molten metal.

**Refractory material**

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Gold mineralized material in which the gold is not amenable to recovery by conventional cyanide methods without any pre-treatment. The refractory nature can be either silica or sulphide encapsulation of the gold or the presence of naturally occurring carbons which reduce gold recovery.

### **Roasting**

The treatment of ore by heat and air, or oxygen enriched air, in order to remove sulphur, carbon, antimony or arsenic.

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**Semi-autogenous grinding (SAG)**

A method of grinding rock into fine sand, in which the grinding media consist of larger chunks of rock and steel balls.

**Shaft**

A vertical passageway to an underground mine for moving personnel, equipment, supplies and material including ore and waste rock.

**Spot deferred contract**

See Narrative Description of the Business Premium Gold Sales Program .

**Stope**

An area in an underground mine where ore is mined.

**Strike length**

The longest horizontal dimension of an orebody or zone of mineralization.

**Tailings**

The remnants or waste material that remains after all metals have been economically removed from the ore during processing.

**Tailings dam**

A natural or man-made confined area suitable for depositing the material that remains after the treatment of ore.

**Tons**

Short tons (2,000 pounds).

**Total cash costs**

Total cash costs include site costs for all mining (excluding deferred stripping costs), processing and administration, royalties and production taxes, but are exclusive of amortization, reclamation, financing costs, capital costs and exploration costs.

## REPORTING CURRENCY AND FINANCIAL INFORMATION

All currency amounts in this Annual Information Form are expressed in United States dollars, unless otherwise indicated. References to C\$ are to Canadian dollars. References to A\$ are to Australian dollars. For Canadian dollars to U.S. dollars, the average exchange rate for 2002 and the exchange rate at December 31, 2002 were one Canadian dollar per 0.6368 and 0.6331 U.S. dollars, respectively. For Australian dollars to U.S. dollars, the average exchange rate for 2002 and the exchange rate at December 31, 2002 were one Australian dollar per 0.5440 and 0.5662 U.S. dollars, respectively.

Total cash and production costs in this Annual Information Form are calculated in accordance with The Gold Institute Production Cost Standard and are net of by-product credits.

Barrick prepares its primary financial statements in accordance with the United States generally accepted accounting principles ( US GAAP ). Accordingly, unless otherwise indicated, financial information in this Annual Information Form is presented in accordance with US GAAP. Canadian law requires that Barrick also prepare financial statements in accordance with Canadian generally accepted accounting principles ( Canadian GAAP ). The Consolidated Financial Statements of the Company, for the year ended December 31, 2002 were prepared in accordance with US GAAP and those prepared in accordance with Canadian GAAP are incorporated by reference in this Annual Information Form.

## DISCLOSURE REGARDING FORWARD-LOOKING INFORMATION

Certain information contained or incorporated by reference in this Annual Information Form, including the information set forth as to the future financial or operating performance of the Company, constitutes forward-looking statements . All statements, other than statements of historical fact, are forward-looking statements. The words believe , expect , anticipate , contemplate , target , plan , intends , continue , estimate , may , will , schedule and similar expressions identify forward-looking statements. Forward-looking statements are necessarily based upon a number of estimates and assumptions that, while considered reasonable by the Company, are inherently subject to significant business, economic and competitive uncertainties and contingencies. Known and unknown factors could cause actual results to differ materially from those projected in the forward-looking statements. Such factors include, but are not limited to: fluctuations in the currency market; fluctuations in the spot and forward price of gold or certain other commodities (such as silver, copper, diesel fuel and electricity) and currencies (such as the Canadian and Australian dollars versus the US dollar); changes in US dollar interest rates or gold lease rates that could impact the mark to market value of outstanding derivative instruments and ongoing payments/receipts under interest rate swaps and variable rate debt obligations; risks arising from holding derivative instruments (such as credit-risk, market liquidity risk and mark to market risk); changes in national and local government legislation, taxation, controls, regulations and political or economic developments in Canada, the United States, Australia, Chile, Peru, Argentina, Tanzania or Barbados or other countries in which the Company may carry on business in the future; business opportunities that may be presented to, or pursued by, the Company; ability to successfully integrate acquisitions; operating or technical difficulties in connection with mining or development activities; the speculative nature of gold exploration and development, including the risks of diminishing quantities or grades of reserves; adverse changes in the Company s credit rating; and contests over title to properties, particularly title to undeveloped properties. In addition, there are risks and hazards associated with the business of gold exploration, development and mining, including environmental hazards, industrial accidents, unusual or unexpected formations, pressures, cave-ins, flooding and gold bullion losses (and the risk of inadequate insurance, or inability to obtain insurance, to cover these risks). Many of these uncertainties and contingencies can affect the Company s actual results and could cause its actual results to differ materially from those expressed or implied in any forward-looking statements made by, or on behalf of, the Company. Readers are cautioned that forward-looking statements are not guarantees of future performance. All of the forward-looking statements made in this Annual Information Form are qualified by these cautionary statements. Specific reference is made to Narrative Description of the Business Gold Mineral Reserves and Mineral Resources and Risk Factors and to the Management s Discussion and Analysis of Financial and Operating Results for the year ended December 31, 2002 (US GAAP) and Management s Discussion and Analysis of Financial and Operating Results for the year ended December 31, 2002



(Canadian GAAP) incorporated by reference herein for a discussion of some of the factors underlying forward-looking statements.

The Company may, from time to time, make oral forward-looking statements. The Company strongly advises that the above paragraph and the risk factors described in this Annual Information Form and in the Company's other documents filed with the Canadian securities commissions and the United States Securities and Exchange Commission should be read for a description of certain factors that could cause the actual results of the Company to materially differ from those in the oral forward-looking statements. The Company disclaims any intention or obligation to update or revise any oral or written forward-looking statements whether as a result of new information, future events or otherwise.

## SCIENTIFIC AND TECHNICAL INFORMATION

Scientific or technical information in this Annual Information Form relating to mineral reserves or mineral resources, or describing the geology of particular properties, is based on information prepared under the supervision of, or has been reviewed by, Alan R. Hill, P. Eng., Executive Vice President, Development of Barrick, and/or Alexander J. Davidson, P. Geo., Senior Vice President, Exploration of Barrick.

Unless otherwise noted, exploration programs described in this Annual Information Form are designed and carried out under the supervision of Alexander J. Davidson, P. Geo., Senior Vice President, Exploration of Barrick.

Each of Messrs. Hill and Davidson is a **Qualified Person** as defined in National Instrument 43-101. A **Qualified Person** means an individual who is an engineer or geoscientist with at least five years of experience in mineral exploration, mine development or operation or mineral project assessment, or any combination of these, has experience relevant to the subject matter of the mineral project, and is a member in good standing of a professional association.

## GENERAL INFORMATION

### Incorporation

Barrick Gold Corporation ( **Barrick** or the **Company** ) is a corporation governed by the *Business Corporations Act* (Ontario) resulting from the amalgamation, effective July 14, 1984 under the laws of the Province of Ontario, of Camflo Mines Limited, Bob-Clare Investments Limited and the former Barrick Resources Corporation. By articles of amendment effective December 9, 1985, the Company changed its name to American Barrick Resources Corporation. Effective January 1, 1995, as a result of an amalgamation with a wholly-owned subsidiary, the Company changed its name from American Barrick Resources Corporation to Barrick Gold Corporation. On December 7, 2001, in connection with its acquisition of Homestake Mining Corporation ( **Homestake** ), the Company amended its articles to create a special voting share, which has special voting rights designed to permit holders of Homestake Canada Inc. ( **HCI** ) exchangeable shares to vote as a single class with the holders of Barrick common shares. For a description of Barrick's acquisition of Homestake, see **General Information - General Development of the Business** .

### Market for Securities

Barrick's common shares are listed on the New York Stock Exchange, the Toronto Stock Exchange, the London Stock Exchange, the Swiss Exchange and the Paris Bourse.

### Subsidiaries

A significant portion of Barrick's business is carried on through subsidiaries. A chart showing the names of the significant subsidiaries of Barrick as at December 31, 2002 and their respective jurisdictions of incorporation is set

out at the end of this General Information section. All subsidiaries referred to in the chart are 100% owned unless otherwise noted. Unless otherwise indicated or the context otherwise requires, references to Barrick or the Company in this Annual Information Form include Barrick and, where appropriate, its predecessor corporations and its subsidiaries.

### Areas of Interest

For a map showing Barrick's principal mining operations and projects, see the end of this General Information section.

### General Development of the Business

Barrick entered the gold mining business in 1983 and is now one of the largest gold mining companies in the world in terms of production and reserves. The Company has operating mines or development projects in Canada, the United States, Australia, Peru, Chile, Argentina and Tanzania. At December 31, 2002, proven and probable mineral reserves for Canadian reporting purposes stood at 86.9 million ounces of gold and mineral resources stood at 25.4 million ounces of measured and indicated gold and 16.2 million ounces of inferred gold. For a breakdown of reserves and resources by category, see Summary of Mineral Reserves and Resources. For the year-ended December 31, 2002, Barrick produced 5.7 million ounces at total cash costs of \$177 per ounce (see Non-GAAP Measures). Gold production is targeted at between 5.4 and 5.5 million ounces in 2003 at total cash costs of \$180 to \$190 per ounce of gold.

During its first ten years, Barrick focused on acquiring and developing properties in North America, notably the Company's flagship Goldstrike property on the Carlin Trend in Nevada. Barrick has transformed Goldstrike from a small heap-leach operation to a property with 19.9 million ounces of gold reserves and two producing mines—the Betze-Post and Meikle Mines. Goldstrike produced 2.05 million ounces of gold in 2002 and is expected to produce 2.11 million ounces of gold in 2003. Since 1994, Barrick has strategically expanded beyond its North American base to ensure growth in reserves and production and now operates in South America, Tanzania and Australia.

Barrick has employed a growth strategy that involves disciplined acquisitions, a district development program and early stage exploration. The acquisition strategy is illustrated by the acquisitions noted below. The district development program involves focusing exploration on and around existing properties. Through this program, the Company discovered and brought into production the Meikle mine and related mineral deposits on the Goldstrike property. Given the world's changing economic conditions over the past five years, exploration spending across the industry, particularly among junior companies, has decreased significantly. Barrick, however, has increased its exploration activities and is engaged in early stage exploration in four major areas: Peru, Tanzania, Australia and Chile/Argentina. This program resulted in the grassroots discovery on the Alto Chicama property in Peru.

In 1994, Barrick acquired Lac Minerals Ltd., an international gold mining company with operating mines in Canada, the United States and Chile. The acquisition gave Barrick control of what is now known as the Pascua-Lama Property, which now hosts proven and probable reserves of 16.9 million ounces of gold and 584 million ounces of silver.

In 1996, Barrick acquired Arequipa Resources Ltd., a natural resources company engaged in the acquisition and exploration of mineral properties in Peru, including the Pierina early stage exploration property. The property commenced production in November 1998 and, since production began, has produced, in aggregate, over 3.5 million ounces of gold to December 31, 2002 at an average total cash cost of \$51 per ounce.

In 1999, Barrick acquired Sutton Resources Ltd., an exploration company with mineral properties in Tanzania, including the Bulyanhulu Gold Project. At the time of acquisition, gold reserves at Bulyanhulu were 3.6 million ounces. At year-end 2002, proven and probable reserves were 11.6 million ounces. Mine construction began in the third quarter of 1999 and production commenced in April 2001. For the year-ended December 31, 2002, its first full year of production, the mine produced 356,000 ounces of gold at an average total cash cost of \$198 per ounce.

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In December 2001, Barrick acquired Homestake Mining Corporation whose operations included mining operations in the United States, Canada, Australia and Chile, development projects in Argentina and Australia, and exploration projects in the United States, Canada, Australia, Argentina and Chile. The assets acquired included the Eskay Creek mine, the interests in the Kalgoorlie, Round Mountain and Hemlo operations, the Plutonic, Lawlers and Darlot mines, the Cowal project, and the remaining 60 percent interest in the Veladero project.

The following table summarizes Barrick's interest in its principal producing mines and its share of production from these mines:

Mines	Ownership <sup>(1)</sup>	2002	2001	2000
Goldstrike Property, Nevada				
Betze-Post Mine	100%	1,409,985	1,549,975	1,646,640
Meikle Mine	100%	640,336	712,688	805,718
Goldstrike Property total		2,050,321	2,262,663	2,452,358
Round Mountain Mine, Nevada <sup>(2) (3) (4)</sup>				
Hemlo Property, Ontario <sup>(2) (3)</sup>	50%	377,747	373,475	243,734
Eskay Creek Mine, British Columbia <sup>(2)</sup>	50%	269,057	307,514	304,882
Yilgarn District, Western Australia <sup>(2)</sup>				
Plutonic Mine	100%	358,718	320,784	333,167
Darlot Mine	100%	307,377	288,360	253,643
Lawlers Mine	100%	145,443	125,024	127,099
Yilgarn District total		113,291	103,915	101,144
Yilgarn District total		566,111	517,299	481,886
Kalgoorlie Mine, Western Australia <sup>(2) (3)</sup>				
Pierina Mine, Peru	50%	360,025	384,362	393,794
Bulyanhulu Mine, Tanzania <sup>(5)</sup>	100%	898,228	911,076	821,614
Other Properties <sup>(2) (3)</sup>		458,351	805,348	918,236
<b>Company total</b>		<b>5,694,877</b>	<b>6,124,096</b>	<b>5,949,671</b>

<sup>(1)</sup> Barrick's interest is subject to royalty obligations at certain mines.

<sup>(2)</sup> Acquired through the acquisition of Homestake in December 2001 (excluding Other Properties - Holt-McDermott mine, Bousquet mine, El Indio and Tambo mines). Production reflects Homestake's interest prior to the acquisition (excluding Other Properties - Holt-McDermott mine, Bousquet mine and El Indio mine).

<sup>(3)</sup> Barrick's proportional share.

<sup>(4)</sup> Effective July 1, 2000, the interest in the Round Mountain Mine was increased from 25% to 50%.

<sup>(5)</sup> The Bulyanhulu mine commenced production in April 2001.

See the Notes to the Consolidated Financial Statements for further information on the Company's operating and geographic segments.





## NARRATIVE DESCRIPTION OF THE BUSINESS

### Gold Mineral Reserves and Mineral Resources

At the beginning of 2003, Barrick's total proven and probable gold mineral reserves for Canadian reporting purposes were 86.9 million ounces. During 2002, Barrick produced approximately 5.7 million ounces of gold (6.8 million contained ounces) and added approximately 11.4 million contained ounces to reserves for a net increase of approximately 4.6 million contained ounces (see - Reconciliation of Mineral Reserves ). The addition to reserves of 11.4 million contained ounces is primarily attributable to the Alto Chicama project, the Goldstrike property and the Plutonic mine.

2002 reserves have been calculated using an assumed gold price of \$300 per ounce and a silver price of \$4.75 per ounce, except with respect to the Kalgoorlie mine which has been calculated using an assumed gold price of \$297 (A\$550) per ounce. Barrick's proven and probable gold reserves would increase to approximately 89.4 million ounces if calculated using a \$325 per ounce gold price and decrease to approximately 82.6 million ounces at a \$275 per ounce gold price.

Reserves and resources have been calculated as at December 31, 2002 (except with respect to Alto Chicama, where reserves and resources have been calculated as at January 31, 2003) in accordance with definitions adopted by the Canadian Institute of Mining, Metallurgy and Petroleum and incorporated into National Instrument 43-101 (see Definitions below). Calculations have been prepared by employees of Barrick under the supervision of Alan R. Hill, P. Eng., Executive Vice President, Development of Barrick, and/or Alexander J. Davidson, P. Geo., Senior Vice President, Exploration of Barrick. Such calculations incorporate current and/or expected mine plans and cost levels at each property. Varying cut-off grades have been used depending on the mine and type of ore contained in the reserves. Mineral resource metal grades and material densities have been estimated using industry-standard methods appropriate for each mineral project with support of various commercially available mining software packages. For the cut-off grades used in the calculation of reserves, see Notes to the Reserves, Resources and Reconciliation Tables . Barrick's normal data verification procedures have been employed in connection with the calculations. Sampling, analytical and test data underlying the stated mineral resources and reserves have been verified by Mr. Hill or Mr. Davidson, employees under their supervision, and/or independent Qualified Persons. Verification procedures include industry-standard quality control practices. For details of data verification and quality control practices at each material property, see Properties .

Barrick reports its reserves in accordance with National Instrument 43-101, as required by Canadian securities regulatory authorities. For United States reporting purposes, Industry Guide 7 (under the Securities Exchange Act of 1934, as interpreted by the Staff of the U.S. Securities and Exchange Commission), applies different standards in order to classify mineralization as a reserve. Accordingly, for U.S. reporting purposes, the mineralization at the Alto Chicama and Veladero projects is classified as mineralized material.

Although the Company has carefully prepared and verified the mineral reserve figures presented below and elsewhere in this Annual Information Form, such figures are estimates, and no assurance can be given that the indicated level of gold will be produced. See Risk Factors .

#### **Definitions**

A **mineral resource** is a concentration or occurrence of natural, solid, inorganic or fossilized organic material in or on the Earth's crust in such form and quantity and of such a grade or quality that it has reasonable prospects for economic extraction. The location, quantity, grade, geological characteristics and continuity of a mineral resource are known, estimated or interpreted from specific geological evidence and knowledge. Mineral resources are sub-divided, in order of increasing geological confidence, into inferred, indicated and measured categories.

An **inferred mineral resource** is that part of a mineral resource for which quantity and grade or quality can be estimated on the basis of geological evidence, limited sampling and reasonably assumed but not verified geological

and grade continuity. The estimate is based on limited information and sampling gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes.

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

A **measured mineral resource** is that part of a mineral resource for which quantity, grade or quality, densities, shape, physical characteristics are so well established that they can be estimated with confidence sufficient to allow the appropriate application of technical and economic parameters, to support production planning and evaluation of the economic viability of the deposit. The estimate is based on detailed and reliable exploration, sampling and testing information gathered through appropriate techniques from locations such as outcrops, trenches, pits, workings and drill holes that are spaced closely enough to confirm both geological and grade continuity.

Mineral resources, which are not mineral reserves, do not have demonstrated economic viability.

A **mineral reserve** is the economically mineable part of a measured or indicated mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting that economic extraction can be justified. A mineral reserve includes diluting materials and allowances for losses that may occur when the material is mined. Mineral reserves are sub-divided in order of increasing confidence into probable mineral reserves and proven mineral reserves.

A **probable mineral reserve** is the economically mineable part of an indicated and, in some circumstances, a measured mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

A **proven mineral reserve** is the economically mineable part of a measured mineral resource demonstrated by at least a preliminary feasibility study. This study must include adequate information on mining, processing, metallurgical, economic and other relevant factors that demonstrate, at the time of reporting, that economic extraction can be justified.

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**Gold Mineral Reserves**<sup>(1), (3), (4), (7), (10), (11)</sup>

Based on attributable ounces	PROVEN			PROBABLE			TOTAL		
	Tons (000 s)	Grade <sup>(8)</sup> (oz/ton)	Ounces <sup>(9)</sup> (000 s)	Tons (000 s)	Grade <sup>(8)</sup> (oz/ton)	Ounces <sup>(9)</sup> (000 s)	Tons (000 s)	Grade <sup>(8)</sup> (oz/ton)	Ounces <sup>(9)</sup> (000 s)
<b>OPERATING MINES</b>									
Betze-Post	60,229	0.132	7,924	46,901	0.173	8,127	107,130	0.150	16,051
Meikle	2,641	0.512	1,352	7,129	0.356	2,536	9,770	0.398	3,888
Goldstrike Property Total	62,870	0.148	9,276	54,030	0.197	10,663	116,900	0.171	19,939
Round Mountain (50%)	47,282	0.017	815	48,775	0.022	1,060	96,057	0.020	1,875
Eskay Creek	575	1.483	853	858	0.672	577	1,433	0.998	1,430
Hemlo (50%)	11,708	0.116	1,359	8,018	0.095	759	19,726	0.107	2,118
Pierina	29,232	0.068	1,994	41,111	0.039	1,608	70,343	0.051	3,602
Plutonic	2,983	0.146	436	10,993	0.191	2,097	13,976	0.181	2,533
Lawlers	1,456	0.134	195	1,951	0.161	314	3,407	0.149	509
Darlot	3,776	0.133	501	4,426	0.174	768	8,202	0.155	1,269
Yilgarn District Total	8,215	0.138	1,132	17,370	0.183	3,179	25,585	0.168	4,311
Kalgoorlie (50%)	34,580	0.052	1,788	62,318	0.060	3,763	96,898	0.057	5,551
Bulyanhulu	1,846	0.397	733	25,574	0.427	10,920	27,420	0.425	11,653
Other Properties	3,723	0.033	124	23,475	0.030	708	27,198	0.031	832
<b>PROJECTS</b>									
Alto Chicama <sup>(7)</sup>				120,948	0.054	6,535	120,948	0.054	6,535
Veladero <sup>(7)</sup>	19,123	0.046	877	235,188	0.036	8,507	254,311	0.037	9,384
Pascua-Lama <sup>(12)</sup>	37,738	0.062	2,355	258,673	0.056	14,507	296,411	0.057	16,862
Cowal	6,197	0.044	271	69,725	0.037	2,564	75,922	0.037	2,835
<b>TOTAL</b>	<b>263,089</b>	<b>0.082</b>	<b>21,577</b>	<b>966,063</b>	<b>0.068</b>	<b>65,350</b>	<b>1,229,152</b>	<b>0.071</b>	<b>86,927</b>

See - Notes to the Mineral Reserves, Resources and Reconciliation Tables .



**Gold Mineral Resources** <sup>(1), (2), (3), (5)</sup>

Based on attributable ounces	MEASURED (M)			INDICATED (I)			(M) + (I)	INFERRED		
	Tons (000 s)	Grade <sup>(8)</sup> (oz/ton)	Ounces <sup>(9)</sup> (000 s)	Tons (000 s)	Grade <sup>(8)</sup> (oz/ton)	Ounces <sup>(9)</sup> (000 s)	Ounces (000 s)	Tons (000 s)	Grade <sup>(8)</sup> (oz/ton)	Ounces <sup>(9)</sup> (000 s)
<b>OPERATING MINES</b>										
Betze-Post	16,445	0.069	1,139	29,955	0.070	2,092	3,231	1,217	0.074	90
Meikle	1,932	0.584	1,129	3,175	0.393	1,249	2,378	7,819	0.351	2,741
Goldstrike Property										
Total	18,377	0.123	2,268	33,130	0.101	3,341	5,609	9,036	0.313	2,831
Round Mountain (50%)	13,545	0.008	104	3,910	0.018	72	176	9,827	0.016	157
Eskay Creek				382	0.401	153	153	96	0.615	59
Hemlo (50%)	888	0.128	114	1,789	0.075	134	248	4,001	0.137	550
Pierina	8,599	0.016	137	31,339	0.016	489	626	1,134	0.020	23
Plutonic	4,523	0.073	331	14,826	0.132	1,956	2,287	7,333	0.161	1,183
Lawlers	2,178	0.154	336	6,201	0.126	779	1,115	2,326	0.123	286
Darlot	1,157	0.175	202	3,012	0.112	338	540	56	0.214	12
Yilgarn District Total	7,858	0.111	869	24,039	0.128	3,073	3,942	9,715	0.152	1,481
Kalgoorlie (50%)	14,558	0.054	791	27,353	0.054	1,488	2,279	6,779	0.050	342
Bulyanhulu				4,765	0.352	1,678	1,678	4,253	0.592	2,517
Other Properties				14,996	0.043	644	644	30,805	0.028	875
<b>PROJECTS</b>										
Alto Chicama				56,352	0.035	1,998	1,998	24,820	0.042	1,045
Veladero	9,000	0.023	209	126,760	0.024	3,051	3,260	78,211	0.024	1,894
Pascua-Lama	3,962	0.055	216	111,883	0.029	3,271	3,487	126,841	0.027	3,475
Cowal	1,588	0.041	65	33,623	0.035	1,190	1,255	29,462	0.033	967
<b>TOTAL</b>	<b>78,375</b>	<b>0.061</b>	<b>4,773</b>	<b>470,321</b>	<b>0.044</b>	<b>20,582</b>	<b>25,355</b>	<b>334,998</b>	<b>0.048</b>	<b>16,216</b>

See - Notes to the Mineral Reserves, Resources and Reconciliation Tables .

## Reconciliation of Mineral Reserves

Property (000's of ounces)	Mineral Reserves December 31, 2001 <sup>(6)</sup>	Mined in 2002	Increase (decrease)	Mineral Reserves December 31, 2002 <sup>(3)</sup>
<b>OPERATING MINES</b>				
Betze-Post	16,433	(1,694)	1,312	16,051
Meikle	3,946	(701)	643	3,888
Round Mountain (50%)	2,245	(576)	206	1,875
Eskay Creek	1,775	(385)	40	1,430
Hemlo (50%)	2,517	(284)	(115)	2,118
Pierina	4,748	(1,073)	(73)	3,602
Plutonic	1,588	(344)	1,289	2,533
Lawlers	505	(116)	120	509
Darlot	1,341	(150)	78	1,269
Kalgoorlie (50%)	5,724	(436)	263	5,551
Bulyanhulu	12,009	(414)	58	11,653
Other Properties	1,393	(581)	20	832
<b>PROJECTS</b>				
Alto Chicama			6,535	6,535 <sup>(7)</sup>
Veladero	8,416		968	9,384 <sup>(7)</sup>
Pascua-Lama	16,862			16,862 <sup>(12)</sup>
Cowal	2,770		65	2,835
<b>Total</b>	<b>82,272</b>	<b>(6,754)</b>	<b>11,409</b>	<b>86,927</b>

*Notes to the Mineral Reserves, Resources and Reconciliation Tables*

- (1) Reflects Barrick's ownership share where ownership interest is less than 100%.
- (2) These mineral resources are in addition to mineral reserves. Mineral resources that are not mineral reserves do not have demonstrated economic viability.
- (3) Mineral reserves have been calculated as at December 31, 2002, except with respect to the Alto Chicama project, where reserves have been calculated as at January 31, 2003.
- (4) Mineral reserves have been calculated using an assumed gold price of \$300 per ounce and a silver price of \$4.75 per ounce, except with respect to the Kalgoorlie property, where a gold price of \$297 per ounce (A\$550 and an exchange rate of \$0.54 US/A\$) has been used.
- (5) Resources have been estimated using varying cut-off grades, depending on both the type of mine, its maturity and ore type at each property. Assumed gold prices ranging from \$300 to \$400 have generally been used in estimating resources.
- (6) Mineral reserves have been calculated as at December 31, 2001 using an assumed gold price of \$300 per ounce and a silver price of \$5.00 per ounce, except with respect to the Australian properties where an assumed gold price of A\$475 (for Kalgoorlie, Plutonic and Cowal) or A\$500 (for Lawlers and Darlot) has been used.
- (7) Mineral reserves have been calculated in accordance with National Instrument 43-101, as required by Canadian securities regulatory authorities. For United States reporting purposes, Industry Guide 7 (under the Securities Exchange Act of 1934), as interpreted by Staff of the U.S. Securities and Exchange Commission, applies different standards in order to classify mineralization as a

reserve. Accordingly, for U.S. reporting purposes, the mineralization at the Alto Chicama and Veladero projects is classified as mineralized material.

- (8) Grade represents an average, weighted by reference to tons of ore type where several recovery processes apply.
- (9) Ounces estimated to be present in the tons of ore which would be mined and processed. Mill recovery rates have not been applied in calculating the contained ounces.
- (10) Reserves include stockpile material totalling approximately 89.4 million tons, containing approximately 5.2 million ounces. Properties at which stockpile material represents more than 5% of the reported reserves are as follows:

Property	Tons (000 s)	Grade (oz/ton)	Contained Ounces (000 s)
Kalgoorlie	9,446	0.037	351
Goldstrike	40,776	0.101	4,117
Round Mountain	38,240	0.016	603

- (11) The metallurgical recovery applicable at each property and the cut-off grades used to determine reserves are as follows:

	Metallurgical Recovery (%)	Cutoff Grade (oz/t)
<b>OPERATING MINES</b>		
Goldstrike Property		
Betze-Post	83.5	0.065-0.080
Meikle	89.7	0.220-0.260
Round Mountain	67.0	0.006-0.018
Eskay Creek	92.1	0.631-0.849
Hemlo Property		
David Bell	93.0	0.145
Williams	93.5	0.023-0.082
Pierina	79.6	0.010-0.015
Darlot	97.0	0.079-0.109
Lawlers	95.5	0.104
Plutonic	88.2	0.015-0.204
Kalgoorlie	86.1	0.026
Bulyanhulu	89.0	0.233-0.263
<b>PROJECTS</b>		
Alto Chicama	80.0	0.014
Veladero	72.8	0.017-0.022
Pascua-Lama	82.7	0.029-0.053
Cowal	84.9	0.012-0.018

- (12) Reserves for the Pascua-Lama project have been calculated using a gold price of \$300 per ounce and a silver price of \$4.75 per ounce. Based on current construction cost estimates and the current

development plan, which are under continuing review, using a gold price of \$275 per ounce, the project would generate a negligible return.

**Uses of Gold**

Product fabrication and bullion investment are the two principal uses of gold. Within the fabrication category there are a wide variety of end uses, the largest of which is the manufacture of jewelry. Other fabrication purposes include official coins, electronics, miscellaneous industrial and decorative uses, dentistry, medals and medallions.

**Sales and Refining**

Gold can be readily sold on numerous markets throughout the world and it is not difficult to ascertain its market price at any particular time. Since there are a large number of available gold purchasers, the Company is not dependent upon the sale of gold to any one customer. Barrick's gold is currently being refined to market delivery standards by MKS Finance S.A. in Castel San Pietro, Switzerland and Argor-Heraeus S.A. in Mendrisio, Switzerland (Goldstrike production), by Johnson Matthey Limited in Brampton, Ontario, Canada (a portion of the Hemlo production), by the Royal Canadian Mint in Ottawa, Ontario, Canada (a portion of the Hemlo production), by Johnson Matthey PLC in London (Pierina production and Bulyanhulu gold doré production), by Johnson Matthey Refining Inc. in Salt Lake City, Utah, United States (Round Mountain production) and by Australian Gold Refinery in Perth, Australia (Plutonic mine production, Kalgoorlie mine production, Darlot production and Lawlers production). The gold is then delivered to meet commitments under gold sale contracts or sold to various gold bullion dealers or smelters on a competitive basis at spot prices. The Company believes that, because of the availability of alternative refiners, no material adverse effect would result if the Company lost the services of any of its current refiners.

The Bulyanhulu mine produces gold-copper concentrates. At Bulyanhulu, sales contracts have been established with Pan Pacific Copper Co., Ltd., an affiliate of Nippon Mining & Metals Co., Ltd. and with Sumitomo Metal Mining Co., Ltd. for 80% of the mine's concentrate production through 2008.

The Eskay Creek mine sells direct shipping ore under long-term sales contracts with Dowa Mining Company Limited, Akita-Ken, Japan, and Noranda Inc., Rouyn-Noranda, for combined ore sales of 135,000 dry tonnes annually. These contracts expire in 2006 and 2007. The Eskay Creek mine also produces flotation concentrates, one-half of which is committed under a sales agreement with Noranda Inc. in Rouyn-Noranda, Quebec, Canada and Teck Cominco Metals Ltd. in Trail, British Columbia, Canada. These contracts expire at various dates between 2003 and 2008. To mitigate the impact of the Noranda Inc. smelter labor strike which began in July 2002, the mine optimized its milling capacity, increasing throughput (by 19%), re-sequenced the mining efforts to source higher grade ore, and arranged for increased sales to its other main smelter. Though the strike continues, shipments in late 2002 and early 2003 were back to pre-strike levels, and the Company anticipates being able to sustain these rates through the balance of 2003, even without a strike settlement.

**Forward Sales Program**

The Company has operations in five principal countries which produce its primary product, gold, as well as by-products such as silver and copper. The Company's activities expose it to a variety of market risks, including risks related to the effects of changes in gold prices. This financial exposure is monitored and managed by the Company as an integral part of its overall risk-management program. The Company's risk-management program focuses on the unpredictability of commodity and financial

markets and seeks to mitigate the potentially adverse effects that the volatility of these markets may have on its operating results.

The Company maintains a risk-management strategy that uses financial instruments to mitigate significant, unanticipated earnings and cash flow fluctuations that may arise from volatility in commodity prices. Price fluctuations in gold could cause actual cash inflows from the sale of gold to differ from anticipated cash inflows. The Company uses gold forward sales contracts to mitigate these risks. As a gold producer, Barrick's gold reserves underlie its forward sales program and Barrick expects to deliver production into its forward sales contracts in the normal course of business.

Barrick's forward sales contracts represent agreements to sell gold on a delivery date in the future. Barrick has the flexibility to choose the delivery date at any time over a 10 to 15 year period from the start of a contract. The rights and obligations under these contracts are defined by master trading agreements executed with various counterparties.

The selling price under a contract is based on the forward price of gold at the future delivery date, which is essentially a function of the spot gold price on the date the contract is entered into plus a premium (commonly referred to as contango) through the future delivery date. The amount of contango is often quoted as a percentage return that reflects the spread between market LIBOR interest rates (i.e., US dollar interest rates) and gold borrowing rates (commonly referred to as gold lease rates). Generally, US dollar interest rates are higher than the gold lease rate, which means that the future price is higher than the current price under the contract. The longer the period of time until delivery, the greater the amount of the forward premium or contango and, provided US dollar interest rates remain higher than gold lease rates, the greater the contract price compared to the spot price at the start of the contract. In the event gold lease rates are higher than US dollar interest rates, the premium becomes negative (known as backwardation). Over the past five years, backwardation has occurred only once, and only for a period of two days.

Barrick has arrangements in place with approximately 19 counterparties, which have an average credit rating of AA-. All of the counterparties are well-established financial institutions with a significant presence in the bullion trading market. To reduce exposure to defaults by counterparties, Barrick diversifies its forward sales contracts across a number of counterparties, limits exposure to individual counterparties, uses master netting arrangements such that Barrick's credit risk is limited to the net positive fair value of contracts with individual counterparties and regularly monitors its counterparties' credit ratings. To date, all counterparties have fully performed their obligations under such arrangements.

Barrick's trading agreements do provide for customary events of default such as covenant breaches, insolvency or bankruptcy. If an event of default occurred, counterparties could require Barrick to immediately settle outstanding contracts. Under its trading agreements, Barrick is not required to post any collateral or be subject to any margin calls on its derivative instruments. Also, the counterparties cannot require settlement of a contract solely because of an adverse change in the mark to market value. Barrick enters into financial instruments to act as economic hedges of underlying exposure to commodity prices, foreign currency exchange rates and interest rates that arise in the normal course of its business. The maturity of derivative instruments are spread out over time so that the size of positions maturing is such that the Company expects the relevant markets for commodities, currencies and interest rates will be able to absorb those contracts maturing.

In previous years, as a result of the Company's forward sales program and the level of spot prices for gold, substantially all of the gold produced by the Company (excluding Homestake production) was delivered against existing forward sale contracts rather than on the spot market. In 2002, the Company

realized an average price of \$339 per ounce compared with an average gold price on the Commodity Exchange Inc. ( COMEX ) in New York for the year of \$310 per ounce. During 2002, the Company delivered a portion of production into the spot market. With the rise in the gold spot price, above the Company's forward gold sales price, for much of the first quarter of 2003, Barrick sold a portion of its production at the higher spot price and deferred delivery for forward sales contracts to a later date.

At December 31, 2002 the Company had outstanding commitments to deliver 18.1 million ounces of its future gold production under its forward sales program. This represents approximately 21 percent of proven and probable reserves (for Canadian reporting purposes), deliverable over the next 10 to 15 years at an average price of \$341 per ounce at the scheduled delivery dates. For 2003, Barrick has the ability to deliver its production into the forward sales program at an average price of \$340 per ounce. On a portion of sales contracts that had been scheduled for delivery in the first quarter of 2003, Barrick elected to not deliver production into such sales contracts during the quarter and decided instead to sell a significant portion of its production during that time at the higher spot price. This is the first time in 15 years that gold prices have risen above the Company's outstanding contract sales price, prompting the Company to sell its production at the higher spot price.

In a continued effort to make Barrick's forward sales program smaller and simpler, the Company took two steps in 2002: it delivered production against forward sales contracts without replacing those contracts and it reduced its variable price sales commitments (commitments under which the price at which the gold is sold varies, typically either (i) within a range, or (ii) capped to a maximum level) by approximately two-thirds. With the Company's positive outlook for the gold price, interest rates at 40-year lows (leading to lower forward sales premiums) and Barrick's strong financial position, the Company has been managing the program down to a lower level of overall reserves. Subject to market conditions, Barrick expects to continue to reduce the size and complexity of its forward sales program.

For a summary of the Company's future gold sale and delivery commitments, derivative financial instruments used in the forward sales program and associated risks, see Note 23 of the Notes to the Consolidated Financial Statements for the year ended December 31, 2002, pages 45 to 49 and 54 to 58 of the Company's Annual Report to Shareholders for the year ended December 31, 2002 and Risk Factors .

The Company's financial risk management activities are subject to the management, direction, and control of its Finance Committee as part of that Committee's oversight of the Company's investment activities and treasury function. The Finance Committee, which is comprised of four members of the Company's Board of Directors, including the Company's Chief Executive Officer, reports to the Board of Directors on the scope of the Company's risk-management strategy (including the gold sales program) and other activities. The Finance Committee approves corporate policy that defines the Company's risk-management objectives and philosophy relating to financial risk management activities and provides guidance for financial instrument usage. The Finance Committee also approves hedging strategies that are developed by management through its analysis of risk exposures to which the Company is subject, and commodity, foreign exchange and interest rate market analysis from internal and industry sources. The resulting hedging strategies are then incorporated into the Company's overall risk-management strategies. Responsibility for the implementation of hedging and risk-management strategies is delegated to the Company's treasury function. A report on Barrick's hedge position, detailing the size of the hedge position by contract type, diversification of the position among counterparties and each counterparty's recent credit rating and the latest fair value of each group of contracts, is prepared each week and distributed to the Chief Executive Officer, the Chief Financial Officer and members of the Finance Committee. The Board of Directors also receives a report on Barrick's hedging position at each of its regularly scheduled meetings.

Barrick maintains a separate compliance function to independently monitor and verify hedging activities and achieve segregation of duties of personnel responsible for entering into hedging transactions from personnel responsible for recording and reporting transactions. In addition, the treasurer regularly monitors all hedging transactions entered into by the treasury group. All confirmations and settlements of transactions are processed and checked independently of the treasury group. Responsibility for entering into hedging transactions is limited to a small group of experienced treasury personnel. Summaries of each individual transaction, setting out the terms of the transactions and the identity of the individual executing each transaction, are generated by the treasury group and delivered to the compliance function on a daily basis. Confirmations from counterparties are received directly by the compliance function and checked against the documentation generated by the treasury group. Barrick does not enter into gold delivery commitments that are not covered by scheduled production.

The extent to which the Company will enter into these types of commodity contracts in the future will depend upon its assessment of gold market conditions and other factors from time to time. As a result of changes in the market price of gold, contango rates and other factors, there can be no assurance that the Company's forward sales program will be as successful in the future as it has been in the past. The Company may in the future utilize other types of commodity contracts or financial instruments in its forward sales program.

### **Employees - Labor Relations**

As at December 31, 2002, Barrick had approximately 5,000 full-time employees worldwide, as well as approximately 1,800 employees at operations jointly owned by Barrick, substantially all of who are employed in the United States, Canada, Australia, Chile, Peru, Argentina and Tanzania. Unions represent approximately 500 persons at the Company's operations. Although the Company experienced an unauthorized work stoppage of one week at its Bulyanhulu mine in late 2002, labor relations at all locations are believed to be good.

Hourly employees are provided with a variety of retirement, insurance and other benefits generally corresponding to prevailing customs in the relevant area and industry. Certain of the Company's mining operations participate in retirement pension plans that are defined contribution plans. The Company also has pension plans covering certain United States employees. Certain of these pension plans, covering U.S. salaried and other non-union employees, provide benefits based on the employee's years of service and highest compensation for a period prior to retirement. Certain of these pension plans, covering U.S. union employees, provide defined benefits based on each year of service. The Company also has other post-retirement plans that provide medical and life insurance benefits for certain retired employees. The excess of accumulated benefit obligations over plan assets for pension plans with accumulated benefit obligations in excess of plan assets was \$61 million at December 31, 2002, and was \$52 million at December 31, 2001. Plans where the projected benefit obligation and accumulated benefit obligation exceeded plan assets included a qualified pension plan covering salaried and non-union employees, a nonqualified supplemental pension plan covering certain employees and a nonqualified pension plan covering a director of the Company. In addition, an irrevocable trust ( Rabbi Trust ) was set up to fund the nonqualified plans and certain other deferred compensation plans. The diversified assets held in the Rabbi Trust included cash of \$1 million and short-term investments of \$30 million as of December 31, 2002. The Company has put in place a retirement plan for certain officers of Barrick. Pursuant to the unfunded plan, 15% of the officer's salary and bonus for the year is accrued and accumulated with interest until retirement. There are no other benefits programs in place that could result in any unfunded post-retirement benefits. In addition, the Company has implemented incentive programs for certain employees.

## Competition

The Company competes with other mining and exploration companies in connection with the acquisition of mining claims and leases on gold and other precious metals prospects and in connection with the recruitment and retention of qualified employees.

There is significant competition for the limited number of gold acquisition opportunities and, as a result, the Company may be unable to continue to acquire attractive gold mining properties on terms it considers acceptable.

Given the size of the world market for gold relative to individual producers and consumers of gold, the Company believes that no single company has sufficient market influence to significantly affect the price or supply of gold in the world market.

## OPERATING PROPERTIES

The following is a summary of Barrick's principal operations by region: United States, Canada, Australia, South America and Tanzania.

### United States

Barrick's principal United States operations consist of its Goldstrike property and its 50% interest in the Round Mountain mine.

### Goldstrike Property

#### General Information

A wholly-owned subsidiary of Barrick owns and operates the Betze-Post open pit mine and the Meikle underground mine and related deposits on the Goldstrike property. The property is located in north central Nevada, approximately 25 miles (40 kilometers) north of the town of Carlin, at an elevation of 5,600 feet (1,700 meters) in the hilly terrain of the Tuscarora Mountains. Access to the property is provided by certain access agreements with Newmont Mining Corporation, that allow for the use of various roads in the area, and a right-of-way issued by the Bureau of Land Management. Such roads are accessed from Elko, Nevada by traveling west on U.S. Interstate 80 to Carlin, Nevada and then by approximately 23 miles (37 kilometers) of local roads north of Carlin. Generally, the climate of the area does not materially impact on the mine's operations.

PanCana Minerals Ltd. (PanCana) first mined the property for gold in 1976. In 1978, Western States Minerals Corporation (WSMC) became the operator in a 50/50 joint venture with PanCana. Barrick acquired a 50% interest and assumed management of the Goldstrike property on December 31, 1986 pursuant to a plan of arrangement entered into with PanCana. It completed the acquisition of 100% ownership of the property with the acquisition of WSMC's 50% interest in the property in January 1987. At the time of acquisition, mining operations on the property were concentrated on various shallow oxide deposits. The principal known deposit was the Post surface oxide deposit, which then contained approximately half a million ounces of gold. The property was operated as an open pit, heap leach operation. Reserves for the Post deposit were delineated during 1986 and mining of the Post deposit commenced in 1987. Following acquisition, two sulphide ore zones were identified (the Betze and Deep Post deposits). During the first two years after acquisition, a carbon-in-leach mill and ancillary facilities, as well as a crushing and agglomeration plant designed to improve recoveries from low grade oxide ore,



were constructed. In January 1989, Barrick announced the four-year Betze Development Plan to develop the Post oxide and Betze sulphide reserves. The plan, which called for the development of a large open pit and the expansion of the milling facilities, was completed in 1993 with the commissioning of the final three of the total of six autoclaves. The Meikle mine, which was discovered in 1989, commenced production in 1996. During 2000, the Company completed construction of a roaster facility for the treatment of carbonaceous ore on the property. The Roaster increased the property's processing capacity by approximately 16,000 tons per day. In 2001, an intensive development program to bring the Rodeo deposit, part of the Meikle mine, into production was completed and a new ball mill was added to increase autoclave recovery.

At December 31, 2002, the Goldstrike property comprised approximately 9,921 acres (4,000 hectares) of land. This includes 1,762 acres (713 hectares) of patented lode mining and millsite claims and 1,870 acres (757 hectares) of unpatented lode mining and millsite claims held directly or by lease, 2,531 acres (1,024 hectares) of land acquired through land exchanges with the United States government, and 3,848 acres (1,557 hectares) purchased from other mining companies and a private individual. Patenting is the process that transfers fee simple title from the federal government to the applicant. The Betze-Post and Meikle mines and the majority of the beneficiation and processing facilities at the Goldstrike property are situated on land owned by Barrick.

### Geology

The property is located on the Carlin trend, one of North America's most prolific gold producing areas. The area of the Goldstrike property consists of folded and faulted Paleozoic sedimentary rocks, which were intruded by the diorite to granodiorite Goldstrike stock of the Jurassic Age. Mesozoic folding and thrust faults form important structural traps for the mineralization in the Betze-Post pit. Tertiary faulting developed ranges and basins, which were subsequently filled with volcanics and sediments during Tertiary time. The gold mineralization occurred at the onset of Tertiary volcanism, approximately 39 million years ago.

The major gold deposits—Post Oxide, Betze, Meikle and Deep Post—are all hosted in sedimentary rocks of Silurian to Devonian ages. The Post Oxide orebody occurs in the siliceous siltstones, mudstones, argillites and minor limestones of the Rodeo Creek Formation. Betze, Meikle and Deep Post are found in the silty limestones and debris flows of the Popovich Formation. The gold at Goldstrike was carried into the various orebodies by hot hydrothermal fluids, and deposited with very fine pyrite and silica. Over time, the pyrite oxidized, freeing the gold and making its extraction relatively easy, as in the Post Oxide deposit. In the deeper deposits—Betze, Deep Post and Meikle—the gold is still locked up with the iron sulphide and an additional processing step (autoclaving) is required to free the gold.

### Processing

The property has two processing facilities: an autoclave installation, which is used to treat the property's non-carbonaceous sulphide (refractory) ore; and the roaster, which is used to treat the property's carbonaceous ore (whose active carbon content responds poorly to autoclaving). The combined design capacity of these two facilities is approximately 33,000 to 35,000 tons per day. These process facilities treat the ore from both the Betze-Post and Meikle mines. Gold contained in recovered ore is processed into doré on-site and shipped to an outside refinery for processing into gold bullion. Power is purchased from Sierra Pacific Power Company pursuant to a contract and applicable tariffs.

In 2002, Goldstrike processed an average grade of 0.20 ounces per ton, consisting of 0.16 ounces per ton ore from Betze-Post and 0.43 ounces per ton ore from Meikle. The average process grade is expected

to remain at 0.20 ounces per ton in 2003, as the grades processed from both Betze-Post and Meikle move toward the reserve grades.

#### Environment

In 2002, all activities at the property were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the property's operations.

At December 31, 2002, future reclamation and closure costs for the property were estimated at \$95 million. At December 31, 2002, Barrick has accrued \$30 million through charges to earnings. In connection with the reclamation of the mine area, Barrick has provided the financial security as required by governmental authorities. See Environment and Closure .

#### Exploration

In 2002, the exploration program on the property included the interpretation of the property-wide geophysical survey to delineate potential targets. The surface drill program of 45,053 feet (13,732 meters) explored for underground orebodies, primarily at Banshee and North Meikle. The underground drilling program of 9,804 feet (2,988 meters) included Meikle (4,214 feet (1,284 meters)) and Griffin (5,590 feet (1,704 meters)). Additional in-fill surface drilling was conducted at Barrel (13,217 feet (4,028 meters)) and North Betze (1,910 feet (582 meters)) to confirm orebody geometry for underground development planning.

The completion of the geophysical survey in 2001 and the interpretation of the results in 2002 identified several deep targets for follow-up drilling. Drilling these targets will continue in 2003 and it is expected that the exploration program at Goldstrike will include a surface drilling program of 33,800 feet (10,300 meters) to explore for orebodies at North Betze, Skarn Hill, west side of the South Block, Banshee and east of the Post fault. The underground exploration drilling program will consist of 3,200 feet (975 meters), targeting Griffin and North Meikle.

#### Capital Expenditures

In 2002, capital expenditures for the Goldstrike property were \$46 million, including expenditures for mobile equipment, ongoing Meikle development, major installation upgrades and improvements as well as dewatering and other general site expenditures. For 2003, capital expenditures at Goldstrike are expected to be \$50 million, including costs for development work, mobile equipment, systems improvements and tailings expansion.

#### ***Betze-Post Mine***

The Betze-Post mine is an open pit truck-and-shovel operation, using standard proven equipment. It produced 1,409,985 ounces of gold in 2002 at an average total cash cost of \$228 per ounce, and is expected to produce 1,495,000 ounces in 2003 at an average total cash cost of \$228 per ounce. Based on existing reserves and production capacity, the expected remaining mine life is 14 years.

#### Geology

The gold mineralization at Betze-Post is controlled by favorable stratigraphy, structural complexities in the form of faults and folds, and the contact of the Goldstrike intrusive. The deposit represents many styles of mineralization occurring within numerous rock types and alteration assemblages. The favored

host for gold mineralization is the Popovich limestone followed by the Rodeo Creek unit, Goldstrike sill complex and Roberts Mountains Formation. Some ore occurs below sills, which act as dams to the ascending hydrothermal fluids. Alteration is characterized by decalcification of limestone, silicification of all rock types and clay development in structurally disturbed areas. Overall, the Betze-Post ore zones extend for 6,000 feet (1,829 meters) in a northwest direction and averages 600 to 800 feet (183 to 244 meters) in width and 400 to 600 feet (122 to 183 meters) in thickness.

#### Drilling and Analysis

More than 6,200 drill holes have been completed within and around the Betze-Post deposit. Two thirds of the total drill holes are reverse circulation and rotary drill holes and the remaining one third are diamond core holes. Drill spacing through the Betze, West Betze and Screamer deposits is approximately 175 feet (53 meters) and at Post is 150 feet (46 meters). Almost all of the total drill hole footage has been sampled on five-foot intervals and assayed for gold by the fire assay method with follow-up cyanide AA assays. Most sampling and assaying are done on-site by Barrick with both internal check assays and external check assays performed by independent laboratories.

In 2002, seven drill holes were completed using the horizontal drill rig to define the extent of mineralization into the Northeast highwall as identified by blast holes and geologic channel samples. A total of 2,950 feet (899 meters) of drilling was completed and assayed on 10-foot (3 meter) intervals. Assay results indicated the existence of the Susannah satellite deposit.

Oriented core programs have been drilled in the past to assist in the determination of highwall planning parameters. Grab samples are taken over roughly every 20 feet (6 meters) of core, and zones of mineralization are further sampled on five-foot intervals. The last oriented core program incorporated three drillholes in 2001. The program will continue in 2003.

All drill hole collar, survey and assay information used in modeling and resource estimation are manually verified and approved by geologic staff prior to entry into the mine-wide database.

The quality assurance procedures and assay protocols followed by Barrick in connection with drilling and sampling on the Goldstrike property have been reviewed by independent consultants and found to conform to industry accepted quality control methods.

#### Royalties

Most of the property comprising the Betze-Post mine is subject to a net smelter return and net profits interest royalties payable on the valuable minerals produced from the property. The maximum third party royalties payable on the Betze deposit are a 4% net smelter return and a 6% net profits interest.

#### Production Information

The following table summarizes certain production and financial information for the Betze-Post mine for the periods indicated:

	Year ended December 31, 2002	Year ended December 31, 2001
Tons mined (000 s)	142,898	154,233
Tons of ore processed (000 s)	10,322	9,187
Average grade processed (ounces per ton)	0.16	0.20
Recovery rate (%)	83.3	85.1
Ounces of gold produced (000 s)	1,410	1,550
Average total cash costs per ounce	\$ 228	\$ 215
Average total production costs per ounce	\$ 286	\$ 267

### ***Meikle Mine***

The Meikle orebody, located one mile (1.6 kilometers) north of the Betze-Post mine on Barrick's Goldstrike property, is a high grade orebody which was discovered in 1989. Two different underground mining methods are used at Meikle, long-hole open stoping and drift-and-fill (used for flat-lying mineralization or where ground conditions are less competent). Meikle is a trackless operation which commenced production in September 1996. The Meikle orebody now incorporates Main Meikle, Meikle Extension, South Meikle, Griffin and Rodeo underground zones. An intensive development program to bring the Rodeo deposit into production was completed in late 2001. While exploration drilling will continue at depth below Main Meikle and in the Rodeo area, the best potential for reserve additions is likely north of Main Meikle, in an area known as Banshee. Based on existing reserves and production capacity, the expected remaining mine life is 7 years.

The underground mine, which originally produced at a rate of approximately 2,000 tons of ore per day, averaged 3,770 tons per day in 2001 and 4,504 tons per day in 2002. The Meikle mine produced 640,336 ounces of gold in 2002 and is expected to produce 620,000 ounces in 2003 at an average total cash cost of \$219 per ounce. In 2002, mining activity took place in five main areas - Main Meikle, Meikle Extension, South Meikle, Griffin and Rodeo. In 2003, mining activity will continue in these five areas.

### **Geology**

Carbonate breccias and limestones of the Devonian Popovich Formation and various intrusive rocks host the Meikle orebody, which is compact in size and very high grade. In contrast to the Betze-Post Mine area, the overlying mudstones and argillites of the Devonian Rodeo Creek Member are generally unmineralized. Gold-bearing fluids have ascended faults and fractures and have deposited gold and other minerals, such as pyrite and barite, in permeable horizons in the breccias and limestones. These breccias were formed by a combination of collapse, tectonic and hydrothermal processes, and display excellent continuity of grade both down deep and along strike. The fluids have been focused below a steep dipping monzonite porphyry dyke and the overlying relatively impermeable Rodeo Creek Member. Since silicification is the dominant alteration at Meikle, the bulk of the ore is quite hard and competent.

### **Drilling and Analysis**

Prior to underground access at the Meikle deposit, a total of 166 surface holes defined the deposit with a total of 259,793 feet (79,185 meters). Underground drilling commenced in 1995 and a total of 877,030 feet (267,319 meters) in 3,586 underground holes had been completed in and around the deposit as at December 31, 2002. At the Rodeo deposit, prior to underground access, a total of 101 surface holes defined the deposit with a total of 338,472 feet (103,166 meters). Underground drilling commenced at Rodeo in 1998, and as of December 2002, a total of 934 holes totaling 188,443 feet (57,437 meters) had

been drilled in and around the deposit. Although the majority of drilling is core, approximately 35% of Meikle and 30% of Rodeo definition drilling are by underground reverse-circulation methods. Drill spacing through the Meikle deposit is 25 to 85 feet (8 to 26 meters). Some of the wider-spaced core holes are sampled on 20-foot intervals (chip samples) and 5-foot whole or split core in mineralized intervals. All samples are fire-assayed with an atomic absorption spectrometer finish followed by a gravimetric finish for samples with AuFA greater than 0.436 oz of gold per ton. Most sampling and assaying is done on-site by Barrick with both internal check assays and external check assays performed by independent laboratories.

All drill hole collar, survey and assay information used in modeling and resource estimation are manually verified and approved by geologic staff prior to entry into the mine-wide database.

The quality assurance procedures and assay protocols followed by Barrick in connection with drilling and sampling on the Goldstrike property have been reviewed by independent contractors and found to conform to industry accepted quality control methods.

#### Royalties

The maximum royalties payable on the Meikle deposit are a 4% net smelter return and a 5% net profits interest.

#### Production Information

The following table summarizes certain production and financial information for the Meikle mine for the periods indicated:

	<b>Year ended December 31, 2002</b>	<b>Year ended December 31, 2001</b>
Tons mined (000 s)	1,635	1,372
Tons of ore processed (000 s)	1,638	1,375
Average grade processed (ounces per ton)	0.43	0.56
Recovery rate (%)	91.3	93.0
Ounces of gold produced (000 s)	640	713
Average total cash costs per ounce	\$ 198	\$ 147
Average total production costs per ounce	\$ 319	\$ 221



## Round Mountain Mine

### General Information

Wholly-owned subsidiaries of Barrick own a 50% interest in the Round Mountain gold mine, which is located approximately 60 miles (96 kilometers) north of Tonopah in Nye County, Nevada, at an elevation of approximately 6,200 feet (1,890 meters). Kinross Gold Corp. owns the remaining 50% interest and is the operator. Access to the property is by paved road. Generally, the climate of the area does not materially impact on the mine's operations. Barrick acquired its interest upon its merger with Homestake. Homestake had acquired its initial 25% interest in Round Mountain in 1984, and bought an additional 25% in July 2000. Barrick and Kinross Gold Corp. have first refusal rights over each other's interest in the property. The mine has been in operation since 1977. Based on existing reserves and production capacity, the expected remaining mine life is 5 years. Effective January 31, 2003, Kinross Gold Corp. succeeded to the interest of Echo Bay Mines Limited by merger.

The Round Mountain property position consists of contiguous patented and unpatented mining claims covering approximately 36,920 acres (14,930 hectares). Patented claims cover all of the current reserves in the ultimate pit.

### Geology

The Round Mountain orebody is a large, epithermal, low-sulphidation, volcanic-hosted, hot-springs type, precious metal deposit located along the margin of a buried volcanic caldera. The deposit genesis is associated with the Tertiary volcanism and caldera formation. Intra-caldera collapse features and sympathetic faulting in the metasedimentary rocks provided the major structural conduits for gold-bearing hydrothermal fluids. Ascending fluids deposited gold within the metasediments and overlying volcanic tuff units along a broad northwest trend.

Gold mineralization at Round Mountain occurs as electrum in association with quartz, adularia, pyrite and iron oxides. Economic gold mineralization is found in both the volcanic and surrounding metasedimentary rocks as well as overlaying alluvial placers. The mineralization occurs within shear zone fractures and veins or as disseminations within the more permeable units. Narrow fractures in shear zones host higher-grade mineralization while porous volcanic rocks host the lower-grade disseminated mineralization. Primary sulphide mineralization consists of electrum associated with or internal to pyrite grains. In oxidized zones, gold occurs as electrum associated with iron oxides, or as finely divided blebs along fractures.

Alteration of the volcanic units at Round Mountain can be characterized as a continuum from fresh rock progressing through chlorite; clay; sericitic and quartz; adularia, quartz and sericite; and quartz and adularia alteration assemblages. The alteration is zoned outward from potassic at the center to propylitic on the margin. There is a reasonable correlation between increasing gold grades and increasing degrees of alteration. The central ore zone is characterized by pervasive K-feldspar found replacing the rock groundmass and primary sanidine, or as crystal growths in open-space.

Alteration within the metasedimentary rocks are more subtle, largely defined by secondary quartz overgrowths, pyrite, and adularia associated with narrow northwest trending structures.

The open-pit mine is over a mile (1.6 kilometers) at its longest dimension and currently more than 1,295 feet (395 meters) from the top bench to the bottom of the pit.

### Mining and Processing

The operation uses open-pit mining methods and recovers gold using four independent processing operations. These include crushed ore leaching (reusable pad), run-of-mine ore leaching (dedicated pad), milling of higher-grade ore, and the gravity concentration circuit. Recovered gold is smelted on site into doré and shipped to outside refineries for processing into bullion. Water is supplied from joint venture-owned wells on the property. Power is purchased from Sierra Pacific Power Company under a standard industry tariff.

In 2002, Round Mountain produced 755,493 ounces of gold, of which the Company's share was 377,747 ounces, at an average total cash cost of \$187 per ounce. In 2003, the mine is expected to produce 725,000 ounces of gold, of which approximately 363,000 ounces would be the Company's share, at an average total cash cost of \$198, with lower gold production from the dedicated pad the primary reason for the decrease in production.

### Environment

In 2002, all activities at the mine were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the mine's operations.

At December 31, 2002, Barrick's share of future reclamation and closure costs for the mine were estimated at \$37 million. At December 31, 2002, Barrick has accrued \$25 million through charges to earnings. In connection with the reclamation of the mine area, Barrick has provided financial security as required by governmental authorities. See Environment and Closure .

### Exploration, Drilling and Analysis

In 2002 the mine exploration program focused on the Gold Hill area, consisting of 111 holes totaling 72,161 feet (21,995 meters). An external commercial laboratory was used to assay all the exploration drill hole samples. Blanks, duplicates, and standards are all included with each set of samples for quality control and quality assurance purposes. In addition, check assays were completed at an external commercial lab.

Approximately 4,089 drill holes have been completed within and around the Round Mountain deposit of which seven percent are core holes, with the remainder drilled by reverse-circulation methods. 96 reverse-circulation holes totalling 38,970 feet (11,878 meters) were added to the database in 2002. Optimum spacing within the Round Mountain deposit ranges between 100 and 140 feet (30 and 42 meters). All of the drill holes have footage that has been sampled on five-foot intervals and assayed for gold by the fire assay method with a gravimetric finish. For the Round Mountain deposit, all sampling and assaying is done on-site by the in-house lab. Internal check assays and external check assays are performed by independent laboratories.

### Capital Expenditures

In 2002, Barrick's share of capital expenditures were \$16 million (of which \$8 million was Barrick's share), which included 3 additional 240 trucks, a wheel dozer, a production drill and the buyout of a wheel loader on lease. In 2003, capital expenditures are expected to be \$16 million (of which \$8 million is the Company's share) and will include construction of phase 4 of the west dedicated pad, mine dewatering and the payout for one 240 ton truck.



Royalties

All Round Mountain mine production is subject to a royalty determined by a formula based on the price of gold. The royalties range from approximately 3.5% of gold revenues at prices of \$320 per ounce of gold or less to approximately 6.4% of gold revenues at prices of \$440 per ounce of gold or more. During 2002, the royalties averaged 3.5% of revenues.

Production Information

The following table summarizes certain production and financial information for the Round Mountain mine for the periods indicated:

	<b>Year ended December 31, 2002</b>	<b>Year ended December 31, 2001</b>
Tons mined (000 s)	63,146	70,243
Tons of ore processed (000 s)	62,221	58,660
Average grade processed (ounces per ton)	0.019	0.017
Ounces of gold produced (000 s)	755	747
Ounces of gold produced (000 s)- Barrick s share	378	373
Average total cash costs per ounce	\$ 187	\$ 187
Average total production costs per ounce	\$ 256	\$ 249

(1) Represents Barrick s 50% ownership interest.

**Canada**

Barrick's principal Canadian properties consist of its Eskay Creek mine and the 50% owned Hemlo property.

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## Eskay Creek Mine

### General Information

A wholly-owned subsidiary of Barrick owns the Eskay Creek gold/silver mine, which is located in northwestern British Columbia approximately 80 kilometers by air north of Stewart, British Columbia. Access is by 60 kilometers of privately owned single-lane gravel road. The mine is located at an elevation of 800 meters. Generally, the climate of the area does not materially impact on the mine's operations. The Eskay Creek mine was acquired by Barrick as a result of its merger with Homestake. Homestake acquired an interest in Eskay Creek in June 1992 when it merged with Corona Corporation, which owned 50.6% of Prime Resources Group Inc., which in turn owned 100% of the property. Homestake acquired the remaining 49.4% of Prime Resources Group Inc. in December 1998. Eskay Creek began commercial production in 1995. In 1997, the gravity and flotation mill was constructed to treat lower grade ore. Based on existing reserves and production capacity, the expected remaining mine life is 6 years.

The Eskay Creek property consists of five mining leases, two mineral claims and various other mineral and surface rights comprising approximately 2,060 hectares. The leases have remaining terms of 19-23 years, subject to renewal rights. There are aboriginal claims relating to areas of British Columbia, including a claim by the Tahltan Nation to the area which includes the Eskay Creek mine. The nature and extent and validity of such claims have not been determined. Barrick believes that its relations with the Tahltan Nation are good. Barrick does not believe that aboriginal claims at Eskay Creek will have any material adverse effect on the operations.

### Geology

The Eskay Creek orebody is a precious metal-enriched volcanogenic massive sulphide deposit that occurs in association with volcanics of the Jurassic-aged (141 to 195 million years) Hazelton Group. Eskay Creek mineralization generally is stratabound and occurs in a contact mudstone and breccia bounded below by a rhyolite flow-dome complex and overlain by volcanic and sedimentary rocks in the west limb of a north-plunging fold. Recent mineralization has also been outlined in discordant feeder type relationships in the underlying rhyolite and dacite. Sphalerite, pyrite, galena and tetrahedrite are the most abundant ore minerals. Native gold occurs as mostly microscopic particles located between sulphide grains, in fractures with sulphide grains, or locked in pyrite. Gold also occurs in volcanic rocks beneath the contact mudstone, along with coarse-grained sphalerite, pyrite and galena in quartz veins or stockworks.

### Mining and Processing

The mine is an underground, trackless operation accessible through three surface portals. Mining is conducted by a contractor using equipment owned by a subsidiary of Barrick. The mine utilizes a drift-and-fill mining method with cemented rock backfill. Higher-grade ore is crushed and blended at the mine site then sold to third-party smelters without any further processing. Additional higher-grade and lower-grade ore is sent to a 360 tons per day on-site gravity and flotation mill for further processing and concentration prior to transport to third party smelters. Mine waste rock and tailings from the mill are disposed of underwater in two nearby barren lakes. Water is supplied to the operation from the Eskay and Argillite Creeks and power is produced by on-site diesel generators.

In 2002, Eskay Creek produced 358,718 ounces of gold and 17.8 million ounces of silver at an average total cash cost of \$40 per ounce of gold. In 2003, Eskay Creek is expected to produce 363,000 ounces of gold and 16.6 million ounces of silver at an average total cash cost of \$64 per ounce of gold.

The increase in production reflects a decision to accelerate production by easing blending constraints on the direct ship ore and modifying the mill to increase throughput.

#### Environment

In 2002, all activities at the mine were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the mine's operations.

At December 31, 2002, future reclamation and closure costs for the mine were estimated at \$6 million. At December 31, 2002, Barrick has accrued \$3 million through charges to earnings. In connection with the reclamation of the mine area, Barrick has provided the security as required by governmental authorities. See Environment and Closure .

#### Exploration, Drilling and Analysis

In 2002, the Company continued its development drilling program and in-fill drilling program. During 2002, 13,990 meters of surface and 35,207 meters of underground diamond drilling were completed. The 2003 exploration program will continue to follow up on mineralization that was outlined in previous years as well as new mineralization that was outlined in 2002. In 2003, the exploration program will also test for parallel or feeder potential below the known mineralization. The plan for 2003 is to complete 12,500 meters of surface and 33,000 meters of underground diamond drilling.

More than 5,800 diamond drill holes or about 568,197 meters have been drilled within and around the Eskay Creek Mine. Of this, 1600 holes or about 345,990 meters of core has been drilled from surface and 4200 holes or about 222,207 meters of core drilled from underground.

Surface drilling is generally planned at 100 to 200 meter spacing in prospective areas and is reduced to 25 meter spacing for follow-up used to outline resources. Core is split and prospective areas sampled on 1.5 meter lengths and mineralized sections sampled at 1.0 meter lengths. Known barren areas are only randomly sampled and all of the core is saved and stored.

Dependent on grade and target geometry, definition programs are nominally 10 meter centers and as tight as 5 meter centers in very high grade target areas. Diamond drill core in new areas is commonly split, but when in a known horizon it is usually whole sampled. In unmineralized areas, sample lengths may be up to 5 meters, but in known ore, sample lengths are generally a maximum of 1 meter.

Most surface core is assayed off-site. Surface assays are done by inductively coupled plasma atomic emission spectrometer and any values greater than 1 gram per ton (g/t) Au are redone by fire assay. All underground core and the closer-spaced resource driven surface programs are assayed by the on-site Eskay lab using fire assay for gold and silver and atomic absorption for base metals. All assays are systematically checked with both internal standards and systematic check assays performed by independent laboratories.

All drill hole collar, survey and assay information used in modeling and resource estimation are manually verified and approved by geologic staff prior to entry into the mine-wide database.

The quality assurance procedures and assay protocols followed in connection with drilling and sampling on the Eskay property have been reviewed by independent consultants and smelter representatives and found to conform to industry accepted quality control methods.

Capital Expenditures

During 2002, \$8 million was spent on capital expenditures at Eskay Creek, including a ramp extension, underground equipment, mill and pipeline upgrades. Capital expenditures for 2003 are expected to be \$6 million, including development ramping, ventilation and hydraulic backfill and bulk shotcrete systems.

Royalties

The mine is subject to a 1% net smelter royalty, with the exception of a small portion of the orebody, which is subject to a 2% net smelter royalty.

Production Information

The following table summarizes certain production and financial information for the Eskay Creek mine for the periods indicated:

	<b>Year ended December 31, 2002</b>	<b>Year ended December 31, 2001</b>
Tons mined (000 s)	254	230
Tons of ore shipped (000 s)	128	121
Direct shipped ore grade (ounces per ton)	2.17	2.08
Direct shipped ore recovery (%)	95.4	95.6
Tons of ore milled (000 s)	128	108
Mill grade (ounces per ton)	0.83	0.94
Mill recovery (%)	92.5	89.8
Ounces of gold produced (000 s)	359	321
Average total cash costs per ounce	\$ 40	\$ 49
Average total production costs per ounce	\$ 174	\$ 176

**Hemlo Property**

Barrick owns a 50% interest in the Hemlo operations, which are comprised of two underground mines (the Williams (which includes an open-pit mine) and David Bell mines), located in the Hemlo Gold Camp, approximately 350 kilometers east of Thunder Bay. Equally owned subsidiaries of Barrick and Teck Cominco Limited operate the mines. Barrick and Teck Cominco Limited provide funds equally for all costs incurred to operate the mines and have rights of first refusal over each other's interests in the mines and operating companies. Based on existing reserves and production capacity, the expected remaining mine lives of the David Bell mine and the Williams mine, respectively, are 6 years and 10 years.

The Williams and David Bell mines share milling, processing and tailings facilities. Each mill circuit includes a semi-autogenous mill and a ball mill. Gravity and C-I-P processes are used to recover gold. Recovered gold is smelted into doré on-site and shipped to an outside refinery for processing into bullion. Tailings water is reclaimed for use in the mill and excess water is treated through a seasonally operated effluent treatment plant prior to discharge into the environment.

Ground stability continues to be a significant area of focus for the Hemlo operations. Changes to the mine plan, mining sequence, increased ground support and increased monitoring instrumentation are ongoing to minimize this risk.

In 2002, the Company's share of Hemlo gold production was 269,057 ounces at an average cash cost of \$224 per ounce. In 2003, the Company's share of Hemlo gold output is expected to be 253,000 ounces, produced at an average cash cost of \$231. In 2002, the average grade milled was 0.15 ounces per ton, which is expected to decrease to 0.14 ounces per ton in 2003.

In 2002, all activities at the mine were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the mine's operations.

At December 31, 2002, the Company's share of reclamation and closure costs for the Hemlo operations were estimated at \$19 million. At December 31, 2002, the Company has accrued \$10 million through charges to earnings. In connection with the reclamation of the mine area, the Company has provided financial security as required by governmental authorities. See "Environment and Closure".

The mining claims at the Williams mine are subject to three net smelter royalties totaling a net effective rate of 2.06%. The mining claims at the David Bell mine are subject to a 3% net smelter royalty.

The following table summarizes certain production and financial information for the Hemlo operations for the periods indicated:

	<b>Year ended December 31, 2002</b>	<b>Year ended December 31, 2001</b>
Tons mined (000 s)	8,228	6,876
Tons of ore processed (000 s)	3,812	3,849
Average grade processed (ounces per ton)	0.15	0.17
Recovery rate (%)	94.7	93.1
Ounces of gold produced (000 s)	538	598
Ounces of gold produced (000 s) - Barrick's share <sup>(1)</sup>	269	307
Average total cash costs per ounce	\$ 224	\$ 196
Average total production costs per ounce	\$ 264	\$ 232

*(1) Represents Barrick's 50% ownership interest.*

## **Australia**

Barrick's principal Australian operations consist of its Kalgoorlie operations and its mines located in the Yilgarn District.

## Kalgoorlie Mine

### General Information

The Kalgoorlie operations are located adjacent to the town of Kalgoorlie approximately 550 kilometers northeast of Perth, Western Australia. Access is by paved road. The mine is located at an elevation of 420 meters above sea level. Except with respect to the roaster as noted below, generally, the climate of the area does not impact on the mine's operations. Mining operations in the Kalgoorlie region date back to 1893.

Barrick acquired a 50% interest in the Kalgoorlie operations as a result of its merger with Homestake in 2001. Subsidiaries of Newmont Mining Company (Newmont), own the other 50% interest. Barrick, through a wholly-owned subsidiary, and Newmont jointly own and control Kalgoorlie Consolidated Gold Mines Pty Ltd. (KCGM), which manages the operations under the direction of a joint management committee. Homestake acquired its interest in the original joint venture in 1975. In 1989, KCGM was formed to assume management of the Mt. Charlotte underground mine and to develop and operate the Super Pit open pit mine for the joint venture. Mt. Charlotte was scheduled to cease production in 2002, but mining of residual ore may prolong its life through 2003. The Super Pit mine commenced operations in 1989 and since then approximately 10 million ounces of gold have been recovered. Based on existing reserves and production capacity, the expected remaining mine life of the Super Pit mine is 18 years.

The Kalgoorlie properties consist of 58 mining leases and 104 prospecting licenses covering approximately 23,000 hectares. The mining leases were granted for a term of 21 years on conditions covering rental, royalties, expenditures, mining practices and rehabilitation. They are renewable in the final year. There are a number of native title claims relating to the area of the Kalgoorlie operations, but the validity of those claims has not been determined. See Legal Matters - Title to Properties.

### Geology

The ore deposits mined in the Kalgoorlie goldfields occur within an intensely mineralized shear zone system in dolerite host rocks, within the Norseman-Wiluna greenstone belt, which is part of the Yilgarn Block of Western Australia. The rocks are of Archean age. The favorable structural, metamorphic and lithologic setting in conjunction with hydrothermal activity controlled gold mineralization. Since 1893, in excess of 48 million ounces of gold have been produced from the Kalgoorlie properties at depths of up to 1,220 meters from high-grade lodes and adjacent disseminated mineralization in the Golden Mile Dolerite, and from the large stockwork zones, which characterize Mt. Charlotte and Reward (underground) orebodies.

### Mining and Processing

The Kalgoorlie operations consist of the Super Pit open-pit mine. Ore is treated at the Fimiston mill. Sulphide concentrates produced at the Fimiston mill are roasted and leached at the Gidji roaster, located approximately 20 kilometers north of the main Kalgoorlie operations. Gold-laden carbon from the Gidji roaster is sent to the Fimiston mill for processing. As a result of increasingly stringent sulfur dioxide emissions constraints and unfavorable weather conditions, from time to time the roaster is unable to treat all of the sulphide concentrates produced by the mill. In 2002, through improvements made to the treatment plant and the roaster, Kalgoorlie was able to reduce its inventory of sulphide concentrate. Doré is produced on-site and shipped to offsite refiners for refinement into gold bullion. The Super Pit mine is located along the Golden Mile orebodies previously mined from underground. Mining at the Super Pit is by open-pit, truck-and-loader mining methods, with most of the ore and waste being mined on 10-meter benches. Until the first quarter of 2000, contractors had been employed to conduct the open-pit mining



operations, ore and concentrate haulage, and some specialized services. During the first quarter of 2000, the transition of mining operations from the open-pit mining contractor to owner mining was completed.

In 2002, the mine produced 720,049 ounces of gold, of which the Company's share was 360,025 ounces, at an average total cash cost of \$222 per ounce. In 2003, the mine is expected to produce 688,000 ounces of gold, of which 344,000 ounces would be the Company's share, at an average total cash cost of \$237 per ounce. The average grade processed in 2002 was 0.061 ounces per ton, which is expected to be the same in 2003.

Fresh water is supplied under allocation from the state water system and is piped approximately 550 kilometers from Perth. Remaining process water requirements are satisfied using salt water taken from wells and the underground mine. Power is provided under a power supply agreement with Newmont Power Pty Ltd., a wholly-owned subsidiary of Newmont Mining Company.

#### Environment

In 2002, all activities at the mine were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the mine's operations.

At December 31, 2002, the Company's share of the reclamation and closure costs for the mine was estimated at \$23 million. At December 31, 2002, the Company has accrued \$10 million through charges to earnings. In connection with the reclamation of the mine area, the Company has provided the financial security as required by the governmental authorities. See "Environment and Closure".

#### Exploration, Drilling and Analysis

Exploration during 2002 was focused on projects in the near-mine area. 37 reverse circulation holes, for a total of 2,332 meters of drilling, were completed at Aberdare, south of the Fimiston pit, to locate extensions to the existing resources in this area. Four diamond holes were drilled to the north and west of Fimiston, for a total 1724 meters of drilling, to test targets associated with the Golden Pike Fault and two diamond holes were drilled at Mt. Percy, for a total of 815 meters of drilling, to test a conceptual structural target. At the Kalgoorlie South project, two diamond holes were drilled, for a total of 944 meters of drilling, with the aim of locating a northerly extension of a mineralized shear zone at Hannan South.

In 2003, the planned exploration program at Kalgoorlie includes 10,000 meters of diamond drilling and 10,300 meters of reverse circulation drilling. The main focus for exploration will be the belt from the Morrison area at the southern end of Fimiston pit to the Mt. Percy area north of Mt. Charlotte. Deep diamond drilling is planned to test for high grade lode-style mineralization in a second dolerite horizon below the Fimiston pit.

More than 9,100 surface drill holes have been completed within and around the Fimiston Super Pit. Over 65 percent of the surface drill holes are diamond core holes and the remainder are reverse circulation and conventional rotary drill holes. More than 11,800 underground diamond core holes have also been drilled along with over 21,000 reverse circulation holes for grade control. Drill spacing is 10-20 meters in the upper reserve levels and 40-100 meters deeper in the orebody.

Drill holes have been sampled mainly on two-meter intervals (65 percent) or one-meter intervals (30 percent). Samples are assayed for gold by the fire assay method. Assaying is done by an independent

laboratory with both internal check assays and external check assays performed by another independent laboratory.

All drill hole collar, survey and assay information used in modeling and resource estimation is manually verified and approved by geologic staff prior to entry into the mine-wide database.

The quality assurance procedures and assay protocols followed by KCGM in connection with drilling and sampling on the Fimiston property conform to industry accepted quality control methods.

#### Capital Expenditures

Barrick's share of capital expenditures at Kalgoorlie in 2002 was \$14 million, primarily for mining equipment, treatment optimization projects, infrastructure, miscellaneous mining projects and sustaining capital projects. Capital expenditures for 2003 are expected to be \$21 million (Barrick's share), primarily for mine equipment, treatment, optimization projects and sustaining capital.

#### Royalties

On July 1, 1998 a gold royalty became payable to the State of Western Australia at a rate of 1.25% on the realized value of gold produced, increasing to 2.5% on July 1, 2000 in respect of all of the Company's State of Western Australia properties. The realized value is based on the spot price of gold. From July 1, 2000 through June 30, 2005, the royalty rate has been reduced to 1.25% during calendar quarters when the spot gold price is less than A\$450 per ounce. At December 31, 2002 the spot gold price was A\$613 per ounce. There are no other royalties currently payable on production from the Kalgoorlie operations.

#### Production Information

The following table summarizes certain production and financial information for the Kalgoorlie operations for the periods indicated:

	<b>Year ended December 31, 2002</b>	<b>Year ended December 31, 2001</b>
Tons mined (000 s)	92,648	92,601
Tons of ore processed (000 s)	14,101	13,192
Average grade processed (ounces per ton)	0.061	0.066
Recovery rate (%)	82.6	84.3
Ounces of gold produced (000 s)	720	769
Ounces of gold produced (000 s) - Barrick's share (1)	360	385
Average total cash costs per ounce	\$ 222	\$ 203
Average total production costs per ounce	\$ 279	\$ 252

(1) Represents Barrick's 50% ownership interest.

**Yilgarn District**

The Yilgarn district consists of the Plutonic, Darlot and the Lawlers mines. Barrick acquired the mines through its merger with Homestake in 2001. Homestake acquired each of these mines as an operating mine in its 1998 merger with Plutonic Resources Limited. Plutonic itself was incorporated as Noranda Limited in Victoria in 1984 and listed on the Australian Associated Stock Exchange in August 1985. In 1989, it acquired the Plutonic property in Western Australia following discovery of a gold deposit in 1988. It subsequently explored, developed and constructed the Plutonic mine, which commenced production in August 1990. The Darlot mine covers an extensive goldfield discovered more than 100 years ago. The Lawlers mine has operated since 1986.

***Plutonic Mine***

A wholly-owned subsidiary of Barrick owns the Plutonic gold mine, which is located approximately 180 kilometers northeast of Meekatharra, Western Australia, and approximately 13 kilometers from the Great Northern Highway. Staff employees and contract personnel work on two-weeks-on and one-week-off rotations on a fly-in-fly-out-basis. Based on existing reserves and production capacity, the expected remaining mine life is 10 years.

The Plutonic mine consists of both open-pit and underground operations. Underground operations are the primary source of ore, although open-pit mining of several smaller pits continues. Ore mined from the underground and the open pits is being supplemented with ore from stockpiles. Ore is treated at the on-site mill, which operates both sulphide and oxide circuits. Doré is produced on-site and shipped to offsite refiners for refinement into gold bullion.

The mine produced 307,377 ounces of gold during 2002 at a total cash cost of \$184 per ounce. In 2003, the mine is expected to produce 295,000 ounces at a total cash cost of \$194 per ounce. The average grade processed in 2002 was 0.097 ounces per ton and the average grade processed in 2003 is expected to be 0.120 ounces per ton (reflecting a higher proportion of underground ore in the mill feed for 2003).

In 2002, all activities at the mine were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the mine's operations.

At December 31, 2002, reclamation and closure costs for the mine were estimated at \$9 million. At December 31, 2002, the Company has accrued \$3 million through charges to earnings. In connection with the reclamation of the mine area, the Company has provided financial security as required by governmental authorities. See *Environment and Closure*.

With the exception of the royalty payable to the State of Western Australia described under *Kalgoorlie Operations*, the underground operations are not subject to any royalties. However, 16 mining leases which contain a relatively small proportion of the mine's overall reserves and resources are subject to a sliding-scale royalty based on tonnage and grade.

The following table summarizes certain production and financial information for the Plutonic mine for the periods indicated:

	Year ended December 31, 2002	Year ended December 31, 2001
Tons mined (000 s)	14,289	12,134
Tons of ore processed (000 s)	3,532	3,496
Average grade processed (ounces per ton)	0.097	0.091
Recovery rate (%)	89.5	91.3
Ounces of gold produced (000 s)	307	288
Average total cash costs per ounce	\$ 184	\$ 166
Average total production costs per ounce	\$ 222	\$ 211

#### ***Darlot Mine***

A wholly-owned subsidiary of Barrick owns the Darlot gold mine, which is an underground mine located approximately 113 kilometers north of Leonora, Western Australia. The Darlot mine is a fly-in-fly-out operation with staff employees and contractor personnel working on two-weeks-on and one-week-off rotations. Based on existing reserves and production capacity, the expected remaining mine life is 10 years.

Ore is treated at the on-site mill. Doré is produced on-site and shipped to offsite refiners for refinement into gold bullion.

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In 2002, the mine produced 145,443 ounces of gold at an average total cash cost of \$168 per ounce. In 2003, the mine is expected to produce 143,000 ounces of gold at an average total cash cost of \$176 per ounce.

In 2002, all activities at the mine were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the mine's operations.

At December 31, 2002, reclamation and closure costs for the mine were estimated at \$3 million. At December 31, 2002, the Company has accrued \$3 million through charges to earnings. In connection with the reclamation of the mine area, the Company has provided financial security as required by governmental authorities. See *Environment and Closure*.

With the exception of the royalty payable to the State of Western Australia described under *Kalgoorlie Operations*, the Darlot mine is not subject to any royalties.

The following table summarizes certain production and financial information for the Darlot mine for the periods indicated:

	<b>Year ended December 31, 2002</b>	<b>Year ended December 31, 2001</b>
Tons mined (000 s)	840	794
Tons of ore processed (000 s)	849	806
Average grade processed (ounces per ton)	0.176	0.161
Recovery rate (%)	97.2	96.5
Ounces of gold produced (000 s)	145	125
Average total cash costs per ounce	\$ 168	\$ 173
Average total production costs per ounce	\$ 215	\$ 219

### ***Lawlers Mine***

A wholly-owned subsidiary of Barrick owns the Lawlers gold mine, which is located approximately 120 kilometers northwest of Leonora, Western Australia. The mine is a fly-in-fly-out operation with staff employees and contractor personnel working on a two-weeks-on and one-week-off rotation. Based on existing reserves and production capacity, the expected remaining mine life is 5 years.

The Lawlers mine consists of both underground and open pit operations. The primary sources of ore at present are from underground operations situated approximately 15 kilometers from the mill and are supplemented by open pit mining. Ore from stockpiles supplements the underground and open pit feed. Contractors perform the mining. The mine moved to owner mining in the first quarter of 2003. Ore is treated at the on-site mill, which processes both sulphide and oxide ores. Doré is produced on-site and shipped for refinement into gold bullion.

The mine produced 113,291 ounces of gold during 2002 at an average total cash cost of \$179 per ounce. The previously announced targets for 2003 called for production of 111,000 ounces of gold at an average total cash cost of \$213 per ounce. However, mining in the Fairyland open pit was suspended in January 2003 due to slope stability concerns and is not expected to recommence until later in the year. As a result, the mine is not expected to meet the previously announced targets. The average grade processed

in 2002 was 0.162 ounces per ton and the average grade processed in 2003 is expected to be 0.140 ounces per ton.

In 2002, all activities at the mine were in compliance in all material respects with applicable environmental regulations. Barrick is not aware of any proposed changes to these standards and regulations that would materially affect the mine's operations.

At December 31, 2002, reclamation and closure costs for the mine were estimated at \$7 million. At December 31, 2002, the Company has accrued \$5 million through charges to earnings. In connection with the reclamation of the mine area, the Company has provided financial security as required by the governmental authorities. See *Environment and Closure*.

With the exception of the royalty payable to the State of Western Australia described under *Kalgoorlie Operations*, the Lawlers mine is not subject to any royalties.

The following table summarizes certain production and financial information for the Lawlers mine for the periods indicated:

	<b>Year ended December 31, 2002</b>	<b>Year ended December 31, 2001</b>
Tons mined (000 s)	4,746	628
Tons of ore processed (000 s)	718	775
Average grade processed (ounces per ton)	0.162	0.141
Recovery rate (%)	97.3	95.2
Ounces of gold produced (000 s)	113	104
Average total cash costs per ounce	\$ 179	\$ 191
Average total production costs per ounce	\$ 221	\$ 243

## South America

### Pierina Mine

#### General Information

A wholly-owned subsidiary of Barrick owns the Pierina mine, which is located in the Andean Cordillera in the Department of Ancash, in north central Peru, approximately 10 kilometers northwest of the city of Huaraz, at an altitude of approximately 4,100 meters. The property is characterized by sloping to moderately steep, undulating topography. Generally, the climate of the area does not impact on the mine's operations. The mine is accessed by an approximately 16 kilometer gravel road from Huaraz. The Mine comprises a total area of approximately 3,530 hectares. The property was acquired by Barrick through the acquisition of Arequipa Resources Ltd. in August 1996. The Company developed Pierina from an advanced stage exploration property to a producing mine in just over two years. The mine commenced production in November 1998. Based on existing reserves and production capacity, the remaining mine life is 5 years. The Company owns surface rights and mining concessions covering 5,400 hectares in respect of the Pierina mine. In Peru, mining concessions grant the holder the right to explore for and exploit mineral deposits.

## Geology

The Pierina district contains structurally controlled gold, silver, lead, zinc and copper mineralization in the geologic age Calipuy volcanics. An approximately 70 kilometer long belt of hydrothermal alteration is associated with the known deposits. Basal andesitic lavas and overlying rhyodacitic pumice and lithic tuffs underlie the Pierina deposit. Dominant structures in the deposit trend north-northwest, west-northwest and northeast.

Gold mineralization at Pierina, which is characterized by vuggy silica alteration, is dominantly hosted in the rhyodacitic pumice tuff with lesser amounts in the overlying lithic tuff and in the underlying andesite. This is flanked by immediate quartz-alunite and argillic alteration. Ore-grade mineralization in the pumice tuff occurs over intervals of more than 260 meters. The area of currently known mineralization at Pierina measures approximately 450 meters wide by 1,200 meters long and is presently open to the southeast. There is also significant silver mineralization in the Pierina deposit. Over 95% of the known mineralization at Pierina is oxide. However, sulphide feeder zones have been intersected at the bottom of the deposit.

## Mining and Processing

The orebody is being mined as an open pit, truck-and-loader operation, at an average mining rate of 90,004 tons per day in 2002 (expected to be 107,773 tons per day in 2003). Run-of-mine ore is crushed and then transported to the leach pad area. The leach process is a classic valley-fill method. Recovered gold is smelted into doré on-site and shipped to an outside refinery for processing into bullion. Power is provided by a utility company through a 138-kilowatt line connected to the Canyon del Pato 150-megawatt hydroelectric generating plant, located approximately 90 kilometers from the mine. The waste dump and leach pad facilities are contained within one valley, limiting potential environmental impacts. The operation's effects on surface water and ground water resources are taken into account to ensure that residents downstream of the site are not adversely affected.

Mining activity is focused on three laybacks: the initial layback, mining of which was completed in the third quarter of 2001; layback 2, which contains high grade ore and is scheduled to be mined through 2003; and layback 3, which is expected to provide ore continuously through 2007. In 2002, the average grade placed on the heap leach pad was 0.080 ounces per ton and it is expected to be 0.076 ounces per ton in 2003.

The Pierina mine produced 898,228 ounces of gold at a total cash cost of \$80 per ounce in 2002. In 2003, production is expected to be 908,000 ounces of gold at an average total cash cost of \$86 per ounce. The increase in total cash costs from 2001 is primarily due to the commencement of amortization of previously deferred stripping costs. In 2001, a continuous improvement initiative started at the mine, the principal benefits of which have been an increase in crusher throughput and cost reductions through decreased supply, consumption and prices. As a result of the improvements, the life-of-mine average total cash cost is expected to drop below the previously estimated \$110 per ounce level to below \$90 per ounce.

## Environment