



INTRODUCTION

- Alto Chicama was discovered in the second half of 2001 through grassroots exploration by Barrick
- Since the discovery, 130,000 meters have been drilled and Barrick is presently in the process of compiling the feasibility study
- This presentation will provide you with an project overview and the steps taken during the exploration program to arrive so quickly to the feasibility stage



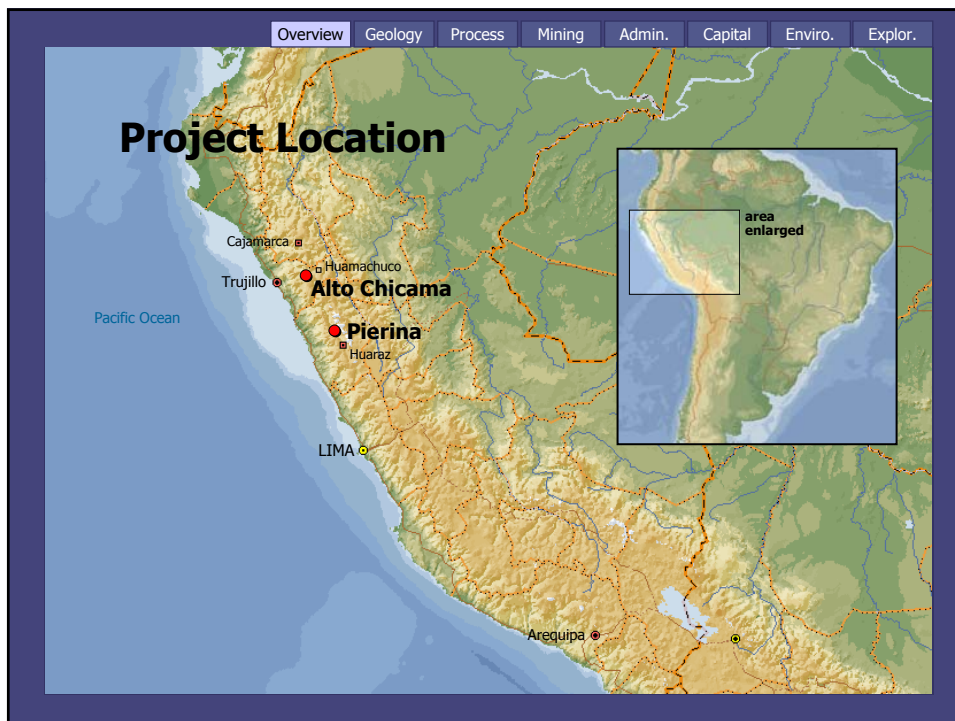
ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

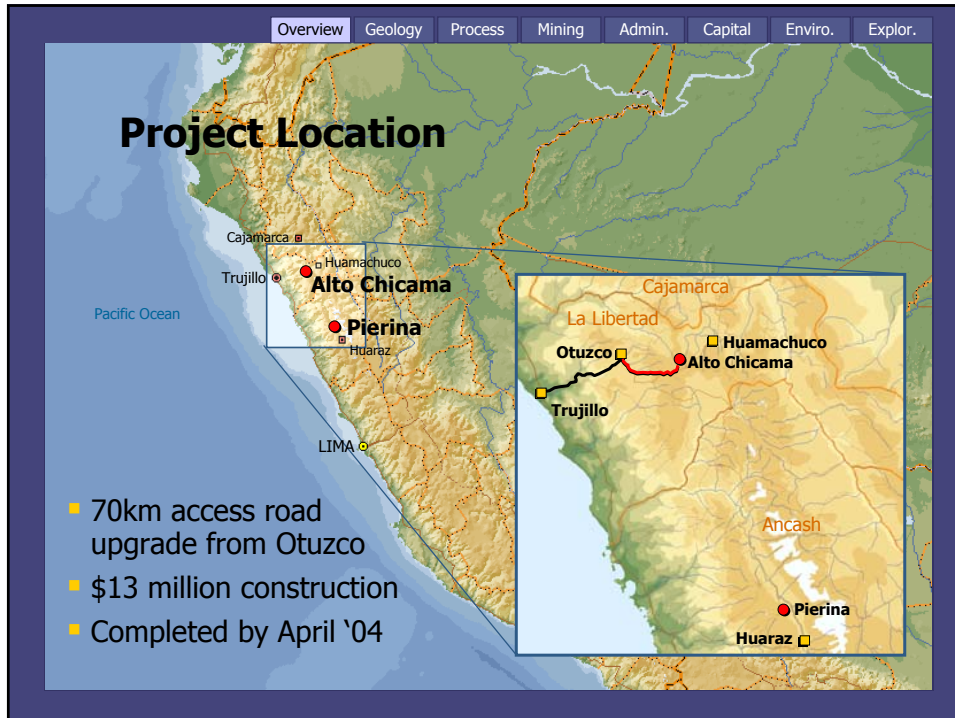
ALTO CHICAMA UPDATE AGENDA

- Project overview
- Geology
- Processing
- Mining
- Administration
- Capital
- Environmental
- Regional exploration



ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003





Overview Geology Process Mining Admin. Capital Enviro. Explor.

HISTORY

- Became interested in property in 1998
- 15 companies looked at the property
- Barrick only company to bid
- Drill program began in 2001
- Initial resource Apr. 2002: 3.5 Moz
- Reserve Dec. 2002: 6.5 Moz
- Current reserve: 7.2 Moz (after in fill drilling)

 **BARRICK** ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. Capital Enviro. Explor.

HIGHLIGHTS

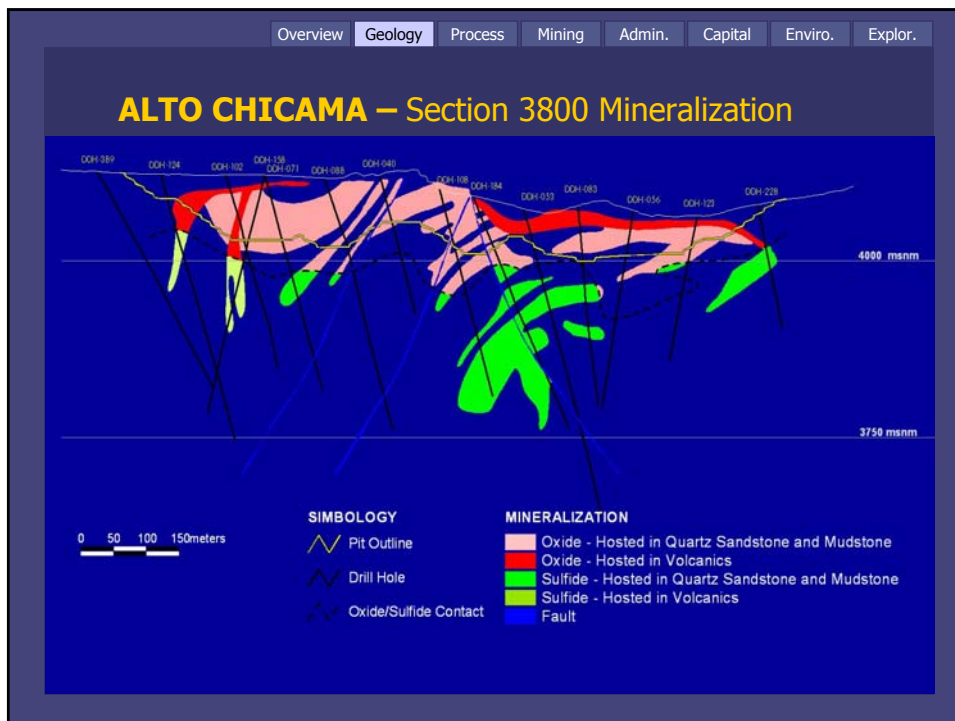
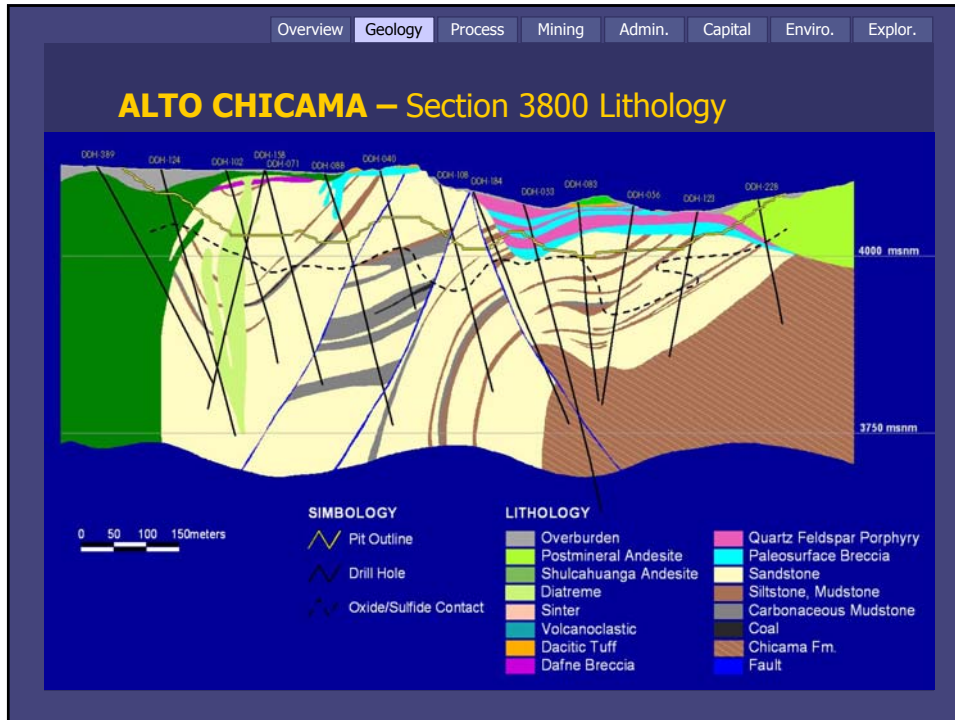
- Project status: feasibility completed
- 159 million tons grading 0.045 oz/ton
- Reserves (in situ): 7.2 million ounces
- Average annual production: 540,000 ozs
- Average cash cost per ounce: \$135
- Initial capital: \$340 million
- Internal rate of return @ \$350 gold: 39%

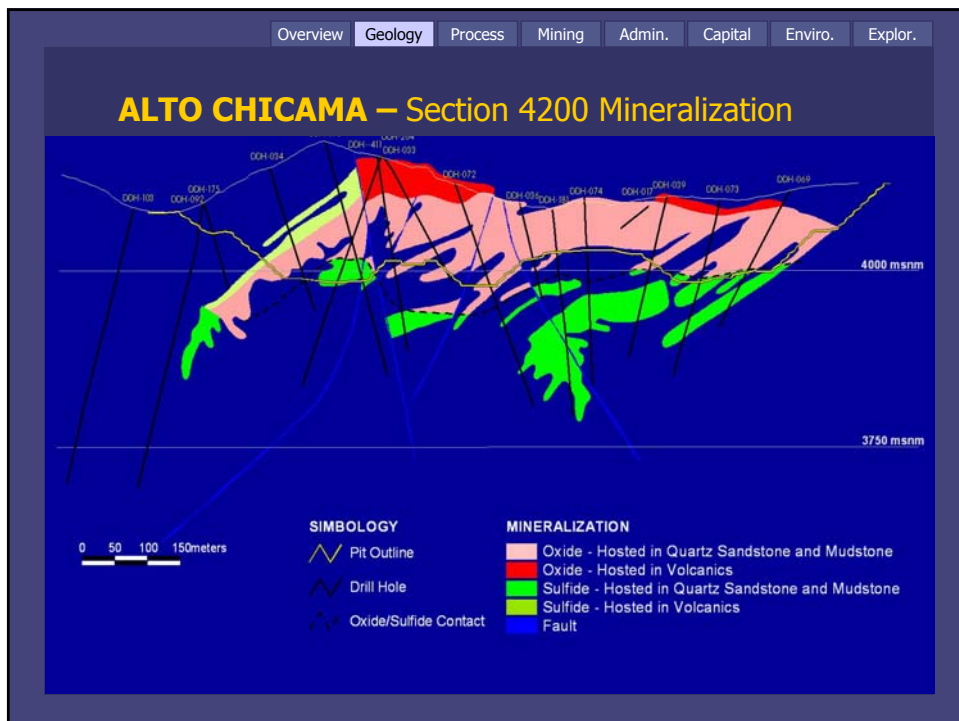
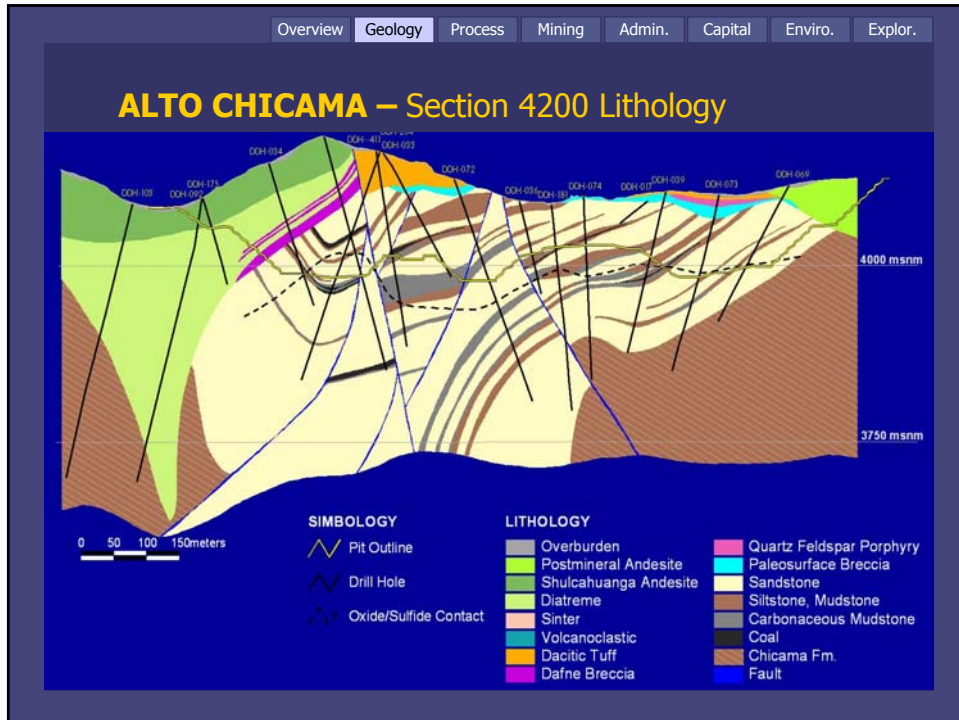


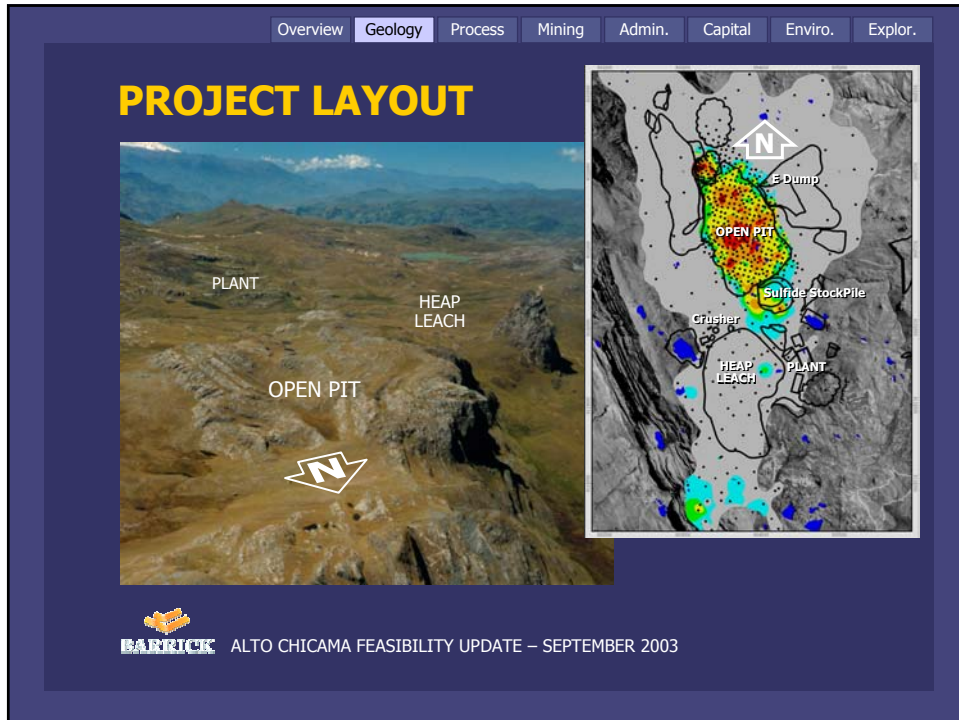
ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. Capital Enviro. Explor.










[Overview](#) [Geology](#) [Process](#) [Mining](#) [Admin.](#) [Capital](#) [Enviro.](#) [Explor.](#)

DETAILED GEOLOGICAL DATA BASE

- 830 diamond drill holes
- 138 reverse circulation drill holes
- 2,581 meters of surface channel cuts
- 222,299 samples in total
- 50m x 50m drill spacing


 **BARRICK** ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

[Overview](#) [Geology](#) [Process](#) [Mining](#) [Admin.](#) [Capital](#) [Enviro.](#) [Explor.](#)

IN-PIT RESOURCES

thousands of ounces

Total in pit resource	8,344
– sulphide	29
– carbonaceous + buffer zones	654
	7,661
– in pit inferred	506
Current reserve	7,155
Gold grade	1.54 gpt
Silver grade	3.71 gpt

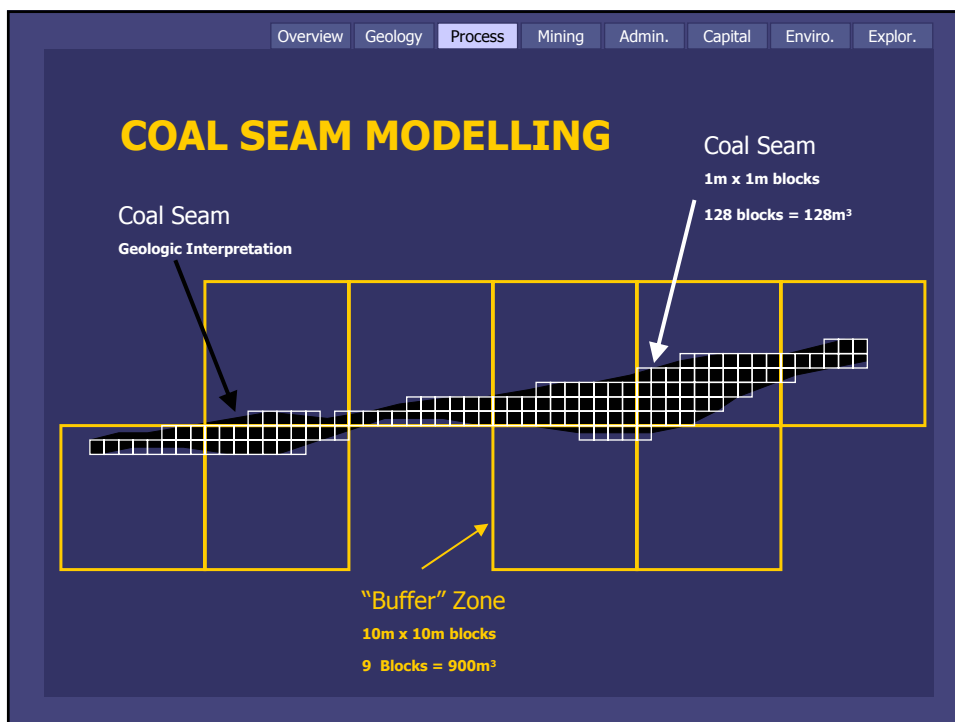
 **BARRICK** ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology **Process** Mining Admin. Capital Enviro. Explor.

BUFFER ZONE ORE PROCESSING

- Current plan is to stockpile as mined
- No value currently assigned in project economics
- Potential to place on top of heap leach pad
- Processed at reduced recovery
- Little impact (preg robbing) on remainder of pad
- Heap leach pad is being sized to ultimately accommodate buffer material

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003



Overview Geology **Process** Mining Admin. Capital Enviro. Explor.

METALLURGY

Four phases of studies have been undertaken to evaluate the metallurgical characteristics of the deposit

- Phase 1: Cyanide amenability bottle roll testing and preliminary column tests (July 2002)
- Phase 2: Column tests to evaluate heap leaching (November 2002)
- Phase 3: Confirmation test work for metallurgical modeling
- Phase 4: Evaluation of alternative processes for carbonaceous/sulfide material (in progress).

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

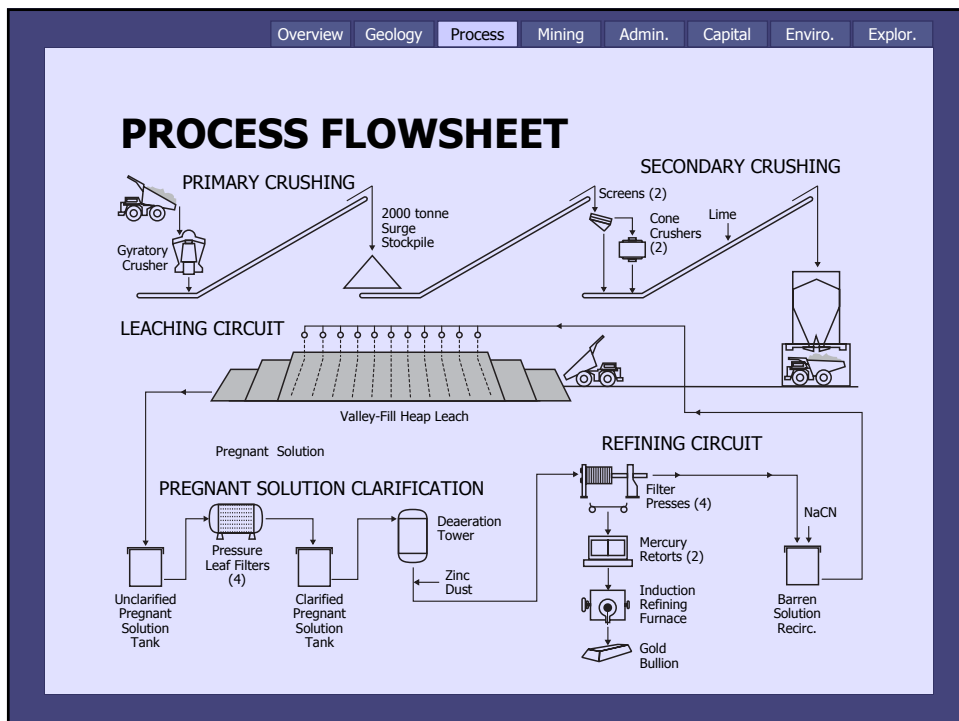
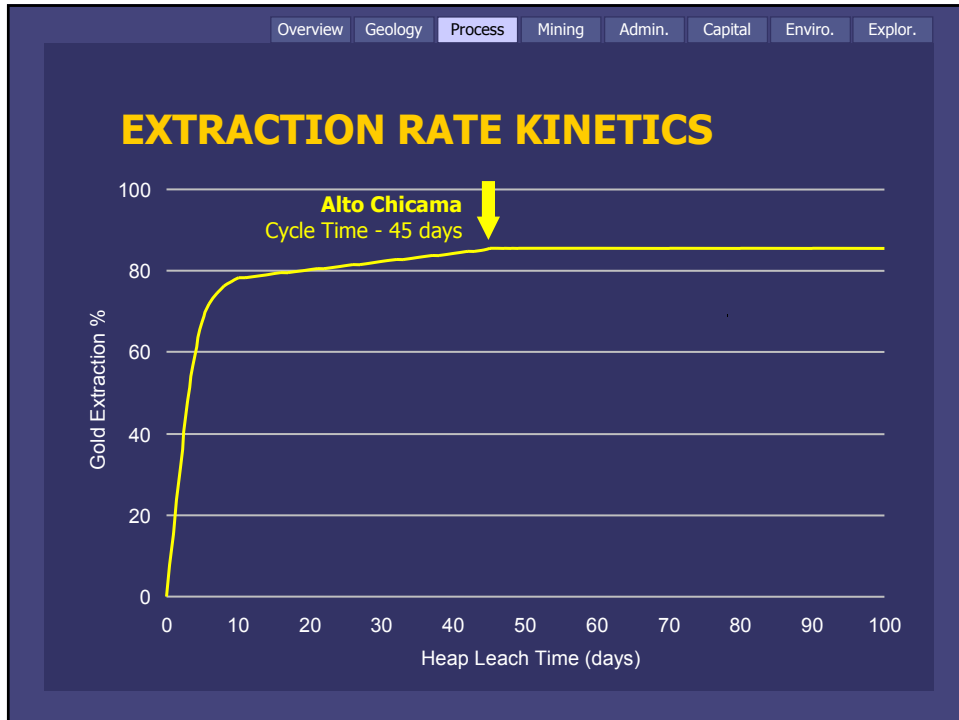
Overview Geology **Process** Mining Admin. Capital Enviro. Explor.

EXTENSIVE METALLURGICAL TEST WORK

TYPE	TOTAL
Bottle Rolls	2872
Cyanide Amenability Tests	8500
Column Tests	48
ICP, LECO, Carbon Tests	3000
Total	14,420



 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003



Overview Geology **Process** Mining Admin. Capital Enviro. Explor.

PROCESS DIVISION

- Manpower
 - supervision: 18
 - maintenance: 25
 - leach pad: 40
- Processing rate
 - annually: 15.3 million tonnes
 - daily: 42,000 tonnes

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology **Process** Mining Admin. Capital Enviro. Explor.

PROCESS DIVISION

- Leach pad capacity
 - initial: 20 million tonnes
 - ultimate: 160 million tonnes
- 3 or 4 expansions (every two years) at total cost of \$40M

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview	Geology	Process	Mining	Admin.	Capital	Enviro.	Explor.
UNIT PROCESSING COSTS							
US\$ per tonne			Life of mine				
Operating supplies			\$ 0.888				
Labour			0.243				
Power			0.311				
Maintenance			0.065				
Total			\$ 1.507				

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview	Geology	Process	Mining	Admin.	Capital	Enviro.	Explor.
MINE DIVISION							
■ Manpower							
– mine: 68							
– maintenance: 92							
– engineering: 35							
■ Fleet size							
– 13 trucks: 190 ton							
– 2 shovels: 19 cubic meter							
– 1 front end loader							

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview
Geology
Process
Mining
Admin.
Capital
Enviro.
Explor.

MINE DIVISION

- Mining rate
 - annually: 30 million tonnes
 - daily: 80,000 tonnes
 - life of mine strip ratio: 1:1
 - bench height: 5 m. in ore – 10 m. in waste


ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview
Geology
Process
Mining
Admin.
Capital
Enviro.
Explor.

UNIT MINING COSTS

US\$ per tonne	Life of mine
Loading	\$ 0.195
Hauling	0.354
Drilling	0.122
Blasting	0.105
Support	0.212
Miscellaneous	0.018
Engineering	0.071
Total	\$ 1.077


ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. Capital Enviro. Explor.

ADMINISTRATION

- Total annual cost: \$14.7 million
- Cost per tonne processed: \$0.96
- Synergies with Pierina:
 - purchasing
 - human resources
 - maintenance systems
- Camp: 400 person camp, 3km. NE of plant
- Royalties: 2.51% NSR

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. Capital Enviro. Explor.

CAPITAL COST OF CONSTRUCTION

US\$ millions

Mining	\$ 83
Process plant and heap leach	75
Infrastructure / owner's cost	90
Indirect cost	49
Contingency	43
Total capital cost	\$ 340

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

<div> <div>Overview</div> <div>Geology</div> <div>Process</div> <div>Mining</div> <div>Admin.</div> <div>Capital</div> <div>Enviro.</div> <div>Explor.</div> </div>		
CONSTRUCTION SCHEDULE		
	Commences	Completed
■ Access road	Q3 '03	Q2 '04
■ EIS review process	Q3 '03	Q2 '04
■ Primary crusher ordered	Q3 '03	Q4 '04
■ Pre-strip	Q1 '05	Q3 '05
■ Heap leach facility	Q2 '04	Q1 '05
■ Process plant	Q2 '04	Q2 '05
■ Pad loading	Q2 '05	Q3 '05
■ First gold pour		Q3 '05
<div>  ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003 </div>		

Overview

Geology

Process

Mining

Admin.

Capital

Enviro.

Explor.

PROJECT ECONOMICS

	Life of Mine
Production (000's)	540
Cash oper. cost (\$ per oz)	\$ 118
Royalties + profit sharing	16
Total cash cost (\$ per oz)	135
Amortization & reclamation	75
Total production cost (\$ per oz)	\$ 210




ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. **Capital** Enviro. Explor.

PROJECT PERFORMANCE


Spot price (3.0 peso)	IRR pre-finance	Payback in years from start-up
\$300/oz	27%	2.8
\$325/oz	33%	2.5
\$350/oz	39%	2.0


 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. Capital **Enviro.** Explor.

ENVIRONMENTAL – Remediation

- During road and platform construction, the top soil is removed and accumulated.
- After drilling, roads and platforms outside the principal orebody footprint are reclaimed with the original top soil.




 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. Capital **Enviro.** Explor.

ENVIRONMENTAL – Water Management

- To protect the road and to minimize sediment transport, culverts are installed and rock structures are built using local labor.



Sedimentation basin

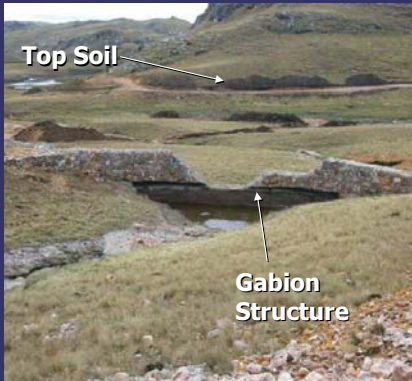
Culverts and Road Protection

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

Overview Geology Process Mining Admin. Capital **Enviro.** Explor.


ENVIRONMENTAL – Water Management

- Gabion structures are built to reduce the water velocity and reduce sediment transport.
- These structures are built by the local work force.

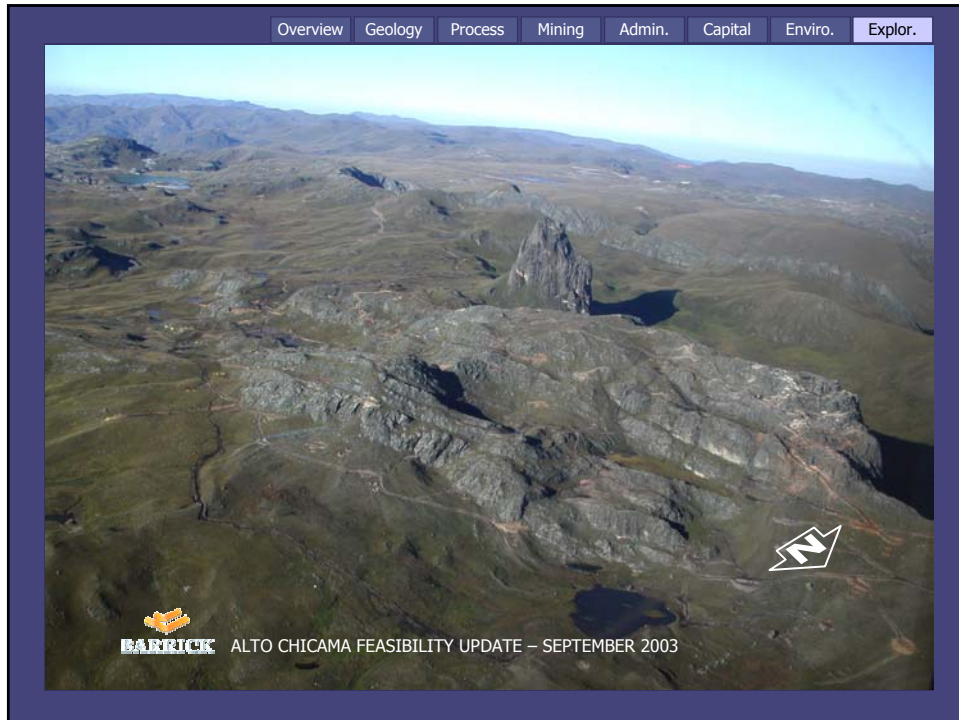


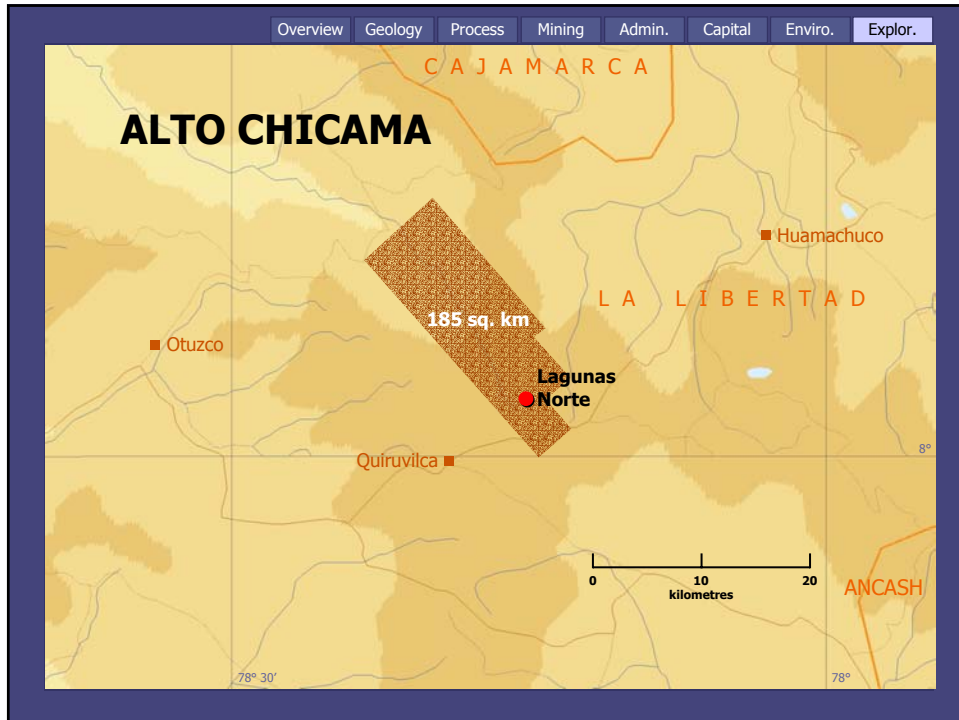
Top Soil

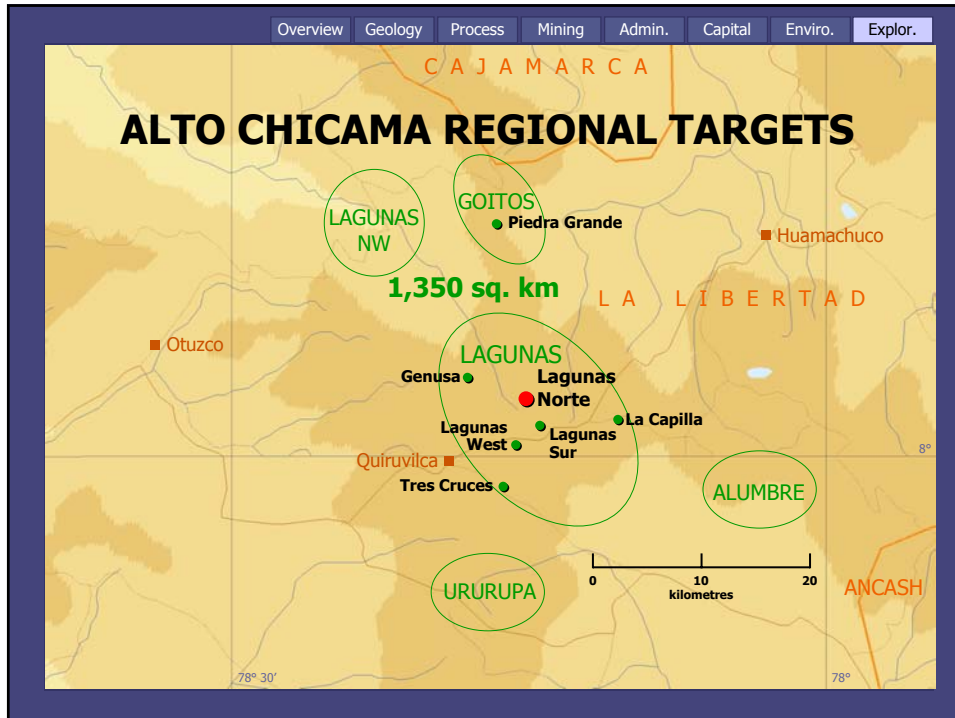
Gabion Structure

 ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003

BARRICK GOLD CORPORATION
Denver Gold Forum – Alto Chicama Update
September 2003







BARRICK – Exploration in Peru

KEY FACTORS CONTRIBUTING TO OUR SUCCESS

- Focused on building and maintaining an appropriate portfolio of projects at different stages of advancement
- Continual improvements in technology, coupled with skilled application of existing methods
- Extensive knowledge and understanding of high and low sulfidation ore deposit modeling
- Intensive application of data processing, visualization and modeling, to present data in diverse forms providing a quick response to the geologists in the field
- Team of innovative and highly experienced geologists
- Maximize contact time between the geologists and the rocks

FORWARD LOOKING STATEMENT

Certain statements included herein, including those regarding production and costs and other statements that express management's expectations or estimates of our future performance, constitute "forward-looking statements" within the meaning of the United States Private Securities Litigation Reform Act of 1995. The words "believe", "expect", "anticipate", "contemplate", "target", "plan", "intends", "continue", "budget", "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 management are inherently subject to significant business, economic and competitive uncertainties and contingencies. We caution you that such forward-looking statements involve known and unknown risks, uncertainties and other factors that may cause the actual financial results, performance or achievements of Barrick to be materially different from our estimated future results, performance or achievements expressed or implied by those forward-looking statements and our forward-looking statements are not guarantees of future performance. These risks, uncertainties and other factors include, but are not limited to: changes in the worldwide price of gold or certain other commodities (such as silver, copper, diesel fuel and electricity) and currencies; changes in interest rates or gold lease rates that could impact realized prices under our forward sales program; legislative, political or economic developments in the jurisdictions in which Barrick carries on business; 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; and the risks involved in the exploration, development and mining business. These factors are discussed in greater detail in Barrick's most recent Form 40-F/Annual Information on file with the U.S. Securities and Exchange Commission and Canadian provincial securities regulatory authorities.

Barrick expressly disclaims any intention or obligation to update or revise any forward-looking statements whether as a result of new information, events or otherwise.



BARRICK ALTO CHICAMA FEASIBILITY UPDATE – SEPTEMBER 2003