



AngloGold South American Region Cerro Vanguardia August 2001

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History

Cerro Vanguardia

- ✗ Gold findings in Patagonia date back to late 1800's;
- ✗ In 1988 Fomicruz (Gov) was granted the rights over the areas;
- ✗ In 1990 a tender process was carried out to the private sector;
- ✗ During 1991-1994 Minera Mincorp carried out exploration work, with feasibility study being completed in 1996;
- ✗ Construction took place during 1996/1997;
- ✗ September 1998 first gold poured;
- ✗ Asset acquired from Minorco in 1999.



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Operational Overview

Fact Sheet

- ✘ Open pit operation
- ✘ One Plant
- ✘ Leverage from structure



- ✚ AngloGold 46.25%
 - ✚ Operator, provides mining expertise;
- ✚ Perez Companc 46.25%
 - ✚ Local party, largest energy conglomerate in Argentina, providing strong local support;
- ✚ Fomicruz 7.5%
 - ✚ Provides provincial support and experience.



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Operational Overview

Fact Sheet

- ✘ Year 2000 highlights
 - ✘ Production of 285 Koz Au;
 - ✘ 132 Koz Au attributable;
 - ✘ Operating cash costs of US\$146/Oz*
- ✘ Mine life to 2011;
- ✘ Total employees – 400 (including contractors)



* Including Silver by-product credits and production royalties



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Geology

Overview

Regional Geology

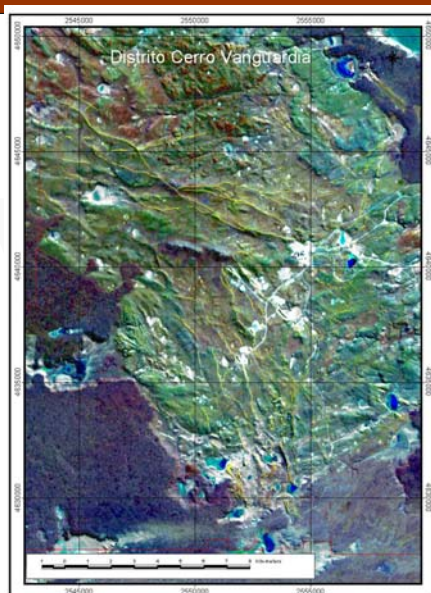
- ✦ Located in the Deseado Massif in Santa Cruz Province, Patagonia;
- ✦ Jurassic rhyolitic ignimbrites building an extensive plateau;
- ✦ Mineralisation occurs in dipping epithermal quartz veins hosted in ignimbrite flows;
- ✦ 67 Main veins and 29 Secondary veins have been identified.
- ✦ Structural and mineralogical features allow us to infer an interesting potential in depth.



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Geology

CVSA

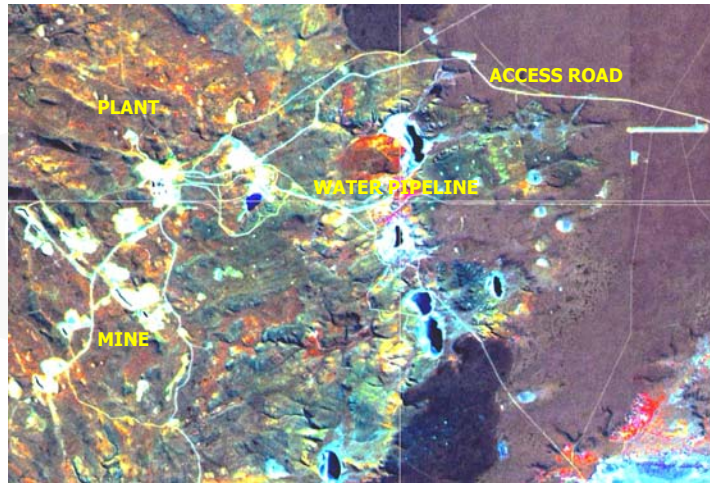


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Geology

CVSA

Detail



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Geology

CVSA

•Since October 1998 to December 1999

RC & Diamond Drill	10000 m
Aeromagnetic Survey	11000 Km

•Year 2000

Reverse Circulation	14970 m
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Geology

CVSA

RESOURCES by Cut Off 0.00 g/t Au

Year	Tonnes t x 000	Au (g/t)	Ag (g/t)	Au oz x 000	Ag oz x 000
1998 / 99	1159	8.47	88.04	316	3281
2000	925	5.91	87.59	176	2605
Total	2084	7.33	87.84	491	5886

RESERVES

Year	Tonnes t x 000	Au (g/t)	Ag (g/t)	Au oz	Ag oz
1998 / 99	701	9.30	100.20	210	2258
2000	568	6.16	96.32	112	1759
Total	1269	7.89	98.46	322	4017

Year	Budget u\$s x 000	Drilling m	RESOURCES		RESERVES	
			Resources oz x 000	Exploration Cost u\$/oz	Reserves oz x 000	Exploration Cost u\$/oz
1998 / 99	1273	9775	316	4.03	210	6.06
2000	1649	14970	176	9.37	112	14.72
Total	2922	24745	492	5.94	322	9.07



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Geology

Reserves and Resources

AngloGold Attributable (46.25%)

31 Dec 2000		Reserves			Resources (Inclusive of Reserves)			
		Proven	Probable	Total	Measured	Indicated	Inferred	Total
Tonnes	million	2.5	1.4	3.9	4.2	2.25	0.25	6.7
Au Grade	g/t	9.40	9.56	9.46	7.90	7.72	5.12	7.72
Gold Ounces	Million	0.8	0.4	1.2	1.1	0.6	0.0	1.7

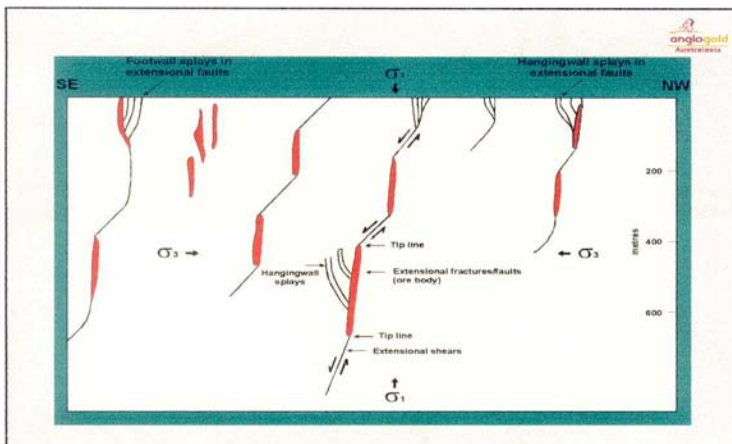


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Geology

Reserves and Resources

Up side Potential



± Structural and mineralogical features allow us to infer an interesting potential in depth.

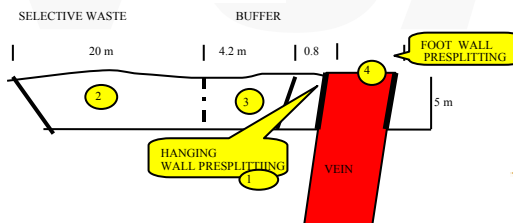


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Operations

Mining

- Numerous open pits mined by a fleet of 50 and 90-tonne trucks;
- Selective mining of the quartz veins since 1998;
- Emphasis on advanced techniques for blasting and drilling – harsh climate conditions as an extra challenge;



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Operations

Mining

Economic veins	25	
Push backs	50	
		average
Grade push backs (Au -g/t):		9.3
Grade push backs (Ag-g/t):		130
Vein width per pit (m):		3.5
Depth (m):		75
Distance from pit to crusher (m):		6000
Bench height (m):		5 - 10
Operational width (m):		18 - 24
Ramp width (m):		15 - 12
Ramp grade (%):		10



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Operations

Mining

Production

	Ore (t)	Waste (t)
1998	289.907	3.407.486
1999	693.866	6.432.377
2000	768.062	7.254.923
2001	897.711	10.520.139



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Operations

Mining

MINE COST

Year	\$/ore t	\$/rock t	s/r
1998	27.9	2.27	11.8
1999	16.8	1.61	9.3
2000	16.7	1.60	9.4
2001	19.4	1.51	11.8



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Operations

Mining

Productivity

	Drillers m/h	Loaders t/h	Trucks t/h
1998	22	420	155
1999	31	490	208
2000	33	503	217
2001	41	624	239



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Operations

Mining

MINE EFFICIENCY

Year	Annual tons/man year	Capital \$/ rock ton
1998	31.602	3.42
1999	65.984	1.81
2000	79.435	1.60
2001	90.616	1.39



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Operations

Processing

- ✕ Conventional 3 stages crusher;
- ✕ Ball Mill;
- ✕ Conventional Merrill Crowe and CIL;
- ✕ Dore (10% Au and 90% Ag);
- ✕ Plant capacity of 2,500 tpd;
- ✕ In addition, heap-leachable material has been stockpiled since 1999;
- ✕ Plans to verify the viability of the leachable material under way.



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Operations

Plant

Production

	Ore (t)	Gold (kg)	SILVER (kg)
1998	125.777	1.761	6.096
1999	678.217	10.064	44.276
2000	790036	8.886	49.129
2001	880.000	9.171	107.844



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Operations

Plant

Production - Gold

	Feed (g/t)	Tails (g/t)	Recovery (%)
1998	14.43	0.44	96.95
1999	15.3	0.45	97.06
2000	11.64	0.42	96.39
2001	10.84	0.40	96.31



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Operations

Plant

Plant Cash Cost

	US\$/ton	US\$/Oz
1999	25.17	52.72
2000	17.05	47.26
2001 (ytd)	16.46	49.20

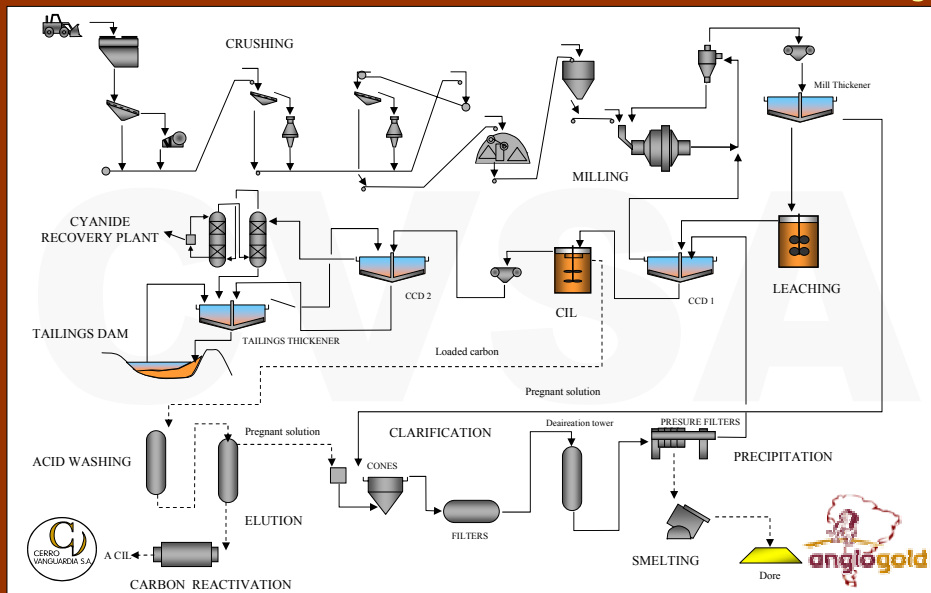


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Operations

Flowsheet

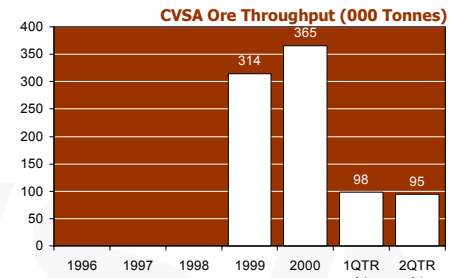
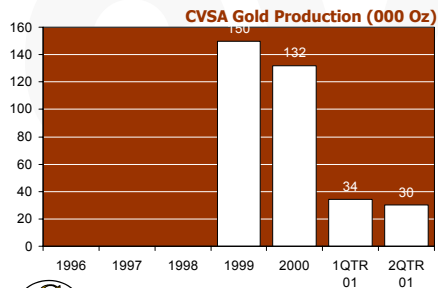
Processing



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Performance

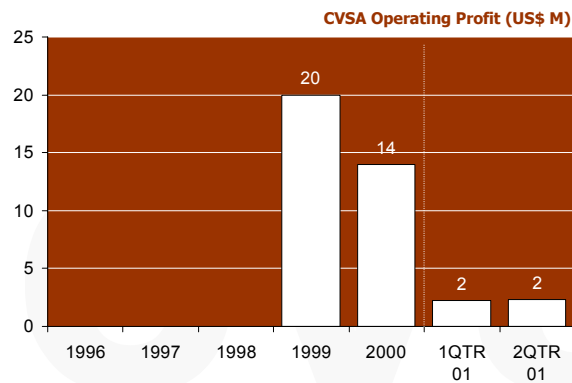
Attributable Production



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Performance

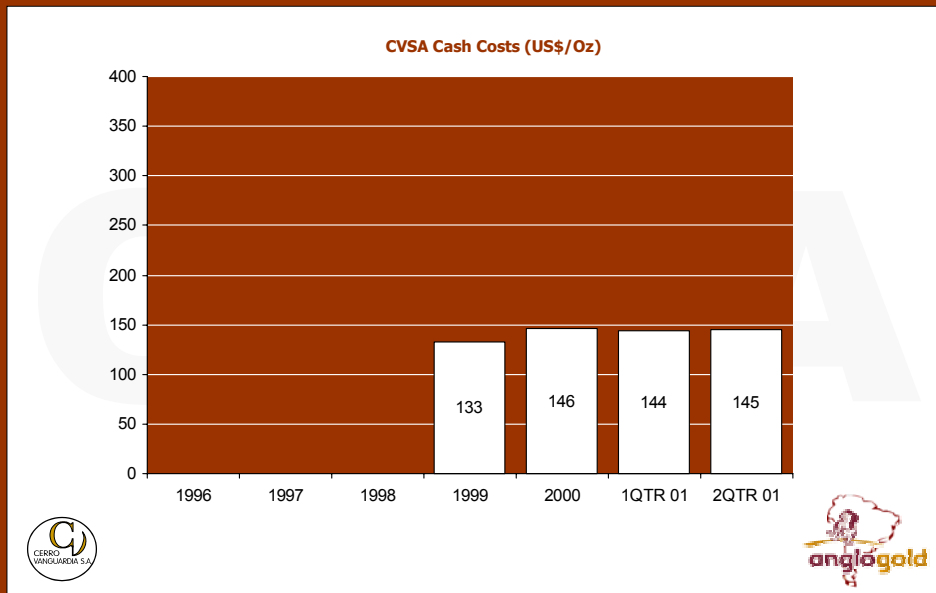
Attributable Operating Profit



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Performance

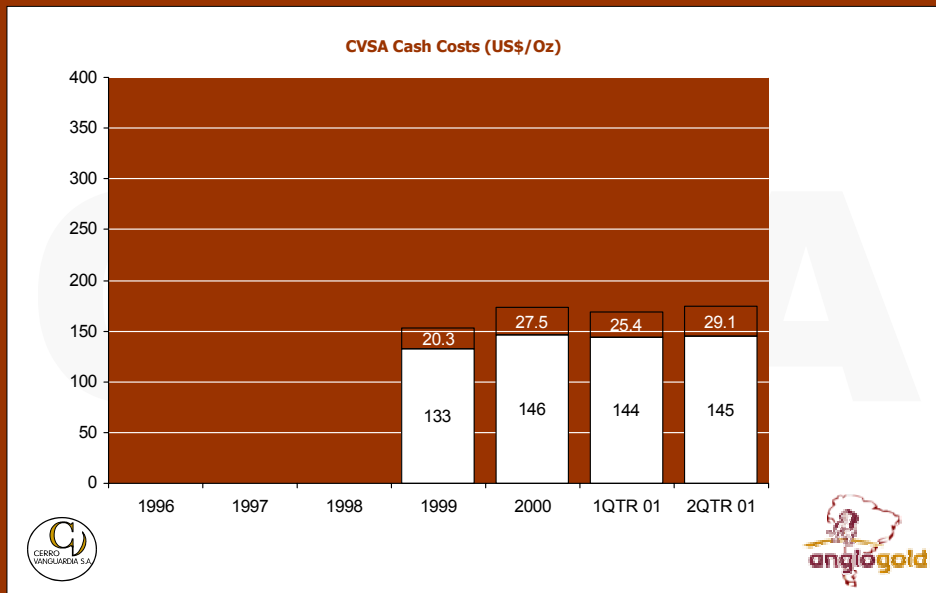
Cash Costs



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Performance

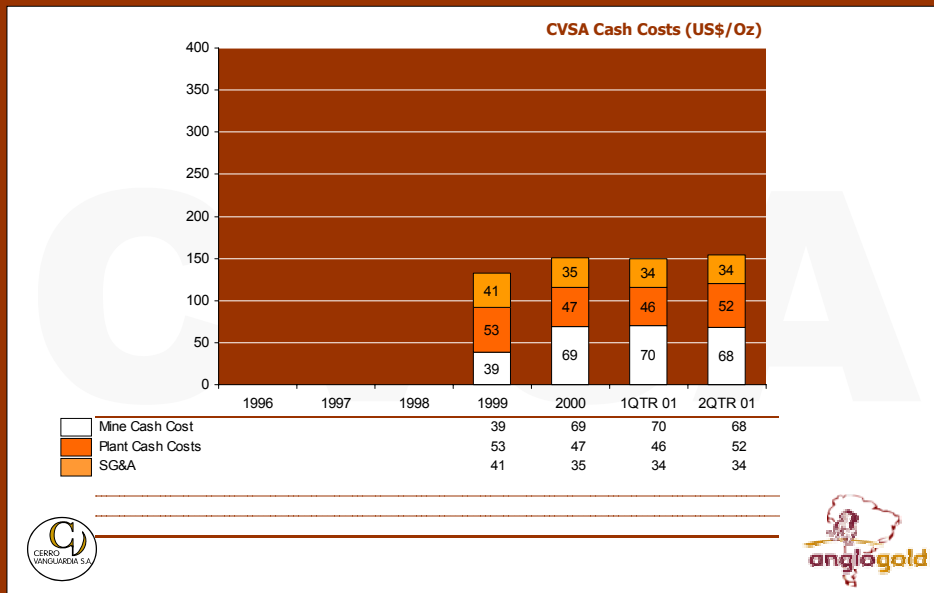
Cash Costs



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Performance

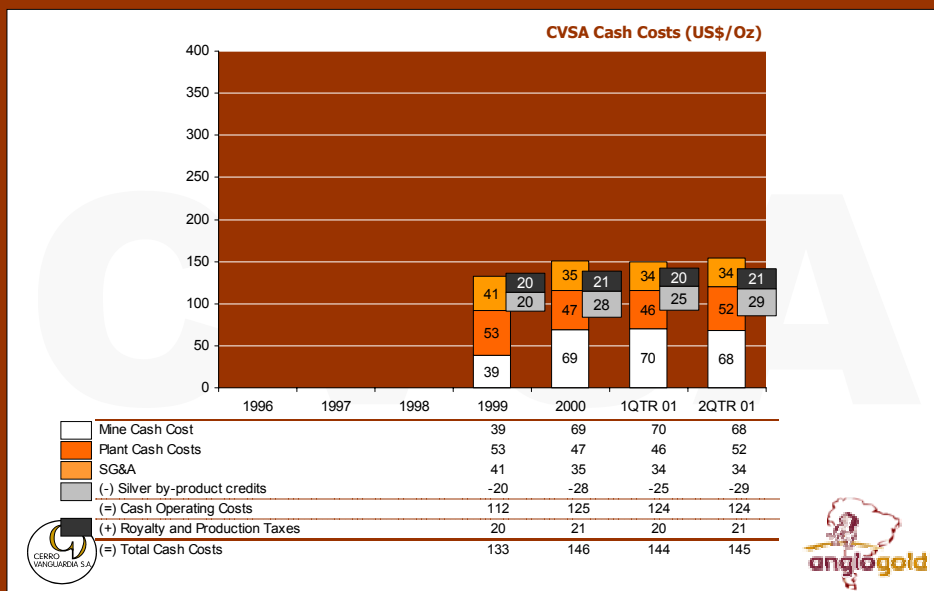
Cash Costs



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Performance

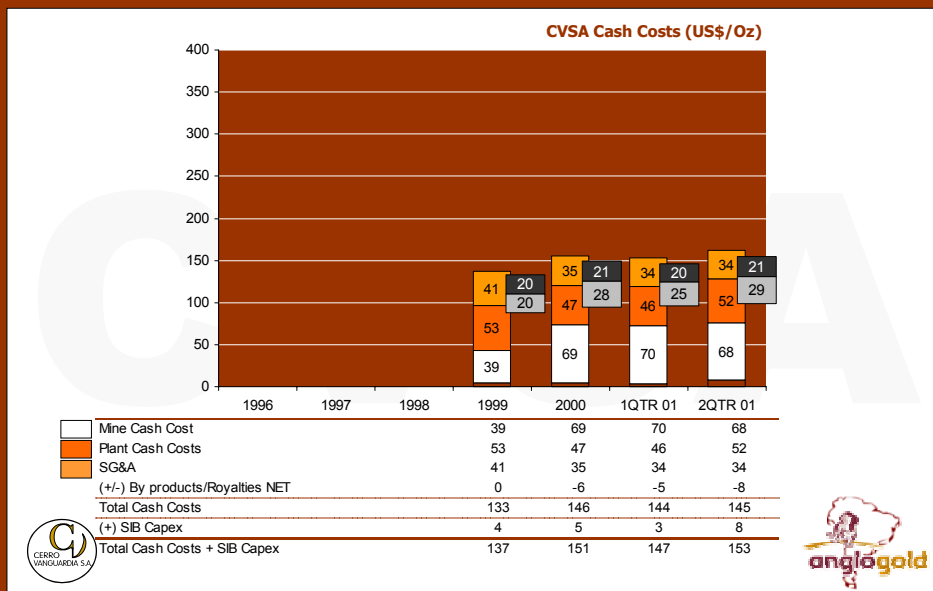
Cash Costs



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Performance

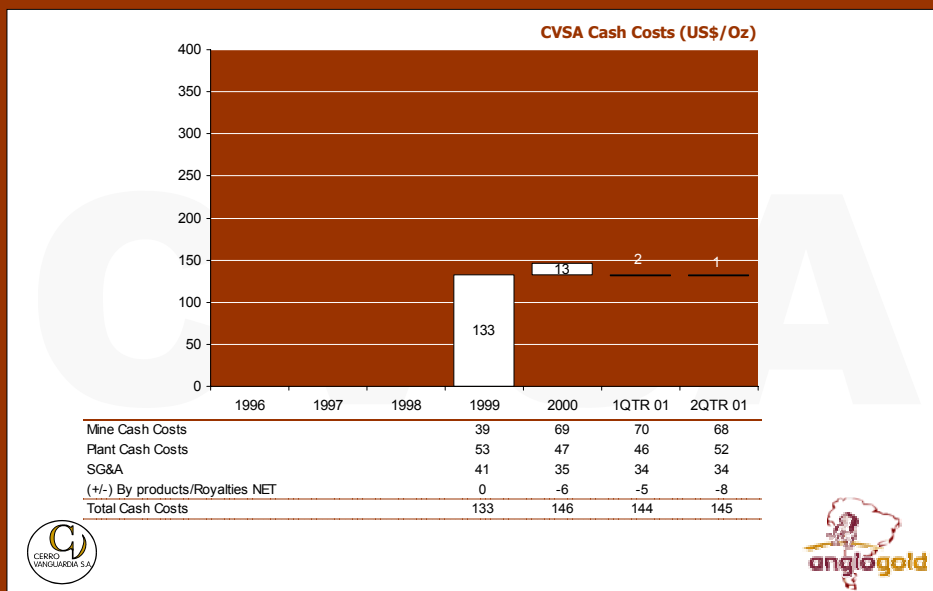
Cash Costs



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Performance

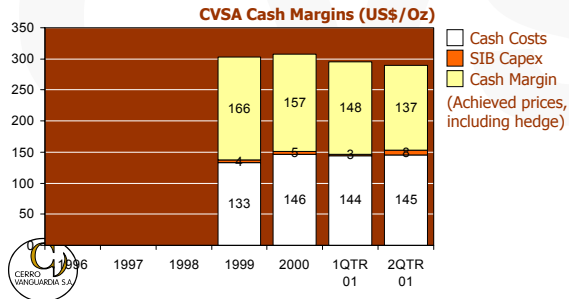
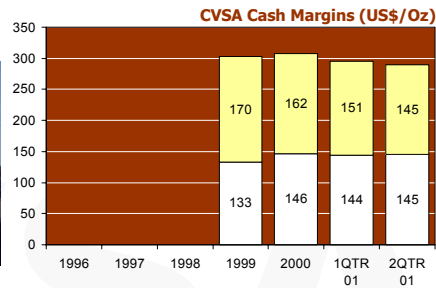
Cash Costs



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Performance

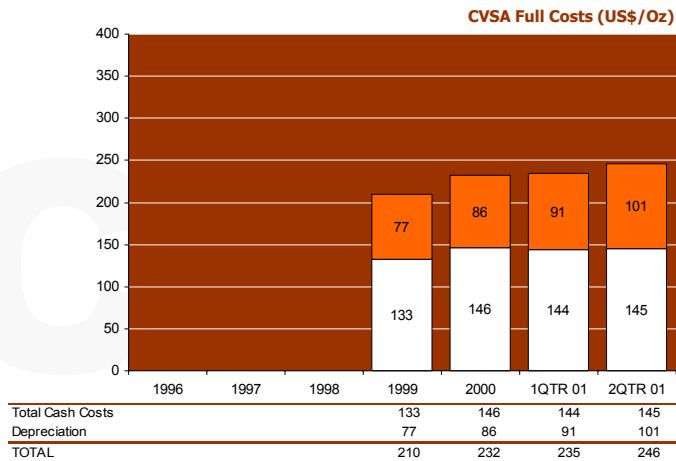
Cash Margins



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Performance

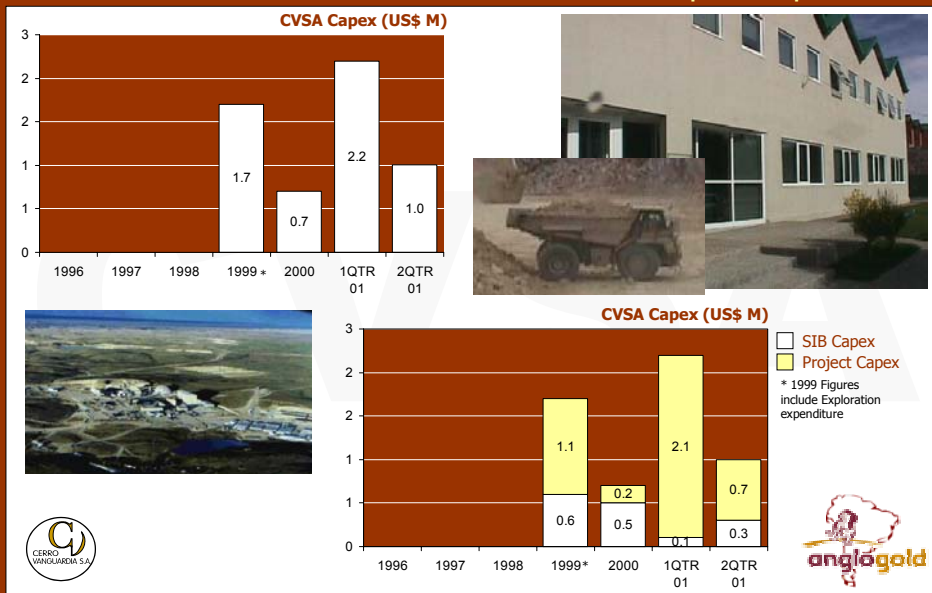
Full Costs



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Performance

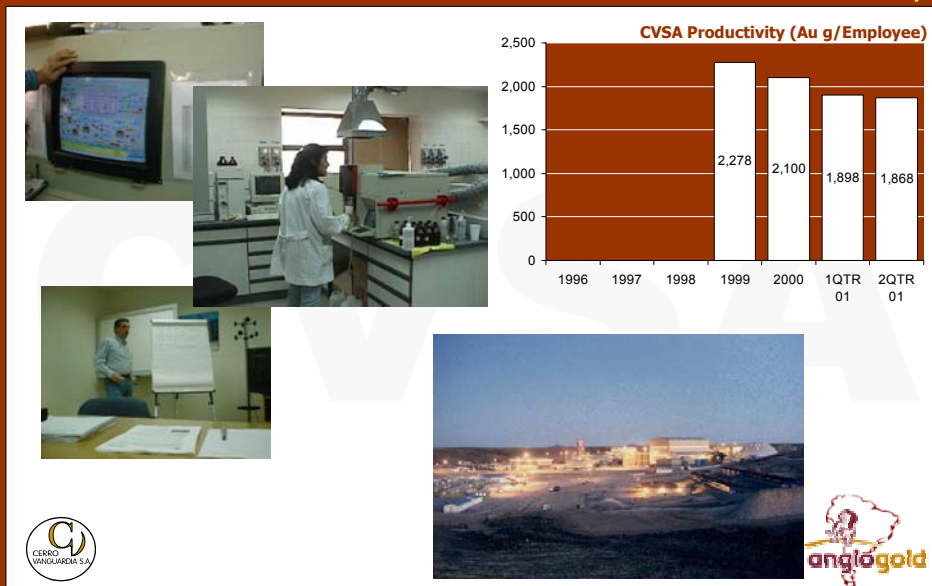
Attributable Capital Expenditure



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Performance

Productivity

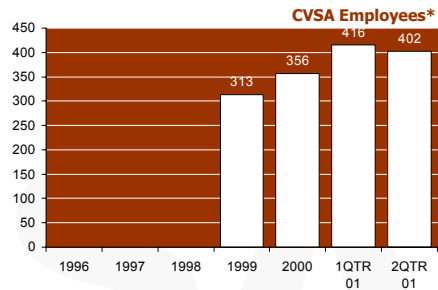
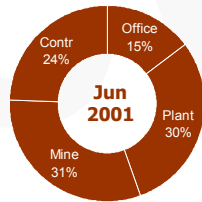


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Management

Human Resources

- Regional presence;
- Importance to Sta Cruz Province.



* Total Employees, excluding contractors involved in non-core activities

Management

Human Resources

PERSONNEL SELECTION

EVALUATED APTITUDES

- ADAPTABILITY
- INITIATIVE
- LEARNING CAPACITY
- DISCIPLINE
- ANALYSIS AND RESOLUTION OF PROBLEMS
- ORIENTATION TO QUALITY - ATTENTION TO DETAIL
- RESPECT FOR WORK RULES
- TEAM WORK - COOPERATION
- MOTIVATION



✕ PERSONNEL SELECTION

SELECTION STEPS

- APPLICANT'S ANTECEDENT ANALYSIS
- PSYCHOTECHNIC EVALUATION
- ASSESSMENT CENTER
- PERSONAL INTERVIEW
- MEDICAL TEST



✕ CAPACITATION

TOTAL HOURS OF CAPACITATION PER PERSON

<u>AREA</u>	<u>GENERAL</u>	<u>SPECIFIC</u>	<u>TOTAL</u>
Mine	160	794	954
Plant	160	340	500
Maintenance	160	464	624
Control Room	160	180	340
Laboratory	160	223	383



Management

Human Resources

PERSONNEL SELECTION

SEQUENCES OF RESULTS OF THE SELECTION PROCESS

PRE-SELECTED APPLICANTS	796	100%
APPROVED EVALUATION PSYCOTECHNICAL	414	52%
INTERVIEW AND ASSESSMENT CENTER	215	27%
APPROVED MEDICAL TEST	191	24%
EFFECTIVE INCORPORATION	183	23%

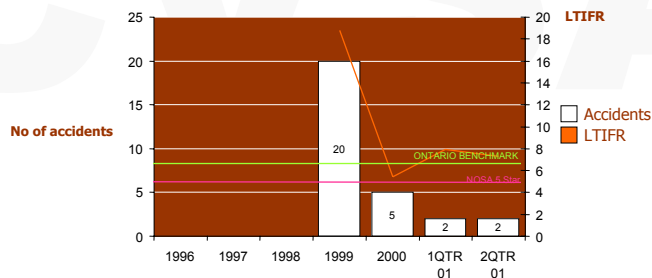


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Management

Safety and Health Management

- CVSA was granted in 2000 four stars based on the NOSA system;
- Objective for next grading audit: to achieve five stars;
- Currently presenting the highest scores in compliance in Argentina.



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Management

Environment

- ✘ Constant monitoring of current trends in environmental risk management according to EIS and group policy;
- ✘ Currently working to achieve ISO14001 certificate;



- ✘ No environmental claims from government and/or interest groups since commissioning.



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Management

Environment

Integrated Safety, Health and Environment Management System



Based on continuous improvement, positive reinforcement, and full employee commitment and participation



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SHE Risk based System

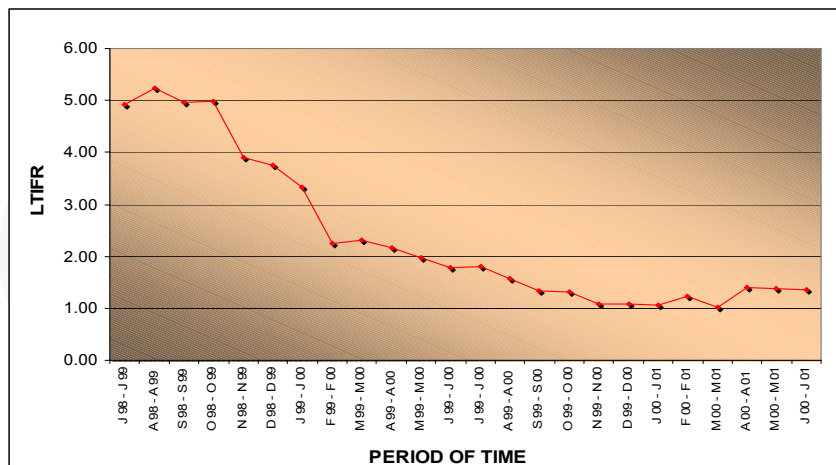
Shared responsibility



The objective is to be proactive, implementing methods to identify and assess risks in order to reduce, control, and manage them.



MOVING AVERAGE (12 months)



* LTIFR per 200,000 hours

Management

Environment

Benefits of an Integrated SHE System

- NOSA & ISO 14001 are internationally recognized instruments.
- Improves safety, health and environmental performance.
- Ensures legal compliance
- Improves the global administration
- Strengthens internal and external company image
- Reduces costs



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Looking Forward

Challenges

- ✕ Increasing slope angles;
- ✕ Improvements on bench height and pit design;
- ✕ Capacity increase – 1mtpa;
- ✕ Instalation of a Knelson concentrator;
- ✕ Underground;
- ✕ Exploration.



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Looking Forward

Growth Opportunities

✦ Currently under investigation

- ✦ Heap leach option – stockpiled material;
- ✦ Underground.

CVSA



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Certain Forward-Looking Statements

Certain statements contained in this document, including without limitation, those concerning: (i) the economic outlook for the gold mining industry, (ii) expectations regarding gold prices and production, (iii) the completion and commencement of commercial operations of certain of the company's exploration and production projects, and (iv) the company's liquidity and capital resources and expenditure, contain certain forward-looking statements concerning the company's operations, economic performance and financial condition. Although the company believes that the expectations reflected in such forward-looking are reasonable, no assurance can be given that such expectations will prove to have been correct. Accordingly, results could differ materially from those set out in the forward-looking statements as a result of, among other factors, (i) changes in economic and market conditions, (ii) success of business and operating initiatives, (iii) changes in the regulatory environment and other government actions, (iv) fluctuations in gold prices and exchange rates, and (v) business and operational risk management.