

## PERU

*By C.G. Soldi*

**P**eru experienced a 4.7% growth in its GDP during 2002, compared with the modest 0.2% reached during the previous year. Inflation for the year was 1.5%. The value of all Peruvian exports increased by 7% to US\$7.6 billion during 2002, and imports increased to US\$7.5 billion, reducing the trade deficit of the country to US\$82 million, an 18% reduction on that of the previous year. Peru's net international reserves at the end of 2002 totalled US\$9.6 billion, a figure 11% higher than the previous year.

The newly-elected government headed by Alejandro Toledo experienced some internal difficulties caused mainly by increasing social demands, which ended in a decision to go ahead with the setting up of regional governments, before having a clear map of how these governments would operate and what budget they will be managing. This decision generated some problems with the privatisation process, since the regional governments considered that the property of some of the state-owned companies and assets should have been transferred to them before going ahead with their transfer to the private sector.

The Peruvian mining industry continued to suffer the effects of the decline in international metal prices, the zinc producers being the most affected. The value of Peruvian mining production for 2002 is estimated at US\$4.6 billion, and the value of all mining products exported during the year was US\$3.73 billion, a figure 17% higher than that of year 2001. Mining and oil export earnings amounted to US\$5.07 billion during 2002, representing 67% of the country's total export income.

Among the most important news for the Peruvian mining sector during 2002 were the submission of the environmental impact study for the Tambogrande gold deposit project by Manhattan Minerals of Vancouver, and the transfer of the Alto Chicama gold prospect, an area previously known as hosting a large anthracite coal deposit, to Minera Barrick Misquichilca, the operator of the Pierina gold mine.

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## **Gold**

Peruvian gold production experienced an important 13.4% growth during 2002, reaching a total of 157,298 kg. Minera Yanacocha and Barrick Misquichilca contributing 64% of total output. Cia. Minera Ares and Cia. De Minas Buenaventura, each contributed 4%. Peruvian gold exports in 2002 were valued at US\$1.48 billion, a figure 27% higher than that of the previous year, representing 42% of the value of all mining exports.

Minera Yanacocha maintained its position as the largest gold producer in the country, reporting output of 72,471 kg at the end of 2002, which represents a 22% increase on the previous year's mine output. Other important gold producers during 2002 were Minera Barrick Misquichilca, the operator of the Pierina mine, which reported an output of 27,938 kg (1.4% less than the previous year); Cia. Minera Ares, with 6,024 kg; Cia. de Minas Buenaventura with 5,820 kg; Minera Aurifera Retamas with 4,991 kg; Consorcio Minero Horizonte with 4,739 kg; Cia. Minera Aurífera Santa Rosa with 3,706 kg; Cia. Minera Poderosa with 2,512 kg; and Inversiones Mineras del Sur with 2,040 kg.

Other medium and small mines accounted for 8,335 kg, and an unknown number of informal miners accounted for 18,720 kg, representing around 12% of the country's total gold production.

The Tambogrande open-pit project will require an estimated capital expenditure of US\$405 million over the mine's 17-year life and it will involve the relocation of 1,800 Tambogrande homes to the south of the town, and the construction of a new neighbourhood and urban centre. According to the project feasibility study, around 260,000 oz/y gold and 3.2 Moz/y silver will be produced for 3.5 years before the underlying copper-zinc deposit is developed.

On the Alto Chicama project, Barrick announced its decision to go ahead with an intensive exploration programme to define the size of the gold reserves contained in the area and by the end of the year the company had spent US\$30 million in 55,000 m of exploration drilling of the deposit. The company is expected to complete the environmental impact study for this new project by mid 2003. Peru's mine production experienced a 7% growth during the year. Output of most metals increased, the most important being for copper (16.7%), zinc (15.6%) and gold (13.4%).

## **Copper**

Peru's copper production increased by 16.7% during 2002, reaching 842,783 t, with a value estimated at US\$1.31 billion. Copper exported during 2002 was 858,800 t, valued at US\$1.187 billion (including the value of silver contained in copper concentrates).

SPCC remained the largest copper producer, reporting an output of 344,298 t of fine copper content from its mining operations at Toquepala and Cuajone, a figure slightly higher than that achieved in 2001. Antamina retained its position as the second-largest Peruvian copper producer, after more than doubling its

previous year's output to reach 341,412 t. Soc. Minera Cerro Verde became the third-largest copper producer, reporting an output of 86,401 t for 2002, a 13% increase on the previous year.

BHP Tintaya announced a total output of 18,227 t of fine copper, a 79% reduction on its previous year's output, caused by the temporary suspension of its mining operations. Doe Run Peru produced 15,4073 t of copper from its Cobriza mine. Cia. Minera Condestable increased its copper production by 6%, reporting an output of 9,457 t for 2002. Cia. Minera Atacocha produced 3,084 t, Empresa Minera Yauliyacu 2,916 t, Cia. Minera Milpo 2,321 t, Soc. Minera Corona 2,047 t, and Volcan Cia. Minera 1,965 t. Other medium- and small-sized mines located throughout the country accounted for the remaining 15,183 t of copper produced during 2002.

### **Lead, zinc and silver**

Peruvian lead production in 2002 was 298,487 t fine content, zinc was 1,221,616 t and silver 2,761 t. Export values were US\$211 million for lead (containing silver), US\$428.9 million for zinc (also containing silver) and US\$173.7 million for silver. Volcan Cia. Minera remained the country's largest lead and zinc producer, reporting an output of 69,344 t of lead, 275,935 t of zinc and 338.97 t of silver for 2002.

Cia. Minera Antamina, following the first complete year of operation of its newly inaugurated open-pit mine, became the second-largest zinc producer in the country after reporting an output of 260,434 t of this metal, 2,440 t of lead and 269.9 t of silver. Antamina displaced Empresa Minera Izcaycruz, the Glencore-owned mining operation, to third place, despite the latter increasing its zinc output by 14% during the year. The company report a total production of 138,102 t of zinc and 8,984 t of lead.

Cia. Minera Milpo, the country's third-largest private lead producer, reported an output of 29,260 t of this metal, 91,348 t of zinc and 133.26 t of silver during 2002, an increase of the order of 20% for all these metals as compared with the previous year's production. Cia. Minera Atacocha remained as the second-largest lead producer, reporting an output of 29,260 t of this metal, 62,888 t of zinc and 159.07 t of silver for 2002.

Soc. Minera El Brocal became the fourth-largest lead producer, reporting an output of 21,384 t, plus 57,194 t of zinc, and 75 t of silver. Cia. Minera Santa Luisa, the Mitsui Mining subsidiary, produced 20,979 t of lead, 47,372 t of zinc, and 45 t of silver from its Huanzála mine; Empresa Administradora Chungar, a mining operation now under the administration of Volcan Cia. Minera reported an output of 14,267 t of lead, 43,661 t of zinc, 37.50 t of silver; and, Soc. Minera Corona reported an output of 16,315 t of lead, 37,979 t of zinc and 174 t of silver.

Cia. de Minas Buenaventura, which recovered its position as Peru's largest silver producer, with 371 t, also produced 8,506 t of lead and 9,653 t of zinc.

Empresa Minera Yauliyacu, the fifth-largest silver producer, reported a production of 163 t, plus 15,408 t of lead and 38,894 t of zinc. Pan American Silver of Canada, operating the underground Quiruvilca mine in northern Peru, reported production of 94 t of silver, 18,842 t of zinc and 6,879 t of lead.

### **Other**

Shougang Hierro Peru, the country's only iron-ore producer, increased its production by 2% during 2002, reporting output of 3.1 Mt. The value of Peruvian iron exports during 2002 was US\$82.9 million for all iron products (pellets and sinter feed), representing a figure slightly higher than that of 2001.

Minsur remained Peru's only tin producer. The company's reported output for the year was 38,815 t from its San Rafael mine. The company also operates the Funsur tin smelting and refining installation located in Pisco, south of Lima.

Peruvian crude oil production was 97,400 bbl/d during 2002, a 1% increase on the previous year's output. The value of oil exports in 2002 totalled US\$471 million (US\$309 million of which corresponded to refined products), whilst imports amounted to US\$963 million, generating a trade deficit of US\$492 million.

Oil exploration in Peru continued during 2002, aimed mainly at finding new oilfields to replace part of the oil that the country currently imports to cover the increasing local demand.

Natural gas production experienced an increase during the year, reaching a level of 543 million m<sup>3</sup>. The consortium formed by Techint and Pluspetrol of Argentina, Hunt Oil of the US, SK Corp. of South Korea, Sonatrach of Algeria and Graña y Montero of Peru, completed the environmental impact study of the gas pipeline to transport the Camisea gas to the coast of Peru, and continued with the development of the project.

Pluspetrol remained as the largest oil producer in Peru, accounting for 66% of total crude oil output (13.67 Mbbl), the balance being produced by Petrotech (13%), Perez Companc (12%), Sapet (4%) and the remaining 8% by other minor producers.

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**Peruvian Mine Production (t unless stated)**

<b>Product</b>	<b>1997</b>	<b>1998</b>	<b>1999</b>	<b>2000</b>	<b>2001</b>	<b>2002<sup>e</sup></b>
Gold	76.82	93.57	128.09	132.59	138.75	157.30
Silver	2,077	2,025	2,217	2,438	2,673	2,761
Copper ('000 t)	503	483	536	554	722	843
Lead ('000 t)	258	258	271	271	290	298
Zinc ('000 t)	865	869	899	910	1,057	1,222
Tin ('000 t)	28.0	25.7	30.4	30.4	38.2	38.8
Iron ore (Mt)	3.0	3.2	2.5	2.5	3.0	3.1
Molybdenum ('000 t)	3.8	4.3	5.5	7.2	9.5	8.6
Arsenic	837	624	1,611	2,495	2,800	2,970
Antimony	242	364	255	461	274	356
Bismuth	774	868	705	744	640	568
Cadmium	562	132	465	483	456	456
Indium	3.8	4.2	5.0	5.1	4.0	5.5
Selenium	12.7	18.0	23.0	23.0	16.0	20.6
Tellurium	24.8	21.7	17.0	22.0	19.0	21.6
Tungsten	280	76	0	0	0	0
Crude oil (Mbbbl)	44	42	37	36	35	35

e – Estimate

**Production 2002 Other Metals (t)**

Tin	38,815
Molybdenum	8,616
Arsenic	2,970
Bismuth	568
Cadmium	456
Antimony	356
Selenium	21
Tellurium	22
Indium	6