

VENEZUELA

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Venezuela's gross domestic product (GDP) of \$103.36 billion¹ decreased by 6.1% after a 0.2% increase (revised) in 1998. Construction was the economic sector that contracted most severely (16.5%) followed by financial institutions and insurance (13.8%), trade (11.8%), and mining (10.4%). Despite significant increases in prices during the year, the petroleum sector decreased by 7.4% (Banco Central de Venezuela, November 23, 2000, Producto interno bruto [Gross domestic product], accessed November 28, 2000, at URL <http://www.bcv.org.ve/cuadros/7/712a.htm>). Unemployment increased to 18% from 11% in 1998, and inflation was estimated to be 20%, a decrease from 1998 when it was 30% (U.S. Department of State, 2000).

The petroleum sector, which continued to dominate Venezuela's economic activity, represented 15.8% of the GDP (Banco Central de Venezuela, November 23, 2000, Producto interno bruto [Gross domestic product], accessed November 28, 2000, at URL <http://www.bcv.org.ve/cuadros/7/712a.htm>), 75.3% of exports (Banco Central de Venezuela, November 23, 2000, Comercio exterior [Foreign trade], accessed November 28, 2000, at URL <http://www.bcv.org.ve/cuadros/7/715a.htm>), and 35.2% of Government revenues at current prices (Ministerio de Energía y Minas, 2000, p. 30). Mining, which continued to contribute modestly to the economy, represented only 0.6% of the GDP (Banco Central de Venezuela, updated November 23, 2000, Producto interno bruto [Gross domestic product], accessed November 28, 2000, at URL <http://www.bcv.org.ve/cuadros/7/712a.htm>).

Government Policies and Programs

With the passage of the Enabling Law in April 1999, the Venezuelan Congress gave the President temporary powers to rule by decree (U.S. Department of State, 2000). As a result, many laws, such as those governing mining and electric power generation, were changed during the year.

The new mining law, Decreto No. 295 of September 5, which was published in the Gaceta Oficial de la República de Venezuela, became effective in October and replaced the Mining Law of 1945. The decree established the rules for all mines and minerals (except hydrocarbons) within Venezuelan territory; exploration, production, beneficiation, storage, lease, distribution, transportation, and internal and external marketing of extracted substances not included in other laws were included. Under Venezuelan law, the country's mineral and hydrocarbon resources belong to the nation. Under the decree, the Ministerio de Energía y Minas (MEM) is the Government

institution responsible for all matters related to mining activity. Mining is permitted only through direct participation of Government, concessions, and production authorization to the small mining sector, mining cooperatives, and artisan miners.

The decree establishes a combined 20-year exploration and production concession renewable for a period not to exceed 20 years. Exploration period for the concession is limited to 3 years with a possible extension of 1 year. The size of a concession is not to exceed 6,156 hectares (ha). A financial, technical, and environmental feasibility study must be presented to the MEM during the exploration period of the concession. With permission from the MEM, the concessions may be transferred, rented, or subcontracted.

The new mining law establishes the mining cooperative and regulates the artisan mining sector for the first time. It defines the small mining sector in reference to the production of gold and diamonds in areas not to exceed 10 ha to be worked by no more than 30 individuals with a nonrenewable, nontransferable permit unless transferred to a social fund to form a mining cooperative. The maximum production period is 10 years.

A permanent interministerial commission integrated by the Ministries of Energy and Mining, Environment, Natural Resources, Finances, and Defense has been created to coordinate all aspects that affect the mining sector. The law proposes a one-stop office to deal with all related permits related to mining concessions.

The surface tax that must be paid beginning at the fourth year of the concession, in fact eliminates the exploration tax. At the production phase of the concession the production tax will be reduced from the surface tax. For gold, platinum-group metals and silver, the production tax is 3% of the Caracas commercial value of the refined "mineral." Diamond and precious stones are taxed at 4% of the Caracas commercial value. Other minerals are taxed at a calculated 3% of commercial value at the mine. At the discretion of the Executive, the production tax may be reduced to 1% as merited by economic conditions.

The Executive also reserves the option of exonerating mining entities of import taxation of items indispensable to mining not produced in Venezuela. With permission from the Executive, equipment exonerated from import taxation may be sold to a third party with the purchaser paying the import tax.

Industrial minerals, excluding precious materials, not found in Government lands continue to be governed by Articles 7, 8, 9, and 10 of the derogated Mining Law of 1945 until the individual States establish regulations.

At expiration of the mining rights, all equipment and installations related to the mining activity will become property of Venezuela without compensation to the concession holder.

The Instituto Nacional de Geología y Minería (INGEOMIN) (National Institute of Geology and Mining) was established as

¹Where necessary, values have been converted from Venezuelan Bolivars (Bs) to U.S. dollars at the rate of Bs 606.38=US\$1.00.

an independent agency ascribed to the MEM under the Decree. The INGEOMIN was charged with interdisciplinary research in geosciences; planning, execution, and coordination of all geoscience-related programs. The agency was also given responsibility for evaluating Venezuela's mineral and nonconventional energy resources, providing technical advice to other Government entities and the private sector, and disseminating technical and scientific information.

In 1975, the Government of Venezuela nationalized the petroleum sector. Under the law, production of hydrocarbons is reserved for the Government. In 1999, the Government was working on a new hydrocarbons law. One of the items in the proposed law was the reintroduction of the royalty in petroleum production. The Government was considering a royalty level of 20%. The royalties established in the projects approved under the "apertura petrolera," which was a program that was designed to reactivate abandoned wells and to develop production from Venezuela's extra-heavy petroleum Orinoco belt, would not be covered under the new hydrocarbons law (El Nacional, 1999).

In September, a new law on hydrocarbon gases (Ley Orgánica de Hidrocarburos Gaseosos) was promulgated (Petróleos de Venezuela, S.A., 2000, p. 16). The new law allows for domestic and foreign private participation in the exploration, production, processing, transport, distribution, and marketing of associated and nonassociated gas.

In October, a new investment law (the decree on promotion and protection of investments) became effective.

Production

In 1999, Venezuela was an important producer of nonfuel mineral commodities in the Latin American region, although it held modest ranking in terms of world output. In 1997, the last year for which information on this ranking is available, Venezuela ranked as the 18th largest world producer, with a production value of \$1.5 billion, 1% of the value of total world production (Ministère de l'Économie des Finances et de l'Industrie, 2000, p. 185).

According to U.S. Geological Survey data, Venezuela ranked among the top 10 world producers of bauxite, alumina, and primary aluminum. In Latin America, it was the second largest producer of primary aluminum and iron ore (after Brazil), although production levels have decreased in the past 2 years (table 1). Venezuela was the third largest producer of bauxite and alumina in Latin America (after Jamaica and Brazil) and phosphate rock (after Brazil and Mexico) and the fourth largest producer of cement (after Brazil, Mexico, and Colombia) and steel (after Brazil, Mexico, and Argentina).

In the Western hemisphere, Venezuela was the third largest producer of bauxite (after Brazil and Jamaica) and the fourth largest of alumina (after the United States, Brazil, and Jamaica), primary aluminum (after the United States, Canada, and Brazil), and phosphate rock (after the United States, Brazil, and Mexico).

Nonfuel mineral production in Venezuela declined for the second consecutive year (table 1). Output of Venezuela's traditional mineral commodities, bauxite and alumina, primary aluminum, and iron ore, decreased. Official production of

diamond and gold also decreased for the second consecutive year. Few industrial minerals increased. The most significant increase was that of feldspar with a 60% improvement from the 1998 level. Cement production was estimated to have increased by less than 4%. Venezuela was a net exporter of cement.

Trade

Venezuela's total exports totaled \$22.3 billion in 1999; of this, 75.3% (\$16.9 billion) was from petroleum (Banco Central de Venezuela, November 23, 2000, Comercio exterior [Foreign trade], accessed November 28, 2000, at URL <http://www.bcv.org.ve/cuadros7/715a.htm>). The United States (including Puerto Rico) received 57% of Venezuela's exports and provided 53% of Venezuela's imports. Other important trade partners were Brazil, Colombia, and Japan.

Exports of metals in all forms were valued at \$75.7 million, and their imports totaled \$18 million. Value of exports of industrial minerals, which included cement, totaled \$122.1 million. Industrial mineral imports were valued at \$56.3 million. Exports of ferroalloys were valued at \$25.4 million, and their imports were only \$6.4 million. Exports of steel products were valued at \$66.9 million. Imports of steel products were valued at \$64.7 million (Ministerio de Energía y Minas, 2000, p. 92, 98, 180, 183, 214-217).

Structure of the Mineral Industry

The private sector participation in the production of nonfuel minerals in Venezuela; Government companies, however, controlled a great portion or the entire production of bauxite and alumina, aluminum, diamond, gold, and iron ore (table 2). Bauxite, alumina, and aluminum production was controlled by the Government through the Corporación Venezolana de Guayana (C.V.G.). Private international companies held small interest in alumina and aluminum.

A large portion of gold was produced by C.V.G. or by its subsidiary C.V.G. Compañía General de Minería de Venezuela C.A.

Production of iron ore was nationalized in 1975. The only producer was C.V.G. Ferrominera, C.A. Steel production became totally private in 1997 when Siderúrgica del Orinoco C.A. (SIDOR), the largest steel producer, was privatized. The ferrosilicon producer C.V.G. Felsiven C.A. was privatized in 1998.

Five private companies produced cement in Venezuela. Venezolana de Cementos, which was the largest company, was owned by Cementos México S.A. de C.V., which was one of the world's largest cement companies. Holderbank Management and Consulting Ltd. and Lafarge France, which were the other leading cement companies, held interests in Consolidada de Cementos C.A. and C.A. Fábrica Nacional de Cementos, which were the second and third largest cement companies in Venezuela, respectively.

Following Venezuela's nationalization of the petroleum sector, Petróleos de Venezuela, S.A. (PDVSA) was formed in 1976 as the Government company responsible for the exploration and production of all hydrocarbons. PDVSA also has the responsibility for crude refining and petrochemical

manufacturing. Storing, transporting, and domestic and international marketing of hydrocarbons and their products are also the responsibility of PDVSA. Since the early 1990's Corporación Venezolana de Petróleos (CVP), which was its subsidiary, began to open opportunities to the private sector through a number of production agreements. The early program involved opening the production of inactive wells. CVP also entered into association with the private sector to explore new areas and to develop the extra-heavy crude in the Orinoco belt.

Commodity Review

Metals

Bauxite, Alumina, and Aluminum.—Venezuela produced 4.17 million metric tons (Mt) of bauxite in 1999, this was a 13% decrease from that of 1998. Los Pijiguajos, in the State of Bolívar, owned by C.V.G. Bauxilum, C.A. (Bauxilum), was the sole producing bauxite mine in Venezuela. The mine had a production capacity of 6 Mt. All the bauxite production was used in the domestic production of alumina by Bauxilum.

Alumina production was almost 1.4 Mt, this was a 14% decrease from that of 1998. About 88% of the alumina was sold domestically. Venezuela also imported 6,031 metric tons (t) of alumina during the year.

Production of primary aluminum was 570,321 t, this was a 2.5% decrease from that of 1998. Of this production, 416,752 t (73.1%) was exported.

During 1999, Venezuela continued to modify its plans to privatize the aluminum sector. Previous plans called for privatization of C.V.G.'s bauxite, alumina, and aluminum facilities. In March 1999, the Government announced that the assets of the Venalum aluminum smelter were to be sold off. The smaller Alcasa smelter would not be sold, but the Government would be seeking a foreign or domestic partner to form a joint venture (Mining Journal, 1999). Although reports indicated that plans for the sale of Bauxilum were canceled, the Government decided later to seek joint-venture partners for it. According to C.V.G., an important aspect of the sale and joint-venture negotiations was Venezuela's plans to expand the sector's output (Metal Bulletin, 1999b).

At yearend, Pechiney of France was studying the possibility of building an aluminum smelter in Venezuela (Primary Aluminum Monthly, 1999). The company was discussing plans for a 250,000-metric-ton-per-year (t/yr) smelter with the Government. The capital cost of the smelter was estimated to be \$1 billion.

Gold.—In 1999, a prefeasibility study was completed for Gold Reserve Corporation (now Gold Reserve Inc.) on its Las Brisas disseminated gold and copper property in Kilometro 88, State of Bolívar, south of Las Cristinas 4 concession (Gold Reserve Corporation, 1999). A supplemental prefeasibility study was completed in August. At \$300 per ounce of gold and \$0.80 per pound of copper, reserves were proven, 187 Mt with 0.184 gram per ton (g/t) gold and 0.119% of copper; and probable, 47 Mt with 0.682 g/t gold and 0.205% copper (Gold Reserve Inc., 2000, p. 2). On the basis of these studies, Gold Reserves planned to design a 55,000-metric-ton-per-day ore plant with gravity, flotation, and cyanidation process facilities

and an on-site copper cathode production plant. Planned production was for 11,300 kilograms per year (kg/yr) gold (reported as 362,000 ounces per year) and a copper production of about 20,900 t/yr (reported as 46 million ounces per year). The mine life was estimated at 13.4 years. Capital costs for the project were estimated to be \$361 million. During 2000, Gold Reserve planned to invest \$1.2 million in the property mainly for a feasibility study.

In the second quarter of 1999, Hecla Mining Company purchased La Camorra underground mine from Monarch Resources Limited for \$25 million (Hecla Mining Company, 2000). After suspending operations for improvements, Hecla began operating the mine in October. Hecla's production for the last quarter of the year was about 540 kilograms (kg) of gold (reported as 17,340 ounces) at a total cash cost of \$208 per ounce. The company planned to have a production of about 2,200 to 2,500 kg/yr (reported as 70,000 to 80,000 ounces per year) of gold. La Camorra produced about 1,590 kg in 1998 (reported as 51,000 ounces) (Hecla Mining Company, 1999).

Construction of Las Cristinas began once more in 1999 only to stop because of low metal prices (Placer Dome Inc., 1999a). This \$575 million joint venture between Placer Dome Inc. and C.V.G. and one of the largest projects in Latin America, had been rescheduled to begin production in 2001 with an output of 16,500 kg/yr (530,000 ounces per year). Placer Dome reported proven and probable reserves of about 364,000 kg of gold (reported as 11.7 million ounces) (Placer Dome Inc., 1999b). The President of Venezuela attended the inauguration of Las Cristinas in May (Placer Dome Inc., 1999c).

Iron and Steel.—Venezuela was the third largest producer of primary iron in Latin America (after Brazil and Mexico), with 11% of the total, and the largest producer of direct-reduced iron (DRI). Production of DRI was 5.17 Mt. Venezuela was the fourth largest producer of crude steel in the region (after Brazil, Mexico, and Argentina), with 3.26 Mt.

SIDOR, which was privatized in 1997, was trying to refinance its debt after defaulting on a \$40 million payment and laid off 2000 employees (Metal Bulletin, 1999a). SIDOR produced 2.7 Mt of crude steel in 1999, almost 83% of Venezuela's total (Siderúrgica del Orinoco, C.A., February 2000, Efectos sobre la economía venezolana [Impact on Venezuelan Economy], Press Release, accessed on December 8, 2000 at URL <http://www.sidor.com.ve/noticias/archivo/sidorflash.htm>). The company planned to expand production to 4.3 Mt by 2004 and to invest \$787 million from 2000 to 2005, with \$180 million for 2000.

Industrial Minerals

Cement production in Venezuela was estimated to be 8.5 Mt. Domestic consumption was estimated to be 4.1 Mt, this was a 20% decrease from that of 1998 (Holderbank Group, 2000, p. 29).

Venezuela's clinker capacity was 8.8 Mt. Of that, CEMEX S.A. de C.V. of Mexico, through its subsidiary CEMEX Venezuela S.A.C.A. (also known as Vencemos) held 4.2 Mt. CEMEX Venezuela had a two cement-plant complex, La Pertigalite I and II, near Puerto La Cruz, State of Anzoátegui,

with a total clinker capacity of 3 Mt. It also had a plant (Mara) in Maracaibo, State of Zulia, and another (Mara) in Barquisimeto, State of Lara with 682,000 t and 540,000 t, respectively (CEMEX Venezuela S.A.C.A., 2000, Operaciones—Plantas de cemento [Operations—Cement plants], accessed December 11, 2000, at URL <http://www.cemex.com.ve/sitioflash/03011.html>).

Holderbank Financière Glaris Ltd., of Switzerland, owned Cementos Caribe C.A., which was Venezuela's second largest producer; Cementos Caribe had been two separate companies—Cementos Caribe and C.A. Consolidada de Cementos Caribe owned two cement plants in San Sebastián and Cumarebo with a total clinker capacity of 2.2 Mt. The LaFarge Group of France owned the C.A. Fábrica Nacional de Cementos.

Mineral Fuels

Coal.—Production of coal in 1999 was 6.6 Mt. About 79% of the production was from Carbones del Guasare, S.A. in the State of Zulia. Carbones de la Guajira, S.A., also in the State of Zulia, produced about 19% of the total. Both companies were owned by Carbozulia S.A., which was a subsidiary of PDVSA in partnership with the private sector. The remaining 2% was produced in the State of Táchira (Ministerio de Energía y Minas, 2000, p. 166).

During 1999, Carbozulia exported 6.3 Mt. The company entered into a contract with the mining management company Morrison Krudsen of the United States. The 5-year contract was geared to improve competitiveness of the Carbozulia mines. In 1999, Carbozulia losses totaled \$5.5 million mainly because of the losses of Carbones del Guasare, which totaled \$11.8 (Petróleos de Venezuela S.A., 2000, p. 20-21).

Petroleum and Natural Gas.—Production of crude petroleum, which included condensate, decreased by 14% to an estimated 1.04 billion barrels (Gbbbl). Production was reduced as a part of the agreement among members of the Organization of Petroleum Producing Countries (OPEC) in response to low prices in 1998. This reduction resulted in significant increases in the price of Venezuela's crude to \$14.36 per barrel in March and \$23.10 in December. The average price for the year was \$16.04, this was a 52% increase compared with that of 1998 (Petróleos de Venezuela, S.A., 2000, p. 4, 9).

Venezuela's proven reserves of crude petroleum and condensate were 76.86 Gbbbl at yearend 1999, of which 35.7 Gbbbl was from extra-heavy crude (less than 8° API) (Petróleos de Venezuela, S.A., 2000, p. 58).

In the Orinoco Belt, the area where Venezuela has its large reserves of extra-heavy crude, progress continued on the four strategic associations with the international private sector to produce synthetic light crude. Of the four projects, Petrozuata, the joint venture with PDVSA and CONOCO Inc. of the United States, was the most advanced (90% complete). Production from the project totaled 22 million barrels (Mbbbl) of extra-heavy crude. Progress from Cerro Negro, which was the joint venture of PDVSA, ExxonMobil Corporation of the United States, and Veba Oel AG of Germany, was significant with an 81% completion and a production start in the last quarter of 1999. Production of extra-heavy crude from Cerro Negro

totaled 3 Mbbbl (Petróleos de Venezuela, S.A., 2000, p. 15).

Venezuela's gross production of natural gas decreased by 5.5%. More than 70% of the production was used by the petroleum sector. Gas was one of PDVSA's new corporate focuses. After the change in the law allowing participation of the private sector in gas hydrocarbons, the company created a Gas Division. It also designated Anaco, State of Anzoátegui, as the gas district because of its abundant resources. Venezuela's reserves of natural gas remained at about 4.15 trillion (in Spanish, the term "billion" equals the term "trillion" in English, or 10¹²) cubic meters (146.7 trillion cubic feet), of which 91% is of associated gas (Petróleos de Venezuela, S.A., 2000, p. 59).

Refinery.—Production of refinery products in Venezuela decreased by an estimated 10%. Venezuela's refineries are located in the States of Anzoátegui, Carabobo, Falcón, and Zulia.

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Major Sources of Information

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TABLE 1
VENEZUELA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Thousand metric tons unless otherwise specified)

Commodity	1995	1996	1997	1998	1999	
METALS						
Aluminum:						
Alumina	1,661	1,701	1,730	1,553 r/	1,335	
Bauxite	5,022	4,807	4,967	4,826 r/	4,166	
Metal, primary, unalloyed	metric tons	626,642 r/	629,263	633,836	584,690	570,321
Gold, mine output, Au content	kilograms	7,259 r/	11,719	22,322	6,740 r/	5,946
Iron and steel:						
Iron ore and concentrate	18,955 r/	18,480 r/	18,503	16,553	14,051	
Metal, direct-reduced iron	5,099	5,732 r/	5,637 r/	5,446 r/	5,171	
Ferroalloys:						
Ferromanganese	--	--	-- r/	10	10 e/	
Ferrosilicomanganese	52 r/	53 r/	64 r/	49 r/	50 e/	
Ferrosilicon 3/	48 r/	60 r/	58 r/	36 r/	40 e/	
Total	100 r/	113 r/	122 r/	95 r/	100 e/	
Steel, crude	3,568	3,956 r/	3,986 r/	3,553 r/	3,261	
Semimanufactures, hot-rolled	2,586 r/	2,692 r/	3,287 r/	2,643 r/	2,756	
Lead, secondary, refined e/	metric tons	16,000	16,000	16,000	16,000	
INDUSTRIAL MINERALS						
Amphibolite	66	77	59	-- r/	86	
Cement, hydraulic	7,672	7,556	8,145 r/	8,202 r/	8,500 e/	
Clays:						
Kaolin	3	8	5	4 r/	12	
Other	3,380	2,737	2,759	2,099 r/	2,344	
Diamond:						
Gem	carats	292,185 r/	99,129	199,564 r/	80,033 r/	59,446
Industrial	do.	3,931	72,887	84,644 r/	16,778 r/	35,698
Total	do.	296,116 r/	172,016	248,208	96,811 r/	95,144
Feldspar	170	205	160	148 r/	156	
Gypsum	135	57	80	72	42	
Lime	250 e/	279	321	378	400 e/	
Nitrogen, N content of ammonia	600	605	612	522	520	
Phosphate rock	86	148	291	322	366	
Pyrophyllite e/	32	32	32	32	32	
Salt, evaporated e/	metric tons	350,000	350,000	350,000	350,000	
Serpentine, crushed e/	550	550	550	550	550	
Stone, sand and gravel:						
Stone:						
Dolomite	300	225	204	71 r/	--	
Granite	236	286	400	807 r/	1,151	
Limestone 4/	12,189	15,873	14,177 r/	14,246 r/	13,103	
Sand and gravel	4,629	3,660	4,218	4,753 r/	7,616	
Silica sand 4/	598	763	798	344 r/	153	
Sulfur, petroleum byproduct	180	250	319	425	350 e/	
MINERAL FUELS AND RELATED MATERIALS						
Carbon black e/	60	60	60	60	60	
Coal, bituminous	4,258	4,181	5,291 r/	6,458 r/	6,593	
Gas, natural:						
Gross	million cubic meters	48,891	55,105	59,771	62,167	58,744
Marketed	do.	32,129	35,648	36,901	39,005	36,000 e/
Natural gas liquids: e/ 5/						
Natural gasoline	thousand 42-gallon barrels	11,300	12,000	12,000	13,697	14,000
Liquid petroleum gas	do.	50,000	55,000	55,000	53,074	53,000
Total	do.	61,300	67,000	67,000	66,771	67,000
Petroleum:						
Crude 6/	do.	1,021,635	1,088,850	1,153,400	1,215,120	1,040,000 e/
Refinery products:						
Liquified petroleum gas	do.	3,358	4,136	5,026	4,636	4,000 e/
Gasoline, motor	do.	72,380	66,173	67,908	70,956	67,000 e/
Naphtha and other gasolines	do.	60,043	65,697	72,828	72,964	68,000 e/
Jet fuel	do.	31,295	30,327	31,069	32,551	30,000 e/
Kerosene	do.	2,285	966	1,175	766	800 e/
Distillate fuel oil	do.	104,281	108,263	121,300	120,815	112,000 e/

See footnotes at end of table.

TABLE 1--Continued
 VENEZUELA: PRODUCTION OF MINERAL COMMODITIES 1/ 2/

(Thousand metric tons unless otherwise specified)

Commodity	1995	1996	1997	1998	1999	
MINERAL FUELS AND RELATED MATERIALS--						
Continued						
Petroleum--Continued:						
Refinery products--Continued:						
Lubricants	thousand 42-gallon barrels	2,482	2,233	2,051	2,227	2,000 e/
Residual fuel oil	do.	86,578	83,960	79,059	80,957	78,000 e/
Asphalt and bitumen	do.	10,001	11,053	11,618	10,986	10,000 e/
Petroleum coke	do.	4,311	8,231	10,888	8,369	7,000 e/
Parafins	do.	204	47	201	190	200 e/
Used for internal consumption	do.	24,273	24,888	26,393	27,200	25,000 e/
Unspecified	do.	1,788	1,632	1,993	2,581	2,500 e/
Losses	do.	(6,132)	(3,916)	(8,362)	(8,140)	(6,500)e/
Total 7/	do.	135,769	135,960	140,565	140,650	131,200 e/

e/ Estimated. r/ Revised. -- Zero.

1/ Table includes data available through December 2000.

2/ Estimated data are rounded to no more than three significant digits; may not add to totals shown.

3/ Figures represent combined 45% silicon-content and 75% silicon-content production.

4/ Excludes production under contract with the Government.

5/ From nonassociated gas only.

6/ Includes condensate and bitumen for the production of Orimulsión.

7/ Excludes byproduct sulfur, which is reported in the industrial minerals portion of this table, but includes losses.

TABLE 2
VENEZUELA: STRUCTURE OF THE MINERAL INDUSTRY IN 1999

(Thousand metric tons unless otherwise specified)

Commodity		Major operating companies and major equity owners	Location of main facilities	Annual capacity
Alumina		C.V.G.-Bauxite C.A. (Government, 88.7%; Aluminio Suizo S.A., 11.3%)	Ciudad Guayana, Bolívar State	2,000.
Aluminum		Aluminio del Caroní S.A. Government, 82%; Reynolds International, Inc., 8%)	do.	210.
Do.		Industria Venezolana de Aluminio C.A. (Government, 80%; six Japanese companies, 20%)	do.	430.
Bauxite		C.V.G.-Bauxilum C.A.	Los Pijiguaos, Bolívar State	6,000.
Cement		C.A. Venezolana de Cementos, (Cementos Mexicanos S.A. de C.V., 100%)	Barquisimeto, Lara State; Maracaibo, Zulia State; Pertigalete, Anzoátegui State; San Cristóbal, Táchira State	3,880.
Do.		Consolidada de Cementos C.A. (Holderbank Management and Consulting Ltd., 50%)	Cumarebo, Falcón State; San Sebastián Carabobo State	2,280.
Do.		C.A. Fábrica Nacional de Cementos (Lafarge (France, 46.13%)	Palmira; Ocumare del Tuy, Miranda State	1,330.
Do.		Cementos Catatumbo	Montellano, Zulia State	650.
Do.		Cemento Andino	Curcas, Trujillo State	560.
Coal		Carbones del Guasare, S.A. (Carbones de Zulia S.A., 54.68%, RAG International Coal AG, 22.66%; Shell Coal International, 22.66%)	Paso Diablo, Zulia State, Guasare coal basin	5,500.
Do.		Carbones de la Guajira, S.A. (Carbones del Mar S.A., 64%; Carbones de Zulia S.A., 36%)	Mina Norte and Cachirí, Zulia State, Guasare coal basin	500.
Ferrosilicon		Venezolana de Ferrosilicio C.A. (Ferroatlántica S.L., 80%)	Ciudad Guayana, Bolívar State	80.
Gold	kilograms	Revemín (Bolívar Goldfields, 51%; C.V.G., 49%)	El Callao, Bolívar State	900. 1/
Do.	do.	Crystallex de Venezuela C.A.	Albino Mine, Kilometro 88, Bolívar State	1,500. 1/
Do.	do.	La Camorra Unit (Minera Hecla Venezolana, C.A.)	El Callao, Bolívar State	2,300.
Do.	do.	C.V.G.-Compañía General de Minería C.A. (Government, 100%)	do.	3,500.
Iron ore		C.V.G.-Ferrominera Orinoco C.A. (Government, 100%)	Cerro San Isidro, Los Barrancos, and Las Pailas, Bolívar State	25,000.
Iron ore pellets		do.	Ciudad Guayana, Bolívar State	3,600.
Do.		Siderúrgica del Orinoco C.A. (SIDOR) (Amazonia Consortium, 70%, C.V.G. 30%)	do.	6,600.
Direct-reduced iron		do.	do.	3,700.
Do.		Complejo Siderúrgico De Guayana C.A. (Kobe Steel, 36.7%, G.V.G.-Ferrominera, 17.4%; Tubos de Acero de México, S.A., 6.9%; Mitsui and Co. Ltd., Nissho Iwai Corp., Tomen Corp., and Shinsho Corp., 30.3%; and International Finance Corp., 8.7%)	do.	1,000.
Nickel		Loma de Níquel S.A. (Minorco Group, 81.5%; Jordex Resources Inc., 7.5%, Corporación Caracas, 7.5%, International Finance Corp., 3.5%)	Loma de Níquel, Aragua and Miranda States	New.
Petroleum:				
Crude	million 42-gallon barrels	Petróleos de Venezuela, S.A. (Government, 100%)	Fields in Anzoátegui, Apure, Falcón, Guárico, Monagas, and Zulia States	1,380.
Refinery products	do.	do.	Refineries in Amuay and Cardón in Falcón State, Puerto La Cruz and San Roque in Anzoátegui State, El Palito in Carabobo State, and Bajo Grande in Zulia State	434.
Steel		SIDOR (Amazonia Consortium, 70%, C.V.G., 30%)	Ciudad Guayana, Bolívar State	3,600.
Do.		Siderúrgica del Turbio C.A. (SIDETUR) (Siderúrgica Venezolana Sivensa S.A., 100%)	Antimano, Barquisimeto, and Casima	907.

1/ Mills capacity.