

Mineral Industry Surveys

For information, contact:

Earle B. Amey, Gold Commodity Specialist
Henry E. Hilliard, Silver and Platinum-Group Metals
Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4969 (Gold),
(703) 648-4970 (Silver and PGM)
Fax: (703) 648-7757
E-mail: eamey@usgs.gov and hhilliar@usgs.gov

Mahbood Mahdavi (Data)
Telephone: (703) 648-7778
Fax: (703) 648-7975

Deana M. Demichelis (Data)
Telephone: (703) 648-7943
Fax: (703) 648-7975

MINES FaxBack: (703) 648-4999
Internet: <http://minerals.usgs.gov/minerals>

PRECIOUS METALS IN APRIL 2001

U.S. mines produced 18,500 kilograms (kg) of gold and 141,000 kg of silver in April 2001. Compared with March 2001, production of gold was up 26% in Alaska and down 11% in California, and silver production was down 22% in Nevada. Table 8 in this report lists the top 30 gold-producing mines for the first quarter in the United States in 2000.

Gold

Domestic.—The statue of Prometheus, which towers above the ice skating rink in Rockefeller Center (NY), received a new coat of gold. The statue was regilded using 30,000 sheets of 23 ³/₄-karat double-weight German gold leaf. The 8-ton bronze statue was commissioned by John D. Rockefeller in 1933 (American Metal Market, 2001e).

New U.S. environmental regulations that would restrict the amount of heavy metals allowed to be discharged from gold and silver mines reportedly could close or severely limit operations in the Pacific Northwest. The Environmental Protection Agency has decided to implement the regulations, which have been in the draft process for more than a year (Platts Metals Week, 2001d).

International.—Gold Fields Ltd. joined forces with Mintek and AngloGold Ltd. in Project AuTek, a pioneering initiative in the exploration and development of new industrial uses for gold. Project AuTek, which was launched in June 2000, has focused on the application of gold in catalysts to combat air pollution by removing noxious gases (American Metal Market, 2001d).

The world's seventh largest gold producer, Australia's Normandy Mining Ltd., has entered into a strategic alliance with the world's fifth largest gold company by market capitalization, Canada's Franco-Nevada Mining Corp. Franco-

Nevada emerges with 19.9% of Normandy. Normandy emerges with \$48 million, all of Franco-Nevada's Australian production royalties, and the Midas property, which includes the Ken Snyder gold mine on the Carlin Trend in northern Nevada (American Metal Market, 2001a).

Sales taxes levied on gold commodities have affected the Egyptian gold market. Conflicting rumors concerning the possible reduction of the sales tax caused the market to stagnate. In addition, the gold market in Egypt faces fierce competition from neighboring countries where better quality gold commodities are sold at lower prices owing to the absence of taxes and fees on gold. Cases of commercial fraud have dramatically increased; the volume of gold traded on the market is almost triple the volume officially stamped by the authorities (American Metal Market, 2001b).

Zimbabwe's Falcon Gold Ltd. deferred the closure of its Dalny, Golden Quarry, and Venice gold mines. A rescue package came from the ministry of finance and the country's directors that guaranteed recovery of the huge cost needed to reopen the mines. Falcon Gold, which has been in operation over 100 years, produced 1,200 kg of gold in 2000, and employed about 1,000 people (American Metal Market, 2001f).

An independent company, Goldavenue.com, brought three other companies together to develop comprehensive information on gold at a web site for professionals and amateurs alike. The other companies are: AngloGold, Ltd.; J.P. Morgan; and Produits Artistiques de Metaux (the world's largest gold refinery). The web site, located at goldavenue.com, contains information on gold in continuously updated sections that cover finance and markets, mining, jewelry, conferences, and seminars. Business-to-business

operations have been added with business-to-consumer products to be introduced later (American Metal Market, 2001c).

South Africa-based Komanani Mining (Pty) Ltd. bought a 10% share of Harmony Gold Mining Co. Ltd. The purchase makes Komanani the single largest shareholder of Harmony (Platts Metals Week, 2001c).

The London Bullion Market Association's gold clearing statistics rose to its highest level since February 2000. Gold transfers were up about 19% in comparison with those of the preceding month, rising to a daily average of 28.7 million ounces (893,000 kg). The daily average number of gold transfers rose from 830 to 954. In addition, the quantity of gold transferred in March 2001 was about 9% more than that of March 2000 (Platts Metals Week, 2001b).

Silver

On April 17, 2001, Vancouver-based Pan American Silver Corp. announced the initiation of mill production at the Huron silver-zinc mine in the Cerro de Pasco District of central Peru. At full scale production, Pan American expects to produce about 50,000 metric tons (t) of ore per month resulting in an annual output of 134 t of silver and 18,000 t of zinc metal in concentrates. Pan American acquired an interest in the Huron Mine in March 2000, expecting full-scale operations in March-April 2001. Operations at the mine ceased in 1998 after portions of the underground workings were flooded by a neighboring mine. The company also operates the Quiruvilca silver-zinc mine in Peru, where silver output totaled 3,600 t in 2000 (Pan American Silver Corp., 2001).

Platinum-Group Metals

Quaterra Resources Inc. and International Freegold Mineral Development Inc. have entered into a joint-venture agreement to explore further a platinum-group metals (PGM) prospect in southeast Alaska. The joint-venture encompasses International Freegold's Union Bay property plus additional recently staked ground in the area. The total area covers about 5,470 hectares. Reconnaissance mapping and sampling reportedly identified PGM mineralization associated with magnetite and/or chromite-bearing pyroxene units in at least three areas. Continuous 0.15 meter (m) rock-chip samples gave values of up to 17.3 grams per ton (g/t) of palladium and platinum, and an average for the 0.5 m sample width was 8.9 g/t. In 2001, Quaterra staked out adjacent ground, including an alluvial fan where previous pan sampling by the defunct U.S. Bureau of Mines returned values of up to 19 g/t of platinum from a 16-pan composite sample. The Union Bay Igneous complex has been mapped as a sub-horizontal lopolith covering an area measuring 8 kilometers (km) by 5 km with a large pipe to the east composed mainly of dunite (Mining Journal, 2001).

South Africa-based Impala Platinum Corp. Ltd. acquired a 30% interest in Zimbabwe Platinum Mines' (Zimplats) Ngezi project and the Hartley Platinum joint venture for R240 million. Impala and South Africa's ABSA Bank have also bought a 30% stake in Zimplats from Delta Gold. According to Zimplats officials, the deal means that the Ngezi project can be given an immediate go-ahead with the first sale of PGM due

within the next year. The Ngezi open-cast mine is expected to produce 2.2 million metric tons per year of ore, which will be processed at the Selous Metallurgical Complex at the Hartley Platinum mine site, producing 6,500 kg of PGM contained in matte. This material will then be sent to Impala Refining Services in South Africa for refining and marketing. Impala is the second largest platinum producer in the world, with current mine production of about 31,100 kilograms per year (kg/yr) (Metal Bulletin, 2001a).

Norilsk Nickel confirmed that Russia's President has approved platinum and rhodium export quotas for 2001. Norilsk already has a ten-year export quota for palladium and will now be able to export the other two PGM on the basis of a one-year quota. The quantities involved, however, will remain unknown because Russian PGM production and export figures are classified (Metal Bulletin, 2001b).

Anglo American Platinum Corp. Ltd. of South Africa and London-based Lonmin plc have agreed in principle to develop a new PGM project called Pandora as an equal joint venture. The project, located near Brits in South Africa's North West Province, will exploit the UG2 reef of the Bushveld Igneous Complex. Anglo American is contributing the orebody and Lonmin, via wholly owned Lonplats, is contributing its adjacent infrastructure. Production will total 7,200 kg/yr of refined platinum and 3,400 kg/yr of refined palladium over a life of 30 years. The joint venture will use Eastern Platinum's existing infrastructure to gain swift underground access, and additional infrastructures will also be established. Eastern Platinum's existing concentrator will be expanded from 200,000 metric tons per month (t/mo) to 320,000 t/mo to allow the joint venture to achieve its full production target of 3.6 million metric tons of ore per year scheduled for mid-2007. Ore reserves total 130 Mt (Platts Metals Week, 2001a).

Update.—On May 30, 2001, the U.S. Mint announced that 2001 American Eagle Platinum Proof Coins would go on sale June 6th, featuring the 4th of the five-year Vistas of Liberty™ reverse designs. Effective June 12, 12:00 noon EDT, these coins were available for online orders at www.USMINT.gov. Prices for the coins will remain the same as last year: \$740 for the one-ounce; \$405 for the half-ounce; \$227 for the quarter-ounce; \$118 for the tenth-ounce; and \$1,375 for the three coin set (U.S. Mint, 2001).

References Cited

- American Metal Market, 2001a, Canada's Franco-Nevada gets stake in Normandy Mining: American Metal Market, v. 109, no. 65, April 4, p. 5.
- 2001b, Egyptian gold market slumps on conflicting rumors of tax cut: American Metal Market, v. 109, no. 77, April 20, p. 9.
- 2001c, E-site for gold plans to broaden scope: American Metal Market, v. 109, no. 81, April 26, p. 8.
- 2001d, Gold Fields teams with Mintek, AngloGold for new applications: American Metal Market, v. 109, no. 66, April 5, p. 6.
- 2001e, Rockefeller Plaza's Prometheus glitters with a new coat of gold: American Metal Market, v. 109, no. 68, April 9, p. 6.
- 2001f, Zimbabwe seeks to rescue Falcon Gold's idled mines: American Metal Market, v. 109, no. 69, April 10, p. 4.
- Metal Bulletin, 2001a, Implats takes stake in Zimplats and Ngezi: Metal Bulletin no. 8563, April 2, p. 10.
- 2001b, Putin signs export quotas; palladium prices continue to fall: Metal Bulletin, no. 8565, April 9, p. 9.

Mining Journal, 2001, Alaska platinum option for Quaterra: Mining Journal, v. 336, no. 8631, April 27, p. 313.
Pan American Silver Corp., 2001, Pan American starts production at Huron Mine: Pan American Silver Corp., Press Release, Vancouver, April 17, p. 1.
Platts Metals Week, 2001a, Anglo, Lonmin agree to set up PGM joint venture: Platts Metals Week, v. 72, no. 15, April 9, p. 10.
———2001b, Gold trading volumes rise 18.5%-LBMA: Platts Metals Week, v.

72, no. 16, April 16, p. 13.
———2001c, Harmony sells 10% stake to empowerment partner: Platts Metals Week, v. 72, no. 16, April 16, p. 12.
———2001d, New US environmental rules threaten silver, gold mines: Platts Metals Week, v. 72 no. 17, April 23, p. 5.
U.S. Mint, 2001 American Eagle Platinum Proof Coins available June 6, 2001:U.S. Mint, Press Release, Washington, May 30, p. 1.

TABLE 1
MINE PRODUCTION OF RECOVERABLE GOLD AND SILVER IN THE UNITED STATES, BY STATE 1/

(Kilograms)

| Gold | Alaska | California | Nevada | Other States 2/ | Total |
|---------------------|---------|------------|------------|-----------------|--------------|
| 2000: | | | | | |
| April | 1,190 | 1,280 | 21,400 | 4,540 | 28,100 |
| May | 1,190 | 1,360 | 19,500 | 4,540 | 26,600 |
| June | 1,190 | 1,470 | 21,400 | 4,710 | 28,800 |
| July | 1,460 | 1,470 | 18,900 | 4,410 | 26,300 |
| August | 1,460 | 1,400 | 20,800 | 4,810 | 28,500 |
| September | 1,510 | 1,460 | 22,200 | 3,900 | 29,100 |
| October | 1,510 | 1,360 | 19,000 | 5,680 | 27,600 |
| November | 1,020 | 1,170 | 19,100 | 5,900 | 24,700 |
| December | 1,440 | 1,170 | 23,000 | 4,450 | 30,100 |
| January-December p/ | 15,500 | 16,400 | 253,000 | 55,300 | 338,000 |
| 2001: | | | | | |
| January | 1,440 | 1,370 | 22,000 | 4,500 r/ | 29,300 |
| February | 1,440 | 1,270 r/ | 19,700 r/ | 4,320 | 26,700 r/ |
| March r/ | 1,140 | 1,320 | 13,900 | 2,980 | 19,400 |
| April | 1,440 | 1,180 | 13,000 | 2,880 | 18,500 |
| January-April | 5,460 | 5,140 | 68,500 | 14,700 | 93,800 |
| Silver | Arizona | Idaho | Nevada | Other States 3/ | Total |
| 2000: | | | | | |
| April | W | 35,200 r/ | 68,400 r/ | 71,600 r/ | 175,000 r/ |
| May | W | 35,500 r/ | 77,400 r/ | 73,000 r/ | 186,000 r/ |
| June | W | 35,200 r/ | 58,900 r/ | 73,500 r/ | 168,000 |
| July | W | 34,900 r/ | 57,400 r/ | 71,300 r/ | 164,000 r/ |
| August | W | 34,800 | 53,200 r/ | 73,100 r/ | 161,000 |
| September | W | 34,500 | 60,900 r/ | 69,700 r/ | 165,000 r/ |
| October | W | 34,500 | 45,900 | 56,700 r/ | 137,000 r/ |
| November | W | 34,500 | 62,200 r/ | 66,400 r/ | 163,000 r/ |
| December | W | 34,500 | 61,200 r/ | 73,000 r/ | 169,000 r/ |
| January-December p/ | W | 416,000 r/ | 752,000 r/ | 848,000 r/ | 2,020,000 r/ |
| 2001: | | | | | |
| January | W | 20,300 | 41,200 | 76,500 | 138,000 |
| February | W | 20,300 | 42,500 | 66,400 | 129,000 |
| March | W | W | 45,300 | 85,500 r/ | 131,000 r/ |
| April | W | W | 35,400 | 106,000 | 141,000 |
| January-April | W | 40,600 | 164,000 | 334,000 | 539,000 |

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data, included with "Other States."

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes Arizona, Colorado, Idaho, Montana, New Mexico, South Carolina, South Dakota, Utah, and Washington.

3/ Includes Alaska, California, Colorado, Missouri, Montana, New Mexico, New York, South Carolina, South Dakota, Tennessee, Utah, Washington, and State indicated by symbol W.

TABLE 2
SELECTED PRECIOUS METAL PRICES

(Dollars per troy ounce)

| | Gold | Silver | Platinum | Palladium |
|------------------------------|---------------------|-----------------------------|--------------------------------|-----------------------|
| <u>Engelhard Industries:</u> | | | | |
| 2000: | | | | |
| Low/date | 264.90 (October 27) | 4.59 (December 19) | 416.00 (January 6) | 437.00 (January 6) |
| High/date | 313.88 (February 7) | 5.53 (February 7) | 625.00 (December 13 and 28) | 985.00 (December 27) |
| Average | 280.10 | 5.00 | 549.31 | 691.84 |
| 2001: | | | | |
| March: | | | | |
| Low/date | 261.24/28 | 4.30/16 | 567.00/30 | 744.00/30 |
| High/date | 273.61/12 | 4.51/9 | 607.00/1 | 830.00/8 and 9 |
| Average | 264.13 | 4.40 | 587.82 | 790.55 |
| April: | | | | |
| Low/date | 257.04/2 | 4.30/2 | 559.00/2 | 657.00/12 |
| High/date | 265.70/27 | 4.49/20 and 24 | 630.00/18 | 755.00/17 |
| Average | 261.69 | 4.40 | 598.55 | 704.65 |
| May: | | | | |
| Low/date | 265.05/2 | 4.32/8 | 604.00/1 | 640.00/14 |
| High/date | 292.40/21 | 4.60/24 | 6.25/21 and 29 | 685.00/7 |
| Average | 273.15 | 4.44 | 613.82 | 663.41 |
| Year to date: | | | | |
| Low/date | 257.04 (April 2) | 4.30 (March 16 and April 2) | 559.00 (April 2) | 657.00 (April 2) |
| High/date | 292.40 (May 21) | 4.87 (January 30) | 645.00 (January 10 and 15) | 1,100.00 (January 26) |
| Average | 265.73 | 4.50 | 606.11 | 839.51 |
| <u>Handy and Harman:</u> | | | | |
| 2000 | 278.96 | 5.00 | XX | XX |
| 2001: | | | | |
| March | 263.03 | 4.40 | XX | XX |
| April | 260.56 | 4.39 | XX | XX |
| May | 272.07 | 4.44 | XX | XX |
| Average year to date | 264.64 | 4.50 | XX | XX |
| <u>London Final: 1/</u> | | | | |
| 2000 | 279.04 | 4.95 | XX | XX |
| 2001: | | | | |
| March | 263.03 | 4.40 | XX | XX |
| April | 260.48 | 4.37 | XX | XX |
| May | 272.35 | 4.43 | XX | XX |
| Average year to date | 264.64 | 4.48 | XX | XX |

XX Not applicable.

1/ Silver price reported as "London Spot/US Equiv."

Source: Platts Metals Week.

TABLE 3
U.S. IMPORTS AND EXPORTS OF GOLD 1/

(Kilograms of gold content, unless otherwise specified)

| Period and country | Ores and concentrates 2/ | Doré and precipitates | Refined bullion 3/ | Ash and residues | Total 4/ | Waste and scrap (gross weight) | Metal powder (gross weight) | Gold compounds (gross weight) |
|---------------------------------|--------------------------|-----------------------|--------------------|------------------|----------|--------------------------------|-----------------------------|-------------------------------|
| Imports for consumption: | | | | | | | | |
| 2000 | 65 | 39,000 | 184,000 | 60 | 223,000 | 29,800 | 6,720 r/ | 7,970 |
| 2001: | | | | | | | | |
| January | 2 | 1,350 | 16,800 | 2 | 18,100 | 2,470 | 799 | 222 |
| February | -- | 1,370 | 14,400 | 85 | 15,900 | 1,060 | 1,120 | 132 |
| March: | | | | | | | | |
| Brazil | -- | -- | 2,100 | -- | 2,100 | 1 | -- | 141 |
| Canada | -- | -- | 13,200 5/ | -- | 13,200 | 1,160 | 476 | -- |
| Chile | -- | 132 | 1,030 | -- | 1,160 | -- | -- | -- |
| Colombia | -- | 197 | 276 | -- | 473 | -- | -- | -- |
| Dominican Republic | -- | -- | 1 | -- | 1 | 518 | 4 | -- |
| Honduras | -- | 353 | -- | -- | 353 | -- | -- | -- |
| Japan | -- | -- | -- | -- | -- | -- | -- | 185 5/ |
| Mexico | -- | 179 | 42 | 1 | 222 | 62 | -- | -- |
| Nicaragua | -- | 59 | -- | 1 5/ | 60 | -- | -- | -- |
| Norway | -- | -- | 103 | -- | 103 | -- | -- | -- |
| Peru | -- | 632 | 11 | -- | 643 | 1 | -- | -- |
| Other | 3 | 15 | 176 | -- | 193 | 178 | 43 | 9 5/ |
| Total | 3 | 1,570 | 17,000 | 2 | 18,500 | 1,920 | 524 | 335 |
| Year to date | 5 | 4,290 | 48,100 | 89 | 52,500 | 5,450 | 2,450 | 689 |
| Exports: | | | | | | | | |
| 2000 | 745 | 106,000 | 440,000 | -- | 547,000 | 64,100 | 1,130 | 1,390,000 |
| 2001: | | | | | | | | |
| January | 41 | 4,810 | 43,400 | -- | 48,300 | 4,310 | 19 | 159,000 |
| February | 60 | 4,900 | 51,500 | -- | 56,400 | 3,900 | 373 | 40,700 |
| March: | | | | | | | | |
| Belgium | -- | -- | -- | -- | -- | 247 | -- | -- |
| Canada | -- | 760 | 25 | -- | 785 | 1,730 5/ | 8 | 145,000 5/ |
| Dominican Republic | -- | -- | -- | -- | -- | -- | -- | 435 5/ |
| France | -- | -- | (6/) | -- | (6/) | -- | 224 | 5 5/ |
| Germany | -- | -- | (6/) | -- | (6/) | 149 | 4 | 1,010 5/ |
| Guatemala | -- | -- | 104 | -- | 104 | -- | -- | -- |
| India | -- | -- | -- | -- | -- | -- | 1 | -- |
| Israel | -- | -- | -- | -- | -- | -- | 2 | 23,700 5/ |
| Japan | -- | -- | -- | -- | -- | 9 | 1 | -- |
| Mexico | -- | -- | 3,330 | -- | 3,330 | -- | 78 5/ | -- |
| Peru | -- | -- | 494 | -- | 494 | -- | -- | -- |
| Switzerland | -- | 4,550 | 46,800 | -- | 51,300 | 383 | (6/) | -- |
| Thailand | -- | -- | 1,040 | -- | 1,040 | -- | -- | -- |
| Trinidad and Tobago | 4 | -- | -- | -- | 4 | -- | -- | -- |
| United Arab Emirates | -- | -- | 2,970 | -- | 2,970 | -- | 4 | -- |
| United Kingdom | -- | 5 | 6,870 | -- | 6,870 | 1,180 | 6 | 361 5/ |
| Other | -- 5/ | -- | 106 | -- | 106 | 110 | (6/) | 61 5/ |
| Total | 4 | 5,310 | 61,700 | -- | 67,000 | 3,810 | 328 | 170,000 |
| Year to date | 105 | 15,000 | 157,000 | -- | 172,000 | 12,000 | 720 | 370,000 |

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Includes gold content of base metal ores, concentrates, and matte imported for refining.

3/ Bullion also moves in both directions between U.S. markets and foreign stocks on deposit in the Federal Reserve Bank. Monetary gold excluded.

4/ "Waste and scrap," "Metal powder," and "Gold compounds" not included in "Total."

5/ All or part of these data have been referred to the U.S. Census Bureau for verification.

6/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF SILVER, REFINED AND AS NITRATE 1/

(Kilograms)

| Period and country | Bullion (silver content) | Doré (silver content) | Total (silver content) | Other unwrought silver (gross weight) | Metal powder (gross weight) | Silver nitrate (gross weight) |
|---------------------------------|-----------------------------|--------------------------|---------------------------|--|-----------------------------------|-------------------------------------|
| Imports for consumption: | | | | | | |
| 2000 | 3,810,000 | 73,900 | 3,880,000 | 204,000 | 235,000 | 24,200 |
| 2001: | | | | | | |
| January | 268,000 | 12,900 | 281,000 | 12,500 | 6,380 | 4,320 |
| February | 214,000 | 29 | 214,000 | 20,300 | 10,500 | 8,680 |
| March: | | | | | | |
| Belgium | -- | -- | -- | -- | -- | 4,320 |
| Canada | 124,000 2/ | -- | 124,000 | 19,800 | -- | -- |
| Chile | -- | 1,020 | 1,020 | -- | -- | -- |
| China | 2,150 | -- | 2,150 | -- | -- | -- |
| Colombia | 500 | -- | 500 | -- | -- | -- |
| France | -- | -- | -- | -- | 700 | -- |
| Germany | -- | -- | -- | -- | 200 | -- |
| Japan | -- | -- | -- | -- | 68 2/ | -- |
| Mexico | 113,000 | -- | 113,000 | 34,200 | -- | -- |
| Peru | 37,500 | -- | 37,500 | -- | -- | -- |
| Other | -- | -- | -- | 15 2/ | 20 | -- |
| Total | 276,000 | 1,020 | 277,000 | 54,000 | 988 | 4,320 |
| Year to date | 758,000 | 13,900 | 772,000 | 86,700 | 17,900 | 17,300 |
| Exports: | | | | | | |
| 2000 | 279,000 | 36,000 | 315,000 | 57,500 r/ | 424,000 | 217,000 |
| 2001: | | | | | | |
| January | 25,300 | 420 | 25,700 | 681 | 16,000 | 16,000 |
| February | 19,500 | 747 | 20,200 | 3,640 | 29,200 | 20,100 |
| March: | | | | | | |
| Canada | -- | -- | -- | 342 | 1,390 | 17,100 |
| Colombia | -- | -- | -- | 2 2/ | 1,240 | -- |
| Dominican Republic | -- | -- | -- | 392 | -- | -- |
| Finland | -- | -- | -- | -- | 746 | -- |
| France | -- | -- | -- | 130 | 2,060 2/ | -- |
| Germany | -- | -- | -- | 102 | 5,010 | -- |
| Italy | -- | -- | -- | -- | 110 | -- |
| Japan | -- | -- | -- | 27 | 1,300 | -- |
| Korea, Republic of | -- | -- | -- | -- | 968 | -- |
| Lebanon | -- | -- | -- | -- | 101 | -- |
| Mexico | 3,110 | -- | 3,110 | -- | 19,800 | 675 |
| Singapore | -- | -- | -- | -- | 409 | -- |
| Sweden | -- | -- | -- | -- | 99 | -- |
| Switzerland | -- | 541 | 541 | -- | 54 | -- |
| Taiwan | -- | -- | -- | 1,280 | 2,340 | -- |
| United Kingdom | 19,700 | 159 | 19,800 | 2,310 | 458 | -- |
| Other | -- | 19 | 19 | 4 2/ | 33 | 42 |
| Total | 22,800 | 719 | 23,500 | 4,580 | 36,200 | 17,800 |
| Year to date | 67,500 | 1,890 | 69,400 | 8,900 | 81,400 | 54,000 |

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS AND EXPORTS OF SILVER, RAW, SEMIMANUFACTURED, AND WASTE AND SCRAP 1/

(Kilograms of silver content, unless otherwise specified)

| Period and country | Silver ores and concentrates | Base metal ores and concentrates | Ash and residues | Total | Semimanufactured form 2/ 3/ (gross weight) | Waste and scrap (gross weight) |
|---------------------------------|------------------------------|----------------------------------|------------------|--------|--|--------------------------------|
| Imports for consumption: | | | | | | |
| 2000 | 1,420 | -- | 55,800 | 57,200 | 140,000 r/ | 1,130,000 |
| 2001: | | | | | | |
| January | -- | -- | 2,330 | 2,330 | 6,010 | 40,700 |
| February | -- | -- | 2,310 | 2,310 | 7,820 | 36,200 |
| March: | | | | | | |
| Australia | -- | -- | 194 | 194 | -- | 4 |
| Brazil | -- | -- | -- | -- | 7,300 | -- |
| Canada | -- | -- | 1,290 | 1,290 | 1,320 | 9,700 |
| Dominican Republic | -- | -- | -- | -- | -- | 274 |
| France | -- | -- | -- | -- | 76 | 365 |
| Germany | -- | -- | -- | -- | 1,670 | 401 |
| Italy | -- | -- | -- | -- | 163 4/ | (5/) |
| Japan | -- | -- | -- | -- | 126 4/ | 5 |
| Korea, Republic of | -- | -- | -- | -- | 362 | 63 |
| Malaysia | -- | -- | -- | -- | -- | 2,650 |
| Mexico | -- | -- | 859 | 859 | 99 | 1,740 |
| Netherlands | -- | -- | -- | -- | 41 4/ | 2,590 |
| Singapore | -- | -- | -- | -- | -- | 1,520 |
| United Kingdom | -- | -- | 1,580 | 1,580 | 279 4/ | 29,400 |
| Zimbabwe | -- | -- | -- | -- | -- | 188 |
| Other | -- | -- | -- | -- | (5/ 4/ | 186 |
| Total | -- | -- | 3,920 | 3,920 | 11,400 | 49,100 |
| Year to date | -- | -- | 8,550 | 8,550 | 25,300 | 126,000 |
| Exports: | | | | | | |
| 2000 | 65,100 | -- | -- | 65,100 | 148,000 r/ | 1,670,000 |
| 2001: | | | | | | |
| January | 671 | -- | -- | 671 | 14,000 | 119,000 |
| February | 29,100 | -- | -- | 29,100 | 12,600 | 107,000 |
| March: | | | | | | |
| Belgium | -- | -- | -- | -- | 52 | 22,700 |
| Brazil | -- | -- | -- | -- | 960 | 6,020 |
| Canada | 277 | -- | -- | 277 | 7,090 | 110,000 |
| China | -- | -- | -- | -- | -- | 13,200 |
| Costa Rica | -- | -- | -- | -- | -- | 155 |
| France | -- | -- | -- | -- | 377 4/ | -- |
| Germany | -- | -- | -- | -- | 2,390 4/ | 10,500 |
| Hong Kong | -- | -- | -- | -- | 251 | 34 |
| Italy | -- | -- | -- | -- | 364 | 20,000 |
| Japan | -- | -- | -- | -- | 2,200 4/ | 199 |
| Korea, Republic of | -- | -- | -- | -- | 154 4/ | -- |
| Mexico | 4,320 | -- | -- | 4,320 | 1,340 4/ | -- |
| Netherlands | -- | -- | -- | -- | 816 | -- |
| Saudi Arabia | -- | -- | -- | -- | -- | 238 |
| Singapore | -- | -- | -- | -- | 50 | 234 |
| South Africa | -- | -- | -- | -- | -- | 574 |
| Spain | -- | -- | -- | -- | 1,570 | -- |
| Switzerland | -- | -- | -- | -- | 67 4/ | 96 |
| Taiwan | -- | -- | -- | -- | 420 4/ | -- |
| United Kingdom | -- | -- | -- | -- | 506 4/ | 969 |
| Other | -- | -- | -- | -- | 130 4/ | 66 |
| Total | 4,600 | -- | -- | 4,600 | 18,700 | 185,000 |
| Year to date | 34,300 | -- | -- | 34,300 | 45,300 | 411,000 |

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Containing 99.5% or more by weight of silver. Imports only.

3/ Semimanufactured (including silver plated with gold or platinum) forms of silver.

4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

5/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF PLATINUM-GROUP METALS 1/

(Kilograms of metal content, unless otherwise specified)

| Period and country | Platinum grain and nuggets | Platinum sponge | Other unwrought platinum | Platinum, other | Platinum waste and scrap | Platinum coins | Unwrought palladium | Palladium, other | Iridium 2/ | Unwrought osmium | Unwrought ruthenium | Rhodium 3/ |
|--------------------|----------------------------|-----------------|--------------------------|-----------------|--------------------------|----------------|---------------------|------------------|------------|------------------|---------------------|------------|
| 2000 | 2,550 | 68,000 | 3,870 | 7,480 | 12,100 | 27 | 154,000 r/ | 27,900 | 2,700 | 133 | 20,800 | 18,200 |
| 2001: | | | | | | | | | | | | |
| January | 113 | 8,320 | 144 | 397 | 581 | 5 | 36,900 | 1,510 | 167 | 28 | 604 | 914 |
| February | 504 | 3,530 | 147 | 344 | 497 | 3 | 12,300 | 489 | 1,080 | -- | 403 | 541 |
| March: | | | | | | | | | | | | |
| Belgium | 155 | 461 | 78 | -- | -- | -- | 3,160 | -- | -- | -- | -- | 233 |
| Brazil | -- | -- | -- | -- | 99 | -- | -- | -- | -- | -- | -- | -- |
| Canada | -- | -- | 7 | 40 | 27 | -- | 338 | 11 | -- | -- | -- | -- |
| China | -- | -- | -- | -- | -- | -- | 200 | -- | -- | -- | -- | -- |
| Colombia | -- | -- | 16 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Estonia | -- | -- | -- | -- | -- | -- | 10 | -- | -- | -- | -- | -- |
| France | -- | 29 | -- | -- | -- | -- | -- | -- | -- | -- | -- | 22 |
| Germany | 1 | 534 | 14 | 184 | 104 | -- | 92 | 90 4/ | 11 | -- | -- | 44 |
| Israel | -- | -- | 197 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Italy | (5/) | 45 | -- | -- | -- | -- | 56 | 59 | -- | -- | -- | -- |
| Jamaica | -- | -- | -- | -- | 2 | -- | -- | -- | -- | -- | -- | -- |
| Japan | -- | -- | -- | 3 | 1 | -- | 1,220 | 26 | -- | -- | -- | -- |
| Korea, Republic of | -- | -- | -- | 1 | 61 | -- | -- | -- | -- | -- | -- | -- |
| Mexico | -- | -- | -- | -- | 27 | -- | -- | -- | -- | -- | -- | -- |
| Mongolia | -- | -- | -- | -- | -- | 1 | -- | -- | -- | -- | -- | -- |
| Norway | -- | 31 | -- | -- | -- | -- | 233 | -- | -- | -- | -- | -- |
| Russia | -- | 591 | 3 | -- | -- | -- | 26,800 | 31 | -- | -- | -- | 23 |
| Singapore | -- | -- | 2 | -- | (5/) | -- | -- | -- | -- | -- | -- | -- |
| South Africa | 62 | 2,750 | 68 | -- | -- | -- | 438 4/ | 439 4/ | 19 | -- | 387 | 226 |
| Switzerland | -- | -- | 7 | 95 | -- | -- | 3,140 4/ | 40 | -- | -- | -- | -- |
| Taiwan | -- | -- | -- | -- | 3 | -- | -- | 9 | -- | -- | -- | -- |
| United Kingdom | -- | 1,230 | 40 | 5 | 19 | -- | 4,370 | 16 | 159 | -- | 59 | 19 |
| Total | 218 | 5,670 | 432 | 329 | 343 | 1 | 40,000 | 721 | 189 | -- | 446 | 566 |
| Year to date | 835 | 17,500 | 723 | 1,070 | 1,420 | 9 | 89,200 | 2,720 | 1,440 | 28 | 1,450 | 2,020 |

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Unwrought and other forms of iridium.

3/ Unwrought and other forms of rhodium.

4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

5/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF PLATINUM GROUP METALS 1/

(Kilograms of metal content, unless otherwise specified)

| Period and country | Palladium 2/ | Platinum 2/ | Platinum waste and scrap | Iridium, osmium and ruthenium 2/ 3/ | Rhodium 2/ |
|----------------------|--------------|-------------|--------------------------|-------------------------------------|------------|
| 2000 | 57,900 r/ | 25,000 | 7,360 r/ | 1,480 | 797 |
| 2001: | | | | | |
| January | 3,780 | 2,270 | 1,010 | 227 | 118 |
| February | 8,930 | 1,750 | 1,110 | 72 | 94 |
| March: | | | | | |
| Australia | 23 | 11 | -- | -- | -- |
| Austria | 1 | 7 | -- | -- | -- |
| Belgium | 73 | 4 | 5 | -- | -- |
| Bermuda | -- | (4/) | -- | -- | -- |
| Brazil | 80 | 176 | -- | (4/) | -- |
| Canada | 414 | 273 | 40 | -- | (4/) |
| China | -- | -- | -- | 15 | -- |
| Denmark | 8 | -- | -- | -- | -- |
| Finland | 4 | 6 | -- | -- | -- |
| France | 38 | 121 | 40 | 3 | 69 |
| Germany | 955 | 497 | 619 | 1 | 172 |
| Hong Kong | 422 | 13 | -- | -- | 1 |
| India | -- | -- | -- | -- | (4/) |
| Ireland | -- | 13 | -- | -- | -- |
| Israel | 15 | -- | -- | 1 | (4/) |
| Italy | 23 | 5 | 4 | -- | -- |
| Japan | 450 | 8 | 8 | 1 | 74 |
| Korea, Republic of | 208 | 416 5/ | -- | (4/) | -- |
| Malaysia | -- | 1 | -- | -- | -- |
| Mexico | 11 | 8 | (4/) | 3 | (4/) |
| Netherlands | 18 | 21 | -- | 1 | -- |
| Netherlands Antilles | -- | 519 5/ | -- | -- | -- |
| New Zealand | 7 | -- | -- | -- | -- |
| Norway | 11 | 1 | -- | -- | -- |
| Philippines | 5 5/ | -- | -- | -- | -- |
| Saudi Arabia | -- | 3 | -- | -- | -- |
| Singapore | 4 | 2 | -- | -- | -- |
| Slovenia | 80 | -- | -- | -- | -- |
| South Africa | -- | -- | 2 | -- | -- |
| Spain | 10 | 1 | -- | -- | -- |
| Sweden | 13 | 5 | (4/) | 1 | -- |
| Switzerland | 14 | 9 | -- | -- | -- |
| Taiwan | 1,040 | -- | -- | -- | -- |
| Thailand | 1 | 3 | -- | 1 | -- |
| Turkey | -- | (4/) | -- | -- | (4/) |
| United Arab Emirates | 2 | -- | -- | -- | (4/) |
| United Kingdom | 170 | 3,290 | 394 | 56 | 157 |
| Total | 4,100 | 5,420 | 1,110 | 82 | 473 |
| Year to date | 16,800 | 9,440 | 3,230 | 381 | 685 |

r/ Revised. -- Zero.

1/ Data are rounded to no more than three significant digits; may not add to totals shown.

2/ Unwrought and other forms.

3/ Gross weight.

4/ Less than 1/2 unit.

5/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 8
LEADING GOLD-PRODUCING MINES IN THE UNITED STATES, FIRST QUARTER, 2001, IN ORDER OF OUTPUT 1/

| Rank | Mine | County and State | Operator | Kilograms |
|------|---------------------------------|---------------------------|--|-----------|
| 1 | Newmont Nevada operations 2/ 3/ | Various counties, NV | Newmont Gold Company | 22,500 |
| 2 | Betze-Post/Goldstrike | Eureka, NV | Barrick Gold Corporation | 14,000 |
| 3 | Cortez | Lander, NV | Placer Dome Inc. | 9,200 |
| 4 | Round Mountain | Nye, NV | Round Mountain Gold Corporation | 6,200 |
| 5 | Meikle/Goldstrike | Eureka, NV | Barrick Gold Corporation | 5,000 |
| 6 | Bingham Canyon 4/ | Salt Lake, UT | Kennecott Utah Copper Corp. | 4,700 |
| 7 | Fort Knox 5/ | Fairbanks, AK | Fairbanks Gold Mining Inc. | 3,100 |
| 8 | Jerritt Canyon | Elko, NV | Independence Mining Company, Inc. | 3,000 |
| 9 | Ken Snyder | do. | Euro-Nevada Mining Co. | 1,800 |
| 10 | Golden Sunlight | Jefferson, MT | Placer Dome Inc. | 1,650 |
| 11 | Cresson | Teller, CO | Cripple Creek & Victor Gold Mining Co. | 1,600 |
| 12 | Homestake | Lawrence, SD | Homestake Mining Company | 1,500 |
| 13 | Mesquite | Imperial, CA | Newmont Gold Company | 1,200 |
| 14 | Barney's Canyon | Salt Lake, UT | Kennecott Barney's Canyon Mining Co. | 1,150 |
| 15 | Ruby Hill | Eureka, NV | Homestake Mining Company | 900 |
| 16 | McLaughlin | Napa, CA | do. | 900 |
| 17 | Castle Mountain | San Bernardino, CA | Viceroy Resources Corporation | 800 |
| 18 | Wharf | Lawrence, SD | Wharf Resources, Ltd. | 800 |
| 19 | Denton-Rawhide | Mineral, NV | Kennecott Rawhide Mining Co. | 800 |
| 20 | Bald Mountain | White Pine, NV | Placer Dome Inc. | 800 |
| 21 | Greens Creek | Skagway-Hoonah-Angoon, AK | Kennecott Greens Creek Mining Co. | 700 |
| 22 | Briggs | Inyo, CA | Canyon Resources Corp. | 700 |
| 23 | McCoy/Cove | Lander, NV | Echo Bay Mines Limited | 700 |
| 24 | Rochester | Pershing, NV | Coer d'Alene Mines Corp. | 600 |
| 25 | Marigold | Humboldt, NV | Glamis Gold Ltd. | 600 |
| 26 | Rand | Kern, CA | Glamis Rand Mining Co. | 400 |
| 27 | Kettle River | Ferry, WA | Echo Bay Mines Limited | 400 |
| XX | Diamond Hill | Broadwater, MT | Diamond Hill Mining Co. | (6/) |
| XX | Florida Canyon | Lander, NV | Florida Canyon Mining, Inc. | (6/) |
| XX | Montana Tunnels | Jefferson, MT | Montana Tunnels Mining, Inc. | (6/) |

XX Not applicable.

1/ Data are rounded to no more than three significant digits; these mines accounted for more than 92% of the U.S. gold production in 2000.

2/ Includes Carlin Mines Complex, Lone Tree, and Twin Creeks.

3/ Mill output.

4/ Mine production refers to total quantity of gold produced in concentrates.

5/ Mine production refers to gold equivalent produced.

6/ Production at Diamond Hill, Florida Canyon, and Montana Tunnels are withheld; mine is among the top 30 gold-producing mines in the United States, but are not shown in rank in order to avoid disclosing company propriety data.

Sources: Company annual reports, Securities and Exchange Commission's 10Q reports, and company news releases.