

Mineral Industry Surveys

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PRECIOUS METALS IN FEBRUARY 2003

U.S. mines produced 19,800 kilograms (kg) of gold and 92,100 kg of silver in February 2003. Compared with January 2003, production of gold was down 6% in California and production of silver was down 20% in Nevada.

Gold

Domestic. CA three-way merger of Kinross Gold Corp., TVX Gold Inc., and Echo Bay Mines Ltd. was approved by the Ontario Superior Court in Canada. Denver-based Newmont Mining Corp., the world's largest gold producer, owns 13.8% of the new Kinross, and is its largest shareholder as a result of its prior ownership of shares in Echo Bay and TVX. The new Kinross combination, which has more than 62,000 kg (2 million troy ounces) of gold output per year, created the seventh largest gold producer in the world (American Metal Market, 2003c).

International. CHarmony Gold Mining Co. Ltd. appropriated funds to develop two new gold mines. The first is the Doornkap South Reef gold project, which is expected to produce 1,300 kg (42,000 ounces) of gold by 2006 and rise to 10,300 kg (330,000 ounces) by 2007-08. The mine has an expected life span of 20 years. The second mine is Tshepong North, which is expected to produce 5,200 kg (167,000 ounces) of gold per year for 8 years (Platts Metals Week, 2003a).

Barrick Gold Corp. dismissed its president, who also served as the firm's chief executive officer. A member of Barrick's board of directors was appointed to the vacated positions. Barrick, the world's third largest gold producer made the leadership change to address concerns about the company's 2002 performance (American Metal Market, 2003a).

India imposed a national 1% gold sales tax that replaced local gold taxes. The local taxes had ranged from 0.3% to 1.5% (Platts Metals Week, 2003b).

Comex gold futures fell based on a large bullion sale reported by one of its European Central Banks. The Portuguese Central Bank sold 30 metric tons (t) worth \$351.1 million in the week ending February 21, 2003. This sale was in accord with the

1999 Washington Agreement on gold that limited total European annual gold sales to 400 t for 5 years. An estimated 412 t of gold was sold in 2002 by the European Central Bank and its 14 national central banks, which signed the Washington Agreement (American Metal Market, 2003b).

Polyus ZAO, Russia's largest gold producer, negotiated with the government of the Sakha Republic in eastern Russia to develop gold deposits in the region, including the Nezhdaninskoye, Kuranakh, and Kyuchus deposits. However, a conflict about operational control of South Verkhoyansk Mining Company (SVMC), which holds the license to mine Nezhdaninskoye, exists between Celtic Resources Ltd. and Yakut Mining Co., which own a stake in SVMC. Yakut has challenged Celtic, disputing the legality of a 30% block of shares in SVMC that Celtic has claimed as its own. Polyus, which produced 25,000 kg (806,000 ounces) of gold in 2002, was acquired October 2002 by Norilsk Nickel Ltd. The Sakha Republic produced 17,500 kg (564,000 ounces) of gold in 2002 (Platts Metals Week, 2003c).

China reported that it expects to produce 200,000 kg (6.4 million ounces) of gold in 2003. In 2002, China's gold output was 189,800 kg (6.1 million ounces) (Antaike Precious & Minor Metals Monthly, 2003b).

Silver

On February 20, 2003, Pan American Silver Corp. and Corner Bay Silver Inc. announced that they had completed a merger of the two companies, which had been approved by shareholders in September 2002. The merger combines Pan American's silver production and operational experience with Corner Bay's Alamo Dorado silver-gold deposit. Corner Bay holds a 100% interest, with no royalties, in the deposit. Mineral reserves of the Alamo Dorado deposit (calculated at per-ounce prices of US\$4.60 for silver and US\$300 for gold), including proven reserves, reportedly total 23.36 million metric tons (Mt) of ore grading 71 grams per metric ton (g/t) silver and 0.27 g/t gold.

Probable reserves are reportedly 12.14 Mt of ore grading 60 g/t silver and 0.24 g/t gold. The Alamo Dorado deposit is in the western foothills of the Sierra Madres mountain range and occupies a large ridge-top, making it ideal for low-strip-ratio open-pit mining (Pan American Silver Corp., 2003).

The Chinese Ministry of Foreign Trade and Economic Commission (MOFTEC) announced that the government will continue to manage the export of 52 commodities, including some so called strategic nonferrous metals, under its export licensing system. About 14 nonferrous metal products, including silver, will require an export quota license. Moreover producers who wish to export platinum metal will also be required to get an export license from MOFTEC (Antaike Precious & Minor Metals Monthly, 2003a).

Platinum-Group Metals

Zimbabwe Platinum Mines (Zimplats) which owns Zimbabwe's Hartley Complex, will complete in 2003 a bankable feasibility study to double its production of PGM by the end of 2005. The plans are based on the potential development of an underground mine below its Ngezi open cast project, aimed at doubling the rate of production at Ngezi to about 12,500 kg of PGM per year by 2005. The introduction of an underground component at Ngezi will increase PGM reserves substantially to about 1.1 million kg with a platinum-to-palladium ratio of about 1.2:1. Zimplats' total resources within

the Hartley Complex are reportedly about 10.3 million kg with an average grade of 4.1 grams per metric ton PGM (Platts Metals Week, 2003d).

References Cited

- American Metal Market, 2003a, Barrick ousts chief exec Oliphant as stock slides: American Metal Market, v. 111, no. 6-4, February 13, p. 1.
- American Metal Market, 2003b, NY gold defies expectations, slips on 30 t EU bullion sale: American Metal Market, v. 111, no. 8-3, February 26, p. 6.
- American Metal Market, 2003c, Three-way gold company merger wins approval: American Metal Market, v. 111, no. 5-2, February 4, p. 6.
- Antaike Precious & Minor Metals Monthly, 2003a, Ag, Sb, Zn, W, and other commodities under export license: Antaike Precious & Minor Metals Monthly, no. 37, February, p. 1.
- Antaike Precious & Minor Metals Monthly, 2003b, China targets 200 t gold output in 2003: Antaike Precious & Minor Metals Monthly, no. 38, March, p. 6.
- Pan American Silver Corp., 2003, Pan American and Corner Bay complete Merger: Vancouver, British Columbia, Pan American Silver Corp. press release, February 20, 2 p.
- Platts Metals Week, 2003a, Harmony raises cash for new gold mines: Platts Metals Week, v. 74, no. 5, February 3, p. 4.
- Platts Metals Week, 2003b, India to impose 1% tax on gold sales: Platts Metals Week, v. 74, no. 7, February 17, p. 14.
- Platts Metals Week, 2003c, Russia's Polyus targets in Sakha gold region: Platts Metals Week, v. 74, no. 7, February 17, p. 13.
- Platts Metals Week, 2003d, Zimplats to double Ngezi PGM output: Platts Metals Week, v. 74, no. 5, February 3, p. 5.

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 |
|---------------------|---------|------------|-----------|--------------------|------------|
| 2002: | | | | | |
| February | W | 797 | 16,600 | 3,990 | 21,400 |
| March | W | 1,000 | 18,600 | 4,430 | 24,000 |
| April | W | 893 | 20,800 | 4,150 | 25,900 |
| May | W | 788 | 18,600 | 3,680 | 23,000 |
| June | W | 907 | 20,100 | 3,510 | 24,600 |
| July | W | 770 | 19,200 | 3,640 | 23,700 |
| August | W | 740 | 17,600 | 3,190 | 21,500 |
| September | W | 701 | 21,200 | 3,840 | 25,800 |
| October | W | 569 | 20,000 | 3,780 | 24,400 |
| November | W | 512 | 19,200 | 3,460 | 23,200 |
| December | W | 534 | 22,600 | 3,370 | 26,400 |
| January-December p/ | W | 9,160 | 231,000 | 45,300 | 286,000 |
| 2003: | | | | | |
| January | W | 555 | 16,100 r/ | 3,760 r/ | 20,400 r/ |
| February | W | 519 | 16,000 | 3,330 | 19,800 |
| January-February | W | 1,070 | 32,100 | 7,080 | 40,200 |
| Silver | Arizona | Idaho | Nevada | Other States 3/ | Total |
| 2002: p/ | | | | | |
| February | W | W | 48,800 | 78,200 | 127,000 |
| March | W | W | 49,300 | 89,600 | 139,000 |
| April | W | W | 30,800 | 83,700 | 115,000 |
| May | W | W | 36,900 | 88,600 | 126,000 |
| June | W | W | 30,800 | 84,700 | 115,000 |
| July | W | W | 35,100 | 78,300 | 113,000 |
| August | W | W | 28,400 | 79,700 | 108,000 |
| September | W | W | 30,200 | 78,700 | 109,000 |
| October | W | W | 38,100 | 86,100 | 124,000 |
| November | W | W | 24,200 | 81,000 | 105,000 |
| December | W | W | 32,600 | 81,400 | 114,000 |
| January-December p/ | W | W | 424,000 | 996,000 | 1,420,000 |
| 2003: | | | | | |
| January | W | W | 22,500 r/ | 80,300 r/ | 103,000 r/ |
| February | W | W | 17,900 | 74,200 | 92,100 |
| January-February | W | W | 40,400 | 154,000 | 195,000 |

r/ Revised. p/ Preliminary. 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, Washington, and State indicated by symbol W.

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

TABLE 2
SELECTED PRECIOUS METAL PRICES

(Dollars per troy ounce)

| | Gold | Silver | Platinum | Palladium |
|------------------------------|--------------------|-------------------------|-------------------------|------------------------|
| Engelhard Industries: | | | | |
| 2002: | | | | |
| Low/date | 278.62 January 29 | 4.26 January 31 | 454.00 February 1 | 225.00 December 23 |
| High/date | 350.54 December 27 | 5.15 June 4 and July 15 | 610.00 December 17 | 439.00 January 3 |
| Average | 311.33 | 4.62 | 542.56 | 339.68 |
| 2003: | | | | |
| January: | | | | |
| Low/date | 345.03/2 | 4.78/14 | 606.00/3 | 239.00/2 and 3 |
| High/date | 369.78/27 | 4.94/6 and 24 | 675.00/31 | 273.00/23 |
| Average | 358.12 | 4.86 | 633.09 | 258.41 |
| February: | | | | |
| Low/date | 345.33/18 | 4.53/12 | 669.00/21 | 245.00/27 |
| High/date | 383.40/5 | 4.92/4 | 701.00/3 and 4 | 269.00/4 |
| Average | 360.86 | 4.68 | 684.47 | 255.68 |
| Year to date: | | | | |
| Low/date | 345.03 January 2 | 4.53 February 12 | 606.00 January 3 | 239.00 January 2 and 3 |
| High/date | 383.40 February 5 | 4.94 January 6 and 24 | 701.00 February 3 and 4 | 273.00 January 23 |
| Average | 359.49 | 4.77 | 658.78 | 257.05 |
| Handy and Harman: | | | | |
| 2002, Average | 310.13 | 4.62 | XX | XX |
| 2003: | | | | |
| January | 356.91 | 4.86 | XX | XX |
| February | 359.60 | 4.68 | XX | XX |
| Average year to date | 358.25 | 4.77 | XX | XX |
| London Final: 1/ | | | | |
| 2002, Average | 309.97 | 4.60 | XX | XX |
| 2003: | | | | |
| January | 356.86 | 4.81 | XX | XX |
| February | 358.97 | 4.65 | XX | XX |
| Average year to date | 357.91 | 4.73 | 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: | | | | | | | | |
| 2002: | | | | | | | | |
| November | 518 | 4,400 | 13,700 | -- | 18,600 | 1,110 | 377 | 1,140 |
| December | 81 | 8,580 | 9,230 | -- | 17,900 | 914 | 320 | 2,480 |
| Year | 2,720 | 42,200 | 172,000 | -- | 217,000 | 11,900 | 10,700 | 18,100 |
| 2003: | | | | | | | | |
| January: | | | | | | | | |
| Aruba | -- | -- | 178 | -- | 178 | -- | -- | -- |
| Brazil | -- | -- | 1,080 | -- | 1,080 | -- | -- | -- |
| Canada | -- | 2 | 8,030 | -- | 8,030 | 119 | 80 | -- |
| Chile | -- | -- | 500 | -- | 500 | -- | -- | -- |
| Colombia | -- | 3,510 | 596 | -- | 4,100 | 42 | 1 | -- |
| Dominican Republic | -- | -- | 3 | -- | 3 | 608 | 12 | -- |
| Germany | -- | -- | -- | -- | -- | -- | 1 | 312 5/ |
| Honduras | -- | 465 | -- | -- | 465 | -- | 369 | -- |
| Japan | -- | -- | -- | -- | -- | -- | -- | 3,810 5/ |
| Mexico | -- | 87 | 938 | -- | 1,030 | 112 | -- | -- |
| Peru | -- | 1,820 | -- | -- | 1,820 | 4 | -- | -- |
| United Kingdom | -- | -- | -- | -- | -- | -- | -- | 1,570 5/ |
| Other | 2 | 87 | 152 | -- | 241 | 121 | 16 5/ | -- |
| Total | 2 | 5,970 | 11,500 | -- | 17,400 | 1,010 | 478 | 5,690 |
| Exports: | | | | | | | | |
| 2002: | | | | | | | | |
| November | 44 | 5,350 | 24,100 | -- | 29,400 | 8,660 | 526 | 37,700 |
| December | 97 | 11,400 | 18,200 | -- | 29,700 | 9,320 | 75 | 29,500 |
| Year | 556 | 71,700 | 185,000 | -- | 257,000 | 85,800 | 10,900 | 417,000 |
| 2003: | | | | | | | | |
| January: | | | | | | | | |
| Armenia | -- | -- | 22 | -- | 22 | -- | 24 | -- |
| Canada | -- | -- | 836 | -- | 836 | 6,520 | -- | 17,900 5/ |
| Dominican Republic | 46 | -- | -- | -- | 46 | -- | -- | 442 5/ |
| Germany | 61 | -- | -- | -- | 61 | 920 | 1 5/ | -- |
| Guatemala | -- | -- | 16 | -- | 16 | 131 | -- | -- |
| Hong Kong | -- | -- | 6 | -- | 6 | -- | 11 | 1,950 5/ |
| Israel | -- | -- | -- | -- | -- | -- | -- | 3,250 5/ |
| Japan | -- | 3 | 1 | -- | 4 | -- | 1 5/ | -- |
| Mexico | -- | -- | 528 | -- | 528 | -- | -- | 147 5/ |
| Peru | -- | -- | 391 | -- | 391 | -- | -- | -- |
| Switzerland | -- | 9,830 | 7,340 | -- | 17,200 | -- | -- | 2,330 5/ |
| Taiwan | -- | -- | -- | -- | -- | -- | 1 | -- |
| United Kingdom | -- | -- | 6,520 | -- | 6,520 | 9,210 | 12 | -- |
| Other | -- | 2 | 75 | -- | 77 | (6/) | (6/) | -- |
| Total | 107 | 9,830 | 15,700 | -- | 25,700 | 16,800 | 49 | 26,000 |

-- 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 FOR CONSUMPTION OF SILVER 1/

(Kilograms of silver content, unless otherwise specified)

| Period and country | Bullion | Doré | Ores and concentrates 2/ | Ash and residues | Total | Other unwrought silver (gross weight) | Metal powder (gross weight) | Silver nitrate (gross weight) | Semimanufactured form 3/ (gross weight) | Waste and scrap (gross weight) |
|--------------------|------------|-----------|--------------------------|------------------|-----------|---------------------------------------|-----------------------------|-------------------------------|---|--------------------------------|
| 2002: | | | | | | | | | | |
| November | 289,000 | 7,540 | 44,700 | 4,050 | 345,000 | 23,600 | 1,190 | -- | 27,500 | 9,810 |
| December | 371,000 | 681 | 12,600 | 5,120 | 389,000 | 18,200 | 2,030 | -- | 23,500 | 92,500 |
| Year | 4,020,000 | 16,600 | 61,000 | 63,500 | 4,160,000 | 263,000 | 12,100 | 572 | 289,000 | 816,000 |
| 2003: | | | | | | | | | | |
| January: | | | | | | | | | | |
| Brazil | -- | -- | -- | -- | -- | -- | -- | -- | 27,800 | 9 |
| Canada | 135,000 4/ | 436 | -- | 1,320 | 137,000 | 704 | -- | -- | 238 4/ | 6,340 |
| Chile | 6,000 | -- | -- | -- | 6,000 | -- | -- | -- | -- | (5/) |
| Colombia | -- | 555 | -- | 1 4/ | 556 | -- | -- | -- | -- | 2 |
| Dominican Republic | -- | -- | -- | 12 4/ | 12 | -- | -- | -- | -- | 144 |
| France | -- | -- | -- | -- | -- | 86 | -- | -- | 88 | -- |
| Germany | -- | -- | -- | -- | -- | -- | 110 4/ | -- | 825 4/ | 61 |
| India | -- | -- | -- | -- | -- | 475 4/ | -- | -- | 1,180 4/ | -- |
| Italy | 150 | -- | -- | -- | 150 | 97 4/ | -- | -- | 57 4/ | 29 |
| Jamaica | -- | -- | -- | -- | -- | -- | -- | -- | -- | 907 |
| Japan | -- | -- | -- | -- | -- | -- | 192 4/ | -- | 368 4/ | 26 |
| Korea, Republic of | -- | -- | -- | -- | -- | -- | -- | -- | 1,560 | 82 |
| Mexico | 185,000 | 10,200 4/ | -- | -- | 195,000 | 10,800 | 345 | -- | 524 4/ | 1,780 |
| Peru | 51,100 | -- | -- | -- | 51,100 | -- | -- | -- | 2 4/ | -- |
| Poland | -- | -- | -- | -- | -- | -- | -- | -- | 84 | -- |
| Portugal | -- | -- | -- | -- | -- | -- | -- | -- | -- | 8,310 |
| Singapore | -- | -- | -- | -- | -- | -- | -- | -- | -- | 185 |
| Taiwan | -- | -- | -- | -- | -- | -- | -- | -- | 111 | 11,200 |
| United Kingdom | -- | -- | -- | -- | -- | -- | -- | -- | 157 4/ | 2,390 |
| Other | -- | -- | -- | 966 | 966 | -- | -- | -- | (5/) ^{4/} | 63 |
| Total | 377,000 | 11,200 | -- | 2,300 | 490,000 | 12,200 | 647 | -- | 33,000 | 31,500 |

-- Zero.

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

2/ Includes silver content of base metal ores and concentrates.

3/ Containing 99.5% or more by weight 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 5
U.S. EXPORTS OF SILVER 1/

(Kilograms of silver content, unless otherwise specified)

| Period and country | Bullion | Doré | Ores and concentrates 2/ | Total | Other unwrought silver (gross weight) | Metal powder (gross weight) | Silver nitrate (gross weight) | Semimanufactured form 3/ (gross weight) | Waste and scrap (gross weight) |
|--------------------|---------|--------|--------------------------|---------|---------------------------------------|-----------------------------|-------------------------------|---|--------------------------------|
| 2002: | | | | | | | | | |
| November | 26,300 | 1,500 | 19,600 | 47,500 | 386 | 51,200 | 5,250 | 24,500 | 239,000 |
| December | 280 | 3,850 | 19,400 | 23,600 | 1,530 | 48,000 | 2,310 | 26,600 | 234,000 |
| Year | 624,000 | 22,700 | 230,000 | 877,000 | 32,700 | 360,000 | 81,200 | 290,000 | 2,380,000 |
| 2003: | | | | | | | | | |
| January: | | | | | | | | | |
| Belgium | -- | -- | -- | -- | 21 | 93 | -- | 193 | 5,110 |
| Brazil | -- | -- | -- | -- | -- | -- | -- | 537 | -- |
| Canada | 1,340 | 33 | -- | 1,370 | 1,050 | 927 | 4,820 | 4,490 | 44,100 |
| China | -- | -- | -- | -- | -- | -- | -- | -- | 19,100 |
| Dominican Republic | -- | -- | -- | -- | -- | -- | -- | 155 | -- |
| France | -- | -- | -- | -- | -- | 1,340 | -- | 786 4/ | -- |
| Germany | -- | -- | -- | -- | -- | 713 | -- | 1,240 | 3,570 |
| Hong Kong | -- | -- | -- | -- | -- | 1,850 | -- | 970 4/ | -- |
| India | -- | -- | -- | -- | -- | 43 | -- | 15 | 2,720 |
| Israel | -- | -- | -- | -- | -- | -- | -- | 75 | -- |
| Italy | -- | -- | -- | -- | -- | 8,910 | -- | 121 | 39,000 |
| Japan | -- | -- | -- | -- | 2 4/ | 595 | -- | 3,700 | 20,800 |
| Korea, Republic of | -- | -- | -- | -- | 27 | 502 | -- | 3,150 | -- |
| Mexico | 7,080 | -- | 39,700 4/ | 46,800 | -- | 443 | 575 4/ | 1,920 4/ | -- |
| Netherlands | -- | -- | -- | -- | -- | 203 | -- | 539 | -- |
| Philippines | -- | -- | -- | -- | -- | -- | -- | 243 | -- |
| Saudi Arabia | -- | -- | -- | -- | -- | -- | -- | -- | 9,480 |
| Singapore | -- | -- | -- | -- | -- | 74 | -- | 446 4/ | -- |
| Spain | -- | -- | -- | -- | -- | -- | -- | 1,650 | -- |
| Sweden | -- | -- | -- | -- | -- | -- | -- | -- | 25,400 |
| Switzerland | -- | 2,490 | -- | 2,490 | -- | 98 4/ | -- | 27 | -- |
| Taiwan | -- | -- | -- | -- | -- | 7,030 | -- | 211 | -- |
| Thailand | -- | -- | -- | -- | 27 4/ | -- | -- | 83 | -- |
| United Kingdom | 19,100 | -- | 123 | 19,300 | 11 4/ | 9,070 | -- | 599 4/ | 1,360 |
| Other | -- | -- | -- | -- | 72 4/ | 27 | -- | 133 4/ | 42 |
| Total | 27,600 | 2,520 | 39,900 | 69,900 | 1,210 | 31,900 | 5,390 | 21,300 | 171,000 |

-- Zero.

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

2/ Includes silver content of base metal ores and concentrates.

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.

Source: U.S. Census Bureau.

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

(Kilograms of metal content)

| 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/ |
|--------------------|----------------------------|-----------------|--------------------------|-----------------|--------------------------|----------------|---------------------|------------------|------------|------------------|---------------------|------------|
| 2002: | | | | | | | | | | | | |
| November | 163 | 3,910 | 428 | 376 | 463 | (4/) | 14,000 | 1,840 | 25 | -- | 352 | 600 |
| December | 228 | 5,310 | 467 | 250 | 1,410 | 4 | 7,860 | 3,830 | 123 | -- | 753 | 1,080 |
| Year | 1,910 | 72,600 | 3,490 | 4,950 | 77,500 | 20 | 94,600 | 22,000 | 2,100 | 36 | 9,890 | 8,630 |
| 2003: | | | | | | | | | | | | |
| January: | | | | | | | | | | | | |
| Argentina | -- | -- | 20 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Belgium | -- | 118 | -- | -- | -- | -- | 134 | 101 | -- | -- | -- | 9 |
| Canada | 2 | -- | 1 | 35 | 150 | -- | -- | -- | -- | -- | -- | -- |
| China | -- | 2 | -- | -- | -- | -- | -- | -- | -- | -- | -- | (4/) |
| Colombia | -- | -- | 38 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Denmark | -- | -- | 1 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| France | -- | -- | -- | 23 | -- | -- | -- | 1 | -- | -- | -- | -- |
| Germany | -- | 445 | 72 | 198 | 17 | -- | 194 5/ | 476 5/ | 5 | -- | 31 | 12 |
| Greece | -- | -- | -- | -- | 7 | -- | -- | -- | -- | -- | -- | -- |
| Israel | -- | -- | 55 | -- | -- | -- | -- | -- | -- | -- | -- | -- |
| Italy | -- | -- | -- | 111 | -- | -- | -- | 31 | -- | -- | -- | (4/) |
| Japan | -- | 63 | 31 | -- | 4 | -- | 131 | 94 5/ | -- | -- | -- | 25 5/ |
| Mexico | -- | -- | -- | -- | 7 | -- | -- | -- | -- | -- | -- | -- |
| Netherlands | -- | -- | -- | (4/) | 2 | -- | -- | -- | -- | -- | -- | -- |
| Norway | -- | 16 | -- | -- | -- | -- | 512 | -- | -- | -- | -- | 8 |
| Philippines | -- | -- | -- | 1 | 1 | -- | -- | -- | -- | -- | -- | -- |
| Russia | -- | 266 | -- | -- | -- | -- | 1,210 | 397 | -- | -- | -- | 34 |
| Saudi Arabia | -- | -- | -- | -- | 861 | -- | -- | -- | -- | -- | -- | -- |
| Singapore | -- | -- | -- | (4/) | -- | -- | -- | -- | -- | -- | -- | 1 |
| South Africa | 124 | 4,830 | -- | 23 | -- | -- | 1,290 | 254 | 41 | -- | 568 | 674 |
| Switzerland | -- | -- | 7 | 6 | -- | -- | 64 | 198 | -- | -- | -- | -- |
| United Kingdom | -- | 1,580 | 1 | 11 | 5,050 | -- | 125 | 496 | 48 5/ | 1 | -- | 83 |
| Total | 126 | 7,320 | 226 | 408 | 6,100 | -- | 3,660 | 2,050 | 94 | 1 | 599 | 846 |

-- 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/ 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 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/ |
|----------------------|--------------|-------------|--------------------------|--------------------------------------|------------|
| 2002: | | | | | |
| November | 1,550 | 1,550 | 1,530 | 112 | 53 |
| December | 3,430 | 1,760 | 1,970 | 147 | 5 |
| Year | 42,700 | 27,800 | 17,700 | 1,990 | 349 |
| 2003: | | | | | |
| January: | | | | | |
| Argentina | 1 | -- | -- | -- | (4/) 5/ |
| Australia | 8 | 3 | -- | -- | -- |
| Brazil | 1 | 110 | -- | -- | -- |
| Canada | 111 | 217 | 235 | -- | (4/) 5/ |
| Chile | -- | 227 | -- | -- | -- |
| China | 10 5/ | 7 | -- | -- | 8 |
| Costa Rica | 2 5/ | -- | -- | -- | -- |
| Cyprus | -- | -- | -- | (4/) | -- |
| Denmark | -- | 1 | -- | -- | -- |
| Dominican Republic | 1 | -- | -- | -- | -- |
| Finland | -- | (4/) | -- | -- | -- |
| France | 27 | 8 | -- | (4/) | -- |
| Germany | 875 5/ | 325 | 347 | 2 | 13 5/ |
| Hong Kong | 5 | 37 | -- | -- | 50 5/ |
| Iceland | (4/) | -- | -- | -- | -- |
| India | 4 5/ | -- | -- | -- | -- |
| Ireland | 28 5/ | 109 | -- | 2 | 4 5/ |
| Israel | -- | 1 | -- | -- | -- |
| Italy | 11 5/ | (4/) | -- | -- | -- |
| Japan | 210 | 154 | -- | -- | 3 5/ |
| Korea, Republic of | 5 | 1 | -- | -- | -- |
| Liechtenstein | 1 | -- | -- | -- | -- |
| Macao | 4 | -- | -- | -- | -- |
| Malaysia | -- | 5 | -- | -- | -- |
| Mexico | (4/) | 1 5/ | -- | (4/) | (4/) 5/ |
| Netherlands | 94 5/ | 5 | -- | -- | -- |
| New Zealand | 1 5/ | 7 | -- | -- | -- |
| Norway | 7 | -- | -- | -- | -- |
| Peru | -- | 1 | -- | -- | -- |
| Philippines | -- | (4/) | -- | -- | -- |
| Poland | -- | 1 | -- | -- | -- |
| Singapore | 2 | 1 | -- | -- | (4/) 5/ |
| Slovakia | 11 | -- | -- | -- | -- |
| Slovenia | 1 | -- | -- | -- | -- |
| Spain | 8 | (4/) | -- | -- | -- |
| Sweden | 2 5/ | 1 | -- | -- | -- |
| Switzerland | 79 | 126 | -- | 1 | -- |
| Taiwan | 167 5/ | 8 | -- | -- | -- |
| Thailand | 4 | 4 | -- | -- | -- |
| Turkey | (4/) | -- | -- | -- | -- |
| United Arab Emirates | 1 | -- | -- | -- | (4/) 5/ |
| United Kingdom | 148 5/ | 141 | 1,530 | 52 | 18 5/ |
| Total | 1,830 | 1,500 | 2,110 | 58 | 95 |

-- 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.