

# Mineral Industry Surveys

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## PRECIOUS METALS IN MARCH 2001

U.S. mines produced 25,000 kilograms (kg) of gold and 134,000 kg of silver in March 2001. Compared with February 2001, production of gold was the same, and silver production was up by 3%. Table 8 in this report lists the top 30 gold-producing mines in the United States in 2000.

### Gold

**Domestic.**—Coeur d'Alene Mines Corp. launched a bid to buy the precious metals producer, Hecla Mining Company. Hecla has the capacity to produce 4,400 kg (140,000 ounces) of gold and 250,000 kg (8 million ounces) of silver from 3 operations, in Alaska, Idaho, and Nevada (Metal Bulletin, 2001a).

**International.**—Australia's gold production was 74,500 kg (2.4 million troy ounces) in the fourth quarter of 2000, down 2.6% from the fourth quarter of 1999. Total gold production for 2000 fell 2% to 296,000 kg (9.5 million ounces). Kalgoorlie Super Pit remained Australia's largest gold mine followed by the Granny Smith gold mine (Platts Metals Week, 2001a).

Harmony Gold Mining Co. Ltd. raised its takeover bid for New Hampton Goldfields Ltd. of Australia to 27.5 Australian cents per share. A majority of the New Hampton's board recommended that shareholders accept the revised offer. New Hampton operates the Jubilee and Big Bell Mines in Western Australia as well as prospective exploration properties near Kalgoorlie (Metal Bulletin, 2001c).

India's national budget proposal included a reduction of gold import duties from 400 rupees (\$8.58) per 10 grams to 250 rupees (\$5.36) per 10 grams starting the next fiscal year. A smaller duty should reduce smuggling which is estimated at 60,000 kg of gold arriving illegally each year through Nepal and Bangladesh (American Metal Market, 2001c).

The Bank of England sold 25,000 kg of gold at \$266 per

ounce on March 14. The auction, which was 2.2 times oversubscribed, was the 11th since July 1999. The sale was \$1.45 below the March 14 London am price. Britain's Treasury Department reported that it will hold six 20,000 kg auctions of gold in fiscal 2001-2002 beginning May 15 (American Metal Market, 2001a).

Newmont Mining Corp. reported that its Minahasa gold mine on the Indonesian island of Sulawesi will cease production in 2003. Mining at Minahasa will be completed in December 2001, but stockpiles will continue to be processed. Gold production was 11,000 kg (364,000 ounces) in 2000. Newmont's Batu Hijau, a second mine on the island of Sumbawa, is expected to sustain current production levels for the next 20 years (American Metal Market, 2001d).

Falcon Gold Zimbabwe suspended operations at its Dalny and Golden Quarry gold mines because they are flooded. Reopening is impossible due to the high cost of pumping water out of the mines. Falcon Gold produced 1,100 kg (35,400 ounces) of gold in 2000 (Metal Bulletin, 2001b).

Goldcorp Inc. announced the winners of its \$575,000 "prospector internet challenge" in which contestants propose ways to access the 190,000 kg (6 million ounces) gold deposit believed to be present at its Red Lake Mine in Balmertown, Ontario. Goldcorp announced that it would use many of the proposals to maximize gold recovery. The contest drew 1,400 entries that proposed low-cost methods for extracting gold from an ore body which Goldcorp claims is one of the richest, highest-grade deposits in the world. As a follow up, Goldcorp announced a \$2 million "Global Search Challenge" designed to promote the discovery of important mineral deposits (Mining Journal, 2001b).

The London Bullion Market Association's gold clearing statistics rose to an eight-month high in February. Gold

transfers were up about 23% in comparison with those of the preceding month, rising to a daily average of 24.2 million ounces (753,000 kg). The daily average number of gold transfers rose from 730 to 830. In addition, the quantity of gold transferred in February 2001 was down about 19% from that of February 2000 (Platts Metals Week, 2001c).

According to CPM Group's "First Quarter Review," total world gold supply will increase 1.7% to 3.3 million kg (105.5 million ounces) in 2001. Gold mine production will rise 1.8% to 2.1 million kg (67.6 million ounces); secondary supply will increase 7% to 715,000 kg (23 million ounces); but sales from central banks will fall about 8% to 373,000 kg (12 million ounces) (Platts Metals Week, 2001d).

## Silver

The Chinese Government increased its silver export quota for 2001 to 450 metric tons (t), up from 250 t in 2000. The increase was made although all of the 2000 quota had not been exported. The number of designated silver exporters was increased from two to ten. The designated exporters included Minmetals, Yunan Copper Co., Yuguang Gold and Lead Group, and Zhuzhu Smelter. The increased export quotas for 2001 did not result in increased sales for Chinese silver traders in Hong Kong due to the current wide differential between the low domestic Chinese prices and higher LME values. Official statistics show that China produced 1,510 t of silver in 2000 and exported 189 t. Huatong's silver exchange officially opened in Shanghai in mid-2000 after about six months of trial operation (Platts Metals Week, 2001b).

After showing signs of stabilizing at around \$4.40 per ounce, the price of silver fell through this level and settled at \$4.25 per ounce, its lowest level in three and one half years. The main factor behind the fall was technically driven selling in the United States. Also, the silver market continues to be pressured by official sector sales by China and India. Speculation is that the Indian Government will begin selling more than 995 t of silver in its domestic market during 2001, and China is expected to continue exporting large quantities of the metal. More importantly, the malaise affecting all industrial metals is having a negative impact on the silver market. Growing doubts about the world economy have raised concerns that silver demand will be depressed in the coming year, particularly in the jewelry and silverware sectors (Mining Journal, 2001a).

## Platinum-Group Metals

Rhodium prices fell sharply during the first week of March as demand from catalyst manufacturers slackened at the same time that Russian producers offered more platinum-group metals (PGM) for sale. Dealers quoted rhodium in the price range of \$1,600 to \$1,950 per ounce on March 8, down from \$2,125 to \$2,350 the previous week. Dealers put platinum in a range of \$575 to \$605 per ounce during the week of March 5 compared with \$600 to \$615 per ounce the previous week; palladium moved up to \$820 to \$950 per ounce from \$780 to \$925 per ounce. Johnson Matthey Inc., Valley Forge, PA, quoted rhodium at \$2,000 per ounce and platinum at \$605 per ounce for the same period. Johnson Matthey's quote for palladium increased to \$825 per ounce, while iridium (\$415 per ounce), and ruthenium (\$158 per ounce) were unchanged (American

Metal Market, 2001b).

A major Japanese automotive catalyst producer announced that it had signed an agreement to produce catalysts for General Motors' 2004 model year passenger cars and trucks. The catalysts, which were developed in conjunction with a Japanese automobile manufacturer and a number of other Japanese companies, use roughly half the amount of palladium as conventional catalysts, reducing palladium consumption by the automaker by about 3,110 to 4,040 kg.

Another Japanese automobile manufacturer announced on March 22 that, along with a California-based company, it had developed a catalytic exhaust control system that would cut PGM use by 50% to 70%. According to the U.S. company, the catalysts consist of a combination of transition metal oxides and lanthanum oxides. The oxides reportedly have unique crystal structures that enable them to oxidize and reduce oxides of nitrogen, hydrocarbons, and carbon monoxide into carbon dioxide, nitrogen, oxygen, and water. The company has been evaluating the performance of the new catalysts since 1999, and will use the technology on a new stepvan that will be introduced in Japan in April 2001 (Precious Metals News, 2001).

The Russian Government reportedly has granted a quota to alluvial platinum producer Koryakgeoldobycha (KGD) to export about 6,220 kg of platinum. A KGD company official was to meet with Almazjuvelirexport, the only agency officially permitted to export PGM from Russia, during the 3rd week in March to discuss terms of the export sales. Meanwhile, Norilsk Nickel failed to get a multi-year quota for PGM exports and is likely to receive a quota this year that is below its annual production of 21,800 kg (Platts Metals Week, 2001e).

Graphite may serve as effective support material for fuel-cell electrodes, according to researchers at Northeastern University, Boston, MA, and Villanova University, Villanova, PA. The high cost of precious-metal (platinum) catalysts needed to oxidize fuels remains a key obstacle to widespread commercialization of fuel cells. Researchers are trying to find ways to reduce the dependence on platinum without sacrificing fuel cell performance. The researchers determined that in methanol oxidation studies, fuel-cell anodes made from graphite nanofibers with platelet and ribbon-type structures require a platinum loading of just 5 weight-percent to function as effectively as carbon electrodes loaded with 5 times more platinum. In addition, the graphite-nanofiber supported catalysts were found to be much more resistant than traditional catalysts to carbon monoxide poisoning (Journal of Physical Chemistry B, 2001).

**Update.**—Russia, the world's leading source of palladium and the second largest platinum producer, could increase its PGM output by more than 40% in the next few years, according to a recent U.S. Geological Survey study. The study, based on previously unreported information, considered the PGM reserves of RAO Norilsk Nickel in Siberia. Norilsk produces almost all of Russia's PGM. Doubts about Russian supplies have driven up prices for palladium and platinum over the last few months (U.S. Geological Survey, 2001).

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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:					
March	1,200	1,390	22,600	4,400	29,600
April	1,190	1,280	21,400	4,240	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	15,500	16,400	153,000	55,300	338,000
2001:					
January	1,440	1,370	22,000	4,490	29,300
February	1,440	1,290	17,900	4,320	25,000
March	1,440	1,290	17,900	4,320	25,000
January-March	4,320	3,950	57,800	13,100	79,200
Silver	Arizona	Idaho	Nevada	Other States 3/	Total
2000:					
March	W	34,300	71,000	75,000	180,000
April	W	34,300	57,500	72,900	165,000
May	W	34,300	73,800	73,400	182,000
June	W	34,200	59,800	74,500	168,000
July	W	34,200	56,700	71,200	162,000
August	W	34,800	53,100	73,200	161,000
September	W	34,500	53,700	69,500	158,000
October	W	34,500	45,900	66,000	146,000
November	W	34,500	56,700	64,300	156,000
December	W	34,500	60,000	58,700	153,000
January-December	W	413,000	710,000	844,000	1,970,000
2001:					
January r/	W	20,300	41,200	76,500	138,000
February r/	W	20,300	42,500	66,400	129,000
March	W	W	45,300	88,400	134,000
January-March	W	40,600	129,000	231,000	401,000

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 States 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:				
February:				
Low/date	257.34/20	4.44/21	596.00/12 and 13	850.00/28
High/date	269.41/27	4.79/1	615.00/28	1,090.00/5
Average	263.09	4.57	604.84	984.37
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
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	273.61 March 12	4.87 January 30	645.00 January 10 and 15	1,100.00 January 26
Average	263.87	4.52	604.18	883.54
<u>Handy and Harman:</u>				
2000				
	278.96	5.00	XX	XX
2001:				
February	261.99	4.57	XX	XX
March	263.03	4.40	XX	XX
April	260.56	4.39		
Average year to date	262.79	4.52	XX	XX
<u>London Final: 1/</u>				
2000				
	279.04	4.95	XX	XX
2001:				
February	261.87	4.55	XX	XX
March	263.03	4.40	XX	XX
April	260.48	4.37		
Average year to date	262.71	4.50	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)
<b>Imports for consumption:</b>								
2000	65	39,000	184,000	60	223,000	29,800	6,720	7,970
<b>2001:</b>								
January	2	1,350	16,800	2	18,100	2,470	799	222
<b>February:</b>								
Brazil	--	--	3,810	--	3,810	--	--	119
Canada	--	--	10,200	--	10,200	99	1,110	--
Colombia	--	92	155	--	247	--	--	--
Dominican Republic	--	--	4	--	4	743	4	--
Ghana	--	--	--	84	84	--	--	--
Honduras	--	362	--	--	362	--	--	--
Mexico	--	173	24	--	197	53	10	--
Nicaragua	--	53	--	1 5/	55	--	--	--
Peru	--	636	--	--	636	--	--	--
Other	--	56	221	--	277	166	2	13 5/
Total	--	1,370	14,400	85	15,900	1,060	1,120	132
Year to date	2	2,720	31,200	87	34,000	3,530	1,920	354
<b>Exports:</b>								
2000	745	106,000	440,000	--	547,000	64,100	1,130	1,390,000
<b>2001:</b>								
January	41	4,810	43,400	--	48,300	4,310	19	159,000
<b>February:</b>								
Australia	--	--	--	--	--	--	--	360
Canada	--	2,210	33	--	2,250	2,350	3	4,910 5/
Dominican Republic	--	--	--	--	--	--	--	196 5/
Germany	55	--	--	--	55	27	--	15 5/
Guatemala	--	--	100	--	100	8	--	--
Hong Kong	--	--	1,530	--	1,530	--	--	--
India	--	--	--	--	--	--	1	--
Israel	--	--	1	--	1	--	--	35,000 5/
Korea, Republic of	--	--	500	--	500	--	--	--
Mexico	1	--	2,880	--	2,880	--	82	--
Netherlands	--	--	--	--	--	(6/)	2	6
Peru	--	--	330	--	330	--	--	--
Singapore	--	8	--	--	8	--	--	120 5/
Switzerland	--	2,680	38,600	--	41,300	--	1	--
Thailand	--	--	418	--	418	--	--	--
Trinidad and Tobago	5	--	--	--	5	--	--	--
United Arab Emirates	--	--	1,620	--	1,620	--	--	--
United Kingdom	--	--	5,340	--	5,340	1,350	285	5 5/
Other	--	4	76	--	80	173	--	7 5/
Total	60	4,900	51,500	--	56,400	3,900	373	40,700
Year to date	101	9,710	94,900	--	105,000	8,210	392	200,000

-- 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 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)
<b>Imports for consumption:</b>						
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:						
Belgium	--	--	--	--	--	8,640
Canada	102,000 2/	--	102,000	20,200	--	40
China	4,570	--	4,570	--	--	--
France	--	29	29	--	188	--
Germany	--	--	--	--	383	--
Japan	--	--	--	--	9,960 2/	--
Mexico	86,900	--	86,900	--	--	--
Panama	60	--	60	--	--	--
Peru	21,200	--	21,200	--	--	--
Other	--	--	--	13	(3/) 2/	--
Total	214,000	29	214,000	20,300	10,500	8,680
Year to date	482,000	12,900	495,000	32,700	16,900	13,000
<b>Exports:</b>						
2000	279,000	36,000	315,000	57,500	424,000	217,000
2001:						
January	25,300	420	25,700	681	16,000	16,000
February:						
Canada	582	--	582	961	1,820	18,800
China	--	--	--	--	2,570	1,000
Dominican Republic	--	--	--	334	--	--
Finland	--	--	--	--	145	--
France	--	--	--	--	91	--
Germany	--	--	--	215	5,710	--
India	--	--	--	--	57	--
Ireland	--	--	--	--	1,550	--
Japan	18,700	88	18,800	6	1,290 2/	--
Korea, Republic of	--	--	--	--	2,070	--
Lebanon	--	--	--	--	120	--
Mexico	72	--	72	--	447	377
Netherlands	--	--	--	20	166	--
Philippines	101	--	101	--	--	--
Singapore	--	--	--	--	551	--
Switzerland	--	162	162	--	16	--
Taiwan	--	--	--	1,890	10,600 2/	--
United Kingdom	--	468	468	205	2,010	--
Other	22	29	51	5 2/	30 2/	--
Total	19,500	747	20,200	3,640	29,200	20,100
Year to date	44,800	1,170	45,900	4,320	45,200	36,200

-- 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.

3/ Less than 1/2 unit.

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)
<b>Imports for consumption:</b>						
2000	1,420	--	55,800	57,200	139,000	1,130,000
<b>2001:</b>						
January	--	--	2,330	2,330	6,010	40,700
<b>February:</b>						
Australia	--	--	313	313	--	--
Brazil	--	--	--	--	4,220	2
Canada	--	--	662	662	163 4/	4,870
Dominican Republic	--	--	--	--	--	108
Finland	--	--	--	--	149	--
France	--	--	--	--	44	769
Germany	--	--	--	--	2,400	459
Ireland	--	--	--	--	--	207
Italy	--	--	--	--	55 4/	1
Japan	--	--	--	--	280	--
Korea, Republic of	--	--	--	--	174	16,400
Malaysia	--	--	--	--	--	6,050
Mexico	--	--	502	502	65	4,290
New Zealand	--	--	--	--	--	77
Singapore	--	--	--	--	--	405
United Kingdom	--	--	833	833	252	35
Zimbabwe	--	--	--	--	--	2,560
Other	--	--	--	--	20 4/	40
Total	--	--	2,310	2,310	7,820	36,200
Year to date	--	--	4,640	4,640	13,800	76,900
<b>Exports:</b>						
2000	65,100	--	--	65,100	148,000	1,670,000
<b>2001:</b>						
January	671	--	--	671	14,000	119,000
<b>February:</b>						
Armenia	--	--	--	--	--	2,510
Belgium	--	--	--	--	520	20,700
Brazil	--	--	--	--	250	1,100
Canada	26,300	--	--	26,300	5,150	25,000
China	--	--	--	--	--	14,900
Egypt	--	--	--	--	183 4/	--
France	--	--	--	--	251 4/	--
Germany	--	--	--	--	477	10,700
Hong Kong	--	--	--	--	158	162
Italy	9	--	--	9	202	24,000
Japan	--	--	--	--	842 4/	--
Korea, Republic of	--	--	--	--	397	--
Mexico	2,750	--	--	2,750	1,310 4/	21
Netherlands	--	--	--	--	874	472
Saudi Arabia	--	--	--	--	--	1,080
Singapore	--	--	--	--	31 4/	182
Spain	--	--	--	--	1,360	--
Sweden	--	--	--	--	--	924
Taiwan	--	--	--	--	268 4/	1
United Kingdom	--	--	--	--	148 4/	4,820
Other	--	--	--	--	158 4/	--
Total	29,100	--	--	29,100	12,600	107,000
Year to date	29,700	--	--	29,700	26,600	226,000

-- 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.

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	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:												
Argentina	--	--	--	--	7	--	--	--	--	--	--	--
Australia	--	--	--	--	5	--	--	--	--	--	--	--
Belgium	--	213	--	--	--	--	675	--	--	--	--	72
Brazil	--	--	--	--	45	--	--	--	--	--	--	--
Canada	--	--	2	33	23	--	306	--	--	--	--	--
Chile	--	--	--	--	65	--	--	--	--	--	--	--
China	--	--	--	--	--	--	55	--	--	--	--	--
Colombia	--	--	27	--	--	--	--	--	--	--	--	--
Costa Rica	--	--	--	--	(4/)	--	--	--	--	--	--	--
Ecuador	--	--	--	--	--	--	6	--	(4/)	--	--	--
Estonia	--	--	2	--	--	--	10	--	--	--	--	3
France	--	--	--	--	18	--	--	--	--	--	--	--
Germany	32	112	43	211	206	(4/)	243	139	47	--	24	62 5/
Hong Kong	--	--	--	--	--	--	--	1	--	--	--	--
Israel	--	--	58	--	--	--	--	--	--	--	--	--
Italy	--	49	--	--	--	--	48	44	5	--	--	--
Jamaica	--	--	--	--	(4/)	--	--	--	--	--	--	--
Japan	--	34	--	1	--	--	762	27	--	--	--	--
Korea, Republic of	--	--	--	--	95	--	--	--	--	--	--	--
Mexico	--	--	--	--	8	--	2	--	--	--	--	--
Norway	--	--	--	--	--	--	179	12	--	--	--	2
Philippines	--	--	--	--	1	--	--	--	--	--	--	--
Russia	--	245	--	--	--	--	2,340	39	--	--	--	--
Singapore	--	--	--	--	--	3	--	2	--	--	--	--
South Africa	393	1,920	14	--	--	--	531	88	950 5/	--	376	222
Sweden	--	--	--	1	--	--	--	--	--	--	--	--
Switzerland	--	--	(4/)	91 5/	--	--	1,970	32	--	--	--	--
Taiwan	--	--	--	--	--	--	--	1	--	--	--	--
United Kingdom	78	954	(4/)	7	23	--	5,190	103	81 5/	--	3	180
Total	504	3,530	147	344	497	3	12,300	489	1,080	--	403	541
Year to date	617	11,900	290	742	1,080	8	49,200	2,000	1,250	28	1,010	1,460

-- 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/
2000	58,600	25,000	7,360	1,480	797
2001:					
January	3,780	2,270	1,010	227	118
February:					
Argentina	--	(4/)	--	--	--
Australia	10	14	--	--	--
Austria	--	5	--	--	--
Belgium	7	1	19	--	--
Brazil	47 5/	104	--	--	--
Canada	195	80	42	--	--
Denmark	6	--	--	--	--
Finland	2	--	--	--	--
France	335 5/	11	--	--	--
Germany	640 5/	472 5/	504	--	--
Greece	2 5/	--	--	--	--
Hong Kong	31 5/	92	--	--	(4/)
Iceland	1	1 5/	--	--	--
India	--	137	--	--	(4/)
Ireland	--	12	--	--	--
Italy	33	5	1	--	--
Japan	210	282 5/	--	(4/)	--
Korea, Republic of	315 5/	208 5/	--	15	66
Malaysia	2 5/	6	--	--	--
Mexico	5	9	--	--	(4/)
Netherlands	10	9 5/	--	(4/)	20
New Zealand	7	--	--	--	--
Norway	2	--	--	--	--
Oman	--	(4/)	--	--	--
Philippines	2 5/	--	--	--	--
Romania	--	1	--	--	--
Saudi Arabia	--	3	--	--	--
Singapore	1	1 5/	--	3	--
Slovenia	40	--	--	--	--
Spain	20 5/	(4/ 5/	--	--	--
Sweden	33 5/	9 5/	4	--	--
Switzerland	5,950	6	--	--	--
Taiwan	509 5/	37	--	--	--
Thailand	4	2	--	--	(4/)
Turkey	1	--	--	--	--
United Arab Emirates	1	--	--	--	--
United Kingdom	514 5/	242 5/	535	53	8
Total	8,930	1,750	1,110	72	94
Year to date	12,700	4,020	2,110	299	213

-- 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 IN 2000, IN ORDER OF OUTPUT 1/

Rank	Mine	County and State	Operator	Kilograms produced
1	Betze-Post/ Goldstrike	Eureka, NV	Barrick Gold Corporation	51,200
2	Twin Creeks	Humboldt, NV	Newmont Gold Company	41,100 2/
3	Carlin Mines Complex	Eureka, Elko, etc., NV	do.	37,000 2/
4	Cortez	Lander, NV	Placer Dome Inc.	31,400
5	Meikle/ Goldstrike	Elko, NV	Barrick Gold Corporation	25,100
6	Round Mountain	Nye, NV	Round Mountain Gold Corporation	19,800
7	Bingham Canyon	Salt Lake, UT	Kennecott Utah Copper Corp.	16,500
8	Lone Tree	Humboldt, NV	Newmont Gold Company	15,100 2/
9	Fort Knox	Fairbanks North Star, AK	Fairbanks Gold Mining Inc.	11,300
10	Jerritt Canyon	Elko, NV	Independence Mining Company, Inc.	10,700
11	Cresson	Teller, CO	Cripple Creek & Victor Gold Mining Co.	7,700
12	Golden Sunlight	Jefferson, MT	Placer Dome Inc.	6,600
13	Ken Snyder	Elko, NV	Euro-Nevada Mining Co.	6,000
14	Homestake	Lawrence, SD	Homestake Mining Company	5,300
15	McCoy/ Cove	Lander, NV	Echo Bay Mines, Limited	5,100
16	Barney's Canyon	Salt Lake, UT	Kennecott Barney's Canyon Mining Corp.	4,800
17	Bald Mountain	White Pine, NV	Placer Dome Inc.	4,200
18	Mesquite	Imperial, CA	Newmont Gold Company	4,100 2/
19	Ruby Hill	Eureka, NV	Homestake Mining Company	3,900
20	Castle Mountain	San Bernardino, CA	Viceroy Gold Corporation	3,700
21	McLaughlin	Napa, Yolo, CA	Homestake Mining Company	3,400
22	Denton-Rawhide	Mineral, NV	Kennecott Rawhide Mining Co.	3,300
23	Rand	Kern, CA	Glamis Rand Mining Co.	3,100
24	Kettle River	Ferry, WA	Echo Bay Mines, Limited	2,900
25	Wharf	Lawrence, SD	Wharf Resources, Ltd.	2,900
26	Briggs	Inyo, CA	Canyon Resources Corp.	2,700
27	Greens Creek	Skagway-Hoonah-Angoon, AK	Kennecott Greens Creek Mining Co.	2,600
28	Rochester	Pershing, NV	Coeur d'Alene Mines Corp.	2,400
29	Beartrack	Lemhi, ID	Meridan Gold Inc.	2,200
XX	Florida Canyon	Lander, NV	Florida Canyon Mining, Inc.	(3/)

XX Not applicable.

1/ Data are rounded to no more than three significant digits; these mines accounted for more than 96% of the U.S. gold production in 2000.

2/ Mill output.

3/ Production at Florida Canyon is withheld; mine is among the top 30 gold-producing mines in the United States, but is not shown in rank in order to avoid disclosing company proprietary data.

Sources: Company annual reports, Securities and Exchange Commission's 10K and 6K reports, or company new releases.