

# Mineral Industry Surveys

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## PRECIOUS METALS IN JANUARY 2002

U.S. mines produced 20,800 kilograms (kg) of gold and 110,000 kg of silver in January 2002. Compared with December 2001, production of gold was down 19% in Nevada, the largest precious metals producer; production of silver was down 48% in the State.

### Gold

**Domestic.**—Newmont Mining Corp. won control of Normandy Mining Ltd., which is Australia's biggest gold mining company. Newmont assumed control after South Africa's AngloGold Ltd. withdrew from a hard-fought battle to acquire Normandy (Metal Bulletin, 2002a).

**International.**—The Bank of England sold 20,000 kg of gold at \$283.50 per troy ounce on January 16. The sale, which was 1.4 oversubscribed, was the fifth in a program of six sales in a final series of auctions aimed at reducing British gold reserves. The auction price, \$4.45 under the London morning fix price of \$287.95, showed a lower buying interest. The sale is considered the least successful Bank of England gold auction to date (Platts Metals Week, 2002a).

Goldfields Ltd. changed its name to Durion Gold Ltd. after completing its merger with Delta Gold Ltd. The merger created a 31,000 kg (1-million troy ounce)-per-year gold producer that is about the same size as Normandy Mining Ltd. and Newcrest Mining Ltd. (American Metal Market, 2002).

After AngloGold failed on its takeover of Normandy Mining, the company sold its stake in Normandy. The stake totaled 7.11% of Normandy's shares. The proceeds from the sale were used to repay debt (Platts Metal Week, 2002b).

### Silver

The Peoples Republic of China produced 1,908 metric tons

(t) of silver in 2001, a 20% increase over production in 2000. In December 2001, silver output was a record 237 t. As a byproduct of copper, lead, and zinc, the increased output of silver can be attributed to China's increased production of these base metals. According to its customs statistics, China exported 1,590 t of silver products in 2001, more than 50% higher than exports in 2000. Total exports included 1,200 t of unwrought silver, 237 t of silver jewelry, and 109 t of silver household utensils. The increase in exports can be attributed to output far outstripping demand and the central government's increase of the export quota for silver by 1,180 t in September 2001. Also, producers were willing to export more silver because prices were higher on the world market than prices at home (Antaike Precious & Minor Metals Monthly, 2002).

The price of silver remained firm at the start of 2002. The spot price of silver reached \$4.63 per ounce on January 3, its highest level in 3 months. The price increase was driven by tightness in the lending market. Lease rates have been tight since the second week in December and were around 17% at the end of January. The silver market, however, remains in backwardation (a market condition in which a futures price is lower in the distant delivery months than in the near delivery months) for borrowing periods up to 12 months. Analysts point to the withdrawal of Credit Suisse First Boston from precious metals markets in October 2001 and suggest that, while the bank is in negotiations with other participants to take over its commitments, any silver it holds is unavailable for lending—thereby causing the high lease rates. Once the metal becomes available for lending or economic figures show weakness and lease rates fall, the price of silver will probably decline to recent support levels of about \$4.20 per ounce (Metal Bulletin, 2002b; Mining Journal, 2002b).

## **Platinum-Group Metals**

During the second week of January, the Ford Motor Company announced that it would take a \$1 billion write-off of the value from its stockpile of precious metals, primarily palladium. According to the automaker, the charge was the result of advances in autocatalyst technology and falling prices. Analysts believe that a significant part of the charge is due to a write-down of the value of the company's palladium stocks. Assuming all of the write-down was related to palladium, and by applying the palladium price of \$940 per ounce at the beginning of 2001 and the price of \$435 per ounce at the end of the year, the write-down suggests stocks and contracts totaling 1.9 to 2.0 million ounces of palladium. In the short term, the company's move is unlikely to alter the PGM supply/demand balance. In the long term, however, its reference to improving technology indicates that it will use less palladium in its autocatalysts. A venture that began in 1996 yielded insight into how rare-earth elements combined with PGM could make the precious metals in catalytic converters remain effective longer. Other advances included better techniques for distributing precious metals on parts of the converter where they were most needed. The improved converters would allow a 50% reduction in the use of PGM in the automaker's entire North American lineup of cars and trucks, starting with the 2003 models. Coupled with its

reduced vehicle output over the next few years (owing to plant closures announced at the same time as the palladium charge), the 50% reduction in PGM consumption will enable the automaker to make its stockpile last longer and further reduce PGM demand. It is also possible that the company may sell some of its stockpile back into the market. Such a move could drive down prices further (Mining Journal, 2002a).

## **References Cited**

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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
2001:					
January	1,390	1,370	21,800	4,500	29,000
February	1,280	1,090	19,700	4,320	26,400
March	1,390	1,320	20,500	3,640	26,800
April	1,240	1,180	20,300	4,280	27,000
May	1,290	857	20,700	4,620	27,500
June	1,240	1,270	22,200	4,720	29,400
July	W	1,070	22,700	5,840	29,600
August	1,370	784	21,100	3,700	27,000
September	W	699	20,200	5,380	26,300
October	W	746	18,000	8,250	27,000
November	W	793	17,800	5,090	23,700
December	W	871	19,400	4,890	25,200
January-December p/	9,190	12,000	244,000	59,200	325,000
2002:					
January	W	872	15,700	4,250	20,800

  

Silver	Arizona	Idaho	Nevada	Other States 3/	Total
2001:					
January	W	20,300	40,900	76,100	137,000
February	W	20,300	42,400	66,000	129,000
March	W	W	46,000	83,500	129,000
April	W	W	37,000	106,000	143,000
May	W	W	50,900	94,700	146,000
June	W	W	60,400	92,400	153,000
July	W	W	43,700	87,600	131,000
August	W	W	49,300	87,500	137,000
September	W	W	48,200	72,400	121,000
October	W	W	36,500	79,200	116,000
November	W	W	45,200	74,400	120,000
December	W	W	54,400	89,100	144,000
January-December p/	W	40,600	555,000	1,010,000	1,600,000
2002:					
January	W	W	28,400	81,400	110,000

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
<u>Engelhard Industries:</u>				
<u>2001:</u>				
Low/date	257.04 April 2	4.05 November 26	419.00 November 7	319.00 November 13
High/date	294.40 September 17	4.87 January 30	645.00 January 10 and 15	1,100.00 January 26
Average	272.22	4.39	533.31	610.61
<u>2002:</u>				
<u>January:</u>				
Low/date	278.62/29	4.26/31	458.00/31	370.00/29
High/date	287.99/10	4.79/10	484.00/17	439.00/3
Average	282.62	4.50	475.18	412.18
<u>Handy and Harman:</u>				
2001, average	271.06	4.39	XX	XX
2002, January	281.47	4.50	XX	XX
<u>London Final: 1/</u>				
2001, average	270.99	4.37	XX	XX
2002, January	281.51	4.51	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	76 r/	223,000 r/	29,800	6,720	7,970
<b>2001:</b>								
October	1,220	7,720	14,200	14	23,100	4,200	621	113
November	--	1,970	12,800	(5/)	14,700	1,560	809	85
<b>December:</b>								
Brazil	--	--	1,090	--	1,090	--	--	69
Canada	14	--	6,910	--	6,930	72	642	--
Chile	--	205	500	--	705	--	--	--
Colombia	--	464	187	--	651	--	--	--
Costa Rica	--	--	--	--	--	191	--	--
Dominican Republic	--	--	--	--	--	1,460	30	--
Honduras	--	668	--	--	668	2	--	--
Japan	--	--	--	--	--	--	--	199 6/
Mexico	--	74	206	(5/) 6/	280	1,100	--	--
Nicaragua	--	193	--	--	193	--	--	--
Panama	--	--	182	--	182	23	--	--
Peru	--	513	25	--	538	--	--	--
United Kingdom	--	3,000	--	--	3,000	--	--	--
Other	8	120	88	--	215	51	3	--
Total	21	5,240	1,990	(5/)	14,400	2,890	674	268
Year to date	1,260	31,100	161,000	193	194,000	26,400	9,450	1,960
<b>Exports:</b>								
2000	745	106,000	440,000	--	547,000	64,100	1,130	1,390,000
<b>2001:</b>								
October	80	15,000	1,960	--	17,100	1,660	844	9,370
November	92	10,900	10,300	--	21,300	2,810	2,300	10,800
<b>December:</b>								
Armenia	--	--	64	--	64	--	20	--
Austria	--	--	154	--	154	--	--	--
Brazil	--	--	--	--	--	--	--	480 6/
Canada	--	--	75	--	75	2,120 6/	--	826 6/
Germany	--	--	--	--	--	13 6/	--	166 6/
Guatemala	--	--	131	--	131	(5/)	--	--
Israel	--	--	--	--	--	3 6/	1	19
Italy	--	--	--	--	--	21	15	--
Japan	--	2	--	--	2	(5/) 6/	5	--
Mexico	--	--	265	--	265	--	1,970	--
Peru	--	--	80	--	80	--	254	--
Sweden	--	--	--	--	--	46 6/	1	--
Switzerland	--	523	14,400	--	15,000	133	127	--
Taiwan	--	--	2	--	2	--	1	--
United Kingdom	--	--	7,940	--	7,940	--	27	1
Other	--	--	47	--	47	97 6/	--	67 6/
Total	--	525	23,200	--	23,700	2,440	2,420	1,560
Year to date	361	93,900	395,000	--	489,000	40,100	11,600	492,000

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/ Less than 1/2 unit.

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

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/ 4/ (gross weight)	Waste and scrap (gross weight)
2000	3,810,000	74,100 r/	1,420	55,800	3,940,000	204,000	235,000	24,200	140,000	1,130,000
2001:										
October	287,000	9,040	1,150	4,970	302,000	14,300	1,100	111	13,400	46,800
November	322,000	18,100	--	1,660	341,000	11,000	910	213	7,680	89,600
December:										
Brazil	--	--	--	--	--	--	--	--	6,500	415
Canada	96,800	--	1,440 5/	1,290	99,500	(6/) 5/	--	--	351	7,480
Chile	9,000	11,500	--	--	20,500	--	--	--	--	--
Colombia	491	204	--	--	695	--	--	--	--	--
Costa Rica	--	--	--	--	--	--	--	--	--	15,600
Dominican Republic	--	--	--	--	--	--	--	--	--	763
France	--	--	--	--	--	--	485	--	--	--
Germany	--	--	--	--	--	--	--	--	1,330	10,300
Honduras	--	19 5/	--	--	19	--	--	--	--	--
India	--	--	--	--	--	--	--	--	250	--
Italy	--	--	--	--	--	1 5/	--	--	215	--
Japan	--	--	--	--	--	10	585 5/	--	113	--
Korea, Republic of	--	--	--	--	--	--	--	--	942	--
Malaysia	--	--	--	--	--	--	--	--	--	301
Mexico	131,000	--	--	532	132,000	16,300	--	--	--	2,490
Netherlands	--	--	--	--	--	--	--	--	--	62
Peru	1,900	--	--	--	1,900	--	--	--	--	--
Philippines	--	--	--	--	--	--	--	--	--	5,150
Singapore	--	--	--	--	--	--	--	--	--	1,270
Switzerland	--	--	--	--	--	--	75	--	1	--
United Kingdom	--	--	--	--	--	--	100	--	278	934
Other	--	--	--	--	--	--	--	--	--	91
Total	239,000	11,700	1,440	1,830	254,000	16,300	1,250	--	9,980	44,800
Year to date	2,940,000	151,000	7,550	38,000	3,130,000	249,000	24,200	26,000	153,000	1,110,000

r/ Revised. -- 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/ Semimanufactured (including silver plated with gold or platinum) forms of silver.

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 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)
2000	279,000	36,000	65,100	380,000	57,500	424,000	217,000	148,000	1,670,000
2001:									
October	20,300	2,850	724	23,900	2,550	9,560	3,560	14,800	164,000
November	32,200	2,220	53,900	88,300	3,190	12,500	4,970	15,200	186,000
December:									
Australia	--	--	--	--	--	--	--	--	231
Belgium	--	--	--	--	--	--	--	21	12,800
Canada	45	--	--	45	64	1,000	2,780	2,360	48,800
China	--	--	--	--	--	--	--	192	6,000
Colombia	--	--	--	--	--	111	--	39	--
Costa Rica	--	--	--	--	--	--	--	--	138
Côte d'Ivoire	--	--	--	--	--	100	--	--	--
Dominican Republic	--	--	--	--	173	--	--	--	--
Finland	--	--	--	--	--	745	--	--	--
France	--	--	--	--	--	250	--	345	--
Georgia	--	--	--	--	--	--	--	--	615
Germany	--	--	--	--	85	140	--	10	46,600
Hong Kong	--	--	--	--	73 4/	581	--	--	--
Ireland	--	--	--	--	--	--	--	114	--
Italy	--	--	--	--	12 4/	--	--	357	13,800
Japan	--	--	--	--	--	168 4/	--	2,770	10,300
Korea, Republic of	--	--	--	--	1,690	1,280	--	187	--
Lebanon	--	--	--	--	--	237	--	--	--
Mexico	--	--	--	--	1,150	525	246	1,890	--
Netherlands	--	--	--	--	--	--	--	245	15
New Zealand	--	--	--	--	54	--	--	--	--
Saudi Arabia	--	--	--	--	--	--	--	--	9,290
Spain	--	--	--	--	--	--	--	526	--
Switzerland	--	1,930	--	1,930	--	20	--	4,710	--
Taiwan	--	--	--	--	--	707	--	270	--
United Kingdom	310,000	817	--	311,000	91	720	--	550	56,900
Other	37	--	--	37	66	33	--	85	--
Total	310,000	2,740	--	313,000	3,460	6,620	3,030	14,700	206,000
Year to date	707,000	18,200	239,900	963,000	48,800	187,000	143,000	203,000	1,810,000

-- 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/		
2000	2,550	68,000	3,870	7,480	11,800	r/	27	154,000	27,900	2,700	133	20,900	r/	18,200
2001:														
October	35	6,160	208	420	360	--	8,670	1,920	104	30	876	1,300		
November	57	6,310	119	828	203	4	6,000	545	209	--	1,050	1,580		
December:														
Belgium	--	118	--	--	--	--	606	--	--	--	--	81		
Brazil	--	--	--	--	134	--	--	--	--	--	--	--		
Canada	5	--	--	34	19	(4/) 5/	408	--	--	--	--	--		
Chile	--	--	--	--	7	--	--	--	--	--	--	--		
China	--	--	--	--	--	--	100	--	--	--	--	--		
Colombia	3	--	7	--	--	--	--	--	--	--	--	--		
Germany	13	195	8	243	67	--	196	84	15	5	65 5/	10		
Italy	--	85	--	--	--	--	69	24	--	--	--	(4/)		
Japan	--	--	9	7 5/	--	--	240	9	--	--	--	10		
Korea, Republic of	--	--	--	18	11	--	--	--	--	--	--	--		
Mexico	--	--	--	--	9	--	--	--	--	--	--	--		
Netherlands	--	--	--	(4/)	--	--	--	2 5/	--	--	--	--		
Norway	--	--	--	--	--	--	397	--	--	--	--	--		
Russia	--	--	100	--	--	--	245	33 5/	--	--	--	193		
South Africa	--	2,730	--	10	--	--	2,820	316	19	--	490	326		
Spain	--	--	--	--	--	--	5	--	--	--	--	--		
Switzerland	--	--	1	12	--	1	46	8	--	--	--	--		
Taiwan	--	--	--	--	--	--	--	17	--	--	--	--		
United Kingdom	69	9	40	1	28	--	767	(4/)	71	--	--	18 5/		
Total	90	3,140	165	326	274	1	5,900	492	105	5	555	638		
Year to date	2,480	68,700	3,660	5,330	3,960	53	146,000	13,600	3,110	77	8,170	12,400		

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/ 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	57,900	25,000	7,360	1,480	797
2001:					
October	2,160	3,940	843	88	19
November	2,030	1,270	418	33	5
December:					
Australia	14 4/	3	--	--	--
Austria	--	81	--	--	--
Belarus	56	--	--	--	--
Belgium	21 4/	2	12	--	--
Brazil	--	9 4/	--	--	--
Canada	485	126	28	1	(5/) 4/
Denmark	1	--	--	--	--
France	1	7	--	--	--
Germany	65 4/	257	333	6	--
Hong Kong	9 4/	5	--	1	26 4/
Hungary	--	1	--	--	--
India	--	1	--	--	--
Ireland	--	15	--	--	--
Israel	5 4/	--	--	--	(5/) 4/
Japan	42 4/	93	71	--	--
Korea, Republic of	47	180	--	(5/)	--
Kuwait	--	3	--	--	--
Mexico	6 4/	5	--	--	(5/) 4/
Netherlands	13 4/	1	--	1	--
New Zealand	6	--	--	--	--
Philippines	5 4/	2	--	--	--
Romania	--	1	--	--	--
Singapore	72 4/	2	--	3	--
Spain	19 4/	--	--	--	--
Switzerland	6	153	--	--	--
Taiwan	286 4/	14	--	--	--
Thailand	5	5	--	1	--
Turkey	1	--	--	--	--
United Kingdom	527 4/	188 4/	70	77	(5/) 4/
Total	1,690	1,150	515	89	26
Year to date	37,000	29,300	12,900	1,370	982

-- 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/ 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.