

Mineral Industry Surveys

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COPPER IN DECEMBER 2003

The average daily mine production for December was essentially unchanged from that in November, while production of total refined copper rose by about 6%, according to data compiled by the U.S. Geological Survey. Mine and refined production, however, were down by 4% and 5%, respectively, from production in December 2002. The average daily consumption of refined copper in December, a traditionally weak month owing to holiday shutdowns, was down by only 7% from that in November and was 18% higher than that in December 2002. This compares with a 20% drop in average daily consumption between November and December 2002. Refined copper stocks in December continued their almost continuous yearlong slide, falling to 658,000 metric tons (t), a decline of less than 2% compared with those at the end of November.

Update

The COMEX copper price, which finished December at \$1.04 per pound, the highest price since August 1997, continued its upward movement in January and averaged \$1.10 for the month. As inventories continued to fall, prices began a steep climb in February, rising to a peak of \$1.35 on February 26, which was the highest level in more than 8 years. Copper inventories on the commodity exchanges continued to fall, with the combined inventories held in U.S. located London Metals Exchange Ltd. and COMEX warehouses falling to 459,000 t at the end of February.

At the end of January, in response to "higher copper prices and indications that the improved market for copper is sustainable," Phelps Dodge Corp. announced plans for increasing production at several North and South American operations. Phelps Dodge chose to increase production at specific operations in part to maintain a balance between its mining and downstream processing facilities. Total production from Phelps Dodge's global mining operations (including minority share) is projected to increase to 1.27 million metric tons (Mt) and 1.36 Mt in 2004 and 2005, respectively, from 1.18 Mt in 2003. Specific operational changes include increasing concentrate production to full capacity at its Bagdad Mine (by the second quarter of 2004) and Sierrita Mine (by the fourth

quarter of 2004), both in Arizona; resuming concentrate production at one-half capacity at its Chino Mine in New Mexico (closed in 2001) by the third quarter of 2004; resuming mining at an unspecified rate at its Cobre Mine in New Mexico (closed in 1999) by the third quarter of 2004; and resuming concentrate production at its Ojos del Salado operation in Chile (closed in 1998) by the second quarter of 2004. The increased concentrate production is projected to allow its Miami smelter to operate at 100% of capacity by the third quarter of 2004 (Phelps Dodge Corp., 2004a).

At the end of January, Teck Cominco Limited announced that it had given notice to BHP Billiton subsidiary Rio Algom Limited that it intended to exercise its "right of first refusal" with respect to the sale of Rio Algom's 33.57 % interest in the Highland Valley Copper partnership (British Columbia, Canada) for \$73 million in cash. This action negated BHP Billiton's agreement to sell its interest to Quadra Mining Ltd. (See Copper in November 2003.) The transaction, which was subsequently completed at the beginning of March, gave Teck Cominco a 97.5% share in Highland Valley Copper, which was projected to produce 174,000 metric tons per year of copper for the anticipated mine life of 5½ years (Teck Cominco Limited, 2004a; 2004b).

PRELIMINARY ANNUAL REVIEW OF 2003

- Domestic mine production in 2003 continued its downward trend, declining by about 3% to 1.11 Mt owing to the continuation of previously announced cutbacks and an additional cutback announced for 2003 at the Mission Mine in Arizona by ASARCO Incorporated (ASARCO Incorporated, 2002). Phelps Dodge reported that though there were production shifts between operations, production for its U.S. operations rose nominally to 658,000 t (Phelps Dodge Corp., 2004b, p. 5).
- Downstream smelter and refinery production fell by 21% and 13%, respectively, owing to a shortage of both copper concentrate and copper scrap feed materials, and to a temporary smelter shutdown early in the year at Kennecott

Utah Copper Company's smelter. (See Copper in April 2003.) A decline in net imports of copper concentrates, which for the first 11 months of the year were down by 33,000 t (65%) from the same period in 2002, and depletion of concentrate stocks in 2002 contributed to the shortage of concentrate.

- Reported consumption of refined copper in 2003 declined by about 3% and was at the lowest level in 10 years. The continued slump in domestic copper consumption in the production of brass mill and wire mill products was attributed by industry to weak commercial construction, telecommunications, and numismatic markets; industry destocking; and rising imports of manufactured items, especially from China, which became the world's largest consumer of refined copper in 2002. (See Copper in June 2003). According to data compiled by the American Bureau of Metal Statistics, Inc. (2004b), shipments of all brass mill product segments (rod and bars; plate, sheet and strip; and tube) for the first 11 months of 2003 were down compared with shipments for the same period in 2002, with total shipments declining by almost 6%. According to the American Bureau of Metal Statistics (2004a), the U.S. apparent consumption of wire rod (domestic shipments plus net imports) for the first 11 months of the year fell by almost 10% from that of the same period in 2002. Net imports as a percentage of apparent consumption for the same comparative periods also declined.
- According to preliminary data from the International Copper Study Group (2004), world mine production in

2003 rose by only 60,000 t, less than 1%, to 13.6 Mt, while world refined production fell by about 150,000 t, 1%, to 15.2 Mt. World refined use, however, rose by 2.3% to 15.5 Mt, mostly on the strength of China's apparent consumption, which rose by almost 10%. According to the International Copper Study Group data, there was a global production deficit of about 310,000 t in 2003. This closely parallels the drop in total reported world inventories of 270,000 t.

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TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES¹

(Metric tons, unless otherwise specified)

	Source table ²	2003			January - December
		2002	November	December	
Production:					
Primary:					
Mine, recoverable	(2)	1,140,000	91,100 ^r	93,200	1,110,000
Refinery:					
Electrolytic:					
Domestic	(4)	801,000	52,900	59,300	677,000
Foreign	(4)	40,000 ³	W	W	W
Electrowon	(4)	601,000	46,300 ^r	50,100	592,000
Total	(4)	1,440,000	99,200 ^r	109,000	1,270,000
Secondary recoverable copper:					
Refineries	(5)	69,900	4,050 ^r	4,080	53,300
Ingot makers ⁴	(5)	119,000 ^r	9,890 ^r	9,890	119,000
Brass and wire-rod mills	(5)	735,000	53,000 ^r	54,500	674,000
Foundries, etc. ⁴	(5)	64,600 ^r	5,380 ^r	5,380	64,600
Smelter, total	(3)	683,000	47,800	47,400	539,000
Consumption:					
Apparent	(8)	2,610,000 ^r	193,000	NA	NA
Refined (reported)	(7)	2,370,000 ^r	196,000 ^r	187,000	2,300,000
Purchased copper-base scrap	(9)	1,260,000	91,300 ^r	93,500	1,150,000
Stocks at end of period:					
Total refined	(11)	1,030,000	671,000	658,000	XX
Blister, etc.	(11)	44,400	57,500	56,800	XX
Prices:					
U.S. producer cathode (cents per pound) ⁵	(12)	75.805	96.867	103.917	85.012
Imports:⁶					
Ores and concentrates ⁷	(14)	71,900	2,690	NA	NA
Refined	(14)	927,000	73,200	NA	NA
Exports:⁶					
Ores and concentrates ⁷	(15)	23,000	1,300	NA	NA
Refined	(15)	26,600	8,470	NA	NA

^rRevised. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Domestic." XX Not applicable.

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

²Numbers in parentheses refer to the significant tables where these data are located.

³January-April only; excludes withheld data.

⁴Monthly data and 2003 cumulative data estimated based on 2002 monthly average.

⁵Source: Platts Metals Week.

⁶Source: U.S. Census Bureau.

⁷Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES¹

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others ²	Total	Electrowon	Concentrates ³	Total
2002:						
December	66,500	30,500	96,900	50,500	47,700	98,200
Year	767,000	375,000	1,140,000	601,000	557,000	1,160,000
2003:						
January	62,400	28,600	91,100	49,900	42,300	92,200
February	55,800	26,700	82,500	45,900	37,600	83,500
March	64,100	33,300	97,300	52,000	46,600	98,500
April	59,800	27,600	87,400	47,400	41,100	88,500
May	62,400	31,300	93,700	50,400	44,400	94,800
June	65,100	29,400	94,600	49,600	46,400	96,000
July	63,900	34,200	98,100	49,500	50,100	99,600
August	63,400	31,400	94,800	50,600	45,400	95,900
September	59,800	34,100 ^r	93,900 ^r	50,600	44,400 ^r	95,000 ^r
October	62,300	33,200	95,600 ^r	49,600	47,000 ^r	96,600 ^r
November	60,200	30,800 ^r	91,100 ^r	46,300 ^r	46,000 ^r	92,300 ^r
December	61,700	31,500	93,200	50,100	44,300	94,300
January - December	741,000	372,000	1,110,000	592,000	535,000	1,130,000

^rRevised.

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

²Includes production from Idaho, Missouri, New Mexico, and Utah.

³Includes copper content of precipitates and other metal concentrates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN
THE UNITED STATES, BY SOURCE^{1,2}

(Metric tons, copper content)

Period	Anode production
2002:	
December	56,500
Total	683,000
2003:	
January	54,200
February	42,300
March	35,700
April	29,700
May	46,000
June	49,700
July	46,600
August	49,200
September	46,000
October	44,100
November	47,800
December	47,400
January - December	539,000

¹Includes blister, anode and copper from primary or secondary sources.

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

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY¹

(Metric tons)

Period	Primary materials				Scrap	Total refined
	Electrolytically refined ²		Electrowon	Total		
	Domestic ³	Foreign				
2002:						
December	64,600	W	50,500	115,000	3,930	119,000
Year	801,000	40,000 ³	601,000	1,440,000	70,000	1,510,000
2003:						
January	69,800	W	49,900	120,000	4,500	124,000
February	60,500	W	45,900	106,000	3,910	110,000
March	60,700	W	52,000	113,000	5,670 ^r	118,000
April	46,600	W	47,400	94,000	6,140 ^r	100,000
May	46,100	W	50,400	96,500	4,050	101,000
June	53,400	W	49,600	103,000	4,130	107,000
July	57,900	W	49,500	107,000	4,130 ^r	111,000
August	55,900	W	50,600	107,000	3,910 ^r	110,000
September	57,400	W	50,600	108,000	4,220	112,000
October	56,200	W	49,600	106,000	4,490 ^r	110,000
November	52,900	W	46,300 ^r	99,200 ^r	4,050 ^r	103,000 ^r
December	59,300	W	50,100	109,000	4,080	113,000
January - December	677,000	W	592,000	1,270,000	53,300	1,320,000

¹Revised. W Withheld to avoid disclosing company proprietary data; included in "Domestic."

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

³Based on source of material at smelter level.

⁴January-April only; excludes withheld data.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP¹

(Metric tons, copper content)

Period	Refineries ²		Ingot makers ³		Brass and wire-rod mills		Foundries, etc. ³		Total ⁴
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2002:									
December	1,980	1,950	2,340 ^r	7,550 ^r	56,900	1,110	2,020 ^r	3,360 ^r	77,200 ^r
Year	36,500	33,400	28,100 ^r	90,600 ^r	716,000	18,700	24,300 ^r	40,300 ^r	988,000 ^r
2003:									
January	1,410	3,080	2,340 ^r	7,550 ^r	63,000	1,470	2,020 ^r	3,360 ^r	84,200 ^r
February	1,210	2,700	2,340 ^r	7,550 ^r	54,200	1,270	2,020 ^r	3,360 ^r	74,600 ^r
March	1,340	4,340	2,340 ^r	7,550 ^r	55,400	732	2,020 ^r	3,360 ^r	77,100 ^r
April	1,340	4,810	2,340 ^r	7,550 ^r	53,100	1,380	2,020 ^r	3,360 ^r	75,900 ^r
May	1,340	2,710	2,340 ^r	7,550 ^r	54,000	1,310	2,020 ^r	3,360 ^r	74,700 ^r
June	1,340	2,790	2,340 ^r	7,550 ^r	56,000	1,200	2,020 ^r	3,360 ^r	76,600 ^r
July	1,340	2,800	2,340 ^r	7,550 ^r	52,200	1,140	2,020 ^r	3,360 ^r	72,700 ^r
August	1,340	2,580	2,340 ^r	7,550 ^r	54,100	996	2,020 ^r	3,360 ^r	74,300 ^r
September	1,340	2,880	2,340 ^r	7,550 ^r	55,400	1,370	2,020 ^r	3,360 ^r	76,200 ^r
October	1,340	3,160	2,340 ^r	7,550 ^r	57,200	1,360	2,020 ^r	3,360 ^r	78,300 ^r
November	1,340	2,720 ^r	2,340 ^r	7,550 ^r	51,800 ^r	1,200	2,020 ^r	3,360 ^r	72,400 ^r
December	1,340	2,740	2,340	7,550	53,200	1,310	2,020	3,360	73,800
January - December	16,000	37,300	28,100	90,600	659,000	14,700	24,300	40,300	911,000

¹Revised.

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

³Electrolytically refined and fire-refined scrap based on source of material at smelter level.

⁴Monthly data and 2003 cumulative data estimated based on 2002 annual data.

⁵Does not include an estimate, based on reported 2002 data, of 3,100 tons per month from new scrap and 2,020 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES¹

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2002:						
December	106,000	108,000	103,000	108,000	56,200	29,000
Year	1,470,000	1,720,000	1,460,000	1,720,000	XX	XX
2003:						
January	119,000	134,000 ^r	120,000	142,000 ^r	55,200	27,200 ^r
February	110,000	139,000 ^r	110,000	135,000 ^r	55,600	30,400 ^r
March	115,000	140,000 ^r	114,000	135,000 ^r	59,700	34,900 ^r
April	115,000	133,000 ^r	115,000	130,000 ^r	59,500	37,700 ^r
May	111,000	128,000 ^r	112,000	132,000 ^r	58,200	33,400
June	114,000	126,000	114,000	125,000	57,700	34,800
July	107,000	123,000	110,000	126,000	54,800	31,400
August	111,000	140,000	112,000	142,000	53,500	29,900
September	117,000	142,000	118,000	147,000	52,700	24,900
October	120,000	156,000	119,000	159,000	53,700	21,600
November	111,000	142,000 ^r	111,000 ^r	141,000 ^r	53,800 ^r	22,700 ^r
December	106,000	137,000	107,000	138,000	53,600	21,400
January - December	1,360,000	1,640,000	1,360,000	1,650,000	XX	XX

^rRevised. XX Not applicable.

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

TABLE 7
CONSUMPTION OF REFINED COPPER¹

(Metric tons)

Period and item	Wire-rod mills	Brass mills	Other plants ²	Total
2002:				
December	113,000	40,600	5,630 ^r	159,000
Year	1,710,000	593,000	67,600 ^r	2,370,000 ^r
2003:				
January	131,000 ^r	47,200	5,630 ^r	184,000 ^r
February	140,000	49,600	5,630 ^r	195,000
March	142,000	50,000	5,630 ^r	198,000 ^r
April	133,000 ^r	49,500	5,630 ^r	188,000 ^r
May	131,000 ^r	49,900	5,630 ^r	187,000 ^r
June	130,000	50,400	5,630 ^r	186,000 ^r
July	122,000	49,500	5,630 ^r	177,000 ^r
August	143,000	46,800	5,630 ^r	195,000
September	143,000	47,400	5,630 ^r	196,000 ^r
October	157,000	48,900	5,630 ^r	211,000
November	141,000 ^r	49,800 ^r	5,630 ^r	196,000 ^r
December:				
Cathodes	134,000	32,500	818	168,000
Wire bars	--	--	(3)	(3)
Ingot and ingot bars	--	1,150	2,230	3,390
Cakes and slabs	--	(3)	(3)	(3)
Billets and other	W	13,800	2,580	16,300
Total	134,000	47,400	5,630	187,000
January - December	1,650,000	586,000	67,600	2,300,000

^rRevised. W Withheld to avoid disclosing company proprietary data included with "Cathodes." -- Zero.

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

²Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2002 annual data.

³Withheld to avoid disclosing company proprietary data; included with "Billets and other."

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER¹

(Metric tons)

Period	Refined copper production	Copper in old scrap ²	Refined general imports ³	Refined exports ³	Stock change during period	Apparent consumption
2002:						
January - November	1,330,000 ^r	191,000 ^r	979,000	24,500 ^r	69,400 ^r	2,400,000
December	115,000	16,000 ^r	83,000	1,460	4,580	208,000
Year	1,440,000	207,000 ^r	1,060,000 ^r	26,000	74,000	2,610,000 ^r
2003:						
January	120,000	17,500 ^r	61,500	2,540	(23,300)	219,000 ^r
February	106,000	16,900 ^r	64,700	766	(69,200)	256,000 ^r
March	113,000	18,000 ^r	52,500	1,510	2,950	179,000
April	94,000	19,100 ^r	52,200	606	(571)	165,000 ^r
May	96,500	16,900 ^r	56,000	15,900	(70,600)	224,000
June	103,000	16,900 ^r	51,500	23,000	(59,200)	208,000
July	107,000	16,900 ^r	40,700	5,080	(36,300)	196,000
August	107,000	16,500 ^r	72,700	4,080	5,710	186,000
September	108,000	17,200 ^r	46,000	4,330	(29,200)	196,000
October	106,000	17,400 ^r	69,100	4,640	(57,800)	245,000 ^r
November	99,200 ^r	16,800 ^r	63,300	8,470	(22,000)	193,000
December	109,000	17,000	NA	NA	(12,500)	NA
January - November	1,160,000	190,000	630,000	71,000	(359,000)	2,270,000

^rRevised. NA Not available.

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

²Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2002 data.

³Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP¹

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers ²		Brass and wire-rod mills ³		Foundries, etc. ²		Total scrap used
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2002:									
December	2,100	1,990	3,490 ^r	10,700 ^r	71,900	1,160	3,530 ^r	3,730 ^r	98,500 ^r
Year	36,400	33,900	41,900 ^r	128,000 ^r	910,000	19,300	42,300 ^r	44,800 ^r	1,260,000
2003:									
January	1,430	3,130	3,490 ^r	10,700 ^r	78,100 ^r	3,050 ^r	3,530 ^r	3,730 ^r	107,000 ^r
February	1,230	2,730	3,490 ^r	10,700 ^r	67,100 ^r	2,270 ^r	3,530 ^r	3,730 ^r	94,800 ^r
March	1,350	4,000	3,490 ^r	10,700 ^r	68,800 ^r	1,980 ^r	3,530 ^r	3,730 ^r	97,500 ^r
April	1,350	5,440	3,490 ^r	10,700 ^r	64,400 ^r	2,970 ^r	3,530 ^r	3,730 ^r	95,500 ^r
May	1,350	2,750	3,490 ^r	10,700 ^r	65,700 ^r	2,960 ^r	3,530 ^r	3,730 ^r	94,200 ^r
June	1,380	2,790	3,490 ^r	10,700 ^r	67,900 ^r	2,970 ^r	3,530 ^r	3,730 ^r	96,400 ^r
July	1,390	2,780	3,490 ^r	10,700 ^r	62,800 ^r	2,790 ^r	3,530 ^r	3,730 ^r	91,200 ^r
August	1,350	2,600	3,490 ^r	10,700 ^r	65,900 ^r	2,230 ^r	3,530 ^r	3,730 ^r	93,600 ^r
September	1,350	2,900	3,490 ^r	10,700 ^r	67,500 ^r	2,850 ^r	3,530 ^r	3,730 ^r	96,000 ^r
October	1,350	3,180	3,490 ^r	10,700 ^r	70,200 ^r	2,990 ^r	3,530 ^r	3,730 ^r	99,200 ^r
November	1,350	2,560 ^r	3,490 ^r	10,700 ^r	63,500 ^r	2,550 ^r	3,530 ^r	3,730 ^r	91,300 ^r
December	1,350	2,760	3,490	10,700	64,900	2,980	3,530	3,730	93,500
January - December	16,200	37,600	41,900	128,000	807,000	32,600	42,300	44,800	1,150,000

^rRevised.

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

²Monthly data and 2003 cumulative data estimated from 2002 annual data.

³Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP^{1,2}

(Metric tons, gross weight)

Scrap type and processor	2002	2003			Year
		October	November	December	
No. 1 wire and heavy:					
Smelters and refiners	74,500 ^r	5,850 ^r	5,850 ^r	5,850	70,100
Brass and wire-rod mills	379,000	31,800	29,900 ^r	30,600	376,000
No. 2 mixed heavy and light:					
Smelters and refiners	42,800 ^r	2,610 ^r	1,980 ^r	2,180	30,800
Brass and wire-rod mills	6,630	510	285	636	5,750
Total unalloyed scrap:					
Smelters and refiners	117,000	8,460 ^r	7,830 ^r	8,040	101,000
Brass and wire-rod mills	386,000	32,300	30,200 ^r	31,200	381,000
Red brass:³					
All plants	50,500 ^r	4,150 ^r	4,080 ^r	4,160	48,900
Leaded yellow brass:					
All plants	340,000	27,300	24,500	25,300	310,000
Yellow and low brass:					
All plants	104,000	3,910 ^r	4,560	3,380	49,800
Cartridge cases and brass:					
Smelters and refiners	W	W	W	W	W
Brass mills	70,300	7,630	5,140	6,390	78,700
Auto radiators:					
Smelters and refiners	39,900 ^r	3,330 ^r	3,330 ^r	3,330	39,900
Bronzes:					
Smelters and refiners	10,100 ^r	840 ^r	840 ^r	840	10,100
Brass mills	12,600	424	493	426	5,390
Nickel-copper alloys:					
All plants	15,200 ^r	1,660 ^r	1,360 ^r	1,330	16,700
Low grade and residues:					
Smelters and refiners	13,400 ^r	1,120 ^r	1,120 ^r	1,120	13,400
Other alloy scrap:⁴					
Smelters and refiners ⁵	3,760 ^r	314 ^r	314 ^r	314	3,760
Brass mills	6,980	485	322	429	4,110
Total alloyed scrap:					
Smelters and refiners	123,000 ^r	10,200 ^r	10,200 ^r	10,200	123,000
Brass mills	544,000	40,900	35,800	36,700	458,000
Total scrap:					
Smelters and refiners	240,000 ^r	18,700 ^r	18,100 ^r	18,300	224,000
Brass and wire-rod mills	930,000	73,200	66,000 ^r	67,900	839,000

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."

¹Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 7,240 tons of scrap per month in 2002; monthly data include estimates of about 14,200 tons of scrap per month consumed by ingot makers.

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

³Includes composition turnings, silicon bronze, zincy bronze, railroad car boxes, cocks and faucets, gilding metal, and commercial bronze.

⁴Includes refinery brass, beryllium copper, phosphor copper, and aluminum bronze.

⁵Includes items indicated by symbol W.

TABLE 11
COPPER STOCKS AT END OF PERIOD¹

(Metric tons)

Period	Crude copper ²	Refined copper					LME ⁶	Total refined
		Refineries ³	Wire-rod mills ³	Brass mills ³	Other ⁴	Comex ⁵		
2002:								
December	44,400	11,700	23,000	28,700	3,600	362,000	601,000	1,030,000
2003:								
January	44,100	6,300	37,900	29,700	3,600	360,000	570,000	1,010,000
February	46,800	3,720	23,000	23,600	3,600	340,000	544,000	938,000
March	47,100	5,270	33,500	23,100	3,600	330,000	545,000	941,000
April	41,900	3,770	40,300	17,900	3,600	351,000	524,000	940,000
May	46,900	7,160	42,500	16,100	3,600	305,000	495,000	869,000
June	45,800	4,750	36,200	21,500	3,600	291,000	453,000	810,000
July	42,300	4,820	28,400	23,700	3,600	282,000	431,000	774,000
August	47,900	5,310	30,100	20,400	3,600	276,000	444,000	780,000
September	44,500	4,100	33,300	19,100	3,600	271,000	419,000	751,000
October	51,700	3,590	23,200	16,700	3,600	267,000	379,000	693,000
November	57,500	7,110	23,300	21,400	3,600	262,000	353,000	671,000
December	56,800	12,200	31,400	21,200	3,600	255,000	335,000	658,000

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

²Copper content of blister and other materials in transit and in process of refining.

³Stocks of refined copper as reported; no estimates are made for nonrespondents.

⁴Monthly estimates based on 2002 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵Commodity Exchange Inc., New York.

⁶London Metal Exchange Ltd., U.S. warehouses.

TABLE 12
AVERAGE PRICE OF COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers delivered price cathode ¹	Comex first position ²	LME cash price Grade A
2002:			
December	76.541	72.383	72.365
Year	75.805	71.672	70.721
2003:			
January	79.529	75.371	74.722
February	81.121	76.963	76.360
March	79.875	75.717	75.234
April	76.365	72.176	71.988
May	78.020	75.045	74.746
June	79.716	76.926	76.484
July	82.245	78.055	77.549
August	84.165	79.995	79.826
September	86.030	81.840	81.152
October	92.290	88.104	87.099
November	96.867	92.681	93.215
December	103.917	99.731	99.831
Year	85.012	81.050	80.684

¹Listed as "U.S. producer cathode."

²Listed as "Comex high grade first position."

Sources: Platts Metals Week and American Metal Market.

TABLE 13
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 Scrap	Red brass turnings and borings
2002:				
December	71.60	61.31	41.00	37.00
Year	70.23	59.45	42.36	37.00
2003:				
January	73.67	62.38	46.90	37.33
February	75.55	63.95	52.00	38.00
March	74.69	64.26	52.00	38.00
April	70.82	61.80	49.41	38.00
May	73.95	64.53	49.00	38.00
June	76.29	67.36	49.00	38.00
July	73.86	65.00	46.77	36.27
August	79.48	69.43	49.00	38.00
September	81.96	72.75	54.43	38.00
October	87.09	77.89	55.18	38.00
November	92.22	82.81	59.44	38.44
December	98.76	89.69	67.00	46.00
Year	79.86	70.15	52.51	38.50

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash, and precipitates			Blister and anodes			Refined		
	2003			2003			2003			2003		
	2002	November	January - November	2002	November	January - November	2002	November	January - November	2002	November	January - November
Belgium	--	--	--	--	--	46	--	--	--	34	--	--
Brazil	--	--	--	--	--	--	--	--	--	45,000	--	6,510
Canada	8,350	--	86	75	--	152	83,700	7,860	75,700	235,000	24,400	195,000
Chile	51,800	--	4,940	--	--	--	37,400	5,230	42,300	245,000	24,900	334,000
Germany	--	--	--	--	--	59	(2)	--	--	3,260	3,170	8,340
Indonesia	2,910	--	--	--	--	--	--	--	--	--	--	--
Malaysia	--	--	--	17	--	2	--	--	--	--	--	--
Mexico	4	2,690	22,000	324	17	467	16,200	818	8,830	57,200	420	21,600
Namibia	--	--	--	--	--	--	6,340	--	13,700	--	--	--
Peru	5,960	--	--	--	--	--	4,730	--	5	288,000	19,700	240,000
Russia	--	--	--	--	--	--	--	--	--	28,800	--	--
Taiwan	17	--	--	621	76	584	--	--	--	10	--	--
Turkey	2,910	--	--	--	--	--	--	--	--	--	--	--
United Kingdom	--	--	--	--	--	--	2	--	1	3,410	--	10,100
Other	2	--	--	2	--	6	70	--	--	21,900	625	5,790
Total	71,900	2,690	27,100	1,040	93	1,320	148,000	13,900	141,000	927,000	73,200	821,000

-- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash, and precipitates			Blister and anodes			Refined		
	2003			2003			2003			2003		
	2002	November	January - November	2002	November	January - November	2002	November	January - November	2002	November	January - November
Australia	21	--	4	5	--	--	77	11	53	1,650	--	32
Canada	17,500	117	7,210	2,560	772	5,770	17,700	1,920	15,700	3,130	43	1,860
China	1,110	1,180	1,380	63	--	153	515	20	567	14,900	7,470	50,200
Egypt	--	--	--	--	--	--	--	--	--	2,200	--	--
Germany	28	--	--	85	--	(2)	241	38	421	79	14	185
Hong Kong	25	--	27	160	73	74	2,600	227	2,400	38	3	52
India	9	--	--	153	--	175	83	22	110	825	76	1,280
Japan	36	5	107	1,330	--	40	40	--	85	48	11	251
Korea, Republic of	197	--	--	40	--	8	707	134	722	524	--	223
Mexico	2,620	--	216	12,400	190	8,020	38	2	246	135	--	12,100
Netherlands	38	--	--	35	--	1	1,100	--	--	16	--	--
Peru	1,230	--	214	39	--	--	--	--	--	--	--	--
Philippines	--	--	--	3	--	--	5,880	--	44	3	--	163
Singapore	60	--	6	(2)	(2)	4	614	67	485	7	5	47
Spain	--	--	28	4	--	36	259	40	402	6	--	5
Taiwan	80	--	11	104	--	--	1,000	200	1,110	1,630	548	3,630
United Arab Emirates	16	--	2	--	--	4	7	166	503	36	4	4
United Kingdom	16	6	41	65	8	77	469	22	370	527	3	39
Other	80	--	256	87	55	197	1,570	91	724	819	285	805
Total	23,000	1,300	9,500	17,100	1,100	14,600	32,900	2,960	24,000	26,600	8,470	71,000

-- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP TRADE¹

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2003			2003			2003			2003		
	2002	November	January - November	2002	November	January - November	2002	November	January - November	2002	November	January - November
Barbados	229	9	205	18	4	8	--	--	--	--	--	--
Belgium	--	--	--	--	46	46	2,210	533	2,470	7,050	724	5,130
Canada	13,900	131	3,910	38,700	3,380	33,500	20,100	1,350	19,900	19,900	763	16,700
Chile	611	--	18	78	--	--	144	--	--	66	--	4
China	--	--	--	547	114	734	122,000	20,700	208,000	155,000	30,400	220,000
Costa Rica	1,100	79	802	458	8	367	--	--	--	2	--	6
Dominican Republic	1,360	34	1,010	884	26	725	--	--	--	--	--	4
Germany	118	4	19	1,110	375	4,510	14,200	472	7,820	16,400	721	7,400
Guatemala	536	28	428	1,190	55	824	--	--	--	(2)	--	--
Honduras	399	47	431	347	29	433	--	--	--	--	--	--
Hong Kong	3	--	--	--	--	--	7,180	227	2,310	6,140	1,030	8,730
India	--	--	--	(2)	--	18	3,920	538	5,200	43,500	3,290	42,600
Jamaica	362	63	574	239	11	126	--	--	--	--	--	--
Japan	97	8	73	193	--	261	11,000	471	6,290	9,120	227	8,770
Korea, Republic of	19	--	--	40	--	21	14,900	1,170	22,800	18,700	733	14,200
Malaysia	--	--	--	264	35	251	--	--	3,620	243	--	88
Mexico	9,250	889	8,880	18,300	1,510	16,900	2,280	337	2,930	248	91	677
Nicaragua	321	16	216	170	32	183	--	--	--	--	--	--
Norway	--	--	351	--	--	39	--	--	--	253	--	318
Panama	173	8	8	792	8	548	--	--	--	79	--	6
Taiwan	15	--	--	389	43	347	10,100	401	7,740	9,060	219	6,700
United Kingdom	155	20	221	1,760	36	724	17	97	97	1,380	56	792
Venezuela	93	5	100	2,090	49	902	--	--	--	--	--	--
Other	497	47	446	3,280	259	2,430	4,680	69	2,810	10,500	692	7,850
Total	29,300	1,390	17,700	70,900	6,030	64,000	213,000	26,400	292,000	298,000	38,900	340,000

-- Zero.

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

²Less than 1/2 unit.

Source: U.S. Census Bureau.