

Mineral Industry Surveys

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COPPER IN SEPTEMBER 2002

Average daily mine production rose to its highest level in 6 months owing to increased output at the Bingham Canyon Mine in Utah. Although smelter production also rose, downstream average daily refinery production remained essentially unchanged. Consumption of refined copper and production of semifabricates fell from the relatively high levels of August.

Imports for consumption of refined copper for the first 8 months of 2002 totaled 623,000 metric tons (t), down by 29,000 t from imports for the first 8 months of 2001. Peru was the largest source of imports for consumption (185,000 t) and was closely followed by Canada (171,000 t) and Chile (163,000 t). General imports for the first 8 months of 2001 totaled 748,000 t. Chile was the largest source of general imports (287,000 t) and accounted for essentially all of the disparity between imports for consumption and general imports. The 124,000-ton disparity between Chilean imports for consumption and Chilean general imports reflects material that was imported under bond. Refined imports from Peru and Canada enter duty free, while refined imports from Chile are subject to a 1% tariff. Much of this bonded material was delivered to London Metal Exchange warehouses in New Orleans, where inventories rose by almost 60,000 t during the first 8 months of 2002.

According to the International Copper Study Group (2002), the apparent refined copper surplus for the first 9 months of 2002 amounted to 77,000 t. This compares with a surplus of 387,000 t for the January to September period of 2001. Preliminary results for September 2002, however, show a deficit of 18,000 t of refined copper. While total world copper use for the first 9 months of 2002 increased by 1.6% compared with that of the same period last year, regional use patterns were quite mixed. The Americas and Europe showed no discernible upturn, whereas Asia exhibited a significant rise in refined copper use. Within Asia, however, the growth was inconsistent. Use in China and South Korea increased by 19.9% and 8.9%, respectively, while use in Japan and India declined by 6.5% and 8.7%, respectively. World mine output for the January to September period fell by 2.1% compared with that of the same period in 2001. Total refined copper production in the first 9 months of 2002 contracted by 1.2%.

As evidence of continued weak U.S. demand for copper products, several companies announced facility closures. Phelps Dodge Corp. announced that it was temporarily closing two U.S. wire and cable plants, along with other consolidations of functions, that would eliminate a total of 345 jobs. The actions included the closure of its Laurinburg, NC, magnet wire plant at yearend, with production being shifted to its El Paso, TX, and Fort Wayne, IN, plants. Also to close is their West Caldwell, NJ, High Performance Conductors plant. The plant produces low-temperature wires generally used in electronics and aerospace applications. Production of certain products will be shifted to its Inman, SC, facility (Phelps Dodge Corp., 2002). Phelps Dodge's North American magnet wire operations were facing increased competition. Superior TeleCom Inc., through its Mexican affiliate, Grupo Essex de Mexico, began production during the fourth quarter of 2000 at a new state-of-the-art magnet wire operation in Torreón, Mexico. With the addition of Torreón, Superior Essex operates eight magnet wire manufacturing facilities in North America (Superior TeleCom Inc., 2001).

Cerro Metal Products Co. announced the planned closure of its Paramount, CA, brass mill by the end of November. The plant produces brass rod, bar, wire, and shapes, and is a consumer of yellow brass scrap. The company will reportedly continue to supply the western U.S. region from its Bellefonte, PA, plant (Platts Metals Week, 2002).

References Cited

- International Copper Study Group, 2002, Copper—Preliminary data for September 2002: Lisbon, International Copper Study Group press release, December 7, 1 p.
- Phelps Dodge Corp., 2002, Phelps Dodge Wire and Cable Group to consolidate operations, improve efficiencies: Phoenix, AZ, Phelps Dodge Corp. press release, September 10, 2 p.
- Platts Metals Week, 2002, Cerro mill closure eliminates another scrap consumer: Platts Metals Week, v. 73, no. 36, September 9, p. 14.
- Superior TeleCom Inc., 2001, Superior Essex Torreón, Mexico, manufacturing facility approved for magnet wire shipments by Emerson: Fort Wayne, IN, Superior TeleCom Inc. press release, April 9, 2 p.

TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES 1/

(Metric tons, unless otherwise specified)

	Source table 2/	2002			
		2001 p/	August	September	January - September
Production:					
Primary:					
Mine, recoverable	(2)	1,340,000	92,000 r/	96,700	849,000
Refinery:					
Electrolytic:					
Domestic	(4)	808,000	67,900	66,100	596,000
Foreign	(4)	192,000	W	W	40,000 3/
Electrowon	(4)	628,000	49,400 r/	48,300	447,000
Total	(4)	1,630,000	117,000	114,000	1,080,000
Secondary recoverable copper:					
Refineries					
Ingot makers 4/	(5)	172,000	7,580	7,120	66,900
Brass and wire-rod mills	(5)	121,000	10,100	10,100	90,500
Foundries, etc. 4/	(5)	727,000	70,300	69,200	604,000
Smelter, total	(5)	67,100	5,590	5,590	50,300
Smelter, total	(3)	919,000	50,300	54,400	509,000
Consumption:					
Apparent	(8)	2,510,000	144,000	NA	NA
Refined (reported)	(7)	2,630,000	216,000	209,000	1,860,000
Purchased copper-base scrap	(9)	1,370,000	116,000	115,000	1,010,000
Stocks at end of period:					
Total refined	(11)	957,000	1,040,000	1,030,000	XX
Blister, etc.	(11)	98,000	82,500	80,500	XX
Prices:					
U.S. producer cathode (cents per pound) 5/	(12)	76.854	71.981	71.863	76.008
Imports: 6/					
Ores and concentrates 7/	(14)	47,000 r/	6,480	NA	NA
Refined	(14)	991,000	90,500	NA	NA
Exports: 6/					
Ores and concentrates 7/	(15)	45,300	2,080	NA	NA
Refined	(15)	22,500	2,550	NA	NA

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; included in "Domestic." XX Not applicable.

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

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

3/ January - April only; excludes withheld data.

4/ Monthly data and 2001 cumulative data estimated based on 2000 monthly average.

5/ Source: Platts Metals Week.

6/ Source: U.S. Census Bureau.

7/ Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES 1/

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others 2/	Total	Electrowon	Concentrates 3/	Total
2001: p/						
January - September	659,000 r/	356,000 r/	1,020,000 r/	465,000	563,000	1,030,000
September	73,000	33,600	107,000	53,800	54,200	108,000
October	76,800	36,600	113,000	55,000	60,000	115,000
November	73,000	29,000	102,000	54,100	49,300	103,000
December	75,900	35,800	112,000	54,200	59,100	113,000
Year	885,000	457,000	1,340,000	628,000	732,000	1,360,000
2002:						
January	65,500	28,600	94,100	52,800	42,500	95,300
February	59,800	31,000	90,800	46,200	45,900	92,000
March	65,500	35,200	101,000	50,800	51,200	102,000
April	62,100	32,800	94,900	50,600	45,500	96,000
May	66,100	29,900	96,000	49,900	47,500	97,400
June	61,700	29,800	91,600	49,400	43,400	92,700
July	62,400	29,600	92,000	49,700	43,500	93,200
August	63,700 r/	28,300	92,000 r/	49,400 r/	44,000 r/	93,300 r/
September	62,200	34,500	96,700	48,300	49,700	98,100
January - September	569,000	280,000	849,000	447,000	413,000	860,000

p/ Preliminary. r/ Revised.

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

2/ Includes production from Alaska, Idaho, Missouri, Montana, Nevada, New Mexico, and Utah.

3/ Includes 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
2001: p/	
January - September	683,000 r/
September	71,100
October	80,500
November	75,600
December	79,600
Year	919,000
2002:	
January	64,300
February	50,300
March	61,900
April	60,400
May	62,200
June	55,400
July	50,400
August	50,300
September	54,400
January - September	509,000

p/ Preliminary. r/ Revised.

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

2/ Data 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 RECOVERY 1/

(Metric tons)

Period	Primary materials				Scrap	Total refined
	Electrolytic 2/		Electrowon	Total		
	Domestic 3/	Foreign				
2001: p/						
January - September r/	600,000	138,000	465,000	1,200,000	147,000	1,350,000
September	61,200	18,200	53,800	133,000	14,600	148,000
October	60,500	21,300	55,000	137,000	11,800	149,000
November	72,300	18,500	54,100	145,000	7,220	152,000
December	74,700	14,800	54,100	144,000	5,980	150,000
Year	808,000	192,000	628,000	1,630,000	172,000	1,800,000
2002:						
January	66,100	10,600	52,800	129,000	6,920	136,000
February	57,900	8,410	46,200	113,000	7,630	120,000
March	55,900	10,700	50,800	117,000	7,090	124,000
April	62,300	10,300	50,600	123,000	7,630	131,000
May	76,100	W	49,900	126,000	8,180	134,000
June	70,000	W	49,400	119,000	7,760	127,000
July	74,100	W	49,700	124,000	6,970	131,000
August	67,900	W	49,400 r/	117,000	7,590	125,000
September	66,100	W	48,300	114,000	7,130	122,000
January - September	596,000	40,000 4/	447,000	1,080,000	66,900	1,150,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Domestic."

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

2/ Based on source of material at smelter level.

3/ Includes fire-refined copper.

4/ January - April only; excludes withheld data.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP 1/

(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	
	2001: p/								
January - September	28,000 r/	119,000 r/	22,400 r/	68,000 r/	528,000 r/	14,500	11,000 r/	39,300 r/	831,000 r/
September	3,130	11,400	2,490	7,560	56,100	1,140	1,230	4,360	87,500
October	3,720	8,090	2,490	7,560	62,500	1,790	1,230	4,360	91,800
November	2,230	4,990	2,490	7,560	57,800	1,640	1,230	4,360	82,300
December	1,840	4,140	2,490	7,560	58,500	1,880	1,230	4,360	82,000
Year	35,800	137,000	29,900	90,700	707,000	19,800	14,700	52,400	1,090,000
2002:									
January	3,110	3,810	2,490	7,560	60,500	1,790	1,230	4,360	84,800
February	3,350	4,270	2,490	7,560	62,600	1,820	1,230	4,360	87,700
March	2,910	4,180	2,490	7,560	65,400	1,770	1,230	4,360	89,900
April	3,300	4,320	2,490	7,560	64,000	904	1,230	4,360	88,100
May	3,710	4,470	2,490	7,560	64,700	1,840	1,230	4,360	90,400
June	3,430	4,330	2,490	7,560	70,000	1,780	1,230	4,360	95,200
July	2,800	4,170	2,490	7,560	65,500	1,720	1,230	4,360	89,800
August	3,400	4,180	2,490	7,560	68,700	1,570	1,230	4,360	93,500
September	3,070	4,050	2,490	7,560	68,000	1,190	1,230	4,360	92,000
January - September	29,100	37,800	22,400	68,000	589,000	14,400	11,000	39,300	811,000

p/ Preliminary. r/ Revised.

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

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

3/ Monthly data and 2001 cumulative data estimated based on 2000 annual data.

4/ Does not include an estimate, based on reported 2000 data, of 3,790 tons per month from new scrap and 2,380 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 MILL SEMIFABRICATES 1/

(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
2001: p/						
January - September	1,110,000 r/	1,430,000 r/	1,120,000 r/	1,430,000 r/	XX	XX
September	122,000	156,000	121,000	159,000	50,800	27,400
October	124,000	165,000	123,000	166,000	52,000	24,800
November	116,000	158,000	117,000	155,000	52,300	27,900
December	113,000	134,000	111,000	134,000	54,200	27,900
Year	1,470,000	1,890,000	1,470,000	1,880,000	XX	XX
2002:						
January	123,000	146,000	125,000	143,000	49,500	30,300
February	122,000	139,000	123,000	134,000	48,500	35,600
March	131,000	148,000	130,000	145,000	48,900	38,800
April	130,000	155,000	130,000	157,000	48,800	36,400
May	131,000	155,000	132,000	158,000	48,200	33,000
June	134,000	139,000	133,000	143,000	51,900	28,500
July	123,000	144,000	123,000	147,000	51,400	25,400
August	132,000	148,000	132,000	152,000	51,900	21,500
September	127,000	145,000	125,000	147,000	54,600	19,500
January - September	1,150,000	1,320,000	1,150,000	1,330,000	XX	XX

p/ Preliminary. r/ Revised. XX Not applicable.

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

TABLE 7
CONSUMPTION OF REFINED COPPER 1/

(Metric tons)

Period and item	Wire-rod mills	Brass mills	Other plants 2/	Total
2001: p/				
January - September r/	1,490,000	489,000	47,000	2,030,000
September	154,000	47,400	5,220	206,000
October	166,000	46,600	5,220	218,000
November	153,000	45,700	5,220	204,000
December	132,000	41,800	5,220	179,000
Year	1,940,000	623,000	62,600	2,630,000
2002:				
January	143,000	46,600	5,220	195,000
February	140,000	47,500	5,220	193,000
March	149,000	51,400	5,220	206,000
April	157,000	51,400	5,220	214,000
May	157,000	58,600	5,220	220,000
June	143,000	54,500	5,220	202,000
July	150,000	49,600	5,220	204,000
August	157,000	54,300	5,220	216,000
September:				
Cathodes	152,000	37,400	1,210	191,000
Wire bars	--	--	(3/)	(3/)
Ingots and ingot bars	--	1,520	1,760	3,280
Cakes and slabs	--	(3/)	(3/)	(3/)
Billets and other	W	12,100	2,250	14,300
Total	152,000	51,000	5,220	209,000
January - September	1,350,000	465,000	47,000	1,860,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Cathodes." -- Zero.

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

2/ Consumption by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2000 annual data.

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

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER 1/

(Metric tons)

Period	Refined copper production	Copper in old scrap 2/	Refined general imports 3/	Refined exports 3/	Stock change during period	Apparent consumption
2001: p/						
January - August	1,070,000 r/	238,000 r/	757,000	14,100	368,000 r/	1,680,000 r/
August	126,000	28,700	80,900	2,590	29,700	203,000
September	133,000	27,100	114,000	1,190	95,600	177,000
October	137,000	24,400	78,600	4,630	32,800	202,000
November	145,000	21,200	148,000	5,290	63,800	245,000
December	144,000	20,600	101,000	571	56,600	208,000
Year	1,630,000	331,000	1,200,000	25,800	617,000	2,510,000
2002:						
January	129,000	20,100	134,000	393	53,600	230,000
February	113,000	20,600	113,000	699	32,200	213,000
March	117,000	20,500	64,300	3,150	19,900	179,000
April	123,000	19,800	105,000	652	16,200 r/	231,000 r/
May	126,000	20,900	70,200	814	(16,000) r/	232,000
June	119,000	20,700	79,500	6,770	(33,000) r/	246,000 r/
July	124,000	20,400	83,500	7,690	13,500 r/	207,000
August	117,000	20,300	98,200	2,550	(5,530) r/	239,000
September	114,000	19,800	NA	NA	(9,540)	NA
January - August	969,000	163,000	748,000	22,700	80,800	1,780,000

p/ Preliminary. r/ Revised. NA Not available.

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

2/ Includes 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 2000 data.

3/ Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP 1/

(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	
2001: p/									
January - September	48,700 r/	125,000 r/	33,000 r/	93,800 r/	672,000 r/	15,000	19,600 r/	42,600 r/	1,050,000 r/
September	4,490	14,000	3,670	10,400	71,200	1,190	2,180	4,740	112,000
October	4,320	4,460	3,670	10,400	79,200	1,840	2,180	4,740	111,000
November	4,360	2,760	3,670	10,400	73,100	1,660	2,180	4,740	103,000
December	3,900	1,950	3,670	10,400	73,900	1,930	2,180	4,740	103,000
Year	61,300	135,000	44,000	125,000	898,000	20,400	26,200	56,800	1,370,000
2002:									
January	2,390	3,650	3,670	10,400	76,600	1,840	2,180	4,740	105,000
February	3,410	4,120	3,670	10,400	79,100	1,880	2,180	4,740	110,000
March	2,940	4,030	3,670	10,400	82,700	1,830	2,180	4,740	112,000
April	3,340	4,160	3,670	10,400	80,600	951	2,180	4,740	110,000
May	3,750	4,250	3,670	10,400	81,500	1,900	2,180	4,740	112,000
June	3,470	4,170	3,670	10,400	88,300	1,840	2,180	4,740	119,000
July	2,840	4,020	3,670	10,400	82,900	1,770	2,180	4,740	113,000
August	3,450	4,020	3,670	10,400	86,300	1,630	2,180	4,740	116,000
September	2,890	3,890	3,670	10,400	86,100	1,250	2,180	4,740	115,000
January - September	28,500	36,300	33,000	93,800	744,000	14,900	19,600	42,600	1,010,000

p/ Preliminary. r/ Revised.

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

2/ Monthly data and 2001 cumulative data estimated from 2000 annual data.

3/ Consumption 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	2001 p/		2002			
	January - September	Year	July	August	September	January - September
No. 1 wire and heavy:						
Smelters and refiners	58,100 r/	73,200	5,570	5,610	5,240	49,900
Brass and wire-rod mills	295,000 r/	395,000	36,400	38,800	36,700	328,000
No. 2 mixed heavy and light:						
Smelters and refiners	87,000 r/	103,000	4,390	4,950	4,630	42,800
Brass and wire-rod mills	4,190	5,340	235	319	453	2,730
Total unalloyed scrap:						
Smelters and refiners	145,000 r/	176,000	9,950	10,600	9,870	92,700
Brass and wire-rod mills	299,000 r/	400,000	36,600	39,100	37,200	331,000
Red brass: 3/						
All plants	44,300 r/	57,400	4,360	4,930	4,650	41,200
Leaded yellow brass:						
All plants	266,000 r/	353,000	29,600	29,300	30,500	272,000
Yellow and low brass:						
All plants	82,000 r/	109,000	10,600	10,600	10,600	88,600
Cartridge cases and brass:						
Smelters and refiners	W	W	W	W	W	W
Brass mills	25,900 r/	35,500	5,880	6,140	6,630	45,500
Auto radiators:						
Smelters and refiners	35,200 r/	45,700	3,490	3,490	3,490	31,400
Bronzes:						
Smelters and refiners	8,210 r/	10,900	912	912	912	8,210
Brass mills	5,400 r/	8,300	947	930	935	8,470
Nickel-copper alloys:						
All plants	14,300 r/	18,600	1,120	1,420	1,400	12,600
Low grade and residues:						
Smelters and refiners	46,700 r/	50,000	1,110	1,110	1,110	10,000
Other alloy scrap: 4/						
Smelters and refiners 5/	8,480 r/	8,890	138	138	138	1,240
Brass mills	3,920 r/	5,570	565	565	565	5,010
Total alloyed scrap:						
Smelters and refiners	153,000 r/	185,000	10,700	10,700	10,700	96,300
Brass mills	388,000 r/	518,000	48,000	48,800	50,200	428,000
Total scrap:						
Smelters and refiners	298,000 r/	361,000	20,700	21,300	20,600	189,000
Brass and wire-rod mills	687,000 r/	919,000	84,700	87,900	87,300	759,000

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; included in "Other alloy scrap: Smelters and refiners."
1/ Does not include: consumption by foundries, chemical plants, and miscellaneous manufacturers, estimated to total about 6,920 tons of scrap per month in 2000; monthly data include estimates of about 15,500 tons of scrap per month consumed by ingot makers and several smelters that report on an annual basis.

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

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

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

5/ Includes items indicated by symbol W.

TABLE 11
COPPER STOCKS AT END OF PERIOD 1/

(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/		
2001: p/								
September	88,100	17,700	39,200	21,100	4,680	181,000	540,000	804,000
October	105,000	19,300	34,700	20,100	4,680	191,000	566,000	837,000
November	88,500	24,300	30,900	24,700	4,680	215,000	601,000	900,000
December	98,000	28,600	37,600	25,500	4,680	244,000	617,000	957,000
2002:								
January	99,200	26,500	42,100	25,000	4,680	258,000	654,000	1,010,000
February	89,200	28,700	26,100	25,100	4,680	275,000	683,000	1,040,000
March	96,000	22,100	24,200	23,700	4,680	284,000	704,000	1,060,000
April	91,000	17,400 r/	31,900	22,300	4,680	296,000	707,000	1,080,000
May	92,800	15,600 r/	26,800	21,000	4,680	304,000	691,000	1,060,000
June	89,600	16,500 r/	20,700	19,700	4,680	322,000	646,000	1,030,000
July	102,000 r/	15,500 r/	25,500	24,100	4,680	338,000	636,000	1,040,000 r/
August	82,500	12,500 r/	24,600	26,800	4,680	341,000	628,000	1,040,000
September	80,500	11,600	23,200	24,000	4,680	344,000	621,000	1,030,000

p/ Preliminary. r/ Revised.

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

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

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

4/ Monthly estimates based on reported and 2000 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

5/ Commodity Exchange Inc., New York.

6/ London 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
2001:			
September	69.628	65.428	64.682
October	67.422	63.204	62.460
November	70.560	66.093	64.747
December	72.050	67.832	66.740
Year	76.854	72.567	71.574
2002:			
January	73.944	69.786	68.202
February	76.384	72.226	70.831
March	78.683	74.525	72.779
April	76.966	73.107	72.118
May	77.378	73.220	72.362
June	80.386	76.228	74.715
July	76.487	72.329	72.082
August	71.981	67.823	67.097
September	71.863	67.705	67.057
January - September	76.008	71.883	70.805

1/ Listed as "U.S. producer cathode."

2/ Listed 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
2001:				
September	63.39	54.46	46.00	40.00
October	61.39	52.78	44.48	38.39
November	63.45	53.82	40.09	37.09
December	65.87	54.47	41.47	37.00
Year	69.62	58.96	48.76	40.63
2002:				
January	67.36	55.62	41.19	38.10
February	69.42	57.29	43.00	37.00
March	72.24	59.76	43.00	39.00
April	71.82	54.00	44.00	38.91
May	71.98	60.39	44.00	37.00
June	74.65	71.28	44.00	39.00
July	72.41	61.04	44.00	39.00
August	66.84	55.64	42.45	37.64
September	66.80	55.68	40.80	36.00
January - September	70.39	58.97	42.94	37.96

Source: American Metal Market.

TABLE 14
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	2001	August	January - August 2/	2001	August	January - August	2001	August	January - August	2001	August	January - August
Brazil	--	--	--	--	--	--	--	--	--	12,000	12,000	30,400
Canada	7,210	--	8,350	43	--	75	79,700	8,100	56,800	270,000	7,630	171,000
Chile	19,600	r/ 6,480	37,700	--	--	--	87,700	3,240	23,000	174,000	37,100	163,000
Indonesia	6,010	--	2,910	--	--	--	--	--	--	--	--	--
Italy	--	--	--	--	--	--	12,200	--	--	--	--	--
Kazakhstan	--	--	--	--	--	--	--	--	--	82,400	--	2,060
Mexico	2,550	--	--	317	54	161	48,900	1,200	7,820	131,000	1,890	39,300
Namibia	--	--	--	--	--	--	6,840	--	2,850	--	--	--
Peru	11,600	--	5,950	--	--	--	22,600	--	4,730	280,000	26,500	185,000
Philippines	--	--	--	--	--	--	4,990	--	--	999	--	--
Russia	--	--	--	--	--	--	115	--	--	22,800	3,960	16,300
Spain	--	--	--	--	--	--	4,420	--	--	--	--	--
Taiwan	--	--	17	560	50	358	--	--	--	34	--	--
Turkey	--	--	2,910	--	--	--	--	--	--	--	--	--
Other	--	--	2	25	--	4	3,510	--	1	17,400	1,360	15,800
Total	47,000	r/ 6,480	57,900	945	104	598	271,000	12,500	95,100	991,000	90,500	623,000

r/ Revised. -- Zero.

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

2/ Includes revisions to previous months' data.

Source: U.S. Census Bureau; data adjusted by the U.S. Geological Survey.

TABLE 15
U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS 1/

(Metric tons, copper content)

Country or territory	Ore and concentrate			Matte, ash and precipitates			Blister and anodes			Refined		
	2002			2002			2002			2002		
	2001	August	January - August	2001	August	January - August	2001	August	January - August	2001	August	January - August
Belgium	18	--	40	--	--	(2/)	1,550	--	179	30	--	--
Canada	30,300	1,030	11,700	6,860	157	1,970	13,800	1,640	13,100	6,520	159	2,420
China	2,310	136	835	3	--	63	87	44	248	8,520	135	13,800
Egypt	--	--	--	--	--	--	2	--	--	2,160	--	2,200
France	1	--	--	64	--	2	2,130	--	40	62	--	42
Germany	443	--	28	50	--	74	982	60	159	169	1	47
Hong Kong	87	--	11	2	2	156	2,470	336	1,840	2,330	--	31
India	8	--	--	261	--	152	125	1	51	--	20	533
Israel	836	--	--	18	--	--	65	10	31	6	--	14
Italy	20	--	--	--	--	--	376	19	130	27	--	--
Japan	19	6	31	8	--	1,300	216	--	40	460	21	23
Korea, Republic of	699	6	197	1,090	(2/)	25	1,320	76	433	78	17	411
Mexico	9,130	41	2,370	15,300	816	6,010	22	7	29	821	4	116
Peru	--	861	861	--	--	39	--	--	--	--	--	--
Singapore	159	--	60	(2/)	--	(2/)	407	64	323	14	--	5
Taiwan	347	--	4	50	8	72	1,130	106	734	146	1,510	1,550
Thailand	22	--	5	--	--	--	264	54	166	--	--	--
United Kingdom	280	--	8	49	--	65	451	51	305	457	23	526
Venezuela	501	--	--	--	--	--	5	2	8	140	--	205
Other	143	--	76	144	15	48	644	463	1,160	576	669	776
Total	45,300	2,080	16,300	23,900	999	9,980	26,000	2,930	19,000	22,500	2,550	22,700

-- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP TRADE 1/

(Metric tons, gross weight)

Country or territory	Imports						Exports					
	Unalloyed			Alloyed			Unalloyed			Alloyed		
	2002		January - August	2002		January - August	2002		January - August	2002		January - August
	2001	August		2001	August		2001	August		2001	August	
Belgium	--	--	--	388	--	--	1,260	260	1,310	1,470	370	3,870
Canada	10,600	1,310	10,800	45,800	2,920	25,800	38,700	1,270	13,100	33,100	1,360	15,400
China	41	--	--	15	36	383	156,000	9,790	78,100	136,000	13,200	93,800
Colombia	--	--	--	899	42	519	--	--	--	18	--	2
Costa Rica	868	83	713	635	44	306	--	--	--	3	--	2
Dominican Republic	1,550	75	978	1,570	44	652	--	--	--	--	--	--
France	--	--	--	188	12	84	11	--	1,010	59	418	1,220
Germany	27	--	3	62	169	188	6,500	1,310	11,300	9,480	1,280	11,800
Guatemala	499	46	406	1,990	119	817	--	--	--	--	--	(2/)
Honduras	484	33	263	656	30	186	--	--	--	--	--	--
Hong Kong	--	3	3	--	--	--	4,300	1,090	6,890	5,440	599	4,210
India	--	--	--	--	--	--	2,770	701	2,890	33,400	3,290	30,700
Indonesia	--	--	--	20	--	60	66	239	472	58	131	232
Italy	309	--	116	--	--	--	117	--	30	143	--	19
Jamaica	283	17	257	470	4	201	--	--	--	--	--	--
Japan	169	9	51	--	11	24	13,800	1,170	8,090	13,200	625	5,790
Korea, Republic of	--	--	19	20	--	40	24,400	1,190	10,300	17,800	1,420	12,900
Mexico	13,500	704	6,440	24,000	1,510	11,800	2,760	269	1,720	4,370	9	133
Netherlands	--	--	--	20	--	354	109	--	--	963	135	447
Nicaragua	276	34	253	54	48	92	--	--	--	--	--	--
Panama	161	7	159	804	47	625	--	--	--	--	--	79
Peru	347	--	--	112	--	--	--	--	--	--	--	--
Spain	--	--	--	47	(2/)	(2/)	549	38	90	2,710	35	1,700
Switzerland	--	--	--	45	--	--	596	26	58	3,720	41	1,150
Taiwan	--	--	15	554	15	277	9,120	1,360	7,110	5,870	964	5,990
United Kingdom	64	36	100	919	205	1,180	36	--	--	570	133	890
Venezuela	42	--	54	874	79	1,480	--	--	--	--	--	--
Other	992	273	673	4,230 r/	254	1,430	802 r/	305	1,170	3,440 r/	122	1,770
Total	30,300	2,640	21,300	84,400	5,590	46,500	262,000	19,000	144,000	272,000	24,100	192,000

r/ Revised. -- Zero.

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

2/ Less than 1/2 unit.

Source: U.S. Census Bureau.