

Mineral Industry Surveys

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COPPER IN JUNE 2023

In June 2023, mine production of recoverable copper in the United States was 92,800 metric tons (t). The average daily mine output was 3,090 t, an increase of 5% from that in May and 9% lower than that in June 2022 (fig. 1). Year-to-date mine production through June 2023 was 544,000 t, a decrease of 12% compared with that in the same time period in 2022 (table 2).

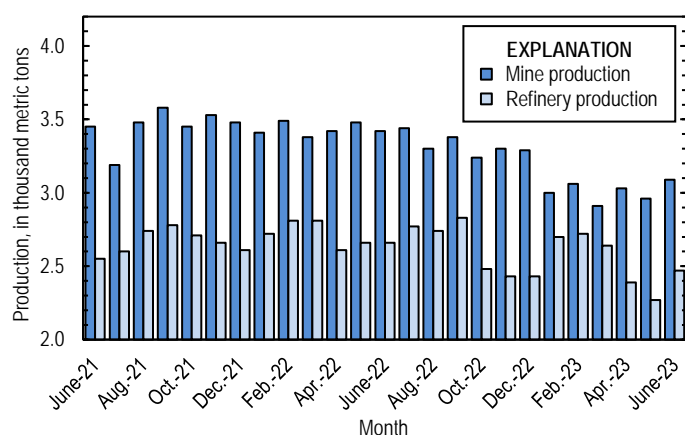


Figure 1. Average daily copper mine (recoverable) and refinery (primary and secondary) production in the United States from June 2021 through June 2023.

At a majority of U.S. copper mines, production in the first half of 2023 declined from that in the first half of 2022. Three companies accounted for most of the net decrease. Freeport-McMoRan Inc.'s year-to-date copper production from seven mines in Arizona and New Mexico through June 2023 totaled approximately 362,000 t of copper, 29,000 t (7%) less than about 391,000 t during the same time period in 2022. The company attributed the reduced output to unplanned maintenance and lower ore grades and mining rates (Freeport-McMoRan Inc., 2023a, p. 5; 2023b, p. 5, II). Owing to planned mine sequencing, production of copper in concentrates at the Robinson Mine in Nevada, owned by KGHM Polska Miedź S.A. Group, decreased by 20,300 t (66%). KGHM processed lower grade copper ores from inventories and from a transition zone of the mine deposit (KGHM Polska Miedź S.A. Group, 2023, p. 15). Rio Tinto Group produced 55,100 t of copper in concentrates at the Bingham Canyon Mine in Utah during the first six months of 2023, 25,900 t (32%) less than 81,000 t in the

first six months of 2022. Output in 2023 was affected by record snowfall in the first quarter and a conveyor belt motor failure at the concentration plant in March. The company expected the concentrator to operate at a reduced capacity until sometime in the third quarter (Rio Tinto Group, 2023b, p. 11; 2023c, p. 14, 28). These decreases were partially offset by higher production at ASARCO LLC's three mines in Arizona, where total copper output in the first half of 2023 increased by 5% (to 60,900 t) from that in the first half of 2022. ASARCO improved the operational stability of the Mission Mine and augmented throughput at the Hayden concentrator by processing stockpiles of smelter slag (Grupo México, S.A.B. de C.V., 2023, p. 7).

Smelter and electrolytic refinery production reported to the U.S. Geological Survey in June 2023 were withheld to avoid disclosing company proprietary data. Smelter and electrolytic refinery output in tables 3 and 4 are estimates based on data in company reports and other public information.

The smelter production estimates reported in table 3 represent primary production only in 2022 and primary and secondary output in 2023. Estimated domestic smelter production was 30,000 t in June 2023. Year-to-date estimated smelter output was 210,000 t, 8% greater than that in the same time period in 2022 owing primarily to the startup of Ames Copper Group, LLC's secondary copper smelter in Shelby, NC. The plant began operating in late 2022 with a production capacity of roughly 4,200 metric tons per month of anodes (Toto, 2023).

Total U.S. refinery production in June 2023 was 74,000 t; data for electrolytic and electrowon output, as well as refined production from scrap, are reported in table 4. The average daily refinery production was 2,470 t, an increase of 9% compared with that in May and 7% lower than that in June 2022 (fig. 1). Year-to-date refinery output through June 2023 was 458,000 t, a decrease of 7% relative to the same time period in 2022. Rio Tinto began a major rebuild of its smelter and refinery near Salt Lake City, UT, in May 2023 and expected to complete the project in September 2023 (Rio Tinto Group, 2023c, p. 14).

Prices

The average Commodity Exchange Inc. (COMEX) copper price increased to \$3.80 per pound in June 2023 from \$3.74 per pound in May and was 8% less than \$4.13 per pound in June 2022 (fig. 2, table 11). Copper prices in the first half of 2023

were negatively impacted by strengthening of the U.S. dollar relative to other global currencies and concerns regarding economic growth in China and inflation (Wang, 2023a, b). The average U.S. dealers buying price of number 2 copper scrap was \$2.87 per pound in June 2023, a decrease of 5% compared with \$3.03 per pound in May and 11% lower than \$3.22 per pound in June 2022 (fig. 2, table 12).

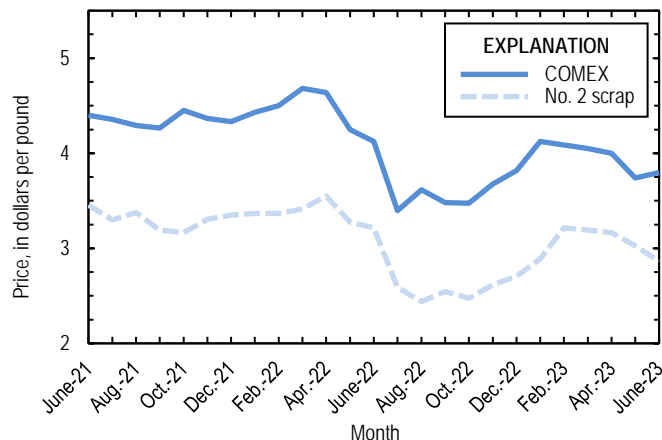


Figure 2. Monthly average Commodity Exchange Inc. (COMEX) copper price and no. 2 copper scrap U.S. dealers buying price from June 2021 through June 2023. Sources: Fastmarkets-AMM and S&P Global Platts Metals Week.

Stocks

At the end of June 2023, refined copper stocks in the United States totaled 104,000 t, 27% higher than those in May and a decrease of 16% from those in June 2022. Total domestic stocks at exchanges (COMEX and London Metal Exchange Ltd.) increased by 27,500 t (88%) compared with those at the end of May, reflecting low domestic demand for copper, but remained near historically low quantities (Perry, 2023). Stocks reported at producers and fabricators (brass mills, refineries, wire-rod mills, and other manufacturers) decreased by 5,010 t (10%) (fig. 3, table 10).

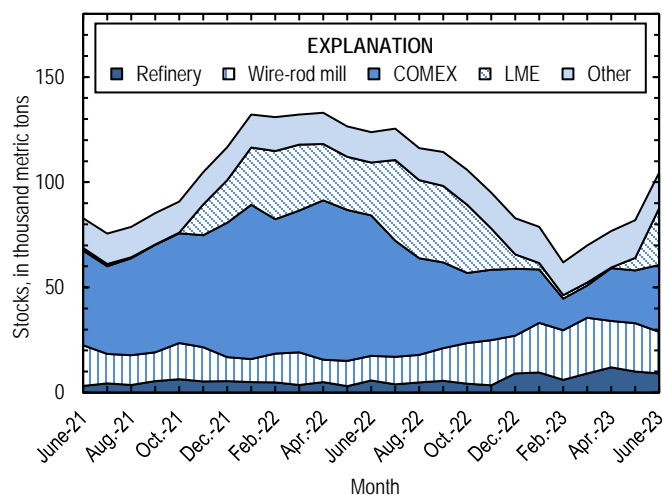


Figure 3. Domestic refined copper stocks at end of month, by type, from June 2021 through June 2023. Sources: London Metal Exchange Ltd., S&P Global Platts Metals Week, and U.S. Geological Survey.

Industry News

Sweden.—On June 13, a fire destroyed the cathode production line at Boliden Group's Ronnskar copper smelter and electrolytic refinery. All operations were halted from June 13 to June 24, when the company restarted anode production. Output of cathode will remain suspended indefinitely. In 2022, the Ronnskar refinery produced 218,000 t of cathode (Boliden Group, 2023a, p. 128; 2023b).

United States.—Rio Tinto announced on June 20 that funding had been approved for an underground expansion of the Bingham Canyon Mine. The project was expected to produce 250,000 t of copper in concentrates over 10 years, beginning in 2024. An additional underground expansion that started in February 2023 was projected to produce 30,000 t of copper through 2027, and Rio Tinto was exploring other opportunities to extend mining at the site beyond 2032 (Rio Tinto Group, 2023a).

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

(Metric tons, copper content, unless otherwise specified)

	Source table ²	2022 ^p	2023			
			April	May	June	January– June
Production:						
Primary (from ore):						
Mine, recoverable ³	(2)	1,230,000	91,000 ^r	91,600 ^r	92,800	544,000
Smelter ^{c, 4}	(3)	375,000	30,000 ^r	30,000 ^r	30,000	210,000
Refinery:						
Electrolytic ^c	(4)	375,000	25,000 ^r	25,000 ^r	25,000	180,000
Electrowon	(4)	556,000	43,400	42,100	45,800	258,000
Total	(4)	931,000	68,400 ^r	67,100 ^r	70,800	438,000
Secondary (from copper-base scrap): ⁵						
Refineries ⁶	(5)	40,000	3,220	3,260	3,230	19,400
Ingot makers ^{c, 7}	(5)	39,500	3,290	3,290	3,290	19,700
Brass and wire-rod mills	(5)	650,000	55,300	54,200 ^r	52,400	332,000
Foundries, etc. ^{c, 7}	(5)	40,000	3,330	3,330	3,330	20,000
Consumption:						
Reported, refined copper	(7)	1,720,000	133,000	136,000 ^r	126,000	793,000
Apparent, primary refined copper and copper from old scrap ⁸	(8)	1,820,000	170,000 ^r	158,000 ^r	151,000	971,000
Reported, purchased copper-base scrap (gross weight)	(9)	890,000	75,100	74,000 ^r	72,100	451,000
Stocks at end of period:						
Blister and anodes	(10)	13,300	35,100	39,900	34,500	34,500
Refined ⁹	(10)	82,800	76,800	82,000 ^r	104,000	104,000
Price, U.S. producers cathode (cents per pound) ¹⁰	(11)	410.775	410.037	384.173	389.598	406.797
Imports for consumption: ¹¹						
Ore and concentrates	(13)	11,700	--	46	--	3,280
Refined	(13)	732,000	97,900	86,700	92,800	491,000
Exports: ¹¹						
Ore and concentrates	(14)	353,000	33,300	31,400	24,800	191,000
Refined	(14)	27,600	2,020	1,910	1,770	10,200

^cEstimated. ^pPreliminary. ^rRevised. -- Zero.

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

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

³Includes the recoverable copper content of concentrates (of copper and other metals), copper produced by solvent extraction and electrowinning, and copper recovered as precipitates.

⁴Contains small quantities of copper from scrap.

⁵Copper recovered from copper-base scrap and converted to refined metal, alloys, and other forms. Does not include copper recovered from scrap other than copper-base.

⁶Electrolytically refined and fire-refined copper.

⁷Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2021 not yet available. Monthly data are estimated based on the monthly average of 2021 annual data.

⁸Primary refined copper production plus copper recovered from old scrap (of copper-base and non-copper-base) plus refined imports for consumption minus refined exports, including adjustments for refined stock changes. Old scrap consists of copper items used by consumers.

⁹Stocks of refined copper at brass mills, exchanges, refineries, wire-rod mills, and other manufacturers.

¹⁰Source: S&P Global Platts Metals Week. Sum of the monthly average Commodity Exchange Inc. (COMEX) price and monthly average New York dealers cathode premium; reflects the delivered spot price of copper cathode to U.S. consumers by U.S. producers.

¹¹Source: U.S. Census Bureau. See tables 13 and 14 for the relevant Harmonized Tariff Schedule (imports) and Schedule B (exports) codes.

TABLE 2
MINE PRODUCTION OF COPPER IN THE UNITED STATES¹

(Metric tons)

Period	Recoverable copper ²			Contained copper		
	Arizona	Others ³	Total	Electrowon	Concentrates ⁴	Total
2022: ^p						
January–June	435,000	186,000	621,000	275,000	360,000	634,000
June	73,900	28,600	103,000	46,500	58,200	105,000
July	73,300	33,500	107,000	47,600	61,400	109,000
August	69,600	32,600	102,000	46,800	57,500	104,000
September	69,700	31,500	101,000	46,800	56,500	103,000
October	69,200	31,200	100,000	48,600	53,800	102,000
November	66,800	32,300	99,100	44,600	56,500	101,000
December	71,400	30,700	102,000	47,000	57,100	104,000
January–December	855,000	378,000	1,230,000	556,000	702,000	1,260,000
2023:						
January	67,900 ^r	25,000 ^r	92,900 ^r	45,600	49,400 ^r	95,000 ^r
February	62,400 ^r	23,200 ^r	85,600 ^r	37,800	49,900 ^r	87,700 ^r
March	66,100 ^r	24,100 ^r	90,200 ^r	43,500	48,700 ^r	92,300 ^r
April	68,000 ^r	23,000 ^r	91,000 ^r	43,400	49,700 ^r	93,000 ^r
May	66,800 ^r	24,800 ^r	91,600 ^r	42,100	51,600 ^r	93,700 ^r
June	69,300	23,600	92,800	45,800	49,000	94,700
January–June	401,000	144,000	544,000	258,000	298,000	556,000

^pPreliminary. ^rRevised.

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

²Includes the recoverable copper content of concentrates (of copper and other metals), copper produced by solvent extraction and electrowinning, and copper recovered as precipitates.

³Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

⁴Also includes copper recovered as precipitates.

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

(Metric tons, copper content)

Period	Anode production ^{e, 3}
2022: ^p	
January–June	195,000
June	30,000
July	35,000
August	35,000
September	35,000
October	25,000
November	25,000
December	25,000
January–December	375,000
2023:	
January	40,000
February	40,000
March	40,000
April	30,000 ^r
May	30,000 ^r
June	30,000
January–June	210,000

^eEstimated. ^pPreliminary. ^rRevised.

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

²Data reflect primary production in 2022 and primary and secondary production in 2023.

³To avoid disclosing company proprietary data, anode production data are estimated based on public information and do not reflect output reported to the U.S. Geological Survey.

TABLE 4
U.S. PRODUCTION OF REFINED COPPER¹

(Metric tons)

Period	From primary materials			From scrap ³	Total refined
	Electrolytic ^{e, 2}	Electrowon	Total primary		
2022: ^p					
January–June	195,000	275,000	470,000	20,600	490,000
June	30,000	46,500	76,500	3,370	79,900
July	35,000	47,600	82,600	3,250	85,800
August	35,000	46,800	81,800	3,260	85,000
September	35,000	46,800	81,800	3,220	85,000
October	25,000	48,600	73,600	3,220	76,800
November	25,000	44,600	69,600	3,280	72,900
December	25,000	47,000	72,000	3,240	75,300
January–December	375,000	556,000	931,000	40,000	971,000
2023:					
January	35,000	45,600	80,600	3,220	83,800
February	35,000	37,800	72,800	3,230	76,100
March	35,000	43,500	78,500	3,220	81,700
April	25,000 ^r	43,400	68,400 ^r	3,220	71,600 ^r
May	25,000 ^r	42,100	67,100 ^r	3,260	70,300 ^r
June	25,000	45,800	70,800	3,230	74,000
January–June	180,000	258,000	438,000	19,400	458,000

^eEstimated. ^pPreliminary. ^rRevised.

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

²To avoid disclosing company proprietary data, electrolytic production data are estimated based on public information and do not reflect output reported to the U.S. Geological Survey.

³Electrolytically refined and fire-refined copper.

TABLE 5
COPPER RECOVERED AS REFINED COPPER AND IN ALLOYS AND OTHER FORMS FROM PURCHASED
COPPER-BASE SCRAP IN THE UNITED STATES^{1, 2}

(Metric tons)

Period	Refineries ³		Ingot makers ^{e, 4}		Brass and wire-rod mills		Foundries, etc. ^{e, 4}		Total ⁵
	New scrap ^e	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2022: ^p									
January–June	10,100	10,500	2,100	17,600	300,000	23,000	4,440	15,500	384,000
June	1,680	1,690	350	2,940	49,800	3,710	740	2,590	63,500
July	1,680	1,570	350	2,940	50,700	3,110	740	2,590	63,700
August	1,680	1,580	350	2,940	51,400	3,330	740	2,590	64,600
September	1,680	1,540	350	2,940	50,800	3,340	740	2,590	64,000
October	1,680	1,540	350	2,940	51,100	3,230	740	2,590	64,200
November	1,680	1,600	350	2,940	51,800	3,270	740	2,590	65,000
December	1,680	1,560	350	2,940	51,800	2,600	740	2,590	64,200
January–December	20,100	19,900	4,200	35,300	608,000	41,900	8,880	31,100	769,000
2023:									
January	1,680	1,540	350	2,940	53,600	4,360	740	2,590	67,800
February	1,680	1,550	350	2,940	52,300	3,360	740	2,590	65,500
March	1,680	1,540	350	2,940	52,700	3,620	740	2,590	66,200
April	1,680	1,540	350	2,940	52,000	3,300	740	2,590	65,100
May	1,680	1,580	350	2,940	51,200 ^r	2,960 ^r	740	2,590	64,000 ^r
June	1,680	1,550	350	2,940	49,400	2,950	740	2,590	62,200
January–June	10,100	9,310	2,100	17,600	311,000	20,600	4,440	15,500	391,000

^eEstimated. ^pPreliminary. ^rRevised.

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

²New scrap refers to material generated during the manufacturing process. Old scrap consists of copper items used by consumers.

³Electrolytically refined and fire refined from scrap based on source of material at smelter or refinery level.

⁴Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2021 not yet available. Monthly data are estimated based on the monthly average of 2021 annual data.

⁵Does not include an estimate, based on 2021 annual data, of 2,970 tons per month from new scrap and 1,700 tons per month from old scrap of copper recovered from scrap other than copper-base.

TABLE 6
U.S. 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
2022: ^p						
January–June	453,000	679,000	452,000	681,000	29,300	17,200
June	74,800	111,000	74,900	115,000	29,300	17,200
July	74,600	117,000	74,800	114,000	29,100	21,000
August	75,300	112,000	75,200	115,000	29,200	17,900
September	79,900	116,000	79,400	119,000	29,800	15,600
October	75,400	115,000	75,100	114,000	30,000	16,600
November	74,900	94,800	74,800	94,700	30,200	16,600
December	74,800	90,300	74,300	88,400	30,700	18,600
January–December	908,000	1,330,000	906,000	1,330,000	30,700	18,600
2023:						
January	76,400	99,100	75,400	102,000	31,700	15,600
February	75,300	100,000	74,500	104,000	32,500	12,300
March	77,000	105,000	75,000	107,000	34,500	10,500
April	73,500	98,800	74,700	93,100	33,400	16,200
May	72,900	101,000 ^r	74,000	103,000 ^r	32,300	14,200 ^r
June	73,100	93,200	73,000	95,500	32,300	11,900
January–June	448,000	598,000	447,000	605,000	32,300	11,900

^pPreliminary. ^rRevised.

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

TABLE 7
U.S. CONSUMPTION OF REFINED COPPER¹

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants ^{e, 2}	Total
2022: ^p				
January–June	211,000	655,000	21,500	887,000
June	34,800	107,000	3,590	146,000
July	34,900	112,000	3,590	151,000
August	35,000	106,000	3,590	145,000
September	34,900	101,000	3,590	140,000
October	35,000	105,000	3,590	144,000
November	35,000	83,700	3,590	122,000
December	35,200	88,700	3,590	127,000
January–December	420,000	1,250,000	43,000	1,720,000
2023:				
January	34,700	89,600	3,590	128,000
February	36,200	91,100	3,590	131,000
March	34,100	101,000	3,590	139,000
April	35,800	93,400	3,590	133,000
May	35,900	96,400 ^r	3,590	136,000 ^r
June	35,200	87,300	3,590	126,000
January–June	212,000	559,000	21,500	793,000

^eEstimated. ^pPreliminary. ^rRevised.

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

²Chemical plants, foundries, ingot makers, and miscellaneous manufacturers. These plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2021 not yet available. Monthly data are estimated based on the monthly average of 2021 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER¹

(Metric tons)

Period	Primary refined copper production	Copper in old scrap ²	Refined imports for consumption ³	Refined exports ³	Refined stock change during period	Apparent consumption ⁴
2022: ^p						
January–June	470,000	76,900	438,000	15,500	7,290	962,000
June	76,500	12,600	75,900	1,720	-2,560	166,000
July	82,600	11,900	80,900	1,900	1,560	172,000
August	81,800	12,100	36,400	3,060	-9,190	136,000
September	81,800	12,100	50,700	2,470	-1,970	144,000
October	73,600	12,000	49,700	1,190	-8,330	142,000
November	69,600	12,100	37,900	1,430	-10,800	129,000
December	72,000	11,400	38,800	2,100	-12,300	132,000
January–December	931,000	149,000	732,000	27,600	-33,800	1,820,000
2023:						
January	80,600	13,100	39,000	1,190	-4,040	136,000
February	72,800	12,100	48,700	2,000	-16,800	149,000
March	78,500	12,400	126,000	1,290	8,090	207,000
April	68,400 ^r	12,100	97,900	2,020	6,790	170,000 ^r
May	67,100 ^r	11,800	86,700	1,910	5,160 ^r	158,000 ^r
June	70,800	11,700	92,800	1,770	22,500	151,000
January–June	438,000	73,200	491,000	10,200	21,700	971,000

^pPreliminary. ^rRevised.

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

²Copper recovered from old scrap (of copper-base and non-copper-base) and converted to refined metal, alloys, and other forms. Includes reported monthly production and estimates for annual reporters based on the monthly average of 2021 annual data. Old scrap consists of copper items used by consumers.

³Source: U.S. Census Bureau. Includes Harmonized Tariff Schedule (imports) and Schedule B (exports) codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

⁴Primary refined copper production plus copper in old scrap plus refined imports for consumption minus refined exports minus refined stock change during period.

TABLE 9
U.S. CONSUMPTION OF PURCHASED COPPER-BASE SCRAP^{1, 2}

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers ^{e, 3}		Brass and wire-rod mills ⁴		Foundries, etc. ^{e, 3}		Total
	New scrap ^e	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2022: ^p									
January–June	10,400	10,900	5,600	20,700	349,000	24,200	5,230	18,200	444,000
June	1,730	1,740	933	3,450	57,900	3,880	871	3,040	73,500
July	1,730	1,620	933	3,450	58,800	3,220	871	3,040	73,600
August	1,730	1,630	933	3,450	59,500	3,490	871	3,040	74,700
September	1,730	1,590	933	3,450	58,900	3,510	871	3,040	74,000
October	1,730	1,590	933	3,450	59,100	3,340	871	3,040	74,100
November	1,730	1,650	933	3,450	59,800	3,420	871	3,040	74,900
December	1,730	1,610	933	3,450	59,900	2,710	871	3,040	74,200
January–December	20,700	20,500	11,200	41,400	705,000	43,900	10,500	36,500	890,000
2023:									
January	1,730	1,590	933	3,450	61,700	4,500	871	3,040	77,800
February	1,730	1,600	933	3,450	60,400	3,500	871	3,040	75,500
March	1,730	1,590	933	3,450	60,800	3,740	871	3,040	76,100
April	1,730	1,590	933	3,450	60,000	3,430	871	3,040	75,100
May	1,730	1,630	933	3,450	59,200 ^r	3,090	871	3,040	74,000 ^r
June	1,730	1,600	933	3,450	57,400	3,060	871	3,040	72,100
January–June	10,400	9,600	5,600	20,700	359,000	21,300	5,230	18,200	451,000

^eEstimated. ^pPreliminary. ^rRevised.

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

²New scrap refers to material generated during the manufacturing process. Old scrap consists of copper items used by consumers.

³Plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2021 not yet available. Monthly data are estimated based on the monthly average of 2021 annual data.

⁴Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
COPPER STOCKS IN THE UNITED STATES AT END OF PERIOD¹

(Metric tons, copper content)

Period	Blister and anodes	Refined copper						Total refined
		Refineries	Wire-rod mills	Brass mills	Other ^{c, 2}	COMEX ³	LME ⁴	
2022: ^p								
June	13,100	5,800	11,700	8,330	6,200	66,700	25,100	124,000
July	12,900	3,980	13,100	8,640	6,200	55,100	38,400	125,000
August	14,200	4,790	13,100	9,010	6,200	46,000	37,100	116,000
September	14,900	5,570	15,500	9,840	6,200	40,800	36,400	114,000
October	18,500	4,300	19,200	10,400	6,200	33,400	32,400	106,000
November	14,600	3,470	21,500	10,800	6,200	33,400	19,700	95,100
December	13,300	9,100	18,000	11,000	6,200	31,700	6,850	82,800
2023:								
January	13,600	9,640	23,500	10,900	6,200	25,400	3,050	78,700
February	13,000	6,040	23,600	9,380	6,200	15,000	1,680	61,900
March	14,300	9,160	26,400	11,400	6,200	15,400	1,400	70,000
April	35,100	12,000	22,000	11,200	6,200	25,100	300	76,800
May	39,900	10,100	22,900 ^r	11,700 ^r	6,200	25,100	5,950	82,000 ^r
June	34,500	9,050	19,900	10,700	6,200	31,700	26,900	104,000

^cEstimated. ^pPreliminary. ^rRevised.

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

²Chemical plants, foundries, ingot makers, and miscellaneous manufacturers. These plants are surveyed by the U.S. Geological Survey on an annual basis; data after 2021 not yet available. Monthly data are estimated based on yearend 2021 stocks.

³Commodity Exchange Inc.

⁴London Metal Exchange Ltd., U.S. warehouses.

TABLE 11
AVERAGE PRICES FOR REFINED COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	COMEX		
	first position ¹	U.S. producers cathode ²	LME grade A cash ³
2022:			
June	412.540	422.540	409.684
July	339.610	350.610	341.513
August	361.500	372.500	361.070
September	348.021	359.021	350.800
October	347.386	358.386	345.649
November	367.683	378.483	364.184
December	381.645	391.895	379.511
Year	400.719	410.775	399.791
2023:			
January	412.233	423.233	408.200
February	408.824	418.824	406.165
March	404.915	414.915	400.734
April	400.037	410.037	399.767
May	374.173	384.173	373.469
June	379.598	389.598	380.362
January–June	396.630	406.797	394.783

¹Listed as “COMEX high grade first position.” COMEX refers to the Commodity Exchange Inc.

²Sum of “COMEX high grade first position” and “NY dealer premium cathode.” Reflects the delivered spot price of copper cathode to U.S. consumers by U.S. producers.

³LME refers to the London Metal Exchange Ltd.

Source: S&P Global Platts Metals Week.

TABLE 12
AVERAGE BUYING PRICES FOR COPPER SCRAP IN THE UNITED STATES

(Cents per pound)

Period	Brass mills no. 1 scrap	Refiners no. 2 scrap	Dealers	
			No. 2 scrap	Red brass turnings and borings
2022:				
June	401.81	366.31	321.50	185.00
July	329.10	295.60	259.00	172.50
August	350.65	322.65	244.00	153.00
September	335.52	307.81	254.50	148.00
October	333.62	308.71	247.50	148.00
November	356.15	332.15	261.50	150.50
December	371.67	348.57	270.50	155.50
Year	390.04	358.05	296.29	183.13
2023:				
January	401.30	379.30	289.00	159.00
February	397.03	374.29	321.50	159.00
March	392.67	369.41	319.00	156.50
April	389.50	365.84	316.50	158.00
May	365.86	341.68	302.50	154.00
June	371.69	347.00	286.50	154.00
January-June	386.34	362.92	305.83	156.75

Source: Fastmarkets-AMM.

TABLE 13
U.S. IMPORTS FOR CONSUMPTION OF UNMANUFACTURED COPPER¹

(Metric tons, copper content)

Country or locality	Ore and concentrates ²			Matte, ash, and precipitates ³			Blister and anodes ⁴			Refined ⁵		
	2023			2023			2023			2023		
	2022	June	January– June	2022	June	January– June	2022	June	January– June	2022	June	January– June
Austria	--	--	--	--	--	--	--	--	--	54	--	--
Belgium	--	--	--	384	--	175	--	--	--	2	--	--
Canada	11,700	--	3,270	581	55	253	(6)	(6)	(6)	118,000	10,200	61,200
Chile	--	--	--	--	--	--	--	--	--	472,000	72,700	357,000
China	--	--	--	--	--	--	(6)	--	9	897	29	267
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	8,910	2,060	11,400
Finland	--	--	--	--	--	--	281	--	78	39	--	--
France	--	--	--	--	--	--	15	--	--	53	11	42
Germany	(6)	--	--	94	--	--	(6)	--	(6)	3,410	96	1,570
Hungary	9	--	19	--	--	--	--	--	--	--	--	--
India	11	--	--	--	--	(6)	--	--	(6)	57	--	--
Japan	(6)	--	--	--	--	--	(6)	(6)	(6)	1,370	194	1,290
Korea, Republic of	--	--	--	--	--	--	1	--	1	10	22	35
Mexico	--	--	--	25	3	9	(6)	--	--	75,500	479	8,770
Peru	--	--	--	--	--	--	--	--	--	50,100	7,070	47,600
Qatar	--	--	--	43	--	--	--	--	--	--	--	--
Slovakia	--	--	--	14	--	--	--	--	--	--	--	--
Spain	--	--	--	51	--	151	(6)	--	--	--	--	--
United Kingdom	(6)	--	--	(6)	--	(6)	5	(6)	1	138	--	--
Zambia	--	--	--	--	--	--	--	--	--	1,230	--	2,040
Other	(6)	--	--	1	--	(6)	4	(6)	(6)	11	2	10
Total	11,700	--	3,280	1,190	58	589	306	(6)	89	732,000	92,800	491,000

-- Zero.

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

²Harmonized Tariff Schedule of the United States (HTS) code 2603.00.0010. Includes copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

³HTS codes 2620.30.0010 and 7401.00.0000. Includes copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

⁴HTS code 7402.00.0000.

⁵HTS codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

⁶Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14
U.S. EXPORTS OF UNMANUFACTURED COPPER¹

(Metric tons, copper content)

Country or locality	Ore and concentrates ²			Matte, ash, and precipitates ³			Blister and anodes ⁴			Refined ⁵		
	2023			2023			2023			2023		
	2022	June	January– June	2022	June	January– June	2022	June	January– June	2022	June	January– June
Belgium	70	49	49	5,950	469	3,230	211	7	114	--	--	6
Bulgaria	1,540	--	--	--	--	--	--	--	--	--	--	--
Canada	39,800	2,700	21,200	13,500	237	2,300	6,740	3,340	15,900	14,200	328	2,250
China	56,900	6,970	31,600	378	--	407	60	--	61	2,150	9	139
Costa Rica	--	5	5	345	--	4	--	--	--	(6)	--	3
Germany	1,590	--	--	235	--	90	244	--	48	1	11	35
India	--	--	9	16	--	21	1,560	16	187	34	--	37
Israel	--	--	--	--	--	--	115	16	26	98	2	12
Italy	--	--	--	--	--	2	155	--	76	10	--	2
Japan	11,000	--	4,260	361	--	20	20	--	30	23	(6)	1
Korea, Republic of	59	--	--	189	--	9	1,570	137	728	133	--	28
Madagascar	1,220	--	--	--	--	--	--	--	--	--	--	--
Malaysia	186	1	27	147	53	107	168	40	459	51	177	516
Mexico	232,000	15,100	128,000	30	12	1,060	260	1	114	7,680	1,180	6,250
Netherlands	--	--	--	40	--	29	4	--	--	1,070	--	--
Philippines	7,770	--	--	(6)	--	--	67	--	7	35	--	--
Poland	--	--	--	270	58	620	--	--	--	--	--	--
Singapore	--	--	5	414	34	97	40	--	1	22	47	49
Slovakia	--	--	--	1,210	34	244	--	--	--	--	--	--
Spain	26	--	--	1,510	151	1,240	42	--	--	376	(6)	178
Taiwan	--	--	2,880	86	--	1	137	--	25	25	9	14
Thailand	--	--	--	158	--	13	94	--	20	--	--	--
Turkey	--	--	--	233	--	100	20	--	20	20	--	--
United Kingdom	--	--	--	4	(6)	4	40	--	6	1,630	1	6
Other	718	11	3,580	194	--	141	378	6	207	57	6	646
Total	353,000	24,800	191,000	25,200	1,050	9,730	11,900	3,560	18,100	27,600	1,770	10,200

-- Zero.

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

²Schedule B of the United States code 2603.00.0010. Includes copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

³Schedule B codes 2620.30.0000, 7401.00.0010, and 7401.00.0050. Includes copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

⁴Schedule B code 7402.00.0000.

⁵Schedule B codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

⁶Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP¹

(Metric tons, gross weight)

Country or locality	Unalloyed ²			Alloyed ³		
	2023			2023		
	2022	June	January– June	2022	June	January– June
Antigua and Barbuda	--	--	--	188	11	61
Bahamas, The	--	--	--	612	28	296
Barbados	--	--	--	326	3	42
Bermuda	12	11	24	90	12	31
Bolivia	46	--	--	106	--	40
Brazil	14	113	113	69	--	220
Canada	17,600	1,140	7,660	41,800	2,580	17,500
Cayman Islands	--	--	--	243	33	102
Colombia	196	--	78	106	20	64
Costa Rica	712	78	366	1,350	91	492
Dominican Republic	1,350	96	678	2,090	169	703
Ecuador	24	--	--	57	--	19
El Salvador	--	--	--	1,090	118	465
Germany	260	55	253	50	1	21
Grenada	--	--	--	72	--	58
Guatemala	--	--	--	309	--	118
Haiti	--	--	--	104	--	80
Honduras	24	2	17	787	115	551
Jamaica	7	--	--	461	21	197
Mexico	12,200	973	6,670	42,900	4,070	22,000
Nicaragua	--	--	--	194	17	35
Panama	1,190	49	391	405	68	214
Peru	--	--	--	225	20	20
Saudi Arabia	--	--	--	134	--	--
Sint Maarten	1	--	--	54	21	73
Saint Lucia	25	--	--	269	17	112
Saint Vincent and the Grenadines	--	--	--	91	10	73
Suriname	360	22	131	69	30	51
Uruguay	73	17	27	20	2	12
Vietnam	62	--	--	50	--	--
Other	75	--	52	401	60	183
Total	34,200	2,560	16,500	94,700	7,520	43,900

-- Zero.

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

²Harmonized Tariff Schedule of the United States (HTS) codes 7404.00.3020 and 7404.00.6020.

³HTS codes 7404.00.3045, 7404.00.3055, 7404.00.3065, 7404.00.3090, 7404.00.6045, 7404.00.6055, 7404.00.6065, and 7404.00.6090.

Source: U.S. Census Bureau.

TABLE 16
U.S. EXPORTS OF COPPER SCRAP¹

(Metric tons, gross weight)

Country or locality	Unalloyed ²							Alloyed ³				
	2023							2023				
	No. 1		No. 2		Other			Segregated		Unsegregated		
	2022	January– June	January– June	January– June	January– June	January– June	January– June	2022	January– June	January– June	January– June	January– June
Austria	1,300	38	110	36	266	--	--	1,210	132	449	147	347
Belgium	33,200	1,170	5,600	1,020	5,710	388	2,920	8,860	77	480	649	3,200
Canada	60,900	--	--	--	--	6,830	36,700	46,200	--	--	2,100	15,100
China	260,000	6,480	36,500	2,870	24,100	11,300	63,200	31,900	1,740	10,300	1,200	8,500
Germany	15,400	920	6,160	116	448	633	2,750	15,300	59	315	942	5,270
Greece	8,830	313	1,830	--	--	117	632	2,170	--	37	62	1,100
Hong Kong	16,800	100	376	1,090	4,300	922	2,940	3,760	20	288	338	1,310
India	19,900	651	4,140	74	763	945	4,100	65,700	1,230	7,740	2,470	18,400
Japan	25,400	443	2,270	1,140	6,630	454	1,540	6,980	93	572	302	3,300
Korea, Republic of	42,200	1,040	5,250	128	2,160	762	4,750	11,400	256	1,750	430	3,120
Malaysia	24,700	984	6,380	240	1,950	1,150	5,740	41,700	583	3,440	3,310	16,400
Mexico	3,120	184	1,250	(4)	2	66	117	8,380	45	228	105	1,240
Netherlands	7,600	188	828	57	98	--	645	1,540	--	--	19	196
Pakistan	1,020	4	149	--	5	--	41	26,300	--	80	1,100	10,500
Philippines	1,660	180	381	--	--	81	348	757	4	52	68	493
Poland	15,700	154	1,560	--	20	827	6,490	1,030	--	20	--	249
Singapore	1,210	318	1,470	--	20	--	--	264	--	--	--	128
Slovakia	1,550	38	539	--	--	--	--	2,500	136	642	5	330
Spain	3,860	23	220	--	1	39	696	7,380	140	702	158	2,060
Sweden	581	--	30	--	--	--	--	1,940	--	--	46	215
Taiwan	13,100	220	750	93	1,190	332	1,820	4,440	38	134	117	2,160
Thailand	23,900	704	3,650	20	234	2,420	10,300	39,600	208	1,760	2,510	14,400
Turkey	1,020	10	312	--	--	--	--	2,320	--	20	--	366
United Arab Emirates	766	--	295	--	--	--	--	5,790	--	--	952	4,620
Vietnam	139	124	723	--	152	325	468	929	--	--	--	220
Other	2,180	25	302	19	97	118	326	2,400	66	177	102	1,020
Total	586,000	14,300	81,100	6,900	48,200	27,700	146,000	341,000	4,820	29,200	17,100	114,000

-- Zero.

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

²Schedule B of the United States codes 7404.00.0010 and 7404.00.0015 (no. 1), 7404.00.0025 (no. 2), and 7404.00.0030 (other).

³Schedule B codes for segregated alloyed copper scrap are 7404.00.0041, 7404.00.0046, 7404.00.0051, 7404.00.0056, 7404.00.0061, 7404.00.0066, and 7404.00.0075. Schedule B codes for unsegregated alloyed copper scrap are 7404.00.0085 and 7404.00.0095.

⁴Less than ½ unit.

Source: U.S. Census Bureau.