

Mineral Industry Surveys

For information, contact:

Daniel M. Flanagan, Copper Commodity Specialist National Minerals Information Center

Telephone: (703) 648-7726 Email: dflanagan@usgs.gov Sheema Merchant (Data) Telephone: (703) 659-9944 Email: smerchant@usgs.gov

Internet: https://www.usgs.gov/centers/national-minerals-

information-center/mineral-industry-surveys

COPPER IN NOVEMBER 2023

In November 2023, mine production of recoverable copper in the United States was 91,400 metric tons (t). The average daily mine output was 3,050 t, essentially unchanged from that in October and 8% less than that in November 2022 (fig. 1). Year-to-date mine production through November 2023 was 1.02 million metric tons, a decrease of 10% compared with that in the same time period in 2022 (table 2). Production declined at a majority of U.S. copper mines in 2023 because of reduced copper ore grades, lower mining rates, and (or) unplanned maintenance.

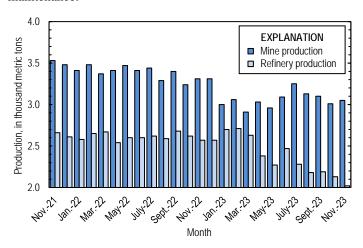


Figure 1. Average daily copper mine (recoverable) and refinery (primary and secondary) production in the United States from November 2021 through November 2023.

To avoid disclosing company proprietary data, smelter and electrolytic refinery production in November 2023 were estimated based on public information and do not reflect output reported to the U.S. Geological Survey. Estimated domestic copper smelter production was 25,000 t in November 2023. Year-to-date estimated smelter output was 335,000 t, a slight increase from that in the same time period in 2022. The smelter production estimates reported in table 3 represent primary production only in 2022 and primary and secondary output in 2023. A secondary copper smelter in Shelby, NC, with a production capacity of roughly 4,200 metric tons per month of anodes began operating in late 2022 (Toto, 2023).

Total U.S. refinery production of copper in November 2023 was 60,700 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 2,020 t, 5% less than that in October and a decrease of 21% compared with that in November 2022 (fig. 1). Year-to-date refinery output through November 2023 was 788,000 t, a decline of 10% relative to the same time period in 2022. Domestic refined copper production in 2023 was affected by a major rebuild of the Rio Tinto Group smelter and electrolytic refinery near Salt Lake City, UT, that began in May and was completed in October (Rio Tinto Group, 2023a, p. 14; 2023b, p. 13).

Prices

In November 2023, the average Commodity Exchange Inc. (COMEX) copper price was \$3.72 per pound, 3% higher than \$3.60 per pound in October and essentially unchanged from \$3.68 per pound in November 2022 (fig. 2, table 11). The average U.S. dealers buying price of number 2 copper scrap was \$2.80 per pound in November 2023, a slight decrease from \$2.85 per pound in October and 7% greater than \$2.62 per pound in November 2022 (fig. 2, table 12).

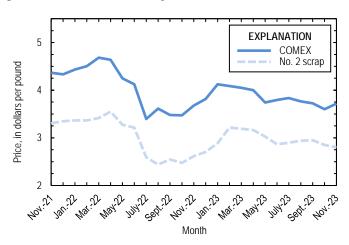


Figure 2. Monthly average Commodity Exchange Inc. (COMEX) copper price and no. 2 copper scrap U.S. dealers buying price from November 2021 through November 2023. Sources: Fastmarkets-AMM and S&P Global Platts Metals Week.

Stocks

Refined copper stocks in the United States totaled 145,000 t as of the end of November 2023, essentially unchanged compared with those in October and an increase of 52% from those in November 2022. Total stocks at producers and fabricators (brass mills, refineries, wire-rod mills, and other manufacturers) decreased by 5,340 t (13%) and total stocks at exchanges (COMEX and London Metal Exchange Ltd.) increased by 6,150 t (6%) from those at the end of October (fig. 3, table 10).

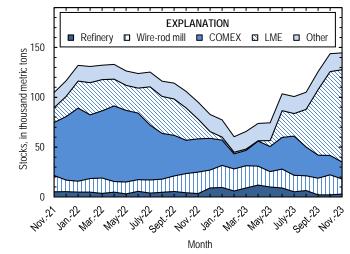


Figure 3. Domestic refined copper stocks at end of month, by type, from November 2021 through November 2023. Sources: London Metal Exchange Ltd., S&P Global Platts Metals Week, and U.S. Geological Survey.

Industry News

Panama.—On November 28, the Government of Panama ordered the closure of the Cobre Panama Mine, majority-owned by First Quantum Minerals Ltd., following a ruling by the Supreme Court that voided the concession contract. It was unclear if the shutdown would be permanent or if the Government would be willing to renegotiate the agreement (Keen, 2023). First Quantum also announced on November 28

that it had suspended production at Cobre Panama in response to blockades of mine access roads and the Punta Rincon port, which had disrupted operations since late September (Carino, Jr., 2023; First Quantum Minerals Ltd., 2023a). In 2022, Cobre Panama was one of the leading copper mines in the world and produced 350,000 t of copper in concentrates (First Quantum Minerals Ltd., 2023b, p. 61).

References Cited

Carino, Dan, Jr., 2023, Union protests against proposed First Quantum contract in Panama—Bloomberg: S&P Capital IQ, September 26. (Accessed September 29, 2023, via https://www.capitaliq.spglobal.com/.)

First Quantum Minerals Ltd., 2023a, First Quantum provides update on Cobre Panama: Toronto, Ontario, Canada, First Quantum Minerals Ltd. news release, November 28, 1 p. (Accessed December 1, 2023, at https://s24.q4cdn.com/821689673/files/doc_news/2023/NR-23-35-Cobre-Panama-Update-FINAL.pdf.)

First Quantum Minerals Ltd., 2023b, Responsible growth—2022 annual report: Toronto, Ontario, Canada, First Quantum Minerals Ltd., 166 p. (Accessed July 25, 2023, at https://s24.q4cdn.com/821689673/files/doc_downloads/2022-annual-report/First-Quantum-2022-AR-online.pdf.)

Keen, Kip, 2023, Panama plan to shutter First Quantum mine puts debt, copper supply in crosshairs: S&P Capital IQ, November 30. (Accessed December 1, 2023, via https://www.capitaliq.spglobal.com/.)

Rio Tinto Group, 2023a, Rio Tinto releases second quarter production results: London, United Kingdom, Rio Tinto Group media release, July 19, 31 p. (Accessed August 9, 2023, at https://cdn-rio.dataweavers.io/-/media/content/documents/invest/financial-news-and-performance/production/2023/rt-second-quarter-operations-review-2023-pdf.pdf?rev=7fbf74899c2043d6ba526ffd63 b9fb77.)

Rio Tinto Group, 2023b, Rio Tinto releases third quarter production results: London, United Kingdom, Rio Tinto Group media release, October 17, 29 p. (Accessed October 26, 2023, at https://cdn-rio.dataweavers.io/-/media/content/documents/invest/financial-news-and-performance/production/2023/rt-third-quarter-operations-review-2023-pdf.pdf?rev=0124283449a1418ca020 e1bf8456634d.)

Toto, Deanne, 2023, ISRI2023—Critical copper: Recycling Today, April 22. (Accessed April 23, 2023, at https://www.recyclingtoday.com/news/isri-2023 -spotlight-on-copper-critical-metal/.)

List services and web feed subscribers are the first to receive notification of USGS minerals information publications and data releases. For information on how to subscribe, go to https://www.usgs.gov/centers/national-minerals-information-center/minerals-information-publication-list-services.

${\bf TABLE~1}$ SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES $^{\rm I}$

(Metric tons, copper content, unless otherwise specified)

				2	023	
	Source					January-
	table ²	2022 ^p	September	October	November	November
Production:						
Primary (from ore):						
Mine, recoverable ³	(2)	1,230,000	93,100	93,200 ^r	91,400	1,020,000
Smelter ^{e, 4}	(3)	357,000	25,000	25,000	25,000	335,000
Refinery:						
Electrolytic	(4)	357,000	20,000 e	20,000 e	20,000 e	280,000
Electrowon	(4)	555,000	42,400	42,900	37,500	472,000
Total	(4)	912,000	62,400	62,900	57,500	752,000
Secondary (from copper-base scrap): ⁵						
Refineries ⁶	(5)	40,000	3,300	3,250	3,220	35,600
Ingot makers ^{e, 7}	(5)	39,500	3,290	3,290	3,290	36,200
Brass and wire-rod mills	(5)	650,000	54,700	54,900	45,000	603,000
Foundries, etc. ^{e, 7}	(5)	40,000	3,330	3,330	3,330	36,600
Consumption:						
Reported, refined copper	(7)	1,720,000	135,000	129,000	118,000	1,450,000
Apparent, primary refined copper and copper from old scrap ⁸	(8)	1,800,000	110,000	102,000	93,300	1,540,000
Reported, purchased copper-base scrap (gross weight)	(9)	890,000	74,500	74,700	62,900	819,000
Stocks at end of period:						
Blister and anodes	(10)	13,300	15,000	14,300	14,000	14,000
Refined ⁹	(10)	82,800	126,000	144,000 ^r	145,000	145,000
Price, U.S. producers cathode (cents per pound) ¹⁰	(11)	410.775	382.360	368.664	379.211	395.538
Imports for consumption: ¹¹						
Ore and concentrates	(13)	11,700			15	3,300
Refined	(13)	732,000	59,700	48,800	30,000	744,000
Exports: 11						
Ore and concentrates	(14)	353,000	23,000	28,500	21,900	316,000
Refined	(14)	27,600	3,650	3,910	4,870	30,900

^eEstimated. ^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.

⁴Consists of primary production in 2022 and primary and secondary production in 2023.

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.

 $\label{eq:table 2} \textbf{TABLE 2}$ MINE PRODUCTION OF COPPER IN THE UNITED STATES 1

	Red	coverable copp	per ²	Contained copper			
Period	Arizona	Others ³	Total	Electrowon	Concentrates ⁴	Total	
2022: ^p							
January-November	784,000	347,000	1,130,000	508,000	646,000	1,150,000	
November	66,800	32,400	99,300	44,500	56,800	101,000	
December	71,400	31,200	103,000	46,900	57,800	105,000	
January-December	855,000	378,000	1,230,000	555,000	704,000	1,260,000	
2023:	- '						
January	67,900	25,000	92,900	45,400	48,500	94,000	
February	62,400	23,200	85,600	37,700	49,200	86,800	
March	66,100	24,100	90,200	43,300	50,200	93,600	
April	68,000	23,000	91,000	43,300	49,600	92,900	
May	66,800	24,800	91,600	42,100	50,700	92,700	
June	69,300	23,600	92,800	45,800	49,900	95,700	
July	69,200	31,400	101,000	47,500	55,200	103,000	
August	67,400	29,500	96,900	44,300	54,700	99,000	
September	65,000	28,100	93,100	42,400	52,600	95,000	
October	64,500 ^r	28,700	93,200 ^r	42,900	53,000	95,900	
November	63,400	28,000	91,400	37,500	56,000	93,400	
January-November	730,000	289,000	1,020,000	472,000	570,000	1,040,000	

^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.

$\begin{tabular}{ll} TABLE 3 \\ COPPER PRODUCED AT SMELTERS IN \\ THE UNITED STATES 1,2 \\ \end{tabular}$

(Metric tons, copper content)

	Anode
Period	production ^{e, 3}
2022: ^p	
January-November	328,000
November	29,400
December	29,400
January-December	357,000
2023:	
January	40,000
February	40,000
March	40,000
April	30,000
May	30,000
June	30,000
July	25,000
August	25,000
September	25,000
October	25,000
November	25,000
January-November	335,000

^eEstimated. ^pPreliminary.

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.

 $\label{eq:table 4} \textbf{U.S. PRODUCTION OF REFINED COPPER}^1$

	From p	rimary materials			
			Total	From	Total
Period	Electrolytic ²	Electrowon	primary	scrap ³	refined
2022: ^p					
January-November	328,000	508,000	836,000	36,800	872,000
November	29,400	44,500	73,900	3,280	77,200
December	29,400	46,900	76,300	3,240	79,600
January-December	357,000	555,000	912,000	40,000	952,000
2023:					
January	35,000 ^e	45,400	80,400	3,220	83,600
February	35,000 ^e	37,700	72,700	3,230	75,900
March	35,000 e	43,300	78,300	3,220	81,600
April	25,000 e	43,300	68,300	3,220	71,500
May	25,000 e	42,100	67,100	3,260	70,300
June	25,000 e	45,800	70,800	3,230	74,000
July	20,000 e	47,500	67,500	3,270	70,800
August	20,000 e	44,300	64,300	3,220	67,500
September	20,000 e	42,400	62,400	3,300	65,700
October	20,000 e	42,900	62,900	3,250	66,200
November	20,000 e	37,500	57,500	3,220	60,700
January-November	280,000 e	472,000	752,000	35,600	788,000

^eEstimated. ^pPreliminary.

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

²Electrolytic production data in 2022 are sourced from quarterly company reports. To avoid disclosing company proprietary data, electrolytic production data in 2023 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 $^{\rm 1,2}$

	Refine	ries ³	Ingot ma	akers ^{e, 4}	Brass and wi	ire-rod mills	Foundrie	s, etc. ^{e, 4}	
Period	New scrap ^e	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total ⁵
2022: ^p									
January-November	18,400	18,400	3,850	32,300	556,000	39,300	8,140	28,500	705,000
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	54,300	4,360	740	2,590	68,500
February	1,680	1,550	350	2,940	53,000	3,360	740	2,590	66,200
March	1,680	1,540	350	2,940	53,400	3,620	740	2,590	66,900
April	1,680	1,540	350	2,940	52,500	3,300	740	2,590	65,700
May	1,680	1,580	350	2,940	51,900	2,960	740	2,590	64,700
June	1,680	1,550	350	2,940	49,900	2,950	740	2,590	62,700
July	1,680	1,590	350	2,940	52,600	3,260	740	2,590	65,700
August	1,680	1,540	350	2,940	53,500	3,280	740	2,590	66,600
September	1,680	1,620	350	2,940	51,800	2,960	740	2,590	64,600
October	1,680	1,570	350	2,940	51,700	3,220	740	2,590	64,800
November	1,680	1,540	350	2,940	42,300	2,700	740	2,590	54,800
January-November	18,400	17,200	3,850	32,300	567,000	36,000	8,140	28,500	711,000

^eEstimated. ^pPreliminary.

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 SEMIFABRICATES $^{\rm 1}$

	Pro	duction	Ship	oments	Stocks, e	Stocks, end of period	
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	
2022: ^p							
January-November	833,000	1,230,000	832,000	1,240,000	30,200	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:	3 (
January	76,400	95,600	75,400	95,600	31,700	18,500	
February	75,300	98,500	74,500	102,000	32,500	15,100	
March	77,000	108,000	75,000	105,000	34,500	17,600	
April	73,500	97,500	74,700	91,700	33,400	23,400	
May	72,900	100,000	74,000	101,000	32,300	22,700	
June	73,100	85,200	73,000	93,500	32,400	14,400	
July	73,700	101,000	73,200	97,000	32,800	18,700	
August	74,800	103,000	74,900	101,000	32,700	20,800	
September	74,100	103,000	73,900	101,000	32,900	23,600	
October	74,700	100,000	74,600	108,000	33,000	16,100 ^r	
November	63,600	93,500	64,200	94,600	29,700	14,900	
January-November	809,000	1,090,000	807,000	1,090,000	29,700	14,900	

Preliminary. ^rRevised.

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

TABLE 7 $\mbox{U.s. Consumption of Refined Copper}^1$

	Brass	Wire-rod	Other	
Period	mills	mills	plants ^{e, 2}	Total
2022: ^p			•	
January-November	385,000	1,160,000	39,400	1,590,000
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	91,100	3,590	129,000
February	36,200	91,200	3,590	131,000
March	34,100	104,000	3,590	142,000
April	35,800	92,400	3,590	132,000
May	35,900	96,600	3,590	136,000
June	35,200	86,400	3,590	125,000
July	35,500	94,400	3,590	133,000
August	35,200	99,800	3,590	139,000
September	35,000	96,000	3,590	135,000
October	35,300	90,300	3,590	129,000
November	29,700	84,700	3,590	118,000
January-November	383,000	1,030,000	39,400	1,450,000

^eEstimated. ^pPreliminary.

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 $\mbox{U.S. APPARENT CONSUMPTION OF COPPER}^1$

	Primary refined	Copper in	Refined imports	Refined	Refined stock change	Apparent
Period	copper production	old scrap ²	for consumption ³	exports ³	during period	consumption ⁴
2022: ^p	<u></u>					
January-November	836,000	137,000	693,000	25,500	-21,500	1,660,000
November	73,900	12,100	37,900	1,430	-10,800	133,000
December	76,300	11,400	38,800	2,100	-12,300	137,000
January-December	912,000	149,000	732,000	27,600	-33,800	1,800,000
2023:						
January	80,400	13,100	39,000	1,190	-5,510	137,000
February	72,700	12,100	48,700	2,000	-16,800	148,000
March	78,300	12,400	126,000	1,290	5,250	210,000
April	68,300	12,100	97,900	2,020	8,080	168,000
May	67,100	11,800	86,700	1,910	587	163,000
June	70,800	11,700	92,800	1,770	29,200	144,000
July	67,500	12,100	60,300	4,700	-2,990	138,000
August	64,300	12,000	54,300	3,580	4,450	123,000
September	62,400	11,800	59,700	3,650	20,700	110,000
October	62,900	12,000	48,800	3,910	18,000 ^r	102,000
November	57,500	11,500	30,000	4,870	810	93,300
January-November	752,000	133,000	744,000	30,900	61,800	1,540,000

^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.

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

	Smelt	ters			Brass	and			
	and refi	neries	Ingot ma	akers ^{e, 3}	wire-roc	l mills ⁴	Foundrie	s, etc. ^{e, 3}	
Period	New scrap ^e	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total
2022: ^p									
January-November	19,000	18,900	10,300	38,000	645,000	41,200	9,580	33,400	816,000
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	62,400	4,500	871	3,040	78,500
February	1,730	1,600	933	3,450	61,100	3,500	871	3,040	76,200
March	1,730	1,590	933	3,450	61,500	3,740	871	3,040	76,800
April	1,730	1,590	933	3,450	60,600	3,430	871	3,040	75,600
May	1,730	1,630	933	3,450	59,900	3,090	871	3,040	74,700
June	1,730	1,600	933	3,450	57,900	3,060	871	3,040	72,600
July	1,730	1,640	933	3,450	60,600	3,360	871	3,040	75,600
August	1,730	1,590	933	3,450	61,500	3,400	871	3,040	76,500
September	1,730	1,670	933	3,450	59,800	3,060	871	3,040	74,500
October	1,730	1,620	933	3,450	59,800	3,340	871	3,040	74,700
November	1,730	1,590	933	3,450	48,500	2,810	871	3,040	62,900
January-November	19,000	17,700	10,300	38,000	654,000	37,300	9,580	33,400	819,000

^eEstimated. ^pPreliminary.

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.

 $\label{eq:table 10} \text{COPPER STOCKS IN THE UNITED STATES AT END OF PERIOD}^1$

(Metric tons, copper content)

]	Refined copper			
	Blister and		Wire-rod					Total
Period	anodes	Refineries	mills	Brass mills	Other ^{e, 2}	COMEX ³	LME^4	refined
2022: ^p								
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	22,100	10,900	6,200	25,400	3,050	77,300
February	13,000	6,040	22,200	9,380	6,200	15,000	1,680	60,500
March	14,300	9,160	22,200	11,400	6,200	15,400	1,400	65,700
April	35,100	12,000	19,000	11,200	6,200	25,100	300	73,800
May	39,900	10,100	15,400	11,700	6,200	25,100	5,950	74,400
June	34,500	9,050	19,000	10,700	6,200	31,700	26,900	104,000
July	20,400	5,210	16,500	10,800	6,200	39,400	22,600	101,000
August	17,700	6,560	14,700	11,100	6,200	29,000	37,600	105,000
September	15,000	2,170	16,800	11,700	6,200	23,000	65,900	126,000
October	14,300	2,230	20,100 ^r	11,800 ^r	6,200	19,300	84,100	144,000
November	14,000	3,070	15,000	10,700	6,200	17,100	92,500	145,000

^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 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)

	COMEX		
	first	U.S. producers	LME
Period	position ¹	cathode ²	grade A cash ³
2022:			
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
July	383.570	393.570	383.041
August	376.330	386.330	378.804
September	372.360	382.360	375.129
October	359.964	368.664	360.118
November	371.836	379.211	370.743
January-November	385.804	395.538	385.139

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

Source: S&P Global Platts Metals Week.

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.

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

(Cents per pound)

-			De	ealers
				Red brass
	Brass mills	Refiners	No. 2	turnings and
Period	no. 1 scrap	no. 2 scrap	scrap	borings
2022:				
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
July	376.35	351.85	290.00	168.00
August	369.28	343.74	294.00	187.50
September	367.05	341.55	295.00	190.00
October	352.14	325.64	285.00	182.50
November	363.50	337.00	280.00	183.00
January-November	376.94	352.48	298.09	168.32

Source: Fastmarkets-AMM.

 ${\bf TABLE~13} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~UNMANUFACTURED~COPPER}^1$

(Metric tons, copper content)

	Ore and concentrates ²			Matte, ash, and precipitates ³			Bl	ister and anod	es ⁴	Refined ⁵		
		2023 January–			2023 January–			2023 January–			20	23
Country or												January-
locality	2022	November	November	2022	November	November	2022	November	November	2022	November	November
Austria										54		
Belgium				384		175				2		(6)
Canada	11,700		3,270	581	13	641	(6)	(6)	5	118,000	9,830	119,000
Chile										472,000	17,400	516,000
China							(6)		9	897	57	462
Congo (Kinshasa)										8,910		11,800
Finland							281		78	39		41
France							15			53		56
Germany	(6)			94			(6)		(6)	3,410	88	2,220
Hungary	9	15	34									
India	11					(6)			(6)	57		
Japan	(6)		(6)				(6)		(6)	1,370	83	1,830
Korea, Republic of							1		1	10	1	57
Mexico			2	25	2	24	(6)			75,500	530	12,800
Peru										50,100	2,060	78,600
Qatar				43								
Slovakia				14								
Spain				51		203	(6)					(6)
United Kingdom	(6)			(6)		(6)	5	1	3	138		
Zambia										1,230		2,040
Other	(6)	(6)	(6)	1	2	2	4	14	28	11	2	26
Total	11,700	15	3,300	1,190	17	1,050	306	15	125	732,000	30,000	744,000

⁻⁻ 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.

TABLE 14
U.S. EXPORTS OF UNMANUFACTURED COPPER¹

(Metric tons, copper content)

	Ore	Ore and concentrates ²			Matte, ash, and precipitates ³			ister and anod	es ⁴	Refined ⁵		
	2023			2023			2023				2023	
Country or			January-			January-			January-			January-
locality	2022	November	November	2022	November	November	2022	November	November	2022	November	November
Belgium	70		97	5,950	245	4,790	211	7	620		24	140
Bulgaria	1,540											
Canada	39,800	4,400	38,600	13,500	149	3,020	6,740	18	23,400	14,200	2,410	7,250
China	56,900	2,090	50,300	378		416	60	342	935	2,150	79	597
Costa Rica			5	345		4		14	25	(6)		3
Germany	1,590			235	13	274	244	2	170	1		3,580
India			9	16		38	1,560		274	34		37
Israel							115		30	98		33
Italy						2	155		128	10	1	3
Japan	11,000		4,260	361		87	20	22	53	23	(6)	4
Korea, Republic of	59		11	189		9	1,570	20	1,160	133	2	71
Madagascar	1,220											
Malaysia	186	39	85	147		2,780	168		603	51	255	1,640
Mexico	232,000	15,300	212,000	30	59	1,560	260	1	129	7,680	2,100	14,400
Netherlands				40		29	4			1,070		2,010
Philippines	7,770			(6)	131	849	67		47	35		
Poland				270	75	961						
Singapore			5	414		181	40		2	22		80
Slovakia				1,210	34	387						
Spain	26			1,510	114	2,390	42		158	376		178
Taiwan			6,000	86	16	18	137		45	25		14
Thailand				158		13	94	121	141			1
Turkey				233		159	20		40	20		
United Kingdom				4		4	40	4	12	1,630		7
Other	718	40	4,940	194	5	264	378	22	313	57	1	817
Total	353,000	21,900	316,000	25,200	841	18,200	11,900	573	28,300	27,600	4,870	30,900

⁻⁻ 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.

 $\label{eq:table 15} \text{U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP}^{1}$

		Unalloyed ²	Alloyed ³				
		20	23		2023		
Country or			January-			January-	
locality	2022	November	November	2022	November	November	
Antigua and Barbuda				188	11	126	
Bahamas, The				612	37	524	
Barbados				326	18	143	
Bermuda	12		27	90		94	
Bolivia	46			106		99	
Brazil	14		113	69	2	230	
Canada	17,600	1,520	14,200	41,800	1,920	29,900	
Cayman Islands				243	11	193	
Colombia	196		131	106		102	
Costa Rica	712	122	753	1,350	60	933	
Dominican Republic	1,350	28	964	2,090	113	1,230	
Ecuador	24			57	6	120	
El Salvador				1,090	21	783	
Germany	260	50	465	50	(4)	85	
Grenada				72	12	141	
Guatemala				309	6	238	
Haiti				104		192	
Honduras	24	3	49	787	102	1,030	
Jamaica	7			461	18	358	
Mexico	12,200	1,100	11,800	42,900	3,910	41,700	
Nicaragua				194		35	
Panama	1,190	186	808	405	85	567	
Peru				225		96	
Saudi Arabia				134			
Sint Maarten	1			54	11	221	
Saint Lucia	25			269	8	156	
Saint Vincent and the Grenadines				91	11	124	
Suriname	360	42	242	69		83	
Uruguay	73		45	20		15	
Vietnam	62			50			
Other			100	401	46	565	
Total	34,200	3,050	29,600	94,700	6,400	80,000	

⁻⁻ 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) codes 7404.00.3020 and 7404.00.6020.

 $^{^{3}}$ HTS 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.

⁴Less than ½ unit.

TABLE 16
U.S. EXPORTS OF COPPER SCRAP¹

				Unalloyed ²						Alloyed ³		
				2023					2023			
		No. 1		No. 2		Other			Segregated		Unsegregated	
Country or			January–		January-		January-			January-		January–
locality	2022	November	November	November	November	November	November	2022	November	November	November	November
Austria	1,300	21	237	116	693			1,210	74	1,200		629
Belgium	33,200	1,100	10,800	507	8,880	339	4,620	8,860	140	893	459	5,900
Canada	60,900					5,880	65,100	46,200			1,980	24,600
China	260,000	8,450	75,800	4,200	44,100	17,100	139,000	31,900	2,350	19,000	1,290	15,000
Germany	15,400	868	10,900	299	1,190	342	5,640	15,300		582	595	10,500
Greece	8,830	136	4,150	20	40		1,240	2,170	14	74		1,490
Hong Kong	16,800	106	963	1,090	8,650	1,120	6,380	3,760	135	636	144	2,690
India	19,900	1,060	8,240	109	1,600	742	8,270	65,700	1,490	16,300	3,290	33,700
Japan	25,400	510	3,990	496	9,640	329	3,570	6,980	56	765	434	5,330
Korea, Republic of	42,200	687	9,900	660	4,730	698	9,110	11,400	208	3,030	807	9,660
Malaysia	24,700	934	12,600	376	3,710	1,510	10,800	41,700	779	6,000	3,530	31,600
Mexico	3,120	247	2,300	(4)	4	11	242	8,380	28	292	63	1,540
Netherlands	7,600	73	1,060	57	214	67	802	1,540		81	62	951
Pakistan	1,020	99	371		70	22	63	26,300	42	122	1,490	15,500
Philippines	1,660		526				495	757	9	88		646
Poland	15,700	256	3,210		20	264	9,750	1,030		20		427
Singapore	1,210		1,710		41			264			105	383
Slovakia	1,550	18	747					2,500	92	735		330
Spain	3,860		538	19	98	65	952	7,380		1,020	346	3,230
Sweden	581		30					1,940				278
Taiwan	13,100	540	2,240	20	1,420	711	4,170	4,440		277	320	3,590
Thailand	23,900	424	6,780		331	2,220	20,400	39,600	396	3,370	2,430	29,000
Turkey	1,020	8	572					2,320		24	60	956
United Arab Emirates	766		295				19	5,790		45	167	7,540
Vietnam	139		1,020		226	58	1,170	929	19	88		241
Other	2,180	22	777	19	427		462	2,400	20	390	75	1,410
Total	586,000	15,600	160,000	7,980	86,100	31,500	292,000	341,000	5,860	54,900	17,600	207,000

⁻⁻ 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).

 $^{^{3}}$ Schedule 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.