

# Mineral Industry Surveys

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## COPPER IN OCTOBER 2023

In October 2023, mine production of recoverable copper in the United States was 94,000 metric tons (t). The average daily mine output was 3,030 t, a slight decrease from that in September and 6% less than that in October 2022 (fig. 1). Year-to-date mine production through October 2023 was 929,000 t, 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.

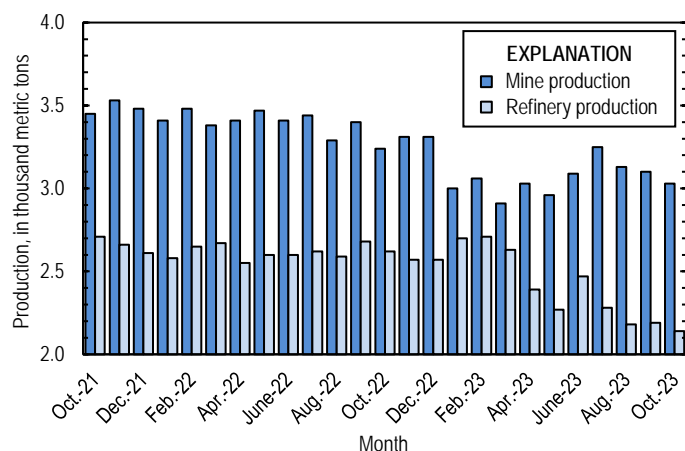


Figure 1. Average daily copper mine (recoverable) and refinery (primary and secondary) production in the United States from October 2021 through October 2023.

To avoid disclosing company proprietary data, smelter and electrolytic refinery production in October 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 October 2023. Year-to-date estimated smelter output was 310,000 t, an increase of 4% 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 October 2023 was 66,200 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 2,130 t, 3% lower than that in September and a decrease of 18% compared with that in October 2022 (fig. 1). Year-to-date refinery output through October 2023 was 727,000 t, a decline of 9% 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 October 2023, the average Commodity Exchange Inc. (COMEX) copper price was \$3.60 per pound, 3% less than \$3.72 per pound in September and an increase of 4% from \$3.47 per pound in October 2022 (fig. 2, table 11). The average U.S. dealers buying price of number 2 copper scrap was \$2.85 per pound in October 2023, a decrease of 3% from \$2.95 per pound in September and 15% higher than \$2.48 per pound in October 2022 (fig. 2, table 12).

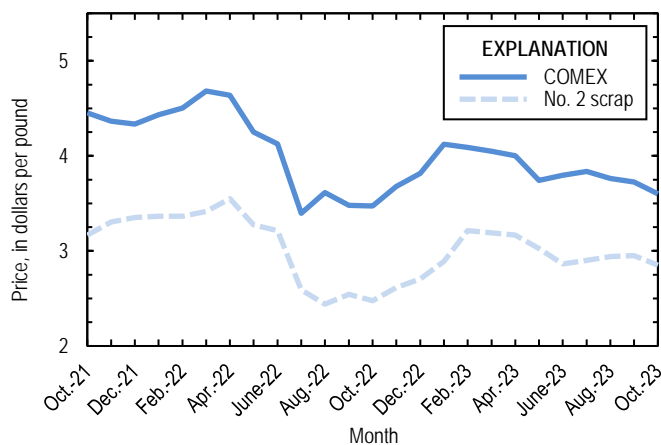


Figure 2. Monthly average Commodity Exchange Inc. (COMEX) copper price and no. 2 copper scrap U.S. dealers buying price from October 2021 through October 2023. Sources: Fastmarkets-AMM and S&P Global Platts Metals Week.

## Stocks

Refined copper stocks in the United States totaled 143,000 t at the end of October 2023, an increase of 14% compared with those in September and 35% greater than those in October 2022. Total stocks at producers and fabricators (brass mills, refineries, wire-rod mills, and other manufacturers) and total stocks at exchanges (COMEX and London Metal Exchange Ltd.) increased by 2,870 t (8%) and 14,500 t (16%), respectively, from those at the end of September (fig. 3, table 10).

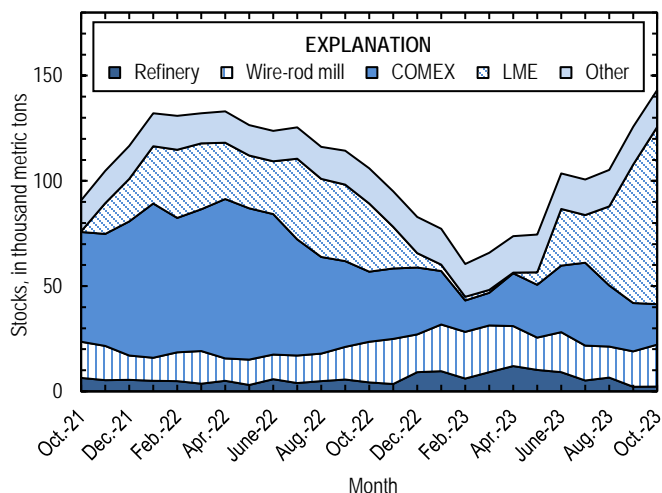


Figure 3. Domestic refined copper stocks at end of month, by type, from October 2021 through October 2023. Sources: London Metal Exchange Ltd., S&P Global Platts Metals Week, and U.S. Geological Survey.

## References Cited

- 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=7fbf74899c2043d6ba526ffd63b9fb777>.)
- 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=0124283449a1418ca020e1bf8456634d>.)
- 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/>.)

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

(Metric tons, copper content, unless otherwise specified)

	Source table <sup>2</sup>	2022 <sup>p</sup>	2023			
			August	September	October	January– October
Production:						
Primary (from ore):						
Mine, recoverable <sup>3</sup>	(2)	1,230,000	96,900	93,100	94,000	929,000
Smelter <sup>e,4</sup>	(3)	357,000	25,000	25,000	25,000	310,000
Refinery:						
Electrolytic	(4)	357,000	20,000 <sup>e</sup>	20,000 <sup>e</sup>	20,000 <sup>e</sup>	260,000 <sup>e</sup>
Electrowon	(4)	555,000	44,300	42,400	42,900	435,000
Total	(4)	912,000	64,300	62,400	62,900	695,000
Secondary (from copper-base scrap): <sup>5</sup>						
Refineries <sup>6</sup>	(5)	40,000	3,220	3,300	3,250	32,400
Ingot makers <sup>e,7</sup>	(5)	39,500	3,290	3,290	3,290	32,900
Brass and wire-rod mills	(5)	650,000	56,700	54,700	54,900	558,000
Foundries, etc. <sup>e,7</sup>	(5)	40,000	3,330	3,330	3,330	33,300
Consumption:						
Reported, refined copper	(7)	1,720,000	139,000	135,000	129,000	1,330,000
Apparent, primary refined copper and copper from old scrap <sup>8</sup>	(8)	1,800,000	123,000	110,000	102,000	1,440,000
Reported, purchased copper-base scrap (gross weight)	(9)	890,000	76,500	74,500	74,700	756,000
Stocks at end of period:						
Blister and anodes	(10)	13,300	17,700	15,000	14,300	14,300
Refined <sup>9</sup>	(10)	82,800	105,000	126,000	143,000	143,000
Price, U.S. producers cathode (cents per pound) <sup>10</sup>	(11)	410.775	386.330	382.360	368.664	397.170
Imports for consumption: <sup>11</sup>						
Ore and concentrates	(13)	11,700	(12)	--	--	3,290
Refined	(13)	732,000	54,300	59,700	48,800	714,000
Exports: <sup>11</sup>						
Ore and concentrates	(14)	353,000	21,600	23,000	28,500	294,000
Refined	(14)	27,600	3,580	3,650	3,910	26,000

<sup>e</sup>Estimated. <sup>p</sup>Preliminary. -- Zero.

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

<sup>2</sup>Numbers in parentheses refer to the tables where these data are located.

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

<sup>4</sup>Consists of primary production in 2022 and primary and secondary production in 2023.

<sup>5</sup>Copper 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.

<sup>6</sup>Electrolytically refined and fire-refined copper.

<sup>7</sup>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.

<sup>8</sup>Primary 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.

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

<sup>10</sup>Source: 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.

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

<sup>12</sup>Less than ½ unit.

TABLE 2  
MINE PRODUCTION OF COPPER IN THE UNITED STATES<sup>1</sup>

(Metric tons)

Period	Recoverable copper <sup>2</sup>			Contained copper		
	Arizona	Others <sup>3</sup>	Total	Electrowon	Concentrates <sup>4</sup>	Total
2022: <sup>P</sup>						
January–October	717,000	314,000	1,030,000	463,000	589,000	1,050,000
October	69,200	31,200	100,000	48,500	53,800	102,000
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	65,300	28,700	94,000	42,900	53,000	95,900
January–October	667,000	261,000	929,000	435,000	514,000	948,000

<sup>P</sup>Preliminary.

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

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

<sup>3</sup>Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

<sup>4</sup>Also includes copper recovered as precipitates.

TABLE 3  
COPPER PRODUCED AT SMELTERS IN  
THE UNITED STATES<sup>1, 2</sup>

(Metric tons, copper content)

Period	Anode production <sup>e, 3</sup>
2022: <sup>p</sup>	
January–October	298,000
October	29,400
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
January–October	310,000

<sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>2</sup>Data reflect primary production in 2022 and primary and secondary production in 2023.

<sup>3</sup>To 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 COPPER<sup>1</sup>

(Metric tons)

Period	From primary materials			From scrap <sup>3</sup>	Total refined
	Electrolytic <sup>2</sup>	Electrowon	Total primary		
2022: <sup>p</sup>					
January–October	298,000	463,000	762,000	33,500	795,000
October	29,400	48,500	77,900	3,220	81,100
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 <sup>e</sup>	45,400	80,400	3,220	83,600
February	35,000 <sup>e</sup>	37,700	72,700	3,230	75,900
March	35,000 <sup>e</sup>	43,300	78,300	3,220	81,600
April	25,000 <sup>e</sup>	43,300	68,300	3,220	71,500
May	25,000 <sup>e</sup>	42,100	67,100	3,260	70,300
June	25,000 <sup>e</sup>	45,800	70,800	3,230	74,000
July	20,000 <sup>e</sup>	47,500	67,500	3,270	70,800
August	20,000 <sup>e</sup>	44,300	64,300	3,220	67,500
September	20,000 <sup>e</sup>	42,400	62,400	3,300	65,700
October	20,000 <sup>e</sup>	42,900	62,900	3,250	66,200
January–October	260,000 <sup>e</sup>	435,000	695,000	32,400	727,000

<sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>2</sup>Electrolytic 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.

<sup>3</sup>Electrolytically 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<sup>1, 2</sup>

(Metric tons)

Period	Refineries <sup>3</sup>		Ingot makers <sup>e, 4</sup>		Brass and wire-rod mills		Foundries, etc. <sup>e, 4</sup>		Total <sup>5</sup>
	New scrap <sup>e</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2022: <sup>p</sup>									
January–October	16,800	16,800	3,500	29,400	504,000	36,000	7,400	25,900	640,000
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	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
January–October	16,800	15,600	3,500	29,400	525,000	33,300	7,400	25,900	656,000

<sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

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

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

<sup>4</sup>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.

<sup>5</sup>Does 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<sup>1</sup>

(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: <sup>p</sup>						
January–October	758,000	1,140,000	757,000	1,140,000	30,000	16,600
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	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	15,300
January–October	746,000	992,000	743,000	995,000	33,000	15,300

<sup>p</sup>Preliminary.

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



TABLE 7  
U.S. CONSUMPTION OF REFINED COPPER<sup>1</sup>

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants <sup>6, 2</sup>	Total
2022: <sup>p</sup>				
January–October	350,000	1,080,000	35,900	1,470,000
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	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 <sup>r</sup>	3,590	135,000
October	35,300	90,300	3,590	129,000
January–October	353,000	943,000	35,900	1,330,000

<sup>6</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>Chemical 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 COPPER<sup>1</sup>

(Metric tons)

Period	Primary refined copper production	Copper in old scrap <sup>2</sup>	Refined imports for consumption <sup>3</sup>	Refined exports <sup>3</sup>	Refined stock change during period	Apparent consumption <sup>4</sup>
2022: <sup>p</sup>						
January–October	762,000	125,000	655,000	24,100	-10,600	1,530,000
October	77,900	12,000	49,700	1,190	-8,330	147,000
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	17,400	102,000
January–October	695,000	121,000	714,000	26,000	60,300	1,440,000

<sup>p</sup>Preliminary.

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

<sup>2</sup>Copper 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.

<sup>3</sup>Source: 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.

<sup>4</sup>Primary 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<sup>1, 2</sup>

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers <sup>e, 3</sup>		Brass and wire-rod mills <sup>4</sup>		Foundries, etc. <sup>e, 3</sup>		Total
	New scrap <sup>e</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2022: <sup>p</sup>									
January–October	17,300	17,300	9,330	34,500	585,000	37,800	8,710	30,400	741,000
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	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
January–October	17,300	16,100	9,330	34,500	605,000	34,500	8,710	30,400	756,000

<sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

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

<sup>3</sup>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.

<sup>4</sup>Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10  
COPPER STOCKS IN THE UNITED STATES AT END OF PERIOD<sup>1</sup>

(Metric tons, copper content)

Period	Blister and anodes	Refined copper						Total refined
		Refineries	Wire-rod mills	Brass mills	Other <sup>e, 2</sup>	COMEX <sup>3</sup>	LME <sup>4</sup>	
2022: <sup>p</sup>								
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	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	19,900	11,400	6,200	19,300	84,100	143,000

<sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>2</sup>Chemical 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.

<sup>3</sup>Commodity Exchange Inc.

<sup>4</sup>London 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	U.S. producers	LME
	first position <sup>1</sup>	cathode <sup>2</sup>	grade A cash <sup>3</sup>
2022:			
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
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
January–October	387.200	397.170	386.579

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

<sup>2</sup>Sum 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.

<sup>3</sup>LME 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:				
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
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
January–October	378.29	354.03	299.90	166.85

Source: Fastmarkets-AMM.

TABLE 13  
U.S. IMPORTS FOR CONSUMPTION OF UNMANUFACTURED COPPER<sup>1</sup>

(Metric tons, copper content)

Country or locality	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Blister and anodes <sup>4</sup>			Refined <sup>5</sup>		
	2023			2023			2023			2023		
	2022	October	January– October	2022	October	January– October	2022	October	January– October	2022	October	January– October
Austria	--	--	--	--	--	--	--	--	--	54	--	--
Belgium	--	--	--	384	--	175	--	--	--	2	(6)	(6)
Canada	11,700	--	3,270	581	157	628	(6)	--	5	118,000	12,800	109,000
Chile	--	--	--	--	--	--	--	--	--	472,000	25,900	498,000
China	--	--	--	--	--	--	(6)	--	9	897	29	405
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	8,910	--	11,800
Finland	--	--	--	--	--	--	281	--	78	39	--	41
France	--	--	--	--	--	--	15	--	--	53	4	56
Germany	(6)	--	--	94	--	--	(6)	(6)	(6)	3,410	154	2,130
Hungary	9	--	19	--	--	--	--	--	--	--	--	--
India	11	--	--	--	--	(6)	--	--	(6)	57	--	--
Japan	(6)	--	(6)	--	--	--	(6)	--	(6)	1,370	85	1,740
Korea, Republic of	--	--	--	--	--	--	1	--	1	10	--	57
Mexico	--	--	2	25	2	22	(6)	--	--	75,500	718	12,300
Peru	--	--	--	--	--	--	--	--	--	50,100	9,020	76,600
Qatar	--	--	--	43	--	--	--	--	--	--	--	--
Slovakia	--	--	--	14	--	--	--	--	--	--	--	--
Spain	--	--	--	51	--	203	(6)	--	--	--	(6)	(6)
United Kingdom	(6)	--	--	(6)	--	(6)	5	(6)	2	138	--	--
Zambia	--	--	--	--	--	--	--	--	--	1,230	--	2,040
Other	(6)	--	--	1	--	--	4	--	14	11	(6)	23
Total	11,700	--	3,290	1,190	159	1,030	306	(6)	110	732,000	48,800	714,000

-- Zero.

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

<sup>2</sup>Harmonized 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.

<sup>3</sup>HTS 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.

<sup>4</sup>HTS code 7402.00.0000.

<sup>5</sup>HTS codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

<sup>6</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14  
U.S. EXPORTS OF UNMANUFACTURED COPPER<sup>1</sup>

(Metric tons, copper content)

Country or locality	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Blister and anodes <sup>4</sup>			Refined <sup>5</sup>		
	2023			2023			2023			2023		
	2022	October	January– October	2022	October	January– October	2022	October	January– October	2022	October	January– October
Belgium	70	--	97	5,950	292	4,540	211	11	613	--	50	116
Bulgaria	1,540	--	--	--	--	--	--	--	--	--	--	--
Canada	39,800	2,680	34,200	13,500	162	2,870	6,740	107	23,400	14,200	1,010	4,840
China	56,900	7,300	48,200	378	--	416	60	520	593	2,150	298	519
Costa Rica	--	--	5	345	--	4	--	--	11	(6)	--	3
Germany	1,590	--	--	235	3	261	244	100	168	1	28	3,580
India	--	--	9	16	--	38	1,560	87	274	34	--	37
Israel	--	--	--	--	--	--	115	--	30	98	17	33
Italy	--	--	--	--	--	2	155	21	128	10	(6)	2
Japan	11,000	--	4,260	361	--	87	20	--	31	23	(6)	4
Korea, Republic of	59	--	11	189	--	9	1,570	138	1,140	133	3	69
Madagascar	1,220	--	--	--	--	--	--	--	--	--	--	--
Malaysia	186	6	46	147	--	2,780	168	30	603	51	340	1,380
Mexico	232,000	18,500	196,000	30	313	1,500	260	13	129	7,680	2,160	12,300
Netherlands	--	--	--	40	--	29	4	--	--	1,070	(6)	2,010
Philippines	7,770	--	--	(6)	265	719	67	20	47	35	--	--
Poland	--	--	--	270	38	886	--	--	--	--	--	--
Singapore	--	--	5	414	--	181	40	--	2	22	--	80
Slovakia	--	--	--	1,210	3	353	--	--	--	--	--	--
Spain	26	--	--	1,510	153	2,270	42	158	158	376	--	178
Taiwan	--	--	6,000	86	--	1	137	--	45	25	--	14
Thailand	--	--	--	158	--	13	94	--	20	--	--	1
Turkey	--	--	--	233	--	159	20	20	40	20	--	--
United Kingdom	--	--	--	4	--	4	40	2	8	1,630	1	7
Other	718	24	4,900	194	77	259	378	5	291	57	(6)	815
Total	353,000	28,500	294,000	25,200	1,310	17,400	11,900	1,230	27,700	27,600	3,910	26,000

-- Zero.

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

<sup>2</sup>Schedule 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.

<sup>3</sup>Schedule 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.

<sup>4</sup>Schedule B code 7402.00.0000.

<sup>5</sup>Schedule B codes 7403.11.0000, 7403.12.0000, 7403.13.0000, and 7403.19.0000.

<sup>6</sup>Less than ½ unit.

Source: U.S. Census Bureau.



TABLE 15  
U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP<sup>1</sup>

(Metric tons, gross weight)

Country or locality	Unalloyed <sup>2</sup>			Alloyed <sup>3</sup>		
	2023			2023		
	2022	October	January– October	2022	October	January– October
Antigua and Barbuda	--	--	--	188	13	115
Bahamas, The	--	--	--	612	46	486
Barbados	--	--	--	326	3	124
Bermuda	12	--	27	90	9	94
Bolivia	46	--	--	106	21	99
Brazil	14	--	113	69	--	228
Canada	17,600	1,450	12,600	41,800	2,990	27,900
Cayman Islands	--	--	--	243	19	182
Colombia	196	19	131	106	--	102
Costa Rica	712	56	631	1,350	113	873
Dominican Republic	1,350	50	936	2,090	106	1,120
Ecuador	24	--	--	57	3	114
El Salvador	--	--	--	1,090	92	763
Germany	260	46	415	50	18	85
Grenada	--	--	--	72	12	129
Guatemala	--	--	--	309	34	232
Haiti	--	--	--	104	5	192
Honduras	24	--	46	787	65	924
Jamaica	7	--	--	461	38	340
Mexico	12,200	1,130	10,700	42,900	3,590	37,800
Nicaragua	--	--	--	194	--	35
Panama	1,190	34	621	405	55	482
Peru	--	--	--	225	--	96
Saudi Arabia	--	--	--	134	--	--
Sint Maarten	1	--	--	54	16	211
Saint Lucia	25	--	--	269	--	148
Saint Vincent and the Grenadines	--	--	--	91	11	113
Suriname	360	1	200	69	18	83
Uruguay	73	--	45	20	--	15
Vietnam	62	--	--	50	--	--
Other	75	5	100	401	79	520
Total	34,200	2,790	26,600	94,700	7,360	73,600

-- Zero.

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

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

<sup>3</sup>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.

Source: U.S. Census Bureau.

TABLE 16  
U.S. EXPORTS OF COPPER SCRAP<sup>1</sup>

(Metric tons, gross weight)

Country or locality	Unalloyed <sup>2</sup>							Alloyed <sup>3</sup>				
	2023							2023				
	2022	No. 1		No. 2		Other		2022	Segregated		Unsegregated	
		October	January– October	October	January– October	October	January– October		October	January– October	October	January– October
Austria	1,300	37	217	233	578	--	--	1,210	117	1,130	168	629
Belgium	33,200	1,000	9,690	569	8,370	468	4,280	8,860	18	752	812	5,440
Canada	60,900	--	--	--	--	6,250	59,200	46,200	--	--	1,620	22,700
China	260,000	7,930	67,400	4,050	39,900	17,100	121,000	31,900	1,800	16,600	1,360	13,800
Germany	15,400	825	10,000	157	893	655	5,290	15,300	174	582	1,350	9,860
Greece	8,830	495	4,010	20	20	91	1,240	2,170	--	59	119	1,490
Hong Kong	16,800	147	857	1,140	7,560	855	5,260	3,760	19	501	111	2,540
India	19,900	477	7,180	406	1,500	857	7,530	65,700	1,740	14,800	3,630	30,400
Japan	25,400	193	3,480	525	9,140	480	3,240	6,980	18	709	429	4,890
Korea, Republic of	42,200	804	9,220	251	4,070	988	8,410	11,400	152	2,820	1,170	8,860
Malaysia	24,700	995	11,700	350	3,330	672	9,310	41,700	349	5,220	3,130	28,000
Mexico	3,120	189	2,050	(4)	4	44	231	8,380	36	264	64	1,480
Netherlands	7,600	39	985	19	158	18	734	1,540	12	81	265	889
Pakistan	1,020	55	273	--	70	--	41	26,300	--	80	1,530	14,100
Philippines	1,660	--	526	--	--	--	495	757	5	79	--	646
Poland	15,700	377	2,960	--	20	490	9,490	1,030	--	20	59	427
Singapore	1,210	--	1,710	--	41	--	--	264	--	--	37	279
Slovakia	1,550	51	728	--	--	--	--	2,500	--	642	--	330
Spain	3,860	147	538	--	79	39	887	7,380	99	1,020	119	2,880
Sweden	581	--	30	--	--	--	--	1,940	--	--	--	278
Taiwan	13,100	309	1,700	57	1,400	439	3,450	4,440	40	277	77	3,270
Thailand	23,900	636	6,360	53	331	1,980	18,200	39,600	270	2,970	2,990	26,600
Turkey	1,020	9	564	--	--	--	--	2,320	--	24	279	896
United Arab Emirates	766	--	295	--	--	19	19	5,790	20	45	966	7,370
Vietnam	139	--	1,020	--	226	--	1,110	929	--	69	--	241
Other	2,180	96	755	77	408	--	462	2,400	22	370	39	1,340
Total	586,000	14,800	144,000	7,900	78,100	31,400	260,000	341,000	4,880	49,100	20,300	189,000

-- Zero.

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

<sup>2</sup>Schedule 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).

<sup>3</sup>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.

<sup>4</sup>Less than ½ unit.

Source: U.S. Census Bureau.