

# Mineral Industry Surveys

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#### **COPPER IN APRIL 2023**

In April 2023, mine output of recoverable copper in the United States was 98,700 metric tons (t). The average daily mine production was 3,290 t, an increase of 4% from that in March and 4% lower than that in April 2022 (fig. 1). Year-to-date mine production was 390,000 t, a decrease of 5% compared with that in the same time period in 2022 (table 2).

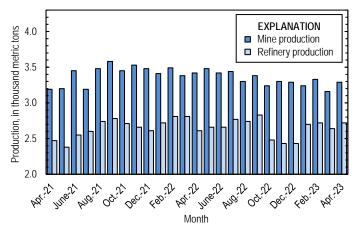


Figure 1. Average daily copper mine (recoverable) and refinery (primary and secondary) production in the United States from April 2021 through April 2023.

Smelter and electrolytic refinery production reported to the U.S. Geological Survey in April 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.

Estimated domestic smelter production was 40,000 t in April 2023. Year-to-date estimated smelter output was 160,000 t, an increase of 19% 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 monthly production capacity of roughly 4,200 t of anodes began operating in late 2022 (Toto, 2023).

Total U.S. refinery production in April 2023 was 81,600 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 2,720 t, 3% greater than that in March

and 4% higher than that in April 2022 (fig. 1). Year-to-date refinery output through April 2023 was 323,000 t, essentially unchanged relative to the same time period in 2022.

#### **Prices**

In April 2023, the average Commodity Exchange Inc. (COMEX) copper price was \$4.00 per pound, essentially unchanged compared with \$4.05 per pound in March and 14% less than \$4.64 per pound in April 2022 (fig. 2, table 11). The average U.S. dealers buying price of number 2 copper scrap was \$3.17 per pound in April 2023, essentially unchanged from \$3.19 per pound in March and a decrease of 11% from \$3.55 per pound in April 2022 (fig. 2, table 12).

#### Stocks

Refined copper stocks in the United States totaled 76,800 t at the end of April 2023, 10% greater than those in March and a decrease of 42% compared with those in April 2022. Total domestic stocks at producers and fabricators (brass mills, refineries, wire-rod mills, and other manufacturers) declined by 1,820 t (3%) and total stocks at exchanges (COMEX and London Metal Exchange Ltd.) increased by 8,610 t (51%) from those at the end of March (fig. 3, table 10).

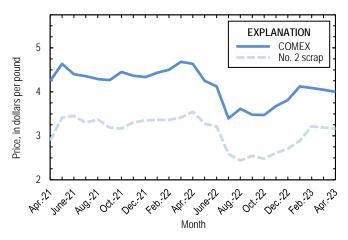


Figure 2. Monthly average Commodity Exchange Inc. (COMEX) copper price and no. 2 copper scrap U.S. dealers buying price from April 2021 through April 2023. Sources: Fastmarkets-AMM and S&P Global Platts Metals Week.

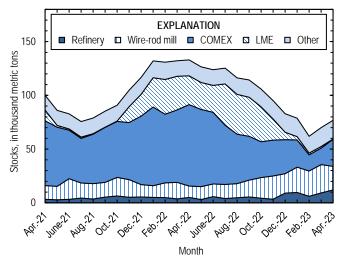


Figure 3. Domestic refined copper stocks at end of month, by type, from April 2021 through April 2023. Sources: London Metal Exchange Ltd., S&P Global Platts Metals Week, and U.S. Geological Survey.

#### **Reference Cited**

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 $^{1}$

(Metric tons, copper content, unless otherwise specified)

				2023	3	
	Source	P				January-
	table <sup>2</sup>	2022 <sup>p</sup>	February	March	April	April
Production:						
Primary (from ore):						
Mine, recoverable <sup>3</sup>	(2)	1,230,000	93,100	97,900 <sup>r</sup>	98,700	390,000
Smelter <sup>e, 4</sup>	(3)	375,000	40,000	40,000	40,000	160,000
Refinery:						
Electrolytic <sup>e</sup>	(4)	375,000	35,000 <sup>r</sup>	35,000 <sup>r</sup>	35,000	140,000
Electrowon	(4)	556,000	37,800	43,500 <sup>r</sup>	43,400	170,000
Total	(4)	931,000	72,800 <sup>r</sup>	78,500 <sup>r</sup>	78,400	310,000
Secondary (from copper-base scrap): <sup>5</sup>						
Refineries <sup>6</sup>	(5)	40,000	3,230	3,220	3,220	12,900
Ingot makers <sup>e, 7</sup>	(5)	39,500	3,290	3,290	3,290	13,200
Brass and wire-rod mills	(5)	650,000	55,700	56,300	55,300	225,000
Foundries, etc. <sup>e, 7</sup>	(5)	40,000	3,330	3,330	3,330	13,300
Consumption:						
Reported, refined copper	(7)	1,720,000	131,000	139,000	133,000	531,000
Apparent, primary refined copper and copper from old scrap <sup>8</sup>	(8)	1,820,000	149,000 <sup>r</sup>	207,000 r	180,000	671,000
Reported, purchased copper-base scrap (gross weight)	(9)	890,000	75,500	76,100	75,100	304,000
Stocks at end of period:	<del></del>					
Blister and anodes	(10)	13,300	13,000	14,300	35,100	35,100
Refined <sup>9</sup>	(10)	82,800	61,900	70,000	76,800	76,800
Price, U.S. producers cathode (cents per pound) <sup>10</sup>	(11)	410.775	418.824	414.915	410.037	416.752
Imports for consumption: <sup>11</sup>						
Ore and concentrates	(13)	11,700	1,740	1,500		3,240
Refined	(13)	732,000 <sup>r</sup>	48,700	126,000	97,900	311,000
Exports: <sup>11</sup>		ŕ	•	*	,	
Ore and concentrates	(14)	353,000 <sup>r</sup>	32,600	37,600	33,300	135,000
Refined	(14)	27,600 <sup>r</sup>	2,000	1,290	2,020	6,490
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<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised. -- Zero,

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

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

<sup>&</sup>lt;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>&</sup>lt;sup>4</sup>Contains small quantities of copper from scrap.

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

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

<sup>&</sup>lt;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>&</sup>lt;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.

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

	Red	coverable copp	per <sup>2</sup>		Contained copper	
Period	Arizona	Others <sup>3</sup>	Total	Electrowon	Concentrates <sup>4</sup>	Total
2022: <sup>p</sup>						
January-April	283,000	128,000	411,000	179,000	241,000	420,000
April	72,200	30,400	103,000	44,900	59,900	105,000
May	77,900	29,800	108,000	49,100	60,900	110,000
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	69,400	31,000	100,000	45,600	56,800	102,000
February	63,900	29,200	93,100	37,800	57,400	95,300
March	67,600 <sup>r</sup>	30,300	97,900 <sup>r</sup>	43,500 <sup>r</sup>	56,500	100,000 <sup>r</sup>
April	67,700	30,900	98,700	43,400	57,500	101,000
January–April	269,000	121,000	390,000	170,000	228,000	399,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

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

<sup>&</sup>lt;sup>4</sup>Also 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 <sup>e, 3</sup>
2022: <sup>p</sup>	
January–April	135,000
April	30,000
May	30,000
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	40,000
January-April	160,000

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

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

<sup>&</sup>lt;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.

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

	From p	rimary materials			
Period	Electrolytic <sup>e, 2</sup>	Electrowon	Total primary	From scrap <sup>3</sup>	Total refined
2022: <sup>p</sup>					
January-April	135,000	179,000	314,000	14,000	328,000
April	30,000	44,900	74,900	3,250	78,200
May	30,000	49,100	79,100	3,220	82,300
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 <sup>r</sup>	45,600	80,600 <sup>r</sup>	3,220	83,800 <sup>r</sup>
February	35,000 <sup>r</sup>	37,800	72,800 <sup>r</sup>	3,230	76,100 <sup>r</sup>
March	35,000 <sup>r</sup>	43,500 r	78,500 <sup>r</sup>	3,220	81,700 <sup>r</sup>
April	35,000	43,400	78,400	3,220	81,600
January–April	140,000	170,000	310,000	12,900	323,000

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>&</sup>lt;sup>2</sup>To 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.

<sup>&</sup>lt;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 $^{1,\,2}$

	Refine	ries <sup>3</sup>	Ingot ma	akers <sup>e, 4</sup>	Brass and wi	re-rod mills	Foundrie	s, etc. <sup>e, 4</sup>	
Period	New scrap <sup>e</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total <sup>5</sup>
2022: <sup>p</sup>									
January-April	6,710	7,300	1,400	11,800	201,000	15,700	2,960	10,400	257,000
April	1,680	1,570	350	2,940	49,900	3,750	740	2,590	63,500
May	1,680	1,540	350	2,940	49,800	3,640	740	2,590	63,200
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
January–April	6,710	6,180	1,400	11,800	211,000	14,600	2,960	10,400	265,000

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

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

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

<sup>&</sup>lt;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>&</sup>lt;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  $^{\rm 1}$ 

	Pro	duction	Shij	pments	Stocks, e	nd of period
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2022: <sup>p</sup>						
January-April	304,000	456,000	303,000	449,000	29,500	26,200
April	76,300	117,000	76,100	112,000	29,500	26,200
May	74,200	112,000	74,300	116,000	29,400	21,900
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
January-April	302,000	404,000	300,000	406,000	33,400	16,200

Preliminary.

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 <sup>e, 2</sup>	Total
2022: <sup>p</sup>				
January-April	141,000	439,000	14,300	594,000
April	34,600	113,000	3,590	152,000
May	34,900	109,000	3,590	147,000
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
January-April	141,000	375,000	14,300	531,000

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>&</sup>lt;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.

 ${\bf TABLE~8} \\ {\bf U.S.~APPARENT~CONSUMPTION~OF~COPPER}^1$ 

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-April	314,000	51,900	287,000 <sup>r</sup>	10,900 <sup>r</sup>	16,300	626,000 <sup>r</sup>
April	74,900	12,500	64,800	2,820	794	149,000
May	79,100	12,400	74,300	2,890	-6,470	169,000
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 <sup>r</sup>	27,600 r	-33,800	1,820,000
2023:						
January	80,600 <sup>r</sup>	13,100	39,000	1,190	-4,040	136,000 <sup>r</sup>
February	72,800 <sup>r</sup>	12,100	48,700	2,000	-16,800	149,000 <sup>r</sup>
March	78,500 <sup>r</sup>	12,400	126,000	1,290	8,090	207,000 <sup>r</sup>
April	78,400	12,100	97,900	2,020	6,790	180,000
January-April	310,000	49,700	311,000	6,490	-5,980	671,000

<sup>&</sup>lt;sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;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.

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

	Smel	ters			Brass	and			
	and refi	neries	Ingot ma	akers <sup>e, 3</sup>	wire-roo	d mills <sup>4</sup>	Foundrie	s, etc. <sup>e, 3</sup>	
Period	New scrap <sup>e</sup>	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total
2022: <sup>p</sup>									
January-April	6,920	7,520	3,730	13,800	233,000	16,600	3,480	12,200	297,000
April	1,730	1,620	933	3,450	58,100	3,980	871	3,040	73,700
May	1,730	1,590	933	3,450	57,800	3,810	871	3,040	73,200
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
January–April	6,920	6,370	3,730	13,800	243,000	15,200	3,480	12,200	304,000

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

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

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

 $\label{table 10} {\rm COPPER~STOCKS~IN~THE~UNITED~STATES~AT~END~OF~PERIOD}^1$ 

(Metric tons, copper content)

					Refined copper			
	Blister and		Wire-rod					Total
Period	anodes	Refineries	mills	Brass mills	Other <sup>e, 2</sup>	COMEX <sup>3</sup>	$LME^4$	refined
2022: <sup>p</sup>								
April	16,100	4,990	10,600	8,620	6,200	75,800	26,800	133,000
May	11,500	3,090	12,000	8,330	6,200	71,800	25,100	126,000
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

<sup>&</sup>lt;sup>e</sup>Estimated. <sup>p</sup>Preliminary.

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

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>Commodity Exchange Inc.

<sup>&</sup>lt;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)

.S. producers cathode <sup>2</sup> 473.388 434.929	LME grade A cash <sup>3</sup> 461.863
cathode <sup>2</sup> 473.388	grade A cash <sup>3</sup>
473.388	
	461.863
	461.863
434.929	
	424.657
422.540	409.684
350.610	341.513
372.500	361.070
359.021	350.800
358.386	345.649
378.483	364.184
391.895	379.511
410.775	399.791
423.233	408.200
418.824	406.165
414.915	400.734
410.037	399.767
416.752	403.717
	423.233 418.824 414.915

<sup>&</sup>lt;sup>1</sup>Listed as "COMEX high grade first position." COMEX refers to the Commodity Exchange Inc.

Source: S&P Global Platts Metals Week.

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>LME 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:				
April	454.35	418.85	355.00	211.50
May	414.90	379.40	327.50	196.50
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
January-April	395.13	372.21	311.50	158.13

Source: Fastmarkets-AMM.

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

(Metric tons, copper content)

	Ore a	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			ster and anodes	s <sup>4</sup>	Refined <sup>5</sup>		
		2023 January–		-	2023 January–			2023 January–			2023	
Country or							·			<del>-</del>		January-
locality	2022	April	April	2022	April	April	2022	April	April	2022	April	April
Austria										54		
Belgium				384	175	175				2		
Canada	11,700		3,240	581	47	124	(6)	(6)	(6)	118,000	9,810	41,000
Chile										472,000 <sup>r</sup>	72,600	226,000
China							(6)		(6)	897	85	209
Congo (Kinshasa)										8,910	956	6,320
Finland							281		78	39		
France							15			53	10	29
Germany	(6)			94			(6)		(6)	3,410	509	1,210
Hungary	9											
India	11					(6)			(6)	57		
Japan	(6)						(6)			1,370 <sup>r</sup>	282	847
Korea, Republic of							1	(6)	(6)	10		13
Mexico				25	(6)	4	(6)			75,500	456	7,190
Peru										50,100	13,200	28,200
Qatar				43								
Slovakia				14								
Spain				51		151	(6)					
United Kingdom	(6)			(6)			5	(6)	1	138		
Zambia										1,230		
Other	(6)			1			4	(6)	(6)	11	2	8
Total	11,700		3,240	1,190	222	454	306	(6)	79	732,000 <sup>r</sup>	97,900	311,000

<sup>&</sup>lt;sup>r</sup>Revised. -- Zero.

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;sup>4</sup>HTS code 7402.00.0000.

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

<sup>&</sup>lt;sup>6</sup>Less than ½ unit.

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

(Metric tons, copper content)

	Ore and concentrates <sup>2</sup> 2023			Matte, ash, and precipitates <sup>3</sup> 2023			Blis	ter and anodes	s <sup>4</sup>	Refined <sup>5</sup>		
Country or							2023			2023		23
	_		January-	_	January–		•	January–		_		January-
locality	2022	April	April	2022	April	April	2022	April	April	2022	April	April
Belgium	70			5,950	804	2,240	211	11	72			6
Bulgaria	1,540											
Canada	39,800	3,570	14,000	13,500 <sup>r</sup>	274	1,410	6,740	2,660	8,800	14,200	386	1,820
China	56,900	6,850	21,100	378	47	283	60	20	61	2,150 °	(6)	91
Costa Rica				345		4				(6)		3
Germany	1,590 <sup>r</sup>			235		45	244		20	1	5	24
India			9	16	2	21	1,560		76	34		37
Israel							115		10	98	1	10
Italy							155	20	52	10	2	2
Japan	11,000		4,260	361		20	20		30	23	(6)	(6)
Korea, Republic of				189		9	1,570	137	473	133	2	9
Madagascar	1,220											
Malaysia	186	1	26	147	19	45	168	182	403	51	22	245
Mexico	232,000	20,000	89,200	30	161	1,040	260	4	91	7,680	1,490	3,540
Netherlands				40 <sup>r</sup>	29	29	4			1,070		
Philippines	7,770			(6)			67	4	7	35		
Poland				270	79	424						
Singapore				414		35	40	1	1	22		2
Slovakia				1,210	35	158						
Spain	26 <sup>r</sup>			1,510	153	758	42			376	19	178
Taiwan		2,880	2,880	86			137	25	25	25		2
Thailand	r			158		13	94					
Turkey				233	40	60	20		20	20		
United Kingdom				4	4	4	40		6	1,630		1
Other	718	67	3,540	194	54	135	378	65	97	57	93	519
Total	353,000 <sup>r</sup>	33,300	135,000	25,200 <sup>r</sup>	1,700	6,730	11,900	3,130	10,200	27,600 <sup>r</sup>	2,020	6,490

Revised. -- Zero.

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

<sup>&</sup>lt;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>&</sup>lt;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>&</sup>lt;sup>4</sup>Schedule B code 7402.00.0000.

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

<sup>&</sup>lt;sup>6</sup>Less than ½ unit.

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

		Unalloyed <sup>2</sup>	Alloyed <sup>3</sup>				
		202	2023				
Country or	•		January-	_		January-	
locality	2022	April	April	2022	April	April	
Antigua and Barbuda				188	14	39	
Bahamas, The				612	45	210	
Barbados	<del></del>			326	2	33	
Bermuda	12		13	90	10	19	
Bolivia	46			106 <sup>r</sup>			
Brazil	14			69	112	209	
Canada	17,600	1,400	5,420	41,800	3,360	11,900	
Cayman Islands				243	3	45	
Colombia	196	19	59	106	40	44	
Costa Rica	712	84	208	1,350	39	332	
Dominican Republic	1,350	72	508	2,090	114	421	
Ecuador	24			57	19	19	
El Salvador				1,090	79	288	
Germany	260	27	150	50			
Grenada				72	17	44	
Guatemala				309		58	
Haiti				104	16	61	
Honduras	24	2	6	787	78	313	
Jamaica	7			461	25	133	
Mexico	12,200	1,070	4,610	42,900	3,060	13,800	
Nicaragua				194		18	
Panama	1,190	51	277	405	26	114	
Peru				225			
Saudi Arabia				134			
Sint Maarten	1			54	13	48	
Saint Lucia	25			269	13	76	
Saint Vincent and the Grenadines				91	10	43	
Suriname	360	22	72	69		15	
Uruguay	73 <sup>r</sup>			20 <sup>r</sup>			
Vietnam	62			50			
Other	75	8	52	401	27	84	
Total	34,200	2,750	11,400	94,700	7,120	28,400	

<sup>&</sup>lt;sup>r</sup>Revised. -- Zero.

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

<sup>&</sup>lt;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.

 $\label{eq:table 16} \text{U.S. EXPORTS OF COPPER SCRAP}^1$ 

-				Unalloyed <sup>2</sup>	Alloyed <sup>3</sup>								
	2023								2023				
	_	No. 1 January–		No.	No. 2		Other		Segregated		Unsegregated		
Country or				January–		January–				January-	January–		
locality	2022	April	April	April	April	April	April	2022	April	April	April	April	
Austria	1,300	19	72	40	117			1,210		278		162	
Belgium	33,200 <sup>r</sup>	1,010	3,710	978	3,720	468	2,060	8,860 <sup>r</sup>	132	303	425	2,110	
Canada	60,900					6,120	23,700	46,200 <sup>r</sup>			1,910	10,200	
China	260,000 <sup>r</sup>	5,160	24,600	2,940	17,800	11,400	40,100	31,900 <sup>r</sup>	1,910	6,930	1,860	5,340	
Germany	15,400 <sup>r</sup>	812	4,150	38	252	650	1,720	15,300 <sup>r</sup>	64	197	616	3,400	
Greece	8,830 <sup>r</sup>	384	1,180			160	458	2,170	16	37	119	897	
Hong Kong	16,800 <sup>r</sup>	88	178	498	2,000	423	1,350	3,760 <sup>r</sup>		80	228	889	
India	19,900 <sup>r</sup>	719	2,640	199	505	786	2,590	65,700 <sup>r</sup>	932	4,640	2,840	11,500	
Japan	25,400	406	1,480	1,040	4,110	375	736	6,980 <sup>r</sup>	93	332	471	2,380	
Korea, Republic of	42,200 <sup>r</sup>	726	3,710	143	1,990	715	3,540	11,400 <sup>r</sup>	428	1,360	165	1,120	
Malaysia	24,700 <sup>r</sup>	1,020	4,350	280	1,200	1,120	3,380	41,700	524	2,420	2,470	9,550	
Mexico	3,120	153	782		1		43	8,380		106	31	915	
Netherlands	7,600 <sup>r</sup>	432	640		41	100	645	1,540			60	157	
Pakistan	1,020 <sup>r</sup>	45	85		5	41	41	26,300		80	4,120	8,220	
Philippines	1,660 <sup>r</sup>	10	199			82	158	757 <sup>r</sup>	7	43	60	297	
Poland	15,700	216	1,070		20	1,000	4,290	1,030		20		249	
Singapore	1,210		539		20			264			65	128	
Slovakia	1,550 <sup>r</sup>	127	406					2,500	196	408	183	276	
Spain	3,860 <sup>r</sup>		177	1	1	102	606	7,380	100	461	336	1,570	
Sweden	581	30	30					1,940			27	169	
Taiwan	13,100	171	413	153	1,060	292	1,280	4,440 <sup>r</sup>	77	96	407	1,460	
Thailand	23,900	507	2,200	155	214	1,760	6,060	39,600 <sup>r</sup>	266	1,320	1,450	9,000	
Turkey	1,020 <sup>r</sup>		300					2,320			180	180	
United Arab Emirates	766	194	262					5,790 <sup>r</sup>			309	2,630	
Vietnam	139 <sup>r</sup>	171	328		62	80	80	929			83	183	
Other	2,180 <sup>r</sup>	57	248	20	78	9	207	2,400 r	30	50	58	769	
Total	586,000 r	12,400	53,700	6,480	33,200	25,700	93,000	341,000 r	4,770	19,100	18,500	73,700	

Revised. -- Zero.

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

<sup>&</sup>lt;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.