Mineral Industry Surveys

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COPPER IN OCTOBER 2021

In October 2021, domestic mine production of recoverable copper was 102,000 metric tons (t). The average daily mine production was 3,300 t, a decrease of 8% compared with that in September and an increase of 6% from that in October 2020 (fig. 1). Year-to-date recoverable mine output was 1.01 million metric tons, slightly higher than that through October 2020 (table 2).

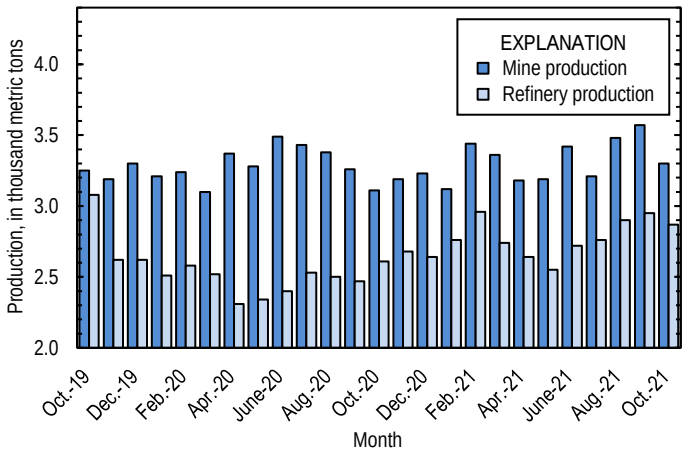

Figure 1. Average daily U.S. copper mine (recoverable) and refinery (primary and secondary) production from October 2019 through October 2021. Refinery production in November and December 2019 were withheld to avoid disclosing company proprietary data; the values shown reflect the daily average for cumulative production over this period rather than production in each month.

Owing to indefinite closures of ASARCO LLC's smelter in Arizona and electrolytic refinery in Texas, smelter and electrolytic refinery production reported to the U.S. Geological Survey in October 2021 were withheld to avoid disclosing company proprietary data. Smelter and electrolytic refinery output in tables 3 and 4 are estimates based on information in quarterly company reports. The facilities shut down in October 2019 because of a worker strike, which ended in July 2020. As of October 2021, ASARCO had not publicly announced when operations were expected to resume or a reason for the continued closures. The company's three copper mines and two electrowon refineries in Arizona have continued to operate during the smelter and electrolytic refinery stoppages (Grupo México, S.A.B. de C.V., 2021, p. 83).

Estimated smelter production in the United States was 35,000 t in October 2021. Year-to-date estimated smelter production was 335,000 t, an increase of 31% from that through October 2020 (table 3).

Total U.S. refinery production was 88,900 t in October 2021; data for electrolytic and electrowon output, as well as refined production from scrap, are reported in table 4. Average daily refinery production was 2,870 t, a decrease of 3% compared with that in September and 10% more than that in October 2020 (fig. 1). Year-to-date refinery output was 846,000 t, an increase of 12% relative to the same period in 2020 (table 4).

Prices

In October 2021, the average COMEX spot copper price was $4.45 per pound, 4% greater than $4.27 per pound in September and an increase of 46% compared with $3.06 per pound in October 2020 (fig. 2, table 11). The average U.S. dealers buying price of number 2 copper scrap was $3.17 per pound, a slight decline from $3.19 per pound in September and 42% higher than $2.23 per pound in October 2020 (fig. 2, table 12).

Stocks

Refined copper stocks in the United States totaled 91,500 t at the end of October 2021, an increase of 5% from those in September and 35% less than those in October 2020. COMEX stocks rose slightly (by 829 t), and London Metal Exchange Ltd. stocks in U.S. warehouses were 160% (200 t) greater than those at the end of September (fig. 3, table 10).

Industry News

Chile.—Anglo American plc announced that yearend 2021 copper output at the Los Bronces Mine would be up to 30,000 t lower than originally anticipated owing to extreme drought conditions in Chile. In 2020, Los Bronces was the 13th-ranked global copper mine and produced a combined total of 325,000 t of electrowon copper and copper in concentrates (Anglo

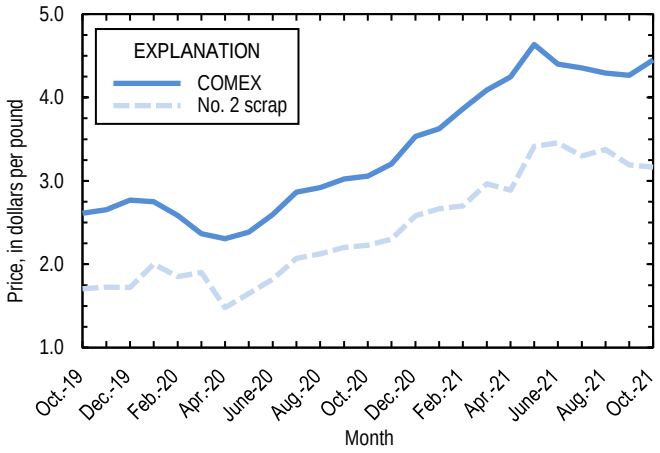

Figure 2. Monthly average COMEX copper price and no. 2 copper scrap dealers buying price from October 2019 through October 2021. As of January 2020, no. 2 prices were available only for the entire United States, whereas no. 2 prices were available only for individual domestic markets prior to January 2020. Prices shown prior to January 2020 are for New York dealers no. 2 scrap. Sources: Fastmarkets-AMM and S&P Global Platts Metals Week.

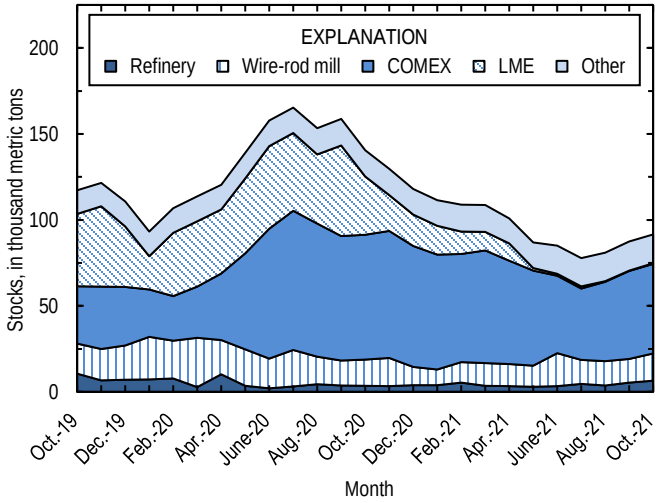

Figure 3. Domestic refined copper stocks at end of month, by type, from October 2019 through October 2021. Sources: Fastmarkets-AMM, London Metal Exchange Ltd., and U.S. Geological Survey.

American plc, 2021a, p. 251; 2021b, p. 5). In August, Antofagasta plc reported a 20,000-t reduction in its 2021 copper production guidance because of low precipitation at the Los Pelambres Mine. Los Pelambres was the 11th-ranked global copper mine in 2020 and produced 360,000 t of copper in concentrates (Antofagasta plc, 2021a, p. 66; 2021b, p. 2).

Kazakhstan.—At the Aktogay Mine, KAZ Minerals Ltd. commissioned a second concentration plant that doubled the mine's sulfide ore processing capacity. The company expected that shipments of copper concentrates from the new plant would begin by yearend 2021. In 2020, Aktogay produced 131,000 t of copper in concentrates from sulfide ores and an additional 21,300 t of electrowon copper from oxide ores (KAZ Minerals Ltd., 2021; KAZ Minerals plc, 2021, p. 38).

Peru.—In October 2021, protests disrupted operations at four copper mines in Peru, three of which were among the leading global copper producers in 2020—the Antamina Mine (eighth-ranked), majority-owned by BHP Group and Glencore plc; the Antapaccay Mine (24th-ranked), owned by Glencore; and the Las Bambas Mine (14th-ranked), majority-owned by MMG Ltd. The affected sites account for over 40% of annual mined copper output in Peru (CRU International Ltd., 2021, p. 13–14). MMG projected that at least 55,000 t of copper production at Las Bambas would be lost as a result of the demonstrations (de la Paz, 2021).

United States.—Rio Tinto Group restarted its smelter near Salt Lake City, UT, in late October. Operations at the facility had been temporarily halted since September 21 owing to a release of molten copper (Hotter and others, 2021; Rio Tinto Group, 2022, p. 13).

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TABLE 1

SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES[1]

(Metric tons of copper content, unless otherwise specified)

	Source table[2]	2020[p]	2021			
			August	September	October	January–October
Production:						
Primary:						
Mine, recoverable	(2)	1,200,000	108,000	107,000	102,000	1,010,000
Smelter[e]	(3)	315,000	35,000	35,000	35,000	335,000
Refinery:						
Electrolytic, domestic and foreign[e]	(4)	315,000	35,000	35,000	35,000	335,000
Electrowon	(4)	559,000	51,300	48,900	50,400	470,000
Total	(4)	874,000	86,300	83,900	85,400	805,000
Secondary recoverable copper:[3]						
Refineries	(5)	43,200	3,750	4,590	3,540	40,900
Ingot makers[4]	(5)	57,900	4,820	4,820	4,820	48,200
Brass and wire-rod mills	(5)	670,000	54,300	54,600	53,100	550,000
Foundries, etc.[4]	(5)	36,700	3,060	3,060	3,060	30,600
Consumption:						
Apparent, primary refined and copper from old scrap	(8)	1,660,000	200,000	180,000	183,000	1,710,000
Reported, refined copper	(7)	1,710,000	153,000	157,000 [r]	149,000	1,500,000
Purchased copper-base scrap (gross weight)	(9)	938,000	80,900	84,500	81,600	840,000
Stocks at end of period:						
Total refined	(10)	118,000	80,900	87,400 [r]	91,500	91,500
Blister and anode	(10)	9,380	22,600	23,500	20,900	20,900
Price, U.S. producers cathode (cents per pound)[5]	(11)	286.745	437.543	434.888	453.612	430.027
Imports:[6]						
Ore and concentrates	(13)	2,170	1,810	1,210	1,060	10,500
Refined	(13)	676,000	105,000	90,700	92,300	782,000
Exports:[6]						
Ore and concentrates	(14)	383,000	21,600	24,600	19,600	292,000
Refined	(14)	41,200	1,830	2,300	3,490	41,300

[e]Estimated. [p]Preliminary. [r]Revised.

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

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

[3]Copper recovered from copper-base scrap only.

[4]Estimated based on the monthly average of 2018 annual data.

[5]Source: S&P Global Platts Metals Week.

[6]Source: U.S. Census Bureau.

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

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others[2]	Total	Electrowon	Concentrates[3]	Total
2020:[p]						
January–October	735,000	267,000	1,000,000	464,000	560,000	1,020,000
October	71,000	25,500	96,500	47,600	50,800	98,500
November	69,900	25,800	95,700	47,100	50,600	97,700
December	75,000	25,100	100,000	48,400	53,800	102,000
January–December	880,000	318,000	1,200,000	559,000	665,000	1,220,000
2021:						
January	71,600	25,100	96,700	47,100	51,700	98,800
February	70,600	25,700	96,400	43,900	54,700	98,500
March	76,200	27,900	104,000	46,500	59,900	106,000
April	66,900	28,600	95,500	44,000	53,600	97,600
May	68,400	30,600	99,000	44,400	56,800	101,000
June	74,200	28,500	103,000	46,600	58,300	105,000
July	68,200	31,200	99,400	47,200	54,300	101,000
August	76,000	31,700	108,000	51,300	58,700	110,000
September	75,300	31,800	107,000	48,900	60,400	109,000
October	72,100	30,200	102,000	50,400	53,900	104,000
January–October	720,000	291,000	1,010,000	470,000	562,000	1,030,000

[p]Preliminary.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.
[3]Includes copper content of precipitates and other metal concentrates.

TABLE 3
COPPER PRODUCED AT SMELTERS IN
THE UNITED STATES[1, 2]

(Metric tons, copper content)

Period	Anode production[e, 3]
2020:[p]	
January–October	255,000
October	30,000
November	30,000
December	30,000
January–December	315,000
2021:	
January	35,000
February	35,000
March	35,000
April	30,000
May	30,000
June	30,000
July	35,000
August	35,000
September	35,000
October	35,000
January–October	335,000

[e]Estimated. [p]Preliminary.
[1]Data are rounded to no more than three significant digits; may not add to totals shown.
[2]Includes blister and copper anode from primary or secondary sources.
[3]To avoid disclosing company proprietary data, monthly smelter production data are estimates based on information in quarterly public company reports and do not reflect actual production reported to the U.S. Geological Survey.

TABLE 4

U.S. PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY[1]

(Metric tons)

Period	Primary materials			Scrap	Total refined
	Electrolytically refined[e, 2, 3]	Electrowon	Total		
2020:[p]					
January–October	255,000	464,000	719,000	36,600	755,000
October	30,000	47,600	77,600	3,220	80,900
November	30,000	47,100	77,100	3,290	80,400
December	30,000	48,400	78,400	3,300	81,700
January–December	315,000	559,000	874,000	43,200	918,000
2021:					
January	35,000	47,100	82,100	3,350	85,400
February	35,000	43,900	78,900	4,060	82,900
March	35,000	46,500	81,500	3,460	85,000
April	30,000	44,000	74,000	5,190	79,200
May	30,000	44,400	74,400	4,560	79,000
June	30,000	46,600	76,600	5,060	81,700
July	35,000	47,200	82,200	3,340	85,500
August	35,000	51,300	86,300	3,750	90,000
September	35,000	48,900	83,900	4,590	88,500
October	35,000	50,400	85,400	3,540	88,900
January–October	335,000	470,000	805,000	40,900	846,000

[e]Estimated. [p]Preliminary.

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

[2]From domestic and foreign source materials.

[3]To avoid disclosing company proprietary data, monthly electrolytically refined production data are estimates based on information in quarterly public company reports and do not reflect actual production reported to the U.S. Geological Survey.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP IN THE UNITED STATES[1]

(Metric tons, copper content)

Period	Refineries[2]		Ingot makers[3]		Brass and wire-rod mills		Foundries, etc.[3]		Total[4]
	New scrap[e]	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2020:[p]									
January–October	16,800	19,900	7,680	40,600	523,000	32,500	21,500	9,130	671,000
October	1,680	1,540	768	4,060	53,600	3,540	2,150	913	68,300
November	1,680	1,620	768	4,060	52,900	3,000	2,150	913	67,100
December	1,680	1,620	768	4,060	55,800	2,590	2,150	913	69,600
January–December	20,100	23,100	9,220	48,700	631,000	38,100	25,800	11,000	807,000
2021:									
January	1,680	1,670	768	4,060	53,700	4,110	2,150	913	69,000
February	1,680	2,380	768	4,060	51,700	3,500	2,150	913	67,100
March	1,680	1,780	768	4,060	53,100	3,870	2,150	913	68,300
April	1,680	3,510	768	4,060	51,900	3,870	2,150	913	68,900
May	1,680	2,890	768	4,060	50,800	3,710	2,150	913	66,900
June	1,680	3,390	768	4,060	50,200	3,560	2,150	913	66,700
July	1,680	1,660	768	4,060	50,500	3,420	2,150	913	65,100
August	1,680	2,080	768	4,060	50,700	3,640	2,150	913	66,000
September	1,680	2,910	768	4,060	51,400	3,180	2,150	913	67,000
October	1,680	1,860	768	4,060	50,000	3,120	2,150	913	64,600
January–October	16,800	24,100	7,680	40,600	514,000	36,000	21,500	9,130	670,000

[e]Estimated. [p]Preliminary.

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

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

[3]Monthly data estimated based on the monthly average of 2018 annual data.

[4]Does not include an estimate, based on reported 2018 annual data, of 3,380 tons per month from new scrap and 2,710 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[1]

(Metric tons, gross weight)

Period	Production		Shipments		Stocks, end of period	
	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2020:[p]						
January–October	737,000	1,030,000	738,000	1,040,000	29,000	16,400
October	74,400	108,000	74,900	110,000	29,000	16,400
November	73,600	106,000	73,600	106,000	29,000	16,000
December	73,700	101,000	74,000	97,800	28,700	19,000
January–December	884,000	1,240,000	885,000	1,240,000	28,700	19,000
2021:						
January	73,900	104,000	74,000	106,000	28,300	16,800
February	74,100	96,600	73,800	97,600	28,600	15,800
March	74,700	125,000	74,500	122,000	28,800	17,800
April	75,000	110,000	75,300	113,000	28,500	15,200
May	73,200	117,000	73,300	114,000	28,400	18,300
June	74,200	110,000	74,000	109,000	28,500	19,100
July	74,600	112,000	74,800	115,000	28,400	17,000
August	76,000	118,000	75,800	114,000	28,500	21,200
September	74,000	118,000 [r]	74,300	120,000 [r]	28,300	18,800 [r]
October	70,400	115,000	70,300	110,000	27,000	23,400
January–October	740,000	1,120,000	740,000	1,120,000	27,000	23,400

[p]Preliminary. [r]Revised.

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

TABLE 7
U.S. CONSUMPTION OF REFINED COPPER[1]

(Metric tons)

Period	Brass mills	Wire-rod mills	Other plants[2]	Total
2020:[p]				
January–October	343,000	1,020,000	54,500	1,420,000
October	34,600	106,000	5,450	147,000
November	34,600	105,000	5,450	145,000
December	34,800	99,900	5,450	140,000
January–December	413,000	1,230,000	65,400	1,710,000
2021:				
January	34,700	93,400	5,450	134,000
February	34,900	96,100	5,450	137,000
March	35,300	119,000	5,450	159,000
April	34,300	108,000	5,450	148,000
May	34,100	119,000	5,450	159,000
June	33,600	116,000	5,450	155,000
July	34,400	108,000	5,450	147,000
August	34,500	113,000	5,450	153,000
September	34,700	117,000 [r]	5,450	157,000 [r]
October	34,700	109,000	5,450	149,000
January–October	345,000	1,100,000	54,500	1,500,000

[p]Preliminary. [r]Revised.

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

[2]Monthly consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers are estimated based on the monthly average of 2018 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER[1]

(Metric tons)

Period	Primary refined copper production	Copper in old scrap[2]	Refined imports for consumption[3]	Refined exports[3]	Stock change during period	Apparent consumption
2020:[p]						
January–October	719,000	129,000	565,000	32,900	29,900	1,350,000
October	77,600	12,800	57,300	2,930	-18,100	163,000
November	77,100	12,300	53,300	3,090	-10,800	150,000
December	78,400	11,900	57,400	5,150	-11,700	154,000
January–December	874,000	153,000	676,000	41,200	7,370	1,660,000
2021:						
January	82,100	13,500	42,400	4,350	-6,490	140,000
February	78,900	13,600	73,000	2,970	-2,600	165,000
March	81,500	13,300	99,700	3,360	-178	191,000
April	74,000	15,100	85,200	5,280	-7,710	177,000
May	74,400	14,300	66,600	5,580	-14,100	164,000
June	76,600	14,600	69,600	6,880	-1,900	156,000
July	82,200	12,800	57,100	5,270	-7,220	154,000
August	86,300	13,400	105,000	1,830	3,130	200,000
September	83,900	13,800	90,700	2,300	6,480 [r]	180,000
October	85,400	12,700	92,300	3,490	4,110	183,000
January–October	805,000	137,000	782,000	41,300	-26,400	1,710,000

[p]Preliminary. [r]Revised.

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

[2]Copper recovered from old scrap and converted to refined metal and alloys. Includes reported monthly production of copper from old scrap of copper-base, an estimate for annual reporters, and a monthly average of copper from non-copper-base materials based on 2018 annual data.

[3]Source: U.S. Census Bureau.

TABLE 9

U.S. CONSUMPTION OF PURCHASED COPPER-BASE SCRAP[1]

(Metric tons, gross weight)

Period	Smelters and refineries		Ingot makers[2]		Brass and wire-rod mills[3]		Foundries, etc.[2]		Total scrap used
	New scrap[e]	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2020:[p]									
January–October	17,300	20,500	20,500	47,900	604,000	34,100	25,700	10,100	780,000
October	1,730	1,590	2,050	4,790	61,700	3,710	2,570	1,010	79,200
November	1,730	1,670	2,050	4,790	60,900	3,130	2,570	1,010	77,900
December	1,730	1,670	2,050	4,790	64,000	2,750	2,570	1,010	80,500
January–December	20,700	23,800	24,600	57,500	729,000	39,900	30,800	12,100	938,000
2021:									
January	1,730	1,720	2,050	4,790	68,000	4,190	2,570	1,010	86,000
February	1,730	2,460	2,050	4,790	63,600	3,580	2,570	1,010	81,800
March	1,730	1,830	2,050	4,790	68,000	3,970	2,570	1,010	85,900
April	1,730	3,620	2,050	4,790	65,300	4,010	2,570	1,010	85,100
May	1,730	2,980	2,050	4,790	67,900	3,820	2,570	1,010	86,900
June	1,730	3,490	2,050	4,790	65,900	3,680	2,570	1,010	85,200
July	1,730	1,710	2,050	4,790	64,800	3,520	2,570	1,010	82,200
August	1,730	2,140	2,050	4,790	62,900	3,750	2,570	1,010	80,900
September	1,730	3,000	2,050	4,790	66,100	3,260	2,570	1,010	84,500
October	1,730	1,920	2,050	4,790	64,300	3,250	2,570	1,010	81,600
January–October	17,300	24,900	20,500	47,900	657,000	37,000	25,700	10,100	840,000

[e]Estimated. [p]Preliminary.

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

[2]Monthly data estimated based on the monthly average of 2018 annual data.

[3]Consumption at brass and wire-rod mills assumed equal to receipts.

TABLE 10
COPPER STOCKS IN THE UNITED STATES AT END OF PERIOD[1]

(Metric tons)

Period	Blister and anode[2]	Refined copper						
		Refineries	Wire-rod mills	Brass mills	Other[3]	Comex	LME[4]	Total refined
2020:[p]								
October	15,200	3,460	15,300	8,170	7,070	72,500	34,000	140,000
November	12,500	3,420	16,200	8,100	7,070	74,000	20,900	130,000
December	9,380	3,850	10,700	7,850	7,070	70,200	18,300	118,000
2021:								
January	17,400	3,810	9,190	7,970	7,070	66,800	16,700	111,000
February	23,800	5,310	11,900	8,610	7,070	62,900	13,100	109,000
March	29,200	3,470	13,200	8,570	7,070	65,500	10,900	109,000
April	27,100	3,360	12,800	7,550	7,070	60,200	9,950	101,000
May	27,100	2,930	12,400	7,850	7,070	55,100	1,630	86,900
June	10,300	3,260	19,300	9,190	7,070	45,000	1,180	85,000
July	12,300	4,540	14,000	9,430	7,070	41,600	1,180	77,800
August	22,600	3,620	14,200	9,570	7,070	46,100	400	80,900
September	23,500	5,400	13,700 [r]	9,910	7,070	51,200	125	87,400 [r]
October	20,900	6,400	15,900	9,810	7,070	52,100	325	91,500

[p]Preliminary. [r]Revised.

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

[2]Copper content.

[3]Monthly estimates based on 2018 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

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

TABLE 11
AVERAGE PRICE OF COPPER IN THE UNITED STATES
AND ON THE LONDON METAL EXCHANGE

(Cents per pound)

Period	U.S. producers cathode[1]	Comex first position[2]	LME cash price Grade A
2020:			
October	312.495	305.695	304.033
November	327.338	320.338	320.392
December	360.470	353.470	351.772
Year	286.745	279.948	279.797
2021:			
January	369.318	362.318	361.536
February	393.314	386.126	383.750
March	416.141	408.828	408.459
April	432.183	424.783	423.453
May	471.410	463.535	461.937
June	448.082	439.832	436.012
July	443.779	435.479	427.900
August	437.543	429.230	424.435
September	434.888	426.538	422.916
October	453.612	445.112	443.497
January–October	430.027	422.178	419.390

[1]Sum of "Comex high grade first position" and "NY dealer premium cathode."
[2]Listed as "Comex high grade first position."

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
2020:				
October	291.93	261.84	222.73	130.00
November	306.26	277.53	230.00	139.47
December	339.98	314.75	258.18	165.45
Year	268.76	243.47	201.72	130.67
2021:				
January	349.74	320.61	266.50	167.00
February	370.89	338.87	270.00	175.00
March	392.04	351.52	296.50	185.50
April	406.52	365.52	289.00	186.50
May	444.95	405.23	341.50	239.00
June	421.77	381.68	345.50	230.50
July	417.36	374.12	330.00	227.00
August	410.36	368.41	337.50	238.00
September	409.62	368.38	319.00	229.00
October	430.88	390.64	316.50	222.00
January–October	405.41	366.50	311.20	209.95

Source: Fastmarkets-AMM.

TABLE 13

U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS[1]

(Metric tons, copper content)

Country or locality	Ore and concentrates[2]			Matte, ash, and precipitates[3]			Blister and anodes[4]			Refined[5]		
		2021			2021			2021			2021	
	2020	October	January–October	2020	October	January–October	2020	October	January–October	2020	October	January–October
Bahrain	--	--	--	--	--	--	--	--	--	76	--	--
Belgium	--	--	--	354	--	197	--	--	--	--	--	--
Bolivia	--	--	--	--	--	--	--	--	--	1,030	--	763
Canada	2,170	1,060	10,500	459	57	433	(6)	--	(6)	149,000	12,600	124,000
Chile	--	--	--	--	--	--	--	--	--	410,000	69,800	541,000
China	--	--	--	(6)	--	--	--	--	--	426	22	522
Congo (Kinshasa)	--	--	--	--	--	--	--	--	--	148	611	19,300
Finland	--	--	--	--	--	--	275	46	293	--	--	35
Germany	--	--	--	--	--	155	(6)	(6)	(6)	1,910	135	1,630
Japan	--	--	1	176	435	483	(6)	--	(6)	2,060	54	1,080
Korea, Republic of	--	--	--	--	--	--	(6)	--	(6)	72	--	54
Mexico	--	--	--	(6)	(6)	8	(6)	--	--	95,200	5,500	62,600
Peru	--	--	--	--	--	--	--	--	--	14,500	1,630	20,200
Spain	--	--	--	49	--	--	--	--	--	654	--	(6)
Other	--	--	10	22	(6)	43	5	(6)	9	50	1,920	10,900
Total	2,170	1,060	10,500	1,060	492	1,320	281	46	303	676,000	92,300	782,000

-- Zero.

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

[2]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.

[3]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.

[4]HTS code 7402.00.0000.

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

[6]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 14

U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS[1]

(Metric tons, copper content)

Country or locality	Ore and concentrates[2]			Matte, ash, and precipitates[3]			Blister and anodes[4]			Refined[5]		
		2021			2021			2021			2021	
	2020	October	January–October	2020	October	January–October	2020	October	January–October	2020	October	January–October
Belgium	230	37	205	6,110	353	5,020	190	336	1,470	64	--	--
Bulgaria	4,350	--	--	(6)	--	--	--	--	--	--	--	--
Canada	36,100	3,720	33,200	13,100	1,170	15,000	1,690	1,180	15,700	12,600	851	24,400
China	49,300	2,850	54,300	62	39	430	148	--	151	233	464	2,010
Germany	--	--	784	288	--	371	128	20	150	22	--	20
Hong Kong	9	--	2	--	30	44	86	20	299	18	3	3
India	20	--	--	37	2	30	247	69	413	--	--	--
Italy	--	--	--	--	--	--	197	1	113	86	--	22
Japan	14,600	--	3,660	251	157	701	24	--	17	4	(6)	10
Korea, Republic of	8,140	12	2,370	1	--	81	1,390	76	1,170	1,160	1	29
Malaysia	--	5	5	3	--	47	218	29	168	--	3	7
Mexico	250,000	13,000	194,000	2,720	--	33	848	52	219	26,800	2,160	14,400
Philippines	6,250	--	--	--	--	(6)	10	--	34	--	--	--
Singapore	--	--	--	256	--	300	36	--	70	13	1	19
Slovakia	--	--	--	1,050	178	1,170	--	--	--	--	--	--
Spain	8,990	--	--	1,820	41	883	35	--	20	--	--	--
Sweden	--	--	--	--	--	--	135	--	72	--	--	1
Thailand	--	--	--	2	--	--	256	--	26	(6)	--	--
Other	4,630	42	2,540	172	16	215	565	44	784	164	10	381
Total	383,000	19,600	292,000	25,900	1,980	24,300	6,210	1,830	20,900	41,200	3,490	41,300

-- Zero.

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

[2]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.

[3]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.

[4]Schedule B code 7402.00.0000.

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

[6]Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP[1]

(Metric tons, gross weight)

Country or locality	Unalloyed[2]			Alloyed[3]		
		2021			2021	
	2020	October	January–October	2020	October	January–October
Antigua and Barbuda	--	--	--	151	11	111
Bahamas	--	--	--	681	32	506
Brazil	--	--	15	164	--	95
Canada	14,500	1,730	17,000	41,300	4,970	41,100
Cayman Islands	4	--	--	262	7	192
Colombia	60	--	154	808	81	575
Costa Rica	619	64	639	934	92	1,250
Dominican Republic	876	140	1,230	1,150	295	2,100
Ecuador	--	10	79	154	3	236
El Salvador	--	--	--	294	53	466
Germany	179	13	174	108	--	148
Guatemala	--	--	--	289	40	449
Honduras	54	3	69	844	61	739
Jamaica	--	--	7	258	14	111
Mexico	9,450	1,070	10,700	37,100	3,730	37,400
Nicaragua	114	--	17	--	17	82
Panama	714	101	845	335	35	414
Peru	495	--	19	251	19	280
Vietnam	121	8	107	22	7	59
Other	362	75	908	1,400	201	2,140
Total	27,600	3,210	31,900	86,500	9,670	88,400

-- Zero.

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

[2]Harmonized 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.

Source: U.S. Census Bureau.

TABLE 16

U.S. EXPORTS OF COPPER SCRAP[1]

(Metric tons, gross weight)

Country or locality	Unalloyed[2]							Alloyed[3]				
		2021							2021			
		No. 1		No. 2		Other			Segregated		Unsegregated	
	2020	October	January–October	October	January–October	October	January–October	2020	October	January–October	October	January–October
Austria	3,970	--	59	20	1,030	--	143	1,010	38	135	--	58
Belgium	20,900	891	6,320	530	5,530	396	3,320	11,100	57	736	683	5,950
Canada	51,800	--	--	--	--	4,570	52,700	32,200	--	--	5,760	44,900
China	81,200	5,750	38,400	5,170	37,400	9,720	77,700	35,400	1,460	15,300	2,510	22,500
Germany	22,400	1,110	11,000	302	2,100	235	3,690	16,000	406	1,680	1,300	10,800
Greece	13,000	258	5,710	157	2,540	447	4,270	1,450	17	114	155	1,730
Hong Kong	7,810	347	2,620	782	8,020	1,310	9,020	7,750	105	1,860	523	3,880
India	9,570	548	3,040	165	1,490	1,150	3,950	34,800	1,410	13,500	3,260	19,900
Japan	16,400	333	2,850	1,330	11,400	435	2,070	13,800	97	1,040	612	5,250
Korea, Republic of	45,700	1,020	15,400	1,220	11,600	634	13,000	18,500	314	4,200	797	9,500
Malaysia	54,400	364	6,240	837	9,770	2,930	40,800	122,000	1,490	17,800	5,800	59,600
Pakistan	697	6	71	55	216	--	58	14,500	166	225	2,880	19,300
Poland	5,000	176	810	42	1,370	1,200	6,880	6,570	60	118	--	2,110
Russia	7,310	--	113	--	100	20	858	830	--	--	--	530
Spain	4,070	140	421	102	288	405	2,040	7,610	323	1,790	345	4,150
Taiwan	17,000	248	4,790	228	1,940	698	4,740	16,400	138	2,250	680	3,570
Thailand	4,800	301	1,600	19	242	856	5,060	20,900	168	1,660	2,790	26,300
Vietnam	7,480	--	757	--	124	--	229	2,340	46	84	--	62
Other	22,900	666	7,970	138	1,820	359	6,230	16,600	313	3,390	1,070	11,400
Total	396,000	12,100	108,000	11,100	97,100	25,400	237,000	380,000	6,610	65,900	29,200	252,000

-- Zero.

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

[2]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).

[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.

Source: U.S. Census Bureau.