

Mineral Industry Surveys

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COPPER IN MAY 2018

In May 2018, domestic mine production of recoverable copper was 98,800 metric tons (t). The average daily mine production was 3,190 t, a decrease of 4% from that in April and a decline of 8% compared with that in May 2017. Year-to-date recoverable mine production through May 2018 was 485,000 t, a decrease of 10% relative to the same period in 2017 (fig. 1, table 2).

Total refinery production in the United States was 90,900 t in May 2018; data for electrolytic and electrowon output, as well as refined production from scrap, are in table 4. The average daily total refinery production was 2,930 t, an increase of 3% compared with that in April and 7% greater than that in May 2017. Year-to-date refinery production through May 2018 was 459,000 t, a decline of 4% relative to the same period in 2017 (fig. 1, table 4).

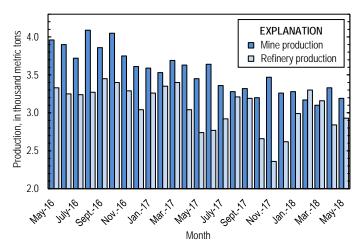


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from May 2016 through May 2018.

Smelter production in May 2018 was 39,000 t. The average daily smelter production was 1,260 t, 16% less than that in April and an increase of 94% compared with the daily average in May 2017, when scheduled maintenance was performed at two of the

three U.S. smelters. Year-to-date smelter production through May 2018 was 221,000 t, 6% greater than that through May 2017 (table 3).

Prices

The average May 2018 COMEX spot copper price was \$3.06 per pound, a slight decrease from \$3.09 per pound in April and 20% greater than \$2.55 per pound in May 2017 (fig. 2, table 11). The average price of New York dealers' number 2 scrap in May 2018 was \$2.09 per pound, essentially unchanged from that in April and 18% higher than \$1.77 per pound in May 2017 (fig. 2, table 12).

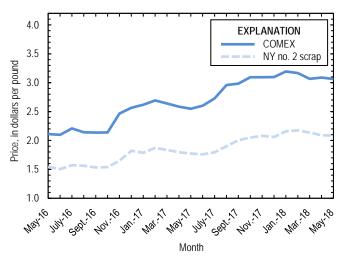


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from May 2016 through May 2018. Sources: American Metal Market, Platts Metals Week.

Stocks

Refined copper stocks in the United States totaled 328,000 t at the end of May 2018, a slight increase from those in April and 51% more than those in May 2017. COMEX stocks fell by 7%, stocks at wire-rod mills increased by 3%, and London Metal

Exchange Ltd. stocks in U.S. warehouses were 36% higher compared with those at the end of April (fig. 3, table 10).

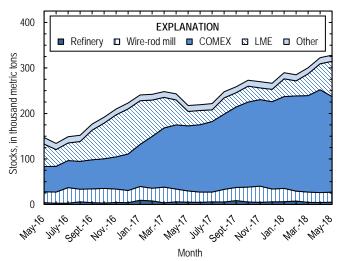


Figure 3. Monthly domestic refined copper stocks, by type, from May 2016 through May 2018. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

Industry News

On May 4, the Government of China suspended the operations of the company tasked with inspecting and certifying shipments of nonferrous scrap from the United States to China. As a result, U.S. exports of copper scrap (unalloyed and alloyed) to China decreased by 55% in May from those in April, and exports to all countries declined by 12% (table 16). Inspections were expected to begin again on June 4 (MacAulay, 2018).

On May 28, the government of Tamil Nadu State in India ordered the permanent closure of Vedanta Ltd.'s (India) Tuticorin copper smelter owing to violations of environmental laws. The plant had been closed since March, when regulators rejected the company's request to restart production after a planned maintenance shutdown. As of the end of May, Vedanta was considering legal options to continue operations and proceed with a planned capacity expansion (Mughal, 2018a, b). In 2017, the Tuticorin smelter had an annual capacity of 400,000 t of copper, equivalent to nearly 2% of total global smelter capacity (International Copper Study Group, 2018, p. 147, 157).

References Cited

International Copper Study Group, 2018, ICSG directory of copper mines and plants up to 2021—1st half 2018: Lisbon, Portugal, International Copper Study Group, March 12, 222 p. (Accessed March 13, 2018, via http://www.icsg.org/.)

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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)

				20	18	
	Source					January-
	table ²	2017 ^p	March	April	May	May
Production:						
Primary:						
Mine, recoverable	(2)	1,260,000	96,000	100,000	98,800	485,000
Smelter, total	(3)	470,000	41,500	44,800	39,000	221,000
Refinery:						
Electrolytic, domestic and foreign	(4)	482,000	50,400	38,700	41,600	222,000
Electrowon	(4)	557,000	44,300	43,200	46,000	221,000
Total	(4)	1,040,000	94,800	81,900	87,500	443,000
Secondary recoverable copper: ³	•					
Refineries	(5)	40,100	3,220	3,260	3,330	16,300
Ingot makers ⁴	(5)	57,600	4,800	4,800	4,800	24,000
Brass and wire-rod mills	(5)	645,000	50,200	54,100	56,200	268,000
Foundries, etc. ⁴	(5)	46,800	3,900	3,900	3,900	19,500
Consumption:						
Apparent	(8)	1,870,000	154,000	121,000	145,000	746,000
Refined (reported)	(7)	1,770,000	148,000	136,000	146,000	716,000
Purchased copper-base scrap (gross weight)	(9)	924,000	73,300	77,400	79,500	384,000
Stocks at end of period:						
Total refined	(10)	266,000	301,000	322,000	328,000	328,000
Blister, etc.	(10)	12,600	9,010	9,880	8,130	8,130
Price, U.S. producers cathode (cents per pound) ⁵	(11)	285.393	312.083	314.129	312.402	317.150
Imports: ⁶						
Ore and concentrate	(13)	14,100	1,500	3	4,370	22,900
Refined	(13)	813,000	72,900	61,800	64,600	365,000
Exports: ⁶						
Ore and concentrate	(14)	237,000	23,800	15,400	17,300	95,500
Refined	(14)	94,200	12,100	13,700	13,800	56,400

^pPreliminary.

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

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

³Copper recovered from copper-base scrap only.
⁴Estimated based on the monthly average of 2016 annual data.

⁵Source: Platts Metals Week.

⁶Source: U.S. Census Bureau.

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

(Metric tons)

	Re	ecoverable copp	er		Contained copper	
Period	Arizona	Others ²	Total	Electrowon	Concentrates ³	Total
2017: ^p						
January-May	360,000	180,000	540,000	232,000	321,000	553,000
May	75,100	31,900	107,000	48,600	60,900	109,000
June	71,900	37,100	109,000	46,600	64,700	111,000
July	73,500	30,600	104,000	44,900	61,600	107,000
August	71,200	30,500	102,000	46,900	57,000	104,000
September	75,000	24,500	99,500	46,700	55,000	102,000
October	66,900	32,400	99,300	46,600	54,800	101,000
November	72,800	31,200	104,000	46,600	59,700	106,000
December	76,100	24,900	101,000	47,600	55,700	103,000
January-December	868,000	391,000	1,260,000	557,000	730,000	1,290,000
2018:						
January	68,800	32,900	102,000	46,800	56,900	104,000
February	61,000	27,700	88,600	40,600	50,000	90,500
March	68,200	27,800	96,000	44,300	53,700	98,000
April	65,400	34,600	100,000	43,200	58,800	102,000
May	69,300	29,500	98,800	46,000	54,900	101,000
January–May	333,000	153,000	485,000	221,000	274,000	495,000

^pPreliminary.

 $\begin{tabular}{ll} TABLE~3\\ COPPER~PRODUCED~AT~SMELTERS~IN\\ THE~UNITED~STATES \end{tabular} \label{table}$

(Metric tons, copper content)

Anode
production
210,000
20,100
37,100
45,800
47,200
49,000
29,300
14,500
37,800
470,000
53,900
42,200
41,500
44,800
39,000
221,000

^pPreliminary.

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

²Includes production from Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

³Includes copper content of precipitates and other metal concentrates.

¹Includes blister and copper anode from primary or secondary sources.

²Data are rounded to no more than three significant digits; may not add to totals shown.

 ${\it TABLE~4}$ PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY 1

(Metric tons)

	Pri	mary materials			
	Electrolytically				Total
Period	refined ²	Electrowon	Total	Scrap	refined
2017: ^p					
January–May	227,000	232,000	459,000	17,200	476,000
May	32,800	48,600	81,400	3,390	84,800
June	33,100	46,600	79,800	3,280	83,000
July	42,400	44,900	87,300	3,220	90,600
August	49,200	46,900	96,100	3,340	99,400
September	45,700	46,700	92,400	3,310	95,700
October	32,500	46,600	79,100	3,280	82,400
November	21,100	46,600	67,700	3,240	70,900
December	30,400	47,600	77,900	3,250	81,200
January-December	482,000	557,000	1,040,000	40,100	1,080,000
2018:					
January	42,800	46,800	89,600	3,220	92,800
February	48,500	40,600	89,000	3,260	92,300
March	50,400	44,300	94,800	3,220	98,000
April	38,700	43,200	81,900	3,260	85,200
May	41,600	46,000	87,500	3,330	90,900
January–May	222,000	221,000	443,000	16,300	459,000

^pPreliminary.

 ${\it TABLE~5}$ COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP $^{\rm I}$

(Metric tons, copper content)

	Refin	eries ²	Ingot n	nakers ³	Brass and w	ire-rod mills	Foundri	es, etc.3	
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total ⁴
2017: ^p									
January-May	8,390	8,800	4,000	20,000	255,000	15,700	15,300	4,230	331,000
May	1,680	1,710	800	4,000	52,000	3,140	3,060	845	67,200
June	1,680	1,600	800	4,000	51,300	3,070	3,060	845	66,400
July	1,680	1,540	800	4,000	50,700	3,010	3,060	845	65,700
August	1,680	1,660	800	4,000	52,100	3,360	3,060	845	67,500
September	1,680	1,630	800	4,000	49,200	2,870	3,060	845	64,100
October	1,680	1,600	800	4,000	52,200	3,350	3,060	845	67,600
November	1,680	1,560	800	4,000	49,900	3,110	3,060	845	65,000
December	1,680	1,570	800	4,000	48,000	2,500	3,060	845	62,400
January-December	20,100	20,000	9,600	48,000	608,000	36,900	36,700	10,100	790,000
2018:	- <u> </u>								
January	1,680	1,540	800	4,000	51,100	3,300	3,060	845	66,300
February	1,680	1,580	800	4,000	50,000	2,940	3,060	845	64,900
March	1,680	1,540	800	4,000	46,800	3,350	3,060	845	62,100
April	1,680	1,580	800	4,000	50,800	3,270	3,060	845	66,100
May	1,680	1,650	800	4,000	53,000	3,180	3,060	845	68,200
January–May	8,390	7,880	4,000	20,000	252,000	16,000	15,300	4,230	328,000

^pPreliminary.

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

²From domestic and foreign source materials.

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

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

³Monthly data estimated based on the monthly average of 2016 annual data.

⁴Does not include an estimate, based on reported 2016 annual data, of 3,120 tons per month from new scrap and 2,490 tons per month from old scrap of copper recovered from scrap other than copper-base.

 ${\it TABLE~6}$ PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES 1

(Metric tons, gross weight)

	Pro	duction	Shi	pments	Stocks, e	end of period
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2017: ^p						
January-May	367,000	560,000	368,000	556,000	28,300	28,500
May	74,700	112,000	74,500	117,000	28,300	28,500
June	73,300	115,000	73,000	117,000	28,600	26,400
July	73,000	97,200	73,200	97,400	28,400	26,700
August	75,000	111,000	74,200	112,000	29,300	25,800
September	74,000	108,000	73,600	103,000	29,700	30,300
October	74,100	107,000	74,100	109,000	29,700	28,500
November	72,500	100,000	72,800	100,000	29,300	28,300
December	72,100	93,400	72,000	91,100	29,500	30,600
January-December	882,000	1,290,000	881,000	1,290,000	29,500	30,600
2018:						
January	73,600	105,000	73,500	105,000	29,500	30,800
February	72,700	101,000	73,400	103,000	28,800	28,500
March	74,300	108,000	74,000	107,000	29,200	28,800
April	73,600	95,500	73,600	103,000	29,200	21,200
May	73,600	105,000	74,000	106,000	28,800	21,000
January-May	368,000	515,000	368,000	524,000	28,800	21,000

^pPreliminary.

 $\label{eq:table 7} \textbf{TABLE 7}$ CONSUMPTION OF REFINED COPPER 1

(Metric tons)

	Brass	Wire-rod	Other	
Period	mills	mills	plants ²	Total
2017: ^p			-	
January–May	174,000	568,000	28,100	771,000
May	35,300	113,000	5,620	154,000
June	34,700	114,000	5,620	155,000
July	35,000	96,300	5,620	137,000
August	35,300	98,600	5,620	140,000
September	35,200	108,000	5,620	148,000
October	35,400	107,000	5,620	148,000
November	34,700	99,900	5,620	140,000
December	34,900	92,700	5,620	133,000
January-December	420,000	1,280,000	67,400	1,770,000
2018:				
January	34,600	105,000	5,620	145,000
February	35,100	100,000	5,620	141,000
March	34,900	107,000	5,620	148,000
April	35,100	95,300	5,620	136,000
May	34,900	105,000	5,620	146,000
January–May	175,000	513,000	28,100	716,000

^pPreliminary.

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

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

²Monthly consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers are estimated based on the monthly average of 2016 annual data.

$\label{eq:table 8} \text{U.S. APPARENT CONSUMPTION OF COPPER}^1$

(Metric tons)

Period	Refined copper production ²	Copper in old scrap ³	Refined general imports ⁴	Refined exports ⁴	Stock change during period	Apparent consumption
	production	olu scrap	imports	exports	during period	consumption
2017: ^p						
January–May	459,000	61,100	314,000	52,600	-5,340	787,000
May	81,400	12,200	63,200	9,230	-25,200	173,000
June	79,800	12,000	79,500	6,140	1,300	164,000
July	87,300	11,900	91,800	7,140	2,900	181,000
August	96,100	12,400	54,300	6,680	25,600	130,000
September	92,400	11,800	85,400	7,190	11,400	171,000
October	79,100	12,300	69,600	5,210	14,200	142,000
November	67,700	12,000	66,500	4,400	-3,740	146,000
December	77,900	11,400	58,900	4,810	-3,450	147,000
January-December	1,040,000	145,000	820,000	94,200	42,900	1,870,000
2018:						
January	89,600	12,200	81,100	9,550	23,300	150,000
February	89,000	11,900	77,500	7,270	-4,130	175,000
March	94,800	12,200	75,200	12,100	15,600	154,000
April	81,900	12,200	62,400	13,700	21,400	121,000
May	87,500	12,200	64,600	13,800	5,860	145,000
January–May	443,000	60,600	361,000	56,400	62,000	746,000

^pPreliminary. ^rRevised.

 ${\it TABLE~9} \\ {\it CONSUMPTION~OF~PURCHASED~COPPER-BASE~SCRAP}^1$

(Metric tons, gross weight)

	Sme	lters			Brass	s and			
	and ref	ineries	Ingot n	nakers ²	wire-roo	d mills ³	Foundri	es, etc. ²	Total scrap
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	used
2017: ^p									
January-May	8,650	7,930	10,300	25,700	295,000	16,200	18,300	4,780	387,000
May	1,730	1,590	2,060	5,130	60,100	3,250	3,660	956	78,400
June	1,730	1,650	2,060	5,130	59,300	3,180	3,660	956	77,700
July	1,730	1,590	2,060	5,130	58,700	3,070	3,660	956	76,900
August	1,730	1,590	2,060	5,130	60,100	3,450	3,660	956	78,700
September	1,730	1,690	2,060	5,130	57,100	2,920	3,660	956	75,200
October	1,730	1,650	2,060	5,130	60,200	3,460	3,660	956	78,900
November	1,730	1,610	2,060	5,130	57,900	3,180	3,660	956	76,200
December	1,730	1,620	2,060	5,130	55,900	2,560	3,660	956	73,600
January-December	20,800	19,300	24,700	61,600	704,000	38,000	43,900	11,500	924,000
2018:									
January	1,730	1,590	2,060	5,130	59,000	3,380	3,660	956	77,500
February	1,730	1,630	2,060	5,130	57,900	3,010	3,660	956	76,100
March	1,730	1,590	2,060	5,130	54,700	3,450	3,660	956	73,300
April	1,730	1,630	2,060	5,130	58,800	3,380	3,660	956	77,400
May	1,730	1,700	2,060	5,130	61,000	3,270	3,660	956	79,500
January-May	8,650	8,130	10,300	25,700	292,000	16,500	18,300	4,780	384,000

^pPreliminary.

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

²Includes electrowon production and electrolytically-refined copper from primary materials. All refined copper produced from scrap is included in "Copper in old scrap."

³Includes 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 2016 annual data.

⁴Source: U.S. Census Bureau.

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

²Monthly data estimated based on the monthly average of 2016 annual data.

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

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

(Metric tons)

]	Refined copper			
	Crude		Wire-rod					Total
Period	copper ²	Refineries ³	$mills^3$	Brass mills ³	Other ⁴	Comex	LME ⁵	refined
2017: ^p								
May	11,000	5,280	24,400	7,410	5,470	143,000	31,900	218,000
June	11,000	4,670	22,700	7,430	5,470	148,000	31,000	219,000
July	11,000	5,810	21,500	7,920	5,470	155,000	25,800	222,000
August	7,350	5,610	27,800	7,740	5,470	165,000	35,900	247,000
September	12,100	8,740	28,600	7,440	5,470	177,000	31,300	259,000
October	13,600	5,620	32,600	7,650	5,470	187,000	34,800	273,000
November	16,700	4,700	35,700	8,190	5,470	190,000	25,600	269,000
December	12,600	5,840	28,000	7,870	5,470	192,000	27,100	266,000
2018:								
January	15,000	6,190	29,000	8,040	5,470	202,000	38,800	289,000
February	14,600	7,690	21,800	7,880	5,470	209,000	33,200	285,000
March	9,010	4,790	22,600	8,000	5,470	212,000	47,600	301,000
April	9,880	4,500	21,600	7,870	5,470	226,000	57,000	322,000
May	8,130	4,960	22,200	8,190	5,470	210,000	77,200	328,000
n								

^pPreliminary.

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

(Cents per pound)

		Comex	LME
	U.S. producers	first	cash price
Period	cathode1	position ²	Grade A
2017:			_
May	259.902	254.902	253.608
June	265.143	260.193	258.506
July	277.821	272.883	271.162
August	300.928	295.878	293.822
September	303.468	298.405	298.585
October	314.747	309.559	308.299
November	314.717	309.417	309.581
December	314.825	309.825	308.471
Year	285.393	280.425	279.518
2018:			
January	324.640	319.390	321.137
February	322.495	316.745	317.574
March	312.083	306.683	308.227
April	314.129	308.754	310.169
May	312.402	306.402	309.409
January–May	317.150	311.595	313.303
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¹Sum of "Comex high grade first position" and "NY dealer premium cathode."

Source: Platts Metals Week.

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

²Copper content of blister and anode.

³Stocks of refined copper as reported; no estimates are made for nonrespondents.

⁴Monthly estimates based on 2016 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵London Metal Exchange Ltd., U.S. warehouses.

²Listed as "Comex high grade first position."

$\label{eq:table 12} \textbf{AVERAGE BUYING PRICES FOR COPPER SCRAP}$

(Cents per pound)

			Dealers (New York)	
				Red brass
	Brass mills	Refiners	No. 2	turnings and
Period	No. 1 scrap	No. 2 scrap	scrap	borings
2017:				
May	249.41	225.32	177.23	144.36
June	255.59	232.27	175.95	144.00
July	267.82	243.18	179.50	146.00
August	285.74	260.67	190.07	151.17
September	286.25	261.35	200.30	154.45
October	297.34	270.18	204.95	156.18
November	295.42	267.25	208.00	157.50
December	298.58	271.05	206.00	157.00
Year	271.69	245.68	189.25	149.55
2018:				
January	308.14	279.00	215.79	160.81
February	304.63	275.68	217.50	161.00
March	295.18	268.32	213.50	160.00
April	299.33	274.36	209.02	158.00
May	297.50	271.68	208.59	158.55
January-May	300.96	273.81	212.88	159.67

Source: American Metal Market.

TABLE 13 U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY ${\rm CLASS}^1$

(Metric tons, copper content)

	Ore and concentrates ²			Matte, ash, and precipitates ³			Blister and anodes			Refined		
					2018 January–			2018 January–			2018	
Country or				-			-					January-
locality	2017	May	May	2017	May	May	2017	May	May	2017	May	May
Belgium				69		33				(4)	2,000	10,100
Bolivia										1,560	127	439
Brazil										3,580		297
Canada	25	40	40	284		231				209,000	14,100	80,100
Chile										486,000	40,800	231,000
China			4	33	(4)	(4)				48	7	30
Congo (Kinshasa)										9,190		2,990
Finland							359	17	120	4		
Germany				7			(4)		(4)	2,310	38	456
India										224		(4)
Japan				76			2		(4)	4,630	382	1,670
Malaysia							126		54			
Mexico	14,000	4,330	22,900	588	38	332				75,200	4,240	24,300
Netherlands				166		66	3		(4)	3	(4)	(4)
Peru										18,000	2,000	5,010
South Africa										1,510		963
Other	9			700		36	14	(4)	2	1,230	1,010	6,850
Total	14,100	4,370	22,900	1,920	38	696	504	17	176	813,000	64,600	365,000

⁻⁻ Zero.

¹Data are rounded to no more than three significant digits; may not add to totals shown.
²Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.
³Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

⁴Less than ½ unit.

TABLE 14 U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

	Ore and concentrates ²			Matte, ash, and precipitates ³			Blister and anodes			Refined		
	2018 January–					2018		2018		-	2018	
Country or						January-			January-			January-
locality	2017	May	May	2017	May	May	2017	May	May	2017	May	May
Belgium				4,860	161	1,030	447	18	87	(4)		
Canada	23,500	1,000	7,850	17,200	1,250	9,700	3,290	945	2,470	18,300	3,430	13,500
China	70,800	3,730	23,700	392	57	453	249	20	105	10,100	498	981
Germany				576	400	487	215	22	73	14		2
Hong Kong							1,110	59	198	1		(4)
India	1			(4)		25	730	56	265	15		6
Italy				73		7	325	21	103	14	1	18
Japan	1,540	19	48	189			80	1	16	16	5	11
Korea, Republic of	99		2,150	397	63	299	1,780	116	580	2,460	1,090	1,510
Mexico	141,000	12,500	61,800	99		4	102	5	59	62,600	8,790	40,200
Singapore							40	15	26	5		(4)
Spain				124		208	121		40	1		(4)
Switzerland							31		7	5		2
Taiwan				146			122		20	19		12
Vietnam										503		1
Other	137	11	39	1,090	54	458	1,040	55	295	142	17	137
Total	237,000	17,300	95,500	25,100	1,980	12,700	9,690	1,330	4,350	94,200	13,800	56,400

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

Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

⁴Less than ½ unit.

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

(Metric tons, gross weight)

		Unalloyed	Alloyed				
		2013	3		2018		
Country or	-		January-			January–	
territory	2017	May	May	2017	May	May	
Canada	18,900	1,230	7,180	81,900 ^r	6,500	31,900	
Chile	57	40	100	301	17	74	
Colombia	598	37	176	1,360	70	452	
Costa Rica	636	15	229	1,060	43	296	
Guatemala	36	13	55	446	67	185	
Honduras	61			352	23	133	
Mexico	10,400	935	4,540	35,300	3,420	15,200	
Nicaragua	38	19	19	321	20	185	
Pakistan	694	56	396				
Panama	1,440	74	630	790	44	307	
Venezuela	958	95	1,330	1,870	5	350	
Other	1,700	163	820	6,190 ^r	494	2,560	
Total	35,500	2,680	15,500	130,000 ^r	10,700	51,600	

Revised. -- Zero.

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

TABLE 16
U.S. EXPORTS OF COPPER SCRAP¹

(Metric tons, gross weight)

	Unalloyed								Alloyed					
			2018						2018					
		No. 1		No. 2		Other			Segregated		Unsegregated			
Country or			January-		January-		January-			January-		January-		
territory	2017	May	May	May	May	May	May	2017	May	May	May	May		
Belgium	7,870	383	1,480	1,120	1,880	370	1,050	8,560	15	132	559	3,040		
Canada	43,700					4,590	21,900	49,200			2,970	14,100		
China	351,000	5,090	50,500	4,860	46,400	4,530	42,800	335,000	2,800	26,400	4,280	34,400		
Germany	19,700	1,190	6,720	540	2,160	172	566	10,900	234	1,500	1,100	4,380		
Hong Kong	6,950	727	1,860	158	391	540	2,740	31,800	159	3,460	1,380	7,630		
India	4,710	1,000	2,320	109	607	257	674	20,000	1,880	5,530	791	1,940		
Japan	11,800	379	985	1,120	5,050	204	1,670	9,300	236	478	786	7,040		
Korea, Republic of	17,000	2,580	8,020	475	1,280	559	2,080	14,400	796	2,720	901	3,280		
Mexico	3,500	475	1,840	1	5	19	21	507	6	29	54	314		
Netherlands	7,260	400	1,930		120	196	1,770	1,120	19	119	193	844		
Pakistan	2,340	122	204	55	186	2	2	5,780		126	952	3,000		
Spain	1,220	31	201		107		59	6,280	240	1,020	611	2,910		
Taiwan	5,600	620	2,570	110	370	533	1,570	2,900	98	450	1,570	3,940		
Thailand	204	295	956	112	354	406	1,100	472	20	396	2,760	7,520		
Other	9,580	2,090	5,840	2,640	4,370	3,280	8,820	13,600	2,990	5,960	4,110	14,100		
Total	492,000	15,400	85,400	11,300	63,300	15,700	86,800	510,000	9,480	48,300	23,000	108,000		
Zoro	172,000	15,100	05,100	11,500	05,500	15,700	00,000	210,000	>,100	10,500	25,000	100,0		

⁻⁻ Zero.

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