

# Mineral Industry Surveys

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# **COPPER IN FEBRUARY 2018**

In February 2018, domestic mine production of recoverable copper was 86,200 metric tons (t). The average daily mine production was 3,080 t, a decrease of 4% from that in January and a decline of 13% compared with that in February 2017. Year-to-date recoverable mine production through February 2018 was 185,000 t, a decrease of 12% relative to the same period in 2017 (fig. 1, table 2).

Total U.S. refinery production was 92,300 t in February 2018; data for electrolytic and electrowon output, as well as refined production from scrap, are in table 4. Average daily total refinery production was 3,300 t, an increase of 10% compared with that in January and slightly less than that in February 2017. Year-to-date refinery production through February 2018 was 185,000 t, a decrease of 5% relative to the same period in 2017 (fig. 1, table 4).

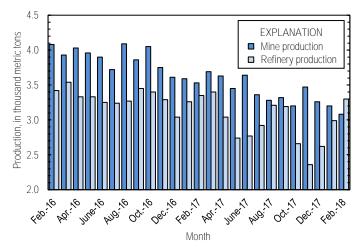


Figure 1. Average daily U.S. copper mine (recoverable) and refinery production from February 2016 through February 2018. Source: U.S. Geological Survey.

Smelter production in February 2018 was 42,200 t. The average daily smelter production was 1,510 t, 13% less than that in January and a decrease of 12% compared with the daily average in February 2017. Year-to-date smelter production through February 2018 was 96,000 t, slightly less than that through February 2017 (table 3).

#### Prices

The average February 2018 COMEX spot copper price was \$3.17 per pound, a slight decrease from \$3.19 per pound in January and 18% greater than \$2.69 per pound in February 2017 (fig. 2, table 11). The average price of New York dealers' number 2 scrap in February 2018 was \$2.18 per pound, up slightly from \$2.16 per pound in January and 16% higher than \$1.87 in February 2017 (fig. 2, table 12).

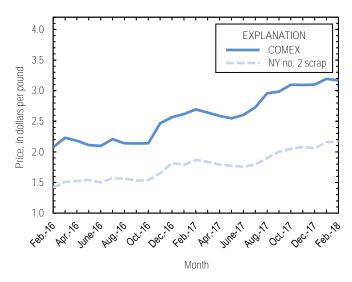


Figure 2. Monthly average COMEX copper price and New York no. 2 copper scrap price from February 2016 through February 2018. Sources: American Metal Market, Platts Metals Week.

#### Stocks

Refined copper stocks in the United States totaled 286,000 t at the end of February 2018, a slight decrease from those in January and 18% more than those in February 2017. COMEX stocks rose by 4%, stocks at wire-rod mills decreased by 20%,

and London Metal Exchange Ltd. stocks in U.S. warehouses were 14% lower compared with those at the end of January (fig. 3, table 10).

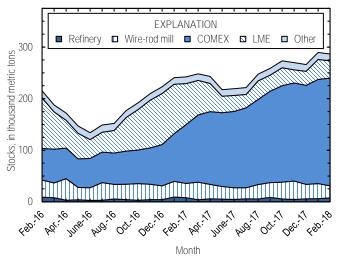


Figure 3. Monthly domestic refined copper stocks, by type, from February 2016 through February 2018. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

**Industry News** 

The Government of Indonesia issued a new copper concentrate export permit to PT Freeport Indonesia, a subsidiary of Freeport-McMoRan Inc. (Phoenix, AZ), after the previous permit expired on February 16. The license will allow the company to export 1.25 million metric tons of copper concentrates from the Grasberg Mine through February 15, 2019 (Zuberi, 2018). Grasberg was one of the leading global copper mines in 2017; production of contained copper was 452,000 t, equivalent to more than 2% of global output (Freeport-McMoRan Inc., 2018, p. 43).

### **References Cited**

Freeport-McMoRan Inc., 2018, 2017 annual report: Phoenix, AZ, Freeport-McMoRan Inc., 133 p. (Accessed May 16, 2018, at https://s22.q4cdn.com/ 529358580/files/doc\_financials/annual/FCX\_AR\_2017.pdf.)

Zuberi, Suhaib, 2018, Freeport, Amman secure 1-year copper export permits from Indonesia: S&P Global Market Intelligence, February 19. (Accessed February 23, 2018, via http://www.snl.com/.)

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

				2018	
	Source				January–
	table <sup>2</sup>	2017 <sup>p</sup>	January	February	February
Production:	_				
Primary:					
Mine, recoverable	(2)	1,260,000	99,300 r	86,200	185,000
Smelter, total	(3)	470,000	53,900	42,200	96,000
Refinery:	_				
Electrolytic, domestic and foreign	(4)	482,000	42,800	48,500	91,300
Electrowon	(4)	557,000	46,800	40,600	87,400
Total	(4)	1,040,000	89,600	89,000	179,000
Secondary recoverable copper: <sup>3</sup>	-				
Refineries	(5)	40,100	3,220	3,260	6,470
Ingot makers <sup>4</sup>	(5)	57,600	4,800	4,800	9,600
Brass and wire-rod mills	(5)	645,000	54,400 r	52,900	107,000
Foundries, etc. <sup>4</sup>	(5)	46,800	3,900	3,900	7,800
Consumption:					
Apparent	(8)	1,870,000	150,000	174,000	324,000
Refined (reported)	(7)	1,770,000	145,000	139,000	284,000
Purchased copper-base scrap (gross weight)	(9)	924,000	77,500	76,100	154,000
Stocks at end of period:	_				
Total refined	(10)	266,000	289,000	286,000	286,000
Blister, etc.	(10)	12,600	15,000	14,600	14,600
Price, U.S. producers cathode (cents per pound) <sup>5</sup>	(11)	285.393	324.640	322.495	323.568
Imports: <sup>6</sup>	-				
Ore and concentrates	(13)	14,100	8,910	8,130	17,000
Refined	(13)	813,000	88,300	77,000	165,000
Exports: <sup>6</sup>	-				
Ore and concentrates	(14)	237,000	23,500	15,400	39,000
Refined	(14)	94,200	9,550	7,270	16,800

# (Metric tons of copper content, unless otherwise specified)

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

<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>Copper recovered from copper-base scrap only.

<sup>4</sup>Estimated based on the monthly average of 2016 annual data.

<sup>5</sup>Source: Platts Metals Week.

<sup>6</sup>Source: U.S. Census Bureau.

### TABLE 2

### MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES $^{\rm 1}$

#### (Metric tons)

	Re	coverable coppe	r		Contained copper	
Period	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total
2017: <sup>p</sup>						
January-February	135,000	74,800	210,000	88,400	126,000	215,000
February	64,200	34,500	98,700	41,600	59,400	101,000
March	77,500	36,800	114,000	49,000	67,900	117,000
April	72,500	36,500	109,000	45,600	66,000	112,000
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 r	104,000	46,600	59,700 r	106,000
December	76,100	24,900 r	101,000 <sup>r</sup>	47,600	55,700 <sup>r</sup>	103,000
January-December	868,000	391,000	1,260,000	557,000	730,000 r	1,290,000
2018:						
January	66,100 <sup>r</sup>	33,200 r	99,300 <sup>r</sup>	46,800	57,200 r	104,000
February	58,200	28,000	86,200	40,600	50,300	90,800
January-February	124,000	61,200	185,000	87,400	108,000	195,000

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

<sup>3</sup>Includes copper content of precipitates and other metal concentrates.

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

#### (Metric tons, copper content)

	Anode
Period	production
2017: <sup>p</sup>	
January-February	96,700
February	47,800
March	52,200
April	40,700
May	20,100
June	37,100
July	45,800
August	47,200
September	49,000
October	29,300
November	14,500
December	37,800
January-December	470,000
2018:	
January	53,900
February	42,200
January-February	96,000

<sup>p</sup>Preliminary.

<sup>1</sup>Includes blister and copper anode from primary or secondary sources.

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

#### TABLE 4

### PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY<sup>1</sup>

#### (Metric tons)

	Pri	mary materials			
	Electrolytically				Total
Period	refined <sup>2</sup>	Electrowon	Total	Scrap	refined
2017: <sup>p</sup>					
January–February	99,300	88,400	188,000	7,330	195,000
February	48,200	41,600	89,800	4,090	93,900
March	53,200	49,000	102,000	3,240	105,000
April	42,300	45,600	87,800	3,230	91,000
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
January-February	91,300	87,400	179,000	6,470	185,000
Pp 1: :	,	,	,	,	,

<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>From domestic and foreign source materials.

# TABLE 5 COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP<sup>1</sup>

#### (Metric tons, copper content)

	Refin	eries <sup>2</sup>	Ingot n	nakers <sup>3</sup>	Brass and wi	re-rod mills	Foundri	es, etc. <sup>3</sup>	
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	Total <sup>4</sup>
2017: <sup>p</sup>									
January-February	3,350	3,980	1,600	8,000	99,500	6,300	6,110	1,690	131,000
February	1,680	2,420	800	4,000	50,100	2,940	3,060	845	65,800
March	1,680	1,560	800	4,000	52,000	3,110	3,060	845	67,100
April	1,680	1,550	800	4,000	51,300	3,110	3,060	845	66,300
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:									
January	1,680	1,540	800	4,000	51,100 <sup>r</sup>	3,300	3,060	845	66,300 <sup>r</sup>
February	1,680	1,580	800	4,000	50,000	2,940	3,060	845	64,900
January-February	3,350	3,120	1,600	8,000	101,000	6,240	6,110	1,690	131,000

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

<sup>3</sup>Monthly data estimated based on the monthly average of 2016 annual data.

<sup>4</sup>Does not include an estimate, based on reported 2016 annual data, of 3,121 tons per month from new scrap and 2,490 tons per month from old scrap of copper recovered from scrap other than copper-base.

### TABLE 6

# PRODUCTION, SHIPMENTS, AND STOCKS OF BRASS AND WIRE-ROD SEMIFABRICATES $^{\rm 1}$

	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: <sup>p</sup>						
January-February	146,000	219,000	146,000	215,000	28,900	29,000
February	72,800	105,000	73,100	98,000	28,900	29,000
March	74,200	117,000	74,400	120,000	28,600	25,300
April	72,200	112,000	72,800	104,000	28,000	33,000
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	98,400	73,400	102,000	28,800	27,500
January-February	146,000	204,000	147,000	207,000	28,800	27,500

#### (Metric tons, gross weight)

<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

### CONSUMPTION OF REFINED COPPER<sup>1</sup>

#### (Metric tons)

	Brass	Wire-rod	Other	
Period	mills	mills	plants <sup>2</sup>	Total
2017: <sup>p</sup>				
January–February	69,400	227,000	11,200	307,000
February	34,800	114,000	5,620	154,000
March	35,300	116,000	5,620	157,000
April	34,200	112,000	5,620	152,000
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	98,100	5,620	139,000
January–February	69,700	203,000	11,200	284,000

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

# TABLE 8 U.S. APPARENT CONSUMPTION OF COPPER<sup>1</sup>

### (Metric tons)

	Refined copper	Copper in	Refined general	Refined	Stock change	Apparent
Period	production <sup>2</sup>	old scrap <sup>3</sup>	imports <sup>4</sup>	exports <sup>4</sup>	during period	consumption
2017: <sup>p</sup>						
January-February	188,000	24,900	126,000	21,400	19,200	298,000
February	89,800	12,700	53,500	9,100	1,420	145,000
March	102,000	12,000	73,800	9,760	5,800	172,000
April	87,800	12,000	51,400	12,200	-5,100	144,000
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	-2,730	174,000
January-February	179,000	24,000	159,000	16,800	20,500	324,000

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

<sup>3</sup>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 2016 annual data.

<sup>4</sup>Source: U.S. Census Bureau.

# TABLE 9 CONSUMPTION OF PURCHASED COPPER-BASE SCRAP<sup>1</sup>

	Sme	lters			Brass	and			
	and ref	ineries	Ingot n	nakers <sup>2</sup>	wire-roo	d mills <sup>3</sup>	Foundri	es, etc. <sup>2</sup>	Total scrap
Period	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	used
2017: <sup>p</sup>									
January-February	3,460	3,170	4,120	10,300	116,000	6,530	7,320	1,910	152,000
February	1,730	1,590	2,060	5,130	58,000	3,040	3,660	956	76,200
March	1,730	1,590	2,060	5,130	60,100	3,240	3,660	956	78,400
April	1,730	1,590	2,060	5,130	59,300	3,190	3,660	956	77,600
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
January–February	3,460	3,210	4,120	10,300	117,000	6,390	7,320	1,910	154,000

#### (Metric tons, gross weight)

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

<sup>3</sup>Consumption at brass and wire-rod mills assumed equal to receipts.

# TABLE 10 COPPER STOCKS AT END OF PERIOD<sup>1</sup>

#### (Metric tons)

				1	Refined copper			
	Crude		Wire-rod					Total
Period	copper <sup>2</sup>	Refineries <sup>3</sup>	mills <sup>3</sup>	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex	LME <sup>5</sup>	refined
2017: <sup>p</sup>								
February	13,200	8,010	27,700	7,330	5,470	114,000	79,600	242,000
March	13,500	3,860	34,400	7,050	5,470	130,000	67,200	248,000
April	26,100	5,980	27,900	8,030	5,470	141,000	54,700	243,000
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	23,200	7,880	5,470	209,000	33,200	286,000

<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 content of blister and anode.

<sup>3</sup>Stocks of refined copper as reported; no estimates are made for nonrespondents.

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

<sup>5</sup>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)

		Comex	LME
	U.S. producers	first	cash price
Period	cathode <sup>1</sup>	position <sup>2</sup>	Grade A
2017:			
February	274.051	269.426	269.484
March	269.122	264.122	264.040
April	263.626	258.626	258.428
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
January-February	323.568	318.068	319.356

<sup>1</sup>Sum of "Comex high grade first position" and "NY dealer premium cathode."

<sup>2</sup>Listed as "Comex high grade first position."

Source: Platts Metals Week.

# TABLE 12 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:				
February	261.50	234.00	186.97	148.00
March	256.70	228.57	183.67	146.30
April	251.10	225.95	179.50	145.00
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
January-February	306.39	277.34	216.65	160.91

Source: American Metal Market.

# TABLE 13 U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Bl	Blister and anodes			Refined		
		2018 January–			2018 January–			2018 January–			20	018	
Country or												January-	
locality	2017	February	February	2017	February	February	2017	February	February	2017	February	February	
Belgium				69		33				(4)	8,100	8,100	
Bolivia										1,560	312	312	
Brazil										3,580		297	
Canada	25			284	48	48				209,000	18,300	35,000	
Chile										486,000	45,000	107,000	
China		1	1	33						48	5	11	
Congo (Kinshasa)										9,190	1,700	2,780	
Finland							359	17	35	4			
Germany				7			(4)		(4)	2,310	78	114	
India										224			
Japan				76			2		(4)	4,630	421	626	
Malaysia							126	18	36				
Mexico	14,000	8,130	17,000	588	98	138				75,200	2,640	8,290	
Netherlands				166	30	52	3			3			
Peru										18,000		999	
South Africa										1,510			
Other	9			700	(4)	17	14	(4)	1	1,230	441	1,490	
Total	14,100	8,130	17,000	1,920	176	288	504	35	72	813,000	77,000	165,000	

#### (Metric tons, copper content)

-- Zero.

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

<sup>2</sup>Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

<sup>3</sup>Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

<sup>4</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

# TABLE 14 U.S. EXPORTS OF COPPER (UNMANUFACTURED), BY CLASS<sup>1</sup>

	Ore and concentrates <sup>2</sup>			Matte, ash, and precipitates <sup>3</sup>			Blister and anodes			Refined		
		2018 January–			2018 January–			2018 January–			2018	
Country or												January–
locality	2017	February	February	2017	February	February	2017	February	February	2017	February	February
Belgium				4,860	198	411	447	22	33	(4)		
Canada	23,500	1,710	3,320	17,200	1,600	5,210	3,290	581	1,070	18,300	1,430	2,330
China	70,800	3,570	10,000	392	80	155	249	10	30	10,100		1
Germany				576	26	28	215	31	31	14		2
Hong Kong							1,110	59	99	1		
India	1			(4)	17	17	730	24	69	15		
Italy				73		7	325	40	40	14	1	12
Japan	1,540			189			80		(4)	16	(4)	1
Korea, Republic of	99			397	75	128	1,780	136	232	2,460	12	12
Mexico	141,000	10,100	25,600	99			102	2	3	62,600	5,800	14,400
Singapore							40	11	11	5		(4)
Spain				124	208	208	121	20	20	1		
Switzerland							31	6	6	5	2	2
Taiwan				146			122			19	10	10
Vietnam										503		
Other	137	8	13	1,090	92	132	1,040	54	114	142	15	44
Total	237,000	15,400	39,000	25,100	2,300	6,300	9,690	997	1,760	94,200	7,270	16,800

### (Metric tons, copper content)

-- Zero.

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

<sup>2</sup>Copper ore and concentrates only; excludes copper contained in ore and concentrates of other metals.

<sup>3</sup>Copper matte, ash, and precipitates only; excludes the copper content of mattes and ashes of other metals.

 $^4Less$  than  $^{1\!/_2}$  unit.

# TABLE 15 U.S. IMPORTS FOR CONSUMPTION OF COPPER SCRAP $^1$

	Unalloyed	Alloyed				
	20	18		2018		
-		January–	-		January–	
2017	February	February	2017	February	February	
18,900	1,430	2,990	81,900	6,390	12,900	
57			301		18	
598	19	60	1,360	69	127	
636	35	77	1,060	112	163	
36	11	12	446	32	57	
61			352	18	58	
10,400	841	1,740	35,300	2,960	5,460	
38			321	52	125	
694	57	208				
1,440	117	270	790	43	161	
958	429	938	1,870	38	38	
1,700	180	353	6,120	566	1,110	
35,500	3,110	6,650	130,000	10,300	20,200	
	18,900 57 598 636 36 61 10,400 38 694 1,440 958 1,700	2017         February           2017         February           18,900         1,430           57            598         19           636         35           36         11           61            10,400         841           38            694         57           1,440         117           958         429           1,700         180	2018           January-           2017         February         February           18,900         1,430         2,990           57             598         19         60           636         35         77           36         111         12           61             10,400         841         1,740           38             694         57         208           1,440         117         270           958         429         938           1,700         180         353	2018         January-           2017         February         February         2017           18,900         1,430         2,990         81,900           57           301           598         19         60         1,360           636         35         77         1,060           36         11         12         446           61           352           10,400         841         1,740         35,300           38           321           694         57         208            1,440         117         270         790           958         429         938         1,870           1,700         180         353         6,120	$\begin{tabular}{ c c c c c c c c c c c c c c c c c c c$	

# (Metric tons, gross weight)

-- Zero.

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

# TABLE 16U.S. EXPORTS OF COPPER SCRAP1

				Unalloyed	Alloyed									
	2018								2018					
		No. 1		No. 2		Other			Segregated		Unsegregated			
Country or			January-		January-		January-			January–		January–		
territory	2017	February	February	February	February	February	February	2017	February	February	February	February		
Belgium	7,870	156	369	175	233	182	425	8,560	60	98	422	736		
Canada	43,700					4,310	8,370	49,200			3,100	5,790		
China	351,000	10,200	17,800	10,300	18,500	9,910	18,800	335,000	5,970	11,800	8,290	15,700		
Germany	19,700	1,330	2,540	175	368	49	94	10,900	419	647	691	1,480		
Hong Kong	6,950	279	486	88	112	385	488	31,800	803	1,900	1,580	3,360		
India	4,710	290	380	185	246	43	137	20,000	836	1,820	373	519		
Japan	11,800	135	268	950	1,540	284	664	9,300	39	107	1,840	3,180		
Korea, Republic of	17,000	1,120	2,210	104	242	321	776	14,400	525	1,050	537	1,110		
Mexico	3,500	336	747	1	1			507	21	23	183	235		
Netherlands	7,260	676	856		20	346	794	1,120		40	175	255		
Pakistan	2,340	27	31	32	51			5,780	54	54	638	942		
Spain	1,220		107		107	39	59	6,280	234	391	451	1,190		
Taiwan	5,600	430	904	33	75	282	559	2,900	74	134	905	1,160		
Thailand	204	118	165	90	177	20	181	472	185	224	1,220	1,660		
Other	9,580	710	1,440	366	782	1,740	2,580	13,600	774	1,380	3,250	5,600		
Total	492,000	15,900	28,300	12,500	22,500	17,900	33,900	510,000	10,000	19,700	23,700	42,900		

-- Zero.

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