

# Mineral Industry Surveys

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### **COPPER IN DECEMBER 2016**

In December 2016, domestic mine production of recoverable copper was 111,000 metric tons (t), a slight decrease from 112,000 t in November and 12% less than that in December 2015. Average daily mine production was 3,580 t, 4% less than that in November. Total refinery production in December 2016 was 94,100 t, a decrease of 5% from 98,500 t in November and 16% less than that in December 2015. Average daily refinery production was 3,040 t, 8% less than that in November. U.S. mine production of recoverable copper during all of 2016 was 1.43 million metric tons (Mt), slightly higher than 1.41 Mt in 2015, and total 2016 refinery production was 1.22 Mt, an increase of 7% from 1.14 Mt in 2015 (fig. 1; tables 2, 4).

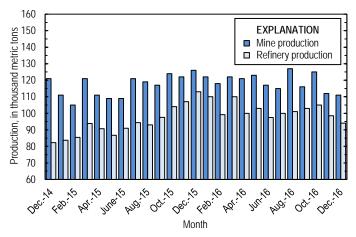


Figure 1. Monthly domestic copper mine production (recoverable) and refinery production from December 2014 through December 2016. Source: U.S. Geological Survey.

U.S. electrolytic refinery production in December 2016 was 42,900 t, a decrease of 8% compared with that in November and 19% less than that in December 2015. Electrowon production was 47,900 t, a decline of 2% relative to that in November and 14% less than that in December 2015. Smelter production in December 2016 was 55,000 t, 27% greater than that in November and slightly less than that in December 2015. Average daily smelter production was 1,770 t, an increase of

23% in comparison with that in November. Owing to a series of smelter maintenance shutdowns during 2015, total smelter production in 2016 increased by 36,200 t (7%) to 563,000 t (tables 3, 4).

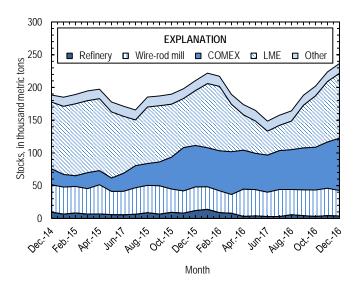


Figure 2. Monthly U.S. refined copper stocks, by type, from December 2014 through December 2016. Sources: American Metal Market, London Metal Exchange Ltd., and U.S. Geological Survey.

#### Stocks

Refined copper stocks in the United States at the end of December 2016 totaled 237,000 t and increased by 6% compared with those at the end of November owing to increases of 13% and 7%, respectively, in COMEX and LME stocks. Refined stocks were 12% greater than those at the end of December 2015 (fig. 2, table 10).

#### **Prices**

The average December 2016 COMEX spot copper price was \$2.57 per pound, the highest monthly average since June 2015. The December price increased by 4% from \$2.47 per pound in November and was 23% greater than that in December 2015.

The yearly average COMEX copper price for 2016 was \$2.20 per pound, a decrease of 12% from \$2.51 per pound in 2015 (table 11). The annual COMEX price reached a record-high \$4.00 per pound in 2011 and has decreased in each of the following years. The average price for New York dealers' number 2 scrap in December 2016 was \$1.82 per pound, up by 10% from the average price in November and up by 22% from the average price in December 2015 (table 12).

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

(Metric tons, unless otherwise specified)

				20	16	
	Source					January-
	table <sup>2</sup>	2015 <sup>p</sup>	October	November	December	December
Production:						
Primary:						
Mine, recoverable	(2)	1,410,000	125,000	112,000	111,000	1,430,000
Smelter, total	(3)	527,000	51,900	43,300 <sup>r</sup>	55,000	563,000
Refinery:						
Electrolytic, domestic and foreign	(4)	503,000	48,800	46,600	42,900	561,000
Electrowon	(4)	588,000	53,300	48,700	47,900	615,000
Total	(4)	1,090,000	102,000	95,300	90,800	1,180,000
Secondary recoverable copper:						
Refineries	(5)	48,800	3,410	3,220	3,330	46,300
Ingot makers <sup>3</sup>	(5)	56,300	4,690	4,690	4,690	56,300
Brass and wire-rod mills	(5)	570,000	54,800	52,900	52,000	621,000
Foundries, etc. <sup>3</sup>	(5)	50,200	4,190	4,190	4,190	50,200
Consumption:						
Apparent	(8)	1,810,000	159,000	138,000	142,000	1,870,000
Refined (reported)	(7)	1,800,000	150,000	149,000	131,000	1,760,000
Purchased copper-base scrap	(9)	875,000	78,700	77,000	75,900	910,000
Stocks at end of period:						
Total refined	(10)	210,000	202,000	224,000	237,000	237,000
Blister, etc.	(10)	13,900	14,700	13,800 <sup>r</sup>	14,200	14,200
Prices, U.S. producers cathode (cents per pound) <sup>4</sup>	(11)	256.150	218.885	251.388	261.183	224.873
Imports: <sup>5</sup>						
Ore and concentrate <sup>6</sup>	(13)	295	3			105
Refined	(13)	686,000	64,500	67,100	72,000	708,000
Exports: <sup>5</sup>						
Ore and concentrate <sup>6</sup>	(14)	392,000	31,700	22,000	21,100	331,000
Refined	(14)	86,200	7,750	13,100	8,040	134,000

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

<sup>&</sup>lt;sup>3</sup>Monthly data estimated based on 2014 monthly average.

<sup>&</sup>lt;sup>4</sup>Source: Platts Metals Week.

<sup>&</sup>lt;sup>5</sup>Source: U.S. Census Bureau.

<sup>&</sup>lt;sup>6</sup>Copper content.

 ${\bf TABLE~2}$  MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES  $^1$ 

#### (Metric tons)

	Rec	Recoverable copper			Contained copper		
Period	Arizona	Others <sup>2</sup>	Total	Electrowon	Concentrates <sup>3</sup>	Total	
2015: <sup>p</sup>							
December	90,300	36,000	126,000	55,700	73,100	129,000	
January-December	985,000	422,000	1,410,000	588,000	851,000	1,440,000	
2016:							
January	84,500	37,100	122,000	54,500	70,400	125,000	
February	79,400	38,900	118,000	48,500	72,800	121,000	
March	81,600	40,100	122,000	51,400	73,000	124,000	
April	81,200	39,500	121,000	49,700	73,900	124,000	
May	83,500	39,400	123,000	51,700	74,000	126,000	
June	79,800	37,200	117,000	50,700	69,000	120,000	
July	80,200	35,100	115,000	54,000	63,700	118,000	
August	86,400	40,300	127,000	52,700	76,900	130,000	
September	79,400	36,400	116,000	51,400	67,000	118,000	
October	81,800	43,700	125,000	53,300	74,900	128,000	
November	74,200	38,200	112,000	48,700	66,100	115,000	
December	75,700	35,300	111,000	47,900	65,700	114,000	
January-December	968,000	461,000	1,430,000	615,000	848,000	1,460,000	

Preliminary.

 $\begin{tabular}{ll} TABLE 3 \\ COPPER PRODUCED AT SMELTERS IN \\ THE UNITED STATES $^{1,2}$ \\ \end{tabular}$ 

(Metric tons, copper content)

	Anode
Period	production
2015: <sup>p</sup>	
December	55,100
January-December	527,000
2016:	<u></u>
January	45,600
February	46,100
March	41,400
April	47,300
May	51,900
June	45,400
July	33,100
August	47,700
September	54,000
October	51,900
November	43,300 <sup>r</sup>
December	55,000
January-December	563,000

<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.

 $<sup>^2 \</sup>rm{Includes}$  production from Idaho, Michigan, Missouri, Montana, Nevada, New Mexico, and Utah.

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

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

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

 ${\bf TABLE~4}$  PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY  $^{\rm I}$ 

(Metric tons)

	Primary materials						
	Electrolytically				Total		
Period	refined <sup>2</sup>	Electrowon	Total	Scrap	refined		
2015: <sup>p</sup>							
December	53,000	55,700	109,000	4,050	113,000		
January-December	503,000	588,000	1,090,000	48,800	1,140,000		
2016:	·						
January	51,100	54,500	106,000	4,250	110,000		
February	43,500	48,500	92,000	7,190	99,200		
March	53,300	51,400	105,000	4,900	110,000		
April	47,100	49,700	96,800	3,200	100,000		
May	48,200	51,700	99,900	3,180	103,000		
June	43,600	50,700	94,200	3,260	97,500		
July	43,200	54,000	97,200	3,280	100,000		
August	45,200	52,700	97,900	3,300	101,000		
September	48,200	51,400	99,500	3,810	103,000		
October	48,800	53,300	102,000	3,410	105,000		
November	46,600	48,700	95,300	3,220	98,500		
December	42,900	47,900	90,800	3,330	94,100		
January-December	561,000	615,000	1,180,000	46,300	1,220,000		

Preliminary.

 ${\it TABLE~5}$  COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP  $^1$ 

(Metric tons, copper content)

	Refin	eries <sup>2</sup>	Ingot n	nakers <sup>3</sup>	Brass and w	ire-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>
2015: <sup>p</sup>									
December	1,640	2,410	826	3,860	44,100	2,490	3,290	896	59,500
January-December	17,900	30,900	9,910	46,400	533,000	37,100	39,500	10,800	725,000
2016:									
January	1,640	2,620	826	3,860	46,300	3,430	3,290	896	62,900
February	1,640	5,550	826	3,860	45,700	3,190	3,290	896	64,900
March	1,660	3,240	826	3,860	46,000	3,150	3,290	896	62,900
April	1,630	1,570	826	3,860	50,500	2,790	3,290	896	65,300
May	1,610	1,570	826	3,860	50,400	2,610	3,290	896	65,100
June	1,680	1,580	826	3,860	49,600	3,000	3,290	896	64,700
July	1,680	1,600	826	3,860	48,200	2,600	3,290	896	63,000
August	1,680	1,620	826	3,860	48,900	2,790	3,290	896	63,900
September	1,680	2,130	826	3,860	49,700	2,730	3,290	896	65,100
October	1,680	1,740	826	3,860	51,800	3,020	3,290	896	67,100
November	1,680	1,540	826	3,860	49,900	3,060	3,290	896	65,000
December	1,680	1,650	826	3,860	49,100	2,860	3,290	896	64,200
January-December	19,900	26,400	9,910	46,400	586,000	35,200	39,500	10,800	774,000

 $<sup>^</sup>p Preliminary. \\$ 

<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>From domestic and foreign source materials.

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

 $<sup>^3\</sup>mbox{Monthly}$  data and 2015 cumulative data estimated based on 2014 annual data.

<sup>&</sup>lt;sup>4</sup>Does not include an estimate, based on reported 2014 data, of 2,950 tons per month from new scrap and 2,530 tons per month from old scrap, of copper recovered from scrap other than copper-base.

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

(Metric tons, gross weight)

	Pro	duction	Shi	pments	Stocks, end of period	
Period	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills	Brass mills	Wire-rod mills
2015: <sup>p</sup>						_
December	72,700	92,200	73,100	92,200	28,400	26,000
January-December	891,000	1,320,000	891,000	1,310,000	28,400	26,000
2016:						
January	73,600	112,000	73,400	110,000	28,600	27,600
February	73,600	109,000	73,900	108,000	28,200	28,900
March	75,000	117,000	74,200	113,000	28,900	33,100
April	73,500	109,000	73,300	108,000	29,200	29,400
May	72,300	110,000	73,700	111,000	27,800	28,300
June	72,300	112,000	71,200	110,000	28,900	30,200
July	72,800	103,000	72,700	103,000	29,100	29,600
August	74,400	113,000	73,800	113,000	29,600	29,600
September	72,500	106,000	73,500	110,000	28,700	25,200
October	74,800	111,000	75,100	109,000	28,500	27,100
November	72,700	108,000	72,800	107,000	28,300	28,100
December	72,300	96,100	72,100	97,900	28,500	26,300
January-December	880,000	1,310,000	880,000	1,300,000	28,500	26,300

Preliminary.

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

(Metric tons)

	Brass	Wire-rod	Other	
Period and item	mills	mills	plants <sup>2</sup>	Total
2015: <sup>p</sup>			•	
December	35,000	95,800	4,690	135,000
January-December	422,000	1,320,000	56,200	1,800,000
2016:				
January	34,800	110,000	4,690	149,000
February	35,700	107,000	4,690	147,000
March	35,400	116,000	4,690	156,000
April	34,900	107,000	4,690	146,000
May	34,400	108,000	4,690	147,000
June	35,500	110,000	4,690	150,000
July	35,500	100,000	4,690	141,000
August	35,600	111,000	4,690	152,000
September	35,400	103,000	4,690	144,000
October	35,400	110,000	4,690	150,000
November	34,400	110,000	4,690	149,000
December	33,800	93,000	4,690	131,000
January-December	421,000	1,290,000	56,200	1,760,000

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

<sup>&</sup>lt;sup>2</sup>Monthly and 2015 cumulative consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2014 annual data.

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

(Metric tons)

Period	Refined copper production	Copper in old scrap <sup>2</sup>	Refined general imports <sup>3</sup>	Refined exports <sup>3</sup>	Stock change during period	Apparent consumption
2015: <sup>p</sup>						
December	109,000	12,200	44,800	7,270	12,500	146,000
January-December	1,090,000	156,000	664,000	86,500	18,200	1,810,000
2016:						
January	106,000	13,300	56,000	6,390	11,500	157,000
February	91,800	16,000	43,800	16,800	(4,810)	140,000
March	105,000	13,700	43,400	24,800	(27,900)	165,000
April	96,700	11,600	52,400	9,650	(15,500)	167,000
May	99,900	11,500	52,400	22,000	(8,810)	151,000
June	94,200	11,900	63,400	5,600	(16,400)	180,000
July	97,200	11,500	68,200	6,510	9,060 <sup>r</sup>	161,000 <sup>r</sup>
August	97,900	11,700	62,000	6,420	6,690 r	159,000
September	99,600	12,200	66,500	6,630	23,800 r	148,000 <sup>r</sup>
October	102,000	12,000	66,700	7,750	13,900	159,000
November	95,300	11,900	66,100	13,100	21,700	138,000
December	90,800	11,800	60,400	8,040	12,800	142,000
January-December	1,180,000	149,000	701,000	134,000	26,100	1,870,000

Preliminary. Revised.

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

(Metric tons, gross weight)

	Smelters				Brass and					
	and ref	ineries	Ingot n	nakers <sup>2</sup>	wire-ro	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	
2015: <sup>p</sup>										
December	1,690	2,680	1,990	5,480	51,900	2,540	3,950	996	71,200	
January-December	18,700	31,700	23,900	65,700	637,000	38,500	47,400	12,000	875,000	
2016:										
January	1,690	2,680	1,990	5,480	54,200	3,520	3,950	1,020	74,500	
February	1,690	2,680	1,990	5,480	53,600	3,290	3,950	1,020	73,700	
March	1,710	2,830	1,990	5,480	53,900	3,230	3,950	1,020	74,100	
April	1,680	1,570	1,990	5,480	58,400	2,880	3,950	1,020	77,000	
May	1,660	1,570	1,990	5,480	58,400	2,690	3,950	1,020	76,700	
June	1,730	1,590	1,990	5,480	57,500	3,090	3,950	1,020	76,400	
July	1,730	1,590	1,990	5,480	56,200	2,670	3,950	1,020	74,600	
August	1,730	1,590	1,990	5,480	56,900	2,870	3,950	1,020	75,500	
September	1,730	1,590	1,990	5,480	57,600	2,800	3,950	1,020	76,200	
October	1,730	1,590	1,990	5,480	59,800	3,120	3,950	1,020	78,700	
November	1,730	1,590	1,990	5,480	58,000	3,250	3,950	1,020	77,000	
December	1,730	1,590	1,990	5,480	57,100	2,990	3,950	1,020	75,900	
January-December	20,500	22,400	23,900	65,700	681,000	36,400	47,400	12,200	910,000	

<sup>&</sup>lt;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>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 2014 data.

<sup>&</sup>lt;sup>3</sup>Source: U.S. Census Bureau.

<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>Monthly data estimated from 2014 annual data.

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

# ${\it TABLE~10} \\ {\it COPPER~STOCKS~AT~END~OF~PERIOD}^1$

#### (Metric tons)

		Refined copper						
	Crude		Wire-rod					Total
Period	copper <sup>2</sup>	Refineries <sup>3</sup>	$mills^3$	Brass mills <sup>3</sup>	Other <sup>4</sup>	Comex	LME <sup>5</sup>	refined
2015: <sup>p</sup>								
December	13,900	12,000	36,200	7,580	7,560	63,300	83,800	210,000
2016:								
January	13,700	13,800	34,600	8,340	7,560	59,500	98,100	222,000
February	14,500	8,820	33,400	7,840	7,560	61,200	98,300	217,000
March	13,600	7,900	28,700	7,460	7,560	65,300	72,400	189,000
April	12,400	3,200	41,600	7,950	7,560	59,400	54,100	174,000
May	15,500	3,950	40,100	8,670	7,560	55,400	49,300	165,000
June	18,700	2,820	37,300	7,680	7,560	56,600	36,600	149,000
July	13,500	3,040	41,200	7,940	7,560	59,300	38,600	158,000
August	12,500	5,660	38,500	7,930	7,560	61,000	43,600	164,000
September	12,600	4,230	39,500	7,650	7,560	64,000	65,200	188,000
October	14,700	3,230	40,200	7,270	7,560	65,300	78,400	202,000
November	13,800 <sup>r</sup>	4,290	41,800	7,070	7,560	70,600	92,400	224,000
December	14,200	3,750	38,900	7,380	7,560	80,100	98,900	237,000

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

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

# (Cents per pound)

	U.S. producers	Comex first	LME cash price
Period	cathode <sup>1</sup>	position <sup>2</sup>	Grade A
2015:		•	
December	213.216	208.216	209.949
Year	256.150	250.814	249.526
2016:			
January	205.695	200.945	202.406
February	212.505	207.505	208.424
March	228.409	223.159	224.394
April	223.726	218.288	220.017
May	216.831	211.143	213.544
June	215.520	209.770	210.025
July	226.296	220.733	220.235
August	219.284	214.096	215.811
September	218.752	213.752	213.496
October	218.885	214.010	214.629
November	251.388	246.638	246.878
December	261.183	256.683	256.997
January-December	224.873	219.727	220.571

<sup>&</sup>lt;sup>1</sup>Listed as "U.S. producer cathode" and sum of "Comex high grade first position" and "NY Dealer Premium Cathode."

Source: Platts Metals Week.

<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 content of blister and anode.

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

<sup>&</sup>lt;sup>4</sup>Monthly estimates based on reported and 2014 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

<sup>&</sup>lt;sup>5</sup>London Metal Exchange Ltd., U.S. warehouses.

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

 ${\it TABLE~12} \\ {\it NEW~YORK~AVERAGE~BUYING~PRICES~FOR~COPPER~SCRAP} \\$ 

# (Cents per pound)

-			Dealers	(New York)
	Brass mills	Refiners	No. 2	Red brass turnings and
Month	No. 1 scrap	No. 2 scrap	Scrap	borings
2015:				
December	205.30	183.93	148.64	127.05
Year	246.13	222.45	194.49	144.62
2016:				
January	198.61	178.84	143.61	125.37
February	205.90	187.18	141.50	125.00
March	222.17	202.72	151.02	128.70
April	217.98	199.00	152.50	130.00
May	210.83	192.43	154.26	132.38
June	210.30	191.68	150.27	130.14
July	221.00	201.70	157.15	134.10
August	213.54	192.26	156.20	133.35
September	213.43	191.88	153.21	131.57
October	212.71	190.05	153.88	131.95
November	241.32	218.05	165.00	137.50
December	248.38	224.48	181.98	146.00
January-December	218.01	197.52	155.05	132.17

Source: American Metal Market.

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

(Metric tons, copper content)

	Ore and concentrate			Matte, ash, and precipitates			Bl	ister and ano	des	Refined		
		20	016	2016			20	16		2016		
Country or			January-			January-			January-			January-
territory	2015	December	December	2015	December	December	2015	December	December	2015	December	December
Belgium				257		27						
Canada	98		72	198	32	355	2		2	191,000	18,300	193,000
Chile										358,000	36,400	354,000
China				3					(2)	35	2	77
Congo (Kinshasa)										21,400	2,990	21,100
Finland							308	35	175	42	2	110
Germany	78			24			7		(2)	2,130	212	1,830
India			3							792		1,210
Japan				141		109	3		3	4,010	354	4,090
Mexico	10		3			41				94,800	8,990	102,000
Netherlands				257		69	3		(2)	(2)		(2)
Peru										11,700	4,000	24,800
Other	109		27	262	93	205	99	19	95	2,380	713	4,680
Total	295		105	1,140	125	806	422	54	274	686,000	72,000	708,000

<sup>--</sup> 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>Less than ½ unit.

 ${\it TABLE~14} \\ {\it U.S.~EXPORTS~OF~COPPER~(UNMANUFACTURED),~BY~CLASS}^1$ 

(Metric tons, copper content)

-	Ore and concentrate			Matte, ash, and precipitates			В	lister and ano	les	Refined		
		20	16		2016			2016			2016	
Country or			January-			January-			January-			January-
territory	2015	December	December	2015	December	December	2015	December	December	2015	December	December
Belgium	3		(2)	23	553	5,700	228	29	679			
Canada	21,100	1,720	25,800	15,200	1,090	12,300	2,310	78	2,050	36,000	1,350	32,300
China	37,800	6,020	57,800	153		52	773	20	485	4,750	2,830	32,600
Germany				70	17	204	413	20	517	12	(2)	21
Hong Kong						36	1,640	40	1,070	7		
Italy							209	43	356	31	2	240
Japan	9,130		20,400	185		180	39		453	1,000		157
Korea, Republic of	157		138	38	18	352	1,520	120	1,420	1,190	19	85
Mexico	321,000	13,400	226,000				64	12	99	42,100	3,810	67,700
Singapore				21			64		42	78		13
Spain				16	20	40	141		266	24		4
Switzerland							31		24	5		5
Taiwan					35	359	56		60	62		62
Other	2,240	5	855	231	37	884	3,400	321	1,970	977	32	518
Total	392,000	21,100	331,000	15,900	1,770	20,100	10,700	683	9,490	86,200	8,040	134,000

<sup>--</sup> 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>Less than ½ unit.

 $\label{eq:table 15} \text{U.S. COPPER SCRAP IMPORTS}^1$ 

(Metric tons, gross weight)

		Unalloyed		Alloyed				
		20	16		2016			
Country or			January-			January–		
territory	2015	December	December	2015	December	December		
Canada	12,800	1,000	13,200	42,300	4,390	52,100		
Chile			41	392	23	211		
Colombia	151		259	1,890	60	1,180		
Costa Rica	426	43	344	1,310	92	1,030		
Guatemala	138			545	5	326		
Honduras	167		102	502	15	357		
Mexico	12,400	850	12,900	30,700	3,200	34,400		
Nicaragua				590	20	264		
Other	2,390	250	2,170	4,880	740	6,180		
Total	28,500	2,150	29,100	83,100	8,540	96,100		
Zero.								

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

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

(Metric tons, gross weight)

-	Unalloyed								Alloyed						
		2016							2016						
		No. 1		No. 2		Other			Segregated		Unsegregated				
Country or			January-		January-		January-			January-		January-			
territory	2015	December	December	December	December	December	December	2015	December	December	December	December			
Belgium	10,800	306	3,840	274	3,420	101	1,770	12,600	98	2,400	395	5,970			
Canada	27,600					1,640	23,400	39,500	197	3,290	3,310	47,900			
China	281,000	11,600	111,000	8,260	71,100	11,000	102,000	378,000	9,440	104,000	20,000	273,000			
Germany	30,500	1,430	16,700	549	5,140	267	3,000	13,900	19	466	397	7,680			
Hong Kong	8,720	278	2,290	136	1,330	272	2,940	14,100	55	761	1,060	16,400			
India	4,050	20	641	77	412	46	522	17,600	1,500	21,500	36	1,520			
Japan	6,140	143	2,230	253	1,710	454	2,580	11,900	76	1,640	677	7,090			
Korea, Republic of	16,500	681	9,550	174	3,020	372	4,480	12,000	523	5,040	206	5,280			
Mexico	723	117	1,560		32		67	3,490	1	757	2	194			
Netherlands	11,300	419	5,690	231	3,130	219	3,310	720		140	59	1,030			
Spain	457		70		55		57	10,500	97	567	603	7,210			
Taiwan	7,650	554	5,270	196	1,700	78	1,290	2,430	75	698	78	1,050			
Thailand	143		51			7	70	2,400	40	767		278			
Other	20,500	1,290	12,300	182	1,780	161	870	9,390	286	2,970	758	14,000			
Total	426,000	16,900	171,000	10,300	92,900	14,700	146,000	529,000	12,400	145,000	27,600	388,000			

<sup>--</sup> Zero.

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