

Mineral Industry Surveys

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COPPER IN JANUARY 2012

Average daily mine production of copper in January declined slightly from December's already low level, owing to lower production at several mines in Arizona and Nevada. Production from the Bingham Canyon Mine in Utah remained near December's low level and accounted for a large part of the overall low level of domestic production. Rio Tinto Ltd. (Melbourne, Australia) reported that production from the Bingham Canyon Mine in the first quarter of 2012 was 49% and 34% lower, respectively, than that in the first and fourth quarters of 2011 as mining progressed through lower grade areas of the open pit. Increased emphasis was placed on mining the higher grade molybdenum dome at the bottom of the pit. Rio Tinto expected lower copper grades to persist through the second quarter of 2011. Downstream, reduced production of refined copper from Bingham Canyon concentrates accounted for most of January's 8% decline in U.S. refined copper production (Rio Tinto Ltd., 2012, p. 3).

Consumption of refined copper in January rose by 18% from the traditionally low December demand period. Consumption by wire-rod mills rose by 24%, and was at the highest monthly level since July 2010. London Metal Exchange Ltd. inventories held in U.S. warehouses at the end of January were down by 19,500 metric tons from those at yearend 2011, owing to increased domestic demand, low domestic refined production, and increased exports of refined copper, which rose to the highest monthly level since April 2010.

Reference Cited

Rio Tinto Ltd., 2012, First quarter 2012 operations review: Melbourne Australia, Rio Tinto Ltd. media release, April 17, 26 p. (Accessed June 4, 2012, at http://www.riotinto.com/documents/120417_First_quarter_2012_operations_review.pdf.)

TABLE 1
SALIENT STATISTICS OF THE COPPER INDUSTRY IN THE UNITED STATES¹

(Metric tons, unless otherwise specified)

	Source table ²	2011			January– December	2012 January
		2010 ^p	November	December		
Production:						
Primary:						
Mine, recoverable	(2)	1,110,000	103,000	94,900	1,110,000	93,300
Refinery:						
Electrolytic, domestic and foreign	(4)	627,000	50,700	53,700	545,000	46,200
Electrowon	(4)	430,000	41,300	40,200	449,000	39,200
Total	(4)	1,060,000	92,100	93,800	994,000	85,400
Secondary recoverable copper:						
Refineries	(5)	37,700	3,010	2,630	37,300	3,060
Ingot makers ³	(5)	71,500	5,960	5,960	71,500	5,960
Brass and wire-rod mills	(5)	565,000	46,900 ^r	46,900	571,000	48,200
Foundries, etc. ³	(5)	46,000	3,830	3,830	46,000	3,830
Smelter, total	(3)	601,000	47,900	45,600	538,000	44,800
Consumption:						
Apparent	(8)	1,740,000	141,000	126,000	1,710,000	141,000
Refined (reported)	(7)	1,760,000	140,000	129,000	1,750,000	152,000
Purchased copper-base scrap	(9)	915,000	76,000	75,900	924,000	77,600
Stocks at end of period:						
Total refined	(10)	384,000	387,000	409,000	409,000	393,000
Blister, etc.	(10)	21,100	14,500	13,000	13,000	10,900
Prices, U.S. producer cathode (cents per pound) ⁴	(11)	348.337	350.045	349.033	405.854	372.691
Imports:⁵						
Ore and concentrate ⁶	(13)	1,390	3	781	15,100	15
Refined	(13)	605,000	50,300	48,900	670,000	37,800
Exports:⁵						
Ore and concentrate ⁶	(14)	137,000	23,900	26,500	252,000	11,600
Refined	(14)	78,300	6,870	4,690	40,400	9,610

^pPreliminary. ^rRevised.

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.

³Monthly data estimated based on 2010 monthly average.

⁴Source: Platts Metals Week.

⁵Source: U.S. Census Bureau.

⁶Copper content.

TABLE 2
MINE PRODUCTION OF RECOVERABLE COPPER IN THE UNITED STATES¹

(Metric tons)

Period	Recoverable copper			Contained copper		
	Arizona	Others ²	Total	Electrowon	Concentrates ³	Total
2011: ^P						
January	57,300	33,100	90,400	33,500	58,900	92,400
February	53,000	29,400	82,400	31,100	53,200	84,300
March	60,800	31,000	91,800	37,100	56,800	93,900
April	59,300	23,600	82,900	35,500	49,300	84,800
May	66,500	32,300	98,800	38,800	62,400	101,000
June	63,900	29,600	93,500	38,600	57,100	95,700
July	61,900	30,200	92,200	36,600	57,800	94,400
August	65,000	27,300	92,400	38,100	56,600	94,700
September	64,400	27,600	91,900	37,700	56,500	94,100
October	66,500	31,800	98,300	40,400	60,400	101,000
November	67,100	35,800	103,000	41,300	63,800	105,000
December	65,600	29,300	94,900	40,200	56,900	97,100
January–December	751,000	361,000	1,110,000	449,000	690,000	1,140,000
2012, January	63,700	29,600	93,300	39,200	56,200	95,400

^PPreliminary.

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

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

³Includes 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
2011: ^P	
January	52,100
February	42,000
March	43,000
April	40,500
May	47,200
June	33,400
July	44,100
August	41,100
September	49,500
October	51,900
November	47,900
December	45,600
January–December	538,000
2012, January	44,800

^PPreliminary.

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

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

TABLE 4
PRODUCTION OF REFINED COPPER, BY SOURCE AND METHOD OF RECOVERY¹

(Metric tons)

Period	Primary materials			Scrap	Total refined
	Electrolytically refined ²	Electrowon	Total		
2011: ^P					
January	49,500	33,500	83,000	3,830	86,800
February	42,200	31,100	73,300	2,970	76,300
March	44,500	37,100	81,700	3,240	84,900
April	41,200	35,500	76,700	2,970	79,700
May	40,900	38,800	79,700	3,240	82,900
June	44,800	38,600	83,400	3,060	86,400
July	39,600	36,600	76,200	3,030	79,200
August	38,400	38,100	76,500	3,200	79,700
September	53,000	37,700	90,600	3,010	93,600
October	46,200	40,400	86,500	3,110	89,600
November	50,700	41,300	92,100	3,010	95,100
December	53,700	40,200	93,800	2,630	96,500
January–December	545,000	449,000	994,000	37,300	1,030,000
2012, January	46,200	39,200	85,400	3,060	88,500

^PPreliminary.

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

²From domestic and foreign source materials.

TABLE 5
COPPER RECOVERABLE IN UNALLOYED AND ALLOYED FORM FROM PURCHASED COPPER-BASE SCRAP¹

(Metric tons, copper content)

Period	Refineries ²		Ingot makers ³		Brass and wire-rod mills		Foundries, etc. ³		Total ⁴
	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2011: ^P									
January	2,040	1,790	972	4,990	48,900	1,500	2,730	1,110	64,100
February	1,460	1,500	972	4,990	45,200	1,480	2,730	1,110	59,400
March	1,690	1,540	972	4,990	46,800	1,530	2,730	1,110	61,400
April	1,480	1,490	972	4,990	48,000	1,530	2,730	1,110	62,300
May	1,700	1,540	972	4,990	46,200	1,420	2,730	1,110	60,700
June	1,540	1,520	972	4,990	46,300	1,420	2,730	1,110	60,500
July	1,530	1,500	972	4,990	45,200	1,470	2,730	1,110	59,500
August	1,650	1,550	972	4,990	44,300	1,420	2,730	1,110	58,700
September	1,510	1,500	972	4,990	46,900	1,490	2,730	1,110	61,200
October	1,590	1,520	972	4,990	44,700	1,500	2,730	1,110	59,100
November	1,510	1,500	972	4,990	45,500	1,420	2,730	1,110	59,700
December	1,180	1,450	972	4,990	45,400	1,480	2,730	1,110	59,300
January–December	18,900	18,400	11,700	59,800	553,000	17,600	32,700	13,300	726,000
2012, January	1,560	1,510	972	4,990	46,700	1,500	2,730	1,110	61,000

^PPreliminary.

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 and 2011 cumulative data estimated based on 2010 annual data.

⁴Does not include an estimate, based on reported 2010 data, of 2,509 tons per month from new scrap and 1,834 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 SEMIFABRICATES¹

(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
2011: ^P						
January	80,700	109,000	81,000	110,000	29,800	23,800
February	77,700	107,000	78,500	103,000	29,000	28,300
March	83,900	105,000	82,100	113,000	30,900	20,500
April	79,300	111,000	80,100	107,000	30,100	24,000
May	79,500	109,000	79,900	105,000	29,600	28,100
June	81,000	109,000	81,300	109,000	29,300	27,500
July	76,700	98,200	76,800	96,200	29,200	29,500
August	79,400	104,000	79,300	107,000	29,300	25,600
September	79,300	104,000	77,900	104,000	30,700	25,100
October	78,100	106,000	78,400	110,000	30,300	21,600
November	77,100	98,600	77,800	97,400	29,600	22,800
December	77,900	91,400	77,600	87,200	29,900	27,000
January–December	951,000	1,250,000	951,000	1,250,000	29,900	27,000
2012, January	79,400	112,000	79,300	115,000	30,000	24,000

^PPreliminary.

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

TABLE 7
CONSUMPTION OF REFINED COPPER¹

(Metric tons)

Period and item	Brass mills	Wire-rod mills	Other plants ²	Total
2011: ^P				
January	37,500	110,000	4,800	153,000
February	35,900	108,000	4,800	149,000
March	36,800	109,000	4,800	151,000
April	36,700	110,000	4,800	152,000
May	35,300	111,000	4,800	151,000
June	36,400	110,000	4,800	151,000
July	36,000	100,000	4,800	141,000
August	35,700	107,000	4,800	148,000
September	35,200	106,000	4,800	146,000
October	34,300	107,000	4,800	146,000
November	36,200	99,500	4,800	140,000
December	34,200	89,600	4,800	129,000
January–December	430,000	1,270,000	57,600	1,750,000
2012, January:				
Cathodes	27,900	111,000	1,470	141,000
Wire bars	--	--	W	W
Ingots and ingot bars	1,240	--	1,440	2,680
Cakes and slabs	W	--	W	W
Billets and other	6,670	--	1,900	8,570
Total	35,800	111,000	4,800	152,000

^PPreliminary. W Withheld to avoid disclosing company proprietary data; included with "Billets and other." -- Zero.

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

²Monthly and 2011 cumulative consumption data by ingot makers, chemical plants, foundries, and miscellaneous manufacturers is estimated based on 2010 annual data.

TABLE 8
U.S. APPARENT CONSUMPTION OF COPPER¹

(Metric tons)

Period	Refined copper production	Copper in old scrap ²	Refined general imports ³	Refined exports ³	Stock change during period	Apparent consumption
2011: ^P						
January	83,000	11,200	54,200	1,640	(1,700)	148,000
February	73,300	10,900	46,100	5,010	432	125,000
March	81,700	11,000	65,300	3,130	(10,600)	165,000
April	76,700	10,900	70,100	2,120	(6,240)	162,000
May	79,700	10,900	61,500	3,500	(827)	149,000
June	83,400	10,900	42,400	1,930	(5,560)	140,000
July	76,200	10,900	68,900	1,850	9,070	145,000
August	76,500	10,900	31,300	5,140	1,160	112,000
September	90,600	10,900	64,300	2,140	7,510	156,000
October	86,500	10,900	46,700	2,350	5,660	136,000
November	92,100	10,800	49,200	6,870	3,780	141,000
December	93,800	10,900	48,800	4,690	22,300	126,000
January–December	994,000	131,000	649,000	40,400	25,100	1,710,000
2012, January	85,400	10,900	37,500	9,610	(16,200)	141,000

^PPreliminary. ^rRevised.

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

²Includes 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 2010 data.

³Source: U.S. Census Bureau.

TABLE 9
CONSUMPTION OF PURCHASED COPPER-BASE SCRAP¹

(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	Old scrap	New scrap	Old scrap	New scrap	Old scrap	New scrap	Old scrap	
2011: ^P									
January	2,270	1,680	2,880	6,440	60,500	1,570	4,020	1,490	80,800
February	1,530	1,530	2,880	6,440	56,500	1,540	4,020	1,490	75,900
March	1,750	1,590	2,880	6,440	58,700	1,610	4,020	1,490	78,400
April	1,530	1,540	2,880	6,440	59,500	1,610	4,020	1,490	79,000
May	1,750	1,590	2,880	6,440	57,800	1,430	4,020	1,490	77,400
June	1,610	1,550	2,880	6,440	57,700	1,430	4,020	1,490	77,100
July	1,570	1,550	2,880	6,440	55,900	1,520	4,020	1,490	75,400
August	1,720	1,580	2,880	6,440	54,900	1,430	4,020	1,490	74,400
September	1,560	1,540	2,880	6,440	58,200	1,540	4,020	1,490	77,600
October	1,640	1,560	2,880	6,440	56,000	1,560	4,020	1,490	75,600
November	1,560	1,540	2,880	6,440	56,600	1,430	4,020	1,490	76,000
December	1,250	1,460	2,880	6,440	56,800	1,540	4,020	1,490	75,900
January–December	19,700	18,700	34,500	77,200	689,000	18,200	48,200	17,900	924,000
2012, January	1,600	1,560	2,330	6,980	58,000	1,570	4,020	1,490	77,600

^PPreliminary.

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

²Monthly data estimated from 2010 annual data.

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

TABLE 10
COPPER STOCKS AT END OF PERIOD¹

(Metric tons)

Period	Crude copper ²	Refined copper					Total refined	
		Refineries ³	Wire-rod mills ³	Brass mills ³	Other ⁴	Comex		
2011: ^P								
January	25,200	11,700	17,600	7,470	4,380	64,100	277,000	382,000
February	24,800	9,220	12,800	8,420	4,380	75,200	273,000	383,000
March	24,700	6,360	18,200	7,050	4,380	76,900	259,000	372,000
April	24,900	5,060	18,100	7,240	4,380	75,500	256,000	366,000
May	27,200	6,180	21,900	7,500	4,380	73,500	251,000	365,000
June	20,100	5,740	21,000	7,860	4,380	72,700	248,000	359,000
July	20,100	5,570	16,400	8,160	4,380	75,100	259,000	368,000
August	13,000	5,990	20,200	7,440	4,380	77,500	254,000	370,000
September	14,300	7,050	18,100	7,160	4,380	79,400	261,000	377,000
October	18,500	5,890	16,200	8,690	4,380	81,600	266,000	383,000
November	14,500	7,980	17,200	6,940	4,380	79,000	271,000	387,000
December	13,000	8,360	24,000	6,850	4,380	79,800	286,000	409,000
2012, January	10,900	8,020	26,400	7,210	4,380	80,800	266,000	393,000

^PPreliminary.

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 reported and 2010 annual data, comprising stocks at ingot makers, chemical plants, foundries, and miscellaneous manufacturers.

⁵London 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 delivered price cathode ¹	Comex first position ²	LME cash price Grade A
2011:			
January	440.254	434.428	433.403
February	454.992	449.166	447.567
March	437.780	431.954	432.278
April	436.264	430.438	430.136
May	411.383	405.557	404.898
June	416.740	410.914	410.279
July	445.951	440.125	436.301
August	413.683	407.857	410.084
September	379.602	373.776	377.131
October	340.186	334.360	333.259
November	350.045	344.219	342.524
December	349.033	343.207	343.240
Year	405.854	400.050	399.790
2012, January	372.691	366.865	364.824

¹Listed as "U.S. producer cathode."

²Listed as "Comex high grade first position."

Source: Platts Metals Week.

TABLE 12
NEW YORK AVERAGE BUYING PRICES FOR COPPER SCRAP

(Cents per pound)

Month	Brass mills No. 1 scrap	Refiners No. 2 scrap	Dealers (New York)	
			No. 2 Scrap	Red brass turnings and borings
2011:				
January	417.40	364.60	291.25	176.25
February	432.47	375.63	317.50	195.00
March	418.96	365.30	316.30	188.26
April	418.19	374.19	317.14	180.00
May	394.71	358.81	309.64	180.00
June	401.45	370.09	319.09	180.00
July	426.65	396.95	335.25	197.50
August	395.87	354.78	322.83	205.00
September	363.48	329.52	304.29	201.19
October	326.38	298.38	242.98	185.00
November	334.20	308.75	269.00	185.00
December	335.16	308.16	268.42	185.00
Year	389.12	350.72	301.67	188.28
2012, January	357.75	330.55	277.50	189.25

Source: American Metal Market.

TABLE 13
U.S. IMPORTS FOR CONSUMPTION OF COPPER (UNMANUFACTURED), BY CLASS¹

(Metric tons, copper content)

Country or territory	Ore and concentrate		Matte, ash, and precipitates		Blister and anodes		Refined	
	2011	2012 January	2011	2012 January	2011	2012 January	2011	2012 January
	Belgium	--	--	200	19	--	--	1
Canada	8,430	--	239	--	2	2	138,000	11,200
Chile	--	--	--	--	--	--	370,000	18,100
China	--	--	79	180	(2)	--	203	--
Finland	--	--	--	--	310	17	(2)	--
Germany	--	15	54	--	(2)	--	3,020	117
Japan	--	--	(2)	(2)	16	1	5,540	314
Mexico	6,710	--	--	--	--	--	97,100	6,330
Netherlands	--	--	193	19	1	--	(2)	6
Peru	--	--	--	--	--	--	55,200	1,680
Other	--	(2)	218 ^r	13	142	36	884 ^r	41
Total	15,100	15	983	231	471	56	670,000	37,800

^rRevised. -- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

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

(Metric tons, copper content)

Country or territory	Ore and concentrate		Matte, ash, and precipitates		Blister and anodes		Refined	
	2012		2012		2012		2012	
	2011	January	2011	January	2011	January	2011	January
Canada	14,300	1,500	35,900	2,720	4,440	166	3,980	28
China	97,000	--	1,190	132	616	21	4,460	6,000
Germany	110	(2)	402	54	911	40	81	7
Hong Kong	17	--	--	--	1,150	198	19	2
Italy	--	--	--	--	176	--	1,480	--
Japan	22,000	--	172	--	862	85	11	3
Korea, Republic of	--	3,090	--	--	761	54	104	--
Mexico	114,000	7,050	--	--	255	22	27,800	3,070
Singapore	--	--	--	--	431	4	--	--
Spain	6	--	--	--	228	--	1,040	207
Sweden	--	--	--	--	2	7	384	244
Switzerland	--	--	--	--	21	3	3	--
Taiwan	1	--	--	--	799	260	7	--
Other	4,550	3	609	--	3,610	224	1,050	53
Total	252,000	11,600	38,300	2,910	14,300	1,080	40,400	9,610

-- Zero.

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

²Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 15
U.S. COPPER SCRAP IMPORTS¹

(Metric tons, gross weight)

Country or territory	Unalloyed		Alloyed	
	2012		2012	
	2011	January	2011	January
Canada	14,600	1,380	34,800	2,520
Chile	39	14	403	11
Costa Rica	834	51	2,300	136
Guatemala	666	56	1,960	248
Honduras	47	--	1,060	61
Jamaica	95	--	325	--
Japan	29	--	33	--
Mexico	8,390	889	28,400	2,080
Nicaragua	1,080	108	968	74
Other	4,620	484	9,210	619
Total	30,400	2,980	79,400	5,740

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 16
U.S. COPPER SCRAP EXPORTS¹

(Metric tons, gross weight)

Country or territory	Unalloyed				Alloyed		
	2011	2012			2011	2012	
		No. 1 January	No. 2 January	Other January		Segregated January	Unsegregated January
Belgium	14,400	1,030	184	458	14,300	38	837
Canada	20,400	--	--	1,640	38,000	226	2,780
China	383,000	5,530	14,900	9,540	557,000	21,800	21,100
Germany	8,470	1,490	181	20	13,900	80	793
Hong Kong	5,970	--	344	382	29,000	1,410	1,540
India	1,690	19	3	--	12,200	613	--
Japan	8,810	327	39	568	7,480	478	95
Korea, Republic of	19,100	191	795	310	17,100	502	110
Mexico	3,150	--	14	20	7,000	40	222
Spain	5,170	158	154	42	11,600	93	702
Taiwan	4,170	43	156	16	3,400	136	981
Thailand	491	20	--	--	2,040	--	18
Other	25,200	1,440	602	42	25,400	378	1,100
Total	501,000	10,200	17,400	13,000	739,000	25,800	30,300

-- Zero.

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

Source: U.S. Census Bureau.