

Mineral Industry Surveys

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COBALT IN JUNE 2000

U.S. consumption of cobalt in January through June 2000 was slightly lower than that during the first half of 1999, according to the U.S. Geological Survey. The cobalt content of U.S. imports of cobalt metal and chemicals was 5% lower during January through May 2000 than during the first 5 months of 1999. The cobalt content of U.S. exports of unwrought cobalt and chemicals during January through May 2000 was 39% higher than that during the first 5 months 1999. Trade data for June 2000 will be available in a subsequent issue.

Note

With the exception of prices, all data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated by using unrounded data.

Price

Prices for electrolytic cobalt, in dollars per pound, from Platt's Metals Week are listed below.

<u>Date</u>	<u>Price range</u>
July 20	13.00-14.00
July 27	13.00-14.00
August 3	13.25-14.25
August 10	13.50-14.50

<u>Month</u>	<u>Average price</u>
July	13.56

TABLE 1
U.S. REPORTED CONSUMPTION OF COBALT MATERIALS 1/

(Metric tons, contained cobalt)

Period	Metal 2/	Oxide and other chemical compounds 3/	Scrap	Total
1999:				
June	297	193	224	714
July	276	140	233	649
August	284	152	230	666
September	269	163	223	655
October	282	135	224	641
November	283	121	224	628
December	285	167	220	672
January-June	1,710	1,030	1,360	4,100
January-December 4/	3,390	1,910	2,710	8,010
Year p/ 5/	3,780	1,910	2,720	8,420
2000:				
January	276	173	225	675
February	271	149	220	640
March	270	158	233	662
April	284	161	226	671
May	290	166 r/	233	689 r/
June	272	157	228	658
January-June	1,660	965	1,370	3,990

p/ Preliminary. r/ Revised.

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

2/ Includes metal powder.

3/ Data may include other cobalt materials.

4/ Data based on monthly reports.

5/ Includes annual reports.

TABLE 2
U.S. REPORTED CONSUMPTION OF COBALT, BY END USE 1/

(Metric tons, contained cobalt)

End use	1999			2000	
	January- June	January- December 2/	Year p/ 3/	June	January- June 4/
Steel	85	154	154	9	69
Superalloys	1,760	3,510	3,830	292	1,770
Magnetic alloys	385	765	794	64	375
Other alloys 5/	W	W	291	W	W
Cemented carbides 6/	377	754	755	62	365
Chemical and ceramic uses 7/	1,330	2,510	2,530	207	1,270
Miscellaneous and unspecified	159	317	64	24	145
Total	4,100	8,010	8,420	658	3,990

p/ Preliminary. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

2/ Data based on monthly reports.

3/ Includes annual reports.

4/ May include revisions to prior month's data.

5/ Includes nonferrous alloys, welding materials, and wear-resistant alloys.

6/ Includes diamond bit matrices, cemented and sintered carbides, and cast carbide dies or parts.

7/ Includes catalysts, driers in paints or related usage, feed or nutritive additive, glass decolorizer, ground coat frit, pigments and other uses.

TABLE 3
U.S. REPORTED STOCKS OF COBALT MATERIALS 1/

(Metric tons, contained cobalt)

Period	Industry 2/ Oxide and other chemical compounds 4/				U.S. Government, metal 5/
	Metal 3/	Scrap	Total		
1999:					
June	296	216	127	639	13,800
July	336	217	121	675	13,600
August	316	205	150	672	13,400
September	324	213	152	690	13,300
October	333	248	159	741	13,300
November	325	247	156	729	13,200
December 6/	314	231	150	695	13,200
Yearend p/ 7/	322	251	165	739	13,200
2000:					
January	288	225	167	679	13,100
February	307	207	172	687	12,700
March	335	204	160	699	12,100
April	311	207	150	668	12,100
May	329 r/	209 r/	146	684 r/	12,100
June	308	212	145	665	11,700

p/ Preliminary. r/ Revised.

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

2/ Stocks reported by cobalt processors and consumers.

3/ Includes metal powder.

4/ Data may include other cobalt materials.

5/ Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

6/ Data based on monthly reports.

7/ Includes annual reports.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Metals 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/ 6/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
1999:								
May	517,000	\$16,400,000	88,500	\$2,330,000	126,000	\$931,000	615,000	3,630,000
June	800,000	26,300,000	128,000	3,370,000	153,000	950,000	942,000	4,580,000
July	550,000	22,300,000	81,000	2,230,000	147,000	1,330,000	648,000	5,220,000
August	297,000	12,300,000	76,200	2,290,000	166,000	1,350,000	397,000	5,620,000
September	672,000	25,800,000	81,300	2,460,000	225,000	1,850,000	791,000	6,410,000
October	405,000	15,300,000	117,000	3,130,000	207,000	1,580,000	544,000	6,960,000
November	489,000	16,700,000	137,000	3,710,000	170,000	1,310,000	633,000	7,590,000
December	447,000	14,900,000	87,100	2,410,000	182,000	1,270,000	558,000	8,150,000
January-December	6,800,000	229,000,000	1,260,000	33,700,000	1,610,000	12,400,000	8,150,000	XX
2000:								
January	443,000 7/	12,700,000 7/	173,000	4,100,000	384,000	2,490,000	670,000	670,000
February	597,000 7/	17,200,000 7/	109,000	2,700,000	213,000	1,380,000	733,000	1,400,000
March	450,000 7/	12,400,000 7/	206,000	4,960,000	90,100	605,000	622,000	2,020,000
April	630,000 7/	16,800,000 7/	61,500	1,560,000	21,000	128,000	680,000	2,700,000
May:								
Australia	18,800	556,000	--	--	--	--	18,800	22,800
Belgium	5,890	259,000	36,000	995,000	--	--	31,800	144,000
Brazil	40,000	1,220,000	--	--	--	--	40,000	190,000
Canada	111,000	3,370,000	--	--	1,840	33,600	112,000	448,000
Congo (Brazzaville)	19,800 7/	473,000 7/	--	--	--	--	19,800	172,000
Congo (Kinshasa)	4,990	161,000	--	--	--	--	4,990	162,000
Finland	108,000	3,760,000	72,200	1,550,000	16,300	112,000	165,000	865,000
France	964 7/	36,500 7/	4,010	198,000	--	--	3,850	21,800
Germany	5,070	238,000	1,000	16,700	--	--	5,790	24,300
Italy	--	--	--	--	--	--	--	284
Japan	1,160	68,700	100	5,720	--	--	1,230	20,700
Korea, Republic of	37	3,230	--	--	--	--	37	140
Morocco	--	--	--	--	--	--	--	56,200
Norway	180,000	6,110,000	--	--	--	--	180,000	787,000
Russia	110,000	3,490,000	--	--	--	--	110,000	235,000
South Africa	2,800 7/	46,700 7/	--	--	--	--	2,800	13,200
Sweden	--	--	--	--	--	--	--	180
United Kingdom	19,300 7/	129,000 7/	9,120	237,000	--	--	25,900	133,000
Zambia	27,500	789,000	--	--	--	--	27,500	157,000
Total	656,000	20,700,000	122,000	3,010,000	18,100	145,000	749,000	3,450,000

XX Not applicable. -- Zero.

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

2/ Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder.

3/ Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

4/ Customs value.

5/ Estimated from gross weights.

6/ May include revisions to prior months.

7/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY 1/

(Kilograms, gross weight of material, except as noted)

Period and country of origin	Unwrought cobalt alloys		Other cobalt: matte, waste and scrap 2/		Wrought cobalt and cobalt articles	
	Quantity	Value 3/	Quantity	Value 3/	Quantity	Value 3/
1999:						
May	40,000	\$493,000	24,000	\$251,000	11,200	\$723,000
June	12,600	549,000	27,800	308,000	16,200	710,000
July	3,450	126,000	79,600	602,000	17,800	772,000
August	4,720	165,000	15,300	282,000	6,710	591,000
September	10,500	315,000	21,500	151,000	12,700	686,000
October	24,500	840,000	13,800	96,400	9,560	841,000
November	11,800	457,000	52,300	521,000	11,400	786,000
December	7,260	237,000	32,600	685,000	10,800	643,000
January-December	255,000	9,360,000	391,000	4,060,000	173,000	9,130,000
2000:						
January	11,300	349,000	77,700 4/	2,190,000 4/	15,800	969,000
February	26,900	640,000	52,300 4/	1,500,000 4/	24,100	1,030,000
March	9,010	399,000	87,100 4/	1,710,000 4/	22,500	1,200,000
April	4,010	132,000	90,700 4/	2,150,000 4/	22,300	1,320,000
May:						
Belgium	157	4,950	2,360 4/	49,500 4/	291	56,500
Canada	151	9,340	424	5,180	1,460	240,000
China	--	--	--	--	251	40,200
Congo (Kinshasa)	20,000	489,000	--	--	--	--
Finland	--	--	4,200 4/	117,000 4/	--	--
France	--	--	32,500 4/	271,000 4/	--	--
Germany	--	--	635	4,430	4,580	152,000
Hong Kong	--	--	--	--	--	--
Japan	--	--	16,700 4/	784,000 4/	3,660	176,000
Sweden	2,080	41,900	--	--	62	6,400
United Kingdom	466	16,700	1,120 4/	29,300 4/	7,590	449,000
Total	22,900	562,000	57,900	1,260,000	17,900	1,120,000

-- Zero.

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

2/ Includes other intermediate products of cobalt metallurgy; may include other cobalt-bearing materials from which cobalt is extracted, or from which cobalt-containing chemical compounds are manufactured.

3/ Customs value.

4/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 6
U.S. EXPORTS OF COBALT MATERIALS 1/

(Kilograms, gross weight of material, except as noted)

Period	Unwrought cobalt, powders, matte, waste and scrap 2/		Oxides and hydroxides		Salts and compounds 3/		Total cobalt content for the month 5/	Cobalt content, year to date 5/ 6/
	Quantity	Value 4/	Quantity	Value 4/	Quantity	Value 4/		
1999:								
May	241,000	\$7,100,000	30,600	\$545,000	11,900	\$150,000	266,000	679,000
June	119,000	3,860,000	24,100	231,000	7,320	88,300	139,000	818,000
July	64,700	3,120,000	20,000	277,000	25,200	184,000	85,100	903,000
August	73,000	2,430,000	35,900	554,000	23,200	240,000	104,000	1,010,000
September	82,300	2,450,000	21,100	394,000	14,700	165,000	101,000	1,110,000
October	71,400	3,310,000	92,600	1,930,000	20,200	196,000	143,000	1,250,000
November	92,100	2,960,000	75,900	1,400,000	53,100	874,000	160,000	1,410,000
December	63,600	2,300,000	90,900	707,000	43,800	298,000	140,000	1,550,000
January-December	1,100,000	38,400,000	521,000	8,140,000	307,000	3,100,000	1,550,000	XX
2000:								
January	79,000	3,180,000	92,400	1,070,000	39,300	343,000	155,000	155,000
February	93,700	3,650,000	23,600	484,000	35,100	326,000	119,000	274,000
March	67,100	2,360,000	143,000	1,340,000	136,000	430,000	203,000	477,000
April	123,000	5,410,000	143,000 7/	1,060,000 7/	177,000	525,000	269,000	746,000
May	132,000	5,020,000	78,600 7/	577,000 7/	29,500	289,000	195,000	941,000

XX Not applicable.

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

2/ May include other intermediate products of cobalt metallurgy, and unwrought cobalt alloys.

3/ Cobalt acetates and cobalt chlorides.

4/ Free alongside ship (f.a.s.) value.

5/ Estimated from gross weights.

6/ May include revisions to prior months.

7/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.

TABLE 7
U.S. EXPORTS OF WROUGHT COBALT, COBALT ORE, AND CONCENTRATES 1/

(Kilograms, gross weight of material, except as noted)

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Quantity	Value 2/	Quantity	Value 2/
1999:				
May	40,600	\$2,170,000	20,600	\$199,000
June	61,300	3,130,000	--	--
July	31,900	2,200,000	63,000	768,000
August	37,400	1,820,000	--	--
September	25,000	1,730,000	--	--
October	71,200	3,270,000	--	--
November	46,000	2,010,000	468	3,150
December	29,300	1,690,000	--	--
January-December	546,000	26,400,000	175,000	1,090,000
2000:				
January	64,300	2,220,000	--	--
February	104,000	2,520,000	2,990 3/	23,500 3/
March	72,900	3,090,000	7,060 3/	99,400 3/
April	116,000	2,790,000	132,000 3/	323,000 3/
May	49,900	2,200,000	300,000 3/	189,000 3/

-- Zero.

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

2/ Free alongside ship (f.a.s.) value.

3/ All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau, with adjustments by the U.S. Geological Survey.