

# Mineral Industry Surveys

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## **COBALT IN MAY 2023**

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in May 2023 was 10% less than that imported during April 2023. For the first 5 months of 2023, the amount of cobalt contained in imports was 12% less than that imported during the same period in 2022 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in May 2023 was 18% more than that exported during April 2023 and during the first 5 months of 2023, the amount exported was essentially unchanged from the amount exported during the same period in 2022 (table 4).

# **Prices and Stocks**

During the past 2 years, London Metal Exchange (LME) cobalt stocks have generally trended downward. Cobalt stocks in May 2023 were 12% less than those of April 2023. Monthly average cobalt prices generally trended up into the second quarter of 2022 before sharply declining through August. From September to December 2022, monthly average LME cash mean prices remained unchanged then declined in 2023. In May 2023, the LME cash mean price was 3% lower than that in April 2023 and was 57% lower than that in May 2022. Monthly average

U.S. spot prices reported by S&P Global Platts Metals Week trended upward from August to October 2022, then declined through February 2023, with only slight changes through April. The May 2023 monthly average U.S. spot cobalt price was 14% lower than that in April 2023 and was 63% lower than that in May 2022 (fig.1, table 1). The following listed prices are for cobalt metal in May, in dollars per pound.

Type	Price range	Average price
U.S. spot <sup>1</sup>	13.20-15.60	14.44
LME cash mean <sup>2</sup>	13.08-15.54	15.07

<sup>1</sup>Source: S&P Global Platts Metals Week, minimum 99.8% cobalt cathode. <sup>2</sup>London Metal Exchange, mean of the cash buyer and cash seller price, minimum 99.8% cobalt briquettes, cathode, coarse grain powder, or rounds (converted from dollars per metric ton and rounded to the nearest cent).

## **Industry News**

In late May, Eurasian Resources Group S.a.r.l. (ERG) was notified by the Congo (Kinshasa) minister of mines of a 3-month suspension of its Boss Mining SAS Kakanda operation in Lualaba Province. The suspension followed heavy rains in late

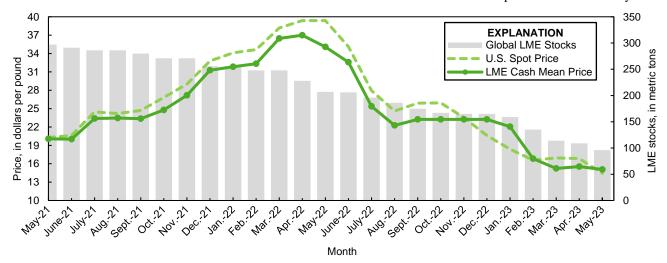


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for May 2021 through May 2023. Sources: S&P Global Platts Metals Week and London Metal Exchange.

March that flooded a tailings dam and sparked concerns of environmental pollution in the Kakanda River. In November 2022, ERG and joint-venture partner state-owned La Générale des Carrières et des Mines SA (Gécamines) restarted operations at Boss Mining after nearly four years on care-and-maintenance status. At the mine's reopening, ERG announced it would ramp up to a full capacity of 300 metric tons per month of cobalt hydroxide by March 2023 (Eurasian Resources Group Africa, 2022; Agence Congolaise de Presse, 2023; Kavanagh, 2023; Ninji and Rolley, 2023).

### **References Cited**

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 $\label{eq:table 1} \textbf{REPORTED LME}^1\, \textbf{STOCKS}$  OF COBALT METAL, END OF PERIOD  $^2$ 

(Metric tons, contained cobalt)

	U.S.	Non-U.S.	
Period	warehouse	warehouse	Total
2022:			
May	39	168	207
June	39	167	206
July	39	157	196
August	39	147	186
September	34	141	175
October	34	133	167
November	34	131	165
December	34	131	165
2023:			
January	34	125	159
February	34	101	135
March	34	80	114
April	34	75	109
May	34	62	96

<sup>&</sup>lt;sup>1</sup>London Metal Exchange.

 $<sup>^2\</sup>mathrm{U.S.}$  Government National Defense Stockpile inventory statistics are no longer available.

 $\label{eq:table 2} \textbf{U.s. IMPORTS FOR CONSUMPTION OF COBALT, BY COUNTRY OR LOCALITY}^1$ 

	Metals <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		Total cobalt	Cobalt content,
Period and country or	Gross weight	Value <sup>6</sup>	Gross weight	Value <sup>6</sup>	Gross weight	Value <sup>6</sup>	content for the period <sup>4</sup>	year to date <sup>4,5</sup>
locality of origin	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(metric tons)
2022:				***		***		
May	900	\$68,900	211	\$10,800	1,290	\$6,910	1,410	4,670
June	499	37,900	160	8,640	993	5,750	886	5,550
July	685	50,500	193	10,500	1,430	7,190	1,210	6,760
August	530	36,900	134	6,130	153	2,010	671	7,440
September	578	34,600	200	7,120	310	4,410	827	8,260
October	579	29,600	117	5,030	200	2,550	725	8,990
November	571	29,100	109	4,990	260	2,810	721	9,710
December	678	34,400	100	3,400	197	1,700	805	10,500
January–May	3,090	205,000	905	43,300	3,350	23,800	4,670	XX
January-December	7,200	458,000	1,920	89,100	6,900	50,200	10,500	XX
2023:								
January	593	27,700	184	6,160	262	3,760	803	803
February	559	26,200	94	3,220	243	1,870	694	1,50
March	838	33,000	287	7,220	226	2,940	1,120	2,61
April	670	25,100	96	2,630	170	1,700	790	3,40
May:	• •							
Australia								14
Belgium			7	177			5	3:
Brazil					(7)	4	(7)	39
Canada	145	6,100					145	77-
China	16	249	7	105	19	176	26	6
Finland	9	422	6	204	46	439	27	639
France	1	99	<u></u>				1	
Germany	. 33	2,500					33	6
Japan	168	5,720					168	51:
Madagascar	126	4,510					126	31:
Mexico								1
Morocco	20	645					20	70
Netherlands								,
Norway	130	4,440					130	1,26
Russia								50
South Africa	18	369					18	7:
Taiwan					24	246	6	4
						240		41
Turkey United Vinadom		 474					6	12
United Kingdom	. 6	474						
Other	(7)	3 25 500	(7)	3	6	12	2	4.10
Total	671	25,500	20	489	96	878	712	4,120
January–May XX Not applicable Zero.	3,330	138,000	680	19,700	997	11,200	4,120	XX

XX Not applicable. -- Zero.

 $<sup>^{1}\</sup>mbox{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

<sup>&</sup>lt;sup>3</sup>Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

<sup>&</sup>lt;sup>4</sup>Estimated from gross weights.

<sup>&</sup>lt;sup>5</sup>May include revisions to previously published data.

<sup>&</sup>lt;sup>6</sup>Customs value.

<sup>&</sup>lt;sup>7</sup>Less than ½ unit.

 ${\it TABLE~3}$  U.S. IMPORTS FOR CONSUMPTION OF ADDITIONAL COBALT MATERIALS, BY COUNTRY OR LOCALITY  $^1$ 

	Unwrought co	balt alloys	Cobalt waste and scrap		Wrought cobalt and cobalt articles	
Period and country or	Gross weight	Value <sup>2</sup>	Gross weight	Value <sup>2</sup>	Gross weight	Value <sup>2</sup>
locality of origin	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)
2022:						****
May	24	\$1,400	175	\$2,340	42	\$4,690
June	25	1,690	155	2,070	44	4,940
July	29	1,760	99	2,060	38	4,080
August	14	867	152	2,530	27	3,950
September	35	1,780	200	2,850	33	4,190
October	32	1,730	133	2,200	42	3,790
November	31	1,670	117	1,710	33	4,480
December	39	1,970	88	1,930	36	4,780
January–May	102 <sup>r</sup>	5,560 <sup>r</sup>	797	11,400	181 <sup>r</sup>	20,500 r
January-December	307	17,000	1,740	26,700	433	50,700
2023:						
January	61	3,180	150	2,350	26	3,850
February	19	1,240	140	2,210	36	5,740
March	30	1,510	146	2,220	42	4,830
April	18	929	139	1,540	38	4,450
May:						
Belgium	5	254				
Canada	(3)	26	18	253	3	1,280
France			34	857	5	316
Ireland			52	293	(3)	31
Japan			6	48	(3)	13
Taiwan			6	232	(3)	17
Tunisia			9	100	2	44
United Kingdom	32	1,580	24	571	21	1,890
Other	1	44			3	839
Total	38	1,900	148	2,350	34	4,430
January–May	167	8,760	722	10,700	175	23,300

<sup>&</sup>lt;sup>r</sup>Revised. -- Zero.

 $<sup>^{\</sup>mathrm{l}}\mathrm{Data}$  are rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;sup>2</sup>Customs value.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.

 $\label{eq:table 4} TABLE~4$  U.S. EXPORTS OF COBALT MATERIALS  $^1$ 

	Unwrought cob	alt, powders,						Cobalt
	matte, waste	matte, waste and scrap <sup>2</sup>		Oxides and hydroxides		Salts and compounds <sup>3</sup>		content,
D : 1	Gross weight	Value <sup>6</sup>	Gross weight	Value <sup>6</sup>	Gross weight	Value <sup>6</sup>	content for the period <sup>4</sup>	year to date <sup>4, 5</sup>
Period	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(thousands)	(metric tons)	(metric tons)
2022:	•							
May	493	\$17,600	7	\$304			498	2,220
June	414	12,500	2	79	(7)	\$6	416	2,640
July	381	14,500	3	145			384	3,020
August	420	12,300	7	297	(7)	4	425	3,450
September	335	11,900	7	298			340	3,790
October	584	16,900	2	64			585	4,370
November	525	13,800	7	281			530	4,900
December	460	13,600	1	31			460	5,360
January-May	2,210	73,100 <sup>r</sup>	14	575	(7)	5	2,220	XX
January-December	5,330	169,000	43	1,770	1	16	5,360	XX
2023:								
January	408	13,000	3	114	(7)	4	411	411
February	327	12,500	1	41			328	738
March	535	15,300	6	202			539	1,280
April	434	15,900	12	175			442	1,720
May	522	15,700	2	88			524	2,240
January-May	2,230	72,400	24	620	(7)	4	2,240	XX

<sup>&</sup>lt;sup>r</sup>Revised. XX Not applicable. -- 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>May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

<sup>&</sup>lt;sup>3</sup>Cobalt acetates and cobalt chlorides.

<sup>&</sup>lt;sup>4</sup>Estimated from gross weights.

<sup>&</sup>lt;sup>5</sup>May include revisions to previously published data.

<sup>&</sup>lt;sup>6</sup>Free alongside ship (f.a.s.) value.

<sup>&</sup>lt;sup>7</sup>Less than ½ unit.

 $\label{eq:table 5} \mbox{U.s. EXPORTS OF WROUGHT COBALT, COBALT ORE,} \\ \mbox{AND CONCENTRATES}^1$ 

	Wrought co		Cobalt ore and concentrates		
	Gross weight	Value <sup>2</sup>	Gross weight	Value <sup>2</sup>	
Period	(metric tons)	(thousands)	(metric tons)	(thousands)	
2022:					
May	143	\$16,600			
June	164	16,400			
July	200	22,900			
August	115	18,600			
September	182	25,400	(3)	\$8	
October	121	17,200			
November	181	24,400			
December	182	21,000			
January–May	728 <sup>r</sup>	81,800 <sup>r</sup>	(3)	4	
January-December	1,870	228,000	(3)	12	
2023:					
January	186	27,000			
February	118	19,300	(3)	4	
March	126	18,500	(3)	7	
April	157	19,700	1	20	
May	129	16,600	2	60	
January–May	716	101,000	3	91	

<sup>&</sup>lt;sup>r</sup>Revised. -- 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>Free alongside ship (f.a.s.) value.

<sup>&</sup>lt;sup>3</sup>Less than ½ unit.