

Mineral Industry Surveys

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COBALT IN AUGUST 2024

The amount of cobalt contained in U.S. imports of cobalt metals and chemicals in August 2024 was 11% more than that imported in July 2024. For the first 8 months of 2024, the amount of cobalt contained in imports was 17% more than that imported during the first 8 months of 2023 (table 2). The amount of cobalt contained in U.S. exports of unwrought cobalt and chemicals in August 2024 was 17% less than that exported in July 2024 and the amount exported during the first 8 months of 2024 was 11% less than the amount exported during the same period of 2024 (table 4).

Prices and Stocks

In August, London Metal Exchange (LME) cobalt stocks were unchanged from July 2024 (table 1). The LME cash mean price was 4% less than that in July 2024, and was 24% less than that in August 2023. The August 2024 monthly average U.S. spot cobalt price was \$16.31 dollars per pound compared to \$16.34 dollars per pound in July 2024. The August 2024 spot cobalt price was 6% less than that in August 2023 (fig. 1). The

following listed prices are for cobalt metal in August, in dollars per pound.

Type	Price range	Average price
U.S. spot ¹	Not available	16.31
LME cash mean ²	10.76–11.76	11.35

¹Source: S&P Global Platts Metals Week, minimum 99.8% cobalt cathode.

²London 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 August, The Department of Defense (DOD) awarded Electra Battery Materials Corp. (Canada) \$20 million (USD) for the development of a cobalt sulfate refinery in Tamiskaming Shores, Ontario, Canada, that would support the North American battery supply chain. The DOD award was made under Title III of the Defense Production Act using funds from the Ukraine Supplemental Appropriations Act of 2022 and supports a DOD goal of expanding domestic production of critical minerals. The refinery had an initial planned capacity of 5,000 metric tons per year (t/yr) of cobalt in sulfate, with future

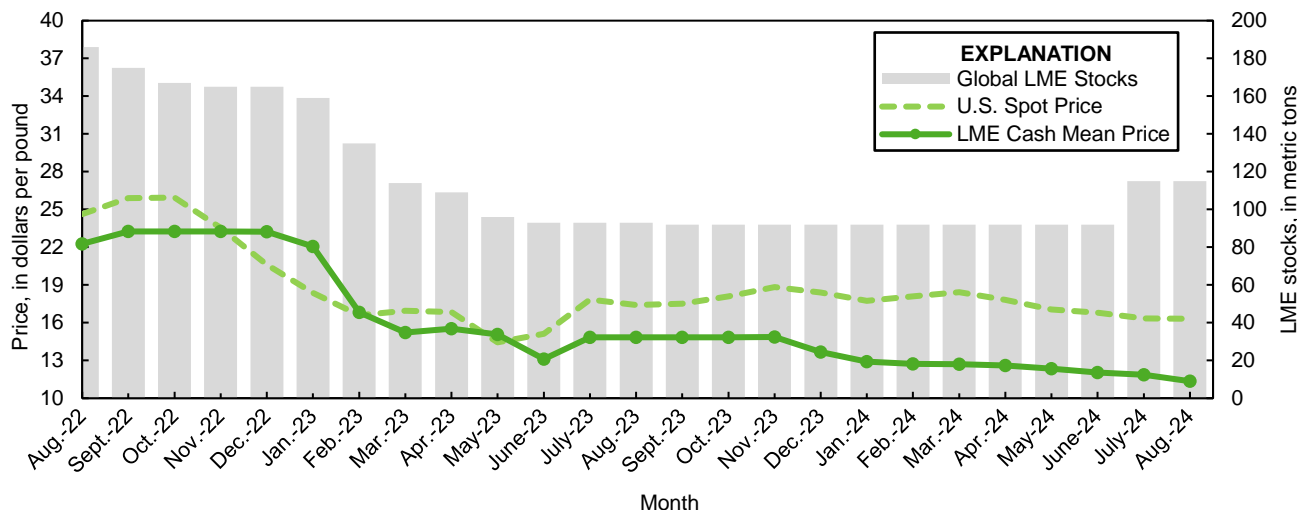


Figure 1. Global LME cobalt stocks, average U.S. spot cobalt prices, and average LME cash mean cobalt prices for August 2022 through August 2024. Sources: London Metal Exchange and S&P Global Platts Metals Week.

expansion to 6,500 t/yr of cobalt in sulfate. Cobalt hydroxide feed was expected to be supplied from Glencore plc (Switzerland) and Eurasian Resources Group S.A.R.L (Luxembourg) operations in Congo (Kinshasa). In a second quarter 2024 update, Electra stated long-lead equipment for the refinery had been delivered and an additional \$60 million (USD) in funding was needed to complete construction (Electra Battery Materials Corp., 2024a, 2024b, p. 4–5; U.S. Department of Defense, 2024).

The DOD award followed two \$3.6 million (USD) funding awards from the Government of Canada announced in February and June 2024. One of the awards would support construction of the refinery, the other would support research on metal recovery from shredded lithium-ion battery scrap, or black mass. Electra operated a black mass recycling demonstration plant in 2023 and planned to integrate black mass recycling operations at the Ontario refinery site. In trial operations, the company recovered cobalt, copper, graphite, lithium, manganese, and nickel from black mass (Electra Battery Materials Corp., 2024b, p. 3, 5–6; U.S. Department of Defense, 2024).

References Cited

Electra Battery Materials Corp., 2024a, Electra awarded \$20 million from U.S. Department of Defense under the Defense Production Act: Toronto, Ontario, Canada, Electra Battery Materials Corp. news release, August 19. (Accessed October 17, 2024, at <https://electrabmc.com/news-releases/news/electra-awarded-20-million-from-us-department-of-defense-under-the-defense-production-act>.)

Electra Battery Materials Corp., 2024b, Management’s discussion and analysis for the three and six months ended June 30, 2024: Toronto, Ontario, Canada, Electra Battery Materials Corp., 28 p. (Accessed October 17, 2024, at https://www.electrabmc.com/_resources/financials/2024/Electra-MDA-Q2-2024.pdf.)

U.S. Department of Defense, 2024, Department of Defense awards \$20 million to establish sustainable cobalt sulfate production for large capacity battery supply chain: Washington D.C., U.S. Department of Defense press release, August 19. (Accessed October 17, 2024, at <https://www.defense.gov/News/Releases/Release/Article/3877791/>.)

A worksheet has been added to the Excel table files that includes a button to remove text and numerical footnotes from data cells. This will allow users to only have numbers in data cells. Please see the worksheet titled RemoveTextButton for instructions in how to use the tool. Note: you must download the excel file in order to use the tool.

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Table 1. Reported LME¹ stocks of cobalt metal, end of period.²

[Data are in metric tons, contained cobalt.]

Period	U.S. warehouse	Non-U.S. warehouse	Total
2023			
August	34	59	93
September	34	58	92
October	34	58	92
November	34	58	92
December	34	58	92
2024			
January	34	58	92
February	34	58	92
March	34	58	92
April	34	58	92
May	34	58	92
June	34	58	92
July	34	81	115
August	34	81	115

¹London Metal Exchange.

²U.S. Government National Defense Stockpile inventory statistics are no longer available.

Table 2. U.S. imports for consumption of cobalt, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". —, not applicable. Source: U.S. Census Bureau.]

Period and country or locality of origin	Metals ¹		Oxides and hydroxides		Salts and compounds ²		Total cobalt content for the period ³ (metric tons)	Cobalt content, year to date ^{3, 4} (metric tons)
	Gross weight (metric tons)	Value ⁵ (thousand	Gross weight (metric tons)	Value ⁵ (thousand	Gross weight (metric tons)	Value ⁵ (thousand		
2023								
August	426	15,000	120	2,690	191	1,730	572	6,180
September	614	21,600	71	1,330	183	1,960	722	6,910
October	502	19,100	118	2,640	282	2,040	663	7,570
November	842	29,500	82	2,100	278	2,290	979	8,550
December	750	26,800	75	1,780	491	4,630	952	9,500
January–August	4,960	196,000 ^r	1,050	28,200	1,530 ^r	16,800 ^r	6,180	—
January–December	7,670	293,000	1,390	36,100	2,760	27,700	9,500	—
2024								
January	807	30,200	324	6,830	217	2,630	1,110	1,110
February	668	22,000	189	3,960	289	2,660	895	2,010
March	501	17,100	132	2,570	210	1,860	664	2,670
April	901	29,500	109	1,980	241	2,640	1,050	3,720
May	1,220	40,700	195	4,080	102	917	1,390	5,110
June	638	19,900	126	2,350	162	1,230	778	5,890
July	548	16,400	73	1,440	128	920	637	6,530
August								
Australia	0	0	0	0	0	0	0	20
Belgium	0	0	23	446	0	0	17	193
Brazil	0	0	0	0	0	0	0	36
Canada	141	5,300	0	0	(⁶)	4	141	1,090
China	52	1,250	14	211	0	0	62	153
Finland	9	252	42	908	80	851	65	865
France	4	249	0	0	0	0	4	81
Germany	27	1,970	0	0	0	0	27	90
Hong Kong	0	0	0	0	0	0	0	14
Italy	0	0	0	0	0	0	0	9
Japan	152	4,080	0	0	7	38	153	1,080
Madagascar	89	2,390	0	0	0	0	89	1,120
Morocco	15	389	0	0	0	0	15	55
Norway	92	2,630	0	0	0	0	92	1,910
Russia	0	0	0	0	0	0	0	57
South Africa	3	24	0	0	0	0	3	106
Taiwan	0	0	0	0	22	182	5	58
Turkey	0	0	0	0	1	15	(⁶)	17
United Kingdom	4	304	36	849	1	9	30	236
Zambia	0	0	0	0	0	0	0	37
Other	0	0	0	0	5	14	1	16
Total	587	18,800	114	2,410	116	1,110	704	7,230
January–August	5,870	195,000	1,260	25,600	1,460	14,000	7,230	—

¹Unwrought cobalt, excluding alloys; includes cobalt cathode and cobalt metal powder; may include intermediate products of cobalt metallurgy.

²Includes cobalt acetates, cobalt carbonates, cobalt chlorides, and cobalt sulfates.

³Estimated from gross weights.

⁴May include revisions to previously published data.

⁵Customs value.

⁶Less than ½ unit.

Table 3. U.S. imports for consumption of additional cobalt materials, by country or locality.

[Data are rounded to no more than three significant digits; may not add to totals shown. Source: U.S. Census Bureau.]

Period and country or locality of origin	Unwrought cobalt alloys		Cobalt waste and scrap		Wrought cobalt and cobalt articles	
	Gross weight (metric tons)	Value ¹ (thousand)	Gross weight (metric tons)	Value ¹ (thousand)	Gross weight (metric tons)	Value ¹ (thousand)
2023						
August	21	1,050	134	1,800	33	4,650
September	7	331	93	1,370	58	4,680
October	23	1,270	207	2,850	28	3,980
November	17	861	213	3,430	55	4,350
December	18	924	212	3,120	34	4,020
January–August	242	12,400	1,170	17,000	270	37,100
January–December	306	15,800	1,890	27,800	445	54,100
2024						
January	24	1,110	118	1,060	27	4,750
February	53	2,400	179	2,150	28	4,120
March	32	1,410	146	1,980	45	4,990
April	23	1,010	120	1,220	54	4,640
May	46	2,430	73	757	56	5,460
June	20	1,000	189	1,960	47	4,900
July	60	2,720	170	1,370	51	5,470
August						
Austria	0	0	0	0	1	88
Belgium	1	40	0	0	0	0
Canada	20	510	12	130	3	1,190
China	0	0	2	22	2	479
Finland	3	294	0	0	0	0
France	0	0	18	457	27	845
Germany	1	89	3	60	3	431
Ireland	0	0	29	22	(²)	28
Italy	0	0	7	102	(²)	40
Japan	(²)	6	1	8	(²)	18
Spain	0	0	2	23	0	0
Tunisia	0	0	8	98	(²)	25
United Kingdom	19	880	46	703	14	1,910
Other	0	0	(²)	7	(²)	167
Total	43	1,820	130	1,630	50	5,220
January–August	300	13,900	1,130	12,100	358	39,500

¹Customs value.²Less than ½ unit.

Table 4. U.S. exports of cobalt materials.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". —, not applicable. Source: U.S. Census Bureau.]

Period	Unwrought cobalt, powders, matte, waste and scrap ¹		Oxides and hydroxides		Salts and compounds ²		Total cobalt content for the period ³ (metric tons)	Cobalt content, year to date ^{3, 4} (metric tons)
	Gross weight	Value ⁵	Gross weight	Value ⁵	Gross weight	Value ⁵		
	(metric tons)	(thousand dollars)	(metric tons)	(thousand dollars)	(metric tons)	(thousand dollars)		
2023								
August	299	11,100	(⁶)	12	1	10	299	3,420
September	448	14,500	(⁶)	4	0	0	448	3,860
October	541	17,800	(⁶)	8	(⁶)	4	541	4,400
November	331	11,200	26	715	0	0	350	4,750
December	351	12,900	2	91	0	0	352	5,110
January–August	3,380 ^r	109,000 ^r	55	1,410	2	19	3,420 ^r	—
January–December	5,050	166,000	84	2,230	2	24	5,110	—
2024								
January	365	12,600	(⁶)	6	0	0	365	365
February	332	13,300	(⁶)	4	0	0	332	698
March	540	14,600	86	538	0	0	601	1,300
April	319	12,000	1	28	(⁶)	3	320	1,620
May	401	14,100	1	5	0	0	402	2,020
June	391	11,400	3	49	0	0	393	2,410
July	334	12,100	(⁶)	12	0	0	334	2,750
August	276	10,300	(⁶)	11	(⁶)	4	277	3,020
January–August	2,960	100,000	92	654	1	7	3,020	

¹May include other intermediate products of cobalt metallurgy and unwrought cobalt alloys.

²Cobalt acetates and cobalt chlorides.

³Estimated from gross weights.

⁴May include revisions to previously published data.

⁵Free alongside ship (f.a.s.) value.

⁶Less than ½ unit.

Table 5. U.S. exports of wrought cobalt, cobalt ore, and concentrates.

[Data are rounded to no more than three significant digits; may not add to totals shown. Revised data are marked with a superscript "r". Source: U.S. Census Bureau.]

Period	Wrought cobalt and cobalt articles		Cobalt ore and concentrates	
	Gross weight (metric tons)	Value ¹ (thousand dollars)	Gross weight (metric tons)	Value ¹ (thousand dollars)
2023				
August	119	16,600	0	0
September	113	16,300	0	0
October	135	17,700	0	0
November	140	18,000	0	0
December	137	18,500	0	0
January–August	1,080 ^r	153,000	3	94
January–December	1,610	224,000	3	94
2024				
January	185	21,200	0	0
February	156	21,500	0	0
March	145	19,500	0	0
April	174	20,800	0	0
May	158	20,900	0	0
June	140	17,500	(²)	32
July	149	24,700	0	0
August	138	19,800	0	0
January–August	1,250	166,000	(²)	32

¹Free alongside ship (f.a.s.) value.

²Less than ½ unit.