

Mineral Industry Surveys

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MOLYBDENUM IN MARCH 2023

Domestic production of molybdenum in concentrate in March 2023 was 10% more than the output of the previous month and 7% less than the output of March 2022 (fig. 1, table 1).

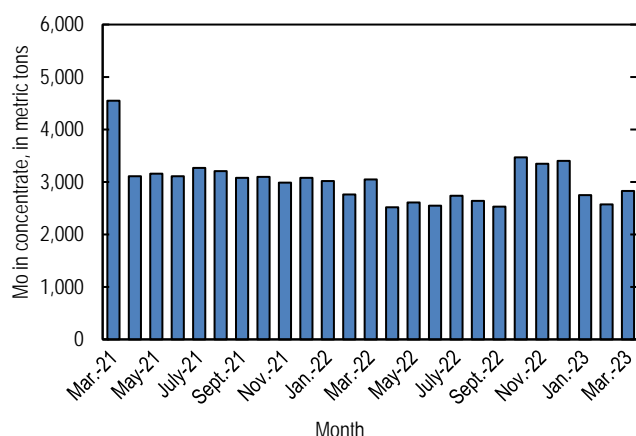


Figure 1. Monthly domestic production of molybdenum (Mo) in concentrate from March 2021 through March 2023 (may include revisions to previously published data).

Prices

According to CRU Group, the monthly average price range for U.S. ferromolybdenum (FeMo) was \$39.444 to \$40.333 per pound of molybdenum content in March 2023 compared with \$45.375 to \$46.500 per pound of molybdenum content in February 2023. FeMo monthly average prices in Europe ranged from \$77.556 to \$80.667 per kilogram (\$35.179 to \$36.590 per pound) of molybdenum content in March 2023 compared with \$93.250 to \$96.625 per kilogram (\$42.298 to \$43.828 per pound) in February 2023. U.S. molybdic oxide (MoO_3) prices ranged from \$33.500 to \$34.444 per pound of molybdenum content in March 2023 compared with the range from \$32.875 to \$33.875 per pound of molybdenum content in February 2023 (fig. 2).

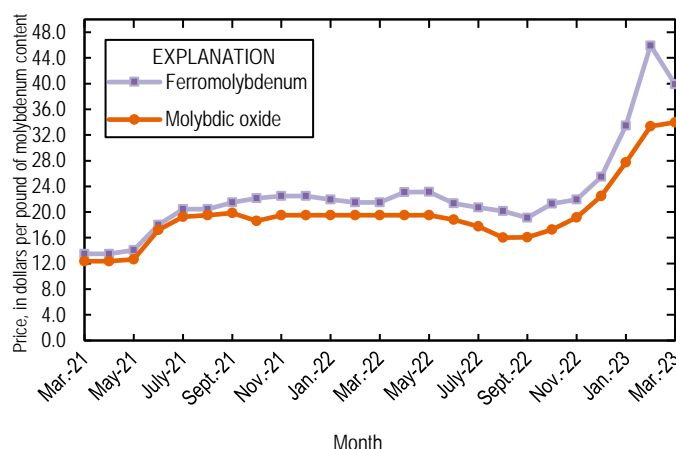


Figure 2. Average monthly prices for U.S. ferromolybdenum and molybdic oxide from March 2021 through March 2023. Source: CRU Group.

Industry News

Rio Tinto plc (United Kingdom) announced that its Bingham Canyon Mine in Utah (operated by its subsidiary, Rio Tinto Kennecott) produced only 100 metric tons (t) of molybdenum in concentrate in the first quarter of 2023, a 91% decrease compared with the 1,100 t produced in the first quarter of 2022 (Rio Tinto plc, 2023, p. 20).

Reference Cited

Rio Tinto plc., 2023, Rio Tinto releases first quarter production results: London, United Kingdom, news release, April 20, 27 p. (Accessed May 2, 2023, at <https://www.riotinto.com/en/news/releases/2023/rio-tinto-releases-first-quarter-production-results>.)

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TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE
STATISTICS^{1,2}

(Metric tons, contained molybdenum)

Period	Production	Shipments ^{3,4}
2022:		
January	3,020	3,100
February	2,760	2,760
March	3,050	3,080
April	2,520	2,540
May	2,610	2,620
June	2,550	2,530
July	2,740	2,700
August	2,640	2,680
September	2,530	2,550
October	3,470	3,390
November	3,350	3,360
December	3,400	3,350
January–December	34,600	34,700
2023:		
January	2,750 ^r	2,610 ^r
February	2,570 ^r	2,400 ^r
March	2,830	2,730
January–March	8,150	7,740

^rRevised.

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

²Includes annual or quarterly published data from Freeport-McMoran Inc. (2022–2023) that has been adjusted by USGS to reflect estimated monthly data.

³As reported by producers.

⁴Shipments include sales to domestic customers, sales for export, and transfers to other company plants.

TABLE 2
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY OR LOCALITY¹

(Kilograms, contained molybdenum)

Country or locality	2022			2023		
	January– December	March	January– March	February	March	January– March
Argentina	87,000	54,000	64,900	--	--	--
Belgium	2,070,000	553,000	786,000	83,700	8,950	109,000
Brazil	229,000	28,700	55,600	6,600	61,600	74,600
Cambodia	5,000	--	--	--	--	--
Canada	408,000	23,100	134,000	98,800	67,200	321,000
Chile	98,400	--	98,400	142,000	142,000	283,000
China	402,000	--	--	--	98,500	179,000
Germany	5,700	--	5,700	--	--	--
Hong Kong	1,680	--	--	--	--	--
India	529,000	23,600	210,000	60,200	23,900	84,100
Italy	114	--	--	--	--	--
Japan	3,500,000	259,000	786,000	215,000	449,000	978,000
Korea, Republic of	681,000	37,700	111,000	128,000	57,000	287,000
Latvia	1,140	--	--	--	--	--
Mexico	1,970,000	348,000	714,000	--	--	92,900
Netherlands	28,500,000	2,010,000	6,850,000	2,270,000	2,860,000	7,520,000
South Africa	11,800	--	--	--	--	--
Taiwan	3,400	--	--	--	--	--
Thailand	12,400	--	--	12,800	--	12,800
United Kingdom	6,740,000	727,000	1,950,000	867,000	1,160,000	2,280,000
Vietnam	1,130,000	22,800	164,000	76,300	20,100	176,000
Total	46,400,000	4,090,000	11,900,000	3,960,000	4,940,000	12,400,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 3
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY OR LOCALITY¹

(Kilograms, contained molybdenum)

Country or locality	2022			2023		
	January– December	March	January– March	February	March	January– March
Argentina	547	--	--	--	--	--
Australia	2,560	852	1,700	--	1,060	1,060
Canada	90,700	9,810	40,300	--	30,900	38,500
Denmark	880	440	440	--	583	583
India	--	--	--	17,700	--	17,700
Mexico	92,600	770	1,270	--	43,500	43,500
Total	187,000	11,900	43,700	17,700	76,000	101,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS¹

(Kilograms, unless otherwise specified)

Material	2022			2023					
	January–December			March			January–March		
	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)	Gross weight	Contained molybdenum	Value ² (thousands)
Ore and concentrates, roasted	3,240,000	2,000,000	\$74,600	142,000	87,200	\$6,260	629,000	392,000	\$26,100
Ore and concentrates, other	28,800,000	13,700,000	511,000	2,360,000	1,140,000	71,400	7,510,000	3,650,000	191,000
Molybdenum chemicals:									
Oxides and hydroxides	3,660,000	NA	106,000	465,000	NA	22,200	1,580,000	NA	66,800
Molybdates of ammonium	1,360,000	773,000	33,700	59,900	33,800	2,640	448,000	253,000	15,600
Molybdates (all others)	360,000	144,000	5,980	19,100	7,550	510	89,700	35,500	1,670
Molybdenum orange	160,000	NA	1,170	26,800	NA	145	68,200	NA	318
Ferromolybdenum	10,600,000	7,260,000	311,000	863,000	583,000	40,200	2,330,000	1,620,000	85,200
Molybdenum powders	238,000	232,000	13,400	950	939	126	16,600	13,100	1,460
Molybdenum unwrought	330,000	329,000	14,800	61,200	60,900	4,550	176,000	175,000	11,200
Molybdenum waste and scrap	1,910,000	1,540,000	67,900	139,000	130,000	9,650	561,000	467,000	27,000
Molybdenum wire	15,800	NA	1,950	2,470	NA	365	3,760	NA	661
Molybdenum other	192,000	NA	24,800	22,800	NA	3,280	57,600	NA	7,560
Total	50,900,000	XX	1,170,000	4,160,000	XX	161,000	13,500,000	XX	435,000

NA Not available. XX Not applicable.

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

²Customs value.

Source: U.S. Census Bureau.