

Mineral Industry Surveys

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MOLYBDENUM IN NOVEMBER 2023

Domestic production of molybdenum in concentrate in November 2023 was essentially unchanged compared with the output in the previous month and 18% less than the output in November 2022 (fig. 1, table 1).

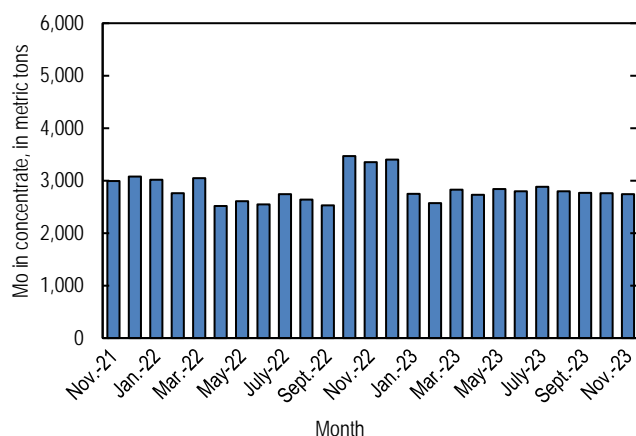


Figure 1. Monthly domestic production of molybdenum (Mo) in concentrate from November 2021 through November 2023 (may include revisions to previously published data).

Prices

According to CRU Group, the monthly average price range for U.S. ferromolybdenum (FeMo), 65% molybdenum, was \$21.444 to \$22.444 per pound of molybdenum content in November 2023 compared with \$24.750 to \$25.750 per pound in October 2023. FeMo, 65% molybdenum, monthly average prices in Europe ranged from \$46.278 to \$48.167 per kilogram (\$20.991 to \$21.848 per pound) of molybdenum content in November 2023 compared with \$51.500 to \$52.611 per kilogram (\$23.360 to \$23.864 per pound) in October 2023. U.S. molybdc oxide (MoO₃) prices, 60% molybdenum, ranged from \$18.639 to \$19.444 per pound of molybdenum content in November 2023 compared with \$21.528 to \$22.328 per pound of molybdenum content in October 2023 (fig. 2).

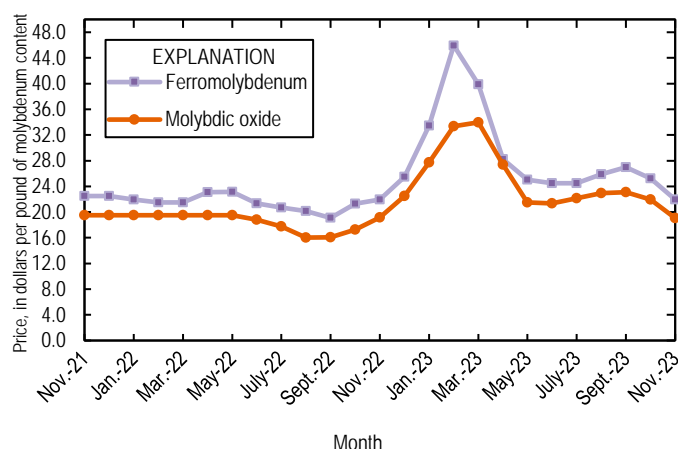


Figure 2. Average monthly prices for U.S. ferromolybdenum and molybdc oxide from November 2021 through November 2023. Source: CRU Group.

Industry News

Greenland Resources Inc. (Toronto, Ontario, Canada) provided an update on the ongoing progress of its Malmbjerg Molybdenum Project located in central east Greenland. A NI 43-101 definitive feasibility study was completed in 2022 and determined that average annual production for the first 10 years of mine life would be 15,000 metric tons per year of contained molybdenum metal at an average grade of 0.23% molybdenite. According to Greenland Resources, the project is planned as an open pit operation. The company focused on advancing financing and re-permitting their project and expected to conclude a renewable energy feasibility study in 2024 (Greenland Resources Inc., 2023).

References Cited

Greenland Resources Inc., 2023, Greenland Resources provides update: Toronto Ontario, Canada, Greenland Resources Inc. press release, November 15, 3 p. (Accessed January 8, 2024, at <https://greenlandresources.ca/data/news/PR-23-22-Greenland-Resources-Nov-15-2023.pdf>.)

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

(Metric tons, molybdenum content)

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–November	31,200	31,300
January–December	34,600	34,700
2023:		
January	2,750	2,610
February	2,570	2,570
March	2,830	2,900
April	2,730	2,720
May	2,840	2,860
June	2,800	2,790
July	2,880	2,850
August	2,800	2,830
September	2,770	2,760
October	2,760	2,750
November	2,740	2,700
January–November	30,500	30,300

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, molybdenum content)

Country or locality	2022			2023		
	January– December	November	January– November	October	November	January– November
Argentina	87,000	--	87,000	--	--	--
Belgium	2,130,000	186,000	1,970,000 [†]	204,000	178,000	760,000
Brazil	229,000	39,800	195,000	--	1,050	213,000
Cambodia	5,000	--	5,000	--	--	--
Canada	408,000	19,600	371,000	62,200	36,500	832,000
Chile	98,400	--	98,400	61,400	125,000	1,350,000
China	402,000	182,000	267,000	522,000	176,000	1,880,000
Ecuador	--	--	--	741	--	741
France	--	--	--	35,100	--	38,700
Germany	5,700	--	5,700	--	--	181
Hong Kong	1,680	--	1,680	--	--	--
India	499,000	22,200	430,000 [†]	24,200	23,100	328,000
Italy	114	114	114	--	--	--
Japan	3,460,000	151,000	3,170,000 [†]	161,000	142,000	2,840,000
Korea, Republic of	681,000	93,800	681,000	--	93,300	602,000
Latvia	1,140	--	1,140	--	--	--
Mexico	1,970,000	178,000	1,800,000	--	--	92,900
Netherlands	28,300,000	2,790,000	25,600,000 [†]	3,370,000	3,480,000	28,000,000
Singapore	--	--	--	--	--	55,000
South Africa	11,800	--	11,800	--	--	330
Sweden	--	--	--	--	--	12,500
Taiwan	3,400	--	3,400	--	--	--
Thailand	12,400	5,310	12,400	--	--	14,900
United Kingdom	6,740,000	72,600	5,960,000	1,040,000	378,000	7,220,000
Vietnam	1,130,000	242,000	1,030,000	63,100	88,200	840,000
Total	46,200,000	3,980,000	41,700,000 [†]	5,540,000	4,720,000	45,100,000

[†]Revised. -- 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, molybdenum content)

Country or locality	2022			2023		
	January– December	November	January– November	October	November	January– November
Argentina	547	85	547	--	--	--
Australia	2,560	--	2,560	--	--	2,510
Canada	93,400	3,990	93,400 ^r	5,320	12,900	175,000
Denmark	880	--	880	--	--	1,060
India	--	--	--	--	--	17,700
Mexico	92,600	10,000	92,600	--	3,110	111,000
Total	190,000	14,100	190,000 ^r	5,320	16,000	308,000

^rRevised. -- 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			November			January–November		
	Gross weight	Molybdenum content	Value ² (thousands)	Gross weight	Molybdenum content	Value ² (thousands)	Gross weight	Molybdenum content	Value ² (thousands)
Ore and concentrates, roasted	3,240,000	2,000,000	\$74,600	220,000	139,000	\$5,800	2,170,000	1,360,000	\$74,800
Ore and concentrates, other	28,800,000	13,700,000	511,000	1,220,000	583,000	27,300	27,300,000	13,500,000	688,000
Molybdenum chemicals:									
Oxides and hydroxides	3,660,000	NA	106,000	338,000	NA	12,000	4,690,000	NA	186,000
Molybdates of ammonium	1,360,000	773,000	33,700	80,900	45,700	2,350	1,420,000	803,000	47,400
Molybdates (all others)	360,000	144,000	5,980	1,000	396	42	202,000	80,200	4,120
Molybdenum orange	174,000	NA	1,260	15,200	NA	89	243,000	NA	1,460
Ferromolybdenum	10,600,000	7,260,000	311,000	350,000	234,000	12,700	8,810,000	6,020,000	321,000
Molybdenum powders	238,000	232,000	13,400	8,170	8,070	558	72,300	66,100	5,330
Molybdenum unwrought	318,000	317,000	14,300	36,700	36,600	2,200	577,000	575,000	35,700
Molybdenum waste and scrap	1,910,000	1,540,000	68,000	159,000	157,000	7,510	1,730,000	1,590,000	96,800
Molybdenum wire	15,800	NA	1,950	964	NA	236	17,000	NA	2,590
Molybdenum other	192,000	NA	24,700	15,200	NA	1,880	229,000	NA	33,400
Total	50,900,000	XX	1,160,000	2,440,000	XX	72,700	47,500,000	XX	1,500,000

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.