

Mineral Industry Surveys

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MOLYBDENUM IN AUGUST 2008

Domestic production of molybdenum (Mo) in concentrate in August 2008 was about 7% less than the output of the previous month and about 5% more than that of August 2007, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 5,770 metric tons (t) at the beginning of 2008 and about 5,850 t at the end of August.

According to Ryan's Notes (2008), the August monthly average price range for U.S. ferromolybdenum (FeMo) was from \$35.683 to \$35.978 per pound of molybdenum content, compared with \$35.431 to \$35.813 in July. European FeMo monthly averages ranged from \$79.606 to \$80.150 per kilogram (kg) of molybdenum content in August compared with \$79.538 to \$79.913 per kg in July. In August, worldwide molybdenum oxide (MoO₃) prices ranged from \$33.722 to \$34.000 per pound compared with \$33.581 to \$33.869 per pound in July.

General Moly Inc. signed an offtake agreement with Sojitz Corp. (Japan) to supply Sojitz 5 million pounds per year (2,270 metric tons per year) of molybdenum for 5 years once the Mt. Hope primary mine in Nevada reaches commercial production levels. This agreement, along with other agreements with

ArcelorMittal and SeAH Besteel Corp. (Republic of Korea), amount to 11.5 million pounds (5,200 t), or nearly 38% of the share of anticipated production from the Mt. Hope project (General Moly Inc., 2008).

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, U.S. consumption by end use, and consumer stocks of molybdenum material in July and August 2008. Export data for June and July 2008 and import data for July 2008 are also included.

References Cited

- General Moly Inc., 2008, General Moly announces 5 million pound per year off-take agreement with Sojitz Corporation: Lakewood, CO, General Moly Inc., August 11, 1p. (Accessed July 17, 2009 at http://www.generalmoly.com/index.php?option=com_content&view=article&id=38:gmo-5million-lb-takeoff-agreement&catid=1:news-releases&Itemid=49)
- Ryan's Notes, 2008, [untitled]: Ryan's Notes, v. 14, no. 35, September 1, p. 10.

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS¹

(Metric tons, contained molybdenum)

	2007		2008		
	January- December	January- August	July	August	January- August
Production	57,000	39,300	5,270 ^r	4,910	38,700
Shipments: ²					
Domestic	40,600	27,500 ^r	3,890	3,960	29,700
Export	16,400	12,000	1,240	732	8,740

^rRevised.

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

²As reported by producers.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM
PRODUCTS¹

(Metric tons, contained molybdenum)

	2007		2008		
	January- December	January- August	July	August	January- August
Gross production	72,800	49,500	6,460	6,590	50,200
Internal consumption ²	41,700	28,900	3,490	3,600	27,600
Gross shipments	48,700	32,400 ^r	4,190	4,600	35,100

^rRevised.

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

²Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3
U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS¹

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb- denum ²	Ammonium and sodium molybdate	Molyb- denum scrap	Other	Total
2008, July:						
Steel:						
Carbon	30,600	W	--	--	W	30,600
High-strength low-alloy	60,000	13,400	--	--	11,300	84,700
Stainless and heat-resisting	225,000	71,200	--	W	6,510	303,000
Full alloy	256,000	323,000	--	--	1,510	580,000
Tool	W	W	--	--	--	W
Total	571,000	407,000	--	W	19,400	998,000
Cast irons (gray, malleable, and ductile iron)	W	20,800	--	--	763	21,500
Superalloys	65,200	W	--	W	79,100	144,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	W	6,300	--	--	--	6,300
Mill products made from metal powder ³	--	--	--	--	172,000	172,000
Cemented carbides and related products ⁴	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	287	287
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	16,700	45,600	74,900	84,600	16,800	239,000
Grand total	731,000	480,000	74,900	84,600	299,000	1,670,000
Stocks, July 31, 2008	404,000	333,000	3,120	13,300	851,000	1,600,000
2008, August:						
Steel:						
Carbon	54,500	W	--	--	W	54,500
High-strength low-alloy	68,100	13,400	--	--	11,300	92,800
Stainless and heat-resisting	258,000	78,000	--	W	6,510	343,000
Full alloy	249,000	307,000	--	--	1,510	557,000
Tool	W	W	--	--	--	W
Total	629,000	398,000	--	W	19,400	1,050,000
Cast irons (gray, malleable, and ductile iron)	W	20,700	--	--	763	21,500
Superalloys	65,200	W	--	W	81,300	147,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	--	5,140	--	--	--	5,140
Mill products made from metal powder ³	13,300	--	--	--	184,000	198,000
Cemented carbides and related products ⁴	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	446	446
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,800	10,800
Other	16,500	45,500	72,600	84,800	16,800	236,000
Grand total	802,000	470,000	72,600	84,800	314,000	1,740,000
Stocks, August 31, 2008	382,000	330,000	3,150	13,600	857,000	1,590,000

W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category. -- Zero.

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

²Includes calcium molybdate.

³Includes ingot, wire, rod, and sheet.

⁴Includes construction, mining, oil and gas, metalworking machinery.

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2007			2008		
	January- December	July	January- July	June	July	January- July
Argentina	--	--	--	19,300	13,200	134,000
Belgium	6,730,000	654,000	3,730,000	568,000	566,000	4,470,000
Brazil	119,000	9,530	100,000	--	--	1,290
Canada	2,580,000	141,000	1,710,000	104,000	148,000	1,380,000
Chile	1,270,000	--	1,270,000	39,300	36,500	249,000
China	71,500	--	71,400	--	45	242,000
Finland	38,000	--	--	--	--	--
India	119,000	11,600	106,000	--	--	22,200
Italy	19,000	--	--	--	--	12,000
Japan	2,230,000	243,000	1,020,000	209,000	232,000	1,220,000
Korea, Republic of	232,000	--	24,700	89,800	92,400	484,000
Mexico	4,760,000	357,000	2,960,000	214,000	402,000	2,440,000
Netherlands	9,660,000	548,000	6,290,000	797,000	872,000	5,670,000
Pakistan	75,600	--	75,600	--	--	--
Switzerland	1,630	--	1,630	--	--	--
Taiwan	17,900	--	413	--	--	--
Thailand	9,620	--	9,620	--	--	--
United Kingdom	5,800,000	324,000	2,930,000	281,000	329,000	2,820,000
Vietnam	4,990	--	4,130	19,300	9,450	32,100
Other	80,800	2,880	6,710	--	--	33,800
Total	33,800,000	2,290,000	20,300,000	2,340,000	2,700,000	19,200,000

-- Zero.

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY¹

(Kilograms, contained molybdenum)

Country	2007			2008		
	January- December	July	January- July	June	July	January- July
Australia	25,000	--	11,200	--	--	--
Canada	838,000	65,700	495,000	79,400	80,200	680,000
Denmark	394	--	394	--	454	454
India	1,090	--	417	--	280	843
Mexico	23,700	877	20,000	700	6,010	19,700
Netherlands	145,000	--	145,000	14,000	55,900	168,000
Philippines	735	--	--	700	--	700
Saudi Arabia	149,000	--	45,500	--	--	--
South Africa	13,500	--	13,500	--	68	68
United Kingdom	24,900	--	24,900	--	--	--
Total	1,220,000	66,600	756,000	94,800	143,000	870,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS¹

(Kilograms, unless otherwise specified)

Material	January-December 2007			July 2008			January-July 2008		
	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	8,680,000	5,430,000	\$181,000	933,000	568,000	\$27,500	5,690,000	3,530,000	\$143,000
Ore and concentrates other	15,000,000	6,960,000	372,000	409,000	197,000	13,600	6,270,000	2,900,000	183,000
Molybdenum chemicals:									
Oxides and hydroxides	211,000	NA	8,020	52,400	NA	1,980	171,000	NA	7,050
Molybdates of ammonium	915,000	515,000	30,400	19,000	10,800	851	247,000	139,000	9,460
Molybdates (all others)	179,000	51,400	2,190	3,270	711	35	74,600	25,900	839
Molybdenum orange	600,000	NA	4,040	23,400	NA	228	244,000	NA	1,970
Ferromolybdenum	6,360,000	4,100,000	270,000	209,000	144,000	10,700	2,190,000	1,470,000	107,000
Molybdenum powders	72,900	60,800	4,990	6,690	5,630	418	42,800	36,700	3,680
Molybdenum unwrought	117,000	117,000	7,460	47,000	46,900	3,030	135,000	135,000	8,860
Molybdenum waste and scrap	574,000	554,000	34,800	24,200	20,900	1,380	416,000	389,000	22,800
Molybdenum wire	17,900	NA	2,740	1,430	NA	243	11,000	NA	1,820
Molybdenum other	164,000	NA	20,900	31,200	NA	3,250	258,000	NA	26,000
Total	32,900,000	XX	938,000	1,760,000	XX	63,300	15,800,000	XX	515,000

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.