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Mineral Industry Surveys

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MOLYBDENUM IN APRIL 2006

Domestic production of molybdenum in concentrate in April 2006 was about 14% less than that of the previous month and about 6% less than that of April 2005, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 7,630 metric tons (t) at the beginning of 2006, and about 6,140 t at the end of April.

According to Ryan's Notes (2006b), the April monthly average prices for U.S. ferromolybdenum (FeMo) ranged from $24.881 to $25.375 per pound of molybdenum content, compared with $25.056 to $25.944 in March. European FeMo monthly averages ranged from $52.875 to $54.375 per kilogram (kg) of molybdenum content in April compared with $53.722 to $55.056 per kg in March. In April, worldwide molybdenum oxide (MoO_3) prices ranged from $22.925 to $23.325 per pound versus $22.722 to $23.389 per pound in March.

Grupo Mexico S.A. declared *force majeure* on some molybdenum deliveries, but stated that the ongoing strike at its La Caridad Mine (Sonora State, Mexico) had little impact on the molybdenum market. About 600 metric tons per month of molybdenum concentrate from the mine normally was processed at the Molymex S.A. roaster (Sonora State, Mexico). Molymex was believed to have had no trouble sourcing concentrate to replace the La Caridad material because there were excess concentrates on the market (Ryan's Notes, 2006a). Grupo Mexico announced that it was considering installing a molybdenum circuit at its Cananea Mine in Sonora, Mexico, but that a final decision had not been reached (Metal Bulletin, 2006).

Included in this Mineral Industry Surveys are U.S. production and shipments of molybdenum concentrates and materials, U.S. consumption by end use, and stocks of molybdenum material in March and April 2006. Trade data for February and March 2006 are also included.

References Cited

Metal Bulletin, 2006, Grupo Mexico considers producing molybdenum at Cananea: Metal Bulletin, no. 8938, April 3, p. 14.
Ryan's Notes, 2006a, Illusive moly price decline: Ryan's Notes, v. 12, no. 17, April 24, p. 4.
Ryan's Notes, 2006b, [untitled]: Ryan's Notes, v. 12, no. 18, May 1, p. 10.

TABLE 1
U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS[1]

(Metric tons, contained molybdenum)

	2005		2006		
	January-December[p]	January-April	March	April	January-April
Production	57,900	18,300	5,340	4,610	19,600
Shipments:[2]					
Domestic	38,200	11,600	3,390	3,580	13,400
Export	19,400	5,950	2,190	1,350	6,820

[p]Preliminary.
[1]Data are rounded to no more than three significant digits.
[2]As reported by producers.

TABLE 2
U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM PRODUCTS[1]

(Metric tons, contained molybdenum)

	2005		2006		
	January-December[r, p]	January-April	March[r]	April	January-April
Gross production	78,500	25,700	6,890	5,980	26,700
Internal consumption[2]	48,700	16,300	4,300	3,760	16,400
Gross shipments	46,700	16,100	4,640	3,970	17,600

[p]Preliminary. [r]Revised.
[1]Data are rounded to no more than three significant digits.
[2]Includes molybdic oxides, metal powder, ammonium molybdate, sodium molybdate, and other.

TABLE 3

U.S. REPORTED CONSUMPTION, BY END USES, AND CONSUMER STOCKS OF MOLYBDENUM MATERIALS[1]

(Kilograms, contained molybdenum)

End use	Molybdic oxides	Ferro molyb-denum[2]	Ammonium and sodium molybdate	Molyb-denum scrap	Other	Total
2006, March:						
Steel:						
Carbon	12,500	W	--	--	W	12,500
High-strength low-alloy	31,300 r	7,610 r	--	--	11,300	50,200 r
Stainless and heat-resisting	150,000 r	62,600 r	--	W	6,510	219,000 r
Full alloy	167,000	237,000	--	--	1,510	406,000
Tool	36,700	W	--	--	--	36,700
Total	398,000 r	307,000 r	--	W	19,400	724,000 r
Cast irons (gray, malleable, and ductile iron)	W	7,980	--	--	763	8,740
Superalloys	72,000	W	--	(3)	145,000 r	217,000 r
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	62	4,610	--	--	--	4,680
Mill products made from metal powder[4]	--	--	--	--	217,000	217,000
Cemented carbides and related products[5]	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	678	678
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	10,900	10,900
Other	1,090	30,500	73,000 r	1,840	16,800	123,000
Grand total	548,000 r	350,000 r	73,000 r	1,840	410,000 r	1,380,000 r
Stocks, March 31, 2006	473,000 r	196,000 r	2,980 r	27,600	847,000 r	1,550,000 r
2006, April:						
Steel:						
Carbon	13,200	W	--	--	W	13,200
High-strength low-alloy	35,600	10,200	--	--	11,300	57,100
Stainless and heat-resisting	175,000	65,000	--	W	6,510	246,000
Full alloy	170,000	215,000	--	--	1,510	387,000
Tool	65,300	W	--	--	--	65,300
Total	459,000	291,000	--	W	19,400	769,000
Cast irons (gray, malleable, and ductile iron)	W	8,170	--	--	763	8,940
Superalloys	92,500	W	--	(3)	155,000	248,000
Alloys: (other than steels, cast irons, and superalloys)						
Welding materials (structural and hard-facing)	--	W	--	--	6	6
Other alloys	129	3,000	--	--	--	3,120
Mill products made from metal powder[4]	--	--	--	--	209,000	209,000
Cemented carbides and related products[5]	--	--	--	--	W	W
Chemical and ceramic uses:						
Pigments	--	--	W	--	--	W
Catalysts	77,300	--	W	--	W	77,300
Other chemicals	--	--	--	--	773	773
Miscellaneous and unspecified uses:						
Lubricants	--	--	--	--	11,100	11,100
Other	1,090	34,500	73,000	1,840	16,800	127,000
Grand total	630,000	336,000	73,000	1,840	413,000	1,450,000
Stocks, April 30, 2006	508,000	220,000	2,980	21,900	848,000	1,600,000

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

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

[2]Includes calcium molybdate.

[3]Included in "Other" of the "Superalloys" category.

[4]Includes ingot, wire, rod, and sheet.

[5]Includes construction, mining, oil and gas, metalworking machinery.

TABLE 4
U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES
(including roasted concentrate), BY COUNTRY[1]

(Kilograms, contained molybdenum)

	2005		2006		
Country	January-December	January-March	February	March	January-March
Australia	110,000	82,200	7,350	--	7,350
Austria	3,230	2,590	--	--	--
Belgium	9,430,000	338,000	615,000	1,420,000	2,560,000
Brazil	66,700	4,070	--	--	--
Canada	3,840,000	623,000	297,000	229,000	728,000
Chile	177,000	110,000	23,100	23,400	46,500
China	4,390,000	57,100	265,000	81,500	389,000
Costa Rica	3,810	2,620	--	--	--
India	41,100	34,400	727	--	2,170
Italy	35,100	35,100	--	--	--
Japan	2,050,000	404,000	188,000	205,000	501,000
Korea, Republic of	11,700	4,420	--	11,000	11,000
Mexico	3,130,000	818,000	308,000	554,000	1,240,000
Netherlands	15,000,000	5,240,000	730,000	721,000	2,690,000
Taiwan	3,600	3,600	--	608	608
United Kingdom	7,310,000	2,790,000	521,000	1,000,000	2,100,000
Other	767,000	8,020	9,140	29,200	38,300
Total	46,400,000	10,600,000	2,960,000	4,280,000	10,300,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 5
U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY[1]

(Kilograms, contained molybdenum)

	2005		2006		
Country	January-December	January-March	February	March	January-March
Austria	11,400	--	--	--	--
Brazil	17,200	--	--	25,000	25,000
Canada	1,930,000	400,000	145,000	220,000	385,000
India	--	--	166	--	166
Indonesia	5,930	163	--	--	--
Mexico	88,700	4,530	25,600	14,500	49,300
Netherlands	33,300	33,300	--	--	--
Switzerland	--	--	12,000	--	12,000
Total	2,090,000	438,000	183,000	260,000	471,000

-- Zero.

[1]Data 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 PRODUCTS[1]

(Kilograms, unless otherwise specified)

	January-December 2005			March 2006			January-March 2006		
Material	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	8,570,000	5,380,000	$306,000	1,210,000	735,000	$18,600	2,980,000	1,810,000	$47,800
Ore and concentrates other	13,800,000	6,480,000	440,000	711,000	353,000	16,400	3,100,000	1,440,000	70,100
Molybdenum chemicals:									
Oxides and hydroxides	1,240,000	NA	42,500	40,100	NA	1,620	227,000	NA	8,720
Molybdates of ammonium	4,220,000	2,730,000	53,600	166,000	111,000	5,350	534,000	334,000	9,390
Molybdates (all others)	101,000	24,800	1,250	16,100	3,250	208	65,500	10,500	728
Molybdenum orange	983,000	NA	4,780	70,800	NA	473	194,000	NA	1,340
Ferromolybdenum	6,340,000	4,040,000	278,000	261,000	165,000	9,440	1,430,000	904,000	45,300
Molybdenum powders	92,900	78,500	7,740	5,680	5,340	579	20,800	17,700	2,030
Molybdenum unwrought	99,000	98,800	5,750 [r]	16,000	15,900	842	57,600	57,500	3,170
Molybdenum waste and scrap	503,000	480,000	35,600	51,700	51,700	3,430	136,000	136,000	9,390
Molybdenum wire	21,300	NA	3,160	1,510	NA	183	4,070	NA	559
Molybdenum other	163,000	NA	20,700	21,800	NA	1,990	44,300	NA	4,680
Total	36,200,000	19,300,000	1,200,000	2,570,000	1,440,000	59,000	8,790,000	4,710,000	203,000

[r]Revised. NA Not available.

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

[2]Customs value.

Source: U.S. Census Bureau.