

# Mineral Industry Surveys

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#### **MOLYBDENUM IN JANUARY 2007**

Domestic production of molybdenum in concentrate in January 2007 was about 13% more than the output of the previous month and about 14% more than that of January 2006, according to the U.S. Geological Survey. Producer stocks of molybdenum in concentrate, oxide, and other product forms were about 5,330 metric tons (t) at the beginning of 2007 and about 4,430 t at the end of January.

According to Ryan's Notes (2007b), the January monthly average price range for U.S. ferromolybdenum (FeMo) was from \$26.889 to \$27.444 per pound of molybdenum content, compared with \$26.444 to \$26.972 in December. European FeMo monthly averages ranged from \$58.667 to \$60.222 per kilogram (kg) of molybdenum content in January compared with \$59.344 to \$60.000 per kg in December. In January, worldwide molybdenum oxide (MoO<sub>3</sub>) prices ranged from \$24.861 to \$25.383 per pound versus \$24.667 to \$25.067 per pound in December.

The Comision Chilena del Cobre (Cochilco) expected molybdenum production in Chile to decrease 12% to about 38,000 t (84 million pounds) in 2007 as compared with about 43,100 t (95 million pounds) in 2006. Cochilco projected that the molybdenum oxide price would average about \$20 per pound in 2007. Molybdenum production by Corporacion Nacional del Cobre (Codelco) in Chile was expected to decrease to 25,000 to 30,000 t (55 to 66 million pounds) in 2007 as compared with about 30,800 t (68 million pounds) in 2006. Codelco produced about 36,700 t in 2005. Codelco attributed the reduced production to lower ore grades and repair of the broken conveyor belt at the Chuquicamata Mine, which was expected to be completed in May (Ryan's Notes, 2007a).

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 December 2006 and January 2007. Export data for November and December 2006 and import data for December<sup>\*</sup> 2006 are also included.

#### **References Cited**

Ryan's Notes, 2007a, Moly continues to bounce: Ryan's Notes, v. 13, no. 4, January 22, p. 3.Ryan's Notes, 2007b, [untitled]: Ryan's Notes, v. 13, no. 6, February 5, p. 10.

\*Correction posted on August 3, 2007.

#### TABLE 1

#### U.S. SALIENT MOLYBDENUM CONCENTRATE STATISTICS<sup>1</sup>

#### (Metric tons, contained molybdenum)

		2006				
	January-			2007		
	December <sup>p</sup>	January	December	January		
Production	60,600	4,860	4,880	5,530		
Shipments: <sup>2</sup>						
Domestic	37,800	2,800	1,320	1,200		
Export	21,000	1,720	1,460	2,120		

<sup>p</sup>Preliminary.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>As reported by producers.

## TABLE 2 U.S. REPORTED PRODUCTION AND SHIPMENTS OF MOLYBDENUM $$\mathrm{PRODUCTS}^1$$

#### (Metric tons, contained molybdenum)

	January-			2007
	December <sup>p</sup>	January	December	January
Gross production	78,000	7,180	6,160	6,240
Internal consumption <sup>2</sup>	47,400	4,350	3,530	3,980
Gross shipments	51,000	4,470	4,300	4,790
n				

<sup>p</sup>Preliminary.

<sup>1</sup>Data are rounded to no more than three significant digits.

<sup>2</sup>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 $^{\rm 1}$

#### (Kilograms, contained molybdenum)

Molybdic         rolyb         and sodium         denum           2006. December:         Svech:         Total         Svech:         No           Carbon         12.200         W           11.300         61.500           Stainless and heat-resisting         163.000'         64.100'           11.300         61.500           Stainless and heat-resisting         163.000'         64.100'           1.510         372.000           Total         430.000'         29.1000          W         740.000'         740.000'           Cast roos (gray, malleable, and ductile iron)         W         73.300         -         W         72.900'         123.000'           Alloys: (other than steels, cast irons, and superalloys)         -         W         -         76.3         8.100           Supments           -         -         40.20'         191.000'         191.000'           Canalysis           -         -         -         W         W           Cast roos (gray, malleable, and ductis*           -         W         W         W           Chemical and			Ferro	Ammonium	Molyb-		
End use         oxides         denum <sup>4</sup> molybdate         scrap         Other         Total           2060, December:         Steel:		Molybdic	molyb-	and sodium	denum		
2006. December:           Steel:           Carbon         12,200         W         -         -         W         12,200           High-strength low-alloy         39,700         10,500         -         -         11,300         61,500           Stainless and heat-resisting         154,000         216,000         -         -         H         60,300         W         -         -         60,300         Total         70,300         W         -         -         60,300         Y         -         W         72,900         70,4000         '         29,400         74,0000         '         212,000         -         W         19,400         74,0000         '         212,000         '         W         73,400         -         -         76,300         '         312,000         '         312,000         '         212,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         '         123,000         ' </td <td>End use</td> <td>oxides</td> <td>denum<sup>2</sup></td> <td>molybdate</td> <td>scrap</td> <td>Other</td> <td>Total</td>	End use	oxides	denum <sup>2</sup>	molybdate	scrap	Other	Total
Steel:         Image: carbon         12,200         W           W         12,200           High-strength low-alloy         39,700         10,500           11,300         61,500           Stainless and heat-resisting         163,000 '         64,100 '          W         6,510         234,000 '           Total         60,300         W         -          6,500         72,000 '         12,000 '          W         19,400 '         740,000 '         291,000 '-         W         19,400 '         740,000 '         123,000 '         133,000 '         123,000 '         133,000 '         123,000 '         133,000 '         133,000 '         133,000 '         133,000 '         133,000 '         133,000 '         133,000 '         133,000 '         133,000 '	2006, December:						
	Steel:						
High-strength low-alloy $39,700$ $10,500$ $11,300$ $61,500$ Stainless and heat-resisting $153,000$ $64,000$ $15,10$ $372,000$ Total $430,000$ $216,000$ $ 60,300$ Total $430,000^+$ $291,000$ W $91,400$ $740,000^+$ Superalloys $50,200$ W        W $72,900^+$ $123,000^+$ Alloys: (other than steels, cast irons, and superalloys)       W $7,340$ 6       6         Mill products made from metal powder <sup>1</sup> W        W       W       W         Cemented carbides and related products <sup>4</sup> W       W <td>Carbon</td> <td>12,200</td> <td>W</td> <td></td> <td></td> <td>W</td> <td>12,200</td>	Carbon	12,200	W			W	12,200
Statiless and heat-resisting         163,000 '         64,100 '          W         6,510         234,000 '           Full ally         164,000 /         216,000 -           1.510         372,000           Total         430,000 '         291,000 -          W         19,400         740,000 '           Superalloys         50,200 W           W         72,900 '         123,000 '           Alloys: (other than steels, cast irons, and superalloys)         W         7,340 -          6         6           Welding materials (structural and hard-facing)          W           4,020 '         123,000 '           Chemical and ceramic uses:           W          W         W         W           Pigments           W          W         W         W           Stocks, December 31, 2006         58,000 '         341,000 '         74,000 '         60,100 '         135,000 '         135,000 '           Grand total             W           11,00           Grand total <td>High-strength low-alloy</td> <td>39,700</td> <td>10,500</td> <td></td> <td></td> <td>11,300</td> <td>61,500</td>	High-strength low-alloy	39,700	10,500			11,300	61,500
Full alloy         154,000         216,000           1.510         372,000           Total         430,000 '         291,000          W         19,400         740,000 '           Cast irons (gray, malleable, and ductile iron)         W         7,340           763         8,100           Mulsys: (other than steels, cast irons, and superalloys)         W         7,340          W         72,900 '         123,000 '           Mulsys: (other than steels, cast irons, and superalloys)         -         W         -         -         6         6         6           Other alloys          -         -         -         -         -         4,020 '           Cemented actight products made from metal powder <sup>3</sup> -         -         -         W         W         W           Catalysts         77,300          W         -         W         W         W           Dotter atlos           W         -         -         W         11,000         14,000 '         60,100 '         16,000 '         15,000 '         15,000 '         15,000 '         14,000 '         14,000 '         60,100 '         15,000 ' <td>Stainless and heat-resisting</td> <td>163,000 <sup>r</sup></td> <td>64,100 <sup>r</sup></td> <td></td> <td>W</td> <td>6,510</td> <td>234,000 <sup>r</sup></td>	Stainless and heat-resisting	163,000 <sup>r</sup>	64,100 <sup>r</sup>		W	6,510	234,000 <sup>r</sup>
Tool $60,300$ W $60,300$ $70,4000$ Total $430,000$ $291,000$ W $740,000$ $740,000$ Cast irons (gray, malleable, and ductile iron)         W $7,340$ $763$ $8,100$ Superalloys         Alloys: (other than steels, cast irons, and superalloys)         W          W         72,900         '         123,000         '' $4,020$ '           Mill products made from metal powder <sup>1</sup> W         W         W           Chemical and ceramic uses:           W         77,300          W         W         W           Cherical and ceramic uses:           W         W         77,300          W         W         77,300           Labricants           W          W         77,300         11,100         11,100         11,100         11,100         11,100         11,100         11,100         11,100         11,100         11,100         11,100         11,100 <td>Full alloy</td> <td>154,000</td> <td>216,000</td> <td></td> <td></td> <td>1,510</td> <td>372,000</td>	Full alloy	154,000	216,000			1,510	372,000
Total         430,000 ' 291,000          W         19,400         740,000 '           Cast irons (gray, malleable, and ductile iron)         W         7,340           763         8,100           Alloys: (other than steels, cast irons, and superalloys)         W         7,340          W         72,900 '         123,000 '           Meldig materials (structural and hard-facing)          W           6         6           Other alloys             4,020 '         191,000 '         153,000 '         133,000 '         1,330,00 '         1,330,00 '         1,330,00 '         1,330,00 '         1,330,00 '         1,330,00 '         1,300 '         1,330,00 '         1,300 '         1,330,00 '         1,300 '         1,300 '         1,330,00 '         1,300 '         1,330,00 '         1,330,00 '         1,330,00 '         1,3	Tool	60,300	W				60,300
Cast irons (gray, malleable, and ductile iron)       W       7,340         763       8,100         Superalloys       Moys: (other than steels, cast irons, and superalloys)       Welding materials (structural and hard-facing)        W         6       6         Other alloys        W         6       6       6         Other alloys        W                      W       W       W         Cemented and ceramic uses:          W        W	Total	430,000 r	291,000		W	19,400	740,000 r
Superalloys         50,200         W          W $72,900^{+}$ $123,000^{+}$ Alloys: (other than steels, cast irons, and superalloys)          W           6         6           Other alloys         68 $3,950$ 4,020^{+}           Mill products made from metal powder <sup>3</sup> W         W         W           Cemented carbides and related products <sup>4</sup> W         W         W           Chemical and ceramic uses:           W         W          W         W           Miscellaneous and unspecified uses:           W         W          W         11,100         11,100           Other         1090         38,600 <sup>+</sup> 74,000 <sup>+</sup> 60,100 <sup>+</sup> 13,3000 <sup>+</sup> 1,50,000 <sup>+</sup> 2007, January:         Steel:           W         11,900           W         11,900           Total         141,200         8,600           11,300         14,200         5,10         25,0000 <sup>+</sup> <t< td=""><td>Cast irons (gray, malleable, and ductile iron)</td><td>W</td><td>7,340</td><td></td><td></td><td>763</td><td>8,100</td></t<>	Cast irons (gray, malleable, and ductile iron)	W	7,340			763	8,100
Alloys:         (other than steels, cast irons, and superalloys)           Welding materials (structural and hard-facing)          W           4,020 <sup>†</sup> Mill products made from metal powder <sup>3</sup> 4,020 <sup>†</sup> Cemented carbides and related products <sup>4</sup> W         W           Chemical and certanic uses:           W          W         77,300           Other chemicals           W          W         77,300           Other chemicals           W          W         77,300           Other         1,900         38,600 <sup>†</sup> 74,000 <sup>†</sup> 60,100 <sup>†</sup> 11,100         11,100           Other         1,900         38,600 <sup>†</sup> 74,000 <sup>†</sup> 60,100 <sup>†</sup> 13,300 <sup>†</sup> 1,530,000 <sup>†</sup> Stocks, December 31, 2006         485,000         166,000 <sup>†</sup> 2,730 <sup>†</sup> 19,800         857,000 <sup>†</sup> 1,500,000 <sup>†</sup> Steel:             71,700         11,900           71,700	Superalloys	50,200	W		W	72,900 <sup>r</sup>	123,000 <sup>r</sup>
Welding materials (structural and hard-facing)          W           6         6           Other alloys         668         3,950           4,020 °           Mill products made from metal powder <sup>3</sup> W         191,000 °         191,000 °           Cemented carbides and related products <sup>4</sup> W         W         W           Chemical and ceramic uses:           W          W         W           Differents           W          W         77,300           Other chemicals            W         77,300          W         77,300           Other chemicals              11,100         11,100           Other         1.090         36,00°         74,000°         60,100°         133,000°         1,550,000°         130,000°         1,500,000°           Stocks, December 31, 2006         485,000         160,000          W         1,900         313,00°         1,500,000°           Storels         Carbon         11,900 <td>Alloys: (other than steels, cast irons, and superalloys)</td> <td></td> <td></td> <td></td> <td></td> <td></td> <td></td>	Alloys: (other than steels, cast irons, and superalloys)						
Other alloys         68 $3,950$ $4,020^{\circ}$ Mill products made from metal powder <sup>3</sup> 191,000 $^{\circ}$ W         W           Chemical and ceramic uses:           W          W         W         W           Catalysts         77,300          W          W         7,300           Other chemicals           W         7,300         W         7,300           Other Alloysts           W         7,300         11,000         11,000         11,000         11,000         11,000         13,000 $^{\circ}$ 13,000 $^{\circ}$ 13,000 $^{\circ}$ 150,000 $^{\circ}$ 250,000 $^{\circ}$ 27,30 $^{\circ}$ 19,800         \$5,000 $^{\circ}$ 1,500,00 $^{\circ}$	Welding materials (structural and hard-facing)		W			6	6
Mill products made from metal powder <sup>3</sup> 191,000 °         191,000 °           Cemented carbides and related products <sup>4</sup> W         W           Chemical and ceramic uses:           W          W         W           Pigments           W          W         W         W           Other chemicals           W          W         77,300          W         W         77,300           Other chemicals            W          W         73,000         10,00 °	Other alloys	68	3,950				4,020 r
Cemented carbides and related products <sup>4</sup> W         W           Chemical and ceramic uses:         Pigments           W          W         W           Pigments           W          W         77,300          W         77,300           Other chemicals            W         77,300          W         77,300           Other chemicals              889         889           Miscellaneous and unspecified uses:             11,100         11,000           Other         1.090         38,600 '         74,000 '         60,100 '         13,50,000 '         13,50,000 '         153,000 '         153,000 '         150,000 '         150,000 '         19,000 '         10,000 '         11,000 W           W         11,900         W           11,300 (         60,600         Stainless and heat-resisting         186,000 (         64,900 (          W         19,400 (         703,000         17,700 (         <	Mill products made from metal powder <sup>3</sup>					191,000 r	191,000 <sup>r</sup>
Chemical and ceramic uses: $Pigments$ $  W$ $  W$ Catalysts         77,300 $ W$ $ W$ $77,300$ Other chemicals $   W$ $ W$ $77,300$ Diher chemicals $     W$ $77,300$ Other $1.090$ $38,600^{-7}$ $74,000^{-7}$ $60,100^{-7}$ $11,100$ $11,100$ Other $1.090$ $38,600^{-7}$ $74,000^{-7}$ $60,100^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $13,000^{-7}$ $1,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ $11,000^{-7}$ <	Cemented carbides and related products <sup>4</sup>					W	W
Pigments           W           W           Catalysts         77,300          W          W         77,300           Other chemicals            W         77,300          W         77,300           Lubricants             889         889           Miscellaneous and unspecified uses:            11,100         11,100           Other         1,090         38,600 *         74,000 *         60,100 *         16,800 *         19,000 *           Stocks, December 31, 2006         485,000         166,000 *         2,730 *         19,800         857,000 *         1,530,000 *           2007, January:           W         11,900           W         11,900           Steel:            11,300         66,600          W         6,510         257,000           Total         161,000         123,000          W         6,510         257,000           Superalloys          7,530	Chemical and ceramic uses:						
Catalysts         77,300          W          W         77,300           Other chemicals            W          W         77,300           Miscellaneous and unspecified uses:             W         889         889           Lubricants             W         11,000         11,100           Other         1,090         38,600 r         74,000 r         60,100 r         313,000 r         1,350,000 r           Stocks, December 31, 2006         485,000         166,000 r         2,730 r         19,800         857,000 r         1,50,000 r           2007, January:           W         11,900         W           W         11,900           High-strength low-alloy         11,200         8,660          W         11,300         60,600           Stainless and heat-resisting         186,000         64,900          W         11,300         60,600           Superalloys         141,000         213,000          -         76,38,300         8,300           Superalloys <td>Pigments</td> <td></td> <td></td> <td>W</td> <td></td> <td></td> <td>W</td>	Pigments			W			W
Other chemicals            889         889           Miscellaneous and unspecified uses:             889         889           Lubricants             11,100         11,100           Other         1.090         38,600 t         74,000 t         60,100 t         16,800 t         13,000 t         1,350,000 t           Grand total         558,000 t         341,000 t         74,000 t         60,100 t         31,000 t         1,550,000 t           2007, January:         Steell            W         11,900           Stailess and heat-resisting         186,000         64,900          W         11,900         257,000           Tool         71,700         W           1,510         302,000           Tool         71,700         W           71,700         273,000         78,000         147,000           Superalloys         186,000         140,000          W         19,400         703,000           Cast irons (gray, malleable, and ductile iron)         W         7,530         -	Catalysts	77,300		W		W	77,300
Miscellaneous and unspecified uses:           Lubricants             11,100         11,100           Other         1,090         38,600 r         74,000 r         60,100 r         16,800 r         19,000 r           Stocks, December 31, 2006         485,000 r         341,000 r         2,730 r         19,800         857,000 r         1,530,000 r           2007, January:            W         11,900         W           W         11,900           Carbon         11,900         W           W         11,900         Steel:           11,300         60,600           Steel:         11,900         W           W         1,510         302,000           Tool         16,000         64,900          W         -         71,700           Toal         41,000         213,000          W         19,400         703,000           Carbon         11,100         213,000          W         19,400         703,000           Tool         71,700         W	Other chemicals					889	889
Lubricants            11,100         11,100           Other         1,090 $38,600^{\circ}$ $74,000^{\circ}$ $60,100^{\circ}$ $16,800^{\circ}$ $191,000^{\circ}$ Grand total $558,000^{\circ}$ $341,000^{\circ}$ $60,100^{\circ}$ $313,000^{\circ}$ $13,50,00^{\circ}$ Stocks, December 31, 2006 $485,000^{\circ}$ $341,000^{\circ}$ $60,100^{\circ}$ $31,000^{\circ}$ $13,000^{\circ}$ $11,900^{\circ}$	Miscellaneous and unspecified uses:						
Other         1,090 $38,600^{+}$ $74,000^{+}$ $60,100^{+}$ $16,800^{+}$ $191,000^{+}$ Grand total         558,000^{+} $341,000^{+}$ $74,000^{+}$ $60,100^{+}$ $313,000^{+}$ $1350,000^{+}$ Stocks, December 31, 2006         485,000 $166,000^{+}$ $2,730^{+}$ $19,800$ $857,000^{+}$ $1,530,000^{+}$ 2007, January:         Steel:         11,900         W           W $11,900$ Grand number 2007         11,900         W           W $11,900$ W           W $11,900$ 66,510 $257,000^{+}$ Stocks         and heat-resisting         161,000         140,000          W $6,510$ $257,000$ Total         471,000         213,000          W         19,400 $703,000$ Superalloys         68,600         W          W         76,30          W $74,700$ Welding materials (structural and hard-facing)          W          W         77,300 $74,7300$	Lubricants					11,100	11,100
Grand total         558,000 r $341,000 r$ $74,000 r$ $60,100 r$ $313,000 r$ $1,350,000 r$ Stocks, December 31, 2006         485,000 $166,000 r$ $2,730 r$ $19,800$ $857,000 r$ $1,530,000 r$ 2007, January:         Steel:         -         -         W $11,900$ W          -         W $11,900$ Grand total         11,900         W           W $11,900$ W           W $11,900$ Carbon         11,900         W           W $11,900$ W           W $11,900$ W           N $0,600$ Stainless and heat-resisting         186,000         64,900          W $65,510$ $257,000$ Full alloy         161,000         140,000          W         19,400 $703,000$ Cast irons (gray, malleable, and ductile iron)         S6,600         W          W         19,400 $703,000$ Alloys: (other than steels, cast irons, and s	Other	1,090	38,600 <sup>r</sup>	74,000 <sup>r</sup>	60,100 <sup>r</sup>	16,800 <sup>r</sup>	191,000 <sup>r</sup>
Stocks, December 31, 2006         485,000 $166,000^{r}$ $2,730^{r}$ $19,800$ $857,000^{r}$ $1,530,000^{r}$ 2007, January:         Steel:         -         -         W         11,900         W           W         11,900         General Stainless and heat-resisting         11,900         W           W         11,900         Stainless and heat-resisting         11,900         General Stainless and stainless and stainless and heat-resisting         161,000         140,000          W         W         65,510         257,000         Total         700         Total         700         Total         W         70,700         General Stains, and superalloys         K         71,700         W           763         8,300         General Stain Stai	Grand total	558,000 r	341,000 r	74,000 <sup>r</sup>	60,100 <sup>r</sup>	313,000 r	1,350,000 r
2007, January:	Stocks, December 31, 2006	485,000	166,000 r	2,730 <sup>r</sup>	19,800	857,000 r	1,530,000 <sup>r</sup>
Steel:           W           W         11,900         W           W         11,900         High-strength low-alloy         11,900 $41,200$ 8,060           I1,300         60,600         Stainless and heat-resisting         11,800         64,900          W         6,510         257,000         60,600         Stainless and heat-resisting         11,000         140,000          W         6,510         257,000         65,10         257,000         70,000         W           1,510         302,000         70,700         W           71,700         W           71,700         W           71,700         W           71,700         W          71,700         W          71,700         W          71,700         Steel         Stee	2007, January:				·	·	· · ·
Carbon         11,900         W           W         11,900           High-strength low-alloy         41,200         8,060           11,300         60,600           Stainless and heat-resisting         186,000         64,900          W         6,510         257,000           Full alloy         161,000         140,000           1,510         302,000           Tool         71,700         W           71,700         000           Cast irons (gray, malleable, and ductile iron)         W         7,530           763         8,300           Superalloys         68,600         W          W         78,000         147,000           Alloys: (other than steels, cast irons, and superalloys)         W          W         78,000         147,000           Welding materials (structural and hard-facing)          W          W         78,000         147,000           Cemented carbides and related products <sup>4</sup> 203,000         203,000           Cemented carbides and related products <sup>4</sup> <t< td=""><td>Steel:</td><td></td><td></td><td></td><td></td><td></td><td></td></t<>	Steel:						
High-strength low-alloy $41,200$ $8,060$ $11,300$ $60,600$ Stainless and heat-resisting $186,000$ $64,900$ W $6,510$ $257,000$ Full alloy $161,000$ $140,000$ $1,510$ $302,000$ Tool $71,700$ W $71,700$ Total $471,000$ $213,000$ W $19,400$ $703,000$ Cast irons (gray, malleable, and ductile iron)W $7,530$ $763$ $8,300$ Superalloys $68,600$ WW $78,000$ $147,000$ Alloys: (other than steels, cast irons, and superalloys)W $$ W $78,000$ $147,000$ Mill products made from metal powder <sup>3</sup> $6$ $6$ Other alloys $103$ $3,750$ $$ $3,850$ Mill products made from metal powder <sup>3</sup> $W$ $W$ Chemical and ceramic uses: $W$ $W$ PigmentsW $77,300$ $$ W $77,300$ Other chemicals $10,700$ $10,700$ $10,700$ Other chemicals $10,700$ $10,700$ $10,700$ Other chemicals $$ $10,900$ $320,000$ $1340,000$ Grand total $526,000$ $339,000$ $2,760$ <td>Carbon</td> <td>11,900</td> <td>W</td> <td></td> <td></td> <td>W</td> <td>11,900</td>	Carbon	11,900	W			W	11,900
Stainless and heat-resisting         186,000 $64,900$ W $6,510$ $257,000$ Full alloy         161,000         140,000           1,510         302,000           Tool         71,700         W           71,700           71,700           Total         471,000         213,000          W         19,400         703,000           Cast irons (gray, malleable, and ductile iron)         W         7,530           763         8,300           Superalloys         68,600         W          W         78,000         147,000           Alloys: (other than steels, cast irons, and superalloys)         W         7,530          W         78,000         147,000           Mill products made from metal powder <sup>3</sup> W          W          3,850           Mill products made from metal powder <sup>3</sup> W         W         W           Chemical and ceramic uses:            W          W         77,300           Lubricants </td <td>High-strength low-alloy</td> <td>41,200</td> <td>8,060</td> <td></td> <td></td> <td>11,300</td> <td>60,600</td>	High-strength low-alloy	41,200	8,060			11,300	60,600
Full alloy       161,000       140,000         1,510       302,000         Tool       71,700       W         71,700         Total       471,000       213,000        W       19,400       703,000         Cast irons (gray, malleable, and ductile iron)       W       7,530         763       8,300         Superalloys       68,600       W        W       78,000       147,000         Alloys: (other than steels, cast irons, and superalloys)        W        W       78,000       147,000         Mill products made from metal powder <sup>3</sup> W         3,850         Mill products made from metal powder <sup>3</sup> 203,000       203,000         Cemented carbides and related products <sup>4</sup> W       W         Chemical and ceramic uses:       Pigments         W        W       77,300         Other chemicals          W        W       70,700       10,700         Other chemicals	Stainless and heat-resisting	186.000	64,900		W	6.510	257.000
Tool $71,700$ W $71,700$ Total $471,000$ $213,000$ W $19,400$ $703,000$ Cast irons (gray, malleable, and ductile iron)       W $7,530$ $763$ $8,300$ Superalloys $68,600$ W        W $78,000$ $147,000$ Alloys: (other than steels, cast irons, and superalloys) $68,600$ W        W $78,000$ $147,000$ Mill products made from metal powder <sup>3</sup> W        W $78,000$ $203,000$ Cemented carbides and related products <sup>4</sup> $$ $$ $3,850$ Mill products made from metal powder <sup>3</sup> $$ $$ $$ $$ $$ $$ $W$ $W$ Chemical and ceramic uses: $$ $W$ $$ $$ $$ $W$ $$ <td>Full allov</td> <td>161.000</td> <td>140.000</td> <td></td> <td></td> <td>1.510</td> <td>302,000</td>	Full allov	161.000	140.000			1.510	302,000
Total $471,000$ $213,000$ W $19,400$ $703,000$ Cast irons (gray, malleable, and ductile iron)W $7,530$ $763$ $8,300$ Superalloys $68,600$ WW $78,000$ $147,000$ Alloys: (other than steels, cast irons, and superalloys) $68,600$ WW $78,000$ $147,000$ Mill products made from metal powder <sup>3</sup> $103$ $3,750$ $3,850$ Mill products made from metal powder <sup>3</sup> $$ $$ $$ $203,000$ $203,000$ Cemented carbides and related products <sup>4</sup> $$ $$ $$ $W$ $W$ Chemical and ceramic uses: $$ $$ $W$ $W$ $W$ Pigments $$ $$ $W$ $$ $W$ $V$ Miscellaneous and unspecified uses: $$ $$ $$ $W$ $1,180$ $1,180$ Miscellaneous and unspecified uses: $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ Lubricants $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ $$ Other $$ <	Tool	71,700	W				71,700
Cast irons (gray, malleable, and ductile iron)       W       7,530         763       8,300         Superalloys       68,600       W        W       78,000       147,000         Alloys: (other than steels, cast irons, and superalloys)       Welding materials (structural and hard-facing)        W        W       78,000       147,000         Other alloys       103       3,750         3,850         Mill products made from metal powder <sup>3</sup> 203,000       203,000         Cemented carbides and related products <sup>4</sup> W       W         Chemical and ceramic uses:         W        W       W         Pigments         W        W       77,300         Other chemicals         W        W       77,300         Miscellaneous and unspecified uses:          1,180       1,180         Lubricants           10,700       10,700         Other       1,090       30,200       73,000       68,300	Total	471.000	213.000		W	19.400	703.000
Superalloys       68,600       W        W       78,000       147,000         Alloys: (other than steels, cast irons, and superalloys)       Welding materials (structural and hard-facing)        W        W       78,000       147,000         Other alloys       103       3,750         6       6         Other alloys       103       3,750         3,850         Mill products made from metal powder <sup>3</sup> 203,000       203,000         Cemented carbides and related products <sup>4</sup> W       W         Chemical and ceramic uses:         W        W       W         Pigments         W        W        W       77,300         Other chemicals         W        W       77,300       1,180       1,180         Miscellaneous and unspecified uses:           1,180       1,180         Lubricants            10,700       10,700         Other       1,	Cast irons (gray, malleable, and ductile iron)	W	7.530			763	8.300
Alloys: (other than steels, cast irons, and superalloys)         Welding materials (structural and hard-facing)        W         6       6         Other alloys       103       3,750         3,850         Mill products made from metal powder <sup>3</sup> 203,000       203,000         Cemented carbides and related products <sup>4</sup> W       W         Chemical and ceramic uses:         W       W       W         Pigments         W        W       77,300         Other chemicals         W        W       77,300         Other chemicals           1,180       1,180         Miscellaneous and unspecified uses:          10,700       10,700         Ubricants           10,700       10,700         Other       1,090       30,200       73,000       68,300       16,800       189,000         Grand total       618,000       254,000       73,000       68,300       330,000	Superallovs	68.600	W		W	78.000	147.000
Welding materials (structural and hard-facing)        W         6       6         Other alloys       103 $3,750$ $3,850$ Mill products made from metal powder <sup>3</sup> 203,000       203,000         Cemented carbides and related products <sup>4</sup> W       W         Chemical and ceramic uses:          W       W         Pigments         W        W       77,300         Other chemicals         W        W       77,300         Other chemicals          W       77,300        W       77,300         Miscellaneous and unspecified uses:           1,180       1,180         Lubricants            10,700       10,700         Other       1,090       30,200       73,000       68,300       16,800       189,000         Grand total       618,000       254,000       73,000       68,300       330,000 <td>Allovs: (other than steels, cast irons, and superallovs)</td> <td></td> <td></td> <td></td> <td></td> <td> ,</td> <td>.,</td>	Allovs: (other than steels, cast irons, and superallovs)					,	.,
Other alloys       103 $3,750$ 3,850         Mill products made from metal powder <sup>3</sup> 203,000       203,000         Cemented carbides and related products <sup>4</sup> 203,000       203,000         Chemical and ceramic uses:           W       W         Pigments         W        W       W         Catalysts       77,300        W        W       77,300         Other chemicals           1,180       1,180         Miscellaneous and unspecified uses:           10,700       10,700         Other       1,090       30,200       73,000       68,300       16,800       189,000         Grand total       618,000       254,000       73,000       68,300       30,000       1,340,000         Stocks, January 31, 2007       526,000       339,000       2,760       25,700       855,000       1,750,000	Welding materials (structural and hard-facing)		W			6	6
Mill products made from metal powder <sup>3</sup> 203,000         203,000           Cemented carbides and related products <sup>4</sup> W         W           Chemical and ceramic uses:            W         W           Pigments           W          W         W           Catalysts         77,300          W          W         77,300           Other chemicals            W         77,300          W         77,300           Other chemicals             1,180         1,180           Miscellaneous and unspecified uses:            10,700         10,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         30,000         1,340,000           Stocks, January 31, 2007         526,000         339,000         2,760         855,000         1,750,000	Other allovs	103	3.750				3.850
Improducts findle from field powder       Improducts findle from field powder         Cemented carbides and related products <sup>4</sup> W       W         Chemical and ceramic uses:         W        W       W         Pigments         W        W       77,300         Other chemicals         W        W       77,300         Miscellaneous and unspecified uses:          1,180       1,180         Lubricants           10,700       10,700         Other       1,090       30,200       73,000       68,300       16,800       189,000         Grand total       618,000       254,000       73,000       68,300       30,000       1,340,000         Stocks, January 31, 2007       526,000       339,000       2,760       25,700       855,000       1,750,000	Mill products made from metal powder <sup>3</sup>					203.000	203.000
Chemical and ceramic uses:           W           W           Pigments         77,300          W          W         77,300           Other chemicals           W          W         77,300           Miscellaneous and unspecified uses:            1,180         1,180           Lubricants            10,700         10,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks, January 31, 2007         526,000         339,000         2,760         855,000         1,750,000	Cemented carbides and related products <sup>4</sup>					W	W
Pigments          W          W          W           Catalysts         77,300          W          W         77,300           Other chemicals           W          W         77,300           Miscellaneous and unspecified uses:            1,180         1,180           Lubricants            10,700         10,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks, January 31, 2007         526,000         339,000         2,760         855,000         1,750,000	Chemical and ceramic uses:						
Catalysts         77,300          W          W         77,300           Other chemicals            W          W         77,300           Miscellaneous and unspecified uses:             1,180         1,180           Lubricants             10,700         10,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks, January 31, 2007         526,000         339,000         2,760         25,700         855,000         1,750,000	Pigments			W			W
Other chemicals            1,180         1,180           Miscellaneous and unspecified uses:            1,180         1,180           Lubricants             10,700         10,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks, January 31, 2007         526,000         339,000         2,760         25,700         855,000         1,750,000	Catalysts	77 300		w		W	77 300
Other            10,700         10,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks. January 31, 2007         526,000         339,000         2,760         25,700         855,000         1,750,000	Other chemicals					1 180	1 180
Lubricants            10,700         10,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks, January 31, 2007         526,000         339,000         2,760         25,700         855,000         1,750,000	Miscellaneous and unspecified uses:					1,100	1,100
Determine         1,090         30,200         73,000         68,300         16,000         19,700           Other         1,090         30,200         73,000         68,300         16,800         189,000           Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks. January 31, 2007         526,000         339,000         2,760         25,700         855,000         1,750,000	Lubricants					10 700	10 700
Grand total         618,000         254,000         73,000         68,300         330,000         1,340,000           Stocks. January 31, 2007         526,000         339,000         2,760         25,700         855,000         1,750,000	Other	1 090	30.200	73 000	68 300	16,800	189,000
Stocks, January 31, 2007 526,000 339,000 2,760 25,700 855,000 1,540,000	Grand total	618 000	254 000	73,000	68 300	330,000	1 340 000
	Stocks, January 31, 2007	526,000	339,000	2.760	25,700	855,000	1.750.000

<sup>r</sup>Revised. W Withheld to avoid disclosing company proprietary data; included in "Other" of the "Miscellaneous and unspecified uses" category. -- Zero.

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

<sup>2</sup>Includes calcium molybdate.

<sup>3</sup>Includes ingot, wire, rod, and sheet.

<sup>4</sup>Includes construction, mining, oil and gas, metalworking machinery.

### TABLE 4 U.S. EXPORTS OF MOLYBDENUM ORES AND CONCENTRATES (including roasted concentrate), BY COUNTRY<sup>1</sup>

	2005	2006					
	January-		January-				
Country	December	October <sup>r, 2</sup>	November <sup>r, 2</sup>	December	December <sup>3</sup>		
Australia	110,000	81,500			88,800		
Austria	3,230						
Belgium	9,430,000	568,000	815,000	90,400	7,490,000		
Brazil	66,700	37,900	19,000		113,000		
Canada	3,840,000	192,000	201,000	198,000	2,680,000		
Chile	177,000	20,000	19,000	80,700	259,000		
China	4,390,000		7,140		405,000		
Costa Rica	3,810						
India	41,100	11,700		24,000	82,800		
Italy	35,100						
Japan	2,050,000	133,000	219,000	162,000	2,260,000		
Korea, Republic of	11,700	39			45,000		
Mexico	3,130,000	686,000	473,000	297,000	6,070,000		
Netherlands	15,000,000	828,000	876,000	1,120,000	10,300,000		
Taiwan	3,600	29,000		23,800	53,400		
United Kingdom	7,310,000	384,000	793,000	678,000	7,280,000		
Other	767,000 <sup>r</sup>		284	22,200	78,500		
Total	46,400,000	2,970,000	3,420,000	2,700,000	37,200,000		

#### (Kilograms, contained molybdenum)

<sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>Data was erroneously reported in the December 2006 publication.

<sup>3</sup>Includes revisions to previous months' data.

Source: U.S. Census Bureau.

#### TABLE 5

#### U.S. EXPORTS OF FERROMOLYBDENUM, BY COUNTRY $^{\rm 1}$

#### (Kilograms, contained molybdenum)

	2005	2006					
	January-				January-		
Country	December	October <sup>r, 2</sup>	November <sup>r, 2</sup>	December	December <sup>3</sup>		
Argentina					14,500		
Australia				349	24,500		
Austria	11,400						
Brazil	17,200				37,700		
Canada	1,930,000	75,600	62,500	21,000	1,760,000		
Denmark					57		
India				300	667		
Indonesia	5,930						
Japan					60		
Mexico	88,700	490	1,400	603	143,000		
Netherlands	33,300		14,000		14,000		
Singapore					1,630		
Switzerland					12,000		
Total	2,090,000	76,100	77,900	22,200	2,010,000		

<sup>r</sup>Revised. -- Zero.

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

<sup>2</sup>Data was erroneously reported in the December 2006 publication.

<sup>3</sup>Includes revisions to previous months' data.

Source: U.S. Census Bureau.

### TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF MOLYBDENUM PRODUCTS<sup>1</sup>

#### (Kilograms, unless otherwise specified)

	January-December 2005			December 2006			January-December 2006		
	Gross	Contained	Value <sup>2</sup>	Gross	Contained	Value <sup>2</sup>	Gross	Contained	Value <sup>2</sup>
Material	weight	molybdenum	(thousands)	weight	molybdenum	(thousands)	weight	molybdenum	(thousands)
Ore and concentrates roasted	8,570,000	5,380,000	\$306,000	587,000	366,000	\$10,600	9,570,000	5,900,000	\$167,000
Ore and concentrates other	13,800,000	6,480,000	440,000	1,750,000	793,000	35,700	10,900,000	5,000,000	227,000
Molybdenum chemicals:									
Oxides and hydroxides	1,240,000	NA	42,500	38,900	NA	1,580	629,000	NA	24,300
Molybdates of ammonium	4,220,000	2,730,000	53,600	106,000	59,300	3,130	1,430,000	844,000	34,100
Molybdates (all others)	101,000	24,800	1,250	60,200	22,900	759	241,000	72,700	2,810
Molybdenum orange	983,000	NA	4,780	40,200	NA	210	822,000	NA	5,110
Ferromolybdenum	6,340,000	4,040,000	287,000	274,000	180,000	9,340	4,810,000	3,060,000	165,000
Molybdenum powders	92,900	78,500	7,740	34,100	33,100	2,290	367,000	270,000	17,600
Molybdenum unwrought	99,000	98,800	5,740	25,400	25,300	1,510	191,000	191,000	10,800
Molybdenum waste and scrap	503,000	480,000	35,600	24,300	23,800	1,380	452,000	445,000	27,800
Molybdenum wire	21,300	NA	3,160	2,010	NA	271	18,600	NA	2,550
Molybdenum other	163,000	NA	20,700	7,880	NA	1,570	130,000	NA	17,000
Total	36,200,000	19,300,000	1,200,000	2,950,000	1,500,000	68,300	29,600,000	15,800,000	701,000

NA Not available.

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

<sup>2</sup>Customs value.

Source: U.S. Census Bureau.