

# Mineral Industry Surveys

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## MANGANESE IN MAY 2003

In May, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was estimated as 32,700 metric tons (t), which was a 10% increase from that for the previous month, according to the U.S. Geological Survey. This figure increases to 35,100 t when estimates for annual respondents are added on the basis of 2002 data. Corresponding industry stocks of ore at the end of the month were 178,000 t, which includes an estimate for annual respondents on the basis of 2002 data. This was an increase of 31% from that of the previous month. (Data for the most recent 13 months are plotted in the graph on page 2.)

Foreign trade data for May will appear in a subsequent report. The data for April 2003 tabulated in this report indicate that the total imports for consumption, on a manganese content basis, decreased by about 12% from those of March 2003 (table 1). Total exports, on a manganese content basis, increased by 28% from those for the previous month.

On May 1, the International Trade Administration (ITA) of the U.S. Department of Commerce announced the opportunity to request an administrative review of the antidumping duty order covering silicomanganese imports from India, Kazakhstan and Venezuela for the period November 9, 2001, through April 30, 2003 (International Trade Administration, 2003a). **Update:** Based on a request from Considar, Inc., the ITA announced the beginning of an administrative review for the subject silicomanganese imports from Kazakhstan in July (International Trade Administration, 2003b, c).

### Additional Update

In June, Kerr-McGee Chemical LLC announced it would place its electrolytic manganese dioxide plant in Henderson, NV, on indefinite standby during the third quarter of 2003 owing to low-priced imports and high inventory levels (Chemical Market Reporter, 2003). The plant has an annual production capacity of 29,000 t.

Rio Doce Manganese Norway (RDMN), the wholly owned subsidiary of Brazil's Companhia Vale do Rio Doce S.A. (CVRD), started manganese ferroalloy production on June 30. RDMN, formerly Elkem Rana, was acquired by CVRD in February 2003. The plant will produce silicomanganese and

high-carbon ferromanganese by consuming manganese ore fines supplied by CVRD's Azul mine located in the Carajas mineral province, State of Para, Brazil (Bradespar, 2003<sup>1</sup>).

In July, Eramet announced it had closed its Shaoxing ferromanganese production facility located in the Zhejiang province in China on April 12 (TEX Report, The, 2003). The plant, which had an annual operating capacity of 100,000 t, was closed because of the Chinese Government's intention of moving heavy industry out of Shaoxing (Yieh Trading Corporation Market News, 2003<sup>§</sup>). Current levels of ferromanganese production in China were expected to be maintained by two plants located in the Guangxi Autonomous Region—Guilin Ferro-Alloy Works and Bayi Manganese Ferro-Alloy Works (TEX Report, The, 2003).

### References Cited

- Chemical Market Reporter, 2003, Kerr-McGee suspends manganese dioxide manufacture: Chemical Market Reporter, v. 263, no. 22, June 2, p. 3.  
International Trade Administration, 2003a, Antidumping or countervailing duty order, finding, or suspended investigation—Opportunity to request administrative review: Federal Register, v. 68, no. 84, May 1, p. 23281-23282.  
International Trade Administration, 2003b, Initiation of antidumping and countervailing duty administrative reviews and request for revocation in part: Federal Register, v. 68, no. 126, July 1, p. 39055-39058.  
International Trade Administration, 2003c, Notice of initiation of antidumping and countervailing duty administrative reviews and request for revocation in part—Correction: Federal Register, v. 68, no. 137, July 17, p. 42373.  
Tex Report, The, 2003, Eramet closed Fe-Mn production at Shaoxing Plant/China: The Tex Report, v. 35, no. 8315, July 4, p. 4.

### Internet References Cited

- Bradespar, 2003 (June 30), CVRD's Norwegian ferro alloys plant starts up operations, accessed July 21, 2003, at URL <http://www.bradespar.com.br>.  
Yieh Trading Corporation Market News, 2003, Eramet closes Shaoxing plant to fit in gov't request, accessed July 21, 2003, at URL <http://www.yiehtrading.com>.

<sup>1</sup>References that include a section mark (§) are found in the Internet References Cited section.

TABLE 1  
SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

(Metric tons, manganese content)<sup>2</sup>

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2002:						
April	34,600	35,500	70,100	775	919	1,690
January-April	112,000	126,000	238,000	2,400	3,680	6,080
2003:						
January	2,340	24,900	27,300	176	711	887
February	21,100	27,700	48,800	151	820	971
March	28,100	21,900	50,000	347	1,010	1,350
April	6,430	37,600	44,100	335	1,400	1,730
Total	58,000	112,000	170,000	1,010	3,940	4,940

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

<sup>2</sup>As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

Source: U.S. Census Bureau.

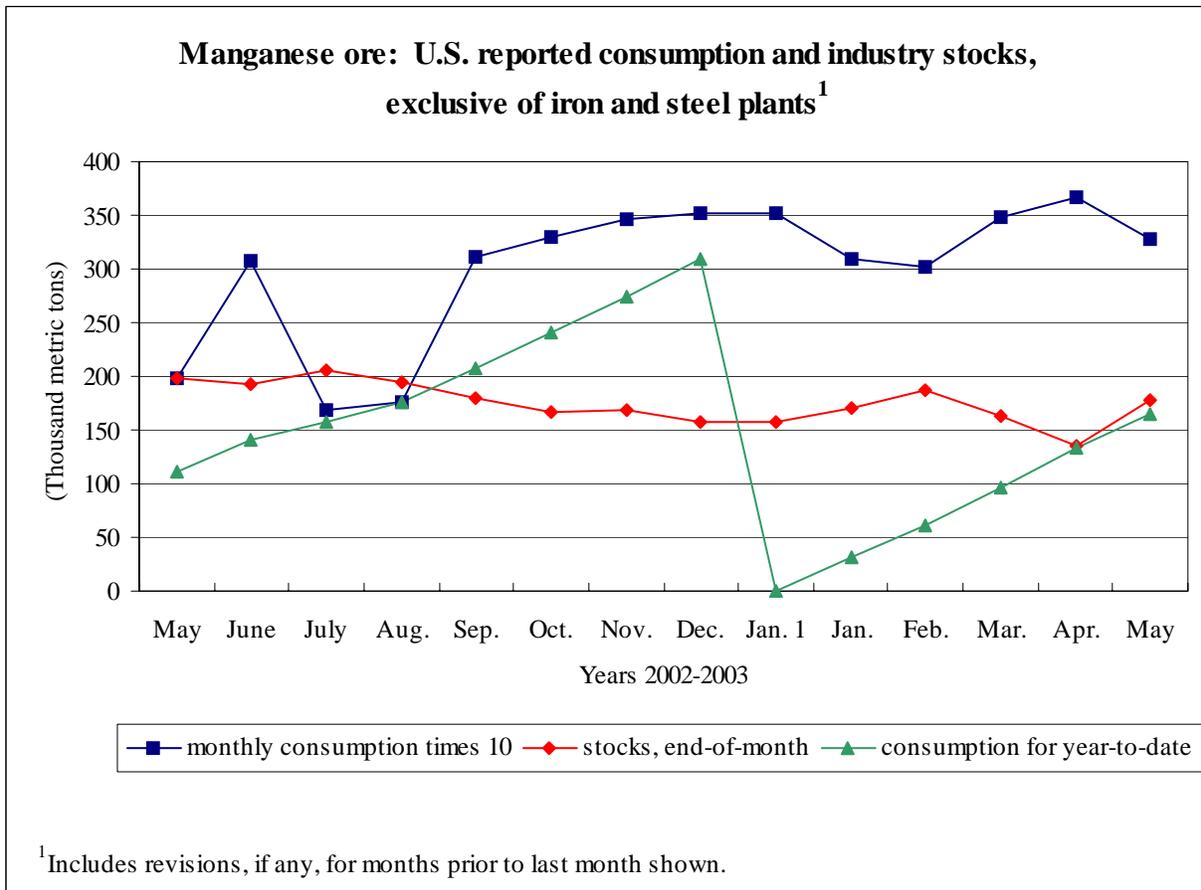


TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN APRIL 2003<sup>1</sup>

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	7,110	4,720	\$3,010,000	14,800	9,790	\$6,540,000
Kazakhstan	5	3	\$2,610	5	3	\$2,610
Mexico	935	695	453,000	2,800	1,960	1,330,000
Norway	1,800	1,110	1,040,000	6,510	3,800	4,320,000
Romania	--	--	--	7,690	5,300	3,690,000
Russia	--	--	--	2,330	1,510	1,120,000
South Africa	13,600	9,020	5,820,000	30,800	20,500	13,900,000
Total	23,400	15,500	10,300,000	64,900	42,800	31,000,000
Total, general imports	23,400	15,500	10,300,000	64,900	42,800	31,000,000

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

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN APRIL 2003<sup>1</sup>

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
<b>Low carbon:</b>						
Canada	--	--	--	20	16	\$18,200
China	487	446	\$461,000	1,410	1,310	1,320,000
Italy	--	--	--	356	276	168,000
Japan	18	16	18,700	1,740	1,400	1,180,000
Korea, Republic of	40	38	40,200	40	38	40,200
Mexico	270	213	242,000	559	439	508,000
Norway	1,130	921	489,000	2,130	1,730	1,300,000
South Africa	400	372	493,000	1,580	1,460	1,960,000
Spain	36	29	30,100	72	58	58,900
Total, low carbon	2,380	2,040	1,780,000	7,900	6,730	6,550,000
Total, general imports of low carbon	2,380	2,040	1,780,000	7,900	6,730	6,550,000
<b>Medium carbon, 1%-2% C:</b>						
China	1,020	796	673,000	5,090	3,980	3,210,000
Mexico	2,060	1,660	1,390,000	3,550	2,860	2,440,000
Norway	--	--	--	1,800	1,470	991,000
South Africa	1,300	1,050	914,000	9,250	7,520	6,390,000
Total, m.c., 1%-2% C	4,380	3,500	2,980,000	19,700	15,800	13,000,000
Total, general imports of m.c., 1%-2% C	4,380	3,500	2,980,000	19,700	15,800	13,000,000
<b>Medium carbon, 2%-4% C:</b>						
Mexico	--	--	--	22	21	11,400
<b>High carbon:</b>						
Australia	2,610	2,060	1,170,000	3,360	2,640	1,510,000
Brazil	--	--	--	2,610	2,060	1,020,000
Canada	--	--	--	86	65	56,400
France	7,770	6,100	3,140,000	14,800	11,600	5,810,000
Mexico	22	22	10,300	22	22	10,300
South Africa	10,600	8,260	3,920,000	36,000	27,900	14,500,000
Total, high carbon	21,000	16,400	8,240,000	56,800	44,300	22,900,000
Total, general imports of high carbon	21,000	16,400	8,240,000	56,800	44,300	22,900,000
Grand total	27,700	22,000	13,000,000	84,400	66,900	42,500,000
Grand total, general imports	27,700	22,000	13,000,000	84,400	66,900	42,500,000

-- Zero.

<sup>1</sup>Data 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 OF MANGANESE ORE (20% OR MORE Mn) IN APRIL 2003<sup>1,2</sup>

(Metric tons)

Source	20% - 47% Mn		47% or more Mn		Total	
	Gross weight	Mn content	Gross weight	Mn content	Gross weight	Mn content
Belgium	--	--	18	13	18	13
China	18	8	--	--	18	8
Gabon	--	--	8,000	4,100	8,000	4,100
Mexico	2,540	967	--	--	2,540	967
Total	2,560	975	8,020	4,110	10,600	5,090
Year to date:						
Belgium	--	--	54	38	54	38
China	18	8	--	--	18	8
Gabon	--	--	59,500	32,500	59,500	28,500
Mexico	2,540	967	--	--	2,540	967
South Africa	2,500	1,150	29,700	14,300	32,200	15,400
Total	5,060	2,130	89,300	46,800	94,300	44,900

-- Zero.

<sup>1</sup>Quantities for general imports and imports for consumption are identical.

<sup>2</sup>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. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN APRIL 2003<sup>1</sup>

(Metric tons, gross weight, unless otherwise specified)

Source	Quantity	Manganese dioxide				Manganese metal			
		Year to date		Year to date		Unwrought		Other	
		Customs value	Quantity	Customs value	Quantity	Quantity	Year to date	Quantity	Year to date
Australia	685	\$841,000	8,370	\$10,700,000	--	--	--	--	
Belgium	18	26,700	159	281,000	--	--	--	1	
Canada	--	--	--	--	--	--	--	1	
China	--	--	126	119,000	--	699	20	444	
France	--	--	--	--	--	--	--	7	
Germany	--	--	52	242,000	--	67	--	--	
Ireland	796	1,010,000	2,680	3,380,000	--	--	--	--	
Japan	--	--	762	938,000	--	--	--	11	
Korea, Republic of	--	--	--	--	--	--	--	20	
Mexico	--	--	--	--	--	--	13	13	
Netherlands	--	--	--	--	--	--	--	10	
Norway	--	--	--	--	--	25	--	--	
South Africa	638	815,000	2,820	3,690,000	--	904	--	--	
Spain	--	--	--	--	--	--	52	103	
United Kingdom	101	125,000	101	125,000	--	--	--	--	
Total	2,240	2,810,000	15,100	19,400,000	--	1,700	85	610	
Total, general imports	2,240	2,810,000	15,100	19,400,000	--	1,700	85	610	

-- Zero.

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

Note: Imports for consumption of metallic manganese waste and scrap totaled 96 tons, all of which was from Canada, to give a year-to-date total of 401 tons.

Source: U.S. Census Bureau.

TABLE 6  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN 2003<sup>1</sup>

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	April	Year to date	April	Year to date	April	Year to date	April	Year to date
Australia	--	31	--	--	--	5	--	--
Belgium	--	--	--	--	--	--	73	73
Brazil	--	54	--	--	--	--	--	20
Canada	194	625	1,340	3,590	18	175	14	222
China	--	--	--	--	--	--	--	1
France	--	--	--	--	--	--	--	4
Germany	40	331	--	--	--	--	(3)	22
Hong Kong	169	169	--	--	--	--	--	(3)
Hungary	19	19	--	--	--	--	--	--
Italy	94	94	--	--	--	--	20	20
Japan	--	--	--	19	--	--	73	245
Korea, Republic of	--	--	--	--	--	--	--	2
Mexico	--	--	--	19	14	20	20	54
Netherlands	--	173	--	--	--	--	--	--
Norway	--	139	--	--	--	--	--	--
Poland	24	119	--	--	--	--	--	--
Portugal	--	--	--	--	--	--	3	3
Sweden	130	149	--	--	--	--	51	99
Switzerland	--	20	--	--	--	--	--	--
Taiwan	--	7	--	--	--	--	--	--
Trinidad and Tobago	--	--	--	--	82	82	--	--
United Kingdom	--	89	--	--	--	--	--	--
Total	670	2,020	1,340	3,630	114	282	254	765

-- Zero.

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

<sup>2</sup>Includes manganese-aluminum, some other alloys, and waste and scrap.

<sup>3</sup>Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 17 tons, all of which went to Canada, to give a year-to-date total of 142 tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN APRIL 2003, BY CLASS<sup>1</sup>

Class	Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)	Year to date		
				Gross weight (metric tons)	Value <sup>2</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>2</sup> (thousands)
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	137	\$159	Mexico 50; \$21	696	\$631	Mexico 322; \$105
Sulfates, basket category, including manganese sulfate	3,590	1,880	Mexico 2,500; \$1,230	11,700	6,190	Mexico 6,730; \$3,350
Potassium permanganate	85	175	Czech Republic 66; \$131	507	1,020	Czech Republic 307; \$601
Manganites, manganates, and other permanganates	15	26	China 15; \$26	15	33	China 15; \$26
<b>Exports:</b>						
Manganese dioxide	235	220	Canada 133; \$51	1,210	1,160	Canada 739; \$262
Manganese oxides other than dioxide	273	341	Canada 113; \$46	1,530	1,660	Canada 882; \$329
Sulfates, basket category, including manganese sulfate	2,030	1,110	Canada 1,470; \$438	7,790	3,760	Canada 6,380; \$1,840
Potassium permanganate	194	350	Spain 139; \$255	614	971	Spain 373; \$662
Manganites, manganates, and other permanganates	36	190	Japan 30; \$149	166	809	Japan 92; \$446

-- Zero.

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

<sup>2</sup>For imports, Customs value; for exports, free alongside ship value.

<sup>3</sup>Less than 1/2 unit.

Source: U.S. Census Bureau.