

# Mineral Industry Surveys

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## MANGANESE IN AUGUST 2004

In August, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 24,800 metric tons (t), which was a 20% decrease from that of July 2004, according to the U.S. Geological Survey. This figure increases to 33,300 t when estimates for annual respondents are added on the basis of 2003 data. Corresponding industry stocks of ore at the end of the month were 159,000 t, which includes an estimate for annual

respondents on the basis of 2003 data. (Data for the most recent 13 months are plotted in the graph on page 2.)

Based on a content-weight comparison of July 2004 trade data (table 1) to those of the prior month, total exports doubled, owing to a significant increase in manganese ore exports. Manganese imports increased by 12%, owing to a significant increase in manganese ferroalloy and metal imports.

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
<b>2003:</b>						
July	3,100	45,400	48,500	653	748	1,400
January-July	132,000	192,000 <sup>r</sup>	324,000 <sup>r</sup>	2,660	5,630	8,290
<b>2004:</b>						
January	13,100	37,500	50,600	653	796	1,450
February	20,600	33,100	53,700	1,920	745	2,660
March	34,800	29,300 <sup>3</sup>	64,100	12,400	559	13,000
April	3,720	57,300 <sup>3</sup>	61,000	733	1,300	2,030
May	44,200	25,000	69,200	1,990	643	2,630
June	23,800	45,200	69,000	3,210	507	3,720
July	1,130	76,300	77,400	7,260	701	7,960
Total	141,000	303,700	445,000	28,200	5,250	33,500

<sup>r</sup>Revised.

<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.

<sup>3</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

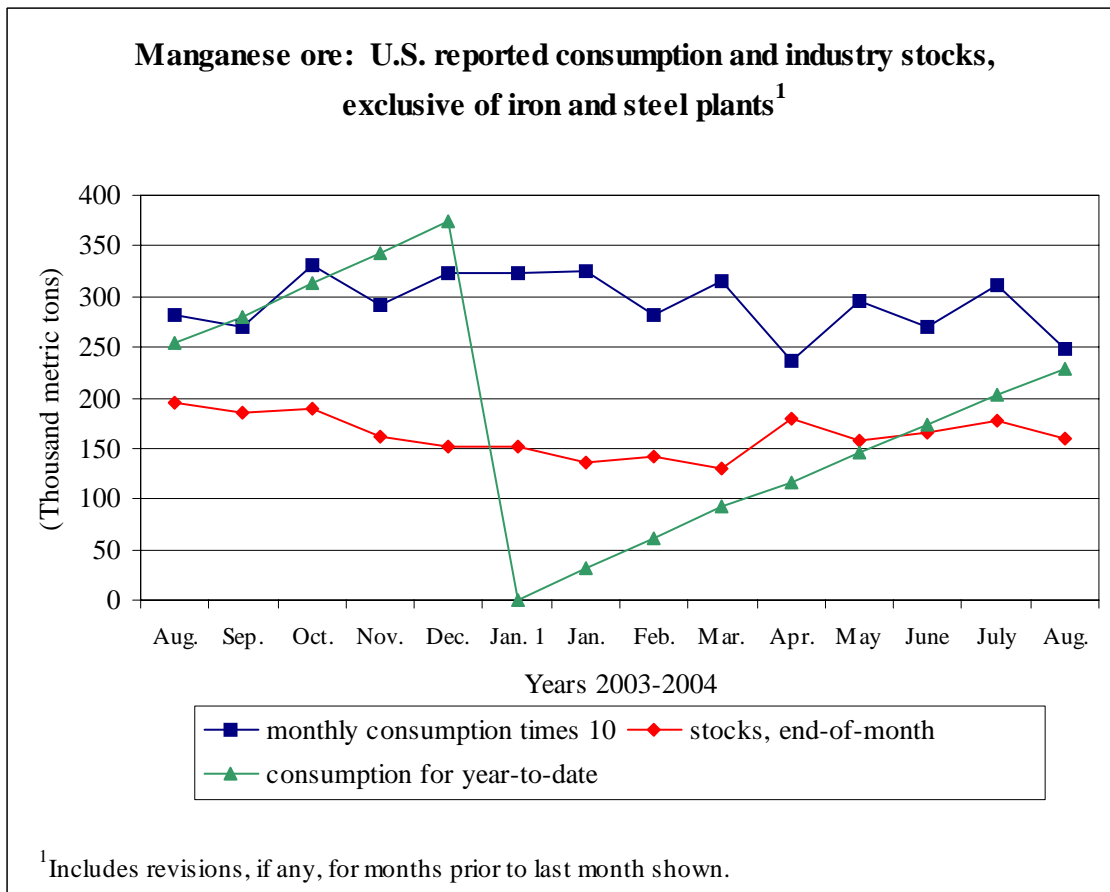


TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN JULY 2004<sup>1</sup>

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	4,210	2,790	\$5,460,000	21,200	14,000	\$15,000,000
Canada	36	28	21,900	704	580	317,000
France	--	--	--	3,010	2,030	2,980,000
Georgia	129	87	197,000	18,600	14,500	16,000,000
Korea, Republic of	--	--	--	5,850	3,830	3,370,000
Mexico	1,000	654	655,000	2,510	1,640	1,500,000
Norway	12,700	4,810	3,530,000	30,100	15,400	18,800,000
Romania	6,270	4,430	8,330,000	33,400	24,800	31,500,000
Russia	--	--	--	5,240	3,410	7,180,000
South Africa	31,200	16,500	25,300,000	88,200	54,100	72,900,000
Spain	1,400	933	1,910,000	1,400	933	1,910,000
Ukraine	--	--	--	50	23	23,200
United Kingdom	--	--	--	17	13	11,700
Venezuela	18	404	210,000	18	404	210,000
Total	57,000	30,700	45,700,000	210,000	136,000	172,000,000
Total, general imports	57,000	30,700	45,700,000	210,000	136,000	172,000,000

-- 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 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN JULY 2004<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>						
China	848	775	\$1,270,000	3,750	3,310	\$4,680,000
Japan	--	--	--	1,200	965	1,230,000
Mexico	38	32	79,500	1,340	1,070	1,330,000
Norway	--	--	--	1,190	974	1,230,000
South Africa	120	112	170,000	933	864	1,270,000
Spain	18	14	19,000	18	14	19,000
Total, low carbon	1,020	933	1,540,000	8,430	7,200	9,760,000
Total, general imports of low carbon	1,020	933	1,540,000	8,430	7,200	9,760,000
<b>Medium carbon, 1%-2% C:</b>						
Argentina	--	--	--	420	287	482,000
Austria	--	--	--	5	4	2,880
China	1,060	832	1,240,000	3,300	2,640	2,820,000
Italy	--	--	--	11	76	42,000
Korea, Republic of	--	--	--	5,500	4,650	4,040,000
Mexico	1,720	1,370	1,560,000	5,070	4,000	4,710,000
Netherlands	--	--	--	757	590	848,000
Norway	--	--	--	3,940	3,210	3,710,000
Romania	--	--	--	150	113	78,500
South Africa	6,240	5,040	8,440,000	28,800	23,200	26,500,000
Ukraine	--	--	--	118	104	111,000
Venezuela	--	--	--	400	253	372,000
Total, m.c., 1%-2% C	9,010	7,240	11,200,000	48,500	39,100	43,700,000
Total, general imports of m.c., 1%-2% C	9,010	7,240	11,200,000	48,500	39,100	43,700,000
<b>Medium carbon, 2%-4% C, Georgia</b>						
Total, general imports of m.c., 2%-4% C	--	--	--	3,900	3,900	2,800,000
<b>High carbon:</b>						
Australia	9,460	5,930	7,330,000	17,900	12,500	11,900,000
Brazil	--	--	--	3,920	3,090	1,830,000
Canada	--	--	--	36	27	19,600
China	--	--	--	1,090	841	1,430,000
France	--	--	--	1,310	1,020	937,000
India	878	683	317,000	1,640	1,270	688,000
Norway	--	--	--	8,390	6,550	6,240,000
Poland	20	16	36,100	20	16	36,100
South Africa	39,300	26,300	34,800,000	94,400	67,200	72,400,000
Spain	1,200	916	1,490,000	8,560	6,690	8,580,000
Switzerland	61	48	91,100	80	64	120,000
Ukraine	312	240	469,000	1,580	1,210	1,790,000
United Kingdom	--	--	--	60	47	86,600
Total, high carbon	51,200	34,100	44,600,000	139,000	100,000	106,000,000
Total, general imports of high carbon	51,200	34,100	44,600,000	139,000	100,000	106,000,000
Grand total	61,300	42,300	57,400,000	200,000	151,000	162,000,000
Grand total, general imports	61,300	42,300	57,400,000	200,000	151,000	162,000,000

-- 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 JULY 2004<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
Brazil	--	--	6	6	6	6
Total	--	--	24	19	24	19
Year to date:						
Australia	--	--	30,500	16,100	30,500	16,100
Belgium	--	--	91	64	91	64
Brazil	--	--	6	6	6	6
China	18	8	3,950	2,100	3,960	2,110
Gabon	1,540	706	224,000	112,000	225,000	113,000
Georgia	--	--	21	16	21	16
India	--	--	39	35	39	35
Mexico	2,900	1,100	--	--	2,900	1,100
Total	4,450	1,810	258,000	130,000	263,000	132,000

-- 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 IN JULY 2004<sup>1</sup>

(Metric tons, gross weight)

Source	Manganese dioxide			
	Quantity	Customs value	Year to date	
			Quantity	Customs value
Australia	517	\$632,000	4,440	\$5,400,000
Belgium	92	184,000	379	757,000
Brazil	100	49,000	508	302,000
China	666	658,000	7,070	7,120,000
Germany	4	15,400	45	129,000
Greece	360	465,000	1,260	1,560,000
Japan	58	51,600	959	1,160,000
South Africa	61	111,000	452	614,000
Spain	--	--	20	24,500
United Kingdom	--	--	1	9,250
Total	1,860	2,170,000	15,100	17,100,000
Total, general imports	1,860	2,170,000	15,100	17,100,000

-- 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 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN JULY 2004<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value	Year to date	
			Gross weight	Customs value
<b>Unwrought flake:</b>				
China	1,470	\$3,590,000	4,810	\$8,160,000
South Africa	681	958,000	4,510	6,180,000
Total	2,150	4,550,000	9,320	14,300,000
<b>Unwrought powder:</b>				
China	534	725,000	2,390	3,060,000
Germany	--	--	13	37,200
South Africa	202	293,000	2,290	3,410,000
Total	736	1,020,000	4,690	6,500,000
<b>Unwrought, other:</b>				
China	--	--	19	28,500
Germany	--	--	38	80,100
Poland	35	47,000	35	47,000
Spain	56	122,000	448	785,000
South Africa	160	268,000	1,620	2,350,000
Total	251	437,000	2,160	3,290,000
<b>Other manganese, wrought:</b>				
Austria	(2)	10,700	(2)	10,700
China	26	33,900	279	433,000
France	2	18,900	4	31,900
Germany	4	46,700	7	84,500
Japan	--	--	4	14,400
India	--	--	8	12,000
Netherlands	9	20,900	9	20,900
Poland	20	13,200	40	26,300
Spain	58	138,000	169	410,000
United Kingdom	--	--	(2)	5,100
Total	119	282,000	520	1,050,000
Grand total	3,250	6,280,000	16,700	25,200,000

-- Zero.

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

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

Note: Imports for consumption of metallic manganese waste and scrap totaled 196 tons, of which 175 tons were from Canada, and 21 tons from Ukraine to give a year-to-date total of 1,010 tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE,  
SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN 2004<sup>1</sup>

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	July	Year to date	July	Year to date	July	Year to date	July	Year to date
Australia	--	42	--	--	--	3	--	--
Belgium	--	--	--	--	--	--	16	130
Brazil	149	224	--	--	18	26	(3)	6
Canada	196	2,930	385	2,220	--	46	4	617
Chile	--	19	--	--	--	--	--	--
China	11,600	42,400	23	23	--	--	--	--
Costa Rica	--	--	--	--	--	--	--	2
Croatia	--	--	19	19	--	--	--	--
Dominican Republic	--	--	--	--	--	--	--	14
Estonia	--	--	--	54	--	--	--	--
France	--	242	--	--	12	24	--	4
Germany	1,230	3,980	--	--	--	--	32	118
Hong Kong	--	23	--	--	--	--	--	(3)
India	--	41	--	--	--	--	--	--
Indonesia	--	26	5	10	8	18	--	--
Israel	--	118	--	--	--	--	--	--
Italy	--	74	--	--	--	--	--	29
Japan	--	37	--	--	--	--	84	477
Korea, Republic of	17	25	--	--	--	--	--	64
Kuwait	--	434	--	--	--	--	--	--
Malaysia	--	--	--	--	--	--	--	2
Mexico	--	--	--	22	17	133	21	145
Netherlands	--	3,100	--	--	--	11	--	--
Norway	672	1,000	--	--	--	--	--	--
Peru	--	--	--	--	--	--	--	4
Poland	39	513	--	--	--	--	--	--
Russia	--	21	--	--	--	--	--	--
Spain	--	--	--	--	--	8	--	--
Sweden	611	979	--	--	--	--	--	126
Switzerland	--	35	--	--	--	--	--	--
Taiwan	--	9	--	--	--	--	2	2
Trinidad and Tobago	--	--	--	--	--	38	--	--
Turkey	--	--	--	9	--	--	--	--
United Kingdom	--	98	--	--	--	--	--	4
Venezuela	--	34	--	390	--	--	--	--
Total	14,500	56,400	432	2,750	55	307	159	1,740

-- 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 209 tons, of which 129 tons went to Canada and 80 tons went to Mexico, to give a year-to-date total of 1,430 tons.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN JULY 2004, 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	193	\$140	South Africa 118; \$67	1,870	\$1,440	South Africa 784; \$458
Sulfates, basket category, including manganese sulfate	1,880	1,180	Mexico 743; \$533	22,400	12,100	China 10,400; \$4,470
Potassium permanganate	74	143	Czech Republic 74; \$143	635	1,220	Czech Republic 491; \$941
Manganites, manganates, and other permanganates	181	328	China 162; \$255	668	1,100	China 649; \$1,030
<b>Exports:</b>						
Manganese dioxide	277	312	Canada 91; \$63	2,050	1,980	Canada 906; \$393
Manganese oxides other than dioxide	457	377	Canada 286; \$99	3,030	2,470	Canada 1,800; \$712
Sulfates, basket category, including manganese sulfate	1,580	965	Canada 1,420; \$494	11,000	7,250	Canada 9,380; \$4,070
Potassium permanganate	256	376	Spain 179; \$268	2,050	3,080	Spain 1,400; \$2,170
Manganites, manganates, and other permanganates	36	148	Japan 20; \$82	355	1,390	Japan 189; \$780

<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.

Source: U.S. Census Bureau.