

# Mineral Industry Surveys

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## MANGANESE IN MARCH 2007

Preliminary data (gross weight) for March 2007 indicate that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 12,300 metric tons (t), according to the U.S. Geological Survey. This was a 60% decrease from that consumed in February 2007. Corresponding industry stocks of ore at the end of the month were 109,000 t, which was a 6% decrease from

those at the end of February 2007. These data include estimates for annual respondents on the basis of 2006 data. Domestic consumption of manganese ore during the first quarter of 2007 was 77,900 t. First quarter 2007 consumption was 9% lower than that of the first quarter 2006 and 2% lower than that of the fourth quarter 2006.

U.S. trade data for February 2007 are published in this issue.

### Ferroalloy Prices, manganese content

	High-carbon ferromanganese <sup>1</sup> (dollars per gross ton)	Medium-carbon ferromanganese <sup>1</sup> (cents per pound)	Silicomanganese <sup>1</sup> (cents per pound)	Manganese metal <sup>2</sup> (cents per pound)
March 1	930.00-980.00	72.00-75.00	42.00-46.00	112.00-126.00
March 8	930.00-980.00	73.00-75.00	45.00-49.00	125.00-130.00
March 15	940.00-980.00	73.00-76.00	60.00-65.00	140.00-145.00
March 22	950.00-980.00	73.00-76.00	60.00-69.00	150.00-155.00
March 29	980.00-1,000.00	73.00-76.00	59.00-62.00	170.00-180.00

### Ore Prices, dollars per metric ton unit, manganese content<sup>3</sup>

	44% Manganese Ore <sup>2</sup>	48% Manganese Ore <sup>2</sup>
March 1	2.40-2.50	2.70-2.80
March 8	2.40-2.50	2.70-2.80
March 15	2.55-2.60	2.80-2.90
March 22	2.55-2.60	2.80-2.90
March 29	2.55-2.60	2.80-2.90

<sup>1</sup>Source: Platts Metals Week, dealer import price.

<sup>2</sup>Source: Ryan's Notes, North American transaction price.

<sup>3</sup>To determine dollars per metric ton, multiply the manganese content percentage by the price.

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
2006:						
February	27,500	52,800 <sup>r</sup>	80,200 <sup>r</sup>	87	1,170	1,260
January-February	47,700	78,400 <sup>r</sup>	126,000	133	2,880	3,020
2007:						
January	24,500	40,300	64,800	77	1,180	1,250
February	48,500	35,700	84,200	144	7,350	7,500
Total	73,000	76,000	149,000	220	8,530	8,750

<sup>r</sup>Revised.

<sup>1</sup>Data 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 FEBRUARY 2007<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	9,720	6,490	\$5,990,000	10,400	6,950	\$6,420,000
Mexico	1,300	848	930,000	2,300	1,500	1,620,000
Norway	4,000	2,500	4,030,000	9,850	6,220	9,320,000
Romania	4,540	3,320	3,610,000	4,540	3,320	3,610,000
South Africa	15,700	10,400	10,900,000	23,800	15,800	16,300,000
Total	35,300	23,600	25,500,000	50,900	33,800	37,300,000

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

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other changes incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN FEBRUARY 2007<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	856	722	\$1,260,000	9,660	8,000	\$11,000,000
Mexico	600	482	645,000	1,140	913	1,250,000
Russia	60	50	189,000	60	50	189,000
South Africa	--	--	--	200	185	305,000
Total	1,520	1,260	2,090,000	11,100	9,150	12,700,000
<b>Medium carbon, 1% -2% C:</b>						
China	--	--	--	3,580	2,880	3,570,000
Korea, Republic of	--	--	--	2,500	2,030	2,590,000
Mexico	1,030	827	872,000	1,520	1,210	1,320,000
South Africa	5,160	4,190	5,920,000	5,160	4,190	5,920,000
Total	6,190	5,020	6,800,000	12,800	10,300	13,400,000
<b>High carbon:</b>						
Australia	503	384	312,000	503	384	312,000
China	1,300	991	969,000	8,020	6,160	5,540,000
France	1,300	1,050	970,000	1,300	1,050	970,000
South Africa	2,100	1,620	1,300,000	12,000	9,340	8,070,000
Total	5,200	4,040	3,550,000	21,800	16,900	14,900,000
Grand total	12,900	10,300	12,400,000	45,700	36,400	41,000,000

-- Zero.

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

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other changes incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 4  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN FEBRUARY 2007<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	Year to date		
				Gross weight	Mn content	Customs value <sup>3</sup>
<b>More than 20%, but less than 47% manganese:</b>						
Australia	--	--	--	27,500	12,500	\$2,940,000
Gabon	6,640	2,920	\$433,000	6,640	2,920	433,000
Total	6,640	2,920	433,000	34,100	15,400	3,370,000
<b>47% or more manganese:</b>						
Australia	--	--	--	16,500	8,720	2,530,000
Brazil	3,480	1,740	209,000	7,120	3,670	1,010,000
China	743	684	82,000	743	684	82,000
Gabon	56,600	41,600	7,310,000	58,200	42,300	7,480,000
Total	60,900	44,000	7,600,000	82,600	55,400	11,100,000
Grand total	67,500	46,900	8,030,000	117,000	70,800	14,500,000

-- Zero.

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

<sup>2</sup>Data rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other changes incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN FEBRUARY 2007<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	Year to date	
			Quantity	Customs value <sup>2</sup>
Australia	1,940	\$2,610,000	1,940	\$2,610,000
Belgium	9	96,500	24	121,000
Brazil	--	--	6	9,830
China	472	489,000	1,380	1,460,000
Colombia	--	--	4	7,630
Germany	(3)	2,940	(3)	2,940
Japan	189	257,000	224	304,000
Mexico	--	--	13	9,240
Singapore	7	11,500	26	23,000
Total	2,620	3,470,000	3,620	4,550,000

-- Zero.

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

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other changes incurred in bringing the material into the United States.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN FEBRUARY 2007<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	Year to date	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	744	\$1,170,000	3,530	\$5,230,000
South Africa	133	248,000	247	455,000
Total	878	1,420,000	3,780	5,680,000
<b>Unwrought powder:</b>				
China	126	199,000	326	482,000
South Africa	375	653,000	750	1,320,000
Total	501	852,000	1,080	1,800,000
<b>Unwrought, other:</b>				
China	155	271,000	288	444,000
Germany	102	226,000	333	699,000
Spain	--	--	16	8,920
Total	257	497,000	636	1,150,000
<b>Other manganese, wrought:</b>				
France	1	16,700	8	92,900
Japan	(3)	2,100	(3)	2,100
Mexico	41	77,600	73	148,000
Spain	50	84,900	50	84,900
Total	92	181,000	131	327,000
Grand total	1,730	2,950,000	5,620	8,960,000

-- Zero.

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

<sup>2</sup>Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other changes incurred in bringing the material into the United States.

<sup>3</sup>Less than ½ unit.

Note: Imports for consumption of metallic waste and scrap totaled 91 tons, all of which was from Canada, to give a year-to-date total of 287 metric 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 FEBRUARY 2007<sup>1</sup>

(Metric tons, gross weight)

Country	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	February	Year to date	February	Year to date	February	Year to date	February	Year to date
Argentina	--	--	--	--	--	--	3	3
Belgium	8	8	--	--	--	--	159	227
Canada	54	139	710	1,730	193	426	--	3
China	--	--	--	--	--	--	26	26
Germany	225	225	--	--	--	--	2	2
Hong Kong	--	--	--	--	--	--	40	74
India	--	--	--	--	--	--	--	14
Ireland	--	--	9	9	--	--	--	--
Israel	--	--	--	--	--	--	--	8
Japan	--	--	--	--	--	--	146	213
Korea, Republic of	--	--	--	--	--	--	1	1
Mexico	--	--	--	--	140	140	5	5
Sweden	--	--	--	--	--	--	12	16
Vietnam	--	69	--	--	--	--	--	--
Total	287	441	719	1,740	333	566	393	593

-- Zero.

<sup>1</sup>Data 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.

Note: Exports of ferromanganese with more than 2% carbon totaled 7,810 metric tons, of which 6,370 metric tons went to Netherlands, 1,410 metric tons to Mexico, 23 metric tons to Chile, and 17 metric tons to Canada, to give a year-to-date total of 7,840 metric tons.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN FEBRUARY 2007, 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	399	\$277	Mexico 334; \$160	684	\$454	Mexico 545; \$260
Manganites, manganates, and other permanganates	--	--	--	--	--	--
Potassium permanganate	72	177	India 54; \$131	201	482	India 124; \$299
Sodium permanganate	67	107	China 67; \$107	82	129	China 82; \$129
Sulfates, basket category, including manganese sulfate	3,300	1,710	Mexico 2,140; \$990	8,950	4,210	Mexico 4,000; \$1,990
<b>Exports:</b>						
Manganese dioxide	765	683	Canada 465; \$246	1,390	1,310	Canada 808; \$424
Manganese oxides other than dioxide	1,070	869	Canada 479; \$203	1,570	1,270	Canada 879; \$385
Manganites, manganates, and other permanganates	8	7	St. Lucia Island 7; \$4	14	21	Canada 8; \$17
Potassium permanganate	216	506	Netherlands 135; \$236	460	994	Belgium 192; \$326
Sodium permanganate	157	351	Spain 88; \$165	298	630	Belgium 97; \$170
Sulfates, basket category, including manganese sulfate	2,250	1,820	Canada 1,330; \$1,000	4,480	3,830	Canada 2,710; \$1,940

-- 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.

Source: U.S. Census Bureau.