

# Mineral Industry Surveys

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## MANGANESE IN FEBRUARY 2007

Preliminary data (gross weight) for February 2007 indicate that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 31,100 metric tons (t), according to the U.S. Geological Survey. This was a 9% decrease from the revised amount of 34,400 t consumed in January 2007. Corresponding industry

stocks of ore at the end of the month were 115,000 t, which was a 17% decrease from the revised amount at the end of January 2007. These data include estimates for annual respondents on the basis of 2006 data.

U.S. trade data for January 2007, and revised December 2006 export data (tables 7A and 8A), 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)
February 1	925.00-980.00	67.00-72.00	40.00-42.00	115.00-118.00
February 8	925.00-980.00	68.00-72.00	40.00-43.00	117.00-119.00
February 15	925.00-980.00	69.00-73.00	40.00-43.00	117.00-119.00
February 22	925.00-980.00	70.00-73.00	42.00-46.00	126.00-135.00

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

	44% Manganese Ore <sup>2</sup>	48% Manganese Ore <sup>2</sup>
February 1	2.40-2.50	2.70-2.80
February 8	2.40-2.50	2.70-2.80
February 15	2.40-2.50	2.70-2.80
February 22	2.40-2.50	2.70-2.80

<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, January	20,300	25,600	45,900	46	1,710	1,760
2007, January	24,500	40,300	64,800	77	1,180	1,250

<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 JANUARY 2007<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>
Australia	688	458	\$425,000
Mexico	1,000	653	690,000
Norway	5,850	3,720	5,290,000
South Africa	8,150	5,410	5,380,000
Total	15,700	10,200	11,800,000

<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 JANUARY 2007<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>
Low carbon:			
China	8,800	7,280	\$9,730,000
Mexico	541	431	608,000
South Africa	200	185	305,000
Total	9,540	7,900	10,600,000
Medium carbon, 1%-2% C:			
China	3,580	2,880	3,570,000
Korea, Republic of	2,500	2,030	2,590,000
Mexico	485	385	449,000
Total	6,570	5,300	6,610,000
High carbon:			
China	6,720	5,160	4,570,000
South Africa	9,930	7,720	6,770,000
Total	16,600	12,900	11,300,000
Grand total	32,800	26,100	28,600,000

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

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>
More than 20%, but less than 47% manganese: Australia	27,500	12,500	\$2,940,000
47% or more manganese:			
Australia	16,500	8,720	2,530,000
Brazil	3,640	1,930	799,000
Gabon	1,520	751	172,000
Total	21,700	11,400	3,500,000
Grand total	49,200	23,900	6,430,000

<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 JANUARY 2007<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>
Belgium	15	\$24,800
Brazil	6	9,830
China	910	966,000
Colombia	4	7,630
Japan	35	47,000
Mexico	13	9,240
Singapore	19	11,500
Total	1,000	1,080,000

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

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>
Unwrought flake:		
China	2,790	\$4,050,000
South Africa	114	207,000
Total	2,900	4,260,000
Unwrought powder:		
China	200	283,000
South Africa	374	663,000
Total	574	946,000
Unwrought, other:		
China	133	172,000
Germany	230	473,000
Spain	16	8,920
Total	379	654,000
Other manganese, wrought:		
France	6	76,200
Mexico	33	70,000
Total	39	146,000
Grand total	3,890	6,010,000

<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.

Note: Imports for consumption of metallic waste and scrap totaled 196 tons, all of which was from Canada.

Source: U.S. Census Bureau.

TABLE 7A  
 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,  
 AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN JANUARY 2007<sup>1</sup>

(Metric tons, gross weight)

Country	Ferromanganese,			Manganese metal <sup>2</sup>
	Manganese ore	2% or less C	Silicomanganese	
Belgium	--	--	--	68
Canada	85	1,020	233	3
Hong Kong	--	--	--	35
India	--	--	--	14
Israel	--	--	--	8
Japan	--	--	--	68
Mexico	--	--	--	1
Sweden	--	--	--	3
Vietnam	69	--	--	--
Total	154	1,020	233	200

-- 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 26 tons, all of which went to Canada.

Source: U.S. Census Bureau.

TABLE 7B  
 REVISED: U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,  
 AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN DECEMBER 2006<sup>1</sup>

(Metric tons, gross weight)

Country	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	December	Year to date <sup>3</sup>	December	Year to date <sup>3</sup>	December	Year to date <sup>3</sup>	December	Year to date <sup>3</sup>
Argentina	--	--	--	--	--	--	--	7
Australia	--	--	--	--	--	15	--	8
Austria	6	6	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	136	1,370
Brazil	--	--	--	--	--	123	--	24
Canada	47	1,470	776	5,340	13	596	34	547
Chile	--	--	--	1	--	--	--	14
China	--	35	--	--	--	--	9	157
Colombia	--	--	--	--	--	--	--	7
Dominican Republic	--	9	--	--	--	--	--	--
France	--	--	--	--	--	--	5	347
Germany	36	180	--	--	--	--	--	154
Hong Kong	--	--	--	--	--	--	22	96
India	--	--	--	--	--	--	--	74
Indonesia	--	23	--	--	--	72	--	16
Ireland	--	--	12	12	--	--	--	--
Israel	--	--	--	--	--	--	31	31
Japan	--	103	--	--	--	--	48	846
Korea, Republic of	--	--	--	--	--	--	--	41
Malaysia	--	--	--	--	--	--	--	8
Mexico	--	--	--	25	--	129	18	38
Netherlands	--	--	--	100	--	13	--	--
Poland	--	21	--	--	--	--	--	--
Portugal	--	--	--	--	--	--	--	3
South Africa	--	--	--	--	--	--	--	2
Sweden	--	19	--	--	--	--	13	50
Switzerland	--	--	--	--	--	--	--	35
Trinidad and Tobago	--	--	--	--	--	--	--	3
United Kingdom	--	7	--	5	--	--	11	26
Venezuela	181	361	--	--	--	--	--	--
Total	271	2,240	788	5,480	13	947	326	3,900

-- 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.

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

Note: Exports of ferromanganese with more than 2% carbon totaled 126 tons, of which 68 tons went to Canada and 59 tons went to Mexico, to give a year-to-date total of 16,206 tons.

Source: U.S. Census Bureau.

TABLE 8A  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN JANUARY 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)
<b>Imports for consumption:</b>			
Manganese oxides other than dioxide	285	\$178	Mexico 211; \$100
Manganites, manganates, and other permanganates	--	--	--
Potassium permanganate	129	305	India 70; \$167
Sodium permanganate	15	22	China 15; \$22
Sulfates, basket category, including manganese sulfate	5,650	2,510	China 1,880; \$856
<b>Exports:</b>			
Manganese dioxide	622	626	Canada 343; \$178
Manganese oxides other than dioxide	501	402	Canada 400; \$182
Manganites, manganates, and other permanganates	6	14	Canada 6; \$14
Potassium permanganate	244	488	Belgium 192; \$326
Sodium permanganate	141	279	Belgium 59; \$107
Sulfates, basket category, including manganese sulfate	2,230	2,020	Canada 941; \$1,380

-- 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.

TABLE 8B  
REVISED: U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN DECEMBER 2006, BY CLASS<sup>1</sup>

Class	Gross weight (metric tons)	Value <sup>3</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>3</sup> (thousands)	Year to date <sup>2</sup>		
				Gross weight (metric tons)	Value <sup>3</sup> (thousands)	Principal sources and destinations: gross weight (metric tons); value <sup>3</sup> (thousands)
<b>Imports for consumption:</b>						
Manganese oxides other than dioxide	167	\$165	Mexico 82; \$41	7,520	\$6,590	China 3,200; \$4,220
Manganites, manganates, and other permanganates	--	--	--	16	34	Japan 16; \$34
Potassium permanganate	174	405	Czech Republic 59; \$133	1,300	2,950	Czech Republic 584; \$1,290
Sodium permanganate	--	--	--	47	63	China 47; \$63
Sulfates, basket category, including manganese sulfate	2,820	1,350	China 2,260; \$861	45,100	25,600	China 22,000; \$9,940
<b>Exports:</b>						
Manganese dioxide	416	479	Canada 240; \$151	5,820	5,580	Canada 3,340; \$1,960
Manganese oxides other than dioxide	956	923	Canada 428; \$196	21,900	12,300	Canada 17,200; \$6,360
Manganites, manganates, and other permanganates	2	4	Canada 2; \$4	44	102	Canada 44; \$102
Potassium permanganate	118	1,090	Canada 48; \$123	2,320	6,460	Spain 695; \$1,510
Sodium permanganate	183	401	Spain 76; \$129	1,500	4,400	Spain 581; \$2,040
Sulfates, basket category, including manganese sulfate	2,600	2,020	Canada 1,480; \$745	24,000	18,900	Canada 17,600; \$9,320

-- Zero.

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

<sup>2</sup>Includes revisions to previous months' data.

<sup>3</sup>For imports, Customs value; for exports, free alongside ship value.

Source: U.S. Census Bureau.