

Mineral Industry Surveys

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MANGANESE IN NOVEMBER 2006

On a gross-weight basis, consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 11,600 metric tons (t) in November 2006, a 65% decrease from that of October 2006, according to the U.S. Geological Survey. Corresponding industry stocks of ore at the end of the month were 184,000 t, which was a slight increase from those at the end of October 2006. These data include estimates for annual respondents on the basis of 2005 data.

The following comparisons of trade data were made on the basis of manganese content (table 1). The data for October 2006 tabulated in this report indicate that the total exports of 1,080 t were 56% more than those of the prior month, owing primarily to increases in exports of ferromanganese. Manganese imports were 113,000 t, which was an increase of 69% compared with those of September 2006. This increase was primarily attributable to increases in manganese ore imports.

Ferroalloy Prices, manganese content

	High-carbon ferromanganese ¹ (dollars per gross ton)	Medium-carbon ferromanganese ¹ (cents per pound)	Silicomanganese ¹ (cents per pound)	Manganese metal ² (cents per pound)
November 2	850.00-870.00	71.00-73.00	39.00-40.00	74.00-75.00
November 9	830.00-860.00	68.50-70.00	38.00-39.00	86.00-89.00
November 16	800.00-825.00	69.00-72.00	36.00-39.00	86.00-89.00
November 23	800.00-825.00	68.00-72.00	36.00-39.00	86.00-89.00
November 30	770.00-800.00	68.00-70.00	38.00-39.00	86.00-89.00

Ore Prices, dollars per metric ton unit, manganese content³

	44% Manganese Ore ²	48% Manganese Ore ²
November 2	2.05-2.15	2.40-2.45
November 9	2.10-2.20	2.50-2.60
November 16	2.30-2.40	2.70-2.80
November 23	2.30-2.40	2.70-2.80
November 30	2.30-2.40	2.70-2.80

¹Source: Platts Metals Week, dealer import price.

²Source: Ryan's Notes, North American transaction price.

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

TABLE 1
SELECTED U.S. FOREIGN TRADE IN MANGANESE¹

(Metric tons, manganese content)²

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2005:						
October	41,000	40,200	81,200	480	1,330	1,810
January-October	273,000	382,000	654,000	4,950	11,500	16,500
2006:						
January	20,300	25,600	45,900	46	1,710	1,760
February	27,500	52,800	80,200	87	1,170	1,260
March	5,000	47,400	52,300	63	1,660	1,720
April	30,300	34,800	65,200	25	661	686
May	7,140	46,300	53,400	40	609	648
June	26,800	52,600	79,400	101	753	853
July	39,300	44,400	83,700	95	11,200	11,300
August	5,710	54,400	60,100	36	838	874
September	18,000	49,400	67,400	201	488	689
October	49,000	64,500	114,000	157	921	1,100
Total	229,000	472,000	701,000	850	20,000	20,800

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

²As 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 OCTOBER 2006¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	Year to date		
				Gross weight	Mn content	Customs value ²
Australia	--	--	--	22,000	14,700	\$14,800,000
Austria	--	--	--	1,100	668	406,000
Canada	--	--	--	741	525	452,000
France	--	--	--	11	7	3,620
Georgia	270	197 ³	\$142,000	38,500	27,900	25,300,000
Korea, Republic of	--	--	--	13,000	8,330	9,920,000
Mexico	1,730	1,130	1,210,000	15,100	9,860	10,400,000
Netherlands	--	--	--	42	25	48,100
Norway	10,100	6,380	8,310,000	67,300	41,900	58,500,000
Romania	6,070	3,950	4,200,000	6,070	3,950	4,200,000
Russia	--	--	--	3,960	2,030	2,920,000
Saudi Arabia	--	--	--	7,510	4,820	4,370,000
South Africa	24,800	16,500	17,900,000	144,000	94,900	97,400,000
Total	42,900	28,100	31,800,000	319,000	210,000	229,000,000

-- Zero.

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

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

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

Source: U.S. Census Bureau.

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN OCTOBER 2006¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	Year to date		
				Gross weight	Mn content	Customs value ²
Low carbon:						
Canada	--	--	--	42	37	\$57,700
China	1,730	1,440	\$1,970,000	14,300	12,100	17,200,000
Japan	--	--	--	3,500	2,810	3,690,000
Korea, Republic of	--	--	--	9,310	7,670	9,420,000
Mexico	541	436	600,000	5,880	4,740	6,110,000
Norway	--	--	--	1,080	869	1,350,000
South Africa	214	198	330,000	2,620	2,400	3,830,000
Total, low carbon	2,480	2,070	2,900,000	36,800	30,700	41,600,000
Medium carbon, (m.c.) 1%-2% C:						
Brazil	--	--	--	1,540	1,230	1,480,000
Canada	--	--	--	143	114	163,000
China	2,500	2,020	2,580,000	8,320	6,720	8,030,000
Korea, Republic of	--	--	--	15,700	12,700	14,000,000
Mexico	582	468	452,000	11,200	8,970	8,270,000
Nauru	20	16	24,600	56	46	68,500
Norway	526	432	613,000	3,240	2,670	3,800,000
South Africa	635	517	733,000	26,400	21,400	21,800,000
Spain	36	29	37,100	36	29	37,100
Total, m.c., 1%-2% C	4,300	3,480	4,440,000	66,600	53,900	57,600,000
Medium carbon, 2%-4% C:						
Brazil	--	--	--	19	14	19,300
Georgia	--	--	--	1,470	1,160	637,000
Total, m.c., 2%-4% C	--	--	--	1,490	1,170	656,000
High carbon:						
Australia	--	--	--	4,000	3,090	2,240,000
Brazil	1,510	1,190	1,100,000	9,200	7,220	5,590,000
Canada	--	--	--	97	58	61,200
China	7,210	5,470	4,870,000	18,000	13,700	12,400,000
France	--	--	--	1,500	1,170	764,000
Hong Kong	--	--	--	500	375	327,000
Korea, Republic of	1,500	1,130	1,160,000	13,200	10,000	9,190,000
Mexico	--	--	--	26	20	29,300
Norway	--	--	--	21	18	25,400
Poland	--	--	--	592	465	567,000
South Africa	21,100	16,300	16,300,000	139,000	107,000	86,300,000
Spain	20	15	17,000	20	15	17,000
Ukraine	5,000	3,800	3,560,000	6,130	4,680	4,240,000
Total, high carbon	36,400	27,900	27,000,000	192,000	148,000	122,000,000
Grand total	43,200	33,400	34,300,000	297,000	234,000	222,000,000

-- Zero.

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

²Customs value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges 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 OCTOBER 2006^{1,2}

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	Year to date		
				Gross weight	Mn content	Customs value ³
More than 20%, but less than 47% manganese:						
Brazil	--	--	--	1,730	784	\$227,000
Canada	--	--	--	6,510	1,850	309,000
China	832	383	\$34,700	2,210	818	109,000
Colombia	34,200	15,800	354,000	34,200	15,800	354,000
Mexico	--	--	--	2,950	1,030	353,000
South Africa	34,500	12,900	2,380,000	68,600	25,900	4,920,000
Total	69,500	29,100	2,770,000	116,000	46,100	6,270,000
47% or more manganese:						
Australia	--	--	--	25,000	12,800	3,900,000
Belgium	--	--	--	231	166	193,500
Brazil	--	--	--	6,900	4,630	1,150,000
China	--	--	--	4,300	2,260	502,000
Gabon	7,030	3,600	1,180,000	220,000	113,000	25,000,000
Mexico	2,950	287 ⁴	354,000	2,950	287	354,000
Morocco	--	--	--	38	29	15,000
South Africa	19,800	12,900	3,320,000	55,500	30,200	6,680,000
Total	29,800	16,800	4,850,000	315,000	163,000	37,800,000
Grand total	99,300	45,800	7,620,000	431,000	209,000	44,100,000

-- Zero.

¹Quantities for general imports and imports for consumption are identical.

²Data are rounded to no more than three significant digits; may not add to totals shown.

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

⁴All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN OCTOBER 2006¹

(Metric tons, gross weight)

Source	Quantity	Customs value ²	Year to date	
			Quantity	Customs value ²
Australia	3,070	\$4,410,000	11,500	\$16,200,000
Belgium	9	94,300	541	1,310,000
Brazil	26	20,000	327	292,000
China	1,680	1,820,000	14,100	15,000,000
Colombia	--	--	8	14,400
France	--	--	3	29,400
Germany	8	48,800	46	254,000
Indonesia	--	--	40	74,500
Japan	420	566,000	6,110	8,480,000
Mexico	--	--	150	183,000
Netherlands	--	--	1	4,290
South Africa	2	3,960	2	3,960
United Kingdom	--	--	(3)	13,400
Total	5,220	6,970,000	32,800	41,800,000

-- Zero.

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

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

³Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN OCTOBER 2006¹

(Metric tons)

Source	Gross weight	Customs value ²	Year to date	
			Gross weight	Customs value ²
Unwrought flake:				
China	1,830	\$2,480,000	16,400	\$21,000,000
Hong Kong	--	--	18	23,800
South Africa	117	214,000	2,960	4,820,000
Total	1,950	2,690,000	19,400	25,900,000
Unwrought powder:				
China	283	16,600	1,290	1,620,000
South Africa	10	509,000	3,060	5,500,000
Total	293	525,000	4,350	7,120,000
Unwrought, other:				
Brazil	36	76,200	36	153,000
China	271	452,000	1,250	2,100,000
Germany	196	346,000	658	1,200,000
Russia	--	--	21	76,100
South Africa	--	--	700	1,200,000
Spain	--	--	476	793,000
Total	503	874,000	3,140	5,520,000
Other manganese, wrought:				
Brazil	--	--	463	601,000
China	60	69,500	710	883,000
France	2	25,000	13	134,000
Jamaica	(3)	3,000	(3)	3,000
Mexico	61	107,000	162	269,000
Netherlands	--	--	15	30,800
United Kingdom	(3)	2,050	19	48,800
Total	123	207,000	1,380	1,970,000
Grand total	2,860	4,300,000	28,200	40,500,000

-- Zero.

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

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

³Less than ½ unit.

Note: Imports for consumption of metallic manganese waste and scrap totaled 195 tons, all of which was from Canada, to give a year-to-date total of 944 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 OCTOBER 2006¹

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal ²	
	October	Year to date	October	Year to date	October	Year to date	October	Year to date
Argentina	--	--	--	--	--	--	--	3
Australia	--	--	--	--	1	15	--	8
Belgium	--	--	--	--	--	--	19	1,130
Brazil	--	--	--	--	40	81	--	24
Canada	102	1,180	427	4,510	40	373	17	492
Chile	--	--	1	1	--	--	--	14
China	--	35	--	--	--	--	40	111
Colombia	--	--	--	--	--	--	--	7
Dominican Republic	--	9	--	--	--	--	--	--
France	--	--	--	--	--	--	3	342
Germany	32	125	--	--	--	--	8	154
Hong Kong	--	--	--	--	--	--	22	71
India	--	--	--	--	--	--	25	73
Indonesia	--	23	--	--	--	72	--	8
Japan	--	103	--	--	--	--	65	718
Korea, Republic of	--	--	--	--	--	--	--	41
Malaysia	--	--	--	--	--	--	--	8
Mexico	--	--	--	25	--	129	--	19
Netherlands	--	--	--	100	--	13	--	--
Poland	--	21	--	--	--	--	--	--
Portugal	--	--	--	--	--	--	1	3
South Africa	--	--	--	--	--	--	--	2
Sweden	--	19	--	--	--	--	--	37
Switzerland	--	--	--	--	--	--	--	35
Trinidad and Tobago	--	--	--	--	--	--	--	1
United Kingdom	--	7	--	--	--	--	--	15
Venezuela	180	180	--	--	--	--	--	--
Total	314	1,700	428	4,640	81	682	200	3,320

-- Zero.

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

²Includes manganese-aluminum, some other alloys, and waste and scrap.

Note: Exports of ferromanganese with more than 2% carbon totaled 417 tons, of which 47 tons went to Canada and 370 tons went to Mexico, to give a year-to-date total of 15,900 tons.

TABLE 8
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN OCTOBER 2006, BY CLASS¹

Class	Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)	Year to date		
				Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	352	\$314	Mexico 193; \$91	6,370	\$5,910	China 3,050; \$3,980
Manganites, manganates, and other permanganates	--	--	--	16	34	Japan 16; \$34
Potassium permanganate	144	334	Czech Republic 74; \$168	1,030	2,320	Czech Republic 483; \$1,060
Sodium permanganate	--	--	--	27	27	China 27; \$27
Sulfates, basket category, including manganese sulfate	3,420	1,810	China 1,960; \$830	38,200	22,300	China 18,400; \$8,340
Exports:						
Manganese dioxide	711	598	Canada 457; \$243	4,840	4,610	Canada 2,720; \$1,590
Manganese oxides other than dioxide	1,190	1,110	Canada 520; \$216	19,800	10,600	Canada 16,200; \$5,920
Manganites, manganates, and other permanganates	--	--	--	42	98	Canada 42; \$98
Potassium permanganate	161	438	Canada 80; \$212	2,020	5,020	Spain 695; \$1,510
Sodium permanganate	163	368	Spain 72; \$127	1,230	3,500	Spain 490; \$1,660
Sulfates, basket category, including manganese sulfate	2,040	2,870	Canada 1,590; \$952	19,800	15,600	Canada 15,000; \$7,780

-- Zero.

¹Data are rounded to no more than three significant digits.

²For imports, Customs value; for exports, free alongside ship value.

Source: U.S. Census Bureau.