

Mineral Industry Surveys

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MANGANESE IN DECEMBER 2003

In December, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was estimated as 32,400 metric tons (t), which was an 11% increase from that of the previous month, according to the U.S. Geological Survey. This figure increases to 34,800 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 162,000 t, which includes an estimate for annual respondents on the basis of 2002 data. This was a 4% decrease 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 December will appear in a subsequent report. The data for November 2003 tabulated in this report indicate that the total exports, on a manganese content basis, decreased by 36% compared with those of October 2003, owing to a significant decrease in manganese ferroalloy and metal exports. Total imports, on a manganese content basis, decreased by 63% from those of October based on significant decreases in all imports of manganese materials.

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
2002:						
November	8,010	46,500	54,500	665	576	1,240
January-November	214,000	353,000	567,000	7,020	9,540	16,600
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
May	18,700	21,600	40,300	372	668	1,040
June	52,200	11,600	63,800	628	277	905
July	3,100	45,400	48,500	653	748	1,400
August	17,800	33,900	51,700	4,920	1,600	6,520
September	28,100	39,000	67,100	345	1,210	1,560
October	22,000	42,300	64,300	286	1,380	1,670
November	835	22,900 ³	23,700	309	750	1,060
Total	201,000	329,000	530,000	8,520	10,600	19,100

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.

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

Source: U.S. Census Bureau.

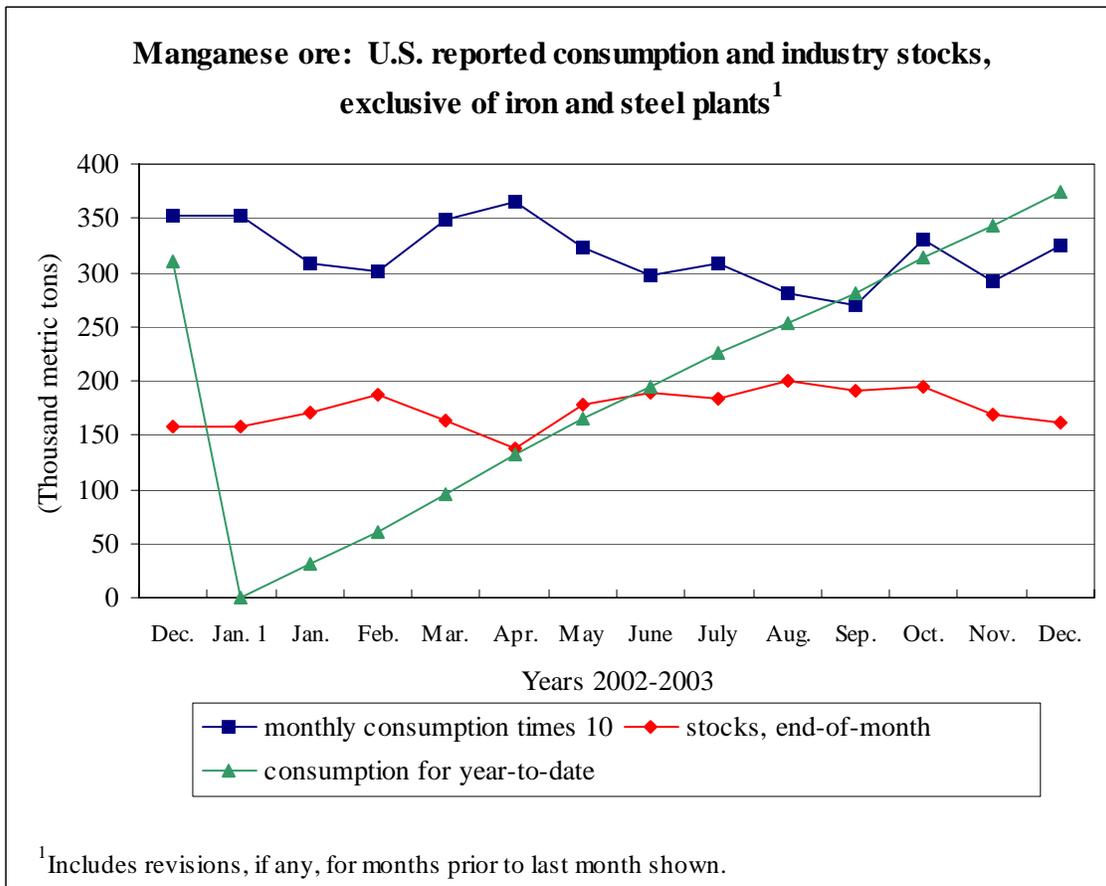


TABLE 2
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN NOVEMBER 2003¹

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	--	--	--	45,500	30,100	\$19,500,000
Brazil	42	28	\$30,300	42	28	30,300
Canada	--	--	--	21	10	5,460
China	19	11	15,400	19	11	15,400
France	--	--	--	1,910	1,270	1,050,000
Georgia	4,200 ²	4,200 ²	1,950,000 ²	20,600	18,300	10,100,000
Kazakhstan	--	--	--	5	3	2,610
Korea, Republic of	--	--	--	2,500	1,660	1,080,000
Mexico	--	--	--	11,600	7,710	5,870,000
Norway	6,200	3,880	4,600,000	23,900	14,500	15,200,000
Romania	5,410	4,020	2,660,000	24,500	17,800	11,800,000
Russia	--	--	--	2,330	1,510	1,120,000
Slovakia	3,020	1,990	1,780,000	3,020	1,990	1,780,000
South Africa	5,450	3,580	3,050,000	103,000	68,700	48,500,000
Spain	--	--	--	5,800	3,770	3,310,000
Ukraine	20	15	15,200	20	15	15,200
United Kingdom	--	--	--	10	6	3,340
Total	24,400	17,700	14,100,000	244,000	167,000	119,000,000
Total, general imports	24,400	17,700	14,100,000	244,000	167,000	119,000,000

-- Zero.

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

²All 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 NOVEMBER 2003¹

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Low carbon:						
Canada	--	--	--	20	16	\$18,200
China	167	159	\$191,000	4,510	4,090	4,230,000
Italy	--	--	--	356	276	168,000
Japan	--	--	--	5,840	4,720	4,190,000
Korea, Republic of	--	--	--	40	38	40,200
Mexico	19	16	25,500	4,160	3,280	3,580,000
Norway	--	--	--	2,130	1,730	1,300,000
South Africa	120	112	135,000	3,620	3,360	4,280,000
Spain	--	--	--	72	58	58,900
Taiwan	--	--	--	75	66	81,000
Total, low carbon	306	287	351,000	20,800	17,600	18,000,000
Total, general imports of low carbon	306	287	351,000	20,800	17,600	18,000,000
Medium carbon, 1%-2% C:						
China	--	--	--	7,410	5,970	4,850,000
Korea, Republic of	--	--	--	2,500	2,030	1,530,000
Mexico	--	--	--	9,640	7,510	6,900,000
Norway	--	--	--	2,720	2,180	1,460,000
South Africa	--	--	--	18,900	15,400	12,900,000
Total, m.c., 1%-2% C	--	--	--	41,200	33,100	27,700,000
Total, general imports of m.c., 1%-2% C	--	--	--	41,200	33,100	27,700,000
Medium carbon, 2%-4% C:						
Mexico	--	--	--	22	21	11,400
South Africa	18	14	8,020	37	29	16,100
Total, m.c., 2%-4% C	18	14	8,020	59	50	27,500
Total, general imports of m.c., 2%-4% C	18	14	8,020	59	50	27,500
High carbon:						
Australia	--	--	--	6,850	5,300	2,750,000
Brazil	--	--	--	18,200	14,300	6,620,000
Canada	--	--	--	98	74	65,300
China	20	15	9,910	20	15	9,910
France	--	--	--	27,800	21,800	10,700,000
Mexico	--	--	--	22	22	10,300
Saudi Arabia	--	--	--	39	30	16,200
South Africa	6,310	4,800	2,440,000	86,600	67,000	33,400,000
Total, high carbon	6,330	4,810	2,450,000	140,000	108,000	53,600,000
Total, general imports of high carbon	6,330	4,810	2,450,000	140,000	108,000	53,600,000
Grand total	6,650	5,110	2,810,000	202,000	159,000	99,200,000
Grand total, general imports	6,650	5,110	2,810,000	202,000	159,000	99,200,000

-- Zero.

¹Data 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 NOVEMBER 2003^{1, 2, 3}

(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	36	16	--	--	36	16
Total	36	16	18	13	54	29
Year to date: ⁴						
Australia	--	--	24,500	12,900	24,500	12,900
Belgium	--	--	181	127	181	127
Brazil	17	7	--	--	17	7
China	217	98	75	67	292	165
Gabon	--	--	239,000	123,000	239,000	123,000
Mexico	3,940	1,500	39	29	3,980	1,530
Morocco ⁵	--	--	20	11	20	11
South Africa	13,200	5,410	65,700	31,500	78,900	36,900
Total	17,400	7,010	330,000	168,000	347,000	175,000

-- 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.

³Includes concentrates.

⁴May include revisions to previous months' data.

⁵Includes U.S. Geological Survey's conversion of part of the reported data from MnO₂ content to Mn content.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN NOVEMBER 2003 ¹

Source	Manganese dioxide				Manganese metal			
	Quantity	Customs value	Year to date		Unwrought		Other	
			Quantity	Customs value	Quantity	Year to date	Quantity	Year to date
Australia	--	--	24,800	\$30,800,000	--	--	--	--
Belgium	136	\$187,000	514	869,000	--	--	--	1
Brazil	--	--	108	50,000	--	--	--	3
Canada	--	--	(2)	3,300	--	--	--	1
China	--	--	146	143,000	--	699	--	742
France	--	--	--	--	--	--	1	36
Germany	--	--	64	314,000	--	67	--	11
Greece	396	467,000	1,250	1,480,000	--	--	--	--
India	--	--	4	6,980	--	--	--	--
Ireland	--	--	6,320	7,860,000	--	--	--	--
Japan	239	291,000	1,990	2,510,000	--	--	6	23
Korea, Republic of	--	--	27	32,100	--	--	--	20
Mexico	--	--	--	--	--	--	--	13
Netherlands	--	--	--	--	--	--	--	10
Norway	--	--	--	--	--	25	--	--
South Africa	572	705,000	7,800	9,980,000	--	904	--	20
Spain	--	--	--	--	--	--	51	483
United Kingdom	--	--	102	144,000	--	--	--	--
Total	1,340	1,650,000	43,100	54,200,000	--	1,700	58	1,360
Total, general imports	1,340	1,650,000	43,100	54,200,000	--	1,700	58	1,360

-- Zero.

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

²Less than 1/2 unit.

Note: Imports for consumption of metallic manganese waste and scrap totaled 38 tons, all of which was from Canada, to give a year-to-date total of 1,370 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 2003¹

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal ²	
	November	Year to date	November	Year to date	November	Year to date	November	Year to date
Australia	15	186	--	--	--	10	--	--
Belgium	--	--	--	--	--	1	18	377
Brazil	14	145	--	--	--	11	--	26
Canada	223	2,250	678	8,400	20	249	21	493
China	--	--	--	3	--	--	--	2
Colombia	--	--	--	3	--	--	--	--
France	--	8,890	--	--	--	5	--	7
Germany	200	1,300	--	--	--	--	--	41
Guatemala	--	99	--	--	--	--	--	--
Hong Kong	13	182	--	--	--	--	--	(3)
Hungary	--	19	--	--	--	--	--	--
India	--	40	--	--	--	--	--	--
Indonesia	--	22	--	--	--	7	--	--
Italy	74	1,080	7	7	--	--	20	49
Jamaica	--	7	--	--	--	--	--	--
Japan	9	9	--	19	--	--	34	739
Korea, Republic of	--	8	--	--	--	--	--	5
Mexico	--	--	--	19	11	202	35	219
Netherlands	32	204	--	--	--	4	--	--
New Zealand	6	6	--	--	--	--	--	--
Norway	--	555	--	--	--	--	--	--
Peru	--	--	--	--	--	--	5	7
Philippines	12	12	--	--	--	--	--	--
Poland	--	819	--	--	--	--	--	--
Portugal	--	77	--	--	--	--	--	3
Spain	--	--	--	--	--	11	--	--
Sweden	19	327	--	--	--	--	16	180
Switzerland	--	54	--	--	--	--	--	--
Taiwan	--	7	--	--	--	--	--	--
Thailand	--	--	--	--	--	--	--	5
Trinidad and Tobago	--	--	--	--	--	82	--	--
Turkey	--	109	--	--	--	--	--	--
United Kingdom	--	609	--	--	--	--	--	(3)
Venezuela	--	17	--	1,260	--	--	--	--
Total	617	17,000	685	9,710	31	582	149	2,150

-- 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.

³Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 50 tons, of which 29 tons went to Canada, and 22 tons went to Mexico, to give a year-to-date total of 458 tons.

Source: U.S. Census Bureau.

TABLE 7
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN NOVEMBER 2003, BY CLASS¹

Class	Gross weight (metric tons)	Value ³ (thousands)	Principal sources and destinations: gross weight (metric tons); value ³ (thousands)	Year to date ²		
				Gross weight (metric tons)	Value ³ (thousands)	Principal sources and destinations: gross weight (metric tons); value ³ (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	244	\$134	Mexico 157; \$50	1,940	\$1,810	Mexico 981; \$329
Sulfates, basket category, including manganese sulfate	1,760	1,160	Mexico 913; \$447	40,900	18,600	China 20,900; \$6,370
Potassium permanganate	140	268	Czech Republic 104; \$199	1,390	2,720	Czech Republic 843; \$1,640
Manganites, manganates, and other permanganates	--	--	--	317	697	China 193; \$328
Exports:						
Manganese dioxide	532	477	Canada 311; \$131	4,050	4,220	Canada 2,090; \$814
Manganese oxides other than dioxide	402	470	Canada 263; \$101	4,260	4,630	Canada 2,630; \$1,050
Sulfates, basket category, including manganese sulfate	1,470	720	Canada 1,160; \$361	18,600	9,250	Canada 15,000; \$4,280
Potassium permanganate	215	287	Spain 139; \$198	2,230	3,300	Spain 1,210; \$1,970
Manganites, manganates, and other permanganates	53	175	Japan 48; \$141	392	1,730	Japan 229; \$998

-- Zero.

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

²May include revisions to previous months' data.

³For imports, Customs value; for exports, f.a.s. value.

Source: U.S. Census Bureau.