

Mineral Industry Surveys

For information, contact:

Thomas S. Jones, Manganese Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4973, Fax: (703) 648-7757
E-mail: tjones@usgs.gov

Jesse J. Inestroza (Data)
Telephone: (703) 648-7968
Fax: (703) 648-7975

Internet: <http://minerals.usgs.gov/minerals>

MANGANESE IN DECEMBER 2001

In December, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 32,000 metric tons (t), which was an increase of about 2% compared with that estimated for the previous month, according to the U.S. Geological Survey. This brought the year-to-date total to 367,000 t, which was 17% less than the comparable figure for 2000. The figures for December increase to 34,400 t and 398,000 t, respectively, when estimates for annual respondents are added on the basis of 2000 data. Corresponding industry stocks of ore at the end of the month were estimated as 131,000 t, which includes an estimate for annual respondents on the basis of 2000 data. This was the same as that which had been estimated for the corresponding figure for stocks at the end of November, and was only about 57% of the corresponding figure as estimated for yearend 2000.

Data for domestic consumption and stocks of manganese ferroalloys and metal will appear in a subsequent monthly report.

Foreign trade data for December will appear in a subsequent report. The data for November tabulated in this report indicate that the quantity of manganese imported as ferromanganese was the least in at least the past 18 years. The quantity imported as ferroalloy plus metal was the least since May 1985. **Note:** The MINES FaxBack service that was being used to make trade data available in preliminary form at an early date has been discontinued.

Data on stockpile disposals in December from the Defense National Stockpile Center (DNSC) of the Defense Logistics Agency, U.S. Department of Defense, were not available at the time this report was prepared, and will be given in a later report. **Later action:** On January 14 and 18, 2002, the DNSC issued amendments number 4 and 5, respectively, that further modified Solicitation of Offers DLA-MANGANESE-001 (for ore, originally issued February 10, 1999). Amendment 4 added additional chemical-grade and natural battery-

grade ore to the list of materials being offered and updated contact information for the DNSC storage sites. The chemical-grade ore being added mostly was at Baltimore, MD. The battery-grade ore being added was at five locations: Baltimore, MD; Belle Meade, NJ; Ravenna and Warren, OH; and Marietta, PA (west of Lancaster). Amendment 5 updated the description of the ore being offered, especially concerning particle size of the chemical-grade ore. The contact at DNSC for inquiries about the ore solicitation is Angela Mattox (telephone number: (703) 767-5515; fax number: (703) 767-5411).

Through Highlanders Alloys LLC, an affiliate of Israel's Ubex Group, Ubex Group moved toward becoming a U.S. producer of manganese ferroalloys. About the first of December, Highlanders became owner of the closed ferrosilicon plant of American Alloys Inc. at New Haven, WV, and was committed to converting that plant to the production of manganese ferroalloys by mid-2002. **Update:** In January, Highlanders purchased most of about 227,000 t of metallurgical-grade manganese ore that was sold by the DNSC. Sale of this ore, which has a manganese content of about 44%, and is mostly fines, exhausted all the metallurgical-grade ore that DNSC had available for sale until after September 30, 2002 (Ryan's Notes, 2001a, b; 2002). The New Haven plant is located a short distance downstream from Ravenswood along the Ohio River.

References Cited

- Ryan's Notes, 2001a, A mixed bag for on-line tenders: Ryan's Notes, v. 7, no. 49, December 3, p. 3.
———2001b, Vocal opposition to on-line tenders: Ryan's Notes, v. 7, no. 48, November 26, p. 1-2.
———2002, Highlanders secures Mn ore supply: Ryan's Notes, v. 8, no. 3, January 21, p. 1.

TABLE 1
SELECTED U.S. FOREIGN TRADE IN MANGANESE 1/

(Metric tons, manganese content) 2/

	Imports for consumption			Exports		
	Ore and dioxide	Ferroalloy and metal	Total	Ore	Ferroalloy and metal	Total
2000:						
November	19,900	48,200	68,100	259	698	957
January-November	231,000	493,000	724,000	3,030	9,140	12,200
2001:						
January	23,400 3/	35,100	58,400	185	1,830	2,020
February	11,900	25,400	37,300	723 3/	383	1,110
March	24,600 3/	24,300 3/	48,900	425	645	1,070
April	23,100	34,800	57,900	138	630	768
May	28,600 3/	45,700	74,300	267	967	1,230
June	11,100	32,000	43,100	200	655	855
July	30,600	35,600 3/	66,200	349	635	984
August	22,300 3/	45,800	68,100	1,040	713	1,750
September	2,520	38,900	41,400	215	740	954
October	3,120 3/	37,400 3/	40,500	360	1,770	2,130
November	30,300 3/	15,200 3/	45,500	370	1,520	1,890
Total	211,000	370,000	582,000	4,270	10,500	14,800

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

2/ As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

3/ 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 NOVEMBER 2001 1/

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	2,250	1,490	\$1,100,000	43,900	29,100	\$18,000,000
Canada	73	48	16,400	436	288	106,000
Georgia	--	--	--	4,920	3,200	2,070,000
Germany	--	--	--	7	4	2,320
India	385	212	221,000	39,800	25,400	16,000,000
Japan	--	--	--	10	46	23,800
Kazakhstan	--	--	--	32,300	22,100	13,700,000
Lithuania	--	--	--	4,000	2,710	1,720,000
Mexico	--	--	--	12,500	8,160	5,940,000
Norway	2,000	1,230	1,160,000	10,400	6,320	6,000,000
Romania	--	--	--	6,820	4,470	3,250,000
South Africa	8,330	5,640	3,580,000	85,600	58,200	34,700,000
Spain	4,030 2/	1,230 2/	641,000 2/	7,430	3,440	2,340,000
Venezuela	--	--	--	1,500	960	615,000
Total	17,100	9,850	6,710,000	250,000	164,000	104,000,000
Total, general imports	17,100	9,850	6,710,000	250,000	164,000	104,000,000

-- Zero.

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

2/ All 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 2001 1/

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Low carbon:						
Canada	--	--	--	56	45	\$37,600
China	--	--	--	1,310	1,360	1,380,000
Italy	288	230	\$257,000	2,130	1,820	1,920,000
Japan	--	--	--	1	31	22,100
Mexico	--	--	--	2,010	1,610	1,490,000
Netherlands	--	--	--	21	17	18,700
Norway	40	32	31,300	1,380	1,120	1,160,000
South Africa	440	408	531,000	6,120	5,370	5,870,000
Total, low carbon	768	670	819,000	13,000	11,400	11,900,000
Total, general imports of low carbon	768	670	819,000	13,000	11,400	11,900,000
Medium carbon, 1%-2% C:						
Brazil	--	--	--	20	15	20,700
China	--	--	--	3,800	3,040	2,260,000
France	--	--	--	44	35	28,200
Germany	--	--	--	11	8	6,090
Mexico	40	31	32,500	15,600	12,500	10,500,000
Norway	--	--	--	2,110	1,730	1,110,000
South Africa	1,220	980	653,000	26,900	21,700	16,000,000
Spain	401 2/	556 2/	307,000 2/	1,100	1,120	842,000
Total, m.c., 1%-2% C	1,660	1,570	993,000	49,600	40,200	30,700,000
Total, general imports of m.c., 1%-2% C	1,660	1,570	993,000	49,600	40,200	30,700,000
Medium carbon, 2%-4% C:						
Ukraine	--	--	--	1,360	1,020	538,000
Total, general imports of m.c., 2%-4% C	--	--	--	1,360	1,020	538,000
High carbon:						
Australia	1,510	1,160	574,000	23,500	18,100	8,530,000
Brazil	--	--	--	4,050	3,120	1,500,000
Canada	--	--	--	99	75	54,800
France	--	--	--	50,100	41,800	18,000,000
Germany	--	--	--	9	7	3,060
India	--	--	--	3,480	2,640	1,320,000
South Africa	--	--	--	86,200	66,800	30,700,000
Spain	--	--	--	1,470	1,110	573,000
Total, high carbon	1,510	1,160	574,000	169,000	134,000	60,700,000
Total, general imports of high carbon	1,510	1,160	574,000	169,000	134,000	60,700,000
Grand total	3,930	3,400	2,390,000	233,000	186,000	104,000,000
Grand total, general imports	3,930	3,400	2,390,000	233,000	186,000	104,000,000

-- Zero.

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

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

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS OF MANGANESE ORE (20% OR MORE Mn) IN NOVEMBER 2001 1/2/

(Metric tons)

Source	20% - 47% Mn		47% or more Mn		Total	
	Gross weight	Mn content	Gross weight	Mn content	Gross weight	Mn content
Gabon	9,000 3/	4,680 3/	43,800	23,300	52,800	28,000
Year to date:						
Australia	--	--	18,000	9,440	18,000	9,440
Brazil	7,700	3,460	17	17	7,720	3,480
Canada	--	--	1	(4/)	1	(4/)
China	--	--	74	74	74	74
Gabon	23,300	11,000	248,000	147,000	271,000	158,000
Mexico	4,520	1,720	--	--	4,520	1,720
Morocco	--	--	40	21	40	21
South Africa	11,600	4,160	27,900	13,200	39,500	17,400
Total	47,100	20,300	294,000	170,000	341,000	190,000

-- Zero.

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

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

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

4/ Less than 1/2 unit.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN NOVEMBER 2001 1/

(Metric tons, gross weight, unless otherwise specified)

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	2,100	\$3,120,000	19,300	\$28,900,000	--	--	--	15
Belgium	8	17,000	463	751,000	--	--	--	--
Canada	--	--	--	--	--	--	--	2
China	252	257,000	1,600	1,610,000	140	3,600	30	118
France	--	--	(2/)	7,120	--	--	8	55
Germany	6	30,800	69	307,000	149	2,030	--	26
Greece	--	--	563	728,000	--	--	--	--
India	--	--	1	3,130	--	--	--	282
Ireland	523	745,000	6,760	9,350,000	--	--	--	--
Japan	16	28,400	314	700,000	--	--	--	10
Malaysia	--	--	--	--	--	--	--	5
Mexico	--	--	--	--	--	--	--	83
Morocco	--	--	1	2,530	--	--	--	--
Netherlands	--	--	--	--	--	--	--	60
Russia	--	--	--	--	--	--	--	385
South Africa	1,040	1,530,000	6,450	9,190,000	1,430	11,700	--	--
Spain	--	--	--	--	61	650	--	--
United Kingdom	--	--	6	13,500	--	149	--	(2/)
Total	3,950	5,730,000	35,500	51,500,000	1,780	18,100	38	1,040
Total, general imports	3,950	5,730,000	35,500	51,500,000	1,780	18,000	18	1,060

-- Zero.

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

2/ Less than 1/2 unit.

Note: Imports for consumption of metallic manganese waste and scrap totaled 202 tons, all of which was from Canada, to give a year-to-date total of 865 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 2001 1/

(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	--	89	--	--	--	21	--	2
Barbados	--	21	--	--	--	--	--	--
Belgium	--	--	--	--	--	--	19	113
Brazil	--	256	--	--	--	15	--	--
Canada	472	4,200	545	2,680	185	908	41	123
Chad	--	--	--	--	--	--	--	1
Chile	--	3	--	--	--	--	--	6
Finland	--	--	--	--	--	--	--	36
France	--	--	--	--	--	12	--	29
Germany	19	492	--	--	--	--	--	63
Hong Kong	--	21	--	--	--	--	10	11
Indonesia	--	--	--	--	--	2	--	--
Ireland	--	137	--	--	--	--	--	--
Israel	--	271	--	--	--	--	--	--
Italy	--	486	--	--	--	--	--	8
Japan	--	19	--	33	--	--	19	613
Korea, Republic of	--	8	--	--	--	--	--	13
Mexico	--	76	--	150	--	2,480	12	206
Netherlands	86	173	--	--	7	45	--	199
Norway	139	457	--	--	--	--	--	--
Philippines	--	--	23	23	--	--	--	--
Poland	23	42	--	--	--	--	--	--
Saudi Arabia	--	21	--	--	--	--	--	--
Singapore	--	--	--	4	--	--	--	--
Spain	--	--	--	--	--	8	31	31
Sweden	--	262	--	--	--	--	18	89
Switzerland	--	138	--	--	--	--	--	--
Taiwan	--	80	--	--	--	--	--	16
United Kingdom	--	1,270	--	--	--	--	--	--
Venezuela	--	16	--	848	--	--	--	5
Total	739	8,530	568	3,730	192	3,490	150	1,570

-- Zero.

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

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

Note: Exports of ferromanganese with more than 2% carbon totaled 1,010 tons, all of which went to Canada, to give a year-to-date total of 4,660 tons.

Source: U.S. Census Bureau.

TABLE 7
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN NOVEMBER 2001, BY CLASS 1/

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)
<u>Imports for consumption:</u>						
Manganese oxides other than dioxide	144	\$160	Mexico 90; \$25	1,480	\$1,440	Mexico 863; \$245
Sulfates, basket category, including manganese sulfate	2,390	1,450	China 821; \$222	29,500	17,400	Mexico 11,700; \$6,180
Potassium permanganate	94	144	China 48; \$52	1,460	2,790	Czech Republic 793; \$1,570
Manganites, manganates, and other permanganates	--	--	--	69	283	China 34; \$35
<u>Exports:</u>						
Manganese dioxide	276	238	Canada 234; \$118	3,960	5,870	Canada 1,680; \$670
Manganese oxides other than dioxide	308	283	Canada 154; \$61	5,710	6,270	Canada 2,280; \$906
Sulfates, basket category, including manganese sulfate	2,850	1,070	Canada 2,370; \$562	25,600	16,000	Canada 20,600; \$5,110
Potassium permanganate	85	167	Canada 48; \$76	1,030	2,290	Spain 365; \$668
Manganites, manganates, and other permanganates	51	348	Taiwan 17; \$113	414	2,570	Japan 102; \$733

-- Zero.

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

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

Source: U.S. Census Bureau.