

# Mineral Industry Surveys

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**For information, contact:**

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

Jesse J. Inestroza (Data)  
Telephone: (703) 648-7968  
Fax: (703) 648-7975  
E-mail: jinestro@usgs.gov

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

## MANGANESE IN NOVEMBER 2003

In October, reported consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was estimated as 39,100 metric tons (t), which was a 12% decrease from that for the previous month, according to the U.S. Geological Survey. This figure increases to 31,500 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 169,000 t, which includes an estimate for annual respondents on the basis of 2002 data. This was a 13% 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 November will appear in a subsequent report. The data for October 2003 tabulated in this report indicate that the total exports, on a manganese content basis, increased by 7% compared with those of September 2003, owing to a significant increase in manganese ferroalloy and metal exports. Total imports, on a manganese content basis, decreased by 4% from those of September based on a significant decrease in manganese ore and manganese dioxide imports.

On October 27, 2003, the International Trade Administration of the U.S. Department of Commerce (ITA) issued a preliminary antidumping duty margin of 2.12% on imports of silicomanganese from Brazil's Eletrosiderurgica Brasileira SA (SIBRA), Companhia Paulista de Ferroligas (CPFL) and Urucum Mineracao S.A. for the period of December 1, 2001, through November 30, 2001. These companies are all subsidiaries of Brazilian mineral producer Companhia Vale do Rio Doce (CVRD). Prior to this preliminary ruling, the antidumping duty margin for such imports was 88.87% (International Trade Administration, 2003).

On October 28, CVRD announced it had restructured its manganese ferroalloy business. SIBRA was renamed Rio Doce Manganese S.A. (RDM). The operations of RDM subsidiaries, including CPFL, would be transferred to RDM starting in January 2004. The main RDM assets are the Azul Mine, located in Carajas, State of Para, and a manganese ferroalloy plant located in Simoes Filho, State of Bahia, as well as CPFL's four ferroalloy plants in the State of Minas Gerais. RDM will have a total annual production capacity of 2,330,000 t of manganese

ore and 350,000 t of manganese ferroalloys. CVRD manganese and ferroalloy operations will be held through four wholly owned subsidiaries: RDM; Urucum Mineracao S.A., Corumba, State of Mato Grosso do Sul; Rio Doce Manganese Europe, in Dunkerque, France; and Rio Doce Manganese Norway, Mo I Rana, Norway (Companhia Vale do Rio Doce, 2003<sup>§1</sup>).

### Update

On December 8, 2003, the Defense National Stockpile Center (DNSC) announced the cash disposal of approximately 22,700 t of high-carbon manganese, in response to Solicitation for Offers DLA-Ferromanganese-003, to the following companies: Hickman Williams & Co., Wexford, PA; Ispat Inland Inc., East Chicago, IN; BSI Commodities, Pittsburgh, PA; Mineraiis U.S. LLC, Hillsborough, NJ; and AmBriCo, Portage, IN (Defense National Stockpile Center, 2003).

On January 6, 2004, the DNSC announced the cash disposal of about 36,300 t of chemical-grade and 227,000 t of metallurgical-grade manganese ore, respectively under Solicitation for Offers DLA-Manganese-002. The chemical-grade manganese ore was awarded to Westbrook Resources, Sheffield, England. The metallurgical-grade manganese ore was awarded to Mid-Continental Coal and Coke, Shaker Heights, PA; MMC Resources, Houston, TX; and Westbrook Resources, Sheffield, England. The sales of both manganese ore grades exhaust the DNSC's Annual Materials Plan authorities for sale of these materials for Fiscal Year 2004 (Defense National Stockpile Center, 2004a, b).

On January 22, 2004, the ITA announced it would begin an administrative review of silicomanganese imports from Brazil covering the period of December 1, 2002, through November 30, 2003, at the request of RDM and Urucum Mineracao S.A. (International Trade Administration, 2004).

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<sup>1</sup>A reference that includes a section mark (§) is found in the Internet Reference Cited section.

## References Cited

Defense National Stockpile Center, 2003, Stockpile accepts ferromanganese offers: Defense National Stockpile Center, News Release DNSC-04-2396, December 8, 1 p.

Defense National Stockpile Center, 2004a, Stockpile accepts chemical grade manganese ore offer: Defense National Stockpile Center, News Release DNSC-04-2409, January 6, 1 p.

Defense National Stockpile Center, 2004b, Stockpile accepts metallurgical grade manganese ore offers: Defense National Stockpile Center, News Release DNSC-04-2408, January 6, 1 p.

International Trade Administration, 2003, Silicomanganese from Brazil—Preliminary results of antidumping duty administrative review: Federal Register, v. 68, no. 207, October 27, p. 61185-61188.

International Trade Administration, 2004, Initiation of antidumping and countervailing duty administrative reviews and request for revocation in part [silicomanganese from Brazil]: Federal Register, v. 69, no. 14, January 22, p. 3117-3119.

## Internet Reference Cited

Companhia Vale do Rio Doce, 2003 (October 28), CVRD simplifies operation structure—Press release, accessed February 2, 2004, at <http://www.vale.com.br>.

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
2002:						
October	2,590	42,300	44,900	159	680	839
January-October	206,000	307,000	512,000	6,360	8,960	15,300
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
Total	200,000	306,000	506,000	8,210	9,820	18,000

<sup>1</sup>Data are 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.

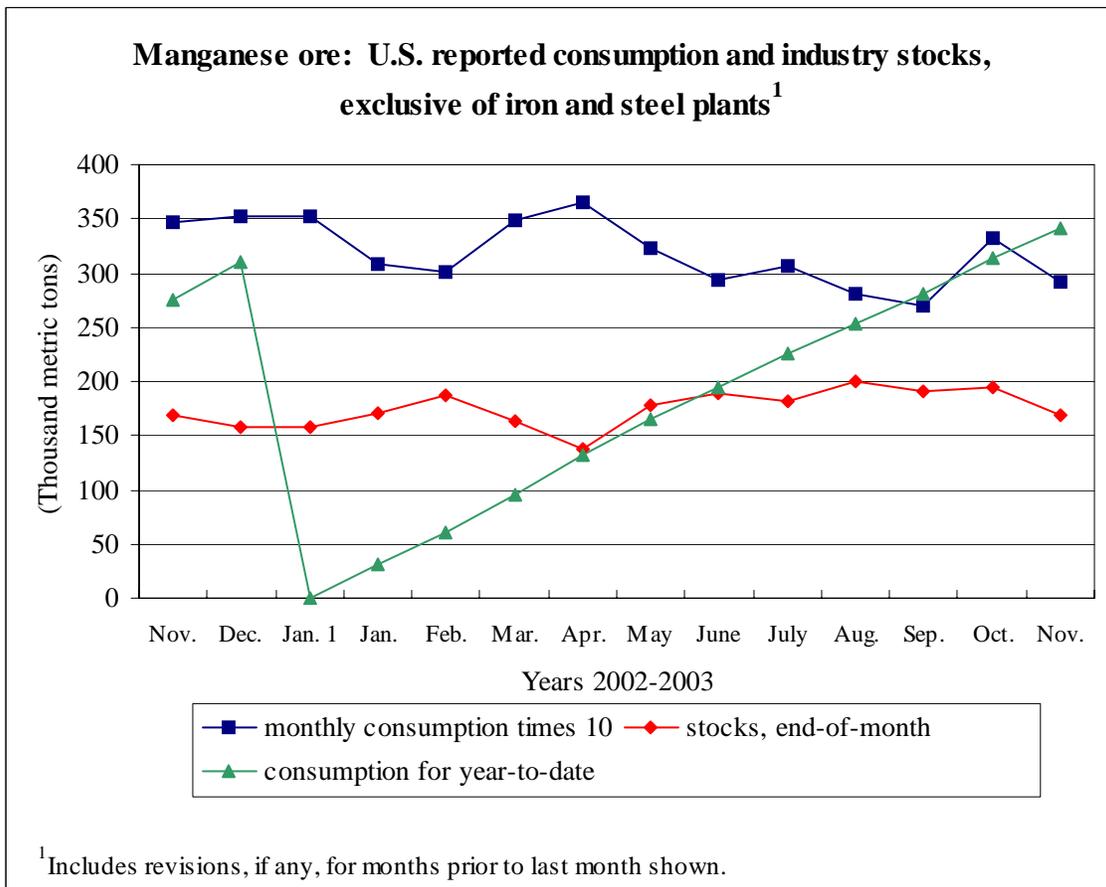


TABLE 2  
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN OCTOBER 2003<sup>1</sup>

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
Australia	6,420	4,210	\$2,770,000	45,500	30,100	\$19,500,000
Canada	21	10	5,460	21	10	5,460
France	--	--	--	1,910	1,270	1,050,000
Georgia	4,910	4,910	2,290,000	16,400	14,100	8,100,000
Kazakhstan	--	--	--	5	3	2,610
Korea, Republic of	--	--	--	2,500	1,660	1,080,000
Mexico	2,400	1,570	1,280,000	11,600	7,710	5,870,000
Norway	4,990	3,330	2,740,000	17,700	10,600	10,600,000
Romania	767	767	349,000	19,100	13,800	9,120,000
Russia	--	--	--	2,330	1,510	1,120,000
South Africa	19,700	13,100	10,300,000	97,200	65,100	45,400,000
Spain	--	--	--	5,800	3,770	3,310,000
United Kingdom	10	6	3,340	10	6	3,340
Total	39,200	27,900	19,700,000	220,000	150,000	105,000,000
Total, general imports	39,200	27,900	19,700,000	220,000	150,000	105,000,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN OCTOBER 2003<sup>1</sup>

(Metric tons, unless otherwise specified)

Source	Gross weight	Mn content	Customs value	Year to date		
				Gross weight	Mn content	Customs value
<b>Low carbon:</b>						
Canada	--	--	--	20	16	\$18,200
China	571	467	\$504,000	4,350	3,930	4,040,000
Italy	--	--	--	356	276	168,000
Japan	--	--	--	5,840	4,720	4,190,000
Korea, Republic of	--	--	--	40	38	40,200
Mexico	--	--	--	4,140	3,260	3,560,000
Norway	--	--	--	2,130	1,730	1,300,000
South Africa	180	167	201,000	3,500	3,250	4,140,000
Spain	--	--	--	72	58	58,900
Taiwan	75	66	81,000	75	66	81,000
Total, low carbon	826	700	786,000	20,500	17,300	17,600,000
Total, general imports of low carbon	826	700	786,000	20,500	17,300	17,600,000
<b>Medium carbon, 1%-2% C:</b>						
China	--	--	--	7,410	5,970	4,850,000
Korea, Republic of	--	--	--	2,500	2,030	1,530,000
Mexico	19	15	16,800	9,640	7,510	6,900,000
Norway	--	--	--	2,720	2,180	1,460,000
South Africa	1,920	1,560	1,240,000	18,900	15,400	12,900,000
Total, m.c., 1%-2% C	1,940	1,580	1,260,000	41,200	33,100	27,700,000
Total, general imports of m.c., 1%-2% C	1,940	1,580	1,260,000	41,200	33,100	27,700,000
<b>Medium carbon, 2%-4% C:</b>						
Mexico	--	--	--	22	21	11,400
South Africa	--	--	--	19	15	8,050
Total, m.c., 2%-4% C	--	--	--	41	36	19,400
Total, general imports of m.c., 2%-4% C	--	--	--	41	36	19,400
<b>High carbon:</b>						
Australia	917	697	420,000	6,850	5,300	2,750,000
Brazil	6,510	5,090	2,310,000	18,200	14,300	6,620,000
Canada	--	--	--	98	74	65,300
France	--	--	--	27,800	21,800	10,700,000
Mexico	--	--	--	22	22	10,300
Saudi Arabia	--	--	--	39	30	16,200
South Africa	7,990	6,170	3,060,000	80,300	62,200	30,900,000
Total, high carbon	15,400	12,000	5,790,000	133,000	104,000	51,100,000
Total, general imports of high carbon	15,400	12,000	5,790,000	133,000	104,000	51,100,000
Grand total	18,200	14,200	7,830,000	195,000	154,000	96,400,000
Grand total, general imports	18,200	14,200	7,830,000	195,000	154,000	96,400,000

-- Zero.

<sup>1</sup>Data 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 OCTOBER 2003<sup>1, 2, 3</sup>

(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
Brazil	17	7	--	--	17	7
Gabon	--	--	37,400	18,500	37,400	18,500
Mexico	1,400	528	--	--	1,400	528
Total	1,420	535	37,400	18,500	38,800	19,000
Year to date: <sup>4</sup>						
Australia	--	--	24,500	12,900	24,500	12,900
Belgium	--	--	163	115	163	115
Brazil	17	7	--	--	17	7
China	181	82	75	67	256	149
Gabon	--	--	239,000	123,000	239,000	123,000
Mexico	3,940	1,500	39	29	3,980	1,530
Morocco <sup>5</sup>	--	--	20	11	20	11
South Africa	13,200	5,410	65,700	31,500	78,900	36,900
Total	17,400	7,000	330,000	168,000	347,000	175,000

-- Zero.

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

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

<sup>3</sup>Includes concentrates.

<sup>4</sup>May include revisions to previous months' data.

<sup>5</sup>Includes U.S. Geological Survey's conversion of part of the reported data from MnO<sub>2</sub> content to Mn content.

Source: U.S. Census Bureau.

TABLE 5  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE AND MANGANESE METAL IN OCTOBER 2003<sup>1</sup>

(Metric tons, 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	3,160	\$3,870,000	24,800	\$30,800,000	--	--	--	--
Belgium	36	65,000	378	681,000	--	--	--	1
Brazil	103	41,300	108	50,000	--	--	--	3
Canada	--	--	(2)	3,300	--	--	--	1
China	--	--	146	143,000	--	699	79	742
France	--	--	--	--	--	--	5	36
Germany	8	44,600	64	314,000	--	67	2	11
Greece	--	--	857	1,020,000	--	--	--	--
India	--	--	4	6,980	--	--	--	--
Ireland	351	463,000	6,320	7,860,000	--	--	--	--
Japan	206	277,000	1,750	2,220,000	--	--	--	17
Korea, Republic of	--	--	27	32,100	--	--	--	20
Mexico	--	--	--	--	--	--	--	13
Netherlands	--	--	--	--	--	--	--	10
Norway	--	--	--	--	--	25	--	--
South Africa	1,120	1,440,000	7,230	9,280,000	--	904	--	20
Spain	--	--	--	--	--	--	72	432
United Kingdom	--	--	102	144,000	--	--	--	--
Total	4,990	6,200,000	41,800	52,500,000	--	1,700	158	1,310
Total, general imports	4,990	6,200,000	41,800	52,500,000	--	1,700	158	1,310

-- Zero.

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

<sup>2</sup>Less than 1/2 unit.

Note: Imports for consumption of metallic manganese waste and scrap totaled 34 tons, all of which was from Canada, to give a year-to-date total of 1,330 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 2003<sup>1</sup>

(Metric tons, gross weight)

	Manganese ore		Ferromanganese, 2% or less C		Silicomanganese		Manganese metal <sup>2</sup>	
	October	Year to date	October	Year to date	October	Year to date	October	Year to date
Australia	15	170	--	--	--	10	--	--
Belgium	--	--	--	--	--	1	36	359
Brazil	15	131	--	--	--	11	6	26
Canada	299	2,030	1,330	7,720	--	229	91	473
China	--	--	3	3	--	--	1	2
Colombia	--	--	--	3	--	--	--	--
France	--	8,890	--	--	5	5	--	7
Germany	19	1,100	--	--	--	--	--	41
Guatemala	--	99	--	--	--	--	--	--
Hong Kong	--	169	--	--	--	--	--	(3)
Hungary	--	19	--	--	--	--	--	--
India	--	40	--	--	--	--	--	--
Indonesia	--	22	--	--	--	7	--	--
Italy	74	1,010	--	--	--	--	--	29
Jamaica	--	7	--	--	--	--	--	--
Japan	--	--	--	19	--	--	88	705
Korea, Republic of	8	8	--	--	--	--	--	5
Mexico	--	--	--	19	--	191	22	185
Netherlands	--	173	--	--	--	4	--	--
Norway	--	555	--	--	--	--	--	--
Peru	--	--	--	--	--	--	--	2
Poland	24	819	--	--	--	--	--	--
Portugal	--	77	--	--	--	--	--	3
Spain	--	--	--	--	11	11	--	--
Sweden	101	308	--	--	--	--	32	164
Switzerland	--	54	--	--	--	--	--	--
Taiwan	--	7	--	--	--	--	--	--
Thailand	--	--	--	--	--	--	--	5
Trinidad and Tobago	--	--	--	--	--	82	--	--
Turkey	--	109	--	--	--	--	--	--
United Kingdom	--	609	--	--	--	--	--	(3)
Venezuela	17	17	--	1,260	--	--	--	--
Total	572	16,400	1,330	9,020	16	551	276	2,010

-- Zero.

<sup>1</sup>Data are 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>Less than 1/2 unit.

Note: Exports of ferromanganese with more than 2% carbon totaled 55 tons, all of which went to Canada, to give a year-to-date total of 407 tons.

Source: U.S. Census Bureau.

TABLE 7  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN OCTOBER 2003, 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	107	\$147	Mexico 61; \$24	1,700	\$1,670	Mexico 824; \$279
Sulfates, basket category, including manganese sulfate	6,770	2,310	China 4,920; \$1,210	39,200	17,400	China 20,500; \$6,040
Potassium permanganate	163	313	Czech Republic 91; \$173	1,250	2,450	Czech Republic 739; \$1,440
Manganites, manganates, and other permanganates	97	218	China 37; \$66	317	697	China 193; \$328
<b>Exports:</b>						
Manganese dioxide	403	308	Canada 263; \$110	3,520	3,750	Canada 1,780; \$683
Manganese oxides other than dioxide	540	536	Canada 355; \$148	3,860	4,160	Canada 2,370; \$944
Sulfates, basket category, including manganese sulfate	2,430	755	Canada 2,250; \$516	17,100	8,530	Canada 13,900; \$3,920
Potassium permanganate	408	564	Spain 234; \$365	2,020	3,010	Spain 1,070; \$1,780
Manganites, manganates, and other permanganates	34	172	Hong Kong 19; \$94	339	1,550	Japan 181; \$857

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

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

<sup>3</sup>For imports, Customs value; for exports, f.a.s. value.

Source: U.S. Census Bureau.