

# Mineral Industry Surveys

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## MANGANESE IN NOVEMBER 2011

Preliminary domestic data (gross weight) for November 2011 indicated that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 44,200 metric tons (t). This was a slight decrease from the revised amount consumed in October 2011 (44,500 t). Manganese ore consumption during the first 11 months of 2011 was 451,000 t (includes revisions to prior months' data). This was a 7% increase from that consumed during the same period in 2010. Industry stocks of ore at the end of November 2011 were 159,000 t, which was about the same as the revised amount at the end of October 2011.

Data for U.S. manganese imports and exports for October 2011 are published in this issue. On a contained-weight basis, U.S. manganese ore plus dioxide and manganese ferroalloys plus metal imports for October 2011 were 57% lower and 60%

lower, respectively, than those in September 2011. U.S. imports of manganese ore plus dioxide and manganese ferroalloys plus metal during the first 10 months of 2011 were slightly lower and 17% higher, respectively, than those during the same period in 2010 (table 1).

On a contained-weight basis, U.S. manganese ferroalloys plus metal exports for October 2011 were 16% higher than those in September 2011. U.S. exports of manganese ore and manganese ferroalloys plus metal during the first 10 months of 2011 were 92% lower and 32% lower, respectively, than those during the same period in 2010 (table 1).

### Prices

Prices for manganese materials in November 2011, manganese content, are listed below.

#### Ferroalloys prices<sup>1</sup>

	<u>Price Range</u>	<u>Average Price</u>
High-carbon ferromanganese <sup>2</sup>	1,310.00–1,330.00	1,318.50
Medium-carbon ferromanganese <sup>3</sup>	98.00–100.00	98.40
Silicomanganese <sup>3</sup>	55.00–58.00	55.70

#### Manganese metal and ore prices<sup>4</sup>

	<u>Price Range</u>	<u>Average Low, Mid, and High Prices</u>
Manganese metal <sup>3</sup>	178.00–182.00	178.00–180.00–182.00
36%-39% Manganese ore <sup>5</sup>	4.20–5.10	4.20–4.65–5.10
44% Manganese ore <sup>5</sup>	5.05–5.50	5.05–5.28–5.50
48% Manganese ore <sup>5</sup>	5.80–6.10	5.80–5.95–6.10

<sup>1</sup>Source: Platts Metals Week, dealer import price; average prices reported for all transactions during the month.

<sup>2</sup>Dollars per gross ton.

<sup>3</sup>Cents per pound.

<sup>4</sup>Source: Ryan's Notes, cost and freight, China; average prices reported for the price range.

<sup>5</sup>Dollars per metric ton unit, contained manganese. To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 48 when the manganese content is 48%.

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
2010:						
October	26,400	34,400	60,800	84	2,130	2,210
January–October	232,000	408,000	641,000	6,730	15,300	22,000
2011:						
January	28,900	44,500	73,400	36	1,080	1,120
February	9,160	30,400	39,600	46	1,240	1,290
March	50,900	68,900	120,000	73	1,740	1,810
April	1,720	27,800	29,500	61	1,150	1,210
May	21,100	51,000	72,100	33	1,800	1,830
June	26,800	68,700	95,500	59	519	578
July	11,500	57,400	69,000	82	669	750
August	25,500	50,600	76,100	65	902	967
September	38,800	55,800	94,600	--	611	611
October	16,900	22,300	39,200	84	708	792
Total	231,000	477,000	709,000	539	10,400	11,000

-- Zero.

<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 OCTOBER 2011<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	January–October		
				Gross weight	Mn content	Customs value <sup>2</sup>
Australia	2,270	1,510	\$2,380,000	42,000	27,900	\$42,700,000
Canada	67	46	59,200	127	67	85,200
Georgia	--	--	--	100,000	69,500	120,000,000
Greece	--	--	--	20	15	45,100
India	--	--	--	858	477	1,380,000
Korea, Republic of	--	--	--	300	174	600,000
Mexico	1,000	654	1,090,000	10,400	6,820	11,500,000
Norway	1,720	1,050	2,750,000	33,500	21,000	55,300,000
Romania	--	--	--	7,490	4,620	7,490,000
South Africa	9,590	6,500	11,400,000	113,000	74,600	128,000,000
Spain	--	--	--	4,880	2,950	9,800,000
Total	14,700	9,750	17,600,000	312,000	208,000	376,000,000

-- Zero.

<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 charges incurred in bringing the material into the United States.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN OCTOBER 2011<sup>1</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>2</sup>	January–October		
				Gross weight	Mn content	Customs value <sup>2</sup>
<b>Low carbon:</b>						
China	131	107	\$254,000	15,800	13,900	\$42,700,000
India	--	--	--	200	155	376,000
Korea, Republic of	--	--	--	222	200	727,000
Mexico	1,000	813	1,830,000	7,960	6,450	15,200,000
Norway	1,620	1,300	2,880,000	4,790	3,860	8,980,000
South Africa	--	--	--	20	16	45,500
Vietnam	--	--	--	1,030	969	3,160,000
<b>Total</b>	<b>2,750</b>	<b>2,220</b>	<b>4,970,000</b>	<b>30,000</b>	<b>25,500</b>	<b>71,200,000</b>
<b>Medium carbon, 1%–2% C:</b>						
China	--	--	--	234	198	530,000
Korea, Republic of	--	--	--	26,500	21,300	47,700,000
Mexico	357	284	717,000	8,910	7,160	16,700,000
Norway	200	162	321,000	7,920	6,410	13,900,000
South Africa	2,970	2,460	4,800,000	21,800	17,600	37,200,000
Spain	--	--	--	40	32	122,000
Ukraine	--	--	--	392	342	783,000
<b>Total</b>	<b>3,530</b>	<b>2,910</b>	<b>5,840,000</b>	<b>65,900</b>	<b>53,000</b>	<b>117,000,000</b>
Medium carbon, 2%–4% C, South Africa	--	--	--	342	301	842,000
<b>High carbon:</b>						
Australia	--	--	--	9,030	6,990	8,950,000
Bahrain	--	--	--	180	142	205,000
Brazil	199	147	234,000	199	147	234,000
France	--	--	--	2,600	1,770	3,110,000
Germany	19	6	16,400	19	6	16,400
India	429	332	523,000	429	332	523,000
Korea, Republic of	400	303	461,000	1,830	1,380	2,080,000
Norway	700	545	754,000	7,120	5,570	7,780,000
South Africa	5,880	4,530	6,470,000	162,000	125,000	184,000,000
Sweden	--	--	--	100	67	176,000
Ukraine	--	--	--	26,100	20,300	28,900,000
<b>Total</b>	<b>7,620</b>	<b>5,860</b>	<b>8,450,000</b>	<b>209,000</b>	<b>161,000</b>	<b>236,000,000</b>
<b>Grand total</b>	<b>13,900</b>	<b>11,000</b>	<b>19,300,000</b>	<b>306,000</b>	<b>240,000</b>	<b>425,000,000</b>

-- Zero.

<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 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 2011<sup>1,2</sup>

(Metric tons)

Source	Gross weight	Mn content	Customs value <sup>3</sup>	January–October		
				Gross weight	Mn content	Customs value <sup>3</sup>
<b>More than 20%, but less than 47% manganese:</b>						
Australia	--	--	--	82,200	32,300	\$15,700,000
Brazil	--	--	--	3,220	1,480	1,150,000
Gabon	--	--	--	17,900	7,950	3,070,000
Mexico	1,550	562	\$363,000	4,540	1,640	1,060,000
Netherlands	--	--	--	86	18	17,200
South Africa	--	--	--	13,000	5,520	6,680,000
Turkey	--	--	--	566	199	190,000
<b>Total</b>	<b>1,550</b>	<b>562</b>	<b>363,000</b>	<b>122,000</b>	<b>49,100</b>	<b>27,900,000</b>
<b>47% or more manganese:</b>						
Australia	--	--	--	78,600	38,300	18,800,000
Brazil	53	27	18,500	3,150	1,620	1,070,000
Gabon	28,400	13,800	5,970,000	249,000	128,000	72,200,000
Morocco	40	37	35,300	902	454	317,000
Netherlands	--	--	--	446	223	26,700
South Africa	--	--	--	20	10	12,800
<b>Total</b>	<b>28,500</b>	<b>13,900</b>	<b>6,020,000</b>	<b>332,000</b>	<b>168,000</b>	<b>92,400,000</b>
<b>Grand total</b>	<b>30,100</b>	<b>14,400</b>	<b>6,390,000</b>	<b>454,000</b>	<b>217,000</b>	<b>120,000,000</b>

-- Zero.

<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 charges 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 OCTOBER 2011<sup>1</sup>

(Metric tons, gross weight)

Source	Quantity	Customs value <sup>2</sup>	January–October	
			Quantity	Customs value <sup>2</sup>
Belgium	(3)	\$3,610	466	\$531,000
Brazil	--	--	73	82,400
Colombia	--	--	600	1,150,000
Germany	--	--	45	75,800
India	--	--	20	25,000
Japan	902	2,120,000	7,560	17,500,000
Mexico	100	92,900	834	776,000
Netherlands	--	--	101	61,500
Singapore	23	38,800	148	213,000
South Africa	2,930	7,240,000	13,500	36,800,000
Turkey	104	50,500	176	89,000
<b>Total</b>	<b>4,060</b>	<b>9,550,000</b>	<b>23,500</b>	<b>57,200,000</b>

-- Zero.

<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 charges incurred in bringing the material into the United States.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 6  
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN OCTOBER 2011<sup>1</sup>

(Metric tons)

Source	Gross weight	Customs value <sup>2</sup>	January–October	
			Gross weight	Customs value <sup>2</sup>
<b>Unwrought flake:</b>				
China	446	\$1,410,000	10,400	\$30,400,000
Japan	--	--	20	33,000
Mexico	--	--	91	395,000
South Africa	231	932,000	1,470	5,900,000
Vietnam	--	--	88	278,000
Total	677	2,340,000	12,100	37,000,000
<b>Unwrought powder:</b>				
China	21	50,200	242	772,000
Mexico	9	41,700	73	329,000
South Africa	40	158,000	2,610	10,100,000
United Kingdom	--	--	1	2,210
Total	70	250,000	2,930	11,200,000
<b>Unwrought, other:</b>				
China	651	2,130,000	11,900	38,300,000
Germany	--	--	233	867,000
Korea, Republic of	--	--	1	8,220
Netherlands	--	--	10	71,200
Poland	(3)	5,760	(3)	13,100
South Africa	152	561,000	1,010	3,750,000
Spain	37	130,000	150	582,000
Total	840	2,830,000	13,300	43,600,000
<b>Other manganese, wrought:</b>				
China	--	--	150	500,000
Germany	--	--	4	68,900
Japan	(3)	13,700	(3)	17,200
Mexico	--	--	26	109,000
United Kingdom	--	--	(3)	5,860
Vietnam	--	--	168	548,000
Total	(3)	13,700	348	1,250,000
Grand total	1,580	5,430,000	28,700	93,100,000

-- Zero.

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

<sup>2</sup>Customs value generally represent 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.

<sup>3</sup>Less than ½ unit.

Note: Imports for consumption of metallic waste and scrap totaled 12 metric tons (t), all of which was from Canada to give a year-to-date total of 468 t.

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 2011<sup>1</sup>

(Metric tons, gross weight)

Country	Manganese ore		Ferromanganese				Silicomanganese		Manganese metal <sup>2</sup>	
	October	January– October	2% or less C		More than 2% C		October	January– October	October	January– October
			October	January– October	October	January– October				
Australia	--	--	--	--	--	53	--	--	--	3
Bahamas, The	--	--	--	--	--	--	--	--	--	1
Bahrain	--	66	--	--	--	--	--	--	--	--
Belgium	--	18	--	357	--	--	--	--	--	--
Brazil	--	--	--	--	4	138	--	--	--	--
Canada	42	331	--	432	99	1,300	249	5,760	--	562
China	--	91	--	--	--	--	--	--	124	1,140
Colombia	--	--	--	--	--	--	--	352	--	1
Costa Rica	--	--	--	--	--	--	--	--	6	18
Dominican Republic	--	--	--	--	--	(3)	--	--	--	98
Egypt	--	--	--	8	--	--	--	--	--	--
France	--	--	--	--	--	27	--	--	--	1
Germany	--	10	--	--	--	34	--	--	1	24
Guatemala	--	--	2	11	--	--	--	--	--	--
Guyana	--	--	--	--	--	--	--	--	--	3
Hong Kong	91	181	--	--	--	--	--	--	--	11
India	--	(3)	--	--	--	--	--	--	77	242
Ireland	--	--	--	--	--	4	--	--	--	--
Italy	--	--	--	--	--	--	--	--	--	7
Japan	--	--	--	--	--	--	--	--	42	386
Korea, Republic of	34	340	--	--	--	--	--	--	--	4
Malaysia	--	--	--	--	--	6	--	--	--	--
Mexico	--	42	61	1,320	--	--	21	476	1	45
Norway	--	--	--	--	4	17	--	--	--	--
Peru	--	--	--	--	--	100	--	--	--	--
Philippines	--	--	--	--	--	--	--	7	--	--
Romania	--	--	--	--	2	35	--	--	--	--
Saint Lucia	--	--	--	--	--	--	--	--	--	15
Singapore	--	--	--	--	3	39	--	--	--	--
Spain	--	--	--	--	--	--	--	--	--	10
Taiwan	--	--	--	--	--	--	--	--	--	250
Turkey	--	--	120	120	--	--	--	--	--	--
United Arab Emirates	--	--	--	--	--	4	--	--	--	--
United Kingdom	--	--	57	57	--	--	--	--	--	10
Venezuela	--	--	--	--	--	4	--	--	--	--
Vietnam	--	--	--	--	--	--	--	--	--	19
Total	167	1,080	240	2,300	112	1,760	270	6,600	252	2,860

-- 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, other alloys, and waste and scrap.

<sup>3</sup>Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8  
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN OCTOBER 2011, 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)	January–October		
				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	65	\$103	Brazil 38; \$44	2,450	\$2,550	South Africa 656; \$670
Manganites, manganates, and other permanganates	--	--	--	17	65	Germany 17; \$65
Potassium permanganate	230	713	India 215; \$663	1,390	4,250	India 1,310; \$3,990
Sodium permanganate	49	126	China 49; \$123	454	1,130	China 449; \$1,100
Sulfates, basket category, including manganese sulfate	5,530	4,180	China 2,030; \$1,600	38,200	35,700	Mexico 15,700; \$13,100
<b>Exports:</b>						
Manganese dioxide	764	1,470	Canada 315; \$296	8,130	14,500	Canada 4,060; \$3,820
Manganese oxides other than dioxide	438	1,270	Netherlands 127; \$314	6,090	12,900	Canada 1,450; \$1,750
Manganites, manganates, and other permanganates	4	9	Canada 4; \$9	111	466	Canada 85; \$230
Potassium permanganate	234	682	Belgium 111; \$281	2,760	7,950	Belgium 1,910; \$4,860
Sodium permanganate	93	213	Belgium 38; \$65	835	1,940	Belgium 319; \$544
Sulfates, basket category, including manganese sulfate	1,120	987	Canada 684; \$487	13,400	12,200	Canada 9,810; \$5,440

-- 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.