

Mineral Industry Surveys

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MANGANESE IN NOVEMBER 2016

Preliminary data for November 2016 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 32,000 metric tons (t) (gross weight). This was a 3% decrease compared with the amount consumed in October 2016 (33,100 t). Manganese ore consumption during the first 11 months of 2016 was 334,000 t, 19% less than the revised amount consumed during the same period of 2015 (411,000 t) (fig. 1). Industry stocks of ore at the end of November 2016 were 137,000 t, 12% more than that at the end of October 2016 (122,000 t).

On a gross-weight basis, U.S. imports of manganese ore in November 2016 were 11,300 t, 23% more than that imported in October 2016 (9,150 t) (fig. 1, table 5). Manganese ore imports were 45% less during the first 11 months of 2016 (218,000 t) compared with the revised amount (393,000 t) during the same period in 2015.

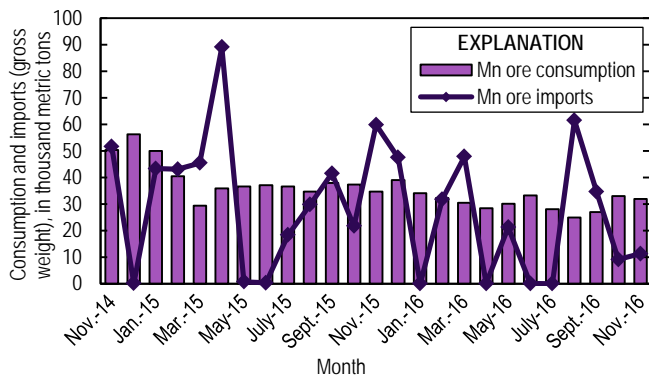


Figure 1. Monthly domestic consumption and imports of manganese (Mn) ore from November 2014 through November 2016. Sources: U.S. Census Bureau and U.S. Geological Survey.

In November 2016, the average monthly spot-market prices for manganese ore deliveries to China continued to increase. The average spot prices were 7.41 dollars per metric ton unit,

36%–39% grade; dollars per metric ton unit, 44% grade; and 8.39 dollars per metric ton unit, 46% grade (fig. 2, table 1). These were higher than those in October 2016—23% for the 36%–39% grade, 32% for the 44% grade, and 32%—for the 46% grade. They were also significantly higher than those at the beginning of 2016—260% for the 36%–39% grade, 241% for the 44% grade, and 232% higher for the 46% grade.

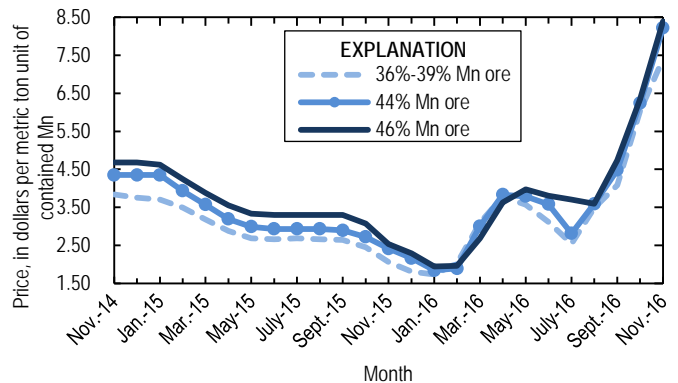


Figure 2. Average monthly spot prices for manganese (Mn) ore delivered to China from November 2014 through November 2016. CRU Ryan's Notes.

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TABLE 1
PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN NOVEMBER 2016

		Low	Average	High
<u>Manganese ferroalloys:¹</u>				
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	850.00	1,099.00	1,250.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	76.00	84.40	90.00
Silicomanganese, 65% manganese	do.	47.00	54.50	59.00
Manganese metal, 99.9% manganese flake ²	cents per pound	93.00	99.39	106.00
<u>Manganese ore:^{3,4}</u>				
36%–39% manganese	dollars per metric ton unit contained manganese	7.00	7.41	7.75
44% manganese	do.	7.70	8.22	8.75
46% manganese	do.	7.75	8.39	8.95

do. Ditto.

¹Platts Metals Week; in U.S. warehouse; average prices reported for all transactions during the month.

²CRU Ryan's Notes North American transaction prices, electrolytic manganese metal flake, 99.99% manganese, free-on-board producing point or Chicago/Pittsburgh warehouse; average prices reported for the price range.

³CRU Ryan's Notes, cost and freight, China; average prices reported for the price range.

⁴To determine dollars per metric ton of ore (gross weight), multiply the manganese content percentage by the price; that is, by 46 when the manganese content is 46%.

TABLE 2
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
2015:						
November	29,000 ^r	15,600 ^r	44,600 ^r	25	2,410 ^r	2,430 ^r
January–November ³	196,000	416,000	611,000	764	30,000	30,800
2016:						
January	252	53,700	53,900	39	4,170	4,210
February	17,200	34,700	51,900	59	4,360	4,420
March	25,700	23,800	49,500	83	3,500	3,580
April	292	23,400	23,700	13	4,180	4,190
May	10,800	28,600	39,400	86	2,850	2,930
June	324	47,700	48,000	80	3,900	3,980
July	318	30,100	30,400	47	3,300	3,350
August	28,100	26,700	54,900	58	3,220	3,280
September	19,100	40,500	59,600	47	2,490	2,540
October	3,800	15,100	18,900	50	3,140	3,190
November	5,970	30,700	36,600	20	3,140	3,160
January–November ³	112,000	355,000	467,000	583	38,300	38,800

^rRevised.

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.

³May include revised data that are not broken out by specific month(s).

TABLE 3
U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN NOVEMBER 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–November ²		
				Gross weight	Mn content	Customs value ³
Australia	6,510	4,330	\$5,170,000	50,800	33,600	\$36,600,000
Brazil	--	--	--	7,040	4,690	4,540,000
Gabon	--	--	--	312	221	201,000
Georgia	260	191	189,000	71,500	51,400	53,700,000
India	--	--	--	1,200	726	1,360,000
Mexico	3,150	2,050	2,090,000	25,300	16,200	15,700,000
Norway	8,930	4,090	8,080,000	27,800	16,400	23,600,000
Russia	--	--	--	14	7	20,400
South Africa	--	--	--	57,300	37,600	39,500,000
Spain	702	461	594,000	4,890	3,200	4,050,000
Total	19,600	11,100	16,100,000	246,000	164,000	179,000,000

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

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.

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN NOVEMBER 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–November ²		
				Gross weight	Mn content	Customs value ³
Low carbon:						
Belgium	--	--	--	59	56	\$110,000
China	903	843	\$1,420,000	9,460	8,810	15,100,000
Germany	130	111	304,000	674	602	1,580,000
India	--	--	--	566	457	717,000
Korea, Republic of	--	--	--	2,350	2,050	3,320,000
Mexico	--	--	--	554	446	672,000
Norway	2,620	2,120	3,140,000	27,100	21,900	32,200,000
South Africa	--	--	--	50	46	82,000
Total	3,650	3,080	4,870,000	40,800	34,400	53,800,000
Medium carbon, 1%–2% C:						
Australia	995	741	839,000	7,850	6,180	6,510,000
Brazil	--	--	--	78	61	81,900
China	--	--	--	160	125	285,000
Germany	--	--	--	8	6	15,400
India	--	--	--	285	230	342,000
Korea, Republic of	4,500	3,600	4,780,000	29,800	24,200	34,800,000
Mexico	161	121	267,000	8,010	6,400	9,420,000
Norway	500	405	520,000	5,640	4,590	5,910,000
South Africa	--	--	--	7,180	5,780	10,100,000
Turkey	--	--	--	79	60	143,000
Total	6,160	4,870	6,400,000	59,100	47,600	67,600,000
Medium carbon, 2%–4% C:						
China	--	--	--	323	254	160,000
South Africa	--	--	--	51	40	160,000
Total	--	--	--	374	294	320,000
High carbon:						
Australia	13,600	9,300	9,020,000	57,300	41,000	40,000,000
Brazil	88	68	127,000	624	476	665,000
Canada	13	10	19,000	150	104	215,000
China	--	--	--	10	8	14,400
Georgia	--	--	--	5,440	4,110	4,070,000
India	--	--	--	283	214	224,000
Korea, Republic of	--	--	--	3,420	2,310	3,110,000
Norway	229	178	330,000	9,030	6,520	6,240,000
Russia	--	--	--	1,980	1,310	1,620,000
Singapore	--	--	--	7	6	10,400
South Africa	30	22	39,100	35,000	24,400	26,900,000
Spain	--	--	--	312	238	207,000
Ukraine	2,850	347	1,540,000	11,200	6,550	6,150,000
Total	16,800	9,930	11,100,000	125,000	87,300	89,400,000
Grand total	26,600	17,900	22,300,000	225,000	170,000	211,000,000

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

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.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN NOVEMBER 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ³	January–November ²		
				Gross weight	Mn content	Customs value ³
More than 20%, but less than 47% manganese:						
China	--	--	--	100	31	\$9,440
Mexico	--	--	--	8,650	3,240	1,280,000
South Africa	--	--	--	33,000	12,300	2,820,000
Total	--	--	--	41,800	15,600	4,100,000
47% or more manganese:						
Australia	--	--	--	7,130	3,510	1,200,000
Belgium	--	--	--	37	22	173,000
Brazil	153	104	\$76,800	522	290	276,000
Gabon	11,000	5,480	1,890,000	156,000	83,000	24,300,000
Korea, Republic of	--	--	--	351	238	231,000
Mexico	--	--	--	10,900	5,580	1,400,000
Morocco	--	--	--	154	87	202,000
South Africa	140	68	56,800	925	452	322,000
Total	11,300	5,650	2,020,000	176,000	93,200	28,100,000
Grand total	11,300	5,650	2,020,000	218,000	109,000	32,200,000

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

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.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN NOVEMBER 2016¹

(Metric tons, gross weight)

Source	Quantity	Customs value ³	January–November ²	
			Quantity	Customs value ³
Belgium	--	--	45	\$111,000
Brazil	--	--	64	95,800
China	--	--	65	116,000
France	--	--	18	33,300
Germany	--	--	10	51,300
India	17	\$29,500	75	168,000
Japan	522	1,100,000	4,510	9,690,000
Netherlands	--	--	11	19,400
Singapore	--	--	90	153,000
Ukraine	--	--	28	47,400
United Kingdom	--	--	(4)	2,070
Total	539	1,130,000	4,910	10,500,000

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

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.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN NOVEMBER 2016¹

(Metric tons)

Source	Gross weight	Customs value ³	January–November ²	
			Gross weight	Customs value ³
Unwrought flake:				
China	109	\$344,000	2,600	\$6,010,000
Gabon	--	--	97	157,000
Japan	38	131,000	412	1,390,000
Mexico	5	17,400	44	146,000
South Africa	387	766,000	5,870	11,200,000
Total	541	1,260,000	9,020	18,900,000
Unwrought powder:				
China	--	--	245	516,000
Mexico	--	--	200	653,000
New Zealand	--	--	3	2,500
South Africa	207	557,000	2,100	5,660,000
Total	207	557,000	2,540	6,830,000
Unwrought, other:				
Belgium	--	--	22	40,400
China	500	867,000	7,460	13,600,000
Germany	83	132,000	780	1,400,000
Hong Kong	243	373,000	243	373,000
Poland	--	--	(4)	8,640
South Africa	41	83,200	523	1,080,000
Spain	--	--	177	374,000
United Kingdom	--	--	38	65,500
Total	867	1,460,000	9,240	17,000,000
Other manganese, wrought:				
China	1	8,310	110	190,000
France	--	--	4	63,700
Germany	23	230,000	164	1,650,000
Japan	--	--	(4)	34,000
Mexico	1	4,540	15	53,700
South Africa	--	--	10	25,200
Total	25	243,000	303	2,020,000
Metallic waste and scrap:				
Canada	74	20,000	484	140,000
China	(4)	2,040	(4)	2,040
Total	75	22,100	485	142,000
Grand total	1,720	3,540,000	21,600	44,800,000

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

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.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE,
AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN NOVEMBER 2016^{1,2}

Source	Gross weight (metric tons)	F.a.s. ⁴ value (thousands)	January–November ³	
			Gross weight (metric tons)	F.a.s. ⁴ value (thousands)
Ore and concentrates with 20% or more manganese:				
Canada	--	--	821	\$694
China	--	--	33	32
France	6	\$4	18	14
Guatemala	--	--	11	29
Mexico	1	5	26	84
Netherlands	32	141	206	874
Poland	--	--	18	12
United Kingdom	--	--	20	17
Other (3 countries)	--	--	4	25
Total	39	151	1,160	1,780
Ferromanganese:				
2% or less carbon:				
Brazil	--	--	7	14
Canada	719	886	5,130	6,730
Colombia	--	--	2	4
Jamaica	--	--	22	42
Mexico	--	--	217	558
Suriname	--	--	51	96
Vietnam	--	--	6	10
Total	719	886	5,440	7,450
More than 2% carbon:				
Canada	1,690	1,500	20,800	16,900
Chile	--	--	20	57
Colombia	--	--	61	171
Korea, Republic of	--	--	6	23
Mexico	43	32	253	231
United Arab Emirates	--	--	8	23
Other (8 countries)	4	10	14	58
Total	1,740	1,540	21,100	17,500
Silicomanganese:				
Canada	2,100	2,030	15,400	15,100
Georgia	--	--	85	120
Mexico	--	--	419	572
Other (2 countries)	--	--	5	8
Total	2,100	2,030	16,000	15,800
Metal, including alloys and waste and scrap:⁵				
Canada	18	37	209	348
China	50	248	476	1,990
Japan	20	56	131	440
Malaysia	414	118	3,390	1,200
Mexico	139	293	3,000	9,040
United Kingdom	17	192	125	683
Vietnam	96	25	377	82
Other (18 countries)	63	829	364	2,050
Total	817	1,800	8,060	15,800
Grand total	5,410	6,410	51,700	58,300

-- Zero.

¹Presentation of monthly data is based on the "January–November" quantities of the leading countries.

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

³May include revised data that are not broken out by specific month(s).

⁴Free alongside ship.

⁵Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

TABLE 9
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS
IN NOVEMBER 2016, BY CLASS¹

Class	Gross weight (metric tons)	Value ³ (thousands)	Principal sources and destinations: gross weight (metric tons); value ³ (thousands)	January–November 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	1,230	\$827	South Africa 500; \$302	17,600	\$12,400	Korea, Republic of 5,880; \$6,330
Manganites, manganates, and other permanganates						
Permanganates	(4)	4	Korea, Republic of (4); \$4	12	47	Canada 10; \$41
Potassium permanganate	72	183	India 72; \$183	643	1,630	India 634; \$1,610
Sodium permanganate	57	142	China 57; \$142	1,070	2,500	China 971; \$2,240
Sulfates, basket category, including manganese sulfate	4,010	3,250	India 1,460; \$645	52,500	44,200	Mexico 19,100; \$16,600
Exports:						
Manganese dioxide	514	759	Canada 364; \$305	6,130	8,890	Canada 4,010; \$3,550
Manganese oxides other than dioxide	364	711	United Kingdom 120; \$400	5,110	9,960	Canada 986; \$1,300
Manganites, manganates, and other permanganates	5	13	Canada 4; \$8	97	244	Canada 92; \$184
Potassium permanganate	304	833	Belgium 126; \$296	2,960	8,380	Belgium 1,580; \$3,640
Sodium permanganate	51	276	Mexico 38; \$122	706	3,040	Mexico 305; \$910
Sulfates, basket category, including manganese sulfate	2,210	3,110	Canada 1,790; \$904	21,400	19,900	Canada 17,100; \$8,430

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

²May include revised data that are not broken out by specific month(s).

³For imports, customs value; for exports, free alongside ship value.

⁴Less than ½ unit.

Source: U.S. Census Bureau.