

Mineral Industry Surveys

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MANGANESE IN FEBRUARY 2016

Preliminary data for February 2016 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 32,300 metric tons (t) (gross weight). This was a 5% decrease compared with the revised amount consumed in January 2016 (34,103 t). Manganese ore consumption during the first 2 months of 2016 was 66,400 t, 27% less than the revised amount consumed during the same period of 2015 (90,500 t). Industry stocks of ore at the end of February 2016 were 213,000 t, which was an 11% increase from the revised amount at the end of January 2016 (192,000 t).

Combined U.S. imports of manganese dioxide and manganese ore (contained weight) were 68 times greater in February 2016 compared to the amount imported in January 2016. The combined imports of these materials were 65% lower during the first 2 months of 2016 compared with those during the same period in 2015 (table 2). The amounts of manganese ore (gross weight) that were consumed and imported since February 2014 are shown in figure 1.

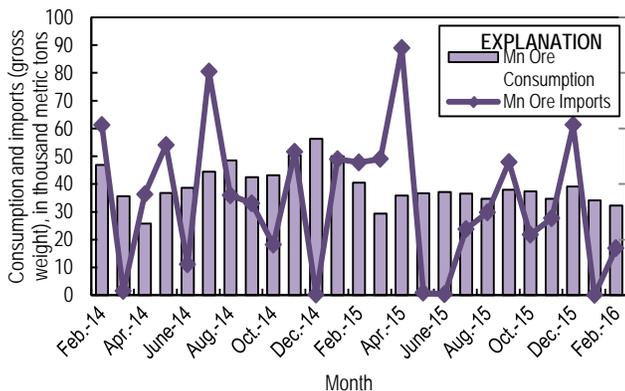


Figure 1. Monthly domestic consumption and imports of manganese (Mn) ore from February 2014 through February 2016. Sources: U.S. Census Bureau and U.S. Geological Survey.

Average spot-market prices for three grades of manganese ore delivered to China from February 2014 through February 2016 are shown in figure 2. In February 2016, the average mid-level spot prices were 2.03 dollars per metric ton unit, 36%–39% grade; 1.89 dollars per metric ton unit, 44% grade; and 1.96 dollars per metric ton unit, 46% grade (fig. 2, table 1). These were all significantly lower than those manganese ore prices in February 2015—42% less for the 36%–39% grade, 52% less for the 44% grade, and 54% less for the 46% grade. Compared to February 2014, the average monthly prices are considerably lower—64% less for both the 44% and 46% grades and 54% less for the 36%–39% grade.

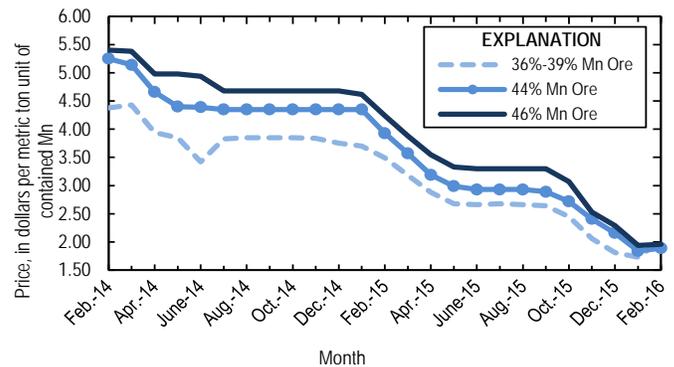


Figure 2. Average monthly spot prices for manganese (Mn) ore deliveries to China from February 2014 through February 2016. The prices shown are reported in dollars per metric ton unit of contained Mn. Source: CRU Ryan’s Notes.

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

		Low	Average	High
Manganese ferroalloys:¹				
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	760.00	777.50	800.00
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	82.00	82.50	83.00
Silicomanganese, 65% manganese	do.	34.00	36.38	38.00
Manganese metal, 99.9% manganese flake ²	cents per pound	85.00	89.94	93.00
Manganese ore:^{3,4}				
36%–39% manganese	dollars per metric ton unit contained manganese	1.80	2.03	2.05
44% manganese	do.	1.80	1.89	1.90
46% manganese	do.	1.90	1.96	2.00

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:						
January	25,200	53,800 ^r	78,900	9	894	903
February	24,300	44,300	68,600	27	378	405
January–February	49,500	98,100	148,000	36	1,270	1,310
2016:						
January	252	53,700	53,900	29	1,970	2,000
February	17,200	34,700	51,900	18	2,350	2,370
January–February	17,400	88,400	106,000	47	4,320	4,370

^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.

Source: U.S. Census Bureau.

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

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–February		
				Gross weight	Mn content	Customs value ²
Australia	5,820	3,830	\$4,450,000	11,000	7,250	\$7,490,000
Brazil	1,270	867	748,000	2,070	1,420	1,270,000
Georgia	1,600	1,160	1,200,000	17,200	12,400	13,500,000
India	135	80	131,000	417	248	433,000
Mexico	--	--	--	2,870	1,870	2,030,000
Norway	5,040	3,430	3,030,000	6,290	4,180	4,440,000
Russia	--	--	--	14	9 ³	20,400
South Africa	20,800	13,600	14,500,000	28,600	18,600	20,300,000
Spain	66	43	47,500	164	106	132,000
Total	34,800	23,000	24,100,000	68,600	46,100	49,600,000

-- Zero.

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

²Customs 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.

³Adjusted by the U.S. Geological Survey based on the stoichiometric ratio of silicomanganese (66.17%).

Source: U.S. Census Bureau.

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

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–February		
				Gross weight	Mn content	Customs value ²
Low carbon:						
China	791	737	\$1,210,000	1,560	1,460	\$2,380,000
Germany	47	42	120,000	72	66	175,000
Korea, Republic of	--	--	--	900	828	1,530,000
Mexico	--	--	--	500	402	559,000
Norway	919	746	1,160,000	2,990	2,420	3,550,000
South Africa	--	--	--	50	46	82,000
Total	1,760	1,530	2,490,000	6,070	5,220	8,280,000
Medium carbon, 1%–2% C:						
Australia	--	--	--	1,930	1,550	1,750,000
Korea, Republic of	2,200	1,760	2,800,000	8,200	6,560	9,770,000
Mexico	--	--	--	858	671	1,100,000
Norway	19	15	29,300	719	584	734,000
South Africa	33	25	56,300	2,600	2,110	3,790,000
Total	2,250	1,800	2,880,000	14,300	11,500	17,100,000
Medium carbon, 2%–4% C:						
China	323	254	160,000	323	254	160,000
South Africa	51	40	160,000	51	40	160,000
Total	374	294	320,000	374	294	320,000
High carbon:						
Australia	--	--	--	10,900	8,130	9,720,000
Canada	--	--	--	19	14	47,000
Georgia	--	--	--	5,000	3,760	3,440,000
Korea, Republic of	606	471	873,000	1,240	963	1,790,000
Norway	5,000	3,420	3,000,000	5,260	3,620	3,370,000
South Africa	3,100	2,410	4,450,000	5,690	4,390	6,430,000
Spain	192	146	127,000	192	146	127,000
Ukraine	30	19	35,600	108	68	125,000
Total	8,930	6,470	8,490,000	28,400	21,100	25,000,000
Grand total	13,300	10,100	14,200,000	49,200	38,100	50,800,000

-- Zero.

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

²Customs 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 FEBRUARY 2016¹

(Metric tons)

Source	Gross weight	Mn content	Customs value ²	January–February		
				Gross weight	Mn content	Customs value ²
47% or more manganese:						
Australia	7,130	3,510	\$1,200,000	7,130	3,510	\$1,200,000
Brazil	--	--	--	53	27	25,200
Gabon	24,700	13,400	5,040,000	24,700	13,400	5,040,000
Morocco	--	--	--	39	22	51,100
South Africa	--	--	--	(3)	(3)	2,690
Total	31,800	16,900	6,240,000	31,900	17,000	6,320,000

-- Zero.

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

²Customs 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.

³Less than ½ unit.

Source: U.S. Census Bureau.

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

(Metric tons, gross weight)

Source	Quantity	Customs value ²	January–February	
			Quantity	Customs value ²
Belgium	1	\$9,580	37	\$71,700
Brazil	--	--	10	17,500
France	18	33,300	18	33,300
Germany	2	8,540	2	8,540
India	--	--	17	33,900
Japan	337	741,000	600	1,360,000
Singapore	11	19,100	22	38,200
Ukraine	10	16,900	10	16,900
Total	379	828,000	717	1,580,000

-- Zero.

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

²Customs 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 7
U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN FEBRUARY 2016¹

(Metric tons)

Source	Gross weight	Customs value ²	January–February	
			Gross weight	Customs value ²
Unwrought flake:				
China	6	\$18,000	578	\$1,970,000
Japan	36	123,000	52	178,000
Mexico	9	31,800	9	31,800
South Africa	652	1,150,000	1,250	2,270,000
Total	703	1,320,000	1,890	4,450,000
Unwrought powder:				
China	75	202,000	75	202,000
Mexico	7	22,500	29	94,300
South Africa	243	644,000	420	1,150,000
Total	324	869,000	524	1,450,000
Unwrought, other:				
China	496	1,030,000	1,570	2,840,000
Germany	3	5,120	22	40,900
South Africa	88	185,000	170	358,000
Spain	39	83,000	39	83,000
Total	626	1,310,000	1,800	3,320,000
Other manganese, wrought:				
China	--	--	(3)	3,000
Germany	2	21,800	14	138,000
Japan	--	--	(3)	11,100
Mexico	2	6,350	2	6,350
Total	3	28,200	16	159,000
Metallic waste and scrap, Canada	71	17,100	137	33,000
Grand total	1,730	3,540,000	4,360	9,410,000

-- Zero.

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

²Customs 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.

³Less 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 FEBRUARY 2016^{1,2}

Source	Gross weight (metric tons)	F.a.s. ³ value (thousands)	January–February	
			Gross weight (metric tons)	F.a.s. ³ value (thousands)
Ore and concentrates with 20% or more manganese:				
Canada	--	--	19	\$15
Korea, Republic of	--	--	3	17
Mexico	1	\$3	5	17
Netherlands	16	64	48	198
United Kingdom	20	17	20	17
Total	36	84	94	263
Ferromanganese:				
2% or less carbon:				
Canada	685	815	691	825
Colombia	--	--	2	4
Total	685	815	693	829
More than 2% carbon:				
Canada	1,510	1,180	3,320	2,710
Chile	20	57	20	57
Mexico	1	3	1	3
Total	1,530	1,240	3,340	2,770
Silicomanganese:				
Canada	40	54	58	76
Mexico	13	27	14	31
Venezuela	--	--	3	5
Total	53	80	76	112
Metal, including alloys and waste and scrap:⁴				
Belgium	2	37	2	37
Canada	11	19	16	28
China	18	247	18	247
France	1	4	1	4
Germany	--	--	20	82
India	1	18	13	206
Malaysia	526	158	986	347
Mexico	(5)	10	1	23
Netherlands	--	--	18	71
United Kingdom	4	38	5	49
Other (2 countries)	(5)	4	(5)	10
Total	564	534	1,080	1,100
Grand total	2,870	2,760	5,290	5,070

-- Zero.

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

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

³Free alongside ship.

⁴Includes manganese-aluminum, other alloys, and waste and scrap.

⁵Less than ½ unit.

Source: U.S. Census Bureau.

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

Class	Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)	January–February		
				Gross weight (metric tons)	Value ² (thousands)	Principal sources and destinations: gross weight (metric tons); value ² (thousands)
Imports for consumption:						
Manganese oxides other than dioxide	1,670	\$1,250	Brazil 1,120; \$301	2,900	\$1,880	Brazil 2,140; \$611
Potassium permanganate	36	90	India 36; \$90	72	181	India 72; \$181
Sodium permanganate	19	47	China 19; \$47	77	184	China 77; \$184
Sulfates, basket category, including manganese sulfate	4,680	4,080	Mexico 1,960; \$1,890	9,630	8,080	Mexico 3,680; \$3,380
Exports:						
Manganese dioxide	254	681	United Kingdom 144; \$173	603	1,230	Canada 254; \$200
Manganese oxides other than dioxide	571	1,090	Germany 97; \$340	1,170	2,200	Canada 253; \$332
Manganites, manganates, and other permanganates	3	6	Canada 3; \$6	7	23	Canada 5; \$10
Potassium permanganate	444	1,080	Belgium 266; \$624	652	1,590	Belgium 357; \$837
Sodium permanganate	112	307	Belgium 40; \$85	133	385	Belgium 40; \$85
Sulfates, basket category, including manganese sulfate	2,190	1,610	Canada 1,680; \$532	3,910	2,770	Canada 3,080; \$1,050

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

²For imports, customs value; for exports, free alongside ship value.

Source: U.S. Census Bureau.