

# Mineral Industry Surveys

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# **MANGANESE IN JUNE 2015**

Preliminary data for June 2015 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 43,700 metric tons (t) (gross weight). This was a slight increase compared with the revised amount consumed in May 2015 (43,500 t). Manganese ore consumption during the first 6 months of 2015 was about 279,000 t, 26% more than the amount consumed during the same period of 2014 (221,000 t). This year-over-year increase was primarily the result of resumed production at Felman Production, LLC's silicomanganese production facility in Letart, WV, in July 2014. Industry stocks of ore at the end of June 2015 were estimated to be 165,000 t, which was 10% lower than the revised amount at the end of May 2015 (183,000 t).

Combined U.S. imports of manganese dioxide and manganese ore (contained weight) were 97 % and 98 % lower in May and June 2015, , respectively, compared to the average amount imported during the first quarter of 2015 (24,800 t) (table 2). This was partially a result of the large amount of manganese ore imported in April 2015 (fig. 1). Another contributing factor to lower manganese ore imports in May and June was the delay in the restart of 1 of 2 idled furnaces at Felman Production's silicomanganese plant. Operation of the furnace was supposed to resume in early May 2015, but has been indefinitely postponed because of weak market conditions (Conway, 2015).

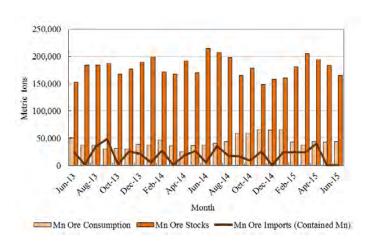


Figure 1. Monthly domestic consumption, stocks, and imports of manganese (Mn) ore from June 2013–June 2015. Sources: U.S. Census Bureau and U.S. Geological Survey.

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### **Reference Cited**

Conway, Declan, 2015, US SiMn market looking stable near term, awaits tender result: Metal-Pages, June 26. (Accessed September 15, 2015, via <a href="http://www.metal-pages.com/">http://www.metal-pages.com/</a>.)

TABLE 1 PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN JUNE 2015

		High	Low	Average	Average low, mid, and high
Manganese ferroalloys:					
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	960.00	840.00	921.25	XX
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	98.00	94.00	96.00	XX
Silicomanganese, 65% manganese	do.	55.00	52.50	53.75	XX
Manganese metal, 99.9% manganese flake <sup>2</sup>	cents per pound	118.00	112.00	XX	113.67-115.17-116.67
Manganese ore: <sup>3, 4</sup>					
36%–39% manganese	dollars per metric ton unit contained manganese	2.70	2.60	XX	2.62-2.66-2.70
44% manganese	do.	3.05	2.80	XX	2.80-2.93-3.05
46% manganese	do.	3.35	3.25	XX	3.25-3.30-3.35

do. Ditto. XX Not applicable.

<sup>&</sup>lt;sup>1</sup>Platts Metals Week; in U.S. warehouse; average prices reported for all transactions during the month.

<sup>&</sup>lt;sup>2</sup>CRU 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.

<sup>&</sup>lt;sup>3</sup>CRU Ryan's Notes, cost and freight, China; average prices reported for the price range.

<sup>&</sup>lt;sup>4</sup>To 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%.

 ${\bf TABLE~2}$  SELECTED U.S. FOREIGN TRADE IN MANGANESE  $^1$ 

(Metric tons, manganese content)<sup>2</sup>

	Impo	rts for consump	tion	Exports		
	Ore and	Ferroalloy		Ferroalloy		
	dioxide	and metal	Total	Ore	and metal	Total
2014:						
June	6,740	48,400	55,200	19	346	366
January-June	89,800	315,000	405,000	297	4,810	5,100
2015:						
January	25,200	53,800	78,900	9	894	903
February	24,600	44,300	69,000	27	378	405
March	24,600	32,800	57,300	56	292	348
April	40,700	40,900	81,500	9	582	591
May	745	67,900	68,600	25	235	260
June	526	30,700	31,200	36	337	373
January-June	116,000	270,000	387,000	161	2,720	2,880

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

Source: U.S. Census Bureau.

 ${\bf TABLE~3}$  U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN JUNE  ${\bf 2015}^1$ 

(Metric tons)

				January–June		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Australia	3,910	2,570	\$3,930,000	35,800	23,500	\$38,700,000
China	10	7	20,100	10	7	20,100
Georgia	198	139	168,000	46,800	34,000	48,700,000
India	38	25	44,300	2,340	1,430	3,760,000
Indonesia				23	15	24,800
Mexico	160	105	151,000	15,100	9,860	15,200,000
Norway	3,410	2,130	4,760,000	10,300	6,450	14,400,000
South Africa	11,700	7,610	12,300,000	57,300	37,200	60,400,000
Spain	44	29	38,100	8,240	5,370	8,020,000
Zambia	1,750	1,140	1,690,000	3,300	2,150	3,200,000
Total	21,200	13,700	23,100,000	179,000	120,000	192,000,000

<sup>--</sup> Zero.

<sup>&</sup>lt;sup>2</sup>As reported except as estimated for imports of manganese dioxide and manganese waste and scrap and for exports from gross weights.

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

<sup>&</sup>lt;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.

 ${\bf TABLE~4}$  U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN JUNE  ${\bf 2015}^1$ 

# (Metric tons)

				January–June		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Low carbon:						
China	612	569	\$1,400,000	7,880	7,290	\$17,400,000
Germany	24	23	67,700	98	91	265,000
Korea, Republic of	<u> </u>			1,510	1,260	3,230,000
Mexico				400	315	631,000
Norway	1,240	1,000	1,820,000	11,700	9,440	18,900,000
South Africa	76	72	197,000	178	168	460,000
Total	1,950	1,670	3,490,000	21,700	18,600	40,900,000
Medium carbon, 1%–2% C:						
Australia	1,300	1,040	1,040,000	1,300	1,040	1,040,000
China				80	61	177,000
Egypt				298	242	444,000
Korea, Republic of				12,600	10,100	21,000,000
Mexico	107	84	180,000	1,190	915	2,080,000
Norway	762	621	1,070,000	5,540	4,520	7,940,000
South Africa	1,900	1,520	3,160,000	11,100	8,860	18,000,000
Total	4,070	3,270	5,440,000	32,100	25,700	50,600,000
Medium carbon, 2%–4% C:						
China				13	10	28,500
Norway				36	29	64,000
South Africa				424	333	1,200,000
Vietnam				54	42	76,100
Total				527	415	1,360,000
High carbon:						
Australia	1,310	992	908,000	15,700	11,700	13,200,000
Brazil				324	241	258,000
Canada	19	15	29,800	39	27	55,500
France	<del></del>			49	37	40,700
Korea, Republic of				1,730	1,320	1,470,000
Norway	<del></del>			2,000	1,570	1,680,000
South Africa	11,900	8,380	9,880,000	80,200	60,100	73,300,000
Spain	716	478	690,000	812	551	774,000
Ukraine	20	13	29,800	16,600	12,900	13,800,000
Zambia				20	13	29,600
Total	14,000	9,870	11,500,000	118,000	88,300	105,000,000
Grand total	20,000	14,800	20,500,000	172,000	133,000	198,000,000

<sup>--</sup> Zero.

 $<sup>^{1}\</sup>mbox{Data}$  rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;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.

 ${\rm TABLE~5}$  U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN JUNE  $2015^1$ 

(Metric tons)

				January–June			
	Gross	Mn	Customs	Gross	Mn	Customs	
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>	
More than 20%, but less than 47% manganese:							
Gabon				34,700	16,100	\$5,970,000	
South Africa				40,000	14,700	4,290,000	
Total				74,700	30,800	10,300,000	
47% or more manganese:							
Australia				19,800	9,830	5,840,000	
Brazil	53	27	\$24,600	3,570	1,840	1,160,000	
Canada		11	4,280	60	30	12,500	
China				8	4	7,840	
France				15	8	19,600	
Gabon	94	48	20,300	137,000	70,800	34,200,000	
Ivory Coast				18	8	19,400	
Morocco				39	34	51,100	
Netherlands				(3)	(3)	23,900	
South Africa	200	100	51,000	1,040	518	279,000	
Total	369	186	100,000	161,000	83,100	41,600,000	
Grand total	369	186	100,000	236,000	114,000	51,900,000	

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

 ${\bf TABLE~6} \\ {\bf U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~DIOXIDE~IN~JUNE~2015}^{1}$ 

(Metric tons, gross weight)

			Januar	y–June	
		Customs		Customs	
Source	Quantity	value <sup>2</sup>	Quantity	value <sup>2</sup>	
Belgium			39	\$179,000	
China			77	117,000	
Germany			9	29,300	
India			(3)	8,640	
Japan	541	\$1,300,000	3,200	7,420,000	
Korea, Republic of			(3)	3,880	
Mexico			(3)	4,220	
Netherlands	14	24,100	89	73,900	
Poland			(3)	4,320	
Singapore	12	20,200	83	142,000	
South Africa			275	468,000	
Spain			4	13,600	
Turkey			156	266,000	
Total	567	1,350,000	3,930	8,730,000	

<sup>--</sup> Zero.

 $<sup>^{1}\</sup>mbox{Data}$  rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>Less than ½ unit.

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

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>Less than ½ unit.

 ${\it TABLE~7} \\ {\it U.S.~IMPORTS~FOR~CONSUMPTION~OF~MANGANESE~METAL~IN~JUNE~2015}^1$ 

# (Metric tons)

			Janua	ry–June
	Gross	Customs	Gross	Customs
Source	weight	value <sup>2</sup>	weight	value <sup>2</sup>
Unwrought flake:				
China	42	\$143,000	5,040	\$9,940,000
Japan	<u></u>		204	694,000
Mexico	4	12,200	9	28,900
South Africa	400	1,010,000	4,780	12,400,000
Total	446	1,170,000	10,000	23,100,000
Unwrought powder:				
China	60	121,000	285	675,000
Mexico			123	380,000
South Africa	157	541,000	904	2,970,000
Total	217	662,000	1,310	4,020,000
Unwrought, other:				
China	1,180	2,480,000	4,630	10,200,000
Germany	49	113,000	147	336,000
Russia			12	12,200
South Africa	19	49,000	135	338,000
Spain	137	330,000	160	387,000
United Kingdom			(3)	2,790
Total	1,390	2,970,000	5,080	11,300,000
Other manganese, wrought:				
France			2	29,500
Germany	5	49,800	125	1,330,000
India	(3)	3,540	4	18,000
Japan	(3)	13,700	(3)	27,500
Korea, Republic of			515	1,170,000
Mexico	4	10,900	90	309,000
Sweden			(3)	4,500
Total	9	78,000	737	2,890,000
Metallic waste and scrap, Canada	202	55,300	435	113,000
Grand total	2,260	4,930,000	17,600	41,400,000

<sup>--</sup> Zero.

 $<sup>^{1}\</sup>mbox{Data}$  rounded to no more than three significant digits; may not add to totals shown.

<sup>&</sup>lt;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>&</sup>lt;sup>3</sup>Less than ½ unit.

TABLE~8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN JUNE  $2015^{1,2}$ 

			January–June		
Source	Gross weight (metric tons)	F.a.s. <sup>3</sup> value (thousands)	Gross weight (metric tons)	F.a.s. <sup>3</sup> value (thousands)	
Ore and concentrates with 20% or more manganese:					
Israel	<u> </u>		1	\$8	
Mexico			5	17	
Netherlands	32	\$129	128	510	
Poland			15	10	
United Kingdom	40	34	173	138	
Total	72	163	322	684	
Ferromanganese:					
2% or less carbon:					
Canada			787	1,200	
France			8	15	
Mexico			3	9	
United Kingdom			5	9	
Total			802	1,230	
More than 2% carbon:					
Angola			2	3	
Canada		23	317	327	
Congo			7	14	
Equatorial Guinea			9	20	
Germany			4	11	
Ghana			-4	5	
Italy			22	38	
Venezuela	<del></del>		1	3	
Total		23	362	419	
Silicomanganese:					
Canada	11	13	326	396	
India			20	18	
Mexico	13	28	155	229	
Total	24	40	500	643	
Metal, including alloys and waste and scrap: <sup>5</sup>					
Canada	7	17	31	80	
China	87	31	100	241	
Germany	<del></del>		26	108	
Japan	6	24	97	346	
Malaysia	153	59	889	536	
Netherlands			81	325	
Norway			19	855	
Pakistan	40	15	120	50	
Taiwan			40	21	
United Kingdom	7	36	17	91	
Other (7 countries)	4	22	48	561	
Total	303	205	1,470	3,210	
Grand total	422	432	3,460	6,190	

<sup>--</sup> Zero.

<sup>&</sup>lt;sup>1</sup>Presentation of monthly data is based on the "January–June" quantities of the leading countries.

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

<sup>&</sup>lt;sup>3</sup>Free alongside ship.

<sup>&</sup>lt;sup>4</sup>Less than ½ unit.

<sup>&</sup>lt;sup>5</sup>Includes manganese-aluminum, other alloys, and waste and scrap.

TABLE 9 U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN JUNE 2015, BY CLASS<sup>1</sup>

·	·		·	January–June			
	Gross weight	Value <sup>2</sup>	Principal sources and destinations: gross weight (metric tons);	Gross weight	Value <sup>2</sup>	Principal sources and destinations: gross weight (metric tons);	
Class	(metric tons)	(thousands)	value <sup>2</sup> (thousands)	(metric tons)	(thousands)	value <sup>2</sup> (thousands)	
Imports for consumption:	( 11 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	(* * * * * * * * * * * * * * * * * * *	variae (inousairas)	( ,	(	varae (mousanas)	
Manganese oxides other than dioxide	989	\$731	Korea, Republic of 440; \$355	5,710	\$4,400	Korea, Republic of 2,240; \$1,780	
Manganites, manganates, and						-	
other permanganates	24	85	China 24; \$71	123	376	China 120; \$318	
Potassium permanganate	30	84	India 30; \$84	567	1,490	India 558; \$1,470	
Sodium permanganate	160	386	China 160; \$386	1,110	2,480	China 1,110; \$2,480	
Sulfates, basket category,							
including manganese sulfate	3,860	4,190	India 1,450; \$883	35,900	31,100	Mexico 11,000; \$9,770	
Exports:							
Manganese dioxide	458	729	Germany 320; \$384	1,490	3,450	Canada 395; \$412	
Manganese oxides other than dioxide	629	940	United Arab Emirates 114; \$119	4,250	7,020	United Arab Emirates 713; \$844	
Manganites, manganates, and							
other permanganates	15	33	Canada 13; \$28	75	314	Canada 69; \$146	
Potassium permanganate	477	1,160	Belgium 172; \$387	2,140	5,340	Belgium 1,310; \$2,980	
Sodium permanganate	99	216	Belgium 95; \$206	476	1,450	Mexico 230; \$889	
Sulfates, basket category,							
including manganese sulfate	1,620	1,560	Canada 1,200; \$633	13,700	9,640	Canada 11,600; \$4,770	

<sup>&</sup>lt;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.