

# Mineral Industry Surveys

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#### **MANGANESE IN FEBRUARY 2015**

Preliminary data for February 2015 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 57,100 metric tons (t) (gross weight). This was a 13% decrease compared with the amount consumed in January 2015 (65,900 t). Manganese ore consumption during the first 2 months of 2015 was 123,000 t, 45% more than the amount consumed during the same period of 2014 (84,500 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 February 2015 were estimated to be 156,000

t, which was slightly less than the amount at the end of January 2015 (161,000 t).

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected manganese-containing materials in February 2015.

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

					Average low,
		High	Low	Average	mid, and high
Manganese ferroalloys: <sup>1</sup>					
High-carbon ferromanganese, 75% manganese	dollars per long ton of contained manganese	1,035.00	1,025.00	1,029.38	XX
Medium-carbon ferromanganese, 85% manganes	cents per pound of contained manganese	98.00	97.00	97.50	XX
Silicomanganese, 65% manganese	do.	57.00	56.00	56.50	XX
Manganese metal, 99.9% manganese flake <sup>2</sup>	cents per pound	130.00	121.00	XX	122.50-124.69-126.88
Manganese ore: <sup>3, 4</sup>					
36%-39% manganese	lollars per metric ton unit contained manganese	3.65	3.25	XX	3.44-3.49-3.54
44% manganese	do.	4.15	3.60	XX	3.85-3.93-4.01
46% manganese	do.	4.53	3.75	XX	4.15-4.24-4.33

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:						_
January	6,510	32,200	38,700	21	1,130	1,150
February	28,000	61,500	89,500	202	1,100	1,310
January-February	34,500	93,700	128,000	223	2,230	2,450
2015:						
January	25,200	53,800	78,900	9	894	903
February	24,600	44,300	69,000	27	378	405
January-February	49,800	98,100	148,000	36	1,270	1,310

<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 FEBRUARY  ${\bf 2015}^1$ 

(Metric tons)

				January–February		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Australia	7,800	5,200	\$8,500,000	15,300	10,100	\$16,900,000
Georgia	1,760	1,280	1,880,000	16,700	12,100	17,700,000
India	198	128	320,000	765	483	1,210,000
Indonesia	23	15	24,800	23	15	24,800
Norway	2,260	1,380	3,530,000	4,310	2,710	5,490,000
South Africa				15,900	10,300	17,100,000
Spain	2,420	1,580	2,340,000	4,850	3,160	4,730,000
Total	14,500	9,580	16,600,000	57,800	38,800	63,100,000

<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.

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

#### (Metric tons)

				January–February		
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Low carbon:						
China	1,660	1,560	\$3,760,000	3,120	2,930	\$6,900,000
Germany				24	20	58,400
Korea, Republic of	1,510	1,260	3,230,000	1,510	1,260	3,230,000
Norway	4,500	3,640	7,340,000	4,630	3,740	7,560,000
Total	7,660	6,470	14,300,000	9,280	7,960	17,800,000
Medium carbon, 1%–2% C:						
Egypt	298	242	444,000	298	242	444,000
Korea, Republic of	4,500	3,600	6,710,000	4,500	3,600	6,710,000
Mexico	119	90	225,000	190	145	371,000
Norway	900	734	1,310,000	900	734	1,310,000
South Africa	38	30	64,800	6,480	5,200	10,500,000
Total	5,860	4,700	8,750,000	12,400	9,920	19,400,000
Medium carbon, 2%–4% C, South Africa	384	302	1,160,000	384	302	1,160,000
High carbon:						
Australia	9,110	6,790	7,870,000	9,110	6,790	7,870,000
Brazil				162	124	132,000
Canada	20	13	25,700	20	13	25,700
Norway	1,000	782	812,000	1,000	783	815,000
South Africa	15,500	11,500	14,800,000	31,900	24,100	30,000,000
Ukraine	11	7	15,500	2,910	2,260	2,660,000
Zambia	20	13	29,600	20	13	29,600
Total	25,700	19,100	23,600,000	45,200	34,100	41,500,000
Grand total	39,600	30,600	47,800,000	67,200	52,200	79,800,000

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN FEBRUARY  $2015^1$ 

#### (Metric tons)

				Ja	January–February			
	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	19,600	9,640 <sup>3</sup>	\$4,270,000	28,600	13,500	\$5,250,000		
47% or more manganese:								
Brazil				53	25	22,900		
Canada				38	20	8,220		
China				4	2	3,920		
Gabon	28,200	14,600	5,550,000	68,000	35,300	14,200,000		
Total	28,200	14,600	5,550,000	68,100	35,300	14,300,000		
Grand total	47,800	24,300	9,820,000	96,700	48,800	19,500,000		

<sup>--</sup> Zero.

<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>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>Referred to the U.S Census Bureau.

### TABLE 6 $\mbox{U.S. IMPORTS FOR CONSUMPTION OF MANGANESE} \\ \mbox{DIOXIDE IN FEBRUARY 2015}^{1}$

(Metric tons, gross weight)

			January-	-February
		Customs		Customs
Source	Quantity	value <sup>2</sup>	Quantity	value <sup>2</sup>
Belgium	19	\$86,600	20	\$92,400
China			63	64,900
Germany	<del></del>		6	10,100
Japan	594	1,350,000	1,030	2,270,000
Netherlands			15	24,900
Singapore	24	40,500	36	60,700
South Africa	<del></del>		275	468,000
Spain	4	6,820	4	6,820
Turkey	<del>-</del>		156	266,000
Total	641	1,480,000	1,600	3,260,000

<sup>--</sup> Zero.

Source: U.S. Census Bureau.

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

(Metric tons)

			January-	–February
	Gross	Customs	Gross	Customs
Source	weight	value <sup>2</sup>	weight	value <sup>2</sup>
Unwrought flake:				
China	1,440	\$2,950,000	2,500	\$5,030,000
Japan	50	172,000	54	186,000
Mexico			4	10,900
South Africa	915	2,450,000	1,700	4,520,000
Total	2,400	5,570,000	4,260	9,740,000
Unwrought powder:				
China			40	86,600
Mexico	56	169,000	79	235,000
South Africa	19	73,400	197	616,000
Total	75	243,000	316	938,000
Unwrought, other:	-			
China	1,120	2,360,000	1,840	4,060,000
Germany	11	26,600	44	102,000
South Africa	19	49,000	38	99,400
United Kingdom			(3)	2,790
Total	1,150	2,440,000	1,920	4,260,000
Other manganese, wrought:				
France	1	4,690	1	4,690
Germany			38	468,000
Korea, Republic of	502	1,130,000	502	1,130,000
Mexico			6	26,000
Sweden	(3)	4,500	(3)	4,500
Total	503	1,140,000	546	1,630,000
Grand total	4,130	9,380,000	7,040	16,600,000

<sup>--</sup> Zero.

<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>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.

## TABLE~8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN FEBRUARY $2015^{1.2}$

			January–February		
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:	(metre tons)	(tilousanus)	(metric tons)	(tilousulus)	
Mexico			2	\$6	
Netherlands		\$62	32	123	
United Kingdom	38	26	38	26	
Total	54	88	72	155	
Ferromanganese:			*		
2% or less carbon:					
Canada	158	250	685	1,050	
Mexico			2	5	
United Kingdom		9	5	9	
Total	163	258	692	1,070	
More than 2% carbon:					
Angola		3	2	3	
Canada	21	26	233	239	
Italy	22	38	22	38	
Venezuela	1	3	1	3	
Total	46	69	258	283	
Silicomanganese:					
Canada	59	77	189	215	
India	20	18	20	18	
Mexico			142	201	
Total	79	96	351	435	
Metal, including alloys and waste and scrap: <sup>4</sup>					
Canada	3	8	3	8	
Costa Rica	(5)	13	(5)	13	
Germany	(5)	5	(5)	5	
Japan	2	15	2	15	
Korea, Republic of	(5)	17	2	24	
Malaysia	103	41	202	83	
Mexico	(5)	8	2	49	
Netherlands	34	135	60	239	
Norway	19	855	19	855	
United Kingdom	(5)	3	(5)	6	
Other (2 countries)	(5)	4	(5)	8	
Total	162	1,100	290	1,310	
Grand total	502	1,620	1,660	3,250	

<sup>--</sup> Zero.

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

 $<sup>^2\</sup>mathrm{Data}$  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>Includes manganese-aluminum, other alloys, and waste and scrap.

<sup>&</sup>lt;sup>5</sup>Less than ½ unit.

### TABLE 9 $\mbox{U.s. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS } \\ \mbox{IN FEBRUARY 2015, BY CLASS}^1$

					January–February		
			Principal sources and destinations:			Principal sources and destinations:	
	Gross weight	Value <sup>2</sup>	gross weight (metric tons);	Gross weight	Value <sup>2</sup>	gross weight (metric tons);	
Class	(metric tons)	(thousands)	value <sup>2</sup> (thousands)	(metric tons)	(thousands)	value <sup>2</sup> (thousands)	
Imports for consumption:	_						
Manganese oxides other than dioxide	553	\$449	Mexico 320; \$201	1,180	\$943	Korea, Republic of 578; \$434	
Manganites, manganates, and							
other permanganates				41	129	China 38; \$99	
Potassium permanganate	90	248	India 90; \$248	194	549	India 194; \$549	
Sodium permanganate	219	459	China 219; \$459	344	690	China 343; \$683	
Sulfates, basket category,							
including manganese sulfate	4,900	4,270	Mexico 1,840; \$1,550	8,370	7,140	Mexico 3,630; \$3,030	
Exports:	_						
Manganese dioxide	154	470	United Kingdom 51; \$76	446	975	Canada 232; \$232	
Manganese oxides other than dioxide	605	1,070	Canada 118; \$140	1,310	2,190	Canada 200; \$230	
Manganites, manganates, and							
other permanganates	2	30	Canada 2; \$4	8	47	Canada 7; \$15	
Potassium permanganate	210	510	Belgium 98; \$218	553	1,390	Belgium 397; \$903	
Sodium permanganate	97	315	Mexico 57; \$208	161	516	Mexico 94; \$357	
Sulfates, basket category,							
including manganese sulfate	3,390	2,090	Canada 3,010; \$856	4,900	3,410	Canada 4,340; \$1,650	

<sup>--</sup> Zero.

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

<sup>&</sup>lt;sup>2</sup>For imports, customs value; for exports, free alongside ship value.