

# Mineral Industry Surveys

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### **MANGANESE IN AUGUST 2012**

Preliminary domestic data (gross weight) for August 2012 indicated that consumption of manganese ore containing 35% or more manganese, exclusive of that consumed at iron and steel plants, was 44,000 metric tons (t). This was a 23% increase from the amount consumed in July 2012. Manganese ore consumption during the first 8 months of 2012 was 343,000 t, which was slightly more than the revised amount that was consumed during the same period in 2011 (342,000 t). Industry stocks of ore at the end of August 2012 were 218,000 t, which was a 12% increase from those at the end of July 2012.

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected manganese-containing materials in August 2012.

### TABLE 1 PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN AUGUST 2012

					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	1,240.00	1,200.00	1,220.00	XX
Medium-carbon ferromanganese, 85% manganese	cents per pound of contained manganese	92.00	90.00	90.60	XX
Silicomanganese, 65% manganese	do.	62.00	59.00	60.40	XX
Manganese metal, 99.9% manganese flake <sup>2</sup>	cents per pound	155.00	145.00	XX	149.00-151.72-154.44
Manganese ore: <sup>3, 4</sup>					
36%-39% manganese	dollars per metric ton unit contained manganese	4.60	4.45	XX	4.50-4.55-4.60
44% manganese	do.	5.10	4.85	XX	4.90-5.00-5.10
46% manganese	do.	5.15	4.90	XX	5.00-5.08-5.15

do. Ditto. XX Not applicable.

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

<sup>2</sup>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>3</sup>Ryan's Notes, cost and freight, China; average prices reported for the price range.

<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%.

### TABLE 2 SELECTED U.S. FOREIGN TRADE IN MANGANESE<sup>1</sup>

	Imports	for consumpti	on	Exports			
	Ore and	Ferroalloy		Ferroalloy			
	dioxide	and metal	Total	Ore	and metal	Total	
2011:							
January-December	283,000	541,000	824,000	681	12,500	13,200	
January-August	176,000	399,000	575,000	456	9,100	9,550	
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	
2012:							
January	11,800	53,000	64,800	36	603	639	
February	12,400	34,900	47,300	158	616	775	
March	24,500	54,000	78,400	352	848	1,200	
April	3,960	59,500	63,400	106	816	922	
May	15,500	49,500	65,000	42	620	662	
June	30,100 <sup>r</sup>	21,000	51,100 <sup>r</sup>	19	576	595	
July	19,900	77,300	97,300	57	687	744	
August	8,020	59,900	67,900	12	1,360	1,370	
January-August	126,000	409,000	535,000	782	6,120	6,900	

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

<sup>r</sup>Revised.

<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 3 U.S. IMPORTS FOR CONSUMPTION OF SILICOMANGANESE IN AUGUST $2012^1$

### (Metric tons)

					January–Au	gust
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Australia				9,570	6,490	\$9,880,000
Azerbaijan				1,500	984	1,700,000
Canada				50	34	39,000
Georgia	21,700	14,400	\$23,200,000	86,200	58,500	92,200,000
Germany				216	95	281,000
India	676	389	1,080,000	2,560	1,460	4,050,000
Indonesia				602	393	786,000
Italy				1,270	843	1,740,000
Korea, Republic of				620	372	1,070,000
Macedonia				6,110	3,970	8,530,000
Mexico	4,000	2,600	4,850,000	15,800	10,300	18,600,000
Norway				22,200	13,900	38,500,000
Russia	108	74	114,000	6,200	4,210	8,380,000
South Africa	15,500	10,200	20,400,000	78,300	51,900	93,200,000
Spain	3,990	2,750	4,420,000	14,300	9,340	19,000,000
Vietnam				592	370	674,000
Total	46,000	30,400	54,000,000	246,000	163,000	299,000,000

-- 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.

### TABLE 4 U.S. IMPORTS FOR CONSUMPTION OF FERROMANGANESE IN AUGUST $2012^1$

### (Metric tons)

					January–August			
	Gross	Mn	Customs	Gross	Mn	Customs		
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>		
Low carbon:								
China	291	273	\$814,000	5,270	4,920	\$14,800,000		
India	1,730	1,400	2,780,000	5,570	4,520	9,420,000		
Korea, Republic of	500	460	1,260,000	2,040	1,850	5,440,000		
Mexico	802	643	1,390,000	5,320	4,290	9,190,000		
Norway	818	661	1,350,000	6,140	4,960	9,960,000		
South Africa	100	94	271,000	120	110	330,000		
Vietnam				1,040	899	2,040,000		
Total	4,240	3,530	7,860,000	25,500	21,500	51,100,000		
Medium carbon, 1%–2% C:								
China				40	30	97,300		
Korea, Republic of	4,500	3,660	6,460,000	20,400	16,500	30,100,000		
Mexico	203	153	422,000	1,600	1,210	3,270,000		
Norway	1,500	1,220	2,020,000	14,600	11,900	20,100,000		
South Africa	2,790	2,210	3,900,000	17,900	14,400	27,000,000		
Turkey	19	14	63,300	19	14	63,300		
Total	9,010	7,260	12,900,000	54,600	44,000	80,600,000		
Medium carbon, 2%–4% C:								
Germany	11	9	31,100	11	9	31,100		
South Africa	36	29	82,300	111	94	261,000		
Total	47	38	113,000	122	103	293,000		
High carbon:								
Australia				26,800	20,900	26,300,000		
Bahrain				100	79	141,000		
Brazil				219	163	228,000		
Canada				12	9	26,000		
China				481	379	547,000		
France				2,500	1,910	3,000,000		
India				513	387	496,000		
Korea, Republic of				3,430	2,650	3,300,000		
Norway	1,300	1,020	1,340,000	9,920	7,700	9,980,000		
Saudi Arabia				1,400	1,010	1,180,000		
South Africa	13,700	10,400	15,300,000	121,000	92,800	128,000,000		
Spain	75	57	83,900	75	57	83,900		
Ukraine	4,400	3,480	5,060,000	26,000	19,600	28,800,000		
Total	19,500	14,900	21,700,000	192,000	148,000	202,000,000		
Grand total	32,700	25,800	42,600,000	273,000	213,000	335,000,000		
	52,700	,000	,,	,000	,000	,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.

#### TABLE 5

### U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN AUGUST 2012<sup>1, 2</sup>

### (Metric tons)

				January–August <sup>3</sup>				
	Gross	Mn	Customs	Gross	Mn	Customs		
Source	weight	content	value <sup>4</sup>	weight	content	value <sup>4</sup>		
More than 20%, but less than 47% manganese:								
Brazil				2,580	682	\$669,000		
Colombia				18	5	4,170		
Gabon	3,000	1,290	\$376,000	26,500	11,400	3,380,000		
Mexico				3,040	1,100	602,000		
South Africa				29,700	11,800	3,650,000		
Total	3,000	1,290	376,000	61,800	24,900	8,310,000		
47% or more manganese:								
Australia				20,700	10,300	3,120,000		
Belgium	1,380	689	82,700	4,220	2,130	364,000		
Brazil	75	50	40,500	2,840	1,520	1,020,000		
Gabon	8,000	4,120	2,130,000	149,000	75,900	35,000,000		
Japan				(5)	(5)	14,800		
Korea, Republic of				20	(5)	137,000		
Morocco	1,700	851	102,000	3,580	1,820	436,000		
Poland				7	4	5,760		
South Africa				60	29	14,400		
United Kingdom				1	(5)	2,990		
Total	11,200	5,710	2,350,000	180,000	91,600	40,100,000		
Grand total	14,200	7,000	2,730,000	242,000	117,000	48,400,000		

-- 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>May include revisions to previously published data.

<sup>4</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>5</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

Source: U.S. Census Bureau.

# TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE DIOXIDE IN AUGUST $2012^1$

### (Metric tons, gross weight)

		January-	-August	
	Customs		Customs	
Quantity	value <sup>2</sup>	Quantity	value <sup>2</sup>	
		670	\$385,000	
24	\$40,200	72	121,000	
		25	20,500	
652	1,440,000	5,560	13,300,000	
		13	25,200	
		40	35,100	
		260	197,000	
23	38,800	114	194,000	
1,010	2,350,000	8,410	19,500,000	
		810	425,000	
1,710	3,870,000	16,000	34,200,000	
	24 24 652  23 1,010 	Quantity         value <sup>2</sup> 24         \$40,200               652         1,440,000               652         1,440,000               23         38,800           1,010         2,350,000	Quantity         value <sup>2</sup> Quantity             670           24         \$40,200         72             25           652         1,440,000         5,560             13             40             260           23         38,800         114           1,010         2,350,000         8,410             810	

-- 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.

### TABLE 7

### U.S. IMPORTS FOR CONSUMPTION OF MANGANESE METAL IN AUGUST $2012^1$

#### (Metric tons)

			Januar	y–August
	Gross	Customs	Gross	Customs
Source	weight	value <sup>2</sup>	weight	value <sup>2</sup>
Unwrought flake:				
Brazil			21	\$61,400
China	706	\$1,750,000	9,710	26,700,000
Hong Kong			60	160,000
Japan	4	14,800	5	17,800
Mexico	11	52,300	107	508,000
South Africa	552	1,830,000	4,700	15,800,000
Taiwan			60	160,000
Vietnam	47	160,000	307	867,000
Total	1,320	3,800,000	15,000	44,200,000
Unwrought powder:				
China			258	741,000
Mexico			53	252,000
South Africa	293	1,310,000	1,470	6,030,000
Spain			1	2,220
Total	293	1,310,000	1,780	7,030,000
Unwrought, other:				
China	2,040	5,100,000	14,400	38,700,000
Germany	11	34,600	24	79,500
Poland	(3)	4,320	(3)	7,200
South Africa	57	228,000	400	1,510,000
Spain			663	2,420,000
Vietnam			100	286,000
Total	2,110	5,370,000	15,600	43,000,000
Other manganese, wrought:				
China			3	17,200
Finland			(3)	20,100
Germany			1	71,900
Japan	(3)	27,400	(3)	80,300
Mexico	3	12,200	10	45,800
Total	3	39,600	15	235,000
Grand total	3,730	10,500,000	32,300	94,500,000

-- 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 <sup>1</sup>/<sub>2</sub> unit.

Note: Imports for consumption of metallic waste and scrap totaled 100 metric tons (t), all of which was from Canada, to give a January–August total of 606 t.

### TABLE 8

## U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN AUGUST 2012<sup>1, 2</sup>

		^	January–August		
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:	· · · · · ·	(*********	(	(	
Aruba			78	\$20	
Canada	6	\$7	305	344	
China			51	66	
Denmark			77	32	
Hong Kong			11	39	
Indonesia			3	3	
Korea, Republic of			272	351	
Latvia			19	11	
Netherlands	16	31	723	705	
United Kingdom			21	28	
Other (2 countries)	1	5	4	15	
Total	23	43	1,560	1,620	
Ferromanganese:					
2% or less carbon:					
Canada	229	337	834	1,190	
Guatemala			23	43	
Hungary			3	5	
Japan	40	88	160	377	
Mexico			108	195	
Saudi Arabia	24	45	25	55	
Spain			20	48	
Turkey			119	301	
Total	293	470	1,290	2,220	
More than 2% carbon:					
Brazil			28	79	
Cameroon			8	26	
Canada	24	33	559	716	
Chile			33	93	
Japan			4	11	
Malaysia	636	431	636	431	
Mexico			66	94	
Norway			7	22	
Saudi Arabia			11	31	
Singapore	6	16	28	78	
Other (3 countries)	4	10	8	21	
Total	670	490	1,390	1,600	
Silicomanganese:	20	05	215	502	
Brazil	39	95 852	215	523 3,900	
Canada Dominican Republic	659	853	2,850 9	3,900	
Indonesia			10	16	
			362	514	
Mexico Total		948	3,440		
	098	940	5,440	4,970	
Metal, including alloys and waste and scrap: <sup>4</sup>			37	150	
Brazil				150	
Canada China	 74		117 716	308	
	/4	140	/16 62	2,220 278	
France Cormony			62 79		
Germany				172 405	
India	5	22	178 98	405 266	
Japan Mexico					
	40	146	232	671 278	
Norway			62 39	278	
Taiwan Other (10 countries)		 33	39 115	80 246	
Other (10 countries) Total	13	341	1,740	5,070	
Grand total	1,820	2,290	9,420	15,500	
See footnotes at end of table	1,820	2,290	9,420	15,500	

See footnotes at end of table.

### TABLE 8—Continued

### U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN AUGUST 2012<sup>1,2</sup>

### -- Zero.

<sup>1</sup>Presentation of monthly data is based on the year-to-date quantities (gross weight) of the leading countries. <sup>2</sup>Data rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Free alongside ship.

<sup>4</sup>Includes manganese-aluminum, other alloys, and waste and scrap.

Source: U.S. Census Bureau.

### TABLE 9

### U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN AUGUST 2012, BY CLASS<sup>1</sup>

					Januar	y–August
			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	921	\$845	South Africa 331; \$245	3,610	\$3,660	South Africa 1,150; \$1,050
Manganites, manganates, and						
other permanganates			XX	79	482	China 53; \$134
Potassium permanganate	90	279	India 90; \$279	1,030	3,280	India 973; \$3,080
Sodium permanganate	38	90	China 38; \$90	198	498	China 197; \$486
Sulfates, basket category,						
including manganese sulfate	6,240	6,190	Mexico 2,230; \$1,910	35,800	35,300	Mexico 12,100; \$10,600
Exports:						
Manganese dioxide	851	1,440	Canada 568; \$407	6,210	10,700	Canada 3,540; \$2,930
Manganese oxides other than dioxide	538	1,050	Malaysia 138; \$160	6,480	10,100	Canada 1,740; \$2,040
Manganites, manganates, and						
other permanganates	6	34	Mexico 3; \$26	163	462	Canada 143; \$373
Potassium permanganate	241	697	Belgium 160; \$391	2,360	6,150	Belgium 1,640; \$3,840
Sodium permanganate	86	201	Mexico 20; \$21	767	1,770	Belgium 338; \$654
Sulfates, basket category,						
including manganese sulfate	1,280	1,220	Canada 1,010; \$653	10,700	8,950	Canada 8,730; \$4,800
XX Not applicable Zero.						

XX Not applicable. -- 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.