

# Mineral Industry Surveys

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### **MANGANESE IN OCTOBER 2014**

Preliminary data for October 2014 indicated that domestic consumption of manganese ore containing more than 20% manganese, exclusive of that consumed at iron and steel plants, was 59,000 metric tons (t) (gross weight). This was a slight increase compared with the amount consumed in September 2014. Manganese ore consumption during the first 10 months of 2014 was 424,000 t, slightly less than the revised amount consumed during the same period of 2013 (437,000 t). Industry stocks of ore at the end of October 2014 were estimated to be 169,000 t, which was slightly more than those at the end of September 2014.

Included in this Mineral Industry Surveys are U.S. spot market prices and U.S. foreign trade data for selected manganese-containing materials in October 2014.

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### TABLE 1 PRICES FOR MANGANESE FERROALLOYS, METAL, AND ORE IN OCTOBER 2014

	High	Low	Average	Average low, mid, and high
	-			
dollars per long ton of contained manganese	1,060.00	1,040.00	1,050.00	XX
cents per pound of contained manganese	98.00	96.50	97.30	XX
do.	58.00	57.00	57.50	XX
cents per pound	131.00	125.00	XX	125.00-128.00-131.00
dollars per metric ton unit contained manganese	3.90	3.80	XX	3.80-3.85-3.90
do.	4.40	4.30	XX	4.30-4.35-4.40
do.	4.80	4.55	XX	4.55-4.68-4.80
	cents per pound of contained manganese do. cents per pound dollars per metric ton unit contained manganese do.	dollars per long ton of contained manganese       1,060.00         cents per pound of contained manganese       98.00         do.       58.00         cents per pound       131.00         dollars per metric ton unit contained manganese       3.90         do.       4.40	dollars per long ton of contained manganese1,060.001,040.00cents per pound of contained manganese98.0096.50do.58.0057.00cents per pound131.00125.00dollars per metric ton unit contained manganese3.903.80do.4.404.30	dollars per long ton of contained manganese         1,060.00         1,040.00         1,050.00           cents per pound of contained manganese         98.00         96.50         97.30           do.         58.00         57.00         57.50           cents per pound         131.00         125.00         XX           dollars per metric ton unit contained manganese         3.90         3.80         XX           do.         4.40         4.30         XX

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>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>3</sup>CRU 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>

	Impo	orts for consump	tion	Exports		
	Ore and	Ferroalloy			Ferroalloy	
	dioxide	and metal	Total	Ore	and metal	Total
2013:						
October	4,060	36,800	40,900	18	368	386
January-October	225,000	438,000	663,000	248	6,680	6,930
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
March	1,910	46,400	48,300	1	1,010	1,020
April	19,100	52,100	71,100	23	464	487
May	27,500	74,700	102,000	31	749	780
June	6,740	48,400	55,200	19	346	366
July	37,100	37,900	75,000	9	965	974
August	19,500	75,800	95,300	54	887	940
September	17,100	34,900	52,000		858	858
October	9,360	43,200	52,500	26	978	1,010
January-October	173,000	507,000	680,000	386	8,490	8,880

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

-- Zero.

<sup>1</sup>Data are 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 OCTOBER $2014^1$

#### (Metric tons)

				Ja	anuary–Octobe	r
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Australia	6,510	4,360	\$7,250,000	63,000	41,900	\$68,200,000
Bahrain				4,000	2,600	4,540,000
Brazil	270	176	288,000	7,890	5,210	8,120,000
China				400	302	564,000
Georgia	10,700	7,720	11,300,000	116,000	80,600	121,000,000
Hong Kong				1	1	3,700
India	783	496	1,250,000	3,380	2,130	5,170,000
Indonesia				1,840	1,210	1,880,000
Korea, Republic of				20	13	20,500
Mexico	40	26	47,000	27,900	18,200	28,700,000
Norway	10	6	17,800	33,200	21,100	44,100,000
Russia				548	381	646,000
Saudi Arabia				6,030	3,920	6,170,000
South Africa	10,800	7,040	12,100,000	103,000	67,500	109,000,000
Spain	96	63	108,000	1,810	1,180	2,160,000
Zambia				100	66	113,000
Total	29,200	19,900	32,400,000	368,000	246,000	401,000,000

-- Zero.

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

 $^{2}$ 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 OCTOBER $2014^1$

#### (Metric tons)

					January-Octo	
	Gross	Mn	Customs	Gross	Mn	Customs
Source	weight	content	value <sup>2</sup>	weight	content	value <sup>2</sup>
Low carbon:						
Canada	24	20	\$57,400	89	32	\$92,300
China	109	98	244,000	6,920	6,420	15,600,000
France				19	15	48,300
Korea, Republic of	1,000	1,000	1,950,000	5,020	4,610	10,400,000
Norway	968	783	1,530,000	16,500	13,400	25,200,000
South Africa	292	277	662,000	2,410	2,280	5,650,000
Total	2,400	2,180	4,440,000	30,900	26,700	57,000,000
Medium carbon, 1%–2% C:						
China				180	137	440,000
India				1	1	3,250
Korea, Republic of	4,010	3,270	5,680,000	15,000	12,100	20,800,000
Mexico	56	44	107,000	1,480	1,140	3,060,000
Norway	1,450	1,180	2,020,000	11,500	9,380	15,100,000
South Africa				16,200	13,000	22,800,000
Vietnam	243	190	311,000	243	190	311,000
Total	5,760	4,680	8,120,000	44,700	36,000	62,500,000
Medium carbon, 2%–4% C:						
Brazil				135	100	123,000
China				1	(3)	3,300
Total				136	100	126,000
High carbon:						
Australia	2,600	1,730	2,770,000	44,300	33,300	37,200,000
Brazil	270	194	209,000	1,640	1,190	1,360,000
Canada	14	10	20,000	160	103	229,000
France				662	503	609,000
Korea, Republic of				519	395	548,000
Macedonia				152	114	141,000
Saudi Arabia				503	377	483,000
South Africa	14,800	11,100	13,700,000	168,000	128,000	156,000,000
Spain	96	74	96,400	312	238	316,000
Ukraine	39	24	49,400	3,250	2,500	3,190,000
Total	17,800	13,200	16,800,000	219,000	166,000	200,000,000
Grand total	26,000	20,000	29,400,000	295,000	229,000	319,000,000

-- 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.

<sup>3</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

### TABLE 5 U.S. IMPORTS FOR CONSUMPTION OF MANGANESE ORE (20% OR MORE Mn) IN OCTOBER 2014<sup>1</sup>

#### (Metric tons)

				January–October			
	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:							
China				11	5	\$6,120	
Gabon				40,600	16,500	6,690,000	
Mexico				6,380	2,340	1,370,000	
Morocco				115	44	54,900	
South Africa				40,000	16,100	5,650,000	
Total				87,100	35,000	13,800,000	
47% or more manganese:							
Australia	18,100	8,860	\$5,540,000	35,700	17,500	11,500,000	
Belgium				2,890	1,440	173,000	
Brazil	53	31	23,100	3,120	1,660	1,360,000	
China	8	7 3	2,470	8	7 3	2,470	
Gabon				212,000	108,000	49,000,000	
Ivory Coast				18	16	19,400	
Japan	(4)	(4)	6,000	(4)	(4)	6,000	
Morocco	39	34 <sup>3</sup>	51,100	1,690	876	199,000	
Netherlands				7	5	15,500	
South Africa				1,460	1,110	1,350,000	
Total	18,200	8,940	5,620,000	257,000	130,000	63,600,000	
Grand total	18,200	8,940	5,620,000	344,000	165,000	77,300,000	

-- 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.

<sup>3</sup>Reported as manganese dioxide content. The Mn content would be about 55% for Mn ore imports from both China and Morocco in October 2014. <sup>4</sup>Less than ½ unit.

## TABLE 6U.S. IMPORTS FOR CONSUMPTION OF MANGANESEDIOXIDE IN OCTOBER 20141

			January–	October
		Customs		Customs
Source	Quantity	value <sup>2</sup>	Quantity	value <sup>2</sup>
Belgium			233	\$163,000
Bolivia			9	14,500
Brazil			18	20,300
Canada	5	\$8,000	5	8,000
China			181	152,000
Colombia			4	8,530
Germany	6	10,100	21	43,400
India	17	29,900	17	32,800
Japan	416	976,000	4,910	11,400,000
Netherlands			80	34,000
Singapore	12	20,200	131	223,000
South Africa	108	266,000	5,470	12,000,000
Spain	136	44,300	311	145,000
Turkey			866	423,000
Total	700	1,350,000	12,300	24,600,000
7.000				

(Metric tons, gross weight)

-- 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, 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 OCTOBER $2014^1$

### (Metric tons)

			January	-October	
	Gross	Customs	Gross	Customs	
Source	weight	value <sup>2</sup>	weight	value <sup>2</sup>	
Unwrought flake:					
China	349	\$699,000	7,220	\$14,500,000	
Hong Kong			60	130,000	
Japan	80	273,000	402	1,370,000	
Mexico	11	37,700	225	742,000	
South Africa	750	1,920,000	7,880	20,500,000	
Total	1,190	2,930,000	15,800	37,300,000	
Unwrought powder:					
China	1	3,100	189	368,000	
Mexico			3	16,300	
South Africa	198	653,000	2,020	6,940,000	
Total	199	656,000	2,220	7,330,000	
Unwrought, other:					
Belgium			3	7,520	
China	790	1,820,000	10,300	23,800,000	
Germany			94	181,000	
Mexico			16	53,900	
Netherlands			57	137,000	
Poland			(3)	4,320	
South Africa	38	130,000	385	1,110,000	
Spain			10	21,600	
Total	828	1,950,000	10,900	25,300,000	
Other manganese, wrought:					
China			(3)	2,370	
Germany	2	23,700	64	866,000	
India			7	22,700	
Japan			(3)	15,200	
Korea, Republic of	1,000	2,070,000	2,010	4,770,000	
Malaysia	(3)	10,000	(3)	12,400	
Mexico			38	145,000	
Netherlands			(3)	2,000	
Poland			(3)	2,080	
Taiwan	(3)	3,620	(3)	3,620	
Total	1,000	2,110,000	2,120	5,840,000	
Metallic waste and scrap, Canada	66	31,000	1,180	716,000	
Grand total	3,290	7,670,000	32,200	76,400,000	

-- 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.

<sup>3</sup>Less than <sup>1</sup>/<sub>2</sub> unit.

# TABLE 8 U.S. EXPORTS OF MANGANESE ORE (20% OR MORE Mn), FERROMANGANESE, SILICOMANGANESE, AND MANGANESE METAL BY COUNTRIES OF DESTINATION IN OCTOBER 2014<sup>1,2</sup>

			January	-October
		F.a.s. <sup>3</sup>		F.a.s. <sup>3</sup>
	Gross weight	value	Gross weight	value
Source	(metric tons)	(thousands)	(metric tons)	(thousands)
Ore and concentrates with 20% or more manganese:				
Argentina			3	\$13
Canada	19	\$16	417	857
China			19	17
Dominican Republic			9	21
Hungary			16	13
Malaysia			6	8
Mexico	2	6	12	32
Netherlands	32	157	234	977
Poland			35	42
United Kingdom			20	17
Total	53	179	771	2,000
Ferromanganese:				
2% or less carbon:				
Canada	415	651	4,340	6,420
Chile	18	34	18	34
Finland			20	36
Japan			119	211
Mexico			73	157
Spain			80	158
Turkey			40	84
Other (6 countries)			51	102
Total	433	685	4,740	7,200
More than 2% carbon:		000	.,, 10	,,200
Angola	2	5	9	23
Brazil	2		10	23
Canada	20	20	372	500
Chile	20		48	134
Equatorial Guinea	6	12	43	113
Ghana	0		45 9	31
Singapore	2	6	37	104
Other (10 countries)	2	23	85	104
Total	38	65	613	1,120
Silicomanganese:	58	05	015	1,120
Canada	446	562	1,150	1 440
	440			1,440
France			391	555
India			160	127
Mexico	8	12	76	153
Total	454	574	1,770	2,280
Metal, including alloys and waste and scrap: <sup>4</sup>		25	(0)	1.60
Canada	13	35	60 7 c	168
China			76	1,060
Germany	12	50	88	365
Japan	2	8	50	173
Malaysia			2,040	1,100
Mexico	24	80	266	923
Netherlands	16	63	34	137
Philippines			36	19
Vietnam	220	358	322	394
Other (12 countries)	19	166	130	2,240
Total	306	760	3,100	6,570
Grand total	1,280	2,260	11,000	19,200

-- Zero.

<sup>1</sup>Presentation of monthly data is based on the "January–October" quantities 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.

TABLE 9	
U.S. FOREIGN TRADE IN SELECTED MANGANESE CHEMICALS IN OCTOBER 2014, BY CLASS <sup>1</sup>	

	Gross weight metric tons)	Value <sup>2</sup>	Principal sources and destinations: gross weight (metric tons);		_	Principal sources and destinations:
Class (r Imports for consumption:	U			Gross weight	Value <sup>2</sup>	gross weight (metric tons);
Imports for consumption:		(thousands)	value <sup>2</sup> (thousands)	(metric tons)	(thousands)	value <sup>2</sup> (thousands)
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	1,000	\$751	Korea, Republic of 349; \$258	7,000	\$5,790	Korea, Republic of 4,480; \$3,08
Manganites, manganates, and			<u>^</u>			<b>^</b>
other permanganates	(3)	5	Canada (3); \$5	14	36	Korea, Republic of 14; \$27
Potassium permanganate	163	455	India 163; \$455	1,410	4,000	India 1,400; \$3,990
Sodium permanganate	257	603	China 256; \$591	1,910	4,450	China 1,860; \$4,300
Sulfates, basket category,						
including manganese sulfate	9,620	8,570	Chile 5,410; \$3,780	50,100	40,900	Mexico 15,000; \$13,000
Exports:						
Manganese dioxide	230	466	Canada 79; \$102	3,220	6,540	Canada 1,420; \$1,370
Manganese oxides other than dioxide	952	1,620	United Arab Emirates 171; \$154	9,420	14,600	Netherlands 1,600; \$1,510
Manganites, manganates, and						
other permanganates	10	23	Canada 10; \$23	132	406	Canada 89; \$213
Potassium permanganate	450	1,220	Belgium 273; \$664	3,590	9,670	Belgium 2,060; \$5,140
Sodium permanganate	92	244	Belgium 57; \$131	870	2,490	Belgium 451; \$1,040
Sulfates, basket category,						
including manganese sulfate	2,190	3,040	Canada 1,660; \$757	15,800	17,800	Canada 11,800; \$6,680

<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.

<sup>3</sup>Less than <sup>1</sup>/<sub>2</sub> unit.