

# Mineral Industry Surveys

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## SILICON IN SEPTEMBER 2007

Preliminary data for September 2007 indicate that domestic production and net shipments of silicon ferroalloys, on a gross-weight basis, decreased by 8% and 2%, respectively, compared with those in August 2007, according to the U.S. Geological Survey. Ending stocks increased slightly compared with those at the end of August. Stocks included adjustments in inventory and in-plant consumption of ferrosilicon to produce magnesium ferrosilicon and other miscellaneous alloys. Production-related statistics for silicon metal were concealed to avoid disclosing company proprietary data.

Domestic production and shipments of ferrosilicon during the third quarter of 2007 were 9% and 15% less, respectively, than those of the second quarter of 2007. They were 9% and 13% higher, respectively, during the first 9 months of 2007 compared with those during the same period in 2006. All domestic data for ferrosilicon have been combined to avoid disclosing company proprietary data.

U.S. trade data for August 2007 are published in this issue.

### Prices, cents per pound, silicon content

	<u>50% Ferrosilicon<sup>1</sup></u>	<u>75% Ferrosilicon<sup>2</sup></u>	<u>Silicon Metal<sup>2</sup></u>
September 6	75.00-78.00	66.00-70.00	120.00-125.00
September 13	75.00-78.00	65.00-70.00	120.00-125.00
September 20	75.00-78.00	65.00-70.00	125.00-135.00
September 27	76.00-78.00	65.00-67.00	125.00-135.00

<sup>1</sup>Source: Ryan's Notes, North American transaction price.

<sup>2</sup>Source: Platts Metals Week, dealer import price.

TABLE 1  
U.S. PRODUCTION, SHIPMENTS, AND PRODUCER STOCKS OF SILICON ALLOYS AND METAL IN 2007<sup>1, 2, 3</sup>

(Metric tons)

Material	Gross production <sup>4</sup>		Net shipments		Stocks,
	September	Year to date <sup>5</sup>	September	Year to date <sup>5</sup>	September 30
Ferrosilicon, all grades <sup>6, 7</sup>	22,000	204,000	17,100	171,000	22,800
Silicon metal, excludes semiconductor grades	W	W	W	W	W

W Withheld to avoid disclosing company proprietary data.

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

<sup>2</sup>Includes U.S. Geological Survey estimates.

<sup>3</sup>Data for silvery pig iron (less than 25% silicon) withheld to avoid disclosing company proprietary data.

<sup>4</sup>Includes in-plant consumption, as in production of magnesium ferrosilicon and other miscellaneous alloys.

<sup>5</sup>Includes revisions to previous months' data.

<sup>6</sup>Ferrosilicon categories were aggregated to avoid disclosing company proprietary data.

<sup>7</sup>Includes miscellaneous silicon alloys.

TABLE 2  
U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST<sup>1, 2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
<b>Ferrosilicon:</b>						
<b>More than 55% silicon:</b>						
Canada	299	179	\$394,000	4,030	2,420	\$4,770,000
Colombia	8	6	12,200	53	36	77,000
Italy	--	--	--	16	10	30,200
Malaysia	--	--	--	34	26	51,500
Mexico	111	67	105,000	815	494	977,000
Spain	--	--	--	16	10	20,300
Thailand	--	--	--	16	10	16,100
United Kingdom	--	--	--	12	11 <sup>3</sup>	33,900
<b>Total</b>	<b>418</b>	<b>252</b>	<b>511,000</b>	<b>4,990</b>	<b>3,010</b>	<b>5,970,000</b>
<b>Other ferrosilicon:</b>						
Belgium	--	--	--	17	8	19,600
Canada	117	59	172,000	1,560	778	1,720,000
Colombia	11	5	15,600	63	29	89,900
Dominican Republic	18	9	48,200	18	9	48,200
Germany	--	--	--	11	2	10,400
Indonesia	--	--	--	16	8	23,800
Italy	--	--	--	33	18	60,500
Mexico	79	40	103,000	477	240	605,000
Peru	--	--	--	15	8	28,800
Spain	--	--	--	16	8	23,800
Other (7 countries)	4	2	8,410	30	15	50,600
<b>Total</b>	<b>230</b>	<b>115</b>	<b>347,000</b>	<b>2,250</b>	<b>1,120</b>	<b>2,680,000</b>
<b>Total ferrosilicon</b>	<b>648</b>	<b>366</b>	<b>859,000</b>	<b>7,250</b>	<b>4,140</b>	<b>8,650,000</b>

See footnotes at end of table.

TABLE 2--Continued  
 U.S. EXPORTS OF FERROSILICON AND SILICON METAL IN AUGUST 2007<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
<b>Metal:</b>						
<b>More than 99.99% silicon:</b>						
China	256	XX	\$24,600,000	1,800	XX	\$195,000,000
Denmark	4	XX	184,000	41	XX	4,920,000
Germany	222	XX	15,700,000	1,600	XX	116,000,000
Japan	976	XX	83,600,000	5,760	XX	513,000,000
Korea, Republic of	89	XX	7,620,000	808	XX	69,100,000
Malaysia	13	XX	2,300,000	96	XX	15,400,000
Norway	288	XX	17,400,000	2,320	XX	122,000,000
Taiwan	111	XX	8,190,000	627	XX	60,700,000
Ukraine	26	XX	1,810,000	121	XX	9,310,000
United Kingdom	7	XX	1,190,000	76	XX	10,700,000
Other (38 countries)	28	XX	3,300,000	229	XX	29,100,000
<b>Total</b>	<b>2,020</b>	<b>2,020<sup>e</sup></b>	<b>166,000,000</b>	<b>13,500</b>	<b>13,500<sup>e</sup></b>	<b>1,140,000,000</b>
<b>99.00% - 99.99% silicon:</b>						
Brazil	--	--	--	678	672	1,720,000
China	244	242	719,000	1,010	1,000	2,970,000
Finland	7	7	10,000	7	7	10,000
Germany	--	--	--	36	36	51,000
Ireland	--	--	--	11	11	15,000
Japan	--	--	--	17	17	24,500
Mexico	--	--	--	14	14	22,900
Singapore	16	16	23,200	29	29	40,900
Switzerland	--	--	--	21	21	30,300
Taiwan	--	--	--	16	16	22,900
Other (7 countries)	--	--	--	27	26	43,800
<b>Total</b>	<b>268</b>	<b>266</b>	<b>752,000</b>	<b>1,870</b>	<b>1,850</b>	<b>4,950,000</b>
<b>Other silicon:</b>						
Canada	--	--	--	269	262	287,000
China	33	32	56,200	574	558	984,000
France	--	--	--	37	36	49,000
Germany	--	--	--	37	36	57,100
Hong Kong	--	--	--	42	41	55,500
Japan	101	98	140,000	809	782	4,030,000
Korea, Republic of	--	--	--	649	630	858,000
Netherlands	148	143	332,000	635	617	2,660,000
Taiwan	49	47	567,000	87	84	646,000
United Kingdom	--	--	--	36	35	58,000
Other (16 countries)	27	26	53,400	139	135	350,000
<b>Total</b>	<b>358</b>	<b>347</b>	<b>1,150,000</b>	<b>3,320</b>	<b>3,220</b>	<b>10,000,000</b>
<b>Total silicon metal</b>	<b>2,650</b>	<b>2,630</b>	<b>168,000,000</b>	<b>18,700</b>	<b>18,500</b>	<b>1,160,000,000</b>

<sup>e</sup>Estimated. XX Not applicable. -- Zero.

<sup>1</sup>Countries listed are the 10 leading exporters in terms of year-to-date quantities (gross weight).

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

<sup>3</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2007<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
<b>Ferrosilicon:</b>						
55% - 80% silicon, over 3% Ca:						
Brazil	--	--	--	152	92	\$200,000
Canada	--	--	--	13	9	11,200
China	--	--	--	3,720	2,750	3,340,000
France	214	134	\$329,000	857	536	1,350,000
Sweden	--	--	--	4	2	11,300
<b>Total</b>	<b>214</b>	<b>134</b>	<b>329,000</b>	<b>4,740</b>	<b>3,390</b>	<b>4,900,000</b>
55% - 80% silicon, Other:						
Brazil	963	729	951,000	3,690	2,790	3,610,000
Canada	1,480	1,080	1,790,000	8,880	6,600	10,900,000
China	10,700	8,180	10,100,000	84,700	62,000	71,600,000
France	126	164	225,000	1,410	984	2,700,000
Germany	19	84	85,900	291	219	1,440,000
Iceland	19	14	17,200	495	368	485,000
India	17	12	19,600	88	63	112,000
Norway	223	13	317,000	1,650	1,220	2,320,000
Russia	3,000	2,280	3,360,000	35,400	26,300	32,700,000
Venezuela	6,500	4,880	5,710,000	30,900	23,200	25,600,000
Other (3 countries)	29	21	120,000	153	107	585,000
<b>Total</b>	<b>23,100</b>	<b>17,400</b>	<b>22,700,000</b>	<b>168,000</b>	<b>124,000</b>	<b>152,000,000</b>
80% - 90% silicon, Germany	--	--	--	34	25	184,000
More than 90% silicon, China	--	--	--	3,000	2,750	2,390,000
<b>Magnesium ferrosilicon:</b>						
Argentina	109	42	224,000	1,080	465	2,020,000
Brazil	--	--	--	1,560	712	1,370,000
Canada	834	389	864,000	6,970	3,240	7,250,000
China	38	17	73,900	804	360	845,000
France	18	8	14,800	101	48	128,000
Germany	25	12	38,500	60	29	106,000
Japan	--	--	--	126	46	275,000
Netherlands	--	--	--	54	25	52,700
Norway	78	36	81,700	1,840	850	1,750,000
Russia	--	--	--	1,400	630	672,000
Other (2 countries)	--	--	--	71	40	96,200
<b>Total</b>	<b>1,100</b>	<b>503</b>	<b>1,300,000</b>	<b>14,100</b>	<b>6,450</b>	<b>14,600,000</b>
<b>Other ferrosilicon:</b>						
Canada	502	124	452,000	5,110	1,240	4,680,000
China	1	(3)	3,380	12,200	1,540	3,330,000
France	18	8	17,200	90	42	84,200
Russia	--	--	--	241	117	208,000
<b>Total</b>	<b>521</b>	<b>133</b>	<b>473,000</b>	<b>17,600</b>	<b>2,940</b>	<b>8,300,000</b>
<b>Total ferrosilicon</b>	<b>24,900</b>	<b>18,200</b>	<b>24,800,000</b>	<b>207,000</b>	<b>139,000</b>	<b>182,000,000</b>

See footnotes at end of table.

TABLE 3--Continued  
U.S. IMPORTS FOR CONSUMPTION OF FERROSILICON AND SILICON METAL IN AUGUST 2007<sup>1,2</sup>

(Metric tons, unless otherwise specified)

Country	Gross weight	Contained weight	Value	Year to date		
				Gross weight	Contained weight	Value
<b>Metal:</b>						
<b>More than 99.99% silicon:</b>						
Canada	3	XX	\$134,000	28	XX	\$741,000
China	15	XX	912,000	61	XX	4,060,000
Germany	111	XX	14,500,000	827	XX	85,000,000
Italy	22	XX	1,880,000	195	XX	17,400,000
Japan	48	XX	6,210,000	346	XX	48,000,000
Korea, Republic of	2	XX	388,000	29	XX	6,210,000
Poland	--	XX	--	7	XX	327,000
Spain	1	XX	9,900	4	XX	100,000
Taiwan	--	XX	--	20	XX	1,470,000
Turkey	--	XX	--	13	XX	28,900
Other (14 countries)	2	XX	423,000	19	XX	2,800,000
<b>Total</b>	<b>204</b>	<b>204<sup>e</sup></b>	<b>24,500,000</b>	<b>1,550</b>	<b>1,550<sup>e</sup></b>	<b>166,000,000</b>
<b>99.00% - 99.99% silicon:</b>						
Australia	1,880	1,870	3,210,000	10,200	10,100	17,600,000
Brazil	4,280	4,250	7,840,000	30,900	30,600	53,100,000
Canada	1,450	1,440	2,790,000	13,300	13,200	23,800,000
China	--	--	--	5	3	18,300
Netherlands	--	--	--	312	310	567,000
Norway	601	598	1,650,000	4,960	4,910	13,100,000
Philippines	50	50	77,600	768	729	1,200,000
South Africa	6,260	6,220	11,100,000	27,500	27,300	46,400,000
Spain	350	348	714,000	700	695	1,420,000
United Kingdom	30	30	53,900	50	49	88,300
<b>Total</b>	<b>14,900</b>	<b>14,800</b>	<b>27,400,000</b>	<b>88,700</b>	<b>87,900</b>	<b>157,000,000</b>
<b>Other silicon:</b>						
Brazil	342	324	710,000	1,620	1,580	2,990,000
Canada	314	307	579,000	3,600	3,520	6,350,000
China	(3)	(3)	2,100	17	14 <sup>4</sup>	70,300
Japan	--	--	--	83	2	90,400
Korea, Republic of	--	--	--	14	13	40,400
Norway	--	--	--	61	42	179,000
Philippines	38	38	54,900	323	316	491,000
South Africa	40	39	77,600	40	39	77,600
Sweden	--	--	--	216	62 <sup>4</sup>	395,000
United Kingdom	29	28	51,800	306	301	540,000
Other (3 countries)	--	--	--	1	1	87,500
<b>Total</b>	<b>762</b>	<b>737</b>	<b>1,480,000</b>	<b>6,280</b>	<b>5,890</b>	<b>11,300,000</b>
<b>Total silicon metal</b>	<b>15,900</b>	<b>15,700</b>	<b>53,300,000</b>	<b>96,500</b>	<b>95,400</b>	<b>335,000,000</b>

<sup>e</sup>Estimated. XX Not applicable. -- Zero.

<sup>1</sup>Countries listed are the 10 leading importers in terms of year-to-date quantities (gross weight).

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

<sup>3</sup>Less than ½ unit.

<sup>4</sup>All or part of these data have been referred to the U.S. Census Bureau for verification.

Source: U.S. Census Bureau.