

Mineral Industry Surveys

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CHROMIUM IN MAY 2007

On the basis of gross weight, consumption of chromium ferroalloys and metal in May 2007 decreased slightly compared with consumption in April 2007, according to the U.S. Geological Survey.

Included in this Mineral Industry Surveys are U.S. salient chromium statistics, U.S. Government stockpile inventory of

chromium materials in May 2007, consumption by end use and consumer stocks of chromium ferroalloys and metal at the end of May 2007, U.S. foreign trade data for selected chromium containing materials in April 2007, and chromium ferroalloys and metals prices.

TABLE 1 U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons, gross weight)

	2006	2007			
	Janua ry-				January-
	De cember ²	March	April	May	May ²
Production:					
Stainless steel production ³	2,460,000	216,000	199,000	191,000	1,010,000 4
Components of U.S. supply:					
Stainless steel scrap receipts	1,050,000	89,800	78,200	78,100	428,000
Stainless steel scrap consumption	1,500,000	132,000	115,000	115,000	624,000
Imports for consumption:					
Chromite ore	150,000	7,370	3,790	3,420	52,800
Ferrochromium:					
More than 4% carbon	393,000	21,500	36,000	49,800	186,000
More than 0.5%, but not more than 3% carbon	29	1,300	600		4,500
Not more than 0.5% carbon		4,970	2,680	2,990	14,800
Ferrochromium silicon	38,300	4,940	5,690		13,300
Total ferroalloy imports	459,000	32,700	44,900	52,700	219,000
Chromium metal ⁵	10,900	928	1,240	1,140	4,600
Stainless steel	872,000	72,500	69,200	74,300	358,000
Stainless steel scrap	180,000	14,500	12,000	13,600	58,800
Distribution of U.S. supply:	—				
Consumption, industry, chromium ferroalloys and metal	553,000	37,300	37,700	37,200	185,000
Exports:	_				
Chromite ore	53,900	899	12,000	13,100	27,300
Chromium ferroalloys:					
High-carbon ferrochromium	18,800	1,120	1,340	939	17,000
Low-carbon ferrochromium	16,600	168	395	3,010	11,700
Ferrochromium silicon	248	32	82	110	224
Total ferroalloy exports	35,700	1,320	1,820	4,060	28,900
Chromium metal	1,020	80	140	105	547
Stainless steel	410,000	47,100	44,800	54,600	220,000
Stainless steel scrap	506,000	84,400	58,000	69,800	351,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	— XX	11,900	11,700	12,800	XX
Government stoc kpile:					
Government stockpile: Chromium ferroalloys	XX	303,000	286,000	268,000	XX

XX Not applicable. -- Zero.

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

²May include revised data.

³Data on stainless steel production reported by American Iron and Steel Institute; monthly, quarterly, and year-to-date production of stainless and heat-resisting raw steel.

⁴Includes revised data that are not broken out by specific month.

⁵Includes waste and scrap and other.

U.S. REPORTED CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS IN $2007^{1,\,2}$

(Metric tons, gross weight unless otherwise noted)

			January-
	April	May	May ³
Consumption by end use:			
Alloy uses:			
Iron alloys:			
Steel:			
Carbon steel	314	309	1,540
High-strength low-alloy steel	421	420	2,260
Stainless and heat-resisting steel	33,000	32,600	163,000
Full alloy steel	1,830	1,780	7,590
Electrical steel	W	W	W
Tool steel	426	440	2,190
Unspecified steel	W	W	W
Cast irons	W	W	W
Superalloys	744	709	3,560
Other alloys ⁴	34	37	172
Total	37,700	37,200	185,000
Total, chromium content	22,000	21,500	108,000
Consumption by material:			
Low-carbon ferrochromium	2,070	1,970	10,000
High-carbon ferrochromium	32,100	32,100	158,000
Ferrochromium silicon	3,110	2,690	15,100
Chromium metal	375	357	1,830
Chromite ore	W	W	W
Chromium-aluminum alloy	24	22	112
Other chromium materials	W	W	W
Total	37,700	37,200	185,000
Total, chromium content	22,000	21,500	108,000
Consumer stocks:			
Low-carbon ferrochromium	1,870	2,000	XX
High-carbon ferrochromium	8,400	9,560	XX
Ferrochromium silicon	1,180	1,040	XX
Chromium metal	153	132	XX
Chromite ore	18	21	XX
Chromium-aluminum alloy	18	19	XX
Other chromium materials	13	10	XX
Total	11,700	12,800	XX
Total, chromium content	6,870	7,480	XX

W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

²Includes estimates.

³May include revised data.

⁴Includes welding and alloy hard-facing rods and materials; wear- and corrosion-resistant alloys; and aluminum, copper, magnetic, nickel, and other alloys.

U.S. GOVERNMENT STOCKPILE INVENTORY OF

CHROMIUM MATERIALS^{1, 2}

(Metric tons)

	Chromiur	n ferroalloys	
	High-carbon	Low-carbon	-
	ferro-	ferro-	Chromium
Period	chromium	chromium	metal
2006:			
May	271,000	139,000	5,280
June	270,000	139,000	5,280
July	270,000	137,000	5,280
August	267,000	137,000	5,280
September	265,000	135,000	5,280
October	263,000	133,000	5,280
November	255,000	132,000	5,280
December	229,000	118,000	5,280
2007:			
January	223,000	111,000	5,280
February	215,000	108,000	5,280
March	204,000	98,900	5,280
April	191,000	94,900	5,280
May	177,000	91,300	5,280

¹Data are rounded to no more than three significant digits.

²These Government stocks are reported by the Defense National Stockpile Center in Inventory of Stockpile Materials R-1, which reports uncommitted inventory. Uncommitted inventory is that inventory for which there is no sales contract. Committed inventory is that inventory for which there is a sales contract, however, the material has not yet been shipped. For chromium materials, the R-1 report includes chromium materials that (1) meet specifications and are held in excess of goal and (2) do not meet specifications and are held in excess of goal. The R-1 report excludes chromium materials that are committed and awaiting shipment.

Source: Defense National Stockpile Center.

TABLE 4	
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS, AND MET	'AL ¹

	Chromi	te ore	Ch	romium ferroalloys	Chromium metal ³		
	Gross		Gross	Chromium		Gross	
	weight	Value	weight	content	Value	weight	Value
Period	(metric tons)	(thousands)	(metric tons)	(metric tons)	(thousands)	(metric tons)	(thousands)
2006:							
April	- 331	\$163	708	403	\$982	43	\$1,370
May	1,080	277	1,710	937	1,670	58	1,440
June	- 8,160	825	6,300	3,750	5,660	66	1,380
July	- 8,780	725	8,570	5,170	7,060	95	1,800
August	6,940	5,550	2,380	1,410	3,000	109	2,270
September	2,280	309	1,440	801	2,060	109	1,910
October	445	157	2,050	1,240	2,360	95	1,830
November	22,700	1,240	2,560	1,610	3,650	85	1,720
December	- 286	116	7,380	4,410	8,550	62	1,490
January-December	53,900	10,200	35,700	21,300	38,100	1,020	21,300
2007:							
January	455	185	5,410	3,330	6,050	107	1,990
February	821	361	16,300	11,100	15,500	115	1,600
March	- 899	368	1,320	745	1,620	80	1,600
April	12,000	748	1,820	1,070	2,310	140	2,490
January-April	14,200	1,660	24,900	16,200	25,500	442	7,680

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

²Includes low-, medium-, and high-carbon ferrochromium and ferrochromium silicon.

³Includes chromium metal waste and scrap and unwrought powders.

U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND CHROMIUM METAL^1

(Metric tons)

	2006	2007		
	January-			January-
	December ²	March	April	April ²
Chromite ore:				
Not more than 40%:				
Gross weight	117		5	5
Chromic oxide content	45		2	2
More than 40% but less than 46% chromic oxide:				
Gross weight	3,810	73	48	25,900
Chromic oxide content	1,750	34	22	11,900
46% or more chromic oxide:				
Gross weight	146,000	7,300	3,740	23,600
Chromic oxide content	76,300	3,410	1,780	11,000
Total, all grades:				
Gross weight	150,000	7,370	3,790	49,400
Chromic oxide content	78,100	3,440	1,800	22,900
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5%:				
Gross weight	28,100	4,970	2,680	11,800
Chromium content	19,300	3,410	1,840	8,070
More than 0.5% but not more than 3%:				
Gross weight	29	1,300	600	4,500
Chromium content	23	715	419	2,530
Total, low-carbon:				
Gross weight		6,270	3,280	16,300
Chromium content	19,300	4,130	2,260	10,600
High-carbon: ⁴				
Gross weight	393,000	21,500	36,000	137,000
Chromium content	230,000	13,700	21,000	80,100
Total, all grades:				
Gross weight	421,000	27,800	39,200	153,000
Chromium content	249,000	17,900	23,200	90,700
Chromium metal:				
Unwrought powders	1,250	96	90	419
Waste and scrap		1	4	6
Other than waste and scrap and unwrought powders	9,540	831	1,150	3,040
Total, all grades	10,900	928	1,240	3,460

-- Zero.

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

²May include revised data.

³Ferrochromium containing not more than 3% carbon.

⁴Ferrrochromium containing more than 4% carbon.

TABLE 6 U.S. IMPORTS FOR CONSUMPTION OF FERROC HROMIUM IN 2007, BY GRADE AND BY COUNTRY¹

		April		January-April ²			
	Gross	Chromium		Gross	Chromium		
	weight	c on te nt	Value ³	weight	content	Value ³	
Grade and country	(metric tons)	(metric tons)	(thousands)	(metric tons)	(metric tons)	(thousands)	
High-carbon ferrochromium: ⁴							
India				55	36	\$27	
Kazakhstan	15,600	10,900	\$19,700	51,300	36,000	54,500	
Russia	493	306	405	8,500	5,360	6,930	
South Africa	19,900	9,820	11,600	67,300	33,400	39,500	
Switzerland				3,500	1,680	2,130	
Zimbabwe				6,050	3,630	5,580	
Total	36,000	21,000	31,600	137,000	80,100	109,000	
Low-carbon ferrochromium: ⁵							
Not more than 0.5% carbon:							
Brazil				2	1	6	
China	4	3	6	143	94	296	
Germany	819	576	1,680	2,350	1,650	5,220	
Japan	456	305	853	1,580	1,060	3,190	
Kaz akh sta n	200	140	364	1,700	1,190	2,870	
Russia	1,180	806	1,940	5,760	3,910	9,230	
South Africa	20	13	39	282	159	270	
Sweden				19	14	69	
Total	2,680	1,840	4,880	11,800	8,070	21,200	
More than 0.5% but not more than 3%							
Kaz akh sta n	600	419	1,090	600	419	1,090	
South Africa				3,900	2,120	3,860	
Total	600	419	1,090	4,500	2,530	4,950	
All grades:							
Braz il				2	1	6	
China	4	3	6	143	94	296	
Germany	819	576	1,680	2,350	1,650	5,220	
India				55	36	27	
Japan	456	305	853	1,580	1,060	3,190	
Kazakhstan	16,400	11,400	21,100	53,600	37,700	58,500	
Russia	1,670	1,110	2,340	14,300	9,270	16,200	
South Africa	19,900	9,830	11,600	71,500	35,600	43,600	
Sweden				19	14	69	
Switzerland				3,500	1,680	2,130	
Zimbabwe				6,050	3,630	5,580	
Total	39,200	23,200	37,600	153,000	90,700	135,000	
7			2.,200	22,000	,	,500	

-- Zero.

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

²May include revised data.

³Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges ⁴Ferrochromium containing more than 4% carbon.

⁵Ferrochromium containing not more than 3% carbon.

TABLE 7 U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2007, BY GRADE AND BY COUNTRY $^{\rm I}$

	Ap	ril	January		
	Gross weight	Value ³	Gross weight	Value ³	
Grade and country	(metric tons)	(thousands)	(metric tons)	(thousands)	
Unwrought powders:					
China		\$373	38	\$624	
France			3	20	
Germany			12	71	
Japan	6	284	17	682	
Russia	17	95	167	1,430	
Spain	16	86	16	86	
United Kingdom	33	166	165	1,190	
Total	90	1,000	419	4,110	
Waste and scrap:					
Japan	4	36	4	45	
Korea, Republic of			(4)	8	
Taiwan			2	28	
Total	4	36	6	81	
Other than waste and scrap and unwrought powders:					
China		1,420	721	6,040	
France		1,850	781	6,990	
Germany	9	281	19	521	
Italy			(4)	3	
Japan	(4)	12	(4)	24	
Netherlands	7	31	7	31	
Russia	574	3,580	1,050	6,960	
Switzerland	(4)	5	(4)	5	
Taiwan	5	9	5	9	
United Kingdom		1,610	459	3,620	
Total	1,150	8,790	3,040	24,200	
All grades:					
China		1,790	759	6,660	
France		1,850	783	7,010	
Germany	9	281	32	591	
Italy			(4)	3	
Japan		332	21	750	
Korea, Republic of			(4)	8	
Netherlands	7	31	7	31	
Russia	- 592	3,680	1,220	8,390	
Spain		86	16	86	
Switzerland	(4)	5	(4)	5	
Taiwan	5	9	6	38	
United Kingdom	235	1,770	624	4,810	
Total	1,240	9,830	3,460	28,400	

-- Zero.

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

²May include revised data.

³Customs import value generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and ⁴Less than ¹/₂ unit.

TABLE 8
U.S. TRADE OF STAINLESS STEEL, BY PRODUCT, IN 2007 ¹

	Apr	il	Januar	y-April
	Gross weight	Value ²	Gross weight	Value ²
Stainless steel product	(metric tons)	(thousands)	(metric tons)	(thousands)
Exports:				
Ingot	1,160	\$7,520	4,780	\$31,300
Flat-rolled (width > 600 mm)		82,000	90,400	290,000
Flat-rolled (width < 600 mm)	8,640	48,600	36,600	190,000
Bars and rods in irregular coils	872	4,520	3,340	16,300
Other bars and rods	3,780	26,900	12,900	90,600
Wire	813	5,490	2,750	19,100
Tubes, pipes, hollow profiles	4,060	30,300	14,700	108,000
Total	44,800	205,000	165,000	746,000
Stainless steel scrap	58,000	124,000	281,000	643,000
Grand total	103,000	329,000	446,000	1,390,000
Imports:				
Ingot	10,600	51,400	44,600	200,000
Flat-rolled (width > 600 mm)	29,000	131,000	117,000	474,000
Flat-rolled (width < 600 mm)	3,650	22,600	15,400	85,000
Bars and rods in irregular coils	2,390	11,100	10,400	47,900
Other bars and rods	8,640	46,700	36,200	185,000
Wire	3,610	23,100	14,400	85,600
Tubes, pipes, hollow profiles	11,300	86,300	45,700	332,000
Total	69,200	372,000	284,000	1,410,000
Stainless steel scrap	12,000	21,300	45,200	62,100
Grand total	81,100	393,000	329,000	1,470,000

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

²Export value is free alongside ship (f.a.s.). Import value is Customs import value, which generally represents a value in the foreign country and there fore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

Source: U.S. Census Bureau.

TABLE 9 HIGH-CARBON FERROCHROMIUM AVERAGE MONTHLY PRICES

(Cents per pound, contained chromium)

	United States ¹						
Month	1	2	3	4	5		
007:							
January	71.0 - 76.0	67.5 - 70.0	65.0 - 66.3	67.3 - 69.0	63.0 - 65.0		
February	71.0 - 76.0	72.8 - 75.0	68.0 - 70.0	72.0 - 74.0	66.5 - 69.5		
March	71.0 - 76.0	80.6 - 82.8	75.2 - 77.2	80.0 - 82.6	70.0 - 74.0		
April	80.5 - 83.0	96.0 - 99.5	86.0 - 92.5	93.5 - 100	80.0 - 85.0		
May	81.0 - 83.0	102 - 106	88.5 - 97.5	98.3 - 105	91.0 - 96.5		
Yearly avg.	74.9 - 78.8	83.7 - 86.6	76.5 - 80.7	82.2 - 86.2	74.1 - 78.0		

See footnotes at end of table.

TABLE 9--Continued HIGH-CARBON FERROCHROMIUM AVERAGE MONTHLY PRICES

		Europe ²			Japan ³		Hong Kong ⁴		
Month	1	2	3	4	1	2	1	2	China ⁵
2007:									
January	67.0 - 71.0	57.0 - 60.0	77.0 - 79.0	66.5 - 71.0	68.3 - 69.8	83.0	68.0 - 70.0	NA - NA	6900 - 7060
February	75.0 - 77.0	72.0 - 74.0	77.0 - 78.0	70.5 - 77.0	72.0 - 73.0	83.0	68.0 - 70.0	NA - NA	7330 - 7440
Marc h	75.0 - 77.0	78.0 - 80.6	NA - 75.0	83.2 - 91.2	78.8 - 80.6	83.0	68.0 - 70.0	NA - NA	7600 - 7770
April	79.5 - 81.5	91.0 - 95.0	81.0 - 79.0	95.3 - 105	82.0 - 84.8	86.5	68.0 - 70.0	NA - NA	8290 - 8450
May	84.0 - 86.0	100 - 105	81.0 - 83.0	99.0 - 109	85.0 - 90.0	90.0	76.5 - 82.5	NA - NA	8550 - 8950
Yearly avg.	76.1 - 78.5	79.6 - 82.9	79.0 - 78.8	82.9 - 90.5	77.2 - 79.6	85.1	69.7 - 72.5	NA - NA	7730 - 7930

(Cents per pound, contained chromium)

NA Not available.

¹Source for United States 1 is Platts Metals Week; United States 1 is called United States charge 50% - 55% chromium, imported, by Platts Metals Week. Source for United States 2 is called United States 60% - 65% chromium, imported, by Platts Metals Week. Source for United States 3 is called 50% - 52% chromium, imported, by Platts Metals Week. Source for United States 3 is called 50% - 52% chromium, imported, North American transaction by Ryan's Notes. Source for United States 4 is called 60% - 65% chromium, imported, North American transaction by Ryan's Notes. Source for United States 5 is Metal Bulletin; United States 5 is called 60% - 65% chromium, max. 2% silicon, by Metal Bulletin.

²Source for Europe 1 is Platts Metals Week; Europe 1 is called high-carbon 52% chromium, by Platts Metals Week. Source for Europe 2 is Platts Metals Week; Europe 2 is called high-carbon 62% chromium, by Platts Metals Week. Source for Europe 3 is Metal Bulletin; Europe 3 is called lumpy chromium charge, basis 52% chromium, quarterly by Metal Bulletin. Source for Europe 4 is Metal Bulletin; Europe 4 is called 6% - 8% carbon, basis 60% chromium, max. 1.5% silicon, by Metal Bulletin.

³Source for Japan 1 is Platts Metals Week; Japan 1 is called 50% - 55% chromium, spot, cost insurance freight (c.i.f.), by Platts Metals Week. Source for Japan 2 is Platts Metals Week; Japan 2 is called 50% - 55% chromium, regular, c.i.f., by Platts Metals Week.

⁴Source for Hong Kong 1 is Platts Metals Week; Hong Kong 1 is called high-carbon 60% chromium, by Platts Metals Week. Source for Hong Kong 2 is Metal Bulletin; Hong Kong 2 is called 8% carbon, 50% chromium, free on board main Chinese ports, by Metal Bulletin.

⁵Source for China is Metal Bulletin; China is called 6% - 8% carbon, basis 60% chromium, delivered duty paid China RMB/tonne (metric ton), by Metal Bulletin.

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TABLE 10 LOW-CARBON FER ROCHROMIUM A VERAGE MONTHLY AND ANNUAL PRICES

Month	United States ¹							
	1	2	3	4	5			
2007:								
January	1.19 - 1.24	1.13 - 1.16	1.12 - 1.15	1.19 - 1.22	1.13 - 1.15			
February	1.32 - 1.34	1.20 - 1.25	1.19 - 1.23	1.27 - 1.30	1.19 - 1.21			
Marc h	1.41 - 1.46	1.22 - 1.26	1.21 - 1.24	1.40 - 1.45	1.21 - 1.24			
April	1.50 - 1.55	1.29 - 1.32	1.27 - 1.30	1.46 - 1.51	1.27 - 1.30			
May	1.60 - 1.64	1.31 - 1.33	1.30 - 1.32	1.50 - 1.55	1.30 - 1.32			
Yearly avg.	1.40 - 1.44	1.23 - 1.26	1.22 - 1.25	1.36 - 1.40	1.22 - 1.24			

(Dollars per pound, contained chromium, unless otherwise noted)

See footnotes at end of table.

TABLE 10--Continued LOW-CARBON FERROCHROMIUM AVERAGE MONTHLY AND ANNUAL PRICES

(Dollars per pound, contained chromium, unless otherwise noted)

	United States ¹				Europe ²		
Month	6	7	8	9	1	2	3
2007:							
January	1.10 - 1.13	1.16 - 1.18	1.05 - 1.08	1.02 - 1.06	1.03 - 1.13	1.16 - 1.20	1.20 - 1.24
February	1.18 - 1.20	1.21 - 1.27	1.13 - 1.17	1.07 - 1.10	1.03 - 1.13	1.17 - 1.21	1.22 - 1.26
March	1.20 - 1.22	1.25 - 1.35	1.20 - 1.25	1.12 - 1.14	1.03 - 1.13	1.22 - 1.28	1.25 - 1.30
April	1.24 - 1.26	1.35 - 1.40	1.24 - 1.28	1.13 - 1.15	1.14 - 1.22	1.22 - 1.27	1.25 - 1.30
May	1.24 - 1.26	1.45 - 1.53	1.28 - 1.32	1.16 - 1.20	1.25 - 1.30	1.37 - 1.42	1.42 - 1.47
Yearly Avg.	1.19 - 1.21	1.28 - 1.34	1.18 - 1.22	1.10 - 1.13	1.10 - 1.18	1.23 - 1.28	1.27 - 1.31

¹Source for United States 1 is Platts Metals Week; United States 1 is called United States low-carbon, 0.05% carbon, imported, by Platts Metals Week. Source for United States 2 is Platts Metals Week; United States 2 called United States low-carbon, 0.10% carbon, imported, by Platts Metals Week. Source for United States 3 is Platts Metals Week; United States 3 is called United States low-carbon, 0.15% carbon, imported, by Platts Metals Week. Source for United States 4 is Ryan's Notes; United States 4 is called 0.05% carbon, imported, North American transaction by Ryan's Notes. Source for United States 5 is called 0.1% carbon, imported, North American transaction by Ryan's Notes. Source for United States 6 is called 0.1% carbon, imported, North American transaction by Ryan's Notes. Source for United States 7 is called United States 6 is called 0.15% carbon, imported, North American transaction by Ryan's Notes. Source for United States 7 is called United States 6 is called 0.15% carbon, imported, North American transaction by Ryan's Notes. Source for United States 7 is called United States 6 is called 0.15% carbon, imported, North American transaction by Ryan's Notes. Source for United States 7 is called United States 6 is called 0.15% carbon, duty paid free on board (f.o.b.) Pittsburgh, 0.05% carbon, 65% min. chromium by Metal Bulletin. Source for United States 8 is called United States free market, low-carbon, duty paid f.o.b.

Pittsburgh, 0.10% carbon, 62% min. chromium by Metal Bulletin. Source for United States 9 is Metal Bulletin; United States 9 is called United States free market, low-carbon, duty paid f.o.b. Pittsburgh, 0.15% carbon, 60% min. chromium by Metal Bulletin.

 2 Source for Europe 1 is Platts Metals Week; Europe 1 is called 0.1% carbon, by Platts Metals Week. Source for Europe 2 is Metal Bulletin; Europe 2 is called 0.1% carbon, average 68% - 70% chromium, by Metal Bulletin. Source for Europe 3 is Metal Bulletin; Europe 3 is called European low-carbon, in warehouse, 0.06% carbon max., 65% chromium, by Metal Bulletin.

FERROCHROMIUM SILICON AND CHROMIUM METAL AVERAGE MONTHLY AND ANNUAL PRICES

		Chromium metal							
						Euro	ре		
	Ferrochromium	United States			Aluminothermic ⁴				
Month	silicon ¹	Electrolytic ² Aluminothermic ³		ermic ³	1		2		
2007:									
January	0.51	4.50	3.00 -	3.05	2.81 -	2.95	4.65 -	4.83	
February	0.52	4.50	3.14 -	3.19	2.86 -	2.95	4.65 -	4.83	
Marc h	0.56	NA	3.40 -	3.48	3.11 -	3.20	4.65 -	4.83	
April	0.62	NA	3.64 -	3.73	0.00 -	0.00	0.00 -	0.00	
May	0.65	NA	3.65 -	3.75	0.00 -	0.00	0.00 -	0.00	
Yearly avg.	0.57	4.50	3.37 -	3.44	1.76 -	1.82	2.79 -	2.90	

(Dollars per pound, gross weight, unless otherwise noted)

NA Not Available

¹Source for ferrochromium silicon, North American transaction is Ryan's Notes.

²Source for United States Electrolytic is Ryan's Notes; United States Electrolytic is called North American producer chrome metal, by Ryan's Notes.

³Source for United States Aluminothermic is Ryan's Notes; United States Aluminothermic is called aluminothermic imported chrome metal, by Ryan's Notes.

⁴Source for Europe Aluminothermic 1 is Metal Bulletin; Europe Aluminothermic 1 is called alumino-thermic, min. 99% metal, by Metal Bulletin; price converted from dollars per metric ton to dollars per pound. Source for Europe Aluminothermic 2 is Metal Bulletin; Europe Aluminothermic 2 is called western un-degassed AT, min. 99.4% metal, by Metal Bulletin; price converted from dollars per kilogram to dollars per pound.