



Mineral Industry Surveys

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CHROMIUM IN NOVEMBER 2015

On the basis of gross quantity, consumption of chromium ferroalloys and metal in November 2015 decreased by about 3% compared to that of October 2015. Consumption in November 2015 decreased by 7% compared with that of November 2014.

KWG Resources Inc. (KWG) and China Railway First Survey & Design Institute Group Co., Ltd. (FSDI) signed a confidentiality and non-disclosure agreement. The agreement, arranged by Golden Share Mining Corporation, included a 3-year standstill provision. During that time period, FSDI was to examine and analyze scoping and engineering data provided by Canada Chrome Corporation (CCC), a subsidiary of KWG. KWG sought to have FSDI undertake a feasibility study on all aspects of the construction of a Ring of Fire transportation corridor and railroad, including terms for construction financing facilities. FSDI was to deliver a proposal to KWG in early 2016.

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Reference Cited

KWG Resources Inc., 2015, China Railway FSDI Signs KWG standstill agreement: Toronto, Ontario, Canada, KWG Resources Inc. press release, November 24, unpaginated. (Accessed January 14, 2016, at <http://kwgresources.com/china-railway-fsdi-signs-kwg-standstill-agreement/>.)

TABLE 1
U.S. SALIENT CHROMIUM STATISTICS¹

(Metric tons)

	2014	2015			
	January– December ^{p, 2}	September	October	November	January– November ²
Production, stainless steel ³	2,390,000	178,000	191,000	159,000	2,180,000
Components of U.S. supply:					
Stainless steel scrap receipts	921,000	76,500	78,600	--	770,000
Stainless steel scrap consumption	1,320,000	107,000	114,000	--	1,120,000
Imports for consumption:					
Chromite ore	169,000	1,880	4,430	3,750	129,000
Ferrochromium:					
More than 4% carbon	595,000	18,500	24,100	11,200	342,000
More than 3% but not more than 4% carbon	3,040	39	--	--	768
More than 0.5% but not more than 3% carbon	14,500	--	--	100	3,880
Not more than 0.5% carbon	43,400	1,230	2,030	5,070	46,600
Ferrochromium silicon	17,400	--	1,560	27	5,810
Total ferroalloy imports	673,000	19,800	27,600	16,400	399,000
Chromium metal ⁴	17,400	976	822	713	12,100
Stainless steel	729,000	42,100	49,600	42,400	649,000
Stainless steel scrap	329,000	17,100	12,800	13,500	178,000
Distribution of U.S. supply:					
Consumption, industry, chromium ferroalloys and metal	432,000	35,000	35,000	34,000	387,000
Exports:					
Chromite ore	6,060	95	74	185	6,890
Chromium ferroalloys:					
High-carbon ferrochromium	3,850	96	20	44	708
Low-carbon ferrochromium	839	25	71	23	270
Ferrochromium silicon	36	--	--	--	31
Total ferroalloy exports	4,730	120	91	67	1,010
Chromium metal	658	31	38	50	775
Stainless steel	803,000	69,700	66,200	58,500	749,000
Stainless steel scrap	548,000	40,400	43,700	48,700	481,000
Stocks at end of period:					
Consumer, industry, chromium ferroalloys and metal	10,600	10,400	10,000	10,400	10,400
Government stockpile:					
Chromium ferroalloys	108,000	95,900	95,900	95,700	95,700
Chromium metal	3,960	3,960	3,960	3,960	3,960

^pPreliminary. -- Zero.

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

²May include revised data that are not broken out by specific month(s).

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 waste and scrap and other.

TABLE 2
U.S. REPORTED CONSUMPTION AND STOCKS OF CHROMIUM PRODUCTS^{1,2}

(Metric tons)

	2015		
	October	November	January– November ³
Consumption by end use:			
Steel:			
Carbon steel	209	136	2,010
High-strength low-alloy steel	152	132	1,580
Stainless and heat-resisting steel	31,400	30,500	345,000
Unspecified steel ⁴	2,720	2,720	31,900
Superalloys	437	425	4,700
Other alloys and uses ⁵	97	96	1,170
Total	35,000	34,000	387,000
Total, chromium content	20,100	19,600	222,000
Consumption by material:			
Low-carbon ferrochromium	1,850	1,750	20,600
High-carbon ferrochromium	30,500	29,600	337,000
Ferrochromium silicon	W	W	W
Chromium metal	160	159	1,760
Chromite ore	15	15	206
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	35,000	34,000	387,000
Total, chromium content	20,100	19,600	222,000
Consumer stocks:			
Low-carbon ferrochromium	1,460	1,470	1,470
High-carbon ferrochromium	7,700	8,050	8,050
Ferrochromium silicon	748	776	776
Chromium metal	47	44	44
Chromium-aluminum alloy	W	W	W
Other chromium materials	W	W	W
Total	10,000	10,400	10,400
Total, chromium content	5,820	6,090	6,090

W Withheld to avoid disclosing company proprietary data; included in "Total."

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

²Includes estimates.

³May include revised data that are not broken out by specific month(s).

⁴Includes electrical, full alloy, tool, and unspecified steel end uses.

⁵Includes cast irons, welding and alloy hard-facing rods and materials, wear- and corrosion-resistant alloys, and aluminum, copper, magnetic, nickel, and other alloys.

TABLE 3
U.S. GOVERNMENT STOCKPILE INVENTORY OF
CHROMIUM MATERIALS¹

(Metric tons)

	Chromium ferroalloys		Chromium metal
	High-carbon ferro-chromium	Low-carbon ferro-chromium	
2014:			
November	NA	NA	NA
December	73,500	34,600	3,960
2015:			
January	70,700	34,200	3,960
February	70,700	34,200	3,960
March	69,700	34,100	3,960
April	69,700	34,000	3,960
May	67,100	33,700	3,960
June	64,100	33,400	3,960
July	63,000	33,300	3,960
August	63,000	33,200	3,960
September	63,000	32,900	3,960
October	63,000	32,900	3,960
November	63,000	32,600	3,960

NA Not Available.

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

Source: Defense Logistics Agency, DLA Strategic Materials.

TABLE 4
U.S. EXPORTS OF CHROMITE ORE, CHROMIUM FERROALLOYS, AND METAL¹

	Chromite ore		Chromium ferroalloys ²			Chromium metal ³	
	Quantity (metric tons)	Value (thousands)	Quantity (metric tons)	Chromium content (metric tons)	Value (thousands)	Quantity (metric tons)	Value (thousands)
2014:							
November	256	\$112	322	147	\$533	68	\$1,240
December	105	80	237	120	354	26	857
January–December ⁴	6,060	4,150	4,730	2,290	8,060	658	17,900
2015:							
January	1,110	621	218	111	399	33	746
February	153	165	132	66	190	100	1,820
March	1,350	818	130	76	232	128	1,690
April	318	779	106	55	172	160	2,120
May	1,990	1,530	27	16	60	97	1,040
June	1,250	688	22	13	46	32	821
July	180	96	70	33	115	48	1,380
August	188	106	26	15	48	55	1,330
September	95	50	120	53	154	31	937
October	74	42	91	35	160	38	1,320
November	185	169	67	32	141	50	1,490
January–November ⁴	6,890	5,060	1,010	504	1,720	775	14,700

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

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

³Includes chromium metal, waste and scrap, and unwrought powders.

⁴May include revised data that are not broken out by specific month(s).

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF CHROMITE ORE, FERROCHROMIUM, AND
CHROMIUM METAL¹

(Metric tons)

	2014	2015		
	January– December ²	October	November	January– November ²
Chromite ore:				
Not more than 40% chromic oxide:				
Quantity	27	--	--	--
Chromic oxide content	6	--	--	--
More than 40% but less than 46% chromic oxide:				
Quantity	45,900	1,580	--	33,100
Chromic oxide content	21,000	696	--	14,500
46% or more chromic oxide:				
Quantity	123,000	2,850	3,750	95,400
Chromic oxide content	64,300	1,390	1,750	66,400
Total, all grades:				
Quantity	169,000	4,430	3,750	129,000
Chromic oxide content	85,200	2,090	1,750	80,800
Ferrochromium:				
Low-carbon: ³				
Not more than 0.5% carbon:				
Quantity	43,400	2,030	5,070	46,600
Chromium content	29,600	1,380	3,390	31,700
More than 0.5% but not more than 3% carbon:				
Quantity	14,500	--	100	3,880
Chromium content	10,000	--	61	2,610
Total, low-carbon:				
Quantity	57,900	2,030	5,170	50,400
Chromium content	39,700	1,380	3,450	34,300
Medium-carbon: ⁴				
Quantity	3,040	--	--	768
Chromium content	1,470	--	--	392
High-carbon: ⁵				
Quantity	595,000	24,100	11,200	342,000
Chromium content	327,000	12,200	6,300	186,000
Total, all grades:				
Quantity	656,000	26,100	16,300	393,000
Chromium content	368,000	13,600	9,750	221,000
Chromium metal:				
Unwrought powders	5,540	448	415	4,510
Waste and scrap	98	12	11	122
Other than waste and scrap and unwrought powders	11,800	363	287	7,440
Total, all grades	17,400	822	713	12,100

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Ferrochromium containing not more than 3% carbon.

⁴Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁵Ferrochromium containing more than 4% carbon.

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2015, BY GRADE AND COUNTRY¹

Grade and country	November			January–November ²		
	Quantity (metric tons)	Chromium content (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Chromium content (metric tons)	Value ³ (thousands)
High-carbon ferrochromium:⁴						
Albania	99	67	\$138	3,210	2,200	\$4,580
Brazil	343	212	577	1,070	592	1,130
China	--	--	--	63	39	97
Finland	1,500	814	1,410	4,530	2,470	4,260
India	294	183	315	17,400	10,700	19,300
Kazakhstan	60	41	115	33,200	20,900	45,900
Mexico	--	--	--	80	55	156
Oman	216	112	183	3,000	1,610	2,740
Russia	64	44	126	23,600	15,800	34,800
South Africa	5,590	3,090	4,340	199,000	99,500	177,000
Sweden	--	--	--	36	25	79
Turkey	--	--	--	16,700	10,500	21,500
Zimbabwe	3,010	1,730	3,050	40,000	21,900	40,000
Total	11,200	6,300	10,300	342,000	186,000	351,000
Medium-carbon ferrochromium, South Africa ⁵	--	--	--	768	392	406
Low-carbon ferrochromium:⁶						
More than 0.5% but not more than 3% carbon:						
Brazil	--	--	--	162	98	395
China	80	50	172	279	170	617
Kazakhstan	--	--	--	1,220	870	2,990
Poland	--	--	--	120	73	237
Russia	--	--	--	1,620	1,140	4,360
South Africa	20	11	37	472	257	824
Total	100	61	209	3,880	2,610	9,420
Not more than 0.5% carbon:						
Belgium	--	--	--	220	153	715
Brazil	877	546	1,600	1,670	1,040	3,390
China	254	143	513	4,960	3,010	10,900
Germany	400	281	1,410	5,560	3,900	20,500
India	--	--	--	70	28	194
Japan	220	155	915	2,650	1,850	11,000
Kazakhstan	--	--	--	638	455	1,640
Mexico	2	1	9	34	21	169
Russia	3,280	2,240	9,430	29,300	20,300	84,200
South Africa	--	--	--	708	430	1,730
Turkey	40	26	113	747	518	2,270
Total	5,070	3,390	14,000	46,600	31,700	137,000
All grades:						
Albania	99	67	138	3,210	2,200	4,580
Belgium	--	--	--	220	153	715
Brazil	1,220	759	2,180	2,910	1,730	4,920
China	333	193	685	5,300	3,220	11,600
Finland	1,500	814	1,410	4,530	2,470	4,260
Germany	400	281	1,410	5,560	3,900	20,500
India	294	183	315	17,500	10,700	19,500
Japan	220	155	915	2,650	1,850	11,000
Kazakhstan	60	41	115	35,000	22,300	50,600
Mexico	2	1	9	113	76	324
Oman	216	112	183	3,000	1,610	2,740
Poland	--	--	--	120	73	237
Russia	3,340	2,280	9,560	54,500	37,200	123,000
South Africa	5,610	3,110	4,370	201,000	101,000	180,000
Sweden	--	--	--	36	25	79
Turkey	40	26	113	17,500	11,000	23,700
Zimbabwe	3,010	1,730	3,050	40,000	21,900	40,000
Total	16,300	9,750	24,500	393,000	221,000	498,000

(See footnotes at end of table)

TABLE 6—continued
 U.S. IMPORTS FOR CONSUMPTION OF FERROCHROMIUM IN 2015, BY GRADE AND COUNTRY¹

Grade and country	November			January–November ²		
	Quantity (metric tons)	Chromium content (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Chromium content (metric tons)	Value ³ (thousands)

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs import 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 merchandise into the United States.

⁴Ferrochromium containing more than 4% carbon.

⁵Ferrochromium containing more than 3% carbon but not more than 4% carbon.

⁶Ferrochromium containing not more than 3% carbon.

Source: U.S. Census Bureau.

TABLE 7
U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2015, BY GRADE AND BY COUNTRY¹

Grade and country	November		January–November ²	
	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)
Unwrought powders:				
Austria	--	--	9	\$132
China	113	\$957	1,910	20,300
France	68	902	458	6,170
Germany	--	--	6	204
India	--	--	19	210
Japan	20	295	61	942
Russia	40	320	232	1,890
Taiwan	--	--	1	30
United Kingdom	174	1,860	1,820	20,200
Total	415	4,330	4,510	50,100
Waste and scrap:				
Austria	--	--	1	4
Canada	9	50	17	102
China	--	--	7	104
France	--	--	7	37
Germany	--	--	14	76
Japan	--	--	44	578
Mexico	--	--	10	67
Singapore	--	--	1	23
Taiwan	--	--	5	115
United Kingdom	2	9	15	150
Total	11	58	122	1,260
Other than waste and scrap and unwrought powders:				
Argentina	--	--	(4)	7
Belize	--	--	(4)	19
Canada	17	1,270	152	11,800
China	19	66	2,050	18,200
France	140	1,430	1,980	24,000
Germany	(4)	21	218	2,200
Japan	--	--	3	138
Malaysia	(4)	6	2	86
Netherlands	1	57	48	664
New Zealand	--	--	1	41
Russia	80	624	2,850	24,600
Spain	--	--	58	444
Taiwan	--	--	(4)	4
United Kingdom	30	401	81	1,210
Total	287	3,870	7,440	83,400
All grades:				
Argentina	--	--	(4)	7
Austria	--	--	10	136
Belize	--	--	(4)	19
Canada	26	1,320	170	11,900
China	132	1,020	3,970	38,600
France	208	2,330	2,450	30,200
Germany	(4)	21	238	2,480
India	--	--	19	210
Japan	20	295	108	1,660
Malaysia	(4)	6	2	86
Mexico	--	--	10	67
Netherlands	1	57	48	664
New Zealand	--	--	1	41
Russia	120	944	3,080	26,500
Singapore	--	--	1	23
Spain	--	--	58	444
Taiwan	--	--	6	148
United Kingdom	205	2,270	1,910	21,500
Total	713	8,260	12,100	135,000

(See footnotes at end of table)

TABLE 7—continued
 U.S. IMPORTS FOR CONSUMPTION OF CHROMIUM METAL IN 2015, BY GRADE AND BY COUNTRY¹

Grade and country	November		January–November ²	
	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)

-- Zero.

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

²May include revised data that are not broken out by specific month(s).

³Customs import 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 merchandise into the United States.

⁴Less than ½ unit.

Source: U.S. Census Bureau.

TABLE 8
U.S. STAINLESS STEEL TRADE, BY PRODUCT, IN 2015¹

Stainless steel product	November		January–November ²	
	Quantity (metric tons)	Value ³ (thousands)	Quantity (metric tons)	Value ³ (thousands)
Exports:				
Ingot	2,240	\$9,800	28,800	\$129,000
Flat-rolled (width > 600 mm)	42,700	77,500	562,000	1,260,000
Flat-rolled (width < 600 mm)	5,830	22,600	73,800	293,000
Bars and rods in irregular coils	587	1,410	5,070	17,600
Other bars and rods	3,010	24,800	34,700	281,000
Wire	658	9,020	7,150	96,900
Tubes, pipes, hollow profiles	3,450	31,500	37,300	333,000
Total	58,500	177,000	749,000	2,410,000
Stainless steel scrap	48,700	59,800	481,000	593,000
Grand total	107,000	236,000	1,230,000	3,000,000
Imports:				
Ingot	7,690	33,000	111,000	358,000
Flat-rolled (width > 600 mm)	19,700	47,100	334,000	819,000
Flat-rolled (width < 600 mm)	4,580	15,700	54,700	195,000
Bars and rods in irregular coils	2,250	6,910	34,800	117,000
Other bars and rods	400	2,170	4,160	23,900
Wire	828	4,260	9,340	52,100
Tubes, pipes, hollow profiles	7,010	46,100	100,000	713,000
Total	42,400	155,000	649,000	2,280,000
Stainless steel scrap	13,500	9,490	178,000	155,000
Grand total	55,900	165,000	827,000	2,430,000

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

²May include revised data that are not broken out by specific month(s).

³Export value is free alongside ship. Import value is Customs import value, which generally represents a value in the foreign country and therefore excludes U.S. import duties, freight, insurance, and other charges incurred in bringing the merchandise into the United States.

Source: U.S. Census Bureau.