

Mineral Industry Surveys

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VANADIUM IN AUGUST 2007

Reported domestic consumption of vanadium in August 2007 was about 3% less than that of the previous month, and was about 11% more than that of August 2006, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 296 metric tons (t) at the beginning of 2007 and 327 t at the end of August.

According to Ryan's Notes (2007b), U.S. ferrovanadium (FeV) prices ranged from \$19.300 to \$19.600 per pound of vanadium content in August, as compared with \$19.322 to \$19.644 in July. European FeV prices ranged from \$36.722 to \$37.500 per kilogram in August, as compared with \$36.933 to \$37.833 in July. Vanadium pentoxide (V_2O_5) prices ranged from \$7.444 to \$7.683 per pound in August, as compared with \$7.500 to \$7.750 in July.

Production of V_2O_5 at Highveld Steel and Vanadium Corp. Ltd.'s Vanchem facility (South Africa) rose to 2,174 t in the first

half of 2007 as compared with 1,788 t in the first half of 2006. Similarly, FeV production at Vanchem rose to 4,526 t in the first half of 2007 as compared with 3,793 t in the first half of 2006. Highveld scheduled refractory relining of 2 kilns in the second half of 2007, but owing to expected slow sales during the summer, didn't expect this to affect the market. Evraz Group S.A. increased its ownership position in Highveld to 79% after purchasing Credit Suisse Global's shares for \$219 million (Ryan's Notes, 2007a).

References Cited

Ryan's Notes, 2007a, Ferroalloy notes: Ryan's Notes, v. 13, no. 31, August 6, p. 5.
Ryan's Notes, 2007b, [untitled]: Ryan's Notes, v. 13, no. 35, September 3, p. 10.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM¹

(Kilograms, contained vanadium)

	2006 ^P		2007					
	Consumption	Stocks	July		August		Year to date	
			Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,350,000	247,000	292,000	273,000	279,000	282,000	2,280,000	282,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	298,000	48,100	66,800	38,800	68,400	44,600	518,000	44,600
Total	3,650,000	296,000	359,000	312,000	347,000	327,000	2,800,000	327,000

^PPreliminary. W Withheld to avoid disclosing company proprietary data; included with "Other."

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

²Includes other vanadium-iron-carbon alloys as well as vanadium oxides added directly to steel.

³Includes other vanadium alloys, vanadium metal, vanadium pentoxide, vanadates, chlorides, other specialty chemicals, and items indicated by symbol W.

TABLE 2
U.S. CONSUMPTION OF VANADIUM, BY END USE¹

(Kilograms, contained vanadium)

	2006 ^P	2007		
		July	August	Year to date
Steel:				
Carbon	931,000	85,100	77,600	660,000
High-strength low-alloy	1,020,000	106,000	106,000	817,000
Stainless and heat-resisting	60,700	5,110	5,120	40,900
Full alloy	1,020,000	97,100	105,000	775,000
Tool	322,000	43,400	29,600	296,000
Total steel	3,350,000	337,000	324,000	2,590,000
Superalloys	4,130	686	758	5,010
Miscellaneous and unspecified ²	296,000	21,100	22,600	206,000
Total consumption	3,650,000	359,000	347,000	2,800,000

^PPreliminary.

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

²Includes cast irons, alloys excluding steel and superalloys, chemical and ceramic uses, and other miscellaneous and unspecified uses.

TABLE 3
U.S. IMPORTS AND EXPORTS OF ALUMINUM-VANADIUM MASTER ALLOY AND VANADIUM
METAL, INCLUDING WASTE AND SCRAP¹

(Kilograms, gross weight)

	Aluminum-vanadium master alloy		Vanadium metal, including waste and scrap	
	Quantity	Value	Quantity	Value
Imports for consumption:				
2006	102,000	\$312,000	121,000	\$5,270,000
2007:				
June	18	9,280	--	--
July	--	--	--	--
Year to date	797,000	1,130,000	--	--
Exports:				
2006	17,000,000	54,500,000	491,000	13,200,000
2007:				
June	1,600,000	6,270,000	--	--
July:				
Brazil	1,420	34,200	--	--
Canada	719,000	2,300,000	--	--
Japan	7,070	174,000	--	--
Korea, Republic of	1,970	27,400	--	--
Mexico	1,320,000	3,800,000	--	--
Total	2,050,000	6,330,000	--	--
Year to date	13,100,000	46,200,000	--	--

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 4
U.S. IMPORTS AND EXPORTS OF FERROVANADIUM, VANADIUM PENTOXIDE (ANHYDRIDE) AND
OTHER OXIDES AND HYDROXIDES OF VANADIUM¹

(Kilograms, contained vanadium)

	Ferrovanadium		Vanadium pentoxide (anhydride) ²		Other oxides and hydroxides of vanadium	
	Quantity	Value	Quantity	Value	Quantity	Value
Imports for consumption:						
2006	2,140,000	\$90,500,000	1,920,000	\$45,200,000	129,000	\$3,370,000
2007:						
June	340,000	10,800,000	154,000	3,000,000	--	--
July:						
Austria	34,600	1,630,000	--	--	--	--
Canada	15,400	740,000	--	--	--	--
China	--	--	93,300	2,000,000	--	--
Czech Republic	16,200	695,000	--	--	--	--
Germany	739	63,500	--	--	--	--
Korea, Republic of	43,800	1,610,000	--	--	--	--
Mexico	99	22,800	--	--	--	--
Russia	--	--	56,700	841,000	--	--
South Africa	7,900	336,000	90,200	1,950,000	--	--
Total	119,000	5,100,000	240,000	4,780,000	--	--
Year to date	1,710,000	47,800,000	1,370,000	27,000,000	8,390	249,000
Exports:						
2006	515,000	11,400,000	341,000	7,150,000	832,000	7,780,000
2007:						
June	3,570	165,000	51,500	858,000	57,600	518,000
July:						
Canada	14,600	692,000	--	--	227	4,890
Germany	--	--	--	--	4,010	55,300
Italy	--	--	8,060	264,000	--	--
Saudi Arabia	--	--	38,200	801,000	--	--
Total	14,600	692,000	46,300	1,070,000	4,240	60,200
Year to date	94,000	3,550,000	248,000	3,890,000	215,000	2,430,000

-- Zero.

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

²May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG¹

(Kilograms, contained vanadium pentoxide)

	Ash and residues		Ash and residues (not from the manufacture of iron and steel)	
	Quantity	Value	Quantity	Value
2006	637,000	\$7,320,000	1,140,000	\$1,130,000
2007:				
June	115,000	683,000	41,100	9,060
July:				
Canada	--	--	85,300	193,000
Mexico	59,100	689,000	--	--
Total	59,100	689,000	85,300	193,000
Year to date	565,000	5,290,000	425,000	599,000

-- Zero.

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

Source: U.S. Census Bureau.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF MISCELLANEOUS VANADIUM CHEMICALS¹

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2006	16	\$26,700	115,000	\$3,330,000
2007:				
June	--	--	11,400	193,000
July:				
Germany	--	--	94	18,300
Japan	--	--	1	3,070
South Africa	--	--	11,000	182,000
Total	--	--	11,100	204,000
Year to date	81,400	772,000	110,000	2,180,000

-- Zero.

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

Source: U.S. Census Bureau.