

Mineral Industry Surveys

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VANADIUM IN AUGUST 2008

Reported domestic consumption of vanadium in August 2008 was about 2% more than that of the previous month, and was about 30% more than that of August 2007, according to the U.S. Geological Survey. Consumer stocks of vanadium, in all forms, were 295 metric tons (t) at the beginning of 2008 and 309 t at the end of August.

According to Ryan's Notes (2008), U.S. ferrovanadium (FeV) prices ranged from \$31.611 to \$33.111 per pound of vanadium content in August, as compared with \$34.125 to \$35.125 in July. European FeV prices ranged from \$63.667 to \$65.667 per kilogram in August, as compared with \$62.125 to \$64.000 in July. Vanadium pentoxide (V₂O₅) prices ranged from \$15.111 to \$15.722 per pound in August, as compared with \$15.025 to \$15.450 in July.

Windimurra Vanadium Limited's vanadium mine in western Australia was expected to start commercial production in the first quarter of 2009. By its second year of operation, Windimurra was expected to achieve full smelting capacity and produce up to 7,000 tons of FeV, with 80% vanadium content (Metal Pages, 2008).

References Cited

- Metal Pages, 2008, Mining at Windimurra Vanadium to start in early September: Metal Pages. (Accessed March 18, 2009, via <http://www.metal-pages.com/news>.)
Ryan's Notes, 2008, [untitled]: Ryan's Notes, v. 114, no. 35, September 1, p. 10.

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

(Kilograms, contained vanadium)

	2007		2008					
			July		August		Year to date	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovandium ²	3,320,000	253,000	370,000	213,000	379,000	254,000	2,900,000	254,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other ³	809,000	42,400	70,900	55,600	71,600	55,200	577,000	55,200
Total	4,130,000	295,000	441,000	269,000	451,000	309,000	3,480,000	309,000

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)

	2007	2008		
		July	August	Year to date
Steel:				
Carbon	882,000	83,000	63,600	537,000
High-strength low-alloy	1,270,000	132,000	132,000	1,060,000
Stainless and heat-resisting	61,400	6,580	32,300	95,900
Full alloy	1,180,000	173,000	175,000	1,400,000
Tool	420,000	21,400	21,400	171,000
Total steel	3,810,000	416,000	424,000	3,260,000
Superalloys	7,180	353	415	3,720
Miscellaneous and unspecified ²	314,000	25,200	25,900	212,000
Total consumption	4,130,000	441,000	451,000	3,480,000

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:				
2007	1,110,000	\$2,110,000	3,620	\$198,000
2008:				
June	38,000	176,000	--	--
July:				
Canada	18,600	42,900	--	--
China	5,030	33,400	--	--
Germany	--	--	680	29,100
Greece	19,100	93,000	--	--
Total	42,700	169,000	680	29,100
Year to date	236,000	994,000	682	34,400
Exports:				
2007	21,100,000	72,700,000	49,400	2,690,000
2008:				
June	1,000,000	3,820,000	--	--
July:				
Belgium	9,490	279,000	--	--
Brazil	675	19,900	--	--
Canada	513,000	1,660,000	988	33,300
Chile	--	--	993	17,400
Germany	496	14,600	--	--
Japan	20,600	605,000	--	--
Mexico	849,000	2,600,000	--	--
Netherlands	22,200	33,900	--	--
Taiwan	619	3,770	--	--
Total	1,420,000	5,220,000	1,980	50,700
Year to date	12,200,000	41,500,000	27,600	1,900,000

-- 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:						
2007	2,220,000	\$81,300,000	2,390,000	\$46,800,000	41,900	\$1,400,000
2008:						
June	361,000	22,000,000	405,000	13,200,000	--	--
July:						
Austria	32,000	2,460,000	--	--	8,380	539,000
Brazil	545	48,700	--	--	--	--
Canada	45,000	3,130,000	--	--	1	3,160
China	--	--	231,000	8,910,000	--	--
Czech Republic	16,200	1,110,000	--	--	--	--
Germany	267	42,700	--	--	--	--
India	450	29,000	--	--	--	--
Korea	147,000	10,200,000	--	--	--	--
Russia	--	--	75,500	2,490,000	--	--
South Africa	--	--	55,500	2,110,000	47,900	963,000
Total	241,000	17,100,000	362,000	13,500,000	56,300	1,510,000
Year to date	2,010,000	110,000,000	2,350,000	68,800,000	98,400	2,700,000
Exports:						
2007	206,000	5,810,000	327,000	5,460,000	626,000	7,530,000
2008:						
June	10,500	552,000	16,100	344,000	85,100	1,200,000
July:						
Canada	21,900	1,120,000	--	--	50,900	439,000
Japan	--	--	--	--	1,010	9,000
Mexico	823	27,400	--	--	--	--
Russia	--	--	20,000	794,000	55,400	977,000
Trinidad and Tobago	--	--	1,430	66,000	--	--
Total	22,700	1,150,000	21,400	860,000	107,000	1,420,000
Year to date	341,000	7,990,000	186,000	4,430,000	577,000	6,480,000

-- 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
2007	1,000,000	\$9,960,000	641,000	\$913,000
2008:				
June	56,800	813,000	54,600	87,800
July:				
Canada	13,200	4,700	48,800	115,000
Mexico	18,200	202,000	--	--
Total	31,400	207,000	48,800	115,000
Year to date	450,000	5,470,000	339,000	497,000

-- 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
2007	80,200	\$783,000	211,000	\$3,550,000
2008:				
June	1	7,200	22,200	633,000
July:				
China	--	--	2,940	85,700
India	25	7,300	--	--
Japan	--	--	10	7,430
South Africa	--	--	11,000	331,000
Total	25	7,300	14,000	425,000
Year to date	35	48,500	153,000	3,130,000

-- Zero.

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

Source: U.S. Census Bureau.