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Mineral Industry Surveys

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VANADIUM IN MARCH 2008

Reported domestic consumption of vanadium in March 2008 was about 3% more than that of the previous month, and was about 16% more than that of March 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 264 t at the end of March.

According to Ryan's Notes (2008c), U.S. ferrovanadium (FeV) prices ranged from $40.000 to $41.188 per pound of vanadium content in March, as compared with $33.889 to $36.278 in February. European FeV prices ranged from $76.000 to $80.000 per kilogram in March, as compared with $78.667 to $82.444 in February. Vanadium pentoxide (V_2O_5) prices ranged from $14.063 to $14.688 per pound in March, as compared with $12.944 to $13.889 in February.

Xstrata Alloys Ltd. (Rustenburg, South Africa) noted that supply disruptions in China and South Africa in the first quarter of 2008 led to FeV prices rising above $80 per kg, the highest price since June 2005 (Ryan's Notes, 2008a).

Xstrata had been running its vanadium operation at 90% capacity since February 1 to accommodate the government energy supplier, Eskom Holdings Limited. FeV prices remained level in spite of the announcement that Xstrata's second-quarter deliveries would be about 85% of normal for all customers. Sellers believed the decrease in Xstrata's deliveries would eventually impact the market. Even though Xstrata does not ship FeV to the United States because of anti-dumping duties, it does ship to other markets that presumably would have less excess material to ship to the United States, as Xstrata had been supplying less to its regular customers (Ryan's Notes, 2008b).

References Cited

Ryan's Notes, 2008a, Ferroalloy notes: Ryan's Notes, v. 14, no. 10, March 10, p. 4.
Ryan's Notes, 2008b, Ferroalloy notes: Ryan's Notes, v. 14, no. 12, March 24, p. 6.
Ryan's Notes, 2008c, [untitled]: Ryan's Notes, v. 14, no. 13, March 31, p. 9.

TABLE 1
U.S. CONSUMPTION AND CONSUMER STOCKS OF VANADIUM, BY FORM[1]

(Kilograms, contained vanadium)

	2007		2008					
			February		March		Year to date	
	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks	Consumption	Stocks
Ferrovanadium[2]	3,320,000	253,000	346,000	215,000	354,000	223,000	1,050,000	223,000
Vanadium-aluminum alloy	W	W	W	W	W	W	W	W
Other[3]	809,000	42,400	71,000	40,900	77,200	40,900	212,000	40,900
Total	4,130,000	295,000	417,000	255,000	431,000	264,000	1,260,000	264,000

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

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

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

[3]Includes 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 USE[1]

(Kilograms, contained vanadium)

		2008		
	2007	February	March	Year to date
Steel:				
Carbon	882,000	59,300	64,200	178,000
High-strength low-alloy	1,270,000	132,000	132,000	397,000
Stainless and heat-resisting	61,400	5,110	5,110	15,300
Full alloy	1,180,000	174,000	176,000	530,000
Tool	420,000	21,400	21,400	64,100
Total steel	3,810,000	391,000	399,000	1,180,000
Superalloys	7,180	445	559	1,410
Miscellaneous and unspecified[2]	314,000	25,400	31,500	74,900
Total consumption	4,130,000	417,000	431,000	1,260,000

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

[2]Includes 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 SCRAP[1]

(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:				
January	--	--	--	--
February:				
China	44,600	140,000	--	--
United Kingdom	--	--	2	5,300
Year to date	44,600	140,000	2	5,300
Exports:				
2007	21,100,000	72,700,000	49,400	2,690,000
2008:				
January	1,690,000	5,730,000	7,170	274,000
February:				
Belgium	--	--	--	--
Brazil	1,300	34,600	--	--
Canada	906,000	2,510,000	--	--
China	--	--	--	--
India	--	--	9,070	1,000,000
Japan	5,850	172,000	--	--
Malaysia	--	--	--	--
Mexico	1,580,000	4,360,000	--	--
Pakistan	--	--	408	6,020
Thailand	--	--	--	--
United Kingdom	34,500	955,000	--	--
Total	2,530,000	8,030,000	9,480	1,010,000
Year to date	4,220,000	13,800,000	16,600	1,280,000

-- Zero.

[1]Data 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 VANADIUM[1]

(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:						
January	284,000	11,100,000	487,000	8,530,000	29,000	635,000
February:						
Austria	84,600	3,300,000	--	--	--	--
Canada	45,600	1,710,000	--	--	--	--
China	--	--	73,400	1,630,000	--	--
Germany	208	18,400	--	--	--	--
Israel	--	--	--	--	4,790	81,100
Mexico	2,000	138,000	--	--	--	--
Korea	251,000	9,280,000	--	--	--	--
Russia	--	--	155,000	2,260,000	--	--
South Africa	--	--	90,000	2,160,000	--	--
Total	384,000	14,400,000	319,000	6,050,000	4,790	81,100
Year to date	668,000	25,500,000	805,000	14,600,000	33,800	717,000
Exports:						
2007	206,000	5,810,000	327,000	5,460,000	626,000	7,530,000
2008:						
January	6,550	309,000	60,300	878,000	88,900	1,130,000
February:						
Belgium	--	--	--	--	9,230	155,000
Canada	23,000	1,080,000	--	--	--	--
Germany	--	--	10,900	193,000	--	--
Japan	--	--	--	--	460	4,100
Mexico	17,500	429,000	613	5,830	95,700	604,000
Russia	--	--	--	--	52,600	468,000
Saudi Arabia	--	--	4,860	102,000	--	--
Trinidad and Tobago	--	--	1,270	27,900	--	--
Total	40,400	1,510,000	17,600	329,000	158,000	1,230,000
Year to date	47,000	1,820,000	77,900	1,210,000	247,000	2,360,000

-- Zero.

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

[2]May include catalysts containing vanadium pentoxide.

Source: U.S. Census Bureau.

TABLE 5
U.S. IMPORTS FOR CONSUMPTION OF VANADIUM-BEARING ASH, SLAG[1]

(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:				
January	22,700	170,000	37,500	46,900
February:				
Canada	--	--	37,500	47,200
Mexico	36,400	369,000	--	--
Total	36,400	369,000	37,500	47,200
Year to date	59,100	539,000	75,000	94,100

-- Zero.
[1]Data 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 CHEMICALS[1]

(Kilograms, contained vanadium)

	Sulfates		Vanadates	
	Quantity	Value	Quantity	Value
2007	80,200	$783,000	211,000	$3,550,000
2008:				
January	1	11,000	23,100	384,000
February:				
Germany	--	--	399	18,000
Japan	--	--	11	5,620
South Africa	--	--	11,000	182,000
Total	--	--	11,400	206,000
Year to date	1	11,000	34,500	589,000

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

Source: U.S. Census Bureau.