

# Mineral Industry Surveys

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## FLUORSPAR IN THE THIRD QUARTER 2009

Reported fluorspar consumption in the third quarter was 113,000 metric tons (t), an increase of 15% compared with that of the previous quarter but 11% less than that consumed in the third quarter of 2008. Third quarter stocks increased by about 6% compared with those of the previous quarter, and were 13% higher than those of the third quarter of 2008.

According to Industrial Minerals magazine, end-of-third-quarter-2009 acidspars prices were—China, dry basis, c.i.f. U.S. Gulf of Mexico port, \$350 to \$380 per metric ton; Mexico, free on board (f.o.b.) Tampico, \$300 to \$360 per ton for low-arsenic acidspars and \$260 to \$290 per ton for regular acidspars; and South Africa, f.o.b. Durban, \$250 to \$300 per ton. Chinese prices continued to fall (by \$20 to \$30 per ton) in October and November as Chinese exporters endeavored to use up export licenses before the end of the year.

Note: owing to the closure of Alcoa World Alumina LLC's aluminum fluoride plant (Texas), consumption of acid-grade fluorspar (acidspars) for hydrofluoric acid is now included under the "Other uses or products" heading in table 2. This was done in order to avoid disclosing company proprietary data.

### Trade

Between June and August 2009, the European Union, Mexico, and the United States filed complaints with the World Trade Organization (WTO) regarding China's export restrictions on numerous important raw materials, including fluorspar. (See Fluorspar in the Second Quarter 2009 for more information on China's restrictions and WTO regulations.) The countries held two rounds of dispute settlement consultations with China in July and September but failed to resolve the problem. On November 4, the European Union, Mexico, and the United States each requested that the WTO convene a dispute settlement panel to investigate and rule on the export restrictions. On November 19, China rejected requests made by the three petitioners to establish the panel. According to procedures, such a panel request can be blocked only once, and if the three complainants decide to file a second request, a dispute settlement panel would be set up automatically (Chinadaily.com.cn, 2009; Gerson Lehrman Group, 2009).

### Industry News

Okorusu Fluorspar (Pty.) Ltd. (Namibia) recently restarted fluorspar production after announcing in August that it temporarily was suspending production. The temporary shutdown was necessary in order to draw down excessive stocks that accumulated owing to a decrease in sales of approximately 50% compared with that of 2008 (O'Driscoll, 2009).

SC Mining Co. Ltd. (Thailand) is developing a tungsten-antimony deposit in the western part of Phrae Province in northern Thailand. The deposit's overburden contains more than 400,000 t of fluorspar grading 50% calcium fluoride. The company is constructing a 50,000-metric-ton-per-year flotation plant to recover the fluorspar prior to mining the primary ore body (Clarke, 2009).

While fluorspar demand remained weak in the third quarter and several fluorspar-mining operations remained shut down, there were major developments related to the ownership of South African fluorspar mining companies and properties.

Metorex Ltd. (Johannesburg, South Africa) announced that it was selling its 55% share in Vergenoeg Mining Company (Pty.) Ltd. to Spanish fluorspar producer Minerales y Productos Derivados S.A. (Minersa). Minersa already owned a 30% stake in Vergenoeg, with the remaining 15% owned by Medu Capital, a consortium of Black Economic Empowerment-controlled entities (Metorex Ltd., 2009).

Firebird Management LLC (United States), which was already a shareholder in South African fluorspar producer Sallies Ltd. (Pretoria), purchased additional shares of Sallies through its Firebird Global Master Fund Ltd. This acquisition pushed Firebird over the 60% ownership threshold that required it to make an offer to acquire the remaining issued ordinary share capital of Sallies, which it subsequently made in August (Firebird Global Master Fund Ltd., 2009).

Eurasian Natural Resources Corp. Plc (United Kingdom) agreed to purchase Central African Mining and Exploration Co. (United Kingdom), which among other properties owns a 51% interest on the Doornhoek fluorspar property in South Africa. Eurasian Natural Resources is the holding company of a leading diversified natural resources group principally based in Kazakhstan (Freen, 2009).

## References Cited

- Chinadaily.com.cn, 2009, China rejects call for WTO panel on export limits: Chinadaily.com.cn, November 20. (Accessed November 30, 2009, at [http://www.chinadaily.com.cn/world/2009-11/20/content\\_9006982.htm](http://www.chinadaily.com.cn/world/2009-11/20/content_9006982.htm).)
- Clarke, Gerry, 2009, Fluorspar post-2009: London, United Kingdom, Industrial Minerals, no. 506, November, p. 44-50.
- Industrial Minerals, 2009, Prices: London, United Kingdom, Industrial Minerals, no. 505, October, p. 84.
- Firebird Global Master Fund Ltd., 2009, To make an offer to acquire the issued ordinary share capital of Sallies Limited that it does not already own: Cayman Islands, British West Indies, Firebird Global Master Fund Ltd. news release, August 4. (Accessed December 7, 2009, at [http://www.fbird.com/assets/Sallies%20Release\\_\\_8132009141627.pdf](http://www.fbird.com/assets/Sallies%20Release__8132009141627.pdf).)
- Frean, Alexandra, 2009, ENRC snaps up Phil Edmond's company—CAMEC, led by former England spin bowler, has been bought in £584m deal by Kazak mining group: Times Online, September 18. (Accessed December 7, 2009, at [http://business.timesonline.co.uk/tol/business/industry\\_sectors/natural\\_resources/article6840221.ece](http://business.timesonline.co.uk/tol/business/industry_sectors/natural_resources/article6840221.ece).)
- Gerson Lehrman Group, 2009, EU, US and Mexico pursue WTO case against China's export limits on minerals: Gerson Lehrman Group, November 11. (Accessed December 2, 2009, via <http://www.glgroup.com>.)
- Metorex Ltd., 2009, Proposed disposal by Metorex of its entire shareholding in Vergenoeg Mining Company (Proprietary) Limited (Vergenoeg) and further cautionary announcement: Johannesburg, South Africa, Metorex Ltd. announcement, September 24. (Accessed December 7, 2009, at [http://www.metorexgroup.com/nm\\_latest\\_news\\_10242009.htm](http://www.metorexgroup.com/nm_latest_news_10242009.htm).)
- O'Driscoll, Mike, 2009, Solvay opens fluorochemical plant: London, United Kingdom, Industrial Minerals, December 2. (Accessed December 3, 2009, via <http://www.indmin.com>.)

TABLE 1  
SALIENT FLUORSPAR STATISTICS<sup>1</sup>

(Metric tons, unless otherwise specified)

	2008		2009			
	Third quarter	Fourth quarter	First quarter	Second quarter	Third quarter	Total or average
Imports for consumption:						
Quantity	125,000	167,000	134,000	90,200	96,000	321,000
Average value per ton, c.i.f. U.S. port, metallurgical grade <sup>2</sup>	\$109	\$108	\$191	\$109	\$98	\$116
Exports	4,690	5,470	2,110	2,440	4,850	9,400
End of quarter stocks, consumer	89,700	115,000	138,000	96,100	101,000	XX
Imports for consumption of hydrofluoric acid	30,300	30,600	29,600	23,300	32,200	85,100
Imports for consumption of cryolite	2,070	1,050	462	319	797	1,580
Quarterly reported fluorspar consumption	127,000	101,000	89,800	97,700	113,000	300,000

XX Not applicable.

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

<sup>2</sup>Value data appear to be underreported and are too low to make accurate average-value-per-ton calculations for acid-grade imports.

TABLE 2  
CONSUMPTION OF FLUORSPAR BY END USE AND ASSAY RANGE<sup>1</sup>  
(DOMESTIC AND FOREIGN IN THE UNITED STATES)

(Metric tons)

	Hydrofluoric acid and aluminum fluoride	Metallurgical	Other uses or products <sup>2</sup>	Total	Stocks, end of period <sup>3</sup>
2008:					
First quarter:					
More than 97% calcium fluoride	120,000	4,020	7,640	132,000	85,800
Not more than 97% calcium fluoride	--	9,660	--	9,660	16,100
Total	120,000	13,700	7,640	142,000	102,000
Second quarter:					
More than 97% calcium fluoride	118,000	3,630	7,170	129,000	92,000
Not more than 97% calcium fluoride	--	9,280	--	9,280	15,100
Total	118,000	12,900	7,170	138,000	107,000
Third quarter:					
More than 97% calcium fluoride	107,000	3,630	7,170	118,000	70,800
Not more than 97% calcium fluoride	--	9,170	--	9,170	18,900
Total	107,000	12,800	7,170	127,000	89,700
Fourth quarter:					
More than 97% calcium fluoride	W	3,630	89,800	93,500	94,300
Not more than 97% calcium fluoride	--	7,170	--	7,170	21,200
Total	W	10,800	89,800	101,000	115,000
Grand total	346,000 <sup>4</sup>	50,200	112,000	508,000	XX
2009:					
First quarter:					
More than 97% calcium fluoride	W	2,220	84,100	86,300	120,000
Not more than 97% calcium fluoride	--	3,440	--	3,440	18,100
Total	W	5,660	84,100	89,800	138,000
Second quarter:					
More than 97% calcium fluoride	W	2,220	91,500	93,700	81,100
Not more than 97% calcium fluoride	--	4,050	--	4,050	15,000
Total	W	6,270	91,500	97,700	96,100
Third quarter:					
More than 97% calcium fluoride	W	2,220	106,000	108,000	85,600
Not more than 97% calcium fluoride	--	4,810	--	4,810	15,800
Total	W	7,030	106,000	113,000	101,000
Grand total	W	19,000	281,000	300,000	XX

W Withheld to avoid disclosing company proprietary data; included in "Other uses or products." XX Not applicable. -- Zero.

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

<sup>2</sup>May include cement, enamel, glass and fiberglass, steel castings, hydrofluoric acid, and welding rod coatings.

<sup>3</sup>Stocks include some distributor stocks and consumer stocks for hydrofluoric acid and aluminum fluoride (2008).

<sup>4</sup>Cumulative total excluding fourth quarter data.

TABLE 3  
U.S. IMPORTS FOR CONSUMPTION OF FLUORSPAR, BY COUNTRY AND VALUE<sup>1,2</sup>

	2008				2009							
	Third quarter		Fourth quarter		First quarter		Second quarter		Third quarter		Year	
	Quantity (metric tons)	Value <sup>3</sup> (thousands)										
Containing more than 97% calcium fluoride:												
China	41,800	\$17,200	58,600	\$25,000	41,700	\$17,400	325	\$41	11,700	\$3,690	53,700	\$21,100
Mexico	54,400	8,670	64,400	10,000	55,800	11,900	58,500	10,300	51,100	8,520	165,000	30,800
Mongolia	--	--	5,500	2,100	--	--	--	--	9,510	3,380	9,510	3,380
South Africa	39	19	27,200	8,600	32,100	9,470	11,200	6,620	9,900	3,520	53,200	19,600
United Kingdom	592	79	40	9	2	4	88	4	484	57	574	65
Total	96,800	25,900	156,000	45,700	130,000	38,800	70,100	17,000	82,700	19,200	282,000	75,000
Containing not more than 97% calcium fluoride:												
Mexico	28,300	3,100	11,200	1,220	4,790	913	20,100	2,190	13,100	1,280	38,000	4,380
Namibia	--	--	283	26	--	--	--	--	203	24	203	24
Other	--	--	--	--	--	--	--	--	1	5	1	5
Total	28,300	3,100	11,500	1,250	4,790	913	20,100	2,190	13,300	1,310	38,200	4,400
Grand total	125,000	29,000	167,000	46,900	134,000	39,700	90,200	19,200	96,000	20,500	321,000	79,400

-- Zero.

<sup>1</sup>Imports for consumption include imports of immediate entry and warehouse withdrawals.

<sup>2</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>3</sup>Value data for imports "containing more than 97% calcium fluoride" are believed to be underreported; insufficient information is available to make accurate adjustments.

Source: U.S. Census Bureau.

TABLE 4  
IMPORTS FOR CONSUMPTION OF HYDROFLUORIC ACID<sup>1</sup>

	2008				2009							
	Third quarter		Fourth quarter		First quarter		Second quarter		Third quarter		Year	
	Quantity (metric tons)	Value <sup>2</sup> (thousands)										
Canada	6,750	\$13,700	4,710	\$11,600	3,670	\$11,700	2,550	\$9,420	2,480	\$9,350	8,700	\$30,500
China	276	454	691	1,020	679	854	642	857	1,580	1,540	2,900	3,250
Germany	165	412	75	223	115	373	91	296	96	272	302	941
Japan	246	471	329	673	138	324	67	122	169	126	374	572
Mexico	22,800	27,100	24,700	28,200	24,900	26,700	19,900	23,000	27,800	33,000	72,600	82,700
Other	48	207	104	266	65	110	45	85	73	314	183	509
Total	30,300	42,400	30,600	42,000	29,600	40,100	23,300	33,800	32,200	44,600	85,100	118,000

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

<sup>2</sup>Cost, insurance, and freight at U.S. ports.

Source: U.S. Census Bureau.