

Mineral Industry Surveys

For information, contact:

Joyce A. Ober, Sulfur Commodity Specialist
U.S. Geological Survey
983 National Center
Reston, VA 20192
Telephone: (703) 648-7717, Fax: (703) 648-7757
E-mail: jober@usgs.gov

Robin C. Kaiser (Data)
Telephone: (703) 648-7948
Fax: (703) 648-7792
E-mail: rkaiser@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

SULFUR IN MARCH 2008

During the month, production of recovered elemental sulfur was 686,000 metric tons (t), according to the U.S. Geological Survey. March 2008 production was 11% higher than that of February 2008 and about the same as that of March 2007. Shipments were 701,000 t, 12% higher than those of February 2008. Producers' ending stocks for March 2008 were 165,000 t.

Imports of recovered sulfur for March 2008 were estimated to be 273,000 t; exports were 53,000 t. Imports of sulfuric acid for March 2008 were 326,000 t; exports were 33,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 921,000 t in March 2008. This was 17% more than that of February 2008 and 9% higher than that of March 2007.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

Prices continued to increase through March as supplies remained tight globally. The average customs value of elemental sulfur imported into the United States in March 2008 was \$221 per ton, 15 times what it was 1 year earlier. The March 2008 average customs value was about 80% higher than it was in February.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Ending stocks ³
	Petroleum ²	Natural gas	Total		
2007:					
January-December	7,000	1,280	8,280	8,320	XX
January-March	1,700	326	2,020	2,040	XX
March ^f	591	97	688	705	207
April	558	98	656	674	164
May	570	101	671	667	163
June	554	115	668	672	160
July	597	106	703	681	183
August	612	107	719	744	171
September	581	104	685	681	190
October	602	106	708	719	167
November	602	105	707	710	168
December	629	114	744	727	187
2008:					
January	610	86	694	694	190
February	526	93	620	624	180
March ^p	595	90	686	701	165
Total	1,730	268	2,000	2,020	XX

^fPreliminary. ^pRevised. XX Not applicable.

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

²Includes a small quantity from coking operations.

³Subject to inventory adjustments.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries ²	
	Quantity ^c	Value ³	Quantity	Value ³	Quantity ^c	Value ³	Quantity ^c	Value ³
2007:								
January-December	2,090	43,200	424	16,100	406	17,200	2,930	79,400
January-March	485	6,160	103	3,050	60	1,570	647	11,000 ^r
March	170	2,010	29	661	17	376	216	3,120
April	165	2,260	41	891	60	1,320	266	4,630
May	170	2,170	58	1,460	50	1,360	278	5,030
June	165	1,740	43	1,390	22	714	245	5,420
July	190	1,900	29	1,030	37	1,300	257	4,300
August	190	4,480	29	1,000	32	1,420	251	7,020
September	185	4,940	29	1,520	33	1,730	247	8,390
October	180	6,850	33	2,040	25	1,560	238	10,600
November	175	5,110	44	2,550	34	2,250	253	10,200
December	180	7,610	15	1,140	53	3,930	248	12,800
2008:								
January	205 ^r	11,600 ^r	43 ^r	3,070 ^r	63 ^r	4,480	311 ^r	19,300 ^r
February	190 ^r	16,100 ^r	29 ^r	6,820 ^r	35 ^r	8,260	254 ^r	31,400 ^r
March	205	36,000	22	8,000	19	4,110	273	60,300
Total	600	63,800	94	17,900	117	16,900	838	111,000

^cEstimated. ^rRevised.

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

²May include other countries not listed.

³Declared customs valuation.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and PentaSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Mexico			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2007:									
January-December	2,310	688	101,000	239	79	6,760	2,600	833	112,000
January-March	584	191	23,900	78	25	1,930	661	217	25,900 ^r
March	208	68	8,320	33	11	874	240	79	9,200
April	203	66	8,580	25	8	678	228	74	9,310
May	193	45	8,740	30	10	1,090	223	55	9,950
June	208	68	9,050	7	2	204	216	71	9,360
July	190	62	9,260	33	11	879	240	78	11,500
August	194	14	8,350	22	7	581	237	77	9,360
September	176	58	8,310	10	3	293	187	61	8,630
October	190	62	8,300	11	4	295	201	66	8,710
November	183	60	7,810	12	4	318	208	68	9,380
December	192	62	9,060	11	4	493	202	66	9,610
2008:									
January	193	63	11,500	12	4	711	205	67	12,300
February	198	65	13,400	16	5	1,330	242	79	17,300
March	239	74	17,300	45	15	6,380	326	107	30,300
Total	630	202	42,200	73	24	8,430	773	253	59,900

^rRevised.

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

²May include other countries not listed.

³Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4
U.S. EXPORTS OF SULFUR AND SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value ²	Quantity	Sulfur content	Value ²
2007:					
January-December	922	84,800	334	88	34,300
January-March	199	13,700	87 ^r	12 ^r	7,540
March	80	4,750	28 ^r	3 ^r	2,980
April	83	4,570	33	8	3,290
May	71	5,730	26	8	3,340
June	13	1,720	21	7	2,610
July	116	7,440	34	11	3,660
August	83	8,190	50	16	4,660
September	61	7,890	27	8	2,700
October	118	14,100	26	8	2,510
November	95	10,900	16	5	1,590
December	84	10,600	14	5	2,370
2008:					
January	31	4,910	22	7	3,250
February	92	32,900	16 ^r	6	1,780
March	53	17,000	33	11	5,410
Total	176	54,800	71	24	10,400

^rRevised.

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

²Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5
U.S. CONSUMPTION OF SULFUR¹

(Thousand metric tons)

Period	Domestic sources ²	Imports ^e	Consumption
2007:			
January-December	7,390	2,930 ^r	10,300
January-March	1,840	647	2,480
March	625	216	844 ^r
April	591	266	857
May	596	278	874
June	659	245	904
July	565	257	822
August	661	251	912
September	620	247	867
October	605	238	843
November	615	253	868
December	643	248 ^r	858
2008:			
January	663	311 ^r	974 ^r
February	532	254 ^r	786 ^r
March	648	273	921
Total	1,840	838	2,680

^eEstimated. ^rRevised.

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

²Calculated as shipments minus exports.

TABLE 6
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT¹

(Thousand metric tons)

District and source	January-March 2007 ²		February 2008 ²		March 2008 ^p		January-March 2008 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	67	68	23	23	22	23	84	79
Natural gas	3	3	1	1	1	1	3	3
Total	70	70	24	24	24	24	87	82
PAD 2:								
Petroleum and coke	247	249	82	82	74	74	240	242
Natural gas	10	10	--	--	3	3	6	6
Total	257	259	82	82	77	77	246	246
PAD 3: ³								
Petroleum and coke	1,100	1,110	326	326	390	406	1,090	1,120
Natural gas	118	121	52	54	45	45	138	141
Total	1,220	1,230	378	380	435	451	1,230	1,260
PAD 4 and 5: ⁴								
Petroleum and coke	278	277	96	96	109	106	313	308
Natural gas	195	197	40	42	42	43	121	125
California	223	217	78	75	92	87	261	249
Total	473	474	136	137	151	149	434	433
Grand total	2,020	2,040	620	624	686	701	2,000	2,020

^pPreliminary. -- Zero.

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

²May include revisions.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and coke. California total shown for information purpose only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

(Million metric tons per year [annualized basis] and dollars per metric ton for period shown)

	2007	2008		
	total	February	March	Total
Production	8.28	7.82	8.10 ^p	8.04
Shipments	8.31	7.88	8.28 ^p	8.12
Exports of sulfur	0.92	1.16	0.63	0.71
Imports of sulfur:				
Canada ^e	2.08	2.40 ^r	2.42	2.41
Mexico	0.42	0.37 ^r	0.26	0.38
Venezuela ^e	0.37	0.44 ^r	0.22	0.47
Total ^{2,e}	2.93	3.21 ^r	3.22	3.37
Exports of H ₂ SO ₄	0.33	0.20 ^r	0.39	0.29
Imports of H ₂ SO ₄ :				
Canada	2.31	2.50	2.82	2.53
Mexico	0.24	0.20	0.53	0.29
Total ²	2.60	3.05	3.85	3.11
Consumption: ³				
Domestic sources	7.39	6.71	7.65	7.41
Imports ^e	2.90	3.21 ^r	3.22	3.37
Total	10.30	9.92 ^r	10.87	10.78
Sulfur export values ³	92	358 ^r	321	312
Sulfur import values: ³				
Canada	21	85 ^r	176	106
Mexico	38	235 ^r	363	190
Venezuela	42	236 ^r	216	144
Average ²	27	123 ^r	221	132
H ₂ SO ₄ export values ³	103	111 ^r	164	147
H ₂ SO ₄ import values: ³				
Canada	44	67	72	67
Mexico	28	83	142	115
Average ²	43	72	93	78

^eEstimated. ^pPreliminary. ^rRevised.

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

²Includes other countries not listed.

³Average value per ton for most recent data available.