

# Mineral Industry Surveys

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### **SULFUR IN AUGUST 2007**

During the month, production of recovered elemental sulfur was 701,000 metric tons (t), according to the U.S. Geological Survey. August 2007 production was slightly lower than that of July 2007 and 5% lower than that of August 2006. Sulfur production from January through August 2007 was slightly lower than that in the same period of 2006. Shipments were 5% higher than those of July 2007. Producers' ending stocks for August 2007 were 165,000 t.

Import and export data for August 2007 were not available at the time of publication and will be published in the Sulfur in

September 2007 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for July 2007 were estimated to be 254,000 t; exports were 87,000 t. Imports of sulfuric acid for July 2007 were 240,000 t; exports were 34,000 t.

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.

## TABLE 1 SALIENT SULFUR STATISTICS<sup>1</sup>

(Thousand	l metric	tons	)
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		Production		Shipments,	Ending
Period	Petroleum <sup>2</sup>	Natural gas	Total	all sources	stocks <sup>3</sup>
2006:					
January-December	6,960	1,430	8,390	8,290	XX
January-August <sup>r</sup>	4,570	942	5,510	5,460	XX
August	618	122	740	726	184
September	597	112	710	726	168
October	594	127	720	692	196
November	573	124	698	690	203
December	624	122	746	723	221
2007:	·				
January	603	119	721	749	185
February	501	110	612	582	211
March	591	97	688	705	207
April	555 <sup>r</sup>	98	653 <sup>r</sup>	670 <sup>r</sup>	163 <sup>r</sup>
May	565	100	665	661	161
June	558 <sup>r</sup>	114	672 <sup>r</sup>	676 <sup>r</sup>	159 <sup>r</sup>
July	605 <sup>r</sup>	106	711 <sup>r</sup>	689 <sup>r</sup>	182 <sup>r</sup>
August <sup>p</sup>	597	104	701	726	165
Total	4,580	848	5,420	5,460	XX

<sup>p</sup>Preliminary. <sup>r</sup>Revised. 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>Includes a small quantity from coking operations.

<sup>3</sup>Subject to inventory adjustments.

## TABLE 2U.S. IMPORTS OF SULFUR1

(Thousand	metric	tons and	thousand	dollars)
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	Cana	da	Mexi	со	Venezu	ela	Total, all cou	untries <sup>2</sup>
Period	Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	Quantity <sup>e</sup>	Value <sup>3</sup>	Quantity <sup>e</sup>	Value <sup>3</sup>
2006:								
January-December	2,100	33,100	476	20,100	359	15,100	2,950	70,400
January-July	1,270 <sup>r</sup>	24,600 <sup>r</sup>	290	13,000	222	9,890 <sup>r</sup>	1,780 <sup>r</sup>	48,500
July	165	2,370	43	1,900	33	1,370	241	5,730
August	165	2,330	43	1,770	20	824	229	4,940
September	160	1,970	43	1,730	31	1,240	245	4,970
October	170	1,960	43	1,710	32	1,270	246	4,990
November	165	1,210	14	577	18	725	198	2,620
December	170	1,020	43	1,350	36	1,140	250	4,410
2007:								
January	170	2,480	44	1,300	23	695	236	4,600
February	145	1,670	30	1,090	20	503	195	3,290
March	170	2,010	29	661	17	376	216	3,120
April	165	2,260	41	891	22	1,320	230	4,630
May	170	2,170	58	1,460	20	1,360	248	5,030
June	165	1,740	43	1,390	22	714	230	5,420
July	190	1,250	29	1,030	35	807	254	4,460
Total	1,180	13,600	274	7,820	159	5,780	1,610	30,500

<sup>e</sup>Estimated. <sup>r</sup>Revised.

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

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared 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 ACID<sup>1</sup>

#### (Thousand metric tons and thousand dollars)

		Canada			Mexico		Tota	al, all countries	2
		Sulfur			Sulfur			Sulfur	
Period	Quantity	content	Value <sup>3</sup>	Quantity	content	Value <sup>3</sup>	Quantity	content	Value <sup>3</sup>
2006:									
January-December	1,980	647	79,200	200	64	5,100	2,430	795	91,100
January-July	1,340	437	51,200	96	31	2,230	1,600	522 r	57,900
July	181	59	6,290	7	2	157	228	74	6,900
August	212	69	7,330	22	7	624	245	80	8,070
September	178	58	6,850	23	8	557	201	66	7,490
October	93	30	4,650	19	6	464	122	40	5,320
November	93	31	5,440	21	7	512	154	50	6,740
December	65	21	3,710	18	6	713	109	36	5,530
2007:									
January	216	71	8,930	22	7	510	238	78	9,440
February	160	52	6,600	23	8	548	182	60	7,150
March	208	68	8,320	33	11	874	240	79	9,200
April	203	66	8,580	25	8	678	228	74	9,260
May	193	45	8,740	30	10	1,090	223	55	9,820
June	208	68	9,050	7	2	204	216	71	9,360
July	190	62	9,260	33	11	879	240	78	12,600
Total	1,380	432	59,500	173	57	4,780	1,570	495	66,900

<sup>r</sup>Revised.

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

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared customs valuation.

Source: U.S. Census Bureau.

## TABLE 4 U.S. EXPORTS OF SULFUR AND SULFURIC ACID $^{\rm 1}$

#### (Thousand metric tons and thousand dollars)

			S	Sulfuric acid		
	Su	ılfur		Sulfur		
Period	Quantity	Value <sup>2</sup>	Quantity	content	Value <sup>2</sup>	
2006:						
January-December	635	43,800	249	80	21,800	
January-July	388	27,700 <sup>r</sup>	139	46 <sup>r</sup>	12,200	
July	79	4,540	18	6	2,030	
August	15	2,380	37	12	2,280	
September	15	1,540	11	4	1,320	
October	84	4,910	20	6	1,730	
November	48	2,980	9	3	1,040	
December	85	4,250	32	10	3,270	
2007:						
January	82	5,510	15	5	2,960	
February	37	3,420	17	6	1,610	
March	80	4,750	20	7	2,980	
April	83	4,570	24	8	3,290	
May	71	5,730	26	8	3,340	
June	13	1,720	21	7	2,610	
July	87	7,440	34	11	3,660	
Total	453	33,100	157	52	20,400	

<sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown. <sup>2</sup>Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

#### TABLE 5 U.S. CONSUMPTION OF SULFUR<sup>1</sup>

#### (Thousand metric tons)

	Domestic		
Period	sources <sup>2</sup>	Imports <sup>e</sup>	Consumption
2006:			
January-December	7,660	2,950	10,600
January-July <sup>r</sup>	4,350	1,780	5,270
July	616	241	857
August	711	229	940
September	711	245	956
October	608	246	854
November	642	198	840
December	638	250	888
2007:			
January	667	236	903
February	545	195	740
March	625	216	841
April	587	230	817
May	590	248	838
June	663	230	893
July	602	254	856
Total	4,280	1,610	5,890

<sup>e</sup>Estimated. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown. <sup>2</sup>Calculated as shipments minus exports.

#### TABLE 6

#### RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES, BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT<sup>1</sup>

#### (Thousand metric tons)

	Augus	t 2007 <sup>p</sup>	July	2007	January-A	ugust 2007 <sup>2</sup>	January-Au	ugust 2006 <sup>2</sup>
District and source	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	22	22	22	22	179	182	161 <sup>r</sup>	162 <sup>r</sup>
Natural gas	1	1	1	1	9	8	11	11
Total	23	23	23	23	188	189	172 <sup>r</sup>	173 <sup>r</sup>
PAD 2:								
Petroleum and coke	68	69	91	92	634	634	684 <sup>r</sup>	687 <sup>r</sup>
Natural gas	3	3	4 <sup>r</sup>	4	28	28	26	26
Total	71	72	95 <sup>r</sup>	95	662	662	710 <sup>r</sup>	713 <sup>r</sup>
PAD 3: <sup>3</sup>	-							
Petroleum and coke	409	435	388 <sup>r</sup>	370	2,980	3,020	2,830	2,800
Natural gas	32	33	36 <sup>r</sup>	39 <sup>r</sup>	301	305	325 <sup>r</sup>	329 <sup>r</sup>
Total	440	468	424 r	408 r	3,290	3,330	3,160 <sup>r</sup>	3,130 <sup>r</sup>
PAD 4 and 5: <sup>4</sup>	-							
Petroleum and coke	- 99	100	104 <sup>r</sup>	99 <sup>r</sup>	779	766	892 <sup>r</sup>	860 <sup>r</sup>
Natural gas	68	62	65 <sup>r</sup>	63 <sup>r</sup>	510	515	579	582
California	82	80	84 <sup>r</sup>	79 <sup>r</sup>	616	594	734	707
Total	166	162	169 <sup>r</sup>	162 <sup>r</sup>	1,290	1,280	1,470 <sup>r</sup>	1,440 <sup>r</sup>
Grand total	701	726	711 <sup>r</sup>	689 <sup>r</sup>	5,420	5,460	5,510 <sup>r</sup>	5,460 <sup>r</sup>

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

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

<sup>2</sup>May include revisions.

<sup>3</sup>Includes the U.S. Virgin Islands.

<sup>4</sup>Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

#### TABLE 7

#### COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS<sup>1</sup>

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

		2007		
	August	July	Total	Total
Production	8.25 <sup>p</sup>	8.37 <sup>r</sup>	8.15 <sup>r</sup>	8.38
Shipments	8.55 <sup>p</sup>	8.11 r	8.20 r	8.29
Exports of sulfur	NA	1.02	0.78	0.63
Imports of sulfur:				
Canada	NA	2.24 <sup>e</sup>	2.02 <sup>e</sup>	2.09 <sup>e</sup>
Mexico	NA	0.34	0.47	0.47
Venezuela	NA	0.41 <sup>e</sup>	0.27 <sup>e</sup>	0.36 <sup>e</sup>
Total <sup>2</sup>	NA	2.99 <sup>e</sup>	2.77 <sup>e</sup>	2.95 °
Exports of H <sub>2</sub> SO <sub>4</sub>	NA	0.40	0.27	0.25
Imports of H <sub>2</sub> SO <sub>4</sub> :				
Canada	NA	2.24	2.37	1.98
Mexico	NA	0.39	0.30	0.20
Total <sup>2</sup>	NA	2.83	2.70	2.43
Consumption: <sup>3</sup>				
Domestic sources	NA	7.09	7.37	7.66
Imports	NA	2.99 <sup>e</sup>	2.77 <sup>e</sup>	2.95 <sup>e</sup>
Total	NA	10.08	10.14	10.61
Sulfur export values <sup>4</sup>	NA	86	73	69
Sulfur import values: <sup>4</sup>				
Canada	NA	7	12	16
Mexico	NA	36	29	42
Venezuela	NA	23	36	42
Average <sup>2</sup>	NA	18	19	24
$H_2SO_4$ export values <sup>4</sup>	NA	108	130	88
H <sub>2</sub> SO <sub>4</sub> import values: <sup>4</sup>				
Canada	NA	49	43	40
Mexico	NA	27	28	26
Average <sup>2</sup>	NA	53	43	37

<sup>e</sup>Estimated. <sup>P</sup>Preliminary. <sup>r</sup>Revised. NA Not available.

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

<sup>2</sup>Includes other countries not listed.

<sup>3</sup>Because August trade data were not available, August consumption was not determined.

<sup>4</sup>Average value per ton for most recent data available.