

# Mineral Industry Surveys

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## SULFUR IN OCTOBER 2007

During the month, production of recovered elemental sulfur was 711,000 metric tons (t), according to the U.S. Geological Survey. October 2007 production was 5% higher than that of September 2007 and about the same as that of October 2006. Sulfur production from January through October 2007 was slightly lower than that in the same period of 2006. Shipments were 6% higher than those of September 2007. Producers' ending stocks for October 2007 were 170,000 t.

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

November 2007 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for September 2007 were estimated to be 246,000 t; exports were 60,000 t. Imports of sulfuric acid for September 2007 were 187,000 t; exports were 26,000 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 metric tons)

Period	Production			Shipments, all sources	Ending stocks <sup>3</sup>
	Petroleum <sup>2</sup>	Natural gas	Total		
2006:					
January-December	6,960	1,430	8,390	8,290	XX
January-October <sup>f</sup>	5,760	1,180	6,940	6,880	XX
October	587	127	713	684	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	98	656	674	164
May	565	101	679	674	163
June	558	115	676	681	159
July	605	106	712	689	183
August	607	107	714	740	166
September	577	102	679	677	184
October <sup>p</sup>	608	103	711	719	170
Total	5,770	1,060	6,850	6,890	XX

<sup>f</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 2  
U.S. IMPORTS OF SULFUR<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries <sup>2</sup>	
	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-September	1,590	28,900 <sup>r</sup>	377	16,500	274	12,000 <sup>r</sup>	2,260	58,400
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	165	2,170	58	1,460	20	1,360	243	5,030
June	165	1,740	43	1,390	22	714	230	5,420
July	190	4,480	29	1,030	35	807	254	4,420
August	190	4,480 <sup>r</sup>	29	1,000	20	1,010	239	6,490 <sup>r</sup>
September	165	4,940	29	1,520	52	1,730	246	8,230
Total	1,530	26,200	332	10,300	231	8,510	2,090	45,200

<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)

Period	Canada			Mexico			Total, all countries <sup>2</sup>		
	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>
2006:									
January-December	1,980	647	79,200	200	64	5,100	2,430	795	91,100
January-September <sup>r</sup>	1,730	565	65,400	142	45	3,420	2,020	669	73,500
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	11,500 <sup>r</sup>
August	194	14	8,350	22	7	581	237	77	9,360 <sup>r</sup>
September	176	58	8,310	10	3	293	187	61	8,630
Total	1,750	504	76,100	205	67	5,650	1,990	633	83,800

<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<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value <sup>2</sup>	Quantity	Sulfur content	Value <sup>2</sup>
2006:					
January-December	635	43,800	249	80	21,800
January-September	418	31,600	187	61	15,800
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
August	83	8,190	39	13	4,660
September	60	7,630	26	8	2,700
Total	596	49,000	222	73	27,800

<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)

Period	Domestic sources <sup>2</sup>	Imports <sup>e</sup>	Consumption
<b>2006:</b>			
January-December	7,660	2,950	10,600
January-September	5,770	2,260	8,020
September	711	245	956
October	608	246	854
November	642	198	840
December	638	250	888
<b>2007:</b>			
January	667	236	903
February	545	195	740
March	625	216	841
April	590	230	818
May	603 <sup>r</sup>	243	846 <sup>r</sup>
June	668 <sup>r</sup>	230	898 <sup>r</sup>
July	602 <sup>r</sup>	254	856 <sup>r</sup>
August	657 <sup>r</sup>	239	896 <sup>r</sup>
September	617	246	863
Total	5,570	2,090	7,660

<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)

District and source	October 2007 <sup>p</sup>		September 2007		January-October 2007 <sup>2</sup>		January-October 2006 <sup>2</sup>	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
<b>PAD 1:</b>								
Petroleum and coke	23	23	21	22	223	226	192	192
Natural gas	1	1	2	2	12	11	27	27
Total	24	24	23	24	235	237	219	219
<b>PAD 2:</b>								
Petroleum and coke	82	85	77 <sup>r</sup>	76 <sup>r</sup>	811	816	850 <sup>r</sup>	851 <sup>r</sup>
Natural gas	--	1	3	3	31	31	33	33
Total	83	86	80 <sup>r</sup>	79 <sup>r</sup>	843	847	882 <sup>r</sup>	884 <sup>r</sup>
<b>PAD 3:<sup>3</sup></b>								
Petroleum and coke	409	416	397	402	3,790	3,840	3,570	3,540
Natural gas	34	36	38	35	378	382	404 <sup>r</sup>	408 <sup>r</sup>
Total	443	452	435	437	4,170	4,220	3,980 <sup>r</sup>	3,950 <sup>r</sup>
<b>PAD 4 and 5:<sup>4</sup></b>								
Petroleum and coke	94	95	82	81	966	952	1,140	1,100
Natural gas	67	63	59 <sup>r</sup>	56 <sup>r</sup>	636	634	716	719
California	74	74	73	69	772	746	944	909
Total	161	158	141 <sup>r</sup>	138 <sup>r</sup>	1,600	1,590	1,850	1,810 <sup>r</sup>
Grand total	711	719	679 <sup>r</sup>	677 <sup>r</sup>	6,850	6,890	6,930 <sup>r</sup>	6,870 <sup>r</sup>

<sup>p</sup>Preliminary. <sup>r</sup>Revised. -- 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 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			2006
	October	September	Total	Total
Production	8.37 <sup>p</sup>	8.26 <sup>r</sup>	8.22 <sup>r</sup>	8.38
Shipments	8.47	8.24 <sup>r</sup>	8.27 <sup>r</sup>	8.29
Exports of sulfur	NA	0.73	0.80	0.63
Imports of sulfur:				
Canada	NA	2.01	2.04 <sup>c</sup>	2.09 <sup>c</sup>
Mexico	NA	0.36	0.44	0.47
Venezuela	NA	0.63	0.31 <sup>c</sup>	0.36 <sup>c</sup>
Total <sup>2</sup>	NA	2.99	2.79 <sup>c</sup>	2.95 <sup>c</sup>
Exports of H <sub>2</sub> SO <sub>4</sub>	NA	0.32	0.30	0.25
Imports of H <sub>2</sub> SO <sub>4</sub> :				
Canada	NA	2.14	2.34	1.98
Mexico	NA	0.12	0.27	0.20
Total <sup>2</sup>	NA	2.27	2.66	2.43
Consumption: <sup>3</sup>				
Domestic sources	NA	7.51	7.45	7.66
Imports	NA	2.99	2.79 <sup>c</sup>	2.95 <sup>c</sup>
Total	NA	10.50	10.10	10.10
Sulfur export values <sup>4</sup>	NA	127	82	69
Sulfur import values: <sup>4</sup>				
Canada	NA	30	17	16
Mexico	NA	53	31	42
Venezuela	NA	33	37	42
Average <sup>2</sup>	NA	33	22	24
H <sub>2</sub> SO <sub>4</sub> export values <sup>4</sup>	NA	104	125	88
H <sub>2</sub> SO <sub>4</sub> import values: <sup>4</sup>				
Canada	NA	47	44	40
Mexico	NA	29	28	26
Average <sup>2</sup>	NA	46	42	37

<sup>c</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 October trade data were not available, October consumption was not determined.

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