

Mineral Industry Surveys

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SULFUR IN AUGUST 2004

During the month, production of recovered elemental sulfur was 826,000 metric tons, according to the U.S. Geological Survey. August production was slightly higher than that of July 2004 and 14% higher than that of August 2003. Shipments were 4% higher than those of July 2004. Producers' ending stocks for August 2004 were 186,000 tons.

Import and export data for August 2004 were not available at the time of publication and will be published in the Sulfur in September 2004 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for July 2004 were

estimated to be 251,000 tons; exports were 30,000 tons. Imports of sulfuric acid for July 2004 were 172,000 tons; exports were 13,000 tons.

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. Better strategies for estimating import data from Canada are being explored.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2003:				
January-December	6,970	1,950	8,920	8,910
January-August	4,630	1,300	5,930	5,900
August	553	169	722	723
September	544	154	698	708
October	548	166	714	715
November	615	160	775	783
December	630	168	798	804
2004:				
January	577	165	742	762
February	525	155	679	690
March	598	176	774	783
April	610	161	772	771
May	603	177	780	775
June	615	163	778	778
July ^f	648	173	820	812
August ^p	654	172	826	845
Total	4,830	1,340	6,170	6,220

^pPreliminary. ^fRevised.

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

²Includes a small quantity from coking operations.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2003:						
January-December	2,080	32,000	535	26,500	2,810	69,100
January-July	1,280	19,000	312	15,900	1,650	39,300
July	160	2,440	45	2,180	241	6,390
August	160	2,040	45	1,940	267	4,820
September	160	2,910	44	2,070	213	6,160
October	160	2,460	49	2,470	229	5,760
November	160	2,850	45	2,170	205	6,860
December	160	2,770	40	1,960	230	6,180
2004:						
January	170	1,720	50	2,400	257	5,850
February	170	3,130	35	3,050	235	7,930
March	170	3,660	25	2,570	215	7,210
April	160	3,060	54	2,550	259	8,040
May	160	2,830	57	2,680	245	6,880
June	160	2,560	49	2,440	227	5,980
July ^e	160	2,790	54	2,550	251	7,150
Total	1,150	19,700	324	18,300	1,690	49,000

^eEstimated. ^fRevised.

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 PentalSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2003:									
January-December	387	126	16,200	266	86	5,870	905	298	28,800
January-July	237	78	9,120	161	52	3,930	482	159	16,400
July	23	8	1,020	19	6	318	82	27	1,950
August	19	6	980	74	24	751	103	34	2,410
September	22	7	1,150	9	3	382	70	23	2,230
October	35	11	1,520	1	(⁴)	36	104	34	1,550
November	33	11	1,590	1	(⁴)	36 ^e	71	23	3,350
December	41	13	1,880	20	7	734	75	25	2,900
2004:									
January	97	32	3,930	--	--	--	114	37	4,610
February	179	58	7,480	21	7	488	204	69	8,450
March	167	54	6,760	6	2	163	176	58	7,280
April	203	66	7,710	14	5	344	221	72	8,410
May	190	62	7,230	22	7	555	222	72	8,120
June	166	54	6,350	11	3	247	192	63	7,860
July	160	52	5,660	10	3	357	172	56	6,230
Total	1,160	378	45,100	84	27	2,150	1,300	427	51,000

^eEstimated. -- Zero.

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.

⁴Less than 1/2 unit.

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
2003:					
January-December	742	46,100	207	68	18,800
January-July	468	28,600	122	40	11,100
July	55	4,700	28	10	2,430
August	57	2,190	27	9	2,060
September	50	2,090	23	7	1,910
October	72	4,360	12	4	1,200
November	27	4,880	12	4	1,170
December	67	3,920	12	4	1,360
2004:					
January	18	1,740	10	3	1,120
February	6	1,530	13	4	1,520
March	84	5,930	14	5	3,190
April	107	6,550	11	4	1,380
May	81	4,040	10	3	2,370
June	36	1,980	26	8	1,610
July	30	1,670	13	4	1,280
Total	362	23,400	97	31	12,500

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
2003:			
January-December	8,170	2,810	11,000
January-July	5,520	1,640	7,160
July	705	241	946
August	666	267	933
September	658	213	871
October	643	229	872
November	756	205	961
December	731	230	961
2004:			
January	744	257	1,000
February	684	235	919
March	699	215	914
April	664	259	923
May	694	245	939
June	742	227	969
July	782	251	1,030
Total	5,010	1,690	6,670

^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	August 2004 ^p		July 2004		Total 2004 ²		Year to date 2003 ^{r,2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	22	22	20	21	160	164	146	146
Natural gas	2	2	2	2	15	15	17	17
Total	23	24	22	23	175	178	163	163
PAD 2:								
Petroleum and coke	81	82	76	77	578	590	621	612
Natural gas	3	3	3	3	33	34	29	29
Total	84	85	79	80	611	624	650	641
PAD 3: ³								
Petroleum and coke	424	440	425	416	3,190	3,210	2,920	2,940
Natural gas	43	42	41 ^r	41 ^r	349	349	402	400
Total	467	482	466 ^r	457	3,540	3,560	3,320	3,340
PAD 4 and 5: ⁴								
Petroleum and coke	128	125	127 ^r	128 ^r	903	909	943	919
Natural gas	124	128	126 ^r	123 ^r	945	943	853	842
California	98	98	96 ^r	97	681	679	730	712
Total	252	253	253 ^r	251 ^r	1,850	1,850	1,800	1,760
Grand total	826	845	820 ^r	812 ^r	6,170	6,220	5,940	5,900

^pPreliminary. ^rRevised.

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

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities 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 STATISTICS¹

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

	2004			2003
	August	July	Year to date	total
Production	9.75	9.68 ^r	9.26	8.92
Shipments	9.98	9.59 ^r	9.32	8.91
Exports of sulfur	NA	0.35	0.62	0.74
Imports of sulfur:				
Canada	NA	1.89 ^e	1.98 ^e	2.08
Mexico	NA	0.64	0.56	0.54
Total ²	NA	2.96 ^e	2.90 ^e	2.81
Export of H ₂ SO ₄	NA	0.15	0.17	0.21
Import of H ₂ SO ₄ :				
Canada	NA	1.89	2.00	0.39
Europe	NA	0.12	0.14	0.27
Total ²	NA	2.03	2.24	0.91
Consumption: ³				
Domestic sources	NA	9.23	8.61	8.18
Imports	NA	2.96 ^e	2.90 ^e	2.81
Total	NA	12.20	11.46	11.00
Sulfur export values ⁴	NA	\$56	\$65	\$62
Sulfur import values: ⁴				
Canada	NA	\$17	\$17	\$15
Mexico	NA	\$47	\$56	\$50
Average	NA	\$28	\$29	\$25
H ₂ SO ₄ export values ⁴	NA	\$98	\$128	\$91
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$35	\$39	\$42
Europe	NA	\$36	\$26	\$22
Average	NA	\$36	\$39	\$32

^eEstimated. ^rRevised. NA Not available.

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

²Includes other countries not listed.

³Because August trade data were not available, August consumption was not determined.

⁴Average value per ton for most recent data available.