

Mineral Industry Surveys

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SULFUR IN AUGUST 2011

During the month, production of recovered elemental sulfur was 719,000 metric tons (t), according to the U.S. Geological Survey. Production was 2% lower than that of July 2011 and 5% lower than that of August 2010. Shipments were 731,000 t, 3% higher than that of July 2011. Producers' ending stocks for August 2011 were 160,000 t.

Imports of recovered sulfur for August 2011 were estimated to be 298,000 t; exports were 116,000 t. Imports of sulfuric acid for August 2011 were 237,000 t; exports were 68,000 t.

U.S. sulfur consumption, calculated as shipments minus

exports plus imports, was 913,000 t in August 2011. This was slightly higher than that of July 2011 and about 5% higher than that of August 2010.

Significant adjustments have been made to the sulfur import data. The U.S. Census Bureau appears 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 STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period ³
	Petroleum ²	Natural gas	Total		
2010:					
January–December	7,120	1,160	8,280 ^r	8,340	165
January–August ^f	4,780	804	5,590	5,590	219
August	658	97	756	756	219
September	575	98	673	681	218
October	575	79	654	654	219
November	575	81	656	667	208
December	607	96	703	746	165
2011:					
January	624	104	727 ^r	730 ^r	148 ^r
February	465 ^r	93	558 ^r	579 ^r	127
March	565 ^r	95	660 ^r	646 ^r	152 ^r
April	547	98	645	652 ^r	144 ^r
May	587 ^r	95	682 ^r	682 ^r	144 ^r
June	586 ^r	74	660 ^r	662 ^r	141 ^r
July	642 ^r	88	730 ^r	708 ^r	163 ^r
August ^p	624	95	719	731	160
January–August	4,640	741	5,380	5,390	160

^pPreliminary. ^rRevised.

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 ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³	Quantity ^e	Value ³
2010:								
January–December	2,320	122,000	379	37,400	41	4,200	2,950	214,000
January–August	1,490	84,800	263	22,600	30	3,070	1,910	146,000
August	195	13,300	28	3,000	10	601	234	17,500
September	190	7,560	29	3,150	--	--	258	15,900
October	215	13,400	29	3,310	11	1,140	255	18,400
November	210	7,400	29	3,870	--	--	273	18,000
December	215	9,050	29	4,470	--	--	254	15,100
2011:								
January	220	10,000	29	3,620	13	1,600	272	17,600
February	200	10,700	14	2,750	--	--	252	21,400
March	220	25,100	44	5,940	--	--	275	33,500
April	220	13,800	29	4,940	18	3,430	268	22,700
May	230	14,700	29	6,190	--	--	260	21,600
June	220	14,400	14	2,760	15	2,750	315	37,300
July	230	18,100	29	5,910	--	--	260	24,500
August	230	17,800	14	3,330	15	2,720	298	33,500
January–August	1,770	125,000	202	35,400	61	10,500	2,200	212,000

^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.

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and ICIS 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
2010:									
January–December	1,150	378	79,100	196	65	11,100	2,110	690	139,000
January–August	543 ^r	179	34,700	112 ^r	37	5,720	1,070 ^r	351 ^r	62,500
August	124	41	8,840	14	5	357	226	74	14,900
September	158	52	11,200	7	2	209	219	72	15,400
October	164	54	12,500	17	6	1,840	205	67	17,400
November	139	45	10,500	37	12	2,480	275	90	21,800
December	147	48	10,200	25	8	830	335	110	21,800
2011:									
January	150	49	11,500	27	9	1,620	206	67	17,500
February	152	50	11,400	14	5	989	234	76	19,800
March	146	48	11,700	58	19	3,310	254	83	22,200
April	145	47	8,780	47	15	3,400	229	75	18,100
May	135	44	7,460	40	13	2,950	229	75	17,000
June	116	38	7,670	39	13	2,750	221	72	18,100
July	157	52	16,000	23	8	1,570	205	68	23,800
August	169	56	18,500	46	15	3,250	237	78	25,600
January–August	1,170	384	93,000	294	97	19,800	1,820	594	162,000

^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
2010:					
January–December	1,450	171,000	215	70	26,400
January–August	816	105,000	152	50	18,500
August	119	8,360	13	4	2,220
September	182	14,100	18	6	1,940
October	194	18,600	18	6	1,810
November	159	19,000	12	4	2,030
December	94	15,000	16	5	2,090
2011:					
January	86	13,900	20	7	2,320
February	122	20,900	28	9	3,470
March	114	20,500	22	7	3,220
April	123	26,100	40	13	3,840
May	52	11,400	27	9	3,180
June	189	34,500	26	8	3,410
July	61	15,600	30	10	3,790
August	116	24,900	68	22	5,100
January–August	863	168,000	261	85	28,300

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
2010:			
January–December	6,900 ^r	2,950	9,850 ^r
January–August	4,770	1,910	6,690
August	637	234	871
September	499	258	757
October	460	255	715
November	508	273	781
December	652	254	906
2011:			
January	644 ^r	272	916 ^r
February	457 ^r	252	709 ^r
March	532 ^r	275	807 ^r
April	529 ^r	268	797 ^r
May	630 ^r	260	890 ^r
June	473 ^r	315	788 ^r
July	647 ^r	260	907 ^r
August	615 ^p	298	913
January–August	4,530	2,200	6,730

^eEstimated. ^pPreliminary. ^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–August 2010		July 2011		August 2011 ^p		January–August 2011 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	93	92	3	8	8	3	47	43
Natural gas	9	9	--	1	1	1	6	6
Total	102	101	3	9	9	4	53	48
PAD 2:								
Petroleum and coke	691 ^r	695 ^r	89 ^r	90 ^r	91	91	682	696
Natural gas	15	15	2	2	2	2	14	14
Total	706 ^r	710 ^r	91 ^r	92 ^r	93	93	696	710
PAD 3: ³								
Petroleum and coke	3,140 ^r	3,090 ^r	431 ^r	404 ^r	418	428	3,080	3,080
Natural gas	323 ^r	347 ^r	38	37	38	38	303	303
Total	3,460 ^r	3,430 ^r	469 ^r	442 ^r	455	466	3,380	3,380
PAD 4 and 5: ⁴								
Petroleum and coke	864 ^r	882 ^r	118	114	108	115	833	834
Natural gas	457 ^r	463 ^r	48	51	54	53	418	418
California	699 ^r	716 ^r	95	90	87	89	666	665
Total	1,320 ^r	1,350 ^r	167	166	162	168	1,250	1,250
Grand total	5,590 ^r	5,590 ^r	730	708	719	731	5,380	5,390

^pPreliminary. ^rRevised. -- Zero.

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

²May include revisions to previously published data.

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)

	2010	2011		
	total	July	August	Total
Production	8.27	8.60 ^r	8.47 ^p	8.08
Shipments	8.34	8.34 ^r	8.61 ^p	8.10
Exports of sulfur	1.45	0.72	1.37	1.30
Imports of sulfur:				
Canada ^e	2.32	2.71	2.71	2.66
Mexico	0.38	0.34	0.16	0.30
Venezuela ^e	0.04	--	0.18	0.09
Total ^{e,2}	2.95	3.06	3.51	3.30
Exports of H ₂ SO ₄	0.22	0.35	0.80	0.39
Imports of H ₂ SO ₄ :				
Canada	1.15	1.85	1.99	1.76
Mexico	0.20	0.27	0.54	0.44
Total ²	2.11	2.41	2.79	2.73
Consumption:				
Domestic sources	6.89	7.62 ^r	7.24	6.80
Imports ^e	2.95	3.06	3.51	3.30
Total	9.84	10.70 ^r	10.80	10.10
Sulfur export values ³	119	256	215	195
Sulfur import values: ³				
Canada	53	79	77	70
Mexico	99	204	238	175
Venezuela	103	XX	181	172
Average ²	73	94	112	96
H ₂ SO ₄ export values ³	123	126	75	109
H ₂ SO ₄ import values: ³				
Canada	69	102	109	79
Mexico	56	68	71	67
Average ²	66	116	108	89

^eEstimated. ^pPreliminary. ^rRevised. XX Not applicable. -- Zero.

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.