

Mineral Industry Surveys

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SULFUR IN JUNE 2021

During June 2021, production of recovered elemental sulfur was 654,000 metric tons (t), which was slightly higher than that of May 2021 and 12% higher than that of June 2020. Total production for January through June was 3.52 million metric tons (Mt), which was 8% lower than that in the same period of 2020. Shipments were 653,000 t, which was slightly higher than those of May 2021 and 13% higher than those of June 2020. Total shipments for January through June were 3.50 Mt, which were 9% lower than those in the same period of 2020.

Producers' ending stocks for June 2021 were 129,000 t (table 1).

Production in the first six months of 2021 was lower than that of the same period in 2020 because of the cold weather that affected most of the central United States in mid-February. As a result of the weather, several refineries were either fully or partially shut down resulting in the largest reduction in Gulf Coast refining operations over the past several years.

Imports of recovered sulfur for June 2021 were estimated to be 204,000 t; exports were 102,000 t. Total imports of recovered sulfur for January through June were estimated to be 1.30 Mt, which were 26% higher than those in the same period of 2020. Total exports of recovered sulfur for January through June were 927,000 t, which were 24% higher than those in the same period of 2020 (tables 2, 4).

Imports of sulfuric acid for June 2021 were 215,000 t; exports were 11,000 t. Total imports for January through June were 1.66 Mt, which were 5% lower than those in the same period of 2020. Total exports of sulfuric acid for January through June were 225,000 t, which were about 2.2 times those in the same period of 2020 (tables 3, 4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 755,000 t in June 2021. This was 3% higher than that of May 2021 and 9% higher than that of June 2020. Total consumption for January through June was 3.88 Mt, which was 6% lower than that in the same period of 2020 (table 5).

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TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period ³
	Petroleum ²	Natural gas	Total		
2020:					
January–December	7,020	276	7,300	7,310	109
January–June	3,690	146	3,830	3,840	119 ^r
June	566	20	585	580	119
July	605	20	625	644	100
August	561	19	580	565	115
September	525	21	546	557	104
October	546	23	569	570	103
November	537	22	560	557	104
December	557	25	582	578	109
2021:					
January	539	31	570	566	113
February	404	46	450	450	113
March	540	51	591	576	129
April	563	44	607	613	123
May	604 ^r	46	650 ^r	645	128 ^r
June ^p	609	45	654	653	129
January–June	3,260	263	3,520	3,500	129

^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		Total, all countries ²	
	Quantity	Value ³	Quantity	Value ³
2020:				
January–December	1,600	63,600	2,230	121,000
January–June	816 ^r	29,200	1,040 ^r	52,100
June	145	4,960	181	8,590
July	130	5,320	271	16,900
August	108	4,800	161	10,200
September	130	4,370	186	9,290
October	137	6,990	189	10,900
November	144	6,080	199	10,600
December	136	6,830	189	11,300
2021:				
January	143	6,880	251	16,200
February	127	7,310	178	13,400
March	174	11,400	231	17,600
April	155	14,400	236	22,800
May	147	18,100	203	28,100
June	150 ^e	16,300	204 ^e	25,700
January–June	896 ^e	74,400	1,300 ^e	124,000

^eEstimated. ^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 as adjusted by U.S. Geological Survey and Acuity Commodities.

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
2020:									
January–December	1,920	629	121,000	733	240	53,200	3,660	1,200	241,000
January–June	979	320	71,600	291	95	23,800	1,750 ^r	572 ^r	128,000
June	158	52	12,100	38	13	1,710	206	67	16,100
July	153	50	8,250	73	24	4,390	324	106	18,900
August	159	52	8,010	47	15	3,610	319	104	18,100
September	156	51	7,840	91	30	5,760	334	109	18,900
October	166	54	8,880	59	19	4,620	328	107	20,200
November	148	48	8,010	85	28	5,470	300	98	18,700
December	162	53	8,810	89	29	5,530	301	98	18,100
2021:									
January	177	58	9,690	61	20	4,620	312	102	20,300
February	153	50	8,570	52	17	3,790	233	76	15,000
March	166	54	9,500	63	20	4,030	291	95	17,800
April	180	59	9,620	61	20	5,530	324	106	22,000
May	192	63	10,000	78	25	4,280	286	94	18,800
June	151	49	7,810	23	7	1,520	215	70	14,700
January–June	1,020	334	55,200	337	110	23,800	1,660	543	109,000

^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
2020:					
January–December	1,310	93,300	195	64	25,000
January–June	746 ^r	51,700 ^r	102	33 ^r	14,800
June	67	6,020	11	3	1,400
July	98	6,740	22	7	1,610
August	160	10,100	17	5	2,020
September	77	5,400	16	5	2,040
October	54	4,770	16	5	2,000
November	68	5,680	13	4	1,220
December	105	9,020	9	3	1,230
2021:					
January	238	7,430	11	3	1,040
February	97	10,200	12	4	1,300
March	307	8,530	137	45	2,920
April	71	10,600	25	8	2,190
May	112	16,900	30	10	3,060
June	102	17,000	11	3	1,510
January–June	927	70,700	225	74	12,000

^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	Consumption
2020:			
January–December	6,000	2,230	8,240 ^r
January–June	3,090 ^r	1,040 ^r	4,130 ^r
June	513	181	694
July	546	271	817
August	405	161	566
September	480	186	666
October	516	189	705
November	489	199	688
December	473	189	662
2021:			
January	328	251	579
February	353	178	531 ^r
March	269	231	500 ^r
April	542	236	778
May	533	203	736
June ^p	551	204 ^e	755
January–June	2,580	1,300 ^e	3,880

^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–June 2020 ²		May 2021		June 2021 ^P		January–June 2021 ^{P, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	98	98	16	14	13	14	85	84
Natural gas	6	6	1	1	1	1	6	6
Total	104	104	17	15	15	15	92	90
PAD 2:								
Petroleum and coke	647	648	109	106	119	118	617	613
Natural gas	--	--	--	--	--	--	--	--
Total	647	648	109	106	119	118	617	613
PAD 3:								
Petroleum and coke	2,290	2,290	370	371	372	364	1,930	1,920
Natural gas	56	56	8	8	8	8	48	50
Total	2,340	2,350	379	379	380	372	1,980	1,970
PAD 4 and 5:								
Petroleum and coke	659	665	109 ^r	108	105	111	625	631
Natural gas	85	78	36	36	35	37	204	199
Total	744	741	145	145 ^r	141	148	831	830
Grand total	3,830	3,840	650 ^r	645	654	653	3,520	3,500

^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.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

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

	2020	2021		
		May	June	January– June
Production	7.30	7.65 ^r	7.96 ^p	7.10
Shipments	7.31	7.59	7.94 ^p	7.06
Exports of sulfur	1.31	1.31 ^r	1.24	1.87
Imports of sulfur:				
Canada	1.60	1.74	1.83	1.81
Total ²	2.23	2.39	2.48	2.63
Exports of H ₂ SO ₄	0.19	0.35	0.13	0.45
Imports of H ₂ SO ₄ :				
Canada	1.92	2.27 ^r	1.84	2.06
Mexico	0.73	0.92	0.28	0.68
Total ²	3.66	3.37	2.61	3.35
Consumption:				
Domestic sources	6	6.28	6.70	5.20
Imports	2.23	2.39	2.48	2.63
Total	8.24	8.67	9.19	7.82
Sulfur export values ³	71	152	167	76
Sulfur import values: ³				
Canada	40	123	108	83
Average ³	54	139	126	95
H ₂ SO ₄ export values ³	128	101	142	53
H ₂ SO ₄ import values: ³				
Canada	63	52	52	54
Mexico	73	55	67	71
Average ²	66	66	69	65

^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.