

Mineral Industry Surveys

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SULFUR IN DECEMBER 2020

During December 2020, production of recovered elemental sulfur was 582,000 metric tons (t), which was slightly higher than that of November 2020 and 23% lower than that of December 2019. Total production for January through December was 7.30 million metric tons (Mt), which was 10% lower than that in the same period of 2019. Shipments were 578,000 t, which were slightly higher than those of November 2020. Total shipments for January through December were 7.32 Mt, which were 10% lower than those in the same period of 2019. Producers' ending stocks for December 2020 were 109,000 t, which were 4% higher than those of November 2020 (table 1).

Imports of recovered sulfur for December 2020 were estimated to be 173,000 t; exports were 105,000 t. Total imports of recovered sulfur for January through December were an estimated 2.18 Mt, which were 18% higher than those in the same period of 2019. Total exports of recovered sulfur for January through December were 1.32 Mt, which were 40% lower than those in the same period of 2019 (tables 2, 4).

Imports of sulfuric acid for December 2020 were 301,000 t; exports were 9,000 t. Total imports for January through

December were 3.66 Mt, which were 23% higher than those in the same period of 2019. Total exports of sulfuric acid for January through December were 195,000 t, which were 11% lower than those in the same period of 2019 (tables 3, 4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 646,000 t in December 2020. This was 6% lower than that of November 2020 and 10% lower than that of December 2019. Total consumption for January through December was 8.18 Mt, which was 6% higher than that in the same period of 2019 (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		
2019:					
January–December	7,790	323 ^r	8,110	8,100	124
December	723	29	751	746	124
2020:					
January	701	28	729	742	111
February	628	25	653	645	119
March	642	27	669	688	100
April	578	24	602	593	110
May	574	22	595	592	113
June	566	20	585	580	119
July	605	20	625	644	100
August	561	19	580	565	115
September	525 ^r	21	546 ^r	557 ^r	104 ^r
October	546 ^r	23 ^r	569 ^r	570 ^r	103 ^r
November	546 ^r	22	568 ^r	566 ^r	105 ^r
December ^p	557	25	582	578	109
January–December	7,030	276	7,300	7,320	109

^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
2019:				
January–December	1,450	65,900	1,850	137,000
December	127	2,230	129	3,270
2020:				
January	127	2,970	129	4,190
February	104	3,200	143	7,580
March	131	4,710	183	9,320
April	159	5,150	252	13,700
May	148	8,230	149	8,700
June	145	4,960	181	8,610
July	130	5,320	271	17,000
August	108	4,800	161	10,200
September	130	4,380	186	9,290 ^r
October	120 ^e	6,990	172 ^e	10,900
November	120 ^e	6,080	176 ^e	10,600
December	120 ^e	6,830	173 ^e	11,300
January–December	1,540 ^e	63,600	2,180 ^e	121,000

^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
2019:									
January–December	1,920	628	149,000	485	159	29,700	2,970	971	240,000
December	180	59	13,700	59	19	3,320	281	92	21,200
2020:									
January	150	49	11,200	58	19	4,670	306	100	23,400
February	147	48	10,500	51	17	4,350	311	102	21,600
March	178	58	12,700	51	17	4,390	310	101	22,500
April	154	50	11,300	50	16	4,980	284	93	22,100
May	193	63	13,900	43	14	3,700	332	109	22,100
June	158	52	12,100	38	12	1,710	217	71	16,800
July	153	50	8,250	73	24	4,390	313	102	18,200
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
January–December	1,920	628	121,000	733	240	53,200	3,660	1,190	241,000

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
2019:					
January–December	2,200	172,000	220	72	31,200
December	157	11,200	25	8	1,650
2020:					
January	97	4,720	16	5	2,650
February	190	10,100	10	3	2,240
March	210	14,100	18	6	3,410 ^r
April	87	7,520	31	10	2,350
May	136	9,040	17	6	2,780
June	67	6,020	11	4	1,400
July	98	6,740 ^r	22	7	1,610
August	125	8,200 ^r	17	6	2,020
September	77	5,400	16	5	2,040
October	65	6,700	16	5	2,000
November	57	4,940	13	4	1,220
December	105	8,990	9	3	1,230
January–December	1,320	92,400	195	64	24,900

^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
2019:			
January–December	5,910 ^r	1,850	7,750
December	589	129	718
2020:			
January	645	129	774
February	455	143	598
March	478	183	661
April	506	252	758
May	456	149	605
June	513	181	694
July	546	271	817
August	440	161	601
September	480 ^r	186	666 ^r
October	505 ^r	172 ^e	677 ^r
November	509 ^r	176 ^e	685 ^r
December ^p	473	173 ^e	646
January–December	6,010	2,180 ^e	8,180

^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	2020							
	January–December 2019 ²		November ^p		December		January–December ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	184	184	11	11	12	11	174	173
Natural gas	13	13	1	1	1	1	13	13
Total	197	197	13 ^r	12	13	13	187	187
PAD 2:								
Petroleum and coke	1,350	1,350	109 ^r	110 ^r	109	110	1,300	1,300
Natural gas	2	2	--	--	--	--	--	--
Total	1,350	1,350	109 ^r	110 ^r	109	110	1,300	1,300
PAD 3:								
Petroleum and coke	4,770	4,760	328 ^r	325 ^r	337	333	4,280	4,280
Natural gas	118	117	10 ^r	10	10	9	123	123
Total	4,880	4,880	337 ^r	335 ^r	346	342	4,400	4,410
PAD 4 and 5:								
Petroleum and coke	1,490	1,490	97 ^r	97 ^r	99	101	1,270	1,280
Natural gas	188	190	12	12	14	13	150	150
Total	1,680	1,680	109 ^r	110 ^r	113	113	1,420	1,430
Grand total	8,110	8,100	568 ^r	566 ^r	582	578	7,300	7,320

^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			
	2019	November	December	January– December
Production	8.11	6.93 ^r	6.87 ^p	7.30
Shipments	8.10	6.91 ^r	6.82 ^p	7.31
Exports of sulfur	2.20	0.70	1.24	1.32
Imports of sulfur:				
Canada	1.45	1.46	1.42	1.54
Total ²	1.85	2.15	2.04	2.18
Exports of H ₂ SO ₄	0.22	0.16	0.11	0.20
Imports of H ₂ SO ₄ :				
Canada	1.92	1.81	1.91	1.92
Mexico	0.49	1.04	1.05	0.73
Total ²	2.97	3.66	3.55	3.66
Consumption:				
Domestic sources	5.91 ^r	6.21 ^r	5.58	6.01
Imports	1.85	2.15	2.04	2.18
Total	7.75	8.36 ^r	7.63	8.18
Sulfur export values ³	78	87	86	70
Sulfur import values: ³				
Canada	46	51	57	41
Average ³	74	60	65	56
H ₂ SO ₄ export values ³	142	94	136	128
H ₂ SO ₄ import values: ³				
Canada	77	54	54	63
Mexico	61	64	62	73
Average ²	81	62	60	66

^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.