

Mineral Industry Surveys

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SULFUR IN SEPTEMBER 2020

During September 2020, production of recovered elemental sulfur was 537,000 metric tons (t), which was 7% lower than that of August 2020 and 17% lower than that of September 2019. Total production for January through September was 5.58 million metric tons (Mt), which was 8% lower than that in the same period of 2019. Shipments were 534,000 t, which were 5% lower than those of August 2020. Total shipments for January through September were 5.58 Mt, which were 8% lower than those in the same period of 2019. Producers' ending stocks for September 2020 were 102,000 t, which were 11% lower than those of August 2020 (table 1).

Imports of recovered sulfur for September 2020 were 186,000 t; exports were 77,000 t. Total imports of recovered sulfur for January through September were 1.66 Mt, which were 17% higher than those in the same period of 2019. Total exports of recovered sulfur for January through September were 1.09 Mt, which were 35% lower than those in the same period of 2019 (tables 2, 4).

Imports of sulfuric acid for September 2020 were 334,000 t; exports were 16,000 t. Total imports for January through

September were 2.73 Mt, which were 24% higher than those in the same period of 2019. Total exports of sulfuric acid for January through September were 157,000 t, which were slightly higher than those in the same period of 2019 (tables 3, 4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 643,000 t in September 2020. This was 7% higher than that of August 2020 and 9% higher than that of September 2019. Total consumption for January through September was 6.15 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	322	8,110	8,100	124
January–September	5,800 ^r	239 ^r	6,040 ^r	6,040 ^r	115
September	620	25	644	641	114
October	611	28	639	643	109
November	658	27	685	676	119
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 ^p	516	21	537	534	102
January–September	5,370	206	5,580	5,580	102

^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
January–September	1,100 ^r	57,500	1,420 ^r	115,000 ^r
September	97	3,470	99	4,460
October	124	3,360	178	14,500
November	119	2,790	121	3,860
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 ^r	5,150	252 ^r	13,700
May	148 ^r	8,230	149 ^r	8,700
June	145 ^r	4,960	181 ^r	8,610
July	130 ^r	5,320	271 ^r	17,000
August	108 ^r	4,800	161 ^r	10,200
September	130	4,380	186	9,300
January–September	1,180	43,700	1,660 ^r	88,500

^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
January–September	1,450	473	112,000	355	116	22,500	2,200	720	181,000
September	156	51	11,000	38	12	2,290	198	65	15,200
October	185	60	14,400	37	12	1,990	320	105	24,300
November	109	36	8,110	34	11	1,900	166	54	13,200
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
January–September	1,450	473	95,700	501	164	37,600	2,730	891	184,000

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
January–September	1,670 ^r	148,000 ^r	156 ^r	51	25,700
September	148	10,800	18	6	2,520
October	321	8,860	28	9	2,310
November	53	4,750	11	4	1,530
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	3,420
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	6,750	22	7	1,610
August	125	8,210	17	6	2,020
September	77	5,400	16	5	2,040
January–September	1,090	71,800	157	52	20,500

^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	5,900	1,850	7,750
January–September	4,370 ^r	1,420 ^r	5,790 ^r
September	493	99	592
October	322	178	500
November	623	121	744
December	589	129	718
2020:			
January	645	129	774
February	455	143	598
March	478	183	661
April	506	252 ^r	758 ^r
May	456	149 ^r	605 ^r
June	513	181 ^r	694 ^r
July	546	271 ^r	817 ^r
August	440	161 ^r	601 ^r
September ^p	457	186	643
January–September	4,490	1,660 ^r	6,150 ^r

^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–September 2019 ²		August 2020		September 2020 ^p		January–September 2020 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	129	129	13	13	12	12	138	139
Natural gas	10	10	1	1	1	1	10	10
Total	139	139	14	14	13	13	148	149
PAD 2:								
Petroleum and coke	992	990	115	115	93	89	965	962
Natural gas	2	2	--	--	--	--	--	1
Total	994	992	115	115	93	89	965	963
PAD 3:								
Petroleum and coke	3,570	3,570	330	318	308	310	3,300	3,310
Natural gas	89	87	10	10	9	9	84	85
Total	3,660	3,660	340	327	316	319	3,380	3,390
PAD 4 and 5:								
Petroleum and coke	1,100	1,110	103	98	104	98	970	967
Natural gas	137	138	9	11	11	15	112	111
Total	1,240	1,250	112	109	115	113	1,080	1,080
Grand total	6,040	6,040	580	565	537	534	5,580	5,580

^pPreliminary. -- 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)

	2019	2020		
		August	September	January– September
Production	8.11	6.85	6.55 ^p	7.45
Shipments	8.10	6.67	6.51 ^p	7.45
Exports of sulfur	2.20	1.48	0.94	1.46
Imports of sulfur:				
Canada	1.45	1.28 ^r	1.59	1.58
Total ²	1.85	1.90 ^r	2.27	2.21
Exports of H ₂ SO ₄	0.22	0.20	0.20	0.21
Imports of H ₂ SO ₄ :				
Canada	1.92	1.88	1.90	1.94
Mexico	0.49	0.55	1.11	0.67
Total ²	2.97	3.77	4.07	3.65
Consumption:				
Domestic sources	5.90	5.19	5.58	6.01
Imports	1.85	1.90 ^r	2.27	2.21
Total	7.75	7.10 ^r	7.84	8.22
Sulfur export values ³	78	66	70	66
Sulfur import values: ³				
Canada	45	44	34	37
Average ³	74	63 ^r	50	53
H ₂ SO ₄ export values ³	142	119	128	131
H ₂ SO ₄ import values: ³				
Canada	78	50	50	66
Mexico	61	77	63	75
Average ²	81	57	57	67

^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.