

Mineral Industry Surveys

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SULFUR IN NOVEMBER 2019

During November 2019, production of recovered elemental sulfur was 675,000 metric tons (t), which was 6% higher than that of October 2019 and 10% lower than that of November 2018. Shipments were 667,000 t, which was 4% higher than those of October 2019. Producers' ending stocks for November 2019 were 116,000 t (table 1).

Imports of recovered sulfur for November 2019 were estimated to be 122,000 t; exports were 53,000 t. Imports of sulfuric acid for November 2019 were 166,000 t; exports were 11,000 t (tables 2–4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 736,000 t in November 2019. This was 48% higher than that of October 2019 and slightly lower than that of November 2018 (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		
2018:					
January–December	8,380	620	9,000	9,020	118
January–November	7,610 ^r	573	8,190 ^r	8,210 ^r	105 ^r
November	696	54	750	762	105
December	766	47	812	804	118
2019:					
January	699	29	728	745	101
February	592	26	618	611	109
March	650	28	678	664	120
April	625	27	652	666	107
May	621	21	642	640	107
June	624	28	652	647	113
July	690	30	720	725	107
August	677	25	703	699	111
September	618	25	643	641	113
October	611	28	639	644	108
November ^p	646	27	675	667	116
January–November	7,050	293	7,350	7,350	116

^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
2018:				
January–December	1,510	90,600	2,230	205,000
January–November	1,380 ^r	81,200 ^r	2,060 ^r	195,000 ^r
November	135	9,250	185	26,600
December	125	9,390	173	10,500
2019:				
January	131	10,100	180	19,800
February	107	6,400	157	16,000
March	146	8,240	193	15,400
April	138	7,370	183	14,200
May	118	6,180	119	7,060
June	109	4,980	209	16,200
July	120 ^e	6,730	127 ^e	13,000
August	120 ^e	4,000	163 ^e	9,380
September	120 ^e	3,490	121 ^e	4,480
October	120 ^e	3,360	174 ^e	14,500
November	120 ^e	2,790	122 ^e	3,870
January–November	1,350 ^e	63,700	1,750 ^e	134,000

^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
2018:									
January–December	1,900	622	88,100	470	154	18,400	3,050	997	170,000
January–November	1,720	561	78,600	413	135 ^r	16,200	2,780	908	155,000
November	136	44	6,810	46	15	1,870	220	72	14,000
December	187	61	9,480	57	19	2,200	272	89	15,000
2019:									
January	139	45 ^r	7,280	36	12	1,470	237	77	14,200
February	118	39	6,380	43	14	1,890	185	60 ^r	12,000
March	183	60	9,220	63	21	4,490	350	114	24,200
April	157	51	16,300	65	21	4,320	250	82	24,700
May	175	57	19,100	23	8	2,310	233	76	25,700
June	151	49	15,600	24	8	1,810	237	77 ^r	23,300
July	178	58	14,200	34	11	2,140	251	82	21,700
August	190	62	13,300	29	9 ^r	1,800	262	86	20,500
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
January–November	1,740	569	135,000	426	139	26,400	2,690	879	219,000

^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
2018:					
January–December	2,390	299,000	342	112	40,400
January–November	2,080	273,000 ^r	314 ^r	103 ^r	36,300 ^r
November	193	27,100	16	5	2,680
December	318	26,400	28	9	4,050
2019:					
January	349	29,800	16	5	2,980
February	119	15,800	18	6	2,990
March	144	14,700	13	4	2,610
April	116	14,000	21	7	4,240
May	210	21,900	21	7	2,910
June	150	13,600	18	6	1,920
July	120	12,400	15	5	2,890
August	296	13,100	17	6 ^r	2,630
September	152	11,100	18	6	2,520
October	320	8,690	28	9	2,310
November	53	4,750	11	4	1,530
January–November	2,030	160,000	195	64	29,500

^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
2018:			
January–December	6,630 ^r	2,230	8,860 ^r
January–November	6,140 ^r	2,060 ^r	8,200
November	569	185	754
December	486	173	659
2019:			
January	396	180	576
February	492	157	649
March	520	193	713
April	550	183	733
May	430	119	549
June	497	209	706
July	605	127 ^e	732
August	403	163 ^e	566
September	489	121	610
October	324	174	498
November ^p	614	122	736
January–November	5,320	1,750	7,070

^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–November 2018 ²		October 2019		November 2019 ^p		January–November 2019 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	223	222	19	19	17	17	166	166
Natural gas	12	12	1	1	1	1	12	12
Total	235	234	20	21	19	19	178	178
PAD 2:								
Petroleum and coke	1,210	1,210	109	110	118	116	1,220	1,220
Natural gas	6	6	--	--	--	--	2	2
Total	1,210	1,220	109	110	118	116	1,220	1,220
PAD 3:								
Petroleum and coke	4,800	4,810	359	357	393	392	4,330	4,320
Natural gas	117	117	10	10	9	10	108	107
Total	4,920	4,930	369	367	403	402	4,440	4,430
PAD 4 and 5:								
Petroleum and coke	1,380	1,400	123	127	118	116	1,350	1,350
Natural gas	438	437	17	19	17	15	171	173
Total	1,820	1,830	140	146	135	131	1,520	1,530
Grand total	8,190	8,210	639	644	675	667	7,350	7,350

^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			
	2018	October	November	January– November
Production	9.00 ^r	7.52	8.21 ^p	8.03
Shipments	9.02	7.58	8.12 ^p	8.03
Exports of sulfur	2.39	3.77	0.64	2.22
Imports of sulfur:				
Canada	1.51	1.41	1.46	1.48
Total ²	2.23	2.05	1.48	1.91
Exports of H ₂ SO ₄	0.34	0.33	0.34	0.21
Imports of H ₂ SO ₄ :				
Canada	1.90	2.18 ^r	1.33	1.90
Mexico	0.47	0.44	0.41	0.47
Total ²	3.05	3.77	2.02	2.94
Consumption:				
Domestic sources	6.63	3.81 ^r	7.47	5.81
Imports	2.23	2.05	1.48	1.91
Total	8.86	5.86	8.95	7.72
Sulfur export values ³	125	27	90	79
Sulfur import values: ³				
Canada	60	28	23	47
Average ³	92	83	32	77
H ₂ SO ₄ export values ³	118	83 ^r	139	151
H ₂ SO ₄ import values: ³				
Canada	46	78	74	78
Mexico	39	54	56	62
Average ²	55 ^r	76	80	81

^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.