

Mineral Industry Surveys

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SULFUR IN FEBRUARY 2024

During February 2024, production of recovered elemental sulfur was 473,000 metric tons (t), which was 25% lower than the revised amount of January 2024 and 25% lower than that of February 2023. Total production for January through February was 1.10 million metric tons (Mt), which was 15% lower than that in the same period of 2023. Shipments in February 2024 were 476,000 t, which was 26% lower than the revised amount of January 2024 and 24% lower than that of February 2023. Total shipments for January through February were 1.12 Mt, which were 14% lower than those in the same period of 2023. Producers' ending stocks for February 2024 were 110,000 t (table 1). The decline in sulfur production and shipments was the result of reduced petroleum refining in the Midwest and Gulf Coast regions as a result of planned maintenance, unplanned outages, and weather (U.S. Energy Information Administration, 2024).

Imports of recovered sulfur for February 2024 were estimated to be 111,000 t; exports were 189,000 t. Total imports of recovered sulfur for January through February were estimated to be 232,000 t, which were 15% lower than those in the same period of 2023. Total exports of recovered sulfur for January through February were 386,000 t, which were 7% higher than those in the same period of 2023 (tables 2, 4).

Imports of sulfuric acid for February 2024 were 262,000 t; exports were 13,000 t. Total imports for January through

February were 524,000 t, which were slightly higher than those in the same period of 2023. Total exports of sulfuric acid for January through February were 24,000 t, which were 46% lower than the revised amount in the same period of 2023 (tables 3, 4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was estimated to be 399,000 t in February 2024. This was 29% lower than the amount of January 2024 and 35% lower than that of February 2023. Total consumption for January through February was estimated to be 962,000 t, which was 21% lower than that in the same period of 2023 (table 5).

Reference Cited

U.S. Energy Information Administration, 2024, Reduced refinery activity puts upward pressure on gasoline and diesel prices: U.S. Energy Information Administration In-Brief Analysis, March 6, 2024. (Accessed April 19, 2024, at <https://www.eia.gov/todayinenergy/detail.php?id=61543>.)

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Table 1. Salient sulfur statistics.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in thousand metric tons. Preliminary data are marked with a superscript "p"; revised data are marked with a superscript "r"].

Period	Production			Shipments, all sources	Stocks, end of period ¹
	Petroleum ²	Natural gas	Total		
2023					
January–December	7,600	422	8,020	8,030	121
January–February	1,210	86	1,290	1,300	116
February	586	42	628	630	116
March	636	45	680	691	103
April	616	33	648	640	111
May	655	36	691	700	103
June	644	32	676	676	103
July	670	36	706	703	105
August	637	20	658	663	99
September	627	23	650	653	96
October	620	27	647	639	104
November	627	43	671	663	112
December	663	40	703	694	121
2024					
January	590 ^r	41	631 ^r	640 ^r	113
February ^p	436	38	473	476	110
January–February	1,030	78	1,100	1,120	110

¹Subject to inventory adjustments.

²Includes a small quantity from coking operations.

Table 2. U.S. imports of sulfur.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in thousand metric tons and thousand dollars. Estimated data are marked with a superscript "e"; revised data are marked with a superscript "r". Sources: U.S. Census Bureau as adjusted by U.S. Geological Survey and Acuity Commodities.]

Period	Canada		Total, all countries ¹	
	Quantity	Value ²	Quantity	Value ²
2023				
January–December	1,340 ^e	110,000	1,460 ^e	138,000
January–February	219 ^r	20,700	273 ^r	31,400
February	117	10,900	171	20,800
March	117	10,300	119	11,300
April	90	16,400	91	18,000
May	78	9,660	79	11,200
June	117	7,800	118	8,830
July	123	8,900	177	14,900
August	125	6,770	127	8,060
September	111	6,310	112	7,370
October	120 ^e	7,130	122 ^e	8,720
November	120 ^e	7,870	121 ^e	8,880
December	120 ^e	8,690	121 ^e	9,650
2024				
January	120 ^e	7,820	121 ^e	8,840
February	110 ^e	6,920	111 ^e	8,110
January–February	230^e	14,700	232^e	16,900

¹May include other countries not listed.

²Declared customs valuation.

Table 3. U.S. imports of sulfuric acid.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in thousand metric tons and thousand dollars. Revised data are marked with a superscript "r". Source: U.S. Census Bureau.]

Period	Canada			Mexico			Total, all countries ¹		
	Quantity	Sulfur content	Value ²	Quantity	Sulfur content	Value ²	Quantity	Sulfur content	Value ²
2023									
January–December	1,800	589	243,000	617	202	87,500	3,320	1,080	413,000
January–February	304	99	50,000	107	35	17,300	510	167	81,800
February	157	51	26,800	47	15	7,310	237	77	36,700
March	144	47	24,800	70	23	8,340	236	77	36,100
April	146	48	18,000	51	17	6,380	269	88	33,700
May	154	50	21,400	24	8	3,240	265	87	29,100
June	176	58	22,100	57	19	7,380	308	101	35,200
July	157	51	20,300	62	20	8,030	318	104	37,100
August	164	54	20,200	53	17	7,510	322	105	34,700
September	151	49	19,100	57	19	7,990	288	94	35,200
October	134	44	15,500	26	8 ^r	6,030	235	77	27,500
November	127	41 ^r	14,700	50	16	6,960	239	78	27,700
December	144	47	16,500	61	20	8,350	325	106	34,600
2024									
January	160	52	19,400	67	22	8,670	262	86	33,200
February	163	53	21,800	48	16	5,110	262	86	29,800
January–February	323	105	41,200	115	38	13,800	524	171	63,100

¹May include other countries not listed.

²Declared customs valuation.

Table 4. U.S. exports of sulfur and sulfuric acid.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in thousand metric tons and thousand dollars. Revised data are marked with a superscript "r". Sources: U.S. Census Bureau as adjusted by U.S. Geological Survey.]

Period	Sulfur		Sulfuric acid		
	Quantity	Value ¹	Quantity	Sulfur Content	Value ¹
2023					
January–December	1,910	241,000	197	64	38,200
January–February	360	50,400	45 ^r	15 ^r	7,260
February	185	27,300	13	4	3,620
March	177	30,900	19	6	2,920
April	155	21,500	10	3	2,210
May	55	7,120	17	5 ^r	4,350
June	83	8,630	16	5	4,550
July	146	17,600	12	4	1,880
August	271	36,600	13	4	2,210
September	125	8,990	29	9	6,490
October	236	23,400	11	4	1,990
November	197	23,300	15	5	2,510
December	102	12,400	12	4	1,810
2024					
January	198	13,500	11	4	2,150
February	189	17,900	13	4	2,570
January–February	386	31,400	24	8	4,720

¹Declared f.a.s. (free alongside ship) valuation.

Table 5. U.S. consumption of sulfur.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in thousand metric tons. Estimated data are marked with a superscript "e"; preliminary data are marked with a superscript "p"; revised data are marked with a superscript "r"].

Period	Domestic sources¹	Imports	Consumption
2023			
January–December	6,120	1,460 ^e	7,580 ^e
January–February	943 ^r	273 ^r	1,220 ^r
February	445	171	616
March	515	119	633
April	485	91	576
May	645	79	724
June	594	118	712
July	557	177	734
August	393	127	520
September	528	112	640
October	403	122 ^e	525 ^e
November	466	121 ^e	587 ^e
December	592	121 ^e	712 ^e
2024			
January	442 ^r	121 ^e	563 ^{r, e}
February ^p	287	111 ^e	399 ^e
January–February	729	232^e	962^e

¹Calculated as shipments minus exports.

Table 6. Recovered sulfur produced and shipped in the United States, by PAD (Petroleum Administration for Defense) district.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in thousand metric tons. Preliminary data are marked with a superscript "p"; revised data are marked with a superscript "r"].

District and source	January–February 2023 ¹		January 2024		February 2024 ^p		January–February 2024 ^{p,1}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1								
Petroleum and coke	28	28	15	15	13	14	28	28
Natural gas	2	2	1	1	1	1	2	2
Total	30	30	16	16	14	15	30	31
PAD 2								
Petroleum and coke	230	230	119	120	81	82	200	202
Natural gas	0	0	0	0	0	0	0	0
Total	230	230	119	120	81	82	200	202
PAD 3								
Petroleum and coke	729	739	349	352	245	247	594	599
Natural gas	14	15	5	5	5	5	11	10
Total	743	754	354	357	250	252	604	609
PAD 4 and 5								
Petroleum and coke	219	221	108 ^r	111 ^r	97	97	205	207
Natural gas	69	68	34	36	31	31	66	66
Total	289	289	143 ^r	147 ^r	128	127	270	274
Grand total	1,290	1,300	631 ^r	640 ^r	473	476	1,100	1,120

¹May include revisions to previously published data.

Table 7. Comparative sulfur and sulfuric acid statistics.

[Data are rounded to no more than three significant digits; may not add to totals shown. Data are in million metric tons per year (annualized basis) and dollars per metric ton for period shown. Preliminary data are marked with a superscript "p"; revised data are marked with a superscript "r"].

Category	2023	2024		
		January	February	January-February
Production	8.02	7.45	5.98 ^p	6.74
Shipments	8.03	7.55	6.01 ^p	6.81
Exports of sulfur	1.91	2.34 ^r	2.38	2.36
Imports of sulfur				
Canada	1.34	1.42 ^r	1.39	1.40
Total¹	1.46	1.43 ^r	1.41	1.42
Exports of H ₂ SO ₄	0.20	0.13	0.16	0.15
Imports of H₂SO₄				
Canada	1.80	1.89 ^r	2.05	1.97
Mexico	0.62	0.79	0.61	0.70
Total¹	3.32	3.10 ^r	3.31	3.20
Consumption				
Domestic sources	6.12	5.22	3.63	4.45
Imports	1.46	1.43 ^r	1.41	1.42
Total	7.58	6.64	5.03	5.87
Sulfur export values ²	126	68	95	81
Sulfur import values²				
Canada	82	65	63	64
Average ²	95	73	73	73
H ₂ SO ₄ export values ²	194	195	197	197
H₂SO₄ import values²				
Canada	135	121	134	128
Mexico	142	130	106	120
Average ¹	124	127	114	120

¹Includes other countries not listed.

²Average value per ton.