

# Mineral Industry Surveys

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## SULFUR IN JANUARY 2023

During January 2023, production of recovered elemental sulfur was 667,000 metric tons (t), which was essentially unchanged from the revised amount in December 2022 and 4% higher than that in January 2022. Shipments in January 2023 were 675,000 t, which were slightly higher than in December 2022 and 8% higher than that in January 2022. Producers' ending stocks for January 2023 were 117,000 t (table 1).

Imports of recovered sulfur for January 2023 were estimated to be 101,000 t; exports were 176,000 t. Imports of sulfuric acid for January 2023 were 273,000 t; exports were 222,000 t (tables 2-4).

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was estimated to be 601,000 t in January

2023. This was 4% lower than in December 2022 and 28% lower than that in January 2022 (table 5).

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TABLE 1  
SALIENT SULFUR STATISTICS<sup>1</sup>

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period <sup>2</sup>
	Petroleum <sup>3</sup>	Natural gas	Total		
2022:					
January	602	42	644	627	129
February	566	39	605	622	112
March	623	44	668	665	115
April	613	40	653	652	116
May	636	33	670	665	121
June	640	34	674	682	112
July	651	47	697	688	122
August	651	48	699	707	114
September	623	43	666	661	119
October	629	45	673	671	121
November	650	45	696	691	126
December	615 <sup>r</sup>	43	658 <sup>r</sup>	659	125
January–December	7,500	504	8,000	7,990	125
2023, January <sup>p</sup>	623	45	667	675	117

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Subject to inventory adjustments.

<sup>3</sup>Includes a small quantity from coking operations.

TABLE 2  
U.S. IMPORTS OF SULFUR<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Canada		Total, all countries <sup>2</sup>	
	Quantity	Value <sup>3</sup>	Quantity	Value <sup>3</sup>
2022:				
January	148	22,400	255	51,000
February	103	17,600	105	18,700
March	144	26,900	197	43,700
April	146	23,300	147	24,400
May	141	32,800	141	33,800
June	144	37,300	146	38,500
July	145	43,900	146	44,800
August	151	35,800	152	36,500
September	85	11,200	86	12,100
October	85	12,100	87	13,100
November	98	9,360	98	10,000
December	106	10,400	106	11,300
January–December	1,490	283,000	1,670	338,000
2023, January	100 <sup>e</sup>	9,850	101 <sup>e</sup>	10,600

<sup>e</sup>Estimated.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared customs valuation.

Sources: U.S. Census Bureau as adjusted by U.S. Geological Survey and Acuity Commodities.

TABLE 3  
U.S. IMPORTS OF SULFURIC ACID<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Canada			Mexico			Total, all countries <sup>2</sup>		
	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>	Quantity	Sulfur content	Value <sup>3</sup>
2022:									
January	153	50	8,410	49	16	8,390	267	87	30,600
February	127	42	7,740	56	18	10,800	199	65	23,800
March	168	55	10,100	104	34	22,100	328	107	45,200
April	153	50	13,300	67	22	13,600	360	118	54,700
May	163	53	14,500	55	18	11,800	249	81	36,400
June	153	50	14,500	69	23	14,200	254	83	39,600
July	154	50	17,400	66	22	14,400	266	87	45,700
August	167	55	19,400	53	17	10,100	300	98	45,500
September	149	49	17,200	44	14	7,770	269	88	41,500
October	149	49	18,100	45	15	7,580	223	73	33,400
November	142	46	16,600	37	12	7,050	213	70	30,000
December	140	46	16,200	74	24	12,600	302	99	42,100
January–December	1,820	594	173,000	720	235	140,000	3,230	1,060	469,000
2023, January	147	48	23,200	59	19	9,950	273	89	45,100

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>May include other countries not listed.

<sup>3</sup>Declared customs valuation.

Source: U.S. Census Bureau.

TABLE 4  
U.S. EXPORTS OF SULFUR AND SULFURIC ACID<sup>1</sup>

(Thousand metric tons and thousand dollars)

Period	Sulfur		Sulfuric acid		
	Quantity	Value <sup>2</sup>	Quantity	Sulfur content	Value <sup>2</sup>
2022:					
January	46	7,030	11	3	997
February	199	45,700	12	4	1,360
March	68	22,000	22	7	2,660
April	170	67,900	36	12	5,200
May	113	43,500	29	9	3,840
June	132	63,800	16	5	2,230
July	193	87,500	21	7	2,920
August	136	39,600	17	6	2,760
September	166	22,900	68	22	2,710
October	244	59,600	54	18	4,140
November	132	27,100	51	17	3,540
December	139	17,600	272	89	4,290
January–December	1,740	504,000	607	199	36,600
2023, January	176	23,100	222	73	3,650

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Declared f.a.s. (free alongside ship) valuation.

Source: U.S. Census Bureau.

TABLE 5  
U.S. CONSUMPTION OF SULFUR<sup>1</sup>

(Thousand metric tons)

Period	Domestic sources <sup>2</sup>	Imports	Consumption
2022:			
January	581	255	837
February	423	105	528
March	597	197	794
April	481	147	628
May	552	141	694
June	550	146	695
July	495	146	640
August	571	152	722
September	494	86	580
October	427	87	514
November	559	98	657
December	520	106	626
January–December	6,250	1,670	7,920
2023, January <sup>p</sup>	500	101 <sup>e</sup>	601 <sup>e</sup>

<sup>e</sup>Estimated. <sup>p</sup>Preliminary.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Calculated as shipments minus exports.

TABLE 6  
RECOVERED SULFUR PRODUCED AND SHIPPED IN THE UNITED STATES,  
BY PAD (PETROLEUM ADMINISTRATION FOR DEFENSE) DISTRICT<sup>1</sup>

(Thousand metric tons)

District and source	January 2022 <sup>2</sup>		December 2022		January 2023 <sup>p</sup>	
	Production	Shipments	Production	Shipments	Production	Shipments
<b>PAD 1:</b>						
Petroleum and coke	14	15	15	16	15	15
Natural gas	1	1	1	1	1	1
<b>Total</b>	<b>15</b>	<b>16</b>	<b>16</b>	<b>17</b>	<b>16</b>	<b>16</b>
<b>PAD 2:</b>						
Petroleum and coke	122	118	113	111	118	118
Natural gas	--	--	--	--	--	--
<b>Total</b>	<b>122</b>	<b>118</b>	<b>113</b>	<b>111</b>	<b>118</b>	<b>118</b>
<b>PAD 3:</b>						
Petroleum and coke	351	339	368	373	372	380
Natural gas	5	5	8	8	7	8
<b>Total</b>	<b>357</b>	<b>344</b>	<b>376</b>	<b>380</b>	<b>379</b>	<b>388</b>
<b>PAD 4 and 5:</b>						
Petroleum and coke	115	116	119	117	118	120
Natural gas	36	34	35	33	36	34
<b>Total</b>	<b>150</b>	<b>150</b>	<b>153<sup>r</sup></b>	<b>151</b>	<b>154</b>	<b>154</b>
<b>Grand total</b>	<b>644</b>	<b>627</b>	<b>658<sup>r</sup></b>	<b>659</b>	<b>667</b>	<b>675</b>

<sup>p</sup>Preliminary. <sup>r</sup>Revised. -- Zero.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>May include revisions to previously published data.

TABLE 7  
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS<sup>1</sup>

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

	2022		
	December	January– December	2023 January
Production	7.75 <sup>r</sup>	8.00	7.86 <sup>p</sup>
Shipments	7.76	7.99	7.95 <sup>p</sup>
Exports of sulfur	1.64	1.74	2.07
Imports of sulfur:			
Canada	1.24	1.49	1.18
Total <sup>2</sup>	1.25	1.67	1.19
Exports of H <sub>2</sub> SO <sub>4</sub>	3.20	0.61	2.61
Imports of H <sub>2</sub> SO <sub>4</sub> :			
Canada	1.65	1.82	1.73
Mexico	0.87	0.72	0.70
Total <sup>2</sup>	3.55	3.23	3.22
Consumption:			
Domestic sources	6.12	6.25	5.88
Imports	1.25	1.67	1.19
Total	7.37	7.92	7.07
Sulfur export values <sup>3</sup>	127	290	131
Sulfur import values: <sup>3</sup>			
Canada	98	190	98
Average <sup>3</sup>	106	203	105
H <sub>2</sub> SO <sub>4</sub> export values <sup>3</sup>	16	60	16
H <sub>2</sub> SO <sub>4</sub> import values: <sup>3</sup>			
Canada	116	95	158
Mexico	170	195	167
Average <sup>2</sup>	140	145	165

<sup>p</sup>Preliminary. <sup>r</sup>Revised.

<sup>1</sup>Data are rounded to no more than three significant digits; may not add to totals shown.

<sup>2</sup>Includes other countries not listed.

<sup>3</sup>Average value per ton.