

# Mineral Industry Surveys

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## SULFUR IN MARCH 2012

During March 2012, production of recovered elemental sulfur was 680,000 metric tons (t), which was 3% higher than that of February 2012 and 3% higher than that of March 2011. Shipments were 692,000 t, which was 5% higher than those of February 2012. Producers' ending stocks for March 2012 were 151,000 t.

Imports of recovered sulfur for March 2012 were estimated to be 281,000 t; exports were 216,000 t. Imports of sulfuric acid for March 2012 were 272,000 t; exports were 10,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 757,000 t in March 2012. This was 12% lower than that of February 2012 and about 6% lower than that of March 2011.

Significant adjustments have been made to the sulfur import data. The U.S. Census Bureau appears to underreport sulfur imports, especially material from Canada. The revised figures are based on Census information and data from personal communications with industry experts.

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

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period <sup>3</sup>
	Petroleum <sup>2</sup>	Natural gas	Total		
2011:					
January–December	7,080	1,130	8,210	8,190	176
January–March	1,660	294 <sup>r</sup>	1,960 <sup>r</sup>	1,960	150
March	564	96	660 <sup>r</sup>	647	150
April	545	98	644	650	144
May	585	96	681	682	143
June	620	76	697	698	140
July	614	92	705	681	164
August	623	98	720	731	159
September	586	93	678	676	156
October	602	86	688	687	161
November	590	94	684	689	157
December	656	101	756	738	176
2012:					
January	584	98	682	696	161
February <sup>f</sup>	564	97	661	660	162
March <sup>p</sup>	584	96	680	692	151
January–March	1,730	291	2,020	2,050	151

<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 a small quantity from coking operations.

<sup>3</sup>Subject to inventory adjustments.

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

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Venezuela		Total, all countries <sup>2</sup>	
	Quantity <sup>e</sup>	Value <sup>3</sup>	Quantity	Value <sup>3</sup>	Quantity <sup>e</sup>	Value <sup>3</sup>	Quantity <sup>e</sup>	Value <sup>3</sup>
2011:								
January–December	2,700	188,000	303	54,500	99	16,400	3,270	301,000
January–March	640 <sup>r</sup>	45,900	87	12,300	13	1,600	799 <sup>r</sup>	72,500
March	220	25,100	44	5,940	--	--	275	33,500
April	220	13,800	29	4,940	18	3,430	268	22,700
May	230	14,700	29	6,190	--	--	260	21,600
June	220	14,400	14	2,760	15	2,750	315	37,300
July	240	18,100	29	5,910	--	--	270	24,500
August	240	17,800	14	3,330	15	2,720	308	33,500
September	230	15,600	29	5,400	8	1,510	267	22,900
October	230	16,300	14	3,240	--	--	245	19,800
November	220	13,700	29	5,420	10	1,370	259	20,800
December	230	17,600	29	5,010	20	2,970	279	25,800
2012:								
January	240	13,700	29	5,230	--	--	269	19,200
February	220	12,800	29	3,930	13	1,820	263	18,900
March	240	15,400	29	3,410	12	1,610	281	20,700
January–March	700	41,900	87	12,600	25	3,430	813	58,800

<sup>e</sup>Estimated. <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 other countries not listed.

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

Sources: U.S. Census Bureau data as adjusted by U.S. Geological Survey and ICIS PentaSul North America Sulphur Service.

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>
2011:									
January–December	1,820	596	158,000	433	142	29,400	2,670	871	244,000
January–March	448	147	34,600	99	33	5,910	694	227	59,500
March	146	48	11,700	58	19	3,310	254	83	22,200
April	145	47	8,780	47	15	3,400	229	75	18,100
May	135	44	7,460	40	13	2,950	229	75	17,000
June	116	38	7,670	39	13	2,750	221	72	18,100
July	157	51	16,000	23	8	1,570	205	68	23,800
August	169	55	18,500	46	15	3,250	237	78	25,600
September	141	46	15,600	30	10	2,130	175	57	19,600
October	179	59	17,600	35	11	2,440	230	75	21,600
November	155	51	14,600	31	10	2,180	188	61	17,100
December	178	58	16,900	43	14	2,860	257	84	23,200
2012:									
January	192	63	16,600	32	10	2,320	291	95	26,500
February	146	48	12,300	39	13	2,870	203	66	17,800
March	167	55	14,000	47	15	3,540	272	89	22,400
January–March	505	165	42,900	118	39	8,730	766	250	66,700

<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>
2011:					
January–December	1,310	266,000	332	109	41,500
January–March	322	55,300	70	23	9,010
March	114	20,500	22	7	3,220
April	123	26,100	40	13	3,840
May	52	11,400	27	9	3,180
June	189	34,500	26	8	3,410
July	61	15,600	30	10	3,790
August	116	24,900	68	22	5,100
September	160	30,100	24	8	3,740
October	79	17,900	11	4	1,830
November	117	26,500	23	8	5,510
December	90	23,400	13	4	2,080
2012:					
January	155	32,900	15	5	2,760
February	66	11,000	10	3	2,030
March	216	60,200	10	3	1,950
January–March	437	104,000	35	11	6,730

<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 <sup>e</sup>	Consumption
2011:			
January–December	6,880	3,270	10,100
January–March <sup>f</sup>	1,630	799	2,430
March	533	275	808
April	527	268	795
May	630	260	890
June	509	315	824
July	620	270	890
August	615	308	923
September	516	267	783
October	608	245	853
November	572	259	831
December	648	279	927
2012:			
January	541	269	810
February	594 <sup>r</sup>	263	857 <sup>r</sup>
March	476 <sup>p</sup>	281	757
January–March	1,610	813	2,420

<sup>e</sup>Estimated. <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>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–March 2011 <sup>2</sup>		February 2012		March 2012 <sup>p</sup>		January–March 2012 <sup>p, 2</sup>	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	18	14	5 <sup>r</sup>	9 <sup>r</sup>	8	8	20	25
Natural gas	3	3	1	1	1	1	3	3
Total	21	17	6 <sup>r</sup>	10 <sup>r</sup>	10	9	23	28
PAD 2:								
Petroleum and coke	245	252	92	91	92	92	270	270
Natural gas	5	5	1	1	1	1	4	4
Total	250	257	93	93	94	94	274	275
PAD 3: <sup>3</sup>								
Petroleum and coke	1,100	1,090	360 <sup>r</sup>	357 <sup>r</sup>	376	393	1,130	1,150
Natural gas	114	115	38 <sup>r</sup>	39 <sup>r</sup>	40	39	117	117
Total	1,210	1,210	397 <sup>r</sup>	396 <sup>r</sup>	416	432	1,240	1,270
PAD 4 and 5:								
Petroleum and coke	303	303	108	106	107	103	316	314
Natural gas	171	172	56	55	54	55	167	166
Total	474	475	164	161	161	157	483	480
Grand total	1,960	1,960	661 <sup>r</sup>	660 <sup>r</sup>	680	692	2,020	2,050

<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>May include revisions to previously published data.

<sup>3</sup>Includes the U.S. Virgin Islands.

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)

	2011	2012		Total
		February	March	
Production	8.21	8.32 <sup>r</sup>	8.01 <sup>p</sup>	8.11
Shipments	8.19	8.31 <sup>r</sup>	8.15 <sup>p</sup>	8.21
Exports of sulfur	1.31	0.83	2.54	1.75
Imports of sulfur:				
Canada <sup>c</sup>	2.70	2.77	2.83	2.81
Mexico	0.30	0.37	0.34	0.35
Venezuela <sup>c</sup>	0.10	0.16	0.14	0.10
Total <sup>c,2</sup>	3.27	3.31	3.31	3.26
Exports of H <sub>2</sub> SO <sub>4</sub>	0.33	0.13	0.12	0.14
Imports of H <sub>2</sub> SO <sub>4</sub> :				
Canada	1.82	1.84	1.97	2.03
Mexico	0.43	0.49	0.55	0.47
Total <sup>2</sup>	2.67	2.56	3.20	3.07
Consumption:				
Domestic sources	6.88	7.48 <sup>r</sup>	5.60	6.46
Imports <sup>e</sup>	3.27	3.31	3.31	3.26
Total	10.20	10.80 <sup>r</sup>	8.91	9.72
Sulfur export values <sup>3</sup>	203	167	279	238
Sulfur import values: <sup>3</sup>				
Canada	70	58	64	60
Mexico	180	136	117	144
Venezuela	165	140	134	137
Average <sup>2</sup>	92	72	74	72
H <sub>2</sub> SO <sub>4</sub> export values <sup>3</sup>	125	203	195	192
H <sub>2</sub> SO <sub>4</sub> import values: <sup>3</sup>				
Canada	86	84	84	85
Mexico	68	74	75	74
Average <sup>2</sup>	91	87	82	87

<sup>c</sup>Estimated. <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.