

Mineral Industry Surveys

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SULFUR IN NOVEMBER 2012

During November 2012, production of recovered elemental sulfur was 681,000 metric tons (t), which was slightly less than that of October 2012 and that of November 2011. Shipments were 674,000 t, which was 3% less than those of October 2012. Producers' ending stocks for November 2012 were 135,000 t.

Imports of recovered sulfur for November 2012 were estimated to be 220,000 t; exports were 104,000 t. Imports of sulfuric acid for November 2012 were 211,000 t; exports were 10,000 t.

U.S. sulfur consumption, calculated as shipments minus exports plus imports, was 790,000 t in November 2012. This was about 14% more than that of October 2012 and about 5% less than that of November 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 STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources	Stocks, end of period ³
	Petroleum ²	Natural gas	Total		
2011:					
January–December	7,080	1,130	8,210	8,190	176
January–November ^f	6,430	1,030	7,450	7,450	157
November	590	94	684	689	157
December	656	101	756	738	176
2012:					
January	584	98	682	696	161
February	564	97	661	661	162
March	585	96	681	693	151
April	573	96	668	683	137
May	636	87	724	720	143
June	616	76	692	678	158
July	671	95	766	771	152
August	635	98	734	730	152
September	605	83	688	696	140
October	611	77	687	697	129
November ^p	621	61	681	674	135
January–November	6,700	965	7,670	7,700	135

^pPreliminary. ^fRevised.

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		Mexico		Venezuela		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³	Quantity ^e	Value ³
2011:								
January–December	2,700	188,000	303	54,500	99	16,400	3,270	301,000
January–November ^f	2,470	170,000	274	49,500	79	13,400	2,990	276,000
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
April	190	12,300	49	7,990	13	1,790	252	22,300
May	200	13,100	43	6,260	10	1,360	253	21,000
June	190	15,800	35	5,980	--	--	225	22,200
July	190	13,400	16	4,350	20	839	226	18,800
August	190	13,800	30	4,590	20	3,310	241	22,100
September	190	12,100	30	3,920	12	1,620	233	17,800
October	200 ^f	13,600	30	3,870	--	--	231 ^f	18,100
November	190	14,000	30	3,630	--	--	220	18,000
January–November	2,240	150,000	349	53,200	100	12,300	2,690	219,000

^eEstimated. ^fRevised. -- Zero.

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

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
2011:									
January–December	1,820	596	158,000	433	142	29,400	2,670	872	244,000
January–November ^f	1,650	538	141,000	392	128	26,600	2,410	788	220,000
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
April	169	55	13,400	37	12	2,670	225	74	19,600
May	156	51	11,500	37	12	2,740	203	66	16,800
June	162	53	11,800	37	12	2,660	239	78	19,500
July	179	59	13,300	45	15	3,090	241	79	19,900
August	166	54	12,500	34	11	2,350	228	75	17,900
September	151	49	12,000	31	10	2,130	232	76	19,000
October	169	55	13,200	49	16	3,400	279	91	23,200
November	166	54	12,900	43	14	3,060	211	69	17,100
January–November	1,820	596	143,000	431	140	30,800	2,620	858	220,000

^fRevised.

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
2011:					
January–December	1,310	266,000	332	109	41,500
January–November ^f	1,220	242,000	319	104	39,400
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
April	89	17,800	11	4	2,410
May	178	33,800	15	5	2,850
June	190	33,700	11	4	2,530
July	111	20,900	24	8	4,810
August	141	26,000	11	4	2,480
September	192	38,600	17	6	2,830
October	232	41,100	15	5	3,060
November	104	18,800	10	3	1,810
January–November	1,670	335,000	149	50	29,500

^fRevised.

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 ^c	Consumption
2011:			
January–December	6,880	3,270	10,100
January–November	6,230	2,990	9,220
November	572	259	831
December	648	279	927
2012:			
January	541	269	810
February	595	263	858
March	477	281	758
April	594	252	846
May	542	253	795
June	488	225	713
July	660	226	886
August	589	241	830
September	504	233	737
October	465	231 ^r	696 ^r
November	570 ^p	220	790
January–November	6,030	2,690	8,720

^cEstimated. ^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 2011 ²		October 2012		November 2012 ^p		January–November 2012 ^{p, 2}	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	59	59	15	15	15	15	117	122
Natural gas	12	12	1	1	1	1	12	12
Total	71	71	16	16	16	16	129	134
PAD 2:								
Petroleum and coke	905	918	79	80	84	84	967	968
Natural gas	20	20	2	1	1	1	16	16
Total	925	938	81	81	86	85	984	984
PAD 3: ³								
Petroleum and coke	4,310	4,290	419	424	419	420	4,440	4,480
Natural gas	421	422	37	34	35	30	414	393
Total	4,740	4,710	456	457	454	450	4,850	4,870
PAD 4 and 5:								
Petroleum and coke	1,150	1,160	98	104	103	102	1,180	1,190
Natural gas	573	575	37	39	23	20	522	524
Total	1,720	1,730	135	142	126	122	1,700	1,710
Grand total	7,450	7,450	687	697	681	674	7,670	7,700

^pPreliminary.

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

²May include revisions to previously published data.

³Includes the U.S. Virgin Islands.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

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

	2011	2012		
		October	November	Total
Production	8.21	8.11	8.31 ^P	8.37
Shipments	8.19	8.23	8.22 ^P	8.41
Exports of sulfur	1.31	2.74	1.27	1.83
Imports of sulfur:				
Canada ^e	2.70	2.36 ^r	2.32	2.44
Mexico	0.30	0.35	0.37	0.38
Venezuela ^e	0.10	--	--	0.11
Total ^{e,2}	3.27	2.73 ^r	2.68	2.95
Exports of H ₂ SO ₄	0.33	0.18	0.12	0.16
Imports of H ₂ SO ₄ :				
Canada	1.82	2.00	2.03	2.00
Mexico	0.43	0.58	0.52	0.47
Total ²	2.67	3.29	2.57	2.88
Consumption:				
Domestic sources	6.88	5.49	6.95	6.60
Imports ^e	3.27	2.73 ^r	2.68	2.95
Total	10.20	8.22 ^r	9.64	9.55
Sulfur export values ³	203	177	181	200
Sulfur import values: ³				
Canada	70	70 ^r	74	67
Mexico	180	129	121	152
Venezuela	165	XX	XX	123
Average ²	92	78 ^r	82	81
H ₂ SO ₄ export values ³	125	204	181	198
H ₂ SO ₄ import values: ³				
Canada	86	78	78	79
Mexico	68	69	71	72
Average ²	91	83	81	84

^eEstimated. ^PPreliminary. ^rRevised. XX Not applicable. -- Zero.

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.