

Mineral Industry Surveys

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SULFUR IN FEBRUARY 2004

During the month, production of recovered elemental sulfur was 674,000 metric tons, according to the U.S. Geological Survey. February production was 7% lower than January 2004, and virtually the same as that of February 2003. Shipments were 7% lower than those of January 2004. Producers' ending stocks for February 2004 were 175,000 tons.

Import and export data for January 2004 were not available at the time of publication and will be published in the Sulfur in March 2004 Mineral Industry Surveys along with apparent consumption. Imports of recovered sulfur for January 2004

were estimated to be 247,000 tons; exports were 18,000 tons. Imports of sulfuric acid for December 2003 were 114,000 tons; exports were 10,000 tons.

Significant adjustments have been made to the sulfur import data. Reports from the U.S. Census Bureau appear to underreport sulfur imports especially material from Canada. The revised figures are based on Census information, data and personal communications with industry experts. Better strategies for estimating import data from Canada are being explored.

TABLE 1
SALIENT SULFUR STATISTICS¹

(Thousand metric tons)

Period	Production			Shipments, all sources
	Petroleum ²	Natural gas	Total	
2003:				
January-December	7,130	1,790	8,930 ^r	8,920
January-February	1,130	317	1,450	1,430
February	525	148	673	658
March	595	161	756	736
April	639	155	794	810
May	639	135	773	769
June	556	132	688	680
July	615	141	755	760
August	567	156	723	723
September	557	141	698	708
October	561	153	714	715
November	628	147	775	783
December	642	155	797 ^r	803
2004:				
January	558	165	723 ^r	743
February ^p	504	170	674	690
Total	1,060	335	1,400	1,430

^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.

TABLE 2
U.S. IMPORTS OF SULFUR¹

(Thousand metric tons and thousand dollars)

Period	Canada		Mexico		Total, all countries ²	
	Quantity ^e	Value ³	Quantity	Value ³	Quantity ^e	Value ³
2002:						
January-December	1,950	9,450	430	11,300	2,560	26,800
2003:						
January	180	1,280	44	2,460	224	3,740
February	170	2,330	45	1,850	215	4,250
March	200	2,870	45	2,130	245	5,660
April	190	2,950	44	2,380	234	5,230
May	200	4,160	45	2,530	266	7,760
June	180	2,940	44	2,410	241	6,270
July	160	2,440	45	2,180	241	6,390
August	160	2,040	45	1,940	267	4,820
September	160	2,910	44	2,070	213	6,160
October	160	2,460	49	2,470	229	5,760
November	160	2,850	45	2,170	205	6,860
December	160	2,770	40	1,960	230	6,180
Total	2,080	32,000	535	26,500	2,810	69,100
2004:						
January ^e	160	1,720	50	2,400	247	5,850

^eEstimated.

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 PentalSul North America Sulphur Service.

TABLE 3
U.S. IMPORTS OF SULFURIC ACID¹

(Thousand metric tons and thousand dollars)

Period	Canada			Europe			Total, all countries ²		
	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³	Quantity	Sulfur content	Value ³
2002:									
January-December	615	201	17,900	217	71	3,750	1,060	344	36,400
2003:									
January	38	13	1,330	29	9	511	67	22	1,900
February	30	10	1,080	25	8	836	57	19	2,360
March	42	14	1,740	19	6	279	63	21	2,480
April	44	14	1,680	--	--	--	54	18	2,200
May	34	11	1,320	29	10	638	75	25	2,710
June	26	8	963	40	13	1,350	84	27	2,770
July	23	8	1,020	19	6	318	82	27	1,950
August	19	6	980	74	24	751	103	34	2,410
September	22	7	1,150	9	3	382	70	23	2,230
October	35	11	1,520	1	(4)	36	104	34	1,550
November	33	11	1,590	1	(4)	36 ^e	71	23	3,350
December	41	13	1,880	20	7	734	75	25	2,900
Total	387	126	16,200	266	86	5,870	905	298	28,800
2004:									
January	97	32	3,930	--	--	--	114	37	4,610

^eEstimated. -- 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.

⁴Less than 1/2 unit.

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
2002:					
January-December	687 ^r	40,000	148	49	12,800
2003:					
January	111 ^r	4,590 ^r	12	4	1,380
February	63	3,410	16	5	1,150
March	34 ^r	2,830 ^r	11	3	1,360
April	94 ^r	4,030 ^r	12	4	1,430
May	41	2,430	22	7	1,610
June	70 ^r	6,650 ^r	21	7	1,790
July	55 ^r	4,700 ^r	28	10	2,430
August	57	2,190	27	9	2,060
September	50	2,090	23	7	1,910
October	72	4,360	12	4	1,200
November	27	4,880	12	4	1,170
December	67	3,920	12	4	1,360
Total	742 ^r	46,100 ^r	207	68	18,800
2004:					
January	18	1,740	10	3	1,120

^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 ^c	Consumption
2002:			
January-December	7,800 ^r	2,560	10,400 ^r
2003:			
January	663 ^r	224	887 ^r
February	595	215	810
March	702 ^r	245	947 ^r
April	716 ^r	234	950 ^r
May	728	266	994
June	610 ^r	241	851 ^r
July	705 ^r	241	946 ^r
August	666	267	933
September	658	213	871
October	643	229	872
November	756	205	961
December	736	230	966
Total	8,180 ^r	2,810	11,000
2004:			
January	705	247	952

^cEstimated. ^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	February 2004 ^p		January 2004		Total 2004 ²		Year to date 2003 ²	
	Production	Shipments	Production	Shipments	Production	Shipments	Production	Shipments
PAD 1:								
Petroleum and coke	9	9	10	10	19	19	40	41
Natural gas	14	14	2	2	16	16	4	4
Total	23	24	12	12	35	35	44	45
PAD 2:								
Petroleum and coke	74	74	75	78	148	152	153 ^r	147 ^r
Natural gas	4	4	4	4	7	8	7	8
Total	77	77	79	82	156	160	160 ^r	155 ^r
PAD 3: ³								
Petroleum and coke	334	344	369	378	703	721	716 ^r	724 ^r
Natural gas	42	44	47	48	89	92	65 ^r	68 ^r
Total	376	388	416	426	792	814	781 ^r	792 ^r
PAD 4 and 5: ⁴								
Petroleum and coke	87	87	104	109	191	195	226 ^r	221 ^r
Natural gas	110	115	113	118	223	229	241 ^r	229 ^r
California	67	65	78	83	145	148	171 ^r	165 ^r
Total	197	201	217	227 ^r	414	425	467 ^r	440 ^r
Grand total	674	690	723	743	1,400	1,430	1,450 ^r	1,430 ^r

^pPreliminary. ^rRevised.

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

²May include revisions to prior months.

³Includes the U.S. Virgin Islands.

⁴Quantities produced and shipped in California included in petroleum and natural gas. California total shown for information purposes only.

TABLE 7
COMPARATIVE SULFUR AND SULFURIC ACID STATISTICS¹

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

	2004			2003
	February	January	Year to date	total
Production	8.51	8.55 ^r	8.52 ^r	8.93
Shipments	8.71	8.77 ^r	8.74 ^r	8.92
Exports of sulfur	NA	0.21	0.21	0.74
Imports of sulfur:				
Canada	NA	1.89 ^e	1.89 ^e	2.08
Mexico	NA	0.59	0.59	0.54
Total ²	NA	2.92 ^e	2.92 ^e	2.81
Export of H ₂ SO ₄	NA	0.12	0.12	0.21
Import of H ₂ SO ₄ :				
Canada	NA	1.15	1.15	0.39
Europe	NA	--	--	0.27
Total ²	NA	1.35	1.35	0.91
Consumption: ³				
Domestic sources	NA	8.32	8.32	8.18
Imports	NA	2.92 ^e	2.92 ^e	2.81
Total	NA	11.20	11.20	11.00
Sulfur export values ⁴	NA	\$96	\$96	\$62
Sulfur import values: ⁴				
Canada	NA	\$11	\$11	\$15
Mexico	NA	\$48	\$48	\$50
Average	NA	\$24	\$24	\$25
H ₂ SO ₄ export values ⁴	NA	\$112	\$112	\$91
H ₂ SO ₄ import values: ⁴				
Canada	NA	\$41	\$41	\$42
Europe	NA	--	--	\$22
Average	NA	\$40	\$40	\$32

^eEstimated. ^rRevised. NA Not available. -- Zero.

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

²Includes other countries not listed.

³Because January trade data were not available, January consumption was not determined.

⁴Average value per ton for most recent data available.