

Mineral Industry Surveys

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TUNGSTEN IN APRIL 2002

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 13% lower during January through April 2002 than net production during the same period in 2001, according to the U.S. Geological Survey.

Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials in January through April 2002 was basically the same as that during the first 4 months of 2001. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for April 2002 will be published in a subsequent issue.

Note

All data in this report have been rounded to no more than three significant digits. Totals and percentages were calculated by using unrounded data.

Update

Prices for tungsten ore concentrates in dollars per metric ton unit from Metal Bulletin are listed below. Prices in dollars per short ton unit were converted from metric ton unit prices and rounded to the nearest dollar. These prices represent combined prices for wolframite and scheelite ore concentrates with a minimum tungsten trioxide (WO₃) content of 65%. The prices for May 1-31, 2002, are as follows:

Low—\$32/metric ton unit WO₃ (\$29/short ton unit WO₃)
High—\$45/metric ton unit WO₃ (\$41/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate				Intermediate products				
	Reported consumption	Imports for consumption	Stocks, end of period		Reported scrap consumption	Net production 4/	Reported consumption 5/	Stocks, end of period	
			Industry 2/	U.S. Government 3/				Industry 6/	U.S. Government 3/
2001: p/									
April	W	179	W	32,500	605	985	793	W	1,710
May	W	302	W	32,300	461	866	717	1,030	1,610
June	W	288	W	32,300	488	904	691	1,040	1,540
July	W	275	W	32,300	544	735	759	909	1,490
August	W	247	W	32,100	510	781	712	851	1,440
September	W	246	W	32,100	402	788	732	813	1,410
October	W	389	W	NA	449	584	769	693	NA
November	W	149	W	NA	372	696	742	676	NA
December	W	253	W	NA	350	573	672	699	NA
January-December	W	2,680	XX	XX	5,660	9,520	8,960 r/	XX	XX
2002:									
January	W	207	W	NA	330	759	768 r/	686	NA
February	W	79	W	NA	330 r/	811 r/	776 r/	693 r/	NA
March	W	212	W	NA	258 r/	750 r/	764 r/	640 r/	NA
April	W	NA	W	NA	401	822	776	667	NA
Total	W	NA	XX	XX	1,320	3,140	3,080	XX	XX

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Reported by consumers.

3/ Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

4/ Net production of tungsten metal powder and tungsten carbide powder.

5/ Includes estimates and scrap.

6/ Data for tungsten metal powder and tungsten carbide powder reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH 1/

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period 2/
2001: p/			
April	W	927	W
May	W	W	119
June	W	913	88
July	W	726	100
August	W	835	140
September	W	W	97
October	W	721	179
November	W	619	W
December	W	481	W
January-December 3/	W	7,020	XX
2002:			
January	W	621	W
February	W	814 r/	118
March	W	653 r/	W
April	W	750	W
Total	W	2,840	XX

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

2/ Producers and consumers.

3/ Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS 1/

(Metric tons, tungsten content)

Product 3/	Net production 2/				Stocks at end of period		
	2001 p/	2002		Year to date	2002		
		March r/	April		2001 p/	March r/	April
Metal powder	5,190	440	471	1,830	367	305	337
Tungsten carbide powder (made from metal powder)	4,330	310	351	1,310	332	335	330
Total	9,520	750	822	3,140	699	640	667

p/ Preliminary. r/ Revised.

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

2/ Gross production less quantity used to make other products in table.

3/ Data for cast and crystalline tungsten carbide powder and tungsten chemicals are withheld to avoid disclosing company proprietary data; not included in "Total."

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE 1/ 2/ 3/

(Metric tons, tungsten content)

End use	March	April	Year to date
Steels	41	37	162
Superalloys	26	27	113
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	476 r/	489	1,930
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	220 r/	223	876
Total	764 r/	776	3,080

r/ Revised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

2/ Does not include materials used in making primary tungsten products.

3/ Includes estimates.

4/ Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

5/ Includes diamond tool matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMER STOCKS OF TUNGSTEN MATERIALS 1/

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials 2/	Total
2001: p/						
April	20	31 r/	602 r/	39	9	701 r/
May	24	32 r/	521 r/	38 r/	9	625 r/
June	14	30 r/	588 r/	45	9	685 r/
July	36	30 r/	573 r/	38 r/	9	687 r/
August	29	29 r/	509 r/	45 r/	9	621 r/
September	36	30 r/	536 r/	38 r/	9	648 r/
October	41	33 r/	553 r/	40 r/	9	677 r/
November	40	32 r/	539 r/	45 r/	9	665 r/
December	37	33 r/	596 r/	43 r/	9	717 r/
2002:						
January	42	16	499 r/	27	11	595 r/
February	36	13	491 r/	33	11	584 r/
March	33	16	498 r/	32	11	590 r/
April	32	20	491	36	11	591

p/ Preliminary. r/ Revised.

1/ Includes estimates.

2/ Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of origin	Ores and concentrates	Ammonium tungstates	Ferro-tungsten	Metal powder	Tungsten carbide powder	Other 2/	Total	Total year to date
2001 p/	2,680	2,720	352	947	932	2,120	9,750	XX
2002:								
January	207	296	14	45	65	138	765	765
February	79	67	72	71	69	22	381	1,150
March:								
Austria	--	--	--	--	--	3	3	16
Belgium	--	--	--	(3/)	--	(3/)	(3/)	1
Bolivia	47	--	--	--	--	--	47	157
Canada	132	--	--	(3/)	27	--	159	213
China	--	81	128	30	14	49	302	1,030
Czech Republic	--	--	--	--	(3/)	--	(3/)	(3/)
France	--	--	--	1	(3/)	(3/)	1	3
Germany	--	2	--	25	3	7	37	92
Hong Kong	--	18	--	--	--	(3/)	18	19
Hungary	--	--	--	--	--	(3/)	(3/)	1
India	--	--	--	--	--	(3/)	(3/)	22
Israel	(3/)	--	--	--	12	1	13	47
Italy	--	--	--	--	(3/)	(3/)	(3/)	(3/)
Japan	--	--	--	--	--	3	3	11
Korea, Republic of	--	--	--	20	1	(3/)	21	27
Luxembourg	--	--	--	--	(3/)	--	(3/)	(3/)
Malaysia	--	--	--	--	--	(3/)	(3/)	(3/)
Netherlands	--	--	--	--	--	(3/)	(3/)	(3/)
Peru	5	--	--	--	--	--	5	9
Portugal	28	--	--	--	--	--	28	115
Russia	--	18	--	--	--	(3/)	18	18
Singapore	--	--	--	--	--	--	--	(3/)
Spain	--	--	--	--	--	(3/)	(3/)	(3/)
Sweden	--	--	--	--	--	(3/)	(3/)	6
Switzerland	--	--	--	--	--	(3/)	(3/)	(3/)
Taiwan	--	--	--	--	--	(3/)	(3/)	(3/)
United Kingdom	--	--	--	--	--	(3/)	(3/)	20
Total	212	119	128	77	57	65	657	1,800
Total, year to date	497	482	214	192	192	226	1,800	XX

p/ Preliminary. -- Zero.

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

2/ Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and residues containing mainly tungsten, and other mixtures of inorganic compounds containing tungsten. Tungsten content estimated in part.

3/ Less than 1/2 unit.

Note: Imports of waste and scrap in March 2002 totaled 84 metric tons, tungsten content, to give a year-to-date total of 205 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY 1/

(Metric tons, tungsten content)

Period and country of destination	Ores and concentrates 2/	Ammonium tungstates	Metal powder 2/	Tungsten carbide powder	Other 3/	Total	Total year to date
2001 p/	220	257	569	1,950	1,120	4,110	XX
2002:							
January	15	--	55	101	171	342	342
February	6	21	30	56	84	196	538
March:							
Australia	--	--	(4/)	(4/)	(4/)	1	4
Austria	--	--	--	--	(4/)	(4/)	2
Belgium	--	--	--	2	2	4	8
Brazil	--	--	(4/)	--	(4/)	(4/)	7
Canada	--	--	2	12	12	26	82
China 5/	--	--	--	--	(4/)	(4/)	2
Colombia	--	--	--	--	2	2	3
Czech Republic	--	--	--	7	--	7	11
Ecuador	--	--	--	(4/)	--	(4/)	(4/)
Egypt	--	--	--	--	--	--	(4/)
Finland	--	--	--	--	--	--	(4/)
France	--	--	(4/)	8	(4/)	8	24
Georgia	--	--	--	--	(4/)	(4/)	(4/)
Germany	2	6	26	65	(4/)	98	245
Hong Kong	--	--	--	--	3	3	4
Hungary	--	--	--	--	1	1	4
India	--	--	1	(4/)	1	2	4
Indonesia	--	--	--	--	--	--	1
Ireland	--	--	--	1	(4/)	1	2
Israel	--	--	--	--	1	1	4
Italy	--	--	(4/)	1	1	2	9
Japan	--	17	(4/)	2	4	23	34
Korea, Republic of	--	--	(4/)	3	1	4	14
Kuwait	--	--	--	--	--	--	(4/)
Luxembourg	--	--	(4/)	--	--	(4/)	(4/)
Mexico	--	--	--	--	17	17	54
Netherlands	--	--	(4/)	(4/)	(4/)	(4/)	83
New Zealand	--	--	1	--	1	1	2
Nigeria	--	--	--	--	--	--	(4/)
Norway	--	--	--	--	--	--	(4/)
Peru	--	--	--	(4/)	--	(4/)	(4/)
Philippines	--	--	--	--	(4/)	(4/)	1
Singapore	--	--	(4/)	(4/)	1	2	5
Slovakia	--	--	--	--	(4/)	(4/)	(4/)
South Africa	--	--	--	--	(4/)	(4/)	2
Spain	--	--	--	--	(4/)	(4/)	3
Sweden	--	--	--	27	(4/)	27	45
Switzerland	--	--	--	2	(4/)	2	2
Taiwan	--	--	2	(4/)	7	10	23
Thailand	--	--	--	--	--	--	1
Turkey	--	--	1	--	--	1	1
United Arab Emirates	--	--	--	--	(4/)	(4/)	(4/)
United Kingdom	6	--	1	63	3	73	167
Total	9	23	35	192	59	318	856
Total, year to date	30	44	120	349	314	856	XX

p/ Preliminary. XX Not applicable. -- Zero.

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

2/ Tungsten content estimated from reported gross weight.

3/ Includes unwrought tungsten, including bars and rods obtained simply by sintering, wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

4/ Less than 1/2 unit.

5/ Includes Macau.

Note: Estimated exports of waste and scrap in March 2002 totaled 5 metric tons, tungsten content, to give a year-to-date total of 65 metric tons, tungsten content.

Source: U.S. Census Bureau.