

Mineral Industry Surveys

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TUNGSTEN IN NOVEMBER 2002

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, was 19% higher during January through November 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 November 2002 was 18% higher than consumption during the first 11 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 November 2002 will be published in a subsequent issue.

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 December 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. Gov-ernment 3/				Industry 6/	U.S. Gov-ernment 3/
2001:									
November	W	149	W	NA	372	696	755	676	NA
December	W	253	W	31,200 e/	350	573	684	699	1,120 e/
January-December	W	2,680	XX	XX	5,660	9,520	8,960	XX	XX
2002:									
January	W	207	W	NA	342	759	781	686	NA
February	W	79	W	NA	341	811	788	693	NA
March	W	212	W	NA	270	750	772	640	NA
April	W	292	W	NA	421	743	776	667	NA
May	W	292	W	NA	393	1,040	949	650	NA
June	W	439	W	31,200	351	1,080	924	662	1,100
July	W	362	W	30,400	346	947 r/	949	654 r/	1,020
August	W	418	W	30,500	230	1,120	951	737 r/	987
September	W	341	W	30,100	242	1,130 r/	970	750 r/	981
October	W	341	W	30,100	258	1,140 r/	965	765 r/	975
November	W	NA	W	30,100	238	1,100	976	752	948
Total	W	NA	XX	XX	3,430	10,600	9,800	XX	XX

e/ Estimated. 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:			
November	W	619	W
December	W	481	W
January-December 3/	W	7,020	XX
2002:			
January	W	621	W
February	W	814	118
March	W	653	W
April	W	830	W
May	W	798	W
June	W	893	103
July	W	804 r/	215 r/
August	W	857 r/	W
September	W	891 r/	132 r/
October	W	852	139 r/
November	W	858	116
Total	W	8,870	XX

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	2002		Year to date	2001	2002	
		October r/	November			October	November
Metal powder	5,190	786	768	6,930	367	460 r/	455
Tungsten carbide powder (made from metal powder)	4,330	354	331	3,700	332	305	297
Total	9,520	1,140	1,100	10,600	699	765 r/	752

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	October	November	Year to date
Steels	35	36	401
Superalloys	36	43	407
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	465	467	5,140
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	428	431	3,860
Total	965	976	9,800

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 CONSUMPTION AND 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
Consumption:						
2001:						
November	23	204	474	48	6	755
December	22	145	473	39	6	684
January-December	334	2,350	5,680	524	73	8,960
2002:						
January	37	222	466	50	6	781
February	38	230	473	37	9	788
March	38	223	465	40	6	772
April	34	220	479	36	6	776
May	33	W	465	W	6	949
June	33	W	471	W	6	924
July	34	W	467	W	6	949
August	32	W	464	W	6	951
September	33	W	476	W	6	970
October	34	W	468	W	6	965
November	34	W	470	W	6	976
Total	381	W	5,170	W	70	9,800
Stocks:						
2001:						
November	40	32	539	45	9	665
December	37	33	596	43	9	717
2002:						
January	42	32	548	36	9	666
February	36	29	540	41	9	655
March	33	32	547	40	9	661
April	32	36	540	45	9	663
May	28	34	544	43	9	657
June	34	40	552	42	9	677
July	28	39	546	36	9	657
August	27	36	547	39	9	658
September	23	33	544	34	9	642
October	29	34	536	42	9	649
November	24	39	539	35	9	646

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	Ferrotungsten	Metal powder	Tungsten carbide powder	Other 2/	Total	Total year to date
2001	2,680	2,720	352	947	932	2,120	9,750	XX
2002:								
August	418	47	30	85	85	160	825	6,100
September	341	130	30	44	40	131	717	6,820
October:								
Armenia	--	--	--	--	--	--	--	8
Australia	--	--	--	--	--	--	--	1
Austria	--	--	--	--	--	1	1	39
Belgium	--	--	--	(3/)	--	(3/)	(3/)	3
Bolivia	36	--	--	--	--	--	36	413
Canada	240	--	--	14	45	--	300	2,100
China	--	191	15	--	16	80	302	3,410
Czech Republic	--	--	--	--	--	--	--	(3/)
France	--	--	--	--	1	--	1	11
Germany	--	--	--	5	14	6	25	348
Hong Kong	--	--	--	--	--	1	1	99
Hungary	--	--	--	--	--	(3/)	(3/)	1
India	--	--	--	--	--	(3/)	(3/)	23
Indonesia	--	--	--	--	--	--	--	(3/)
Ireland	--	--	--	--	--	--	--	(3/)
Israel	--	--	--	(3/)	22	1	23	182
Italy	--	--	--	--	--	--	--	1
Japan	--	--	--	1	--	4	5	110
Korea, Republic of	--	--	--	4	4	--	8	91
Luxembourg	--	--	--	--	--	--	--	12
Malaysia	--	--	--	--	--	--	--	(3/)
Mexico	--	--	--	--	--	(3/)	(3/)	(3/)
Mongolia	--	--	--	--	--	--	--	12
Netherlands	--	--	--	--	--	(3/)	(3/)	(3/)
Pakistan	--	--	--	--	--	--	--	25
Peru	5	--	--	--	--	--	5	37
Portugal	37	--	--	--	--	--	37	442
Russia	--	--	--	--	--	1	1	44
Rwanda	24	--	--	--	--	--	24	24
Singapore	--	--	--	--	--	(3/)	(3/)	20
South Africa	--	--	--	--	--	--	--	4
Spain	--	--	--	--	--	(3/)	(3/)	(3/)
Sweden	--	--	--	--	--	(3/)	(3/)	12
Switzerland	--	--	--	--	--	(3/)	(3/)	(3/)
Taiwan	--	--	--	--	2	(3/)	2	2
Uganda	--	--	--	--	--	--	--	23
United Kingdom	--	53	--	--	--	(3/)	53	134
Vietnam	--	--	--	--	--	--	--	18
Total	341	244	15	24	104	94	822	7,640
Total, year to date	2,980	2,090	407	531	738	907	7,660	XX

-- 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 October 2002 totaled 77 metric tons, tungsten content, to give a year-to-date total of 687 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	220	257	569	1,950	1,120	4,110	XX
2002:							
August	3	13	27	169	93	305	2,070
September	4	--	43	69	109	225	2,300
October:							
Australia	--	--	1	(4/)	(4/)	1	18
Austria	--	--	--	--	--	--	3
Belgium	--	--	(4/)	(4/)	(4/)	1	26
Brazil	--	--	(4/)	1	(4/)	1	51
Canada	--	--	5	3	10	18	217
China 5/	--	--	(4/)	(4/)	(4/)	(4/)	31
Colombia	--	--	--	--	(4/)	(4/)	4
Czech Republic	--	--	--	--	--	--	11
France	--	--	1	3	6	9	81
Germany	--	--	9	44	1	54	604
Hong Kong	--	--	--	--	(4/)	(4/)	9
Hungary	--	--	--	--	(4/)	(4/)	5
India	--	--	--	1	(4/)	1	20
Indonesia	--	--	--	--	(4/)	(4/)	2
Ireland	--	--	--	1	--	1	9
Israel	--	--	17	--	1	18	49
Italy	--	--	1	1	1	3	27
Japan	--	--	2	3	2	7	111
Korea, Republic of	--	--	(4/)	1	(4/)	1	39
Luxembourg	--	--	--	(4/)	--	(4/)	6
Malaysia	--	--	--	(4/)	6	6	10
Mexico	--	--	(4/)	(4/)	9	9	149
Netherlands	--	3	--	1	(4/)	4	123
New Zealand	--	--	--	--	1	1	5
Peru	--	--	--	--	--	--	2
Philippines	--	--	--	--	5	5	18
Singapore	--	--	(4/)	(4/)	(4/)	(4/)	13
South Africa	--	--	--	--	--	--	2
Spain	--	--	(4/)	(4/)	2	2	14
Sweden	--	--	(4/)	8	1	9	158
Switzerland	--	--	--	1	(4/)	1	6
Taiwan	--	--	1	(4/)	12	12	112
Thailand	--	--	--	--	--	--	3
Turkey	--	--	(4/)	--	--	(4/)	2
Ukraine	--	--	--	--	--	--	1
United Kingdom	4	--	5	7	7	24	540
Other	--	--	(4/)	(4/)	1	1	5
Total	4	3	43	75	66	191	2,490
Total, year to date	70	69	395	1,080	882	2,490	XX

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 October 2002 totaled 17 metric tons, tungsten content, to give a year-to-date total of 326 metric tons, tungsten content.

Source: U.S. Census Bureau.