

Mineral Industry Surveys

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TUNGSTEN IN MAY 2000

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from hydrogen-reduced metal powder, was 24% higher during January through May 2000 than net production during the same period in 1999, according to the U.S. Geological Survey.

Data for U.S. imports and exports for May 2000 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 (WO_3) content of 65%. The prices for June 1 to 30, 2000, are as follows:

Low—\$40/metric ton unit WO_3 (\$36/short ton unit WO_3)

High—\$48/metric ton unit WO_3 (\$44/short ton unit WO_3)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS 1/

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consump- tion	Imports for consumption	Stocks, end of period			Net production 4/	Reported consump- tion 5/	Stocks, end of period	
			Industry 2/	U.S. Gov- ernment 3/				Industry 6/	U.S. Gov- ernment 3/
1999: p/									
May	388	383	W	34,600	460 r/	732	708 r/	1,110	2,700
June	313	662	W	34,600	460 r/	685	665 r/	1,100	2,700
July	333	232	531	34,600	383 r/	621	671 r/	1,160	2,700
August	323	145	513	34,600	450 r/	728	707 r/	1,070	2,700
September	395	94	W	34,600	411 r/	836	747 r/	1,080	2,700
October	W	133	W	34,600	490 r/	854	741 r/	1,190	2,700
November	W	71	W	34,600	398 r/	600	661 r/	1,070	2,700
December	W	66	W	34,600	316 r/	720	722 r/	1,070	2,700
January-December 7/	2,100	2,870	XX	XX	5,220 r/	8,500	8,320 r/	XX	XX
2000:									
January	W	267	W	34,600	481 r/	765	746 r/	1,040	2,700
February	W	56	W	34,600	443 r/	775 r/	686 r/	1,100 r/	2,650
March	W	209	W	34,600	461	905 r/	750 r/	1,140 r/	2,600
April	W	277	W	34,600	487 r/	914 r/	743 r/	1,250 r/	2,480
May	W	NA	W	33,900	491	927	756	1,200	2,320
Total	W	NA	XX	XX	2,360	4,290	3,680	XX	XX

p/ Preliminary. r/ Revised. NA Not available. W Withheld to avoid disclosing company proprietary data; not included in total. 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, tungsten carbide powder, chemicals, and other products.

5/ Includes estimates and scrap.

6/ Reported by producers.

7/ Does not include withheld data.

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/
1999: p/			
May	625	521	454
June	663	479	601
July	611	602	451
August	647	504	449
September	554	507	389
October	670	649	432
November	499	551	363
December	500	420	376
January-December	7,330	6,020	XX
2000:			
January	552	579	452
February	575	583 r/	337 r/
March	740	572 r/	W
April	W	583 r/	273 r/
May	W	579	W
Total	1,870	2,900	XX

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; not included in total. XX Not applicable.

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

2/ Producers and consumers.

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

(Metric tons, tungsten content)

Product	Net production 2/				Stocks at end of period		
	1999 p/	2000		Year to date	1999 p/	2000	
		April	May			April	May
Metal powder	4,540	520 r/	530	2,430	626	637 r/	636
Tungsten carbide powder (made from metal powder)	3,960	394 r/	397	1,860	441	493 r/	449
Cast and crystalline carbide powder; other	W	W	W	W	W	W	W
Chemicals	W	W	W	W	W	122 r/	116
Total 3/	8,500	914 r/	927	4,290	1,070	1,250 r/	1,200

p/ Preliminary. r/ Revised. W Withheld to avoid disclosing company proprietary data; not included in total.

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/ Does not include withheld data.

TABLE 4
U.S. REPORTED CONSUMPTION OF TUNGSTEN, BY END USE IN 2000 1/ 2/ 3/

(Metric tons, tungsten content)

End use	April	May	Year to date
Steels	42 r/	43	225
Superalloys	35 r/	31	144
Other alloys (excludes steels and superalloys) 4/	W	W	W
Cemented carbides 5/	476 r/	496	2,400
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	190 r/	187	913
Total	743 r/	756	3,680

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 bit matrices, cemented and sintered carbides, and cast carbide dies or parts.

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS 1/ 2/ 3/

(Metric tons, tungsten content)

Period	Ferro-tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials 4/	Total
Consumption:						
1999: p/						
May	40 r/	140 r/	491	29 r/	8	708 r/
June	35 r/	101 r/	496	24 r/	8	665 r/
July	36 r/	104 r/	495	28 r/	8	671 r/
August	36 r/	144 r/	498	21 r/	8	707 r/
September	51 r/	169 r/	498	21 r/	8	747 r/
October	41 r/	172 r/	498	21 r/	8	741 r/
November	39 r/	87 r/	499	26 r/	11	661 r/
December	43 r/	146 r/	495	28 r/	10	722 r/
January-December	473 r/	1,500 r/	5,930 r/	317 r/	103	8,320 r/
2000:						
January	41 r/	182 r/	486 r/	28 r/	8	746 r/
February	42 r/	120	487 r/	29 r/	9	686 r/
March	52 r/	152	506 r/	32 r/	8	750 r/
April	41 r/	178 r/	479 r/	34 r/	11	743 r/
May	41	176	493	37	9	756
January-May	217	807	2,450	159	46	3,680
Stocks:						
1999: p/						
May	27	12 r/	511 r/	25	11	587 r/
June	33	11 r/	525 r/	27 r/	11	606 r/
July	31	13 r/	495 r/	24	11	575 r/
August	36	15 r/	485 r/	28 r/	11	575 r/
September	22	12 r/	491 r/	28 r/	11	564 r/
October	27	15 r/	498 r/	32 r/	11	582 r/
November	25	17 r/	494 r/	26 r/	13	575 r/
December	33	15	475 r/	22	12	557 r/
2000:						
January	33	18	413 r/	22 r/	12 r/	498 r/
February	27	14 r/	453 r/	27 r/	11 r/	533 r/
March	38	16	451 r/	29 r/	14 r/	548 r/
April	37	16 r/	456 r/	33 r/	11 r/	553 r/
May	29	13	456	31	13	543

p/ Preliminary. r/ Revised.

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 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
1999 p/	2,870	1,920	669	310	790	3,100	9,670	XX
2000:								
February	56	14	--	16	123	368	578	1,460
March	209	201	61	54	61	174	762	2,220
April:								
Australia	--	--	--	--	--	--	--	(3/)
Austria	--	--	--	--	--	3	3	18
Belgium	--	--	--	(3/)	--	(3/)	(3/)	1
Bolivia	57	--	--	--	--	--	57	166
Canada	--	--	--	--	52	--	52	187
China	--	137	30	48	10	320	544	1,740
Estonia	--	--	--	--	--	--	--	8
France	--	--	--	--	1	(3/)	2	3
Germany	--	19	--	7	11	10	46	107
Hong Kong	--	--	--	--	--	--	--	8
Hungary	--	--	--	--	--	1	1	3
India	--	--	--	--	--	(3/)	(3/)	(3/)
Ireland	--	--	--	--	--	--	--	(3/)
Israel	--	--	--	2	10	1	13	52
Italy	--	--	--	--	--	(3/)	(3/)	1
Japan	--	--	--	1	--	3	4	13
Korea, Republic of	--	--	--	(3/)	--	(3/)	(3/)	1
Luxembourg	--	--	--	--	2	--	2	2
Mexico	--	--	--	--	--	(3/)	(3/)	(3/)
Mongolia	--	--	--	--	--	--	--	14
Netherlands	--	--	--	--	--	(3/)	(3/)	8
Netherlands Antilles	--	--	--	--	--	--	--	(3/)
Peru	40	--	--	--	--	--	40	63
Portugal	22	--	--	--	--	--	22	137
Russia	159	--	15	10	--	117	301	681
Singapore	--	--	--	--	--	(3/)	(3/)	(3/)
Spain	--	--	--	--	--	--	--	(3/)
Sweden	--	--	--	--	--	(3/)	(3/)	(3/)
Switzerland	--	--	--	--	--	(3/)	(3/)	1
Taiwan	--	--	--	--	--	(3/)	(3/)	(3/)
Thailand	--	--	--	--	--	(3/)	(3/)	(3/)
United Kingdom	--	--	15	--	--	(3/)	15	105
Total	277	156	60	69	86	456	1,100	3,320
Total, year to date	810	700	180	195	327	1,110	3,320	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/ Includes other unwrought tungsten, wrought tungsten, calcium and other tungstates, tungsten oxides, tungsten chlorides, other tungsten compounds, ash and 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 April 2000 totaled 60 metric tons, tungsten content.

Source: Bureau of the Census.

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
1999 p/	26	103	711	701	498	2,040	XX
2000:							
February	19	7	32	43	34	136	210
March	5	--	37	42	37	121	332
April:							
Argentina	--	--	--	--	--	--	(4/)
Australia	--	--	1	--	--	1	3
Belgium	--	--	--	2	(4/)	2	3
Bolivia	--	--	--	--	--	--	(4/)
Brazil	--	--	1	(4/)	(4/)	2	8
Canada	--	--	4	16	4	24	98
Chile	--	--	--	--	--	--	(4/)
China	--	--	--	(4/)	(4/)	(4/)	1
Colombia	--	--	--	--	--	--	(4/)
Denmark	--	7	--	--	--	7	14
Finland	--	--	--	(4/)	(4/)	(4/)	(4/)
France	(4/)	--	1	--	(4/)	2	5
Germany	--	9	8	6	25	48	143
Hong Kong	--	--	(4/)	--	--	(4/)	2
Hungary	--	--	--	--	3	3	10
India	--	--	--	(4/)	1	2	7
Indonesia	--	--	--	--	1	1	2
Ireland	--	--	--	(4/)	(4/)	(4/)	2
Israel	--	--	--	--	(4/)	(4/)	1
Italy	--	--	1	11	--	13	30
Japan	--	--	(4/)	1	1	3	19
Korea, Republic of	--	--	(4/)	(4/)	(4/)	1	3
Kuwait	--	--	--	--	(4/)	(4/)	(4/)
Luxembourg	--	--	--	--	--	--	1
Macao	--	--	--	--	--	--	(4/)
Malaysia	--	--	--	(4/)	(4/)	(4/)	3
Mexico	--	--	--	--	5	5	24
Monaco	--	--	--	--	--	--	(4/)
Netherlands	4	--	--	(4/)	(4/)	4	30
Norway	--	--	--	--	--	--	(4/)
Peru	--	--	--	--	--	--	(4/)
Philippines	--	--	--	--	--	--	(4/)
Saint Lucia	--	--	(4/)	--	--	(4/)	(4/)
Saudi Arabia	--	--	--	--	--	--	(4/)
Singapore	--	--	--	(4/)	1	1	3
Slovakia	--	--	--	--	--	--	(4/)
South Africa	--	--	(4/)	2	--	2	5
Spain	--	--	(4/)	--	--	(4/)	1
Sweden	--	--	14	--	--	14	23
Switzerland	--	--	(4/)	--	(4/)	(4/)	1
Taiwan	--	--	(4/)	--	1	1	6
Thailand	--	--	--	--	--	--	(4/)
Turkey	--	--	--	--	(4/)	(4/)	2
United Kingdom	--	--	3	31	2	36	54
Venezuela	--	--	--	--	--	--	2
Total	4	16	34	71	46	171	502
Total, year to date	30	23	120	185	144	502	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 wrought tungsten, ferrotungsten, and other tungstates. Tungsten content estimated in part.

4/ Less than 1/2 unit.

Note: Estimated exports of waste and scrap in April 2000 totaled 50 metric tons, tungsten content.

Source: Bureau of the Census.