

Mineral Industry Surveys

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TUNGSTEN IN JULY 2004

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder produced from metal powder, in January through July 2004 was 39% lower than net production during the same period in 2003, 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 during January through July 2004 was nearly equal in amount to reported consumption during the same period in 2003. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for July 2004 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 August 1-31, 2004, are as follows:

Low—\$57/metric ton unit WO₃ (\$52/short ton unit WO₃)

High—\$60/metric ton unit WO₃ (\$54/short ton unit WO₃)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(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
2003:									
July	W	463	W	29,600	302	523	775	655	759
August	W	427	W	29,600	331	516	739	637	759
September	W	530	W	29,500	252	567	753	661	767
October	W	223	W	29,500	314	536	755	780	767
November	W	244	W	29,400	311	476	679	813	767
December	W	402	W	29,400	265	509	697	806	765
January-December	W	4,690	XX	XX	4,010	9,030	9,400	XX	XX
2004:									
January	W	328	W	28,900	318	535	788	834	757
February	W	92	W	28,800	220	560	797	769	743
March	W	157	W	28,800	335	578	855 ^r	734	736
April	W	207	W	28,500	307	573	853 ^r	755	730
May	W	68	W	28,400	359	534	830 ^r	832	729
June	W	190	W	28,400	312	571	947 ^r	826	729
July	W	NA	W	28,400	237	588	825	828	699
Total	W	NA	XX	XX	2,090	3,940	5,900	XX	XX

¹Revised. NA Not available. W Withheld to avoid disclosing company proprietary data. XX Not applicable.

²Data are rounded to no more than three significant digits; may not add to totals shown.

³Reported by consumers.

⁴Data from Defense National Stockpile Center. Includes material committed for sale pending shipment.

⁵Net production of tungsten metal powder and tungsten carbide powder.

⁶Includes estimates and scrap.

⁷Data for tungsten metal powder and tungsten carbide powder reported by producers.

TABLE 2
U.S. PRODUCTION, CONSUMPTION, AND STOCKS OF
AMMONIUM PARATUNGSTATE, BY MONTH¹

(Metric tons, tungsten content)

Period	Production	Consumption	Stocks, end of period ²
2003:			
July	W	W	45
August	W	W	44
September	W	839	42
October	W	1,010	W
November	W	933	W
December	W	W	W
January-December ³	W	6,590	XX
2004:			
January	W	790	W
February	W	650	W
March	W	W	W
April	W	753	158
May	W	718	152
June	W	774	W
July	W	700	160
Total ³	W	4,390	XX

W Withheld to avoid disclosing company proprietary data. XX Not applicable.

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

²Producers and consumers.

³Does not include withheld data.

TABLE 3
U.S. PRODUCTION AND STOCKS OF TUNGSTEN PRODUCTS¹

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2003	2004			2003	2004	
		June	July	Year to date		June	July
Metal powder	5,350	195	245	1,470	544	521	497
Tungsten carbide powder (made from metal powder)	3,680	377	342	2,470	263	305	332
Total	9,030	571	588	3,940	806 ^r	826	828

^rRevised.

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

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

³Data 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	2004		
	June	July	Year to date
Steels	22	22	154
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	440	424	3,060
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	484 ^r	380	2,680
Total	947 ^r	825	5,900

^rRevised. W Withheld to avoid disclosing company proprietary data; included with "Miscellaneous and unspecified."

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

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

³Includes estimates.

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

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

TABLE 5
U.S. REPORTED CONSUMPTION AND CONSUMER STOCKS OF TUNGSTEN MATERIALS¹

(Metric tons, tungsten content)

Period	Ferro- tungsten	Tungsten metal powder	Tungsten carbide powder	Tungsten scrap	Other tungsten materials ²	Total
Consumption:						
2003:						
July	21	W	441	W	6	775
August	23	W	438	W	6	739
September	25	W	447	W	6	753
October	23	W	444	W	6	755
November	22	W	436	W	6	679
December	22	W	445	W	6	697
January-December	275	W	5,300	W	72	9,400
2004:						
January	21	W	452	W	6	788
February	21	W	450	W	6	797
March	22	W	444	W	6	855 ^r
April	21	W	447	W	6	853 ^r
May	22	W	441	W	6	830 ^r
June	22	W	445	W	6	947 ^r
July	21	W	434	W	6	825
Total	150	W	3,110	W	42	5,900
Stocks:						
2003:						
July	25	31	328	34	9	427
August	32	33	334	31	9	438
September	28	30	276	25	9	368
October	25	30	331	21	9	417
November	33	30	347	28	9	447
December	31	33	301	24	9	398
2004:						
January	30	33	312	25	9	409
February	29	31	307	23	9	399
March	27	31	308	26	9	401
April	26	30	304	29	9	398
May	24	33	317	24	9	407
June	33	31 ^r	308	18	9	399 ^r
July	31	28	307	27	9	403

^rRevised. W Withheld to avoid disclosing company proprietary data; included in "Total."

¹Includes estimates.

²Includes tungsten chemicals.

TABLE 6
U.S. IMPORTS FOR CONSUMPTION OF TUNGSTEN, BY COUNTRY¹

(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
2003	4,690	2,640	377	1,090	1,370	1,020	11,200	XX
2004:								
April	207	101	--	111	108	97	624	2,890
May	68	210	15	120	137	139	689	3,580
June:								
Austria	--	--	--	4	(3)	4	8	19
Belgium	--	--	--	(3)	--	--	(3)	1
Bolivia	26	--	--	--	--	--	26	190
Canada	--	--	--	10	39	--	49	740
China	--	150	15	19	32	154	371	2,040
Costa Rica	--	--	--	--	--	--	--	(3)
Congo (Kinshasa)	--	--	--	--	--	--	--	13
Czech Republic	--	--	--	--	--	(3)	(3)	7
France	--	--	--	--	(3)	(3)	(3)	6
Germany	--	(3)	--	12	6	5	22	343
Hong Kong	--	--	--	--	--	1	1	32
Hungary	--	--	--	--	--	(3)	(3)	3
India	--	--	--	--	(3)	(3)	(3)	2
Israel	--	--	--	7	33	(3)	40	213
Italy	--	--	--	--	1	--	1	33
Japan	--	--	--	4	(3)	9	13	43
Kenya	--	--	--	--	--	--	--	38
Korea, Republic of	--	--	--	20	--	(3)	20	81
Mexico	--	--	--	--	--	--	--	11
Mongolia	15	--	--	--	--	--	15	15
Netherlands	--	--	--	--	(3)	10	11	51
Norway	--	--	--	--	--	--	--	(3)
Panama	--	--	--	--	--	--	--	(3)
Poland	--	--	--	--	--	--	--	(3)
Portugal	93	--	--	--	--	--	93	161
Russia	--	--	--	--	--	16	16	65
Rwanda	13	--	--	--	--	--	13	105
Singapore	--	--	--	--	--	1	1	4
Spain	--	--	--	--	--	--	--	(3)
Sweden	--	--	--	--	--	(3)	(3)	(3)
Switzerland	--	--	--	--	--	(3)	(3)	(3)
Taiwan	--	--	--	--	--	7	7	12
Thailand	44	--	--	--	--	--	44	102
United Kingdom	--	--	--	(3)	(3)	(3)	(3)	(3)
Total	190	150	15	76	112	209	753	4,330
Total, year to date	1,040	902	92	665	892	740	4,330	XX

-- Zero.

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

²Includes 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.

³Less than 1/2 unit.

Note: Imports of waste and scrap in June 2004 totaled 79 metric tons, tungsten content, to give a year-to-date total of 598 metric tons, tungsten content.

Source: U.S. Census Bureau.

TABLE 7
U.S. EXPORTS OF TUNGSTEN, BY COUNTRY¹

(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
2003	20	99	1,130	1,700	1,440	4,390	XX
2004:							
April	(4)	18	28	107	76	229	1,130
May	19	18	44	148	139	368	1,500
June:							
Australia	1	--	(4)	3	--	4	23
Austria	--	--	--	--	(4)	(4)	1
Belgium	--	--	--	--	(4)	(4)	12
Brazil	--	--	(4)	--	(4)	(4)	9
Canada	--	--	4	21	6	31	118
Chile	--	--	(4)	1	--	1	1
China	2	--	2	--	1	4	19
Columbia	--	--	--	--	1	1	3
Czech Republic	--	--	--	--	(4)	(4)	8
France	(4)	(4)	1	2	2	6	125
Georgia	--	--	--	--	(4)	(4)	1
Germany	--	18	8	23	3	52	321
Hong Kong	--	--	--	--	(4)	(4)	4
Hungary	--	--	--	--	1	1	75
India	--	--	(4)	--	1	1	10
Ireland	--	--	--	--	--	--	4
Israel	--	--	--	--	--	--	10
Italy	--	--	1	1	(4)	3	46
Japan	(4)	--	2	1	10	13	59
Korea, Republic of	--	--	--	1	(4)	1	25
Luxembourg	--	--	(4)	3	--	3	26
Malaysia	--	--	--	--	--	--	12
Mexico	--	--	--	2	19	20	202
Netherlands	--	--	(4)	--	(4)	(4)	20
Norway	--	--	3	--	(4)	3	3
Peru	--	--	--	--	--	--	2
Philippines	(4)	--	(4)	--	1	2	3
Poland	--	--	--	--	(4)	(4)	1
Romania	--	--	--	--	--	--	1
Singapore	--	--	--	(4)	(4)	(4)	6
South Africa	--	--	(4)	--	--	(4)	3
Spain	--	--	(4)	--	2	2	18
Sweden	--	--	(4)	--	(4)	(4)	12
Switzerland	--	--	--	--	3	3	16
Taiwan	--	--	1	1	7	8	159
Thailand	--	--	--	(4)	--	(4)	3
Turkey	--	--	(4)	--	--	(4)	2
United Arab Emirates	--	--	(4)	--	--	(4)	2
United Kingdom	(4)	--	1	68	1	71	361
Other	--	--	--	--	(4)	(4)	2
Total	3	18	24	126	59	230	1,730
Total, year to date	25	108	226	694	675	1,730	XX

-- Zero.

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

²Tungsten content estimated from reported gross weight.

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

⁴Less than 1/2 unit.

Note: Estimated exports of waste and scrap in June 2004 totaled 72 metric tons, tungsten content, to give a year-to-date total of 347 metric tons, tungsten content.

Source: U.S. Census Bureau.