

Mineral Industry Surveys

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TUNGSTEN IN MAY 2007

U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 6% higher during January through May 2007 than net production during the same period in 2006, 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 May 2007 was nearly equal in amount to that consumed during the same period in 2006. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

U.S. trade data for April 2007 are published in this 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 (WO_3) content of 65%. The price range for June 2007 was as follows:

Low—\$160/metric ton unit WO_3 (\$145/short ton unit WO_3)
High—\$170/metric ton unit WO_3 (\$154/short ton unit WO_3)

TABLE 1
U.S. SALIENT TUNGSTEN STATISTICS¹

(Metric tons, tungsten content)

Period	Concentrate				Reported scrap consumption	Intermediate products			
	Reported consump- tion	Imports for consumption	Stocks, end of period Industry ²	U.S. Gov- ernment ³		Net production ⁴	Reported consump- tion ⁵	Stocks, end of period Industry ⁶	U.S. Gov- ernment ³
2006:									
May	W	161	W	24,500	493	687	1,070	792	266
June	W	185	W	24,100	338	716	991	770	266
July	W	230	W	24,100	248	556	871	758	266
August	W	91	W	24,100	(7)	673	1,030	768	266
September	W	180	W	23,300	(7)	720	1,000	773	266
October	W	212	W	23,100	266	668	1,020	766	266
November	W	256	W	22,900	343	650	958	761	266
December	W	289	W	22,900	353	646	960	827	266
January-December	W	2,290	XX	XX	4,370	8,050	12,000	XX	XX
2007:									
January	W	266	W	22,900	439	659	1,020	872	266
February	W	322	W	22,400	317	649	1,020	844	266
March	W	420	W	22,200	433	862	1,030	809	266
April	W	152	W	22,200	385	789	1,020	746	266
May	W	558	W	19,200	252	681	1,030	763	266
Total	W	1,720	XX	XX	1,830	3,640	5,110	XX	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.

²Reported by consumers.

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

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

⁵Includes estimates and scrap.

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

⁷Withheld to avoid disclosing company proprietary data; included in "Total."

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
2006:			
May	W	1,190	114
June	W	1,010	60
July	W	753	56
August	W	830	78
September	W	992	36
October	W	1,010	67
November	W	900	67
December	W	866	W
January-December	W	11,300	XX
2007:			
January	W	941	98
February	W	886	83
March	W	1,140	37
April	W	W	101
May	W	W	110
Total	W	4,860	XX

W Withheld to avoid disclosing company proprietary data; included in "Total." XX Not applicable.

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

²Producers and consumers.

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

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2007				2006	2007	
	2006	April	May	Year to date		April	May
Metal powder	3,260	345	284	1,590	411	380	373
Tungsten carbide powder	4,800	444	398	2,060	415	366	390
Total	8,050	789	681	3,640	827	746	763

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

²Receipts plus gross 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	2007		
	April	May	Year to date
Steels	20	20	105
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	536	546	2,710
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	461	460	2,300
Total	1,020	1,030	5,110

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:						
2006:						
May	19	W	553	W	6	1,070
June	20	W	539	W	6	991
July	21	W	537	W	6	871
August	22	W	536	W	6	1,030
September	20	W	537	W	6	1,000
October	28	W	538	W	6	1,020
November	20	W	546	W	6	958
December	20	W	534	W	6	960
January-December	245	W	6,490	W	72	12,000
2007:						
January	20	W	538	W	6	1,020
February	21	W	532	W	6	1,020
March	20	W	536	W	6	1,030
April	19	W	531	W	6	1,020
May	19	W	540	W	6	1,030
Total	98	W	2,680	W	30	5,110
Stocks:						
2006:						
May	22	25	367	43	9	466
June	24	25	372	48	9	478
July	23	29	372	41	9	473
August	21	27	351	45	9	454
September	20	25	355	40	9	449
October	19	26	357	35	9	446
November	20	26	354	32	9	440
December	18	26	355	34	9	442
2007:						
January	19	28	361	36	9	452
February	17	28	356	31	9	441
March	19	14	353	38	9	433
April	18	13	360	36	9	436
May	18	13	360	34	9	434

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
2006	2,290	2,900	265	1,740	1,600	1,770	10,600	XX
2007:								
February	322	83	58	60	97	107	726	1,820
March	420	260	31	138	95	94	1,040	2,860
April:								
Austria	--	--	--	(3)	--	1	1	8
Belgium	--	--	--	--	(3)	(3)	1	4
Bolivia	--	--	--	--	--	--	--	426
Brazil	10	--	--	--	--	--	10	10
Canada	3	--	--	17	21	(3)	41	364
China	--	344	31	22	19	41	457	1,600
Czech Republic	--	--	--	--	2	(3)	2	2
Germany	--	12	--	46	2	13	74	262
Hong Kong	--	--	--	--	--	1	1	5
India	--	--	--	--	--	2	2	19
Ireland	--	--	--	--	--	1	1	2
Israel	--	--	--	36	38	15	89	289
Japan	--	--	8	4	--	2	13	25
Korea, Republic of	--	--	--	9	4	1	13	61
Mexico	--	--	9	--	--	2	11	20
Mongolia	14	--	--	--	--	--	14	25
Netherlands	(3)	--	--	--	--	(3)	(3)	28
Peru	27	--	--	--	--	--	27	109
Portugal	41	--	--	--	--	--	41	207
Russia	--	--	--	--	--	22	22	38
Rwanda	41	--	--	--	--	--	41	124
Singapore	--	--	--	--	--	2	2	11
South Africa	--	--	--	--	--	--	--	7
Thailand	16	--	--	--	--	--	16	62
United Kingdom	--	--	--	--	(3)	(3)	1	1
Uzbekistan	--	--	--	--	--	--	--	29
Other	--	--	--	--	(3)	1	1	6
Total	152	356	47	134	87	105	882	3,740
Total, year to date	1,160	931	152	552	439	509	3,740	XX

XX Not applicable. -- 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 ½ unit.

Note: Imports of waste and scrap in April 2007 totaled 303 metric tons, tungsten content, to give a year-to-date total of 445 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
2006	130	350	959	1,010	2,670	5,130	XX
2007:							
February	9	55	68	111	110	354	729
March	1	56	75	115	145	392	1,120
April:							
Australia	--	--	1	1	(4)	2	9
Austria	--	--	--	--	--	--	2
Brazil	--	--	1	(4)	1	2	20
Canada	--	--	6	7	8	22	107
China	--	--	(4)	(4)	6	6	14
Colombia	--	--	--	--	(4)	(4)	2
Costa Rica	--	--	--	--	1	1	1
Czech Republic	--	--	--	--	16	16	24
Denmark	--	--	--	--	--	--	6
France	--	--	4	6	1	12	60
Germany	--	31	40	20	39	130	609
Hungary	--	--	--	--	4	4	4
India	--	--	1	4	--	5	16
Ireland	--	--	--	(4)	3	3	4
Israel	--	--	--	--	--	--	10
Italy	--	--	1	--	(4)	1	6
Japan	--	--	1	1	9	11	41
Korea, Republic of	--	--	--	(4)	(4)	1	5
Malaysia	--	--	--	--	1	1	3
Mexico	1	--	33	(4)	2	36	100
Netherlands	61	--	--	--	(4)	61	63
Peru	--	--	1	--	(4)	1	2
Philippines	--	--	--	--	--	--	5
Singapore	--	--	8	1	1	10	19
South Africa	--	--	--	7	(4)	7	16
Spain	--	--	--	(4)	1	1	4
Sweden	--	--	--	(4)	6	6	67
Switzerland	--	--	(4)	--	(4)	(4)	4
Taiwan	--	--	1	--	14	15	52
United Kingdom	2	--	2	21	21	45	227
Venezuela	--	--	(4)	3	--	4	18
Other	(4)	--	(4)	1	(4)	2	8
Total	65	31	100	74	135	405	1,530
Total, year to date	75	226	315	423	487	1,530	XX

XX Not applicable. -- 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 ½ unit.

Note: Estimated exports of waste and scrap in April 2007 totaled 89 metric tons, tungsten content, to give a year-to-date total of 494 metric tons, tungsten content.

Source: U.S. Census Bureau.