

Mineral Industry Surveys

For information, contact:

Kim B. Shedd, Tungsten Commodity Specialist
U.S. Geological Survey
989 National Center
Reston, VA 20192
Telephone: (703) 648-4974, Fax: (703) 648-7757
E-mail: ksheddd@usgs.gov

Robin Kaiser (Data)
Telephone: (703) 648-7948
Fax: (703) 648-7792
E-mail: rkaiser@usgs.gov

Internet: <http://minerals.usgs.gov/minerals>

TUNGSTEN IN JULY 2011

Total U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 6% higher during January through July 2011 than net production during the same period in 2010. Total U.S. reported consumption of ferrotungsten, tungsten metal powder, tungsten carbide powder, tungsten scrap, and other tungsten materials during January through July 2011 was 16% higher than consumption during the same period in 2010. These materials were used to make alloys, cemented carbides, mill products, and other products, such as catalysts and pigments.

Data for U.S. imports and exports of tungsten for January through June 2011 and full year 2010 totals by material are published in this issue.

Prices

Selected prices from Metal Bulletin for July 2011 are listed below. U.S. ammonium paratungstate prices in dollars per

metric ton unit were converted from short-ton-unit prices and rounded to the nearest dollar. Prices for tungsten ore concentrates represent combined prices for wolframite and scheelite concentrates with a minimum tungsten trioxide (WO₃) content of 65%. Concentrate prices in dollars per short ton unit were converted from metric-ton-unit prices and rounded to the nearest dollar.

Ammonium paratungstate, U.S. free market:

Low—\$336/metric ton unit WO₃ (\$305/short ton unit WO₃)
High—\$341/metric ton unit WO₃ (\$309/short ton unit WO₃)

Concentrates:

Low—\$140/metric ton unit WO₃ (\$127/short ton unit WO₃)
High—\$160/metric ton unit WO₃ (\$145/short ton unit WO₃)

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			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	
2010:									
July	(7)	221	W	17,000	(7)	667	929	689	169
August	(7)	366	W	17,000	(7)	788	935	704	169
September	(7)	172	W	17,000	506	752	898	762	171
October	(7)	246	W	17,000	366	728	854	828	171
November	(7)	236	W	17,000	(7)	700	865	804	171
December	(7)	214	W	17,000	(7)	680	876	669	171
January–December	4,840	2,740	W	17,000	5,800	8,310	10,800	669	171
2011:									
January	W	332	W	17,000	(8)	646	994	761	171
February	W	276	W	17,000	(8)	779	992	804	171
March	W	388	W	17,000	(8)	774	998	683	171
April	W	283	W	17,000	(8)	732	1,080	599	171
May	W	469	W	15,900	690	718	1,050	593	171
June	W	259	W	15,900	1,130	735	1,280	637	171
July	W	432	W	15,900	629	580	966	673	171
January–July	W	2,440	W	15,900	5,830	4,960	7,360	673	171

W Withheld to avoid disclosing company proprietary data.

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

²Reported by consumers.

³Data from the Defense Logistics Agency, DLA Strategic Materials. Data are uncommitted material only.

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 "January–December."

⁸Withheld to avoid disclosing company proprietary data; included in "January–July."

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
2010:			
July	W	(3)	130
August	W	(3)	W
September	W	1,010	122
October	W	848	112
November	W	(3)	W
December	W	(3)	62
January–December	W	10,300	62
2011:			
January	W	W	W
February	W	W	W
March	W	W	W
April	W	W	W
May	W	841	W
June	W	895	W
July	W	W	W
January–July	W	W	W

W Withheld to avoid disclosing company proprietary data.

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

²Producers and consumers.

³Withheld to avoid disclosing company proprietary data; included in "January–December."

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

(Metric tons, tungsten content)

Product ³	Net production ²				Stocks at end of period		
	2010	2011			2010	2011	
		June	July	January–July ⁴		June	July
Metal powder	4,100	288	202	2,200	341	346	331
Tungsten carbide powder	4,210	447	378	2,770	328	291	342
Total	8,310	735	580	4,960	669	637	673

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."

⁴May include revisions to previously published data.

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

(Metric tons, tungsten content)

End use	2011		
	June	July	January–July ⁴
Steels	6	6	41
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁵	W	W	W
Cemented carbides ⁶	575	576	4,030
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	700	384	3,290
Total	1,280	966	7,360

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.

⁴May include revisions to previously published data.

⁵Includes welding and hard-facing rods and materials, wear- and corrosion-resistant alloys, and nonferrous alloys.

⁶Includes 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:						
2010:						
July	10	W	491	W	6	929
August	10	W	492	W	6	935
September	10	W	491	W	6	898
October	10	W	493	W	6	854
November	9	W	493	W	6	865
December	10	W	491	W	6	876
January–December	119	W	5,890	W	75	10,800
2011:						
January	10	W	569	W	6	994
February	10	W	567	W	6	992
March	10	W	570	W	6	998
April	10	W	565	W	6	1,080
May	10	W	571	W	6	1,050
June	10	W	567	W	6	1,280
July	10	W	568	W	6	966
January–July	69	W	3,980	W	43	7,360
Stocks:						
2010:						
July	22	50	414	65	10	561
August	22	51	413	66	10	562
September	22	50	413	56	10	552
October	23	51	413	56	10	553
November	23	52	413	60	10	558
December	22	54	413	61	10	561
2011:						
January	22	51	413	67	10	562
February	22	52	413	63	10	560
March	22	50	414	54	10	549
April	22	46	413	61	10	552
May	22	43	413	65	10	553
June	22	41	413	70	10	556
July	21	40	413	67	10	551

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	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2010	2,740	2,510	357	1,340	1,610	2,430	11,000	XX
2011:								
April	283	184	--	118	167	278	1,030	3,960
May	469	372	31	158	173	236	1,440	5,400
June:								
Austria	--	--	--	--	--	11	11	73
Belgium	--	--	--	--	(3)	--	(3)	13
Bolivia	53	--	--	--	--	--	53	396
Brazil	--	--	--	--	--	(3)	(3)	11
Canada	--	--	--	4	15	(3)	19	224
China	--	192	16	20	38	154	419	2,870
Czech Republic	--	--	--	--	--	(3)	(3)	21
France	--	--	--	--	(3)	1	1	9
Germany	--	18	--	10	13	3	44	286
Hong Kong	--	--	--	10	--	--	10	12
Hungary	--	--	--	--	--	1	1	4
India	--	--	--	--	3	2	5	14
Israel	--	--	--	17	8	(3)	25	154
Japan	--	--	--	4	(3)	3	7	126
Korea, Republic of	--	--	--	32	--	--	32	201
Luxembourg	--	--	--	--	--	1	1	4
Mongolia	32	--	--	--	--	--	32	230
Peru	36	--	--	--	--	--	36	228
Portugal	31	--	--	--	--	--	31	291
Russia	--	--	--	--	--	14	14	32
Rwanda	--	--	--	--	--	--	--	11
Singapore	--	--	--	--	--	1	1	10
Spain	29	--	--	--	--	--	29	235
Sweden	--	--	--	--	--	5	5	7
Thailand	13	--	--	--	--	--	13	51
Uganda	--	--	--	--	--	--	--	10
United Kingdom	12	--	--	(3)	(3)	(3)	12	23
Vietnam	54	--	--	--	32	31	116	762
Other	--	--	--	--	--	(3)	(3)	4
Total	260	209	16	97	109	226	916	6,320
January–June	2,010	1,230	180	693	852	1,360	6,320	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 June 2011 totaled 179 metric tons, tungsten content, to give a year-to-date total of 661 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
2010	276	538	803	1,220	875	3,710	XX
2011:							
April	3	27	67	145	91	332	1,370
May	2	55	66	112	110	344	1,720
June:							
Australia	--	--	(4)	5	--	5	24
Austria	--	--	--	11	--	11	152
Belgium	--	--	--	(4)	(4)	(4)	126
Brazil	2	--	(4)	1	2	5	42
Canada	--	--	8	13	23	44	291
Chile	--	--	(4)	(4)	--	1	4
China	10	--	2	2	1	15	47
Costa Rica	--	--	--	(4)	1	1	8
Czech Republic	--	--	--	--	2	2	12
France	--	--	--	12	(4)	12	46
Germany	--	56	12	17	10	95	492
Hong Kong	--	--	--	2	(4)	2	8
India	--	--	1	1	4	6	20
Indonesia	--	--	(4)	--	(4)	(4)	12
Israel	--	--	(4)	--	(4)	(4)	14
Italy	(4)	--	(4)	1	(4)	2	5
Japan	--	--	1	1	9	10	117
Korea, Republic of	--	--	3	(4)	(4)	3	9
Malaysia	--	--	(4)	(4)	(4)	(4)	7
Mexico	--	--	12	(4)	4	16	72
Netherlands	--	--	--	--	--	--	15
Peru	--	--	--	(4)	--	(4)	3
Saudi Arabia	--	--	59	(4)	(4)	59	78
Singapore	--	--	1	(4)	5	5	33
South Africa	--	--	--	6	--	6	17
Sweden	--	--	--	2	(4)	2	4
Switzerland	--	--	1	--	--	1	107
Taiwan	--	--	2	17	4	23	50
Thailand	--	--	--	(4)	(4)	(4)	4
Turkey	--	--	3	--	--	3	6
United Kingdom	--	--	3	14	(4)	17	210
Venezuela	--	--	(4)	1	(4)	2	11
Other	--	--	1	1	1	3	22
Total	12	56	110	107	67	352	2,070
January-June	27	395	364	637	645	2,070	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 June 2011 totaled 110 metric tons, tungsten content, to give a year-to-date total of 998 metric tons, tungsten content.

Source: U.S. Census Bureau.