

Mineral Industry Surveys

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TUNGSTEN IN JANUARY 2006

January 2006 U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 4% lower than that of December 2005, 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 2006 was slightly higher than reported consumption in December 2005. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

U.S. trade data for January through December 2005 are published in this issue. The amount of tungsten contained in U.S. imports was 3% lower in 2005 than that imported in 2004.

The amount of tungsten contained in U.S. exports was 57% higher in 2005 than that of 2004.

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 February 1-28, 2006, are as follows:

Low—\$130/metric ton unit WO₃ (\$118/short ton unit WO₃)
High—\$220/metric ton unit WO₃ (\$200/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 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
2005:									
January	W	171	W	28,400	416	717	961	862	685
February	W	202	W	28,400	415	537	876	757	685
March	W	193	W	27,300	291	707	834	699	685
April	W	230	W	27,200	312	637	907	715	611
May	W	118	W	27,200	433	727	1,030	774	564
June	W	140	W	27,200	376	742	925	770	564
July	W	122	W	27,100	313	542	829	747	564
August	W	135	W	26,700	506	746	1,040	834	546
September	W	73	W	26,700	285	664	925 ^r	845	518
October	W	224	W	26,500	372	654	855 ^r	877	403
November	W	227	W	26,100	400	612	812 ^r	824	403
December	W	249	W	26,100	285	565 ^r	883 ^r	797	282
January-December	W	2,080	XX	XX	4,400	7,850	10,900 ^r	XX	XX
2006:									
January	W	NA	W	26,000	317	540	898	735	266

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
2005:			
January	W	953	W
February	W	929	W
March	W	979	W
April	W	828	59
May	W	814	110
June	W	864	W
July	W	652	103
August	W	810	118
September	W	681	W
October	W	843	170
November	W	(3)	153
December	W	(3)	W
Total	W	9,530	XX
2006:			
January	W	667	W

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.

³Withheld to avoid disclosing company proprietary data; included in "Total."

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

(Metric tons, tungsten content)

Product ³	Net production ²			Stocks at end of period	
	2006		Year to date	2005	2006 January
	2005	January			
Metal powder	3,200	343	343	392	380
Tungsten carbide powder	4,650	197	197	405	354
Total	7,850	540	540	797	735

W Withheld to avoid disclosing company proprietary data.

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	2005		2006
	December	Year to date	January
Steels	19	239	19
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	511	6,040	516
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	353 ^r	4,600 ^r	363
Total	883 ^r	10,900 ^r	898

^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:						
2005:						
January	20	W	507	W	6	961
February	19	W	517	W	6	876
March	20	W	511	W	6	834
April	20	W	511	W	6	907
May	20	W	505	W	6	1,030
June	20	W	516	W	6	925
July	19	W	506	W	6	829
August	19	W	515	W	6	1,040
September	19	W	515	W	6	925 ^r
October	19	W	510	W	6	855 ^r
November	19	W	511	W	6	812 ^r
December	19	W	519	W	6	883 ^r
Total	233	W	6,140	W	73	10,900 ^r
2006:						
January	19	W	524	W	6	898
Stocks:						
2005:						
January	27	28	346	20	9	430
February	26	27	347	16	9	424
March	44	25	348	20	9	446
April	22	28	349	24	9	431
May	20	27	358	26	9	439
June	27	28	364	27	9	455
July	26	28	366	19	9	447
August	25	32	353	19	9	437
September	24	29	364	18	9	444
October	23	26	369	21	9	448
November	21	26	367	19	9	442
December	21	26	366	17	9	438
2006:						
January	20	26	353	16	9	424

^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	Ferrotungsten	Metal powder	Tungsten carbide powder	Other ²	Total	Total, year to date
2004	2,310	2,090	392	1,490	1,750	1,360	9,400	XX
2005:								
October	224	91	15	65	148	108	651	7,660
November	227	50	31	63	99	51	519	8,180
December:								
Austria	--	--	--	--	--	2	2	33
Belgium	--	--	--	1	--	1	2	21
Boliva	100	--	--	--	--	--	100	547
Brazil	--	--	15	--	--	--	15	43
Canada	49	--	--	10	33	--	92	856
China	--	274	16	60	67	68	485	4,560
Congo (Kinshasa)	13	--	--	--	--	--	13	57
Czech Republic	--	--	--	--	7	(3)	7	11
France	--	--	--	--	(3)	(3)	1	17
Germany	--	--	--	24	1	2	26	519
Hong Kong	--	--	--	--	--	(3)	(3)	107
Hungary	--	--	--	--	--	(3)	(3)	5
Iceland	--	--	--	--	--	--	--	8
India	--	--	--	--	(3)	(3)	1	14
Ireland	--	--	--	--	--	--	--	2
Israel	--	--	--	36	18	(3)	54	547
Japan	--	--	--	1	--	2	3	63
Korea, Republic of	--	--	--	12	--	(3)	12	141
Mexico	15	--	--	--	--	--	15	31
Mongolia	--	--	--	--	--	--	--	13
Portugal	62	--	--	--	--	--	62	764
Russia	--	--	--	--	--	(3)	(3)	373
Rwanda	10	--	--	--	--	--	10	140
Singapore	--	--	--	--	--	3	3	27
South Africa	--	--	--	--	--	--	--	12
Spain	--	--	--	--	--	(3)	(3)	1
Sweden	--	--	--	--	--	(3)	(3)	1
Switzerland	--	--	--	--	--	--	--	2
Thailand	--	--	--	--	--	--	--	146
United Kingdom	--	--	--	--	(3)	(3)	(3)	8
Vietnam	--	--	--	--	--	--	--	19
Other	--	--	--	--	--	(3)	(3)	2
Total	249	274	31	144	127	80	904	9,090
Total, year to date	2,080	2,090	392	1,490	1,750	1,360	9,400	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 December 2005 totaled 118 metric tons, tungsten content, to give a year-to-date total of 2,070 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
2004	43	125	433	1,440	1,210	3,240	XX
2005:							
October	7	58	42	166	130	403	4,380
November	--	64	94	88	79	324	4,700
December:							
Australia	--	--	(4)	1	(4)	1	46
Austria	--	--	--	--	(4)	(4)	5
Belgium	--	--	--	(4)	--	(4)	4
Brazil	--	--	1	--	(4)	1	34
Canada	--	--	8	5	8	21	722
Chile	--	--	--	--	3	3	6
China	8	--	(4)	--	(4)	8	402
Colombia	--	--	--	--	1	1	7
Czech Republic	--	--	15	--	3	18	59
Denmark	--	--	--	(4)	3	3	11
France	--	--	1	39	(4)	40	156
Germany	--	39	28	31	21	118	1,240
Hungary	--	--	(4)	--	3	3	22
Iceland	--	--	--	--	--	--	7
India	--	--	--	1	(4)	1	34
Ireland	--	--	--	1	(4)	1	15
Israel	--	--	--	5	(4)	6	45
Italy	--	--	3	(4)	1	4	42
Japan	(4)	--	1	3	12	16	207
Korea, Republic of	(4)	--	--	1	3	5	38
Luxembourg	--	--	--	--	--	--	2
Malaysia	--	--	--	1	3	4	33
Martinique	--	--	--	--	--	--	4
Mexico	--	--	--	(4)	9	9	107
Netherlands	--	--	--	--	9	9	53
Norway	--	--	--	1	(4)	1	4
Peru	--	--	(4)	--	--	(4)	5
Philippines	--	--	--	--	(4)	(4)	12
Russia	--	--	--	--	--	--	3
Singapore	--	--	1	1	(4)	2	35
South Africa	--	--	(4)	12	--	12	122
Spain	--	--	(4)	--	--	(4)	47
Sweden	--	--	--	2	3	6	279
Switzerland	--	--	--	--	(4)	(4)	14
Taiwan	--	--	(4)	--	55	56	403
Thailand	--	--	(4)	--	--	(4)	4
Turkey	--	--	(4)	(4)	--	(4)	5
United Kingdom	--	--	1	15	12	28	739
Venezuela	--	--	4	--	--	4	52
Yemen	--	--	--	--	--	--	41
Yugoslavia	--	--	--	--	--	--	5
Other	--	--	--	2	1	3	15
Total	8	39	64	120	150	381	5,080
Total, year to date	52	774	750	1,560	1,950	5,080	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 1/2 unit.

Note: Estimated exports of waste and scrap in December 2005 totaled 167 metric tons, tungsten content, to give a year-to-date total of 858 metric tons, tungsten content.

Source: U.S. Census Bureau.