

Mineral Industry Surveys

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TUNGSTEN IN MARCH 2005

During the quarter ending March 31, 2005, total U.S. net production of intermediate tungsten products, including metal powder and tungsten carbide powder, was 6% higher than production during the quarter ending December 31, 2004, and approximately equal to that produced during the quarter ending March 31, 2004, 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 the quarter ending March 31, 2005, was slightly lower than consumption during the quarter ending December 31, 2004, and approximately equal to that consumed during the quarter ending March 31, 2004. These materials were used to make alloys, cemented carbides, mill products, catalysts, and pigments.

Data for U.S. imports and exports for January through February 2005 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 (WO₃) content of 65%. The prices for April 1-30, 2005, are as follows:

Low—\$86/metric ton unit WO₃ (\$78/short ton unit WO₃)
High—\$95/metric ton unit WO₃ (\$86/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
2004:									
March	W	157	W	28,800	336 ^r	578	933 ^r	734	736
April	W	207	W	28,500	323 ^r	606	927 ^r	749	730
May	W	68	W	28,400	370 ^r	537	911 ^r	845	729
June	W	190	W	28,400	327 ^r	581	1,020 ^r	848	729
July	W	78	W	28,400	270 ^r	529	916 ^r	828	724
August	W	326	W	28,400	(7)	634	944 ^r	959	724
September	W	255	W	28,400	(7)	570	930 ^r	923	724
October	W	218	W	28,400	316 ^r	598	948 ^r	812	724
November	W	227	W	28,400	265 ^r	510	865 ^r	811	685
December	W	166	W	28,400	337 ^r	497	878 ^r	806	685
January-December	W	2,310	XX	XX	3,830 ^r	6,730	11,000 ^r	XX	XX
2005:									
January	W	171	W	28,400	407 ^r	607 ^r	876 ^r	891 ^r	685
February	W	202	W	28,400	405 ^r	497 ^r	876 ^r	830 ^r	685
March	W	NA	W	27,300	283	591	866	756	685
Total	W	NA	XX	XX	1,100	1,700	2,620	XX	XX

^rRevised. NA Not available. 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 "January-December."

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
2004:			
March	W	W	W
April	W	881	W
May	W	769	129
June	W	827	W
July	W	634	150
August	W	W	87
September	W	697	W
October	W	786	30
November	W	658	W
December	W	578	W
January-December ³	W	7,270	XX
2005:			
January	W	953 ^r	W
February	W	927 ^r	W
March	W	979	W
Total	W	2,860	XX

^rRevised. 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		
	2005			Year to date	2005		
	2004	February ^r	March		2004	February ^r	March
Metal powder	2,600	208	246	702	453	465	395
Tungsten carbide powder	4,130	289	345	994	353	365	361
Total	6,730	497	591	1,700	806	830	756

^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	2005		
	February	March	Year to date
Steels	20 ^r	20	61
Superalloys	W	W	W
Other alloys (excludes steels and superalloys) ⁴	W	W	W
Cemented carbides ⁵	504 ^r	498	1,500
Mill products made from metal powder	W	W	W
Chemical uses	W	W	W
Miscellaneous and unspecified	352 ^r	348	1,060
Total	876 ^r	866	2,620

^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:						
2004:						
March	19 ^r	W	510 ^r	W	6	933 ^r
April	19 ^r	W	509 ^r	W	6	927 ^r
May	19 ^r	W	510 ^r	W	6	911 ^r
June	19 ^r	W	510 ^r	W	6	1,020 ^r
July	19 ^r	W	W	W	6	916 ^r
August	19 ^r	W	508 ^r	W	6	944 ^r
September	20 ^r	W	513 ^r	W	6	930 ^r
October	20 ^r	W	505 ^r	W	6	948 ^r
November	20 ^r	W	506 ^r	W	6	865 ^r
December	19 ^r	W	508 ^r	W	6	878 ^r
January-December	232 ^r	W	6,110 ^r	W	73 ^r	11,000 ^r
2005:						
January	20 ^r	W	507 ^r	W	6	876 ^r
February	19 ^r	W	514 ^r	W	6	876 ^r
March	20	W	507	W	6	866
Total	59	W	1,530	W	18	2,620
Stocks:						
2004:						
March	23 ^r	31	362 ^r	22 ^r	9	447 ^r
April	22 ^r	30	342 ^r	25 ^r	9	429 ^r
May	20 ^r	33	400 ^r	20 ^r	9	482 ^r
June	29 ^r	31	356 ^r	14 ^r	9	438 ^r
July	27 ^r	28	394 ^r	23 ^r	9	481 ^r
August	26 ^r	26	396 ^r	22 ^r	9	480 ^r
September	25 ^r	28	330 ^r	23 ^r	9	414 ^r
October	23 ^r	30	374 ^r	25 ^r	9	460 ^r
November	21 ^r	28	324 ^r	30 ^r	9	412 ^r
December	20 ^r	27	308 ^r	19 ^r	9	382 ^r
2005:						
January	27 ^r	28 ^r	346 ^r	20 ^r	9	430 ^r
February	26 ^r	26 ^r	338 ^r	16 ^r	9	416 ^r
March	44	25	339	17	9	434

^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
2004	2,310	2,090	392	1,490	1,750	1,360	9,400	XX
2005:								
January	171	98	64	78	190	92	694	694
February:								
Australia	--	--	--	--	--	(3)	(3)	(3)
Austria	--	--	--	--	--	4	4	14
Belgium	--	--	--	--	--	1	1	3
Boliva	99	--	--	--	--	--	99	99
Brazil	--	--	--	--	--	--	--	15
Canada	15	--	--	11	39	--	65	119
China	--	113	146	60	107	10	435	776
Czech Republic	--	--	--	--	--	(3)	(3)	(3)
France	--	--	--	--	(3)	(3)	1	2
Germany	--	--	--	14	1	2	17	51
Hong Kong	--	60	--	--	40	(3)	100	100
Hungary	--	--	--	--	--	(3)	(3)	1
India	--	--	--	--	1	(3)	1	1
Israel	--	--	--	16	24	1	41	92
Italy	--	--	--	--	--	--	--	(3)
Japan	--	--	--	(3)	--	5	5	9
Korea, Republic of	--	--	--	12	--	(3)	12	23
Luxembourg	--	--	--	--	--	(3)	(3)	(3)
Netherlands	--	--	--	--	--	(3)	(3)	(3)
Portugal	40	--	--	--	--	--	40	116
Russia	33	--	--	--	--	1	34	50
Rwanda	15	--	--	--	--	--	15	27
Spain	--	--	--	--	--	--	--	(3)
Sweden	--	--	--	--	--	(3)	(3)	(3)
Switzerland	--	--	--	--	--	1	1	1
Taiwan	--	--	--	--	--	(3)	(3)	(3)
Thailand	--	--	--	--	--	--	--	44
United Kingdom	--	--	--	(3)	--	(3)	1	1
Vietnam	--	--	--	--	--	--	--	19
Total	202	173	146	112	213	25	871	1,560
Total, year to date	373	271	210	191	403	117	1,560	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 February 2005 totaled 169 metric tons, tungsten content, to give a year-to-date total of 261 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:							
January	(4)	1	39	121	101	263	263
February:							
Australia	--	--	1	1	15	17	18
Belgium	--	--	--	1	(4)	1	1
Brazil	--	--	(4)	1	(4)	1	5
Canada	--	--	4	6	6	16	34
Chile	--	--	--	--	--	--	1
China	1	--	9	(4)	(4)	10	13
Columbia	--	--	--	--	1	1	1
Czech Republic	--	--	7	--	1	8	14
France	--	--	1	8	1	9	37
Germany	--	--	29	13	12	53	94
Hong Kong	--	--	1	--	(4)	1	1
Hungary	--	--	--	--	2	2	3
India	--	--	1	(4)	(4)	1	2
Ireland	--	--	--	2	(4)	2	3
Israel	--	--	(4)	--	(4)	(4)	1
Italy	--	--	3	(4)	(4)	4	5
Japan	--	--	1	1	16	17	65
Korea, Republic of	--	--	--	1	12	13	13
Malaysia	--	--	--	--	5	5	6
Mexico	--	--	--	(4)	5	5	14
Netherlands	--	--	2	--	(4)	2	3
Philippines	--	--	--	--	1	1	1
Singapore	--	--	4	1	(4)	5	7
South Africa	--	--	--	6	--	6	6
Spain	--	--	(4)	--	2	3	5
Sweden	--	--	--	31	1	32	52
Switzerland	--	--	1	1	(4)	2	3
Taiwan	--	--	2	(4)	33	34	49
Turkey	--	--	1	--	--	1	1
United Kingdom	3	--	2	63	1	69	121
Venezuela	--	--	(4)	(4)	(4)	(4)	3
Other	--	--	(4)	(4)	1	1	2
Total	4	--	68	133	116	322	584
Total, year to date	5	1	107	255	217	584	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 February 2005 totaled 30 metric tons, tungsten content, to give a year-to-date total of 46 metric tons, tungsten content.

Source: U.S. Census Bureau.