

SELENIUM STATISTICS¹
U.S. GEOLOGICAL SURVEY
[All values in metric tons (t) selenium unless otherwise noted]
Last modification: October 22, 2007

Year	Primary production	Secondary production	Shipments	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1900	0		0	0	0		0			
1901	0		0	0	0		0			
1902	0		0	0	0		0			
1903	0		0	0	0		0			
1904	0		0	0	0		0			
1905	0		0	0	0		0			
1906	0		0	0	0		0			
1907	0		0	0	0		0			
1908	0		0	0	0		0			
1909	0		0	0	0		0	7,600	140,000	
1910	4.84		4.84				4.84	7,200	130,000	
1911							7.63	6,600	120,000	
1912							10.4	5,500	93,000	
1913	13.2		13.2				13.2	3,700	60,900	
1914	10.4		10.4				10.4	3,310	54,000	
1915			18.7				12.9	3,140	50,400	
1916			18.7				15.4	2,980	44,600	
1917	18.0		18.0				18.0	4,740	60,400	
1918	47.0		24.7			6.58	24.7	6,610	71,400	
1919	27.2		27.2				27.2	5,250	49,500	
1920	41.8		41.8				41.8	4,410	35,900	
1921	27.1		25.4	0.502			25.4	4,700	42,800	
1922	51.5		56.0	0.749			56.0	4,320	41,900	
1923	61.8		57.7	0.426		0.307	57.7	4,100	39,100	
1924	85.5		69.7	0.136		22.0	69.7	4,100	39,100	
1925	94.0		88.0	2.63		28.0	88.0	3,750	34,900	
1926	118		114	8.57		32.8	114	4,300	39,600	
1927	171		129	6.93		71.9	129	4,300	40,300	
1928	190		165	8.45		97.4	165	4,700	44,800	
1929	234		156	1.63		177	156	3,640	34,700	
1930	206		126	0.308		257	126	4,190	40,900	
1931	84		133	0.993		208	133	4,190	44,900	
1932			111	0.868			111	4,190	49,900	
1933			151	0.841			151	4,190	52,500	
1934	115		145	8.04			145	4,190	51,000	
1935	111		106	81.3			106	4,410	52,500	
1936	160		103	55.7			103	4,140	48,500	
1937	198		128	42.0		139	128	4,140	46,900	
1938	102		75.5	45.8		166	75.5	3,970	45,900	285
1939	103		157	56.6		112	157	3,970	46,600	194
1940	149		150	61.0		81.1	167	3,860	44,900	251
1941	281		300	89.8	10.5	47.6	309	3,860	42,800	754
1942	228		201	38.0	2.52	79.3	144	3,860	38,600	645
1943	292		278	37.1	3.27	102	237	3,860	36,400	532
1944	238		179	44.4	5.98	172	192	3,860	35,700	424
1945	221		252	98.3	10.4	147	274	3,860	35,000	387
1946	135		172	216		106	184	3,860	32,300	475
1947	232		223	240		118	222	4,140	30,300	508
1948	253		239	121		105	380	4,410	29,800	471
1949	200		181	78.3		121	222	4,410	30,200	387
1950	254		324	165		48.3	236	6,060	41,000	418
1951	224		248	112		38.6	360	7,170	45,000	488

SELENIUM STATISTICS¹
U.S. GEOLOGICAL SURVEY

[All values in metric tons (t) selenium unless otherwise noted]

Last modification: October 22, 2007

Year	Primary production	Secondary production	Shipments	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
1952	312	30.3	313	55.9		60.3	364	7,170	44,100	532
1953	419	44.4	512	46.4		42.9	512	8,000	48,800	668
1954	324	57.4	391	83.5		43.5	474	10,200	61,800	636
1955	317	69.1	400	87.0		34.4	487	16,500	100,000	736
1956	421	85.5	469	107		86.6	576	24,800	149,000	872
1957	409	56.4	279	67.1		295	346	21,500	125,000	872
1958	310	44.1	328	83.5		250	411	16,000	90,200	663
1959	330	23.3	358	102		154	460	15,400	86,300	748
1960	244	0	250	73.5		124	324	14,900	82,100	758
1961	464	0	357	53.1		234	410	14,100	76,900	951
1962	453		336	72.1		351	408	13,200	71,200	948
1963	421		308	154		464	462	11,300	60,200	914
1964	421		293	133		592	426	9,920	52,200	981
1965	245		374	114		463	488	9,920	51,300	816
1966	281		383	130		362	513	9,920	49,900	895
1967	271		299	137		334	435	9,920	48,400	930
1968	287		427	264		194	691	9,920	46,500	883
1969	566		648	248		109	896	15,400	68,400	1,290
1970	456		479	206	171	85.7	514	19,800	83,200	1,310
1971	298		301	179	68.0	82.6	412	19,800	79,700	1,140
1972	335		345	195	99.8	72.9	447	19,800	77,200	1,230
1973	361		386	251	120	48.1	621	20,400	74,900	1,220
1974	292		304	380	75.4	35.9	710	36,400	120,000	1,210
1975	162		129	403	53.3	69.1	482	39,700	120,000	1,180
1976	182		168	368	87.8	80.2	449	39,700	114,000	1,110
1977	227		160	266	30.7	323	395	37,700	101,000	1,380
1978	231		147	363	103	507	407	33,100	82,800	1,440
1979	266		212	310	151	284	371	30,100	67,600	1,620
1980	141		141	284	81.8	284	343	24,100	47,700	1,280
1981	252		208	312	60.5	293	459	9,660	17,300	1,290
1982	243		308	347	117	254	538	7,780	13,100	1,120
1983	354		374	297	93.4	153	578	8,530	14,000	1,400
1984	254		224	377	123	139	550	19,900	31,200	1,490
1985				401	154		560	16,400	24,800	1,320
1986				463	161		570	12,600	18,700	1,400
1987				445	162		580	14,400	20,700	1,420
1988	286		260	425	243		590	21,700	29,900	1,680
1989	253		295	417	372		560	16,800	22,100	1,600
1990	287		250	381	207		530	12,800	16,000	1,770
1991	260		275	344	210		510	11,900	14,200	1,640
1992	243		221	371	175		490	11,300	13,100	1,770
1993	283		258	382	261		460	10,800	12,200	1,740
1994	360		302	441	246		530	10,800	11,900	2,160
1995	373		320	324	270		517	10,800	11,600	2,070
1996	379		400	428	322		564	8,820	9,160	2,250
1997				346	127		509	6,480	6,580	1,720
1998				339	151		478	5,490	5,490	1,470
1999				326	233		383	5,510	5,390	1,410
2000				476	82.1		504	8,470	8,020	1,460
2001				483	41.2		480	8,380	7,710	1,470
2002				322	80.9		420	9,410	8,530	1,480
2003				367	249		370	12,500	11,070	1,470

SELENIUM STATISTICS¹
U.S. GEOLOGICAL SURVEY

[All values in metric tons (t) selenium unless otherwise noted]

Last modification: October 22, 2007

Year	Primary production	Secondary production	Shipments	Imports	Exports	Stocks	Apparent consumption	Unit value (\$/t)	Unit value (98\$/t)	World production
2004				412	160		410	54,900	47,400	1,370
2005				589	254		590	11,300	9,430	1,430
2006				409	191		410	54,100	43,700	1,540

¹Compiled by K.E. Porter (retired) and M.W. George.

Data are calculated, estimated, or reported. See notes for more information.

Selenium Worksheet Notes

Data Sources

The sources of data for the selenium worksheet are the mineral statistics publications of the U.S. Bureau of Mines and the U.S. Geological Survey—Minerals Yearbook (MYB) and its predecessor, Mineral Resources of the United States (MR); Metal Prices in the United States through 1998 (MP98); and Mineral Commodity Profiles (MCP). Years of publication and corresponding years of data coverage are listed in the References section below. Blank cells in the worksheet indicate that data were either not available or were withheld because they are proprietary.

Primary Production

Primary production data are represented by the refinery production of selenium metal. Data were withheld for the years 1911–12, 1915–16, 1932–33, 1985–87, and 1997–2006 because they are proprietary. Data were not available for the years 1900–09 and are assumed to be zero because significant uses for selenium had not been developed. Primary production data reported for the years 1955–59 includes minor secondary production. Data were recorded from the MR and the MYB.

Secondary Production

Secondary production data were reported for the years 1952–56. This represented selenium recovered from rectifiers for recycling. In 1957, secondary recovery was stated as a percent of production and for the years 1958–61, was stated as a percent of supply. In 1960 and 1961, secondary production was reported as zero and in subsequent years was not reported. All blank cells were for years in which data were not available. Data were recorded from the MR and the MYB.

Shipments

Shipments represent producer shipments of selenium metal to consumers. Data were withheld for the years 1911–12, 1915–16, 1932–33, 1985–87, and 1997–2006 because they are proprietary. Data were not available for the years 1900–09 and are assumed to be zero because significant uses for selenium had not been developed. Government shipments of selenium from the National Defense Stockpile were reported for the years 1972–76 but were not included in base for shipments. Data were recorded from the MR and the MYB.

Imports

Import data represent the selenium content of selenium in unwrought selenium metal, waste and scrap selenium metal, and selenium dioxide. Imports assumed to be zero for the years 1900–09. Data were not available for the years 1910–20. Data were recorded from the MR and the MYB.

Exports

Export data represent the selenium content of selenium metal and waste and scrap selenium metal. Exports assumed to be zero for the years 1900–09. Export data were not available for the years 1910–40 and for the years 1946–69. Data were recorded from the MR and the MYB.

Stocks

Stocks represent the industry producer, consumer, and dealer stocks of selenium metal. Stock data were withheld for the years 1985–2002 because they are proprietary. All other blank cells were for years in which data were not available. Data were recorded from the MR and the MYB.

Apparent Consumption

Apparent consumption data were recorded from the MR and the MYB. Apparent consumption data were not available for the years 1900–09 and are assumed to be zero because significant uses for selenium had not been developed. Apparent consumption data were estimated by linear interpolation for the years 1911–12, 1915–16, and 1985–87. For the years 1997–2000 apparent consumption was estimated in MCP. For the years 2001–06, U.S. apparent consumption was withheld to avoid disclosing company proprietary data; imports for consumption were used as a proxy for apparent consumption.

Unit Value

Unit value is the value in actual U.S. dollars of one metric ton (t) of selenium apparent consumption. Unit value is estimated from the “Annual Average Commercial-Grade Selenium Price” as reported in the MP98. Price data were obtained from the MR for the years 1909–10. Unit value was interpolated for the year 1915. Data were not available for the years 1900–08.

Unit Value (98\$/t)

The Consumer Price Index conversion factor, with 1998 as the base year, is used to adjust unit value in current U.S. dollars to the unit value in constant 1998 U.S. dollars.

World Production

World production data represent world refinery production of selenium metal. Data were not available for the years 1900–37. World production estimates for the years 1985–1987 and 1997–2006 do not include withheld U.S. production data. Data were recorded from the MR and the MYB.

References

- Butterman, W.C., and Brown, R.D., Jr., 2004, Mineral Commodity Profiles—Selenium: U.S. Geological Survey Open-File Report 03-018, available only online at <http://pubs.usgs.gov/of/2003/of03-018/>. (Accessed July 12, 2006).
- U.S. Bureau of Mines, 1927–34, Mineral Resources of the United States, 1924–31.
- U.S. Bureau of Mines, 1933–96, Minerals Yearbook, 1932–94.
- U.S. Geological Survey, 1901–27, Mineral Resources of the United States, 1900–23.
- U.S. Geological Survey, 1997–2007, Minerals Yearbook, v. I, 1995–2006.
- U.S. Geological Survey, 1999, Metal Prices in the United States through 1998.

Recommended Citation Format:

U.S. Geological Survey, [year of last update, e.g., 2005], [Mineral commodity, e.g., Gold] statistics, *in* Kelly, T.D., and Matos, G.R., comps., Historical statistics for mineral and material commodities in the United States: U.S. Geological Survey Data Series 140, available online at <http://pubs.usgs.gov/ds/2005/140/>. (Accessed [date].)

For more information, please contact:

[USGS Selenium Commodity Specialist](#)