

**CHEMICAL ANALYSES OF DAVIS WATER
FEBRUARY 2009**



General Mineral, Physical, and Inorganic Analyses

Constituent	Common Name	Units	MCL	PHG or (MCLG) or Action Level	West Area					North Area		Central Area						East Area			South Area				
					Well Number	30	25	20	28	31	27	19	23	1	33	11	7	14	24	15	22	29	26	32	EM3
Hardness	CaCO ₃	mg/L			100	320	360	160	120	340	390	500	440	71	520	480	370	430	370	350	56	360	74	490	370
Calcium	Ca	mg/L			17	31	36	24	17	32	37	46	44	16	42	47	33	43	33	33	12	39	16	53	36
Magnesium	Mg	mg/L			14	59	67	24	19	62	73	94	80	8	100	88	70	78	70	66	7	63	8	86	69
Sodium	Na	mg/L			88	69	58	44	84	85	93	88	79	90	110	99	72	72	91	90	97	66	93	74	94
Potassium	K	mg/L			2.7	<2.0	<2.0	<2.0	2.3	<2.0	<2.0	<2.0	<2	<2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	2.0	<2.0	2.2	<2.0	<2.0
Alkalinity	CaCO ₃	mg/L			230	370	390	210	220	380	440	480	450	200	500	460	360	440	400	360	200	350	200	390	350
Hydroxide	OH	mg/L			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Carbonate	CO ₃	mg/L			8.5	3.3	<1.0	8.6	7.3	<1.0	13.0	<1.0	<1.0	6.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	5.0	<1.0	8.8	<1.0	<1.0
Bicarbonate	HCO ₃	mg/L			220	360	390	200	210	380	420	480	450	200	500	460	360	440	400	360	200	350	190	390	350
Sulfate	SO ₄	mg/L	500		37	45	33	23	43	53	71	88	63	33	95	82	54	74	70	72	37	58	38	100	110
Chloride	Cl	mg/L	500		23	31	27	12	27	41	48	58	44	20	80	68	55	45	72	68	23	43	24	82	73
Nitrate	NO ₃	mg/L	45	45	1	17	30	4	1	21	19	24	16	<1	20	17	19	20	10	7	<1	13	<1	24	12
Fluoride	F	mg/L	2	1	0.1	0.3	0.3	0.1	0.1	0.2	0.3	0.3	0.3	0.1	0.4	0.3	0.4	0.3	0.3	0.2	0.1	0.2	0.1	0.3	0.3
pH			6.5-8.5		8.4	8.3	8.2	8.4	8.4	8.3	8.4	8.2	8.2	8.4	8.2	8.2	8.2	8.2	8.3	8.2	8.3	8.2	8.4	8.2	8.3
Specific Conductance	E.C.	µmhos/cm	1600		570	870	890	460	550	870	1000	1200	860	510	1300	1100	950	1100	1000	810	480	720	540	1200	980
Total Filterable Residue	TDS	mg/L	1000		340	510	520	260	330	530	590	690	610	310	740	720	570	620	580	570	340	510	330	660	620
Color		units	15		5	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0
Odor	TON		3		1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0	1.0
Turbidity	NTU		5		1.4	<0.1	0	<0.1	0	<0.1	<0.1	<0.1	0	0	0	0	0	0	0	0	1	0	<0.1	0	<0.1
MBAS (foaming agents)		mg/L	0.5		<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	0	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05	<0.05
Radioactivity: Gross Alpha ¹		pCi/L	15		1.4	1.93	1.3	1.12	0.66	2.12	3.78	3.63	2.59	0.17	4.37	2.82	1.72	3.63	3.01	2.68	1.7	3.65	0.07	5.49	4.63
Radium-228 ¹		pCi/L	50		0.229	1.09	0.506	0.231	0.515	0.0742	0.0281	0.512	0.545	0.181	0.517	0.76	0.522	0.91	0.445	0.284	0.296	2.02	0.181	-0.102	1.26
Radon ²		pCi/L			368	210	315	418	366	192	483	393	318		376	226	496	419	488	252	275	276	0	299	187
Aluminum	Al	µg/L	1000	600	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Arsenic	As	µg/L	10	0.004	5.7	4.2	3.8	3.3	4.5	5.7	4.1	3.7	6.1	4.3	4.6	4.3	4.0	4.6	5.0	7.9	4.4	7.1	4.9	5.1	
Antimony	Sb	µg/L	6	20	3.4	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
Barium	Ba	µg/L	1000	2000	<50	150	180	140	<50	93	110	170	200	<50	120	210	140	180	120	130	<50	150	<50	98	<50
Beryllium	Be	µg/L	4	1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Cadmium	Cd	µg/L	5	0.04	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Total Chromium	Cr	µg/L	50		6	32	36	13	7	23	23	29	31	<0.1	23	24	11	14	2	<0.1	<0.1	14	<0.1	13	7
Hexavalent Chromium ³	Cr V1	µg/L			6.0	30.0	38.0	12.0	5.4	25.0	27.0	31.0	28.0	0.0	26.0	26.0	11.0	12.0	1.6	5.5	<1.0	21.0	0.0	11.0	6.3
Copper	Cu	µg/L	1000	170~	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	61	<50	<50	<50	65	<50	<50	<50	<50	<50	<50
Total Iron	Fe	µg/L	300		<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50	93	<50	<50	<50	<50	<50	<50	<50	<50
Lead	Pb	µg/L	15	2~	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Manganese	Mn	µg/L	50		68	<10	<10	<10	<10	<10	<10	<10	<10	38	<10	<10	<10	<10	35	14	35	<10	58	15	<10
Mercury	Hg	µg/L	2	1.2	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4	<.4
Nickel	Ni	µg/L	100	12	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	14	<10	<10	<10	<10	<10
Selenium	Se	µg/L	50		<2	4	4	<2.0	<2.0	5	18	18	15	<2.0	36	27	9	15	15	14	<2.0	9	<2.0	21	10
Silver	Ag	µg/L	100		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Thallium	Tl	µg/L	2	0.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0
Zinc	Zn	µg/L	5000		<50	<50	<50	<50	<50	<50	<50	58	<50	<50	76	<50	<50	<50	<50	<50	<50	<50	<50	<50	<50
Boron	B	µg/L	1000		910	680	520	630	770	1000	940	870	800	890	920	890	730	670	1100	1100	970	650	820	600	1100
Nitrite	NO ₂	mg/L	1000 (as N)	1000	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05	<.05
Sample Dates:	Routine:	Title 22			Nov-08	Aug-08	Aug-08	Nov-07	Mar-08	Mar-08	Nov-07	Nov-08	Feb-09	Dec-08	Nov-08	Mar-08	Aug-08	Aug-08	Nov-08	Feb-09	Feb-09	Feb-09	Aug-08	Nov-08	Mar-08
	1:	Alpha/228			Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Mar-08	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07	Jul-07
	2:	Radon			Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Jun-05	Mar-00	Jun-05	Jun-05	Jun-05	Jun-05
	3:	Hexavalent Cr			Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-03	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06	Nov-06

NOTES:

mg/L = milligrams per liter = parts per million (ppm)
 µg/L = micrograms per liter = parts per billion (ppb)
 µmhos/cm = micromhos/centimeter
 MCL = maximum contaminant level = maximum quantity allowable or desirable under Federal and State Drinking Water Regulations
 PHG = Public Health Goals (Maximum Contaminant Level Goals) : Levels of contaminants in drinking water that are considered to pose an insignificant risk to public health.
 (Primary, or health related limits are bold face; Secondary, or aesthetic limits are in italics; California Action Levels are underlined; Blank indicates no established standard)
 Action Level = the level of a chemical in drinking water that is considered not to pose a significant health risk to people ingesting it daily.



**CHEMICAL ANALYSES OF DAVIS WATER
FEBRUARY 2009**

<i>Organic Analyses (continued)</i>					West Area					North Area		Central Area						East Area			South Area				
Constituent	EPA Method	Units	MCL	PHG or (MCLG) or Action Level	Well Number					27	19	23***	1***	33	11	7***	14~	24~	15	22	29*~	26~	32	EM3	21
					30	25	20	28	31																
1,2-Dibromo-3-chloropropane (DBCP)	504	ppt	200	1.7	<0.10	<0.10	<0.10	<0.10	0.13	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Ethylene Dibromide (EDB)	504	µg/L	50	10	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Aldrin	505	µg/L			<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	<.075	
Chlordane	505	ppt	100	30	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	<0.10	
Chlorothalonil (DADONIL, BRAVO)	505	µg/L			<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Dieldrin	505	µg/L			<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	<0.02	
Endrin	505	µg/L	2	1.8	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Heptachlor	505	µg/L	10	8	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Heptachlor Epoxide	505	µg/L	10	6	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	<0.01	
Hexachlorobenzene	505	µg/L	1	0.03	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Hexachlorocyclopentadiene	505	µg/L	50	50	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Lindane	505	ppt	200	32	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Methoxychlor	505	µg/L			<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Perchlorate		µg/L	<u>6</u>	<u>6</u>	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	<0.8	
Polychlorinated Biphenyls (Total PCB)	505	ppt	500	0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Toxaphene	505	µg/L	3	0.03	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trifluralin (TREFLAN)	505	µg/L			<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
2,4,5-TP (SILVEX)	515.3	µg/L	50	25	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
2,4-D	515.3	µg/L	70	70	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Bentazon (BASAGRAN)	515.3	µg/L	18	200	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Dalapon	515.3	µg/L	200	790	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Dicamba (BANVEL)	515.3	µg/L			<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	<1.5	
Dinoseb (DNBP)	515.3	µg/L	7	14	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	
Pentachlorophenol (PCP)	515.3	µg/L	1	0.4	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	<0.2	
Picloram	515.3	µg/L	500	500	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Alachlor (ALANEX)	525.2	µg/L	2	4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	

NOTES: Routine Sample Dates: 2006 2008 2006 2006 2006
 Perchlorate 2001 2001 2001 2001 2008 2001 2001 2001 2001 2008 2001 2001 2001 2001 2001 2001 2001 2001 2001 2001 2008 2008 2001 2001

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 (Primary, or health related limits are bold face; Secondary, or aesthetic limits are in italics; California Action Levels are underlined; Blank indicates no established standard)
 Action Level =the level of a chemical in drinking water that is considered not to pose a significant health risk to people ingesting it daily.

xxx=Monitored 3/year for 502.2
 x~=Monitored 3/year for Title 22
 -=Monitored 3/year for 502.2 and 504



**CHEMICAL ANALYSES OF DAVIS WATER
FEBRUARY 2009**

UPDATED : February 2009

SYSTEM AND TESTING INFORMATION

Davis' water is 100% groundwater pumped from 20 wells located throughout the City. (see map)

This information is a summary of recent quality analyses performed on the City of Davis' wells and system. Since all of the City's water mains are interconnected and the number of wells operating at any given time depends on the system demand, you may or may not receive water from the well that is closest to your residence.

The water is untreated except for addition of sodium hypochlorite (chlorine). Each well receives a full chemical analysis once every 16 months and the system is sampled for harmful bacteria on a weekly basis. (Bacteriological results are not reported here.)

If you have further questions or desire additional information, please phone Bob Schoech at (530) 757-5677.

e-mail: bschoech@city.davis.ca.us

HARDNESS CALCULATIONS BY AREA					
Well #	mg/L	grains/gal	Well #	mg/L	grains/gal
WEST			CENTRAL		
30	1819 Lake Boulevard	100 6	1	617 E Street	440 26
20	2300 Evenstar Lane	360 21	7	810 11th Street	480 28
25	1188 Arlington Boulevard	320 19	11	1405 F Street	520 30
28	2101 Glacier Drive	160 9	14	530 L Street	370 22
31	2074 John Jones Road	120 7			
		212 12	23	527 B Street	500 29
				Average	462 27
NORTH			EAST		
19	2910 Catalina Drive	390 23	33	1111 Covell Blvd	71 4
27	3030 Sycamore Lane	340 20	29	3535 Alhambra Drive	56 3
		365 21	15	1812 Manzanita Lane	370 22
			22	1414 Tulip Lane	350 20
				Average	212 12
			SOUTH		
			24	1600 Olive Drive	430 25
			21	5050 Chiles Road	490 29
			26	2850 Chiles Road	360 21
			32*	3608 Chiles Road	
			EM3	800 Mace Boulevard	490 29
				Average	443 26

HARDNESS is a measure of the concentration of calcium and magnesium present in water. Hard water causes scaling on plumbing fixtures and utensils but is not a health concern. The optimum amount of hardness for household water is 75 to 100 mg/L. Hardness is commonly referred to in grains per gallon (GPG) for adjusting water softeners. GPG is obtained by dividing mg/L by 17.1

*Awaiting permit from California Department of Public Health

DATE	CONSTITUENT				
	Bromodichloromethane	Bromoform	Chloroform	Dibromochloromethane	TTHM
2/9/09	µg/L	µg/L	µg/L	µg/L	µg/L
SS-001	<0.5	<0.5	<0.5	<0.5	<0.5
SS-018	<0.5	2.0	<0.5	<0.5	2.0
				Average	2.0
11/4/2008	µg/L	µg/L	µg/L	µg/L	µg/L
SS-001	<0.5	<0.5	<0.5	<0.5	<0.5
SS-018	<0.5	1.8	<0.5	<0.5	1.8
				Average	1.8
8/13/2008	µg/L	µg/L	µg/L	µg/L	µg/L
SS-001	<0.5	<0.5	<0.5	<0.5	<0.5
SS-002	<0.5	0.8	0.8	<0.5	1.6
SS-008	<0.5	3.9	0.8	<0.5	4.7
SS-015	<0.5	1.5	<0.5	<0.5	1.5
SS-018	<0.5	1.1	<0.5	<0.5	1.1
SS-024	<0.5	2.6	<0.5	<0.5	2.6
SS-026	<0.5	2.1	<0.5	<0.5	2.1
				Average	2.3
3/18/2008	µg/L	µg/L	µg/L	µg/L	µg/L
SS-001	<0.5	<0.5	<0.5	<0.5	<0.5
SS-002	<0.5	1.0	<0.5	<0.5	1.0
SS-008	<0.5	0.7	<0.5	<0.5	0.7
SS-015	<0.5	1.1	<0.5	<0.5	1.1
SS-018	<0.5	2.2	<0.5	<0.5	2.2
SS-024	<0.5	1.7	<0.5	<0.5	1.7
SS-026	<0.5	2.1	<0.5	<0.5	2.1
				Average	1.5

Trihalomethanes are potentially harmful by-products formed by chlorine combining with organic compounds found naturally in the water. The MCL for Total Trihalomethanes (TTHM) is 80 ppb.

CHLORINE ADVISORY - Davis' water is chlorinated at a dosage of 0.3 ppm. take proper precautions when adding water to fish tanks, dialysis machines, etc.

NOTES:
mg/L = milligrams per liter = parts per million (ppm)
µg/L = micrograms per liter = parts per billion (ppb)