

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

GROUNDWATER-QUALITY MONITORING RESULTS

Carmel Valley Aquifer Sample Collection Date: October 5, 2012
 Seaside Basin Sample Collection Dates: June 19, July 16 and 17, and September 26, 2012

Units are milligrams per liter unless otherwise noted.

Water Quality Constituent	Specific Conductance (micromhos/cm)	Total Alkalinity (as CaCO3)	pH	Chloride	Sulfate	Ammonia Nitrogen (as N)	Nitrate Nitrogen (as NO3)	Total Organic Carbon	Calcium	Sodium	Magnesium	Potassium	Iron	Manganese	Orthophosphate	Total Dissolved Solids	Hardness (as CaCO3)	Boron	Bromide	Fluoride	
Drinking Water Standard (1)	900 1600 2200 (2)	NA	NA	250 500 600 (2)	250 500 600 (2)	NA	45	NA	NA	NA	NA	NA	0.3	0.05	NA	NA	NA	NA	NA	NA	
Sampling Location	River Mile																				
Carmel Valley Aquifer																					
16S/1W-14Jh (shal)	0.07 no longer in annual sampling network																				
16S/1W-14Jf (inter)	0.07 no longer in annual sampling network																				
16S/1W-14Jg (deep)	0.07 no longer in annual sampling network, destroyed by flooding																				
16S/1W-13Mc (shal)	0.31 no longer in annual sampling network																				
16S/1W-13Mb (inter)	0.31 no longer in annual sampling network																				
16S/1W-13Md (deep)	0.31 no access in November or December due to high water in Lagoon																				
16S/1W-13Lb (shal)	0.65 no longer in annual sampling network																				
16S/1W-13La (inter)	0.65 no longer in annual sampling network																				
16S/1W-13Lc (deep)	0.65	953	200	7.2	93	131	0.43	<1	2.7	82	90	22	4.0	2.518	0.752	0.15	631	295	0.15	<0.10	1.14
16S/1E-17J4	3.85	379	94	6.7	21	54	<0.05	1	1.6	34	23	12	2.9	0.151	<0.010	<0.10	240	134	<0.05	<0.10	0.17
16S/1E-17R2	3.86	1164	182	6.6	102	248	0.22	<1	5.6	132	83	26	3.7	7.024	0.301	<0.10	808	437	0.05	<0.10	0.18
16S/1E-23E4	6.53	1209	284	7.0	108	180	0.06	<1	2.9	124	104	30	2.0	1.467	0.860	<0.10	806	433	0.12	<0.10	0.43
16S/1E-23La	6.72	517	126	6.9	34	75	0.13	<1	4.4	43	41	14	3.6	1.270	0.256	<0.10	320	165	0.05	<0.10	0.32
16S/1E-24N5	8.02	442	128	7.0	24	50	<0.05	1	2.0	42	28	12	2.8	0.010	0.039	<0.10	266	154	<0.05	<0.10	0.20
Seaside Basin																					
15S/1E-15N3 (shal)	300	66	6.7	41	12	<0.05	<1	0.68	19	32	5	2.6	<0.010	<0.010	<0.10	190	68	<0.05	<0.05	0.10	
15S/1E-15N2 (deep)	1018	285	6.8	143	21	<0.05	<1	1.4	81	105	13	4.4	0.520	0.173	<0.10	603	256	0.10	0.22	0.20	
15S/1E-23Ca (shal)	750	185	7.5	94	31	<0.05	5	1.9	56	72	12	3.6	0.010	<0.010	<0.10	457	189	0.07	0.24	0.10	
15S/1E-23Cb (deep)	not sampled in 2011 due to obstruction in well																				
15S/1E-15F1 (shal)	325	88	6.6	42	8	<0.05	<1	0.77	20	32	6	2.1	0.528	<0.01	<0.10	228	75	<0.05	<0.10	<0.10	
15S/1E-15F2 (deep)	1126	254	7.3	182	37	<0.05	<1	1.20	86	111	19	4.9	0.015	0.140	<0.10	677	293	0.12	0.35	0.24	
15S/1E-15K5 (shal)	309	63	7.2	52	12	<0.05	2	1.1	18	41	5	2.3	<0.010	<0.010	<0.10	192	66	<0.05	<0.10	0.10	
15S/1E-15K4 (deep)	693	184	7.6	76	26	0.08	<1	0.24	48	82	9	3.6	<0.010	0.085	<0.10	446	--	0.09	--	--	
15S/1E-11Pa (shal)	390	98	5.8	50	12	<0.05	1	1.20	26	51	3	3.4	0.129	<0.010	<0.10	268	77	0.07	<0.10	<0.10	
15S/1E-11Pb (deep)	428	92	6.3	67	13	<0.05	<1	0.83	34	49	4	3.2	<0.010	<0.010	<0.10	260	101	<0.05	<0.10	<0.10	
15S/1E-12Fa (shal)	260	51	7.8	41	8	<0.05	<1	1.4	12	35	2	2.1	2.707	0.073	<0.10	157	38	<0.05	0.26	<0.10	
15S/1E-12Fc (deep)	280	53	8.2	42	14	<0.05	1	1.4	16	36	2	2.0	0.282	0.018	<0.10	197	48	<0.05	0.32	0.10	

NOTES:

- (1) Maximum contaminant levels are from California Domestic Water Quality and Monitoring Regulations, Title 22, 1977.
- (2) The three values listed for certain constituents refer to the "recommended" level, the "upper" level, and "short-term use" level, respectively.
- (3) The "Practical Quantifiable Limit" for Orthophosphate and Bromide changed in 2012.
- (4) Well 15S/1E-15K4 is being used as a "far-field monitor" for ASR well #4, and as such was sampled for additional constituents in 2012 that are not shown on this table.

MONTEREY PENINSULA WATER MANAGEMENT DISTRICT

GROUNDWATER-QUALITY MONITORING RESULTS

Carmel Valley Aquifer Sample Collection Date: November 15, 2011
 Seaside Basin Sample Collection Dates: July 26 through August 1, 2011

Units are milligrams per liter unless otherwise noted.

Water Quality Constituent	Specific Conductance (micromhos/cm)	Total Alkalinity (as CaCO ₃)	pH	Chloride	Sulfate	Ammonia Nitrogen (as N)	Nitrate Nitrogen (as NO ₃)	Total Organic Carbon	Calcium	Sodium	Magnesium	Potassium	Iron	Manga-nese	Orthophos-phate	Total Dissolved Solids	Hardness (as CaCO ₃)	Boron	Bromide	Fluoride	
Drinking Water Standard (1)	900 1600 2200 (2)	NA	NA	250 500 800 (2)	250 500 800 (2)	NA	45	NA	NA	NA	NA	NA	0.3	0.05	NA	NA	NA	NA	NA	NA	
Sampling Location	River Mile																				
<i>Carmel Valley Aquifer</i>																					
16S/1W-14Jh (shal)	0.07 no longer in annual sampling network																				
16S/1W-14Jf (inter)	0.07 no longer in annual sampling network																				
16S/1W-14Jg (deep)	0.07 no longer in annual sampling network, destroyed by flooding																				
16S/1W-13Mc (shal)	0.31 no longer in annual sampling network																				
16S/1W-13Mb (inter)	0.31 no longer in annual sampling network																				
16S/1W-13Md (deep)	0.31 no access in November or December due to high water in Lagoon																				
16S/1W-13Lb (shal)	0.65 no longer in annual sampling network																				
16S/1W-13La (inter)	0.65 no longer in annual sampling network																				
16S/1W-13Lc (deep)	0.65	972	200	7.2	109	149	0.79	<1	2.3	80	92	22	4.2	2.250	0.699	<0.05	611	290	0.15	0.19	1.10
16S/1E-17J4	3.85	340	94	6.6	16	42	<0.05	<1	1.2	31	20	10	2.8	0.115	<0.010	<0.05	206	119	<0.05	<0.05	0.16
16S/1E-17R2	3.86	1156	210	6.6	106	238	0.36	<1	3.6	126	78	26	3.5	5.861	0.290	<0.05	806	422	0.06	0.19	0.14
16S/1E-23E4	6.53	1175	310	7.0	98	171	0.09	<1	1.8	114	94	28	2.1	2.085	0.833	<0.05	754	400	0.11	0.10	0.36
16S/1E-23La	6.72	480	118	7.0	32	70	0.12	<1	1.0	40	37	13	3.2	1.146	0.238	<0.05	311	153	<0.05	<0.05	0.29
16S/1E-24N5	8.02	442	130	7.0	26	51	<0.05	2	0.93	42	29	12	2.7	<0.010	0.063	<0.05	288	154	<0.05	<0.05	0.21
<i>Upper Carmel Valley Aquifer</i>																					
16S/2E-33Q1	12.52	495	148	6.9	29	52	<0.05	2	1.0	46	32	16	8.2	19.952	1.194	<0.05	337	181	<0.05	<0.05	0.20
17S/2E-03La	13.65	305	112	7.2	12	25	<0.05	<1	0.54	31	15	10	2.2	<0.010	<0.010	<0.05	194	119	<0.05	<0.05	0.16
17S/2E-10B1	14.28	505	149	7.0	28	64	<0.05	1	1.6	45	34	15	2.4	<0.010	<0.010	<0.05	340	174	<0.05	<0.05	0.30
<i>Seaside Basin</i>																					
15S/1E-15N3 (shal)	322	65	5.7	46	13	<0.05	<1	0.57	19	34	5	2.7	0.092	<0.01	0.15	215	68	<0.05	0.10	<0.05	
15S/1E-15N2 (deep)	1017	256	7.4	157	38	0.14	<1	0.93	72	116	15	4.7	0.164	0.058	1.43	605	242	0.11	0.39	0.23	
15S/1E-23Ca (shal)	763	201	7.5	98	32	1.46	3	1.1	62	73	13	3.7	0.017	0.016	<0.05	448	208	0.07	0.25	0.11	
15S/1E-23Cb (deep)	not sampled in 2011 due to obstruction in well																				
15S/1E-15F1 (shal)	338	80	6.8	47	9	<0.05	<1	0.58	19	35	5	2.3	0.473	<0.01	1.63	220	68	<0.05	0.12	0.06	
15S/1E-15F2 (deep)	1116	258	7.3	176	38	<0.05	<1	0.74	80	116	17	5.0	0.024	0.158	<0.05	632	270	0.12	0.48	0.19	
15S/1E-15K5 (shal)	340	75	7.6	51	9	<0.05	<1	0.43	19	52	5	2.1	0.011	<0.01	<0.05	218	68	<0.05	0.13	0.07	
15S/1E-15K4 (deep)	567	144	6.9	74	20	<0.05	<1	0.52	36	77	7	3.2	<0.01	<0.01	<0.05	342	119	0.07	0.16	0.30	
15S/1E-11Pa (shal)	447	118	6.2	54	13	<0.05	<1	0.62	48	34	4	3.8	0.472	<0.01	<0.05	295	136	0.06	<0.05	<0.10	
15S/1E-11Pb (deep)	443	92	6.6	70	12	<0.05	<1	1.3	26	57	4	3.6	0.505	0.013	<0.05	265	81	0.07	0.17	0.06	
15S/1E-12Fa (shal)	269	52	7.8	50	11	<0.05	<1	2.7	14	37	4	2.2	0.743	0.112	<0.05	152	51	<0.05	0.12	0.09	
15S/1E-12Fc (deep)	305	55	7.4	49	10	1.49	2	1.0	18	38	3	2.1	0.446	0.014	<0.05	192	57	<0.05	0.10	<0.10	

NOTES:

(1) Maximum contaminant levels are from California Domestic Water Quality and Monitoring Regulations, Title 22, 1977.

(2) The three values listed for certain constituents refer to the "recommended" level, the "upper" level, and "short-term use" level, respectively.