

Appendix A
Cachuma Lake Water Quality Data

Part A-1

City of Santa Barbara Public Works Department Annual Water Quality Summaries
for Cachuma Lake, 1995-2008

C-SBAR SYSTEM 4210010_CACHUMA_1995_2009JAN09_URS

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

YEAR: 1995

LAKE CACHUMA ANNUAL SUMMARY

	METHODS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Elevation (Ft. M.S.L.) *		743.30	734.52	No sample		733.11	733.79	732.95		W95-1822	2012.00	W95-2183	2424.00	732.95	1159.10	2424.00
Lab Sample ID Number		W95-00132	W95-00322		W95-00710	W95-00909	W95-01135	W95-01335	W95-1621	W95-1824	2014	W95-2185	2426			
MAJOR CATIONS, mg/L																
Total Hardness as CaCO ₃	130.2	384	380		392	406	434	424	443	416	422	428	410	380	413	443
Calcium as Ca	215.2	84	89		91.6	94	100	98.1	94.4	87.9	89.7	92.9	92.1	84.1	92.2	100
Magnesium as Mg	242.1	42	39		37	37	42	41	48	45	44	40	44	37.0	41.7	48.0
Sodium as Na	273.1	51	30		31	31	30	32	52	39	41	40	32	30.0	37.2	52.0
Potassium as K	258.1	3	3		2.5	2.5	2.3	2.5	2.8	2.8	5.2	4.8	2.6	2.3	3.0	5.2
MAJOR ANIONS, mg/L																
Alkalinity as CaCO ₃	310.1	175	186		194	210	201	200	189	184	177	183	188	175	190	210
Sulfate as SO ₄	375.4	274	214		251	181	279	255	292	265	258	248 N/A		181	252	292
Chloride as Cl	4500-Cl ⁻ B	19	185		15.5	18.9	16.3	16.3	13.8	30.1	18.9	21.6	17.1	13.8	33.9	185
Nitrate as Nitrogen	353.3	0	0		0.2	0.07	0.176	0.004	0.005 <0.01		0.001	0.02 N/A		0.001	0.12	0.40
Nitrate as Nitrate		1	2		0.88	0.31	0.78	0.02	0.022 <0.04	<0.01		0.09 N/A		0.02	0.61	1.76
Nitrite as Nitrogen	4500-NO2 B															
Nitrite as Nitrite																
GENERAL CHEMICAL																
pH, Units	150.1	8	8		8.34	8.26	8.24	7.92	7.91	8.21	7.77	8.03	8.07	7.77	8.1	8.34
Conductivity, µmhos/cm	120.1	825	779		790	795	885	875	890	890	830	880	860	779	845	890
Total Filterable Residue, mg/l	160.1	600	550		574	648	654	628	636	632	714	630	644	550	628.1818	714
Chlorine Residual, mg/L	4500-Cl D	10	8		9	8	7	3	5	6	7	9	7	3	7.181818	10
Total Organic Carbon, mg/L	415.1															
GENERAL PHYSICAL																
Threshold Odor Number, Unit	140.1	8	6		15	10	6	8	8	10	4	6	6	4	7.9	15
Flavor Rating Assessment (F)	2160 C	Algal	Algal		Algal	Algal	Algal	Algal	Algal	Algal	Algal	ALGAL				
Description of Odor Type	2170 B	6	6		1.9	1.03	0.94	1.23	1.18	0.77	0.79	0.77	1.96			
Turbidity, NTU's	180.1	10	15		13	12	9	9	10	7	7	7	8	7	9.7	15
Color (Apparent), Units	2120 B	10	11		12	15	15	16	18	21	18	15	13	10	14.9	21
TRACE METALS, µg/L																
Aluminum as Al	202.2															0
Copper as Cu	220.1	10	<10		<10	<10	<10	<10 <10	<10	<10	<10	<10		10	10	10
Iron as Fe	236.1	140	60		40	110	90	80	80 <30	<30		40	50	40	77	140
Manganese as Mn	242.1	40	20		20	20	<30	30	20	20	10	20	20	10	22	40
Zinc as Zn	289.2	30	10		<10	10	<10	10	10	10 <10	<10	<10		10	13	30

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

FILE: CACHUMA LAKE 1995

* Elevation monitoring is based on *Cachuma Surface* monthly field data provided by the COMB
Ft. M.S.L. denotes Feet above Mean Sea Level

C-SBAR SYSTEM 4210010_CACHUMA_1995_2009JAN09_URS

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

YEAR: **1996**

LAKE CACHUMA ANNUAL SUMMARY
AT DRAFT GATE

	METHODS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Elevation (Ft. M.S.L.) *		696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00
Lab Sample ID Number		W96-092	W96- 315	W96- 516	W96-772	W96- 958	W96-1146	W96-1334	W96-1740	W96-2019	W96-2317	W96- 2570	W96-2686			
MAJOR CATIONS, mg/L																
Total Hardness as CaCO ₃	130.2	414	437	414	443	434	430	426	418	414	418	424	422	414	425	443
Calcium as Ca	215.2	91.7	95	93	98	93	90	89	85	83	83	82	88	81.7	89.1	97.7
Magnesium as Mg	242.1	44	45	42	45	43	49	46	45	33	46	47	46	32.5	44.1	48.5
Sodium as Na	273.1	31	35	60	47	63	37	37	41	41	42	48	39	31.0	43.4	63.0
Potassium as K	258.1	3.6	2.8	3.7	2.5	2.4	2.0	2.3	2.2	2.1	2.7	2.5	2.4	2.0	2.6	3.7
MAJOR ANIONS, mg/L																
Alkalinity as CaCO ₃	310.1	187	201	189	196	193	183	172	176	158	163	173	172	158	180	201
Sulfate as SO ₄	375.4				258	335	293	298	307	317	304	334	330	258	308	335
Chloride as Cl	4500-Cl B	16.8	20	19	11	17	12	11	13	13	13	12	12	11.1	14.1	19.8
Nitrate as Nitrogen	353.3				<0.02	0.07		<0.02	<0.02	<0.02	0.05	<0.02	0.02	<0.02	<0.02	0.07
Nitrate as Nitrate					<0.09	0.33		<0.09	<0.09	<0.10	0.22		0.09	<0.09	<0.09	0.33
Nitrite as Nitrogen	4500-NO2 B															
Nitrite as Nitrite																
GENERAL CHEMICAL																
pH, Units	150.1	8.22	8.21	8.37	8.03	8.17	8.17	7.96	7.73	8.45	8.20	8.11	8.16	7.73	8.15	8.45
Dissolved Oxygen, mg/L	360.1	12.0	10.0		4.0	7.0	6.0	5.0	4.0	9.0	7.0	8.0	8.0	4.0	7.3	12.0
Conductivity, µmhos/cm	120.1	850	860	775	835	945	905	860	870	885	865	855	865	775	864	945
Total Filterable Residue, mg/L	160.1	624	622	616	628	620	654	640	660	648	684	724	646	616	647	724
Chlorine Residual, mg/L	4500-Cl D															
Total Organic Carbon, mg/L	415.1															
GENERAL PHYSICAL																
Threshold Odor Number, Units	140.1	8	10	8	10	15	10	10	12	15	10	6	8	6	10	15
Flavor Rating Assessment (FRA)	2160 C															
Description of Odor Type	2170 B	ALGAL	Algal	ALGAL	Algal	ALGAL	Algal	ALGAL	Algal	Algal	Algal	ALGAL	Algal			
Turbidity, NTU's	180.1	1.9	2.36	1.85	1.12	3.60	0.53	1.07	0.61	4.15	1.15	1.04	1.27	0.53	1.7	4.2
Color (Apparent), Units	2120 B	14	12		16	15	18	16	18	23	16	12	10	10	15.5	23
TRACE METALS, µg/L																
Aluminum as Al	202.2															
Copper as Cu	220.1	<10	<10	40	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	4	40
Iron as Fe	236.1	50	30	40	50	90	<30	<30	30	110	50	<30	<30	<30	38	110
Manganese as Mn	242.1	40	30	<10	10	30	10	20	10	57	30	<10	10	<10	21	57
Zinc as Zn	289.2	<10	10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	10

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

FILE: CACHUMA LAKE 1996

NA - Not available

* Elevation monitoring is based on Cachuma Surface monthly field data provided by the COMB

Ft. M.S.L. denotes Feet above Mean Sea Level

C-SBAR SYSTEM 4210010_CACHUMA_1995_2009JAN09_URS

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

YEAR: 1997

LAKE CACHUMA
AT DRAFT GATE ANNUAL SUMMARY

	METHODS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Elevation (Ft. M.S.L.) *		696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00
Lab Sample ID Number		W97-0051	W97-0334	W97-0557	W97-0819	W97-1106	W97-1311	W97-1730	W97-2135	W97-2581	W97-2776	W97-2883	W97-3277			
MAJOR CATIONS, mg/L																
Total Hardness as CaCO ₃	130.2	408	416	422	416	422	414	430	396	410	418	418	404	396	415	430
Calcium as Ca	215.2	90.2	91	87	90	88	89	88	74	80	80	85	80	73.7	85.1	90.5
Magnesium as Mg	242.1	44.4	39	43	46	43	44	40	47	48	54	53	45	39.0	45.4	53.6
Sodium as Na	273.1	41.2	33	38	41	41	41	36	38	40	45	47	48	33.0	40.7	47.5
Potassium as K	258.1	3.0	2.2	2.5	2.7	2.3	2.7	2.7	2.6	2.6	2.8	2.7	3.8	2.2	2.7	3.8
MAJOR ANIONS, mg/L																
Alkalinity as CaCO ₃	310.1	175	182	184	184	182	178	174	159	160	164	176	164	159	174	184
Sulfate as SO ₄	375.4	326	309	314	323	299	290	286	278	345	319	324	305	278	310	345
Chloride as Cl	4500-Cl ⁻ B	11.7	11	11	12	14	12	13	13	16	16	16	13	10.9	13.2	16.3
Nitrate as Nitrogen	353.3	<0.02	0.04	0.08	0.04	0.06	0.06	N/A	<0.02	0.04	<0.02	<0.02	0.09	<0.02	0.03	0.09
Nitrate as Nitrate		<0.09	0.18	0.35	0.18	0.26	0.26	N/A	<0.09	0.18	<0.09	<0.09	0.40	<0.09	0.18	0.26
Nitrite as Nitrogen	4500-NO2 B															
Nitrite as Nitrite																
GENERAL CHEMICAL																
pH, Units	150.1	8.1	8.3	8.2	8.2	8.3	8.1	8.3	8.4	8.3	8.3	8.3	8.0	8.0	8.2	8.4
Dissolved Oxygen, mg/L	360.1	9.0	11.0	9.0	10.0	8.0	8.0	8.0	8.0	8.0	8.0	9.0	9.0	8.0	8.8	11.0
Conductivity, µmhos/cm	120.1	815	840	785	925	926	928	927	920	941	760	851	767	760	865	941
Total Filterable Residue, mg/L	160.1	650	632	686	632	656	646	651	690	654	692	688	660	632	661	692
Chlorine Residual, mg/L	4500-Cl ⁻ D															
Total Organic Carbon, mg/L	415.1															
GENERAL PHYSICAL																
Threshold Odor Number, Units	140.1	6	20	15	8	10	8	6	6	6	10	20	5	5.0	9.9	20.0
Flavor Rating Assessment (FRA)	2160 C	ALGAL	Algal	Algal	ALGAL	Algal	Algal	Algal	Algal	ALGAL	Algal	Algal	Algal			
Description of Odor Type	2170 B	12	13		13	20	18	23	24	22	18	17	12	12	17	24
Turbidity, NTU's	180.1	2.97	2.04	1.02	0.92	0.55	0.31	0.72	0.85	0.79	1.00	1.16	2.03	0.31	1.13	2.97
Color (Apparent), Units	2120 B	14	10	7	15	7	5	7	9	7	7	10	15	5	9	15
TRACE METALS, µg/L																
Aluminum as Al	202.2															
Copper as Cu	220.1	<10	<10	<30	10	<10	<10	<10	<10	<10	<10	15	25	<10	3.3	25
Iron as Fe	236.1	50	50	10	<30	40	<30	<30	<30	31	<30	<30	44	<10	18.8	50
Manganese as Mn	242.1	<10	20	<10	<10	10	<10	<10	10	14	15	40	23	<10	11.0	40
Zinc as Zn	289.2	10	<10	<10	10	<10	<10	10	<10	<10	<10	<10	<10	<10	2.5	10

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

FILE: CACHUMA LAKE 1997

NA - Not available

* Elevation monitoring is based on *Cachuma Surface* monthly field data provided by the COMB
Ft. M.S.L. denotes Feet above Mean Sea Level

C-SBAR SYSTEM 4210010_CACHUMA_1995_2009JAN09_URS

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

YEAR: **1998**

LAKE CACHUMA **ANNUAL SUMMARY**
AT DRAFT GATE

	METHODS	JAN	FEB*	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Elevation (Ft. M.S.L.) *		696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00
Lab Sample ID Number		W98-0099	W98-418	W98-479	W98-891	W98-1160	W98-1332	W98-1571	W98-1755	W98-2089	W98-2207	W98-2517	W98-2745			
MAJOR CATIONS, mg/L																
Total Hardness as CaCO ₃	130.2	396	272	352	420	432	444	440	438	416	440	431	439	272	410	444
Calcium as Ca	215.2	80.9	69	89	102	100	100	98	104	99	94	95	96	68.9	93.7	104
Magnesium as Mg	242.1	46.9	23	35	39	52	52	53	41	51	47	48	39	22.6	43.9	53.3
Sodium as Na	273.1	47	23	22	29	38	35	46	39	40	39	41	32	22	36	47
Potassium as K	258.1	3.5	3.2	2.8	2.8	3.0	2.9	4.2	2.3	2.2	2.1	2.0	2.7	2.0	2.8	4.2
MAJOR ANIONS, mg/L																
Alkalinity as CaCO ₃	310.1	167	140	176	202	196	195	201	200	198	177	185	187	140	185	202
Sulfate as SO ₄	375.4	288	152	200	247	252	267	296	308	282	344	348	336	152	277	348
Chloride as Cl	4500-Cl ⁻ B	13	4	6	8	8	8	9	7	6	11	12	11	4.0	8.6	13.3
Nitrate as Nitrogen	353.3	0.09	0.33	0.34	0.15		0.13	0.11	0.11	0.14	<0.020	<0.020	0.05	<0.02	0.13	0.34
Nitrate as Nitrate		0.40	1.45	1.50	0.66		0.59	0.47	0.50	0.64	0.03	0.06	0.21	0.03	0.59	1.50
Nitrite as Nitrogen	4500-NO ₂ B															
Nitrite as Nitrite																
GENERAL CHEMICAL																
pH, Units	150.1	7.91	7.44	7.78	8.21	8.07	7.98	8.08	7.82	7.66	8.10	8.13	8.16	7.44	7.95	8.21
Dissolved Oxygen, mg/L	360.1	10	10	9	10	8	8	7	5	5	8	7	8	5.0	7.9	10.0
Conductivity, µmhos/cm	120.1	742	589	758	873	890	925	922	913	884	955	949	932	589	861	955
Total Filterable Residue, mg/L	160.1	708	412	534	612	626	734	756	862	774	704	680	646	412	671	862
Chlorine Residual, mg/L	4500-Cl D															
Total Organic Carbon, mg/L	415.1			6.33										6.33	6.33	6.33
GENERAL PHYSICAL																
Threshold Odor Number, Unit	140.1	10	10	8	7	10	6	5		7	4	6	6	4	7	10
Flavor Rating Assessment (F)	2160 C															
Description of Odor Type	2170 B	Algal	Algal	Algal	Algal	Algal	Algal	Algal		Algal	Algal	Algal	Algal			
Turbidity, NTU's	180.1	1.9	28	4.6	2.1	1.8	1.6	0.5	0.9	0.9	0.7	1.4	1.1	0.49	3.77	27.8
Color (Apparent), Units	2120 B	10	25	15	14	15	9	6	9	12	7	10	11	6	12	25
TRACE METALS, µg/L																
Aluminum as Al	202.2															
Copper as Cu	220.1	<10	47	30	<10	20	21	<10	<10	11	24	<10	<10	<10	13	47
Iron as Fe	236.1	41	552	130	<30	<30	38	190	<30	<30	<30	44	<30	38	83	552
Manganese as Mn	242.1	58	10	<10	13	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	58
Zinc as Zn	289.2	12	<10	<10	<10	<10	<10	<10	<10	10	<10	<10	<10	<10	<10	12

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

* Elevation monitoring is based on *Cachuma Surface* monthly field data provided by the COMB

FILE: CACHUMA LAKE 1998

Ft. M.S.L. denotes Feet above Mean Sea Level

NA - Not available

* SPECIAL NOTE: Rainfall data for the month of February was recorded at 21.7 inches, and 46.99 inches for total water year 97-98.

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

YEAR: **1999**

LAKE CACHUMA ANNUAL SUMMARY
AT DRAFT GATE

	METHODS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Elevation (Ft. M.S.L.) *		696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00
Lab Sample ID Number		W99-0203	W99-418	W99-0644	W99-0882	W99-1118	W99-1363	W99-1651	W99-1936	W99-2180	W99-2399	W99-2684	W99-2864			
MAJOR CATIONS, mg/L																
Total Hardness as CaCO ₃	130.2	426	434	436	436	432	436	438	432	442	434	446	447	426	437	447
Calcium as Ca	215.2	95	99	95	98	96	97	100	95	93	91	108	94	91	97	108
Magnesium as Mg	242.1	46	49	50	50	50	51	51	50	54	56	61	57	46	52	61
Sodium as Na	273.1	51	42	40	39	40	42	43	39	39	47	58	42	39	43	58
Potassium as K	258.1	2.3	2.5	2.4	2.4	2.3	2.1	2.4	2.2	2.4	2.7	2.6	2.5	2.1	2.4	2.7
MAJOR ANIONS, mg/L																
Alkalinity as CaCO ₃	310.1	192	189	188	189	189	190	190	187	243	168	169	173	168	189	243
Sulfate as SO ₄	375.4					307	317	313	318	331	340	341	341	307	326	341
Chloride as Cl	4500-Cl ⁻ B		18	13	17	13	11	10	12	10	11	11	13	10	12.6	18.4
Nitrate as Nitrogen	353.3					<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1		<0.1	<0.1	<0.1
Nitrate as Nitrate						<0.5	<0.5	<0.5		<0.5	<0.5			<0.5	<0.5	<0.5
GENERAL CHEMICAL																
pH, Units	150.1	8.1	8.3	8.3	8.3	8.2	8.2	8.0	7.7	7.9	8.2	7.8	7.7	7.7	8.0	8.3
Dissolved Oxygen, mg/L	360.1	9.0	9.0	8.0	5.0	9.0	8.0	6.0	5.0	7.0	9.0	7.0	8.0	5.0	7.5	9.0
Conductivity, µmhos/cm	120.1	937	935	932	932	932	918	887	889	901	933	895	902	887	916	937
Total Filterable Residue, mg/l	160.1	650	652	658	592	732	784	714	744	772	940	676	656	592	714	940
GENERAL PHYSICAL																
Threshold Odor Number, Unit	140.1	5	10	10	9	10	6	7	6	3	12	10	4	3	7.7	12
Flavor Rating Assessment (F)	2160 C															
Description of Odor Type	2170 B	Algal	Algal	Algal	Algal	Algal	Algal	Algal	Algal	Algal	Algal	Algal	Mineral			
Turbidity, NTU's	180.1	0.64	1.05	0.40	0.53	0.75	0.33	0.38	0.41	0.96	0.58	0.35	0.57	0.33	0.58	1.1
Color (Apparent), Units	2120 B	10	8	9	7	7	8	<5	9	9	7	8	15	<5	8.1	15.0
Temperature (Field), °C	SM2550B	10.0	11.0	11.0	12.0	12.5	15.0	16.5	18.0	20.0	18.5	12.5	8.5	8.5	13.8	20.0
TRACE METALS, µg/L																
Copper as Cu	220.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iron as Fe	236.1	<30	<30	<30	<30	<30	<30	<30	<30	30	<30	<30	<30	<30	<30	<30
Manganese as Mn	242.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Zinc as Zn	289.2	<10	<10	0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

* Elevation monitoring is based on *Cachuma Surface* monthly field data provided by the COMB

FILE: CACHUMA LAKE

Ft. M.S.L. denotes Feet above Mean Sea Level

NA - Not available

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

YEAR: 2000

LAKE CACHUMA ANNUAL SUMMARY AT DRAFT GATE

FINAL REOPRT

	METHODS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Elevation (Ft. M.S.L.) *		696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00
Lab Sample ID Number		W00-53	W00-360	W00-587	W00-917	W00-1169	W00-1479	W00-1722	W00-2067	W00-2447	W00-2623	W00-2904	W00-3082			
MAJOR CATIONS, mg/L																
Total Hardness as CaCO ₃	130.2	445	440	432	412	432	414	420	416	428	412	406	419	406	423	445
Calcium as Ca	215.2	98	105	98	89	93	87	101	94	89	86	89	87	86	93	105
Magnesium as Mg	242.1	57	54	46	61	49	53	52	55	59	64	NA	92	46	58	92
Sodium as Na	273.1	46	44	36	44	42	42	42	49	51	53	NA	50	36	45	53
Potassium as K	258.1	2.6	2.6	2.7	2.5	2.6	2.6	2.8	3.2	3.0	2.6	NA	3.1	2.5	2.8	3.2
MAJOR ANIONS, mg/L																
Alkalinity as CaCO ₃	310.1	180	176	172	174	164	166	202	216	163	161	162	170	161	176	216
Sulfate as SO ₄	375.4	333	330	315	316	315	312	304	313	325	323	324	315	304	319	333
Chloride as Cl	4500-Cl ⁻ B	11.7	11.6	11.3	11.7	11.6	11.6	11.9	12.5	13.0	12.9	13.0	12.8	11.3	12.1	13.0
Nitrate as Nitrogen	353.3	<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
Nitrate as Nitrate		<0.5	<0.5	<0.5	<0.5	0.4	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
GENERAL CHEMICAL																
pH, Units	150.1	8.18	8.15	8.22	8.13	7.86	7.88	7.71	7.89	8.05	8.31	8.31	8.27	7.71	8.08	8.31
Conductivity, µmhos/cm	120.1	898	901	831	859	899	875	876	875	881	886	868	882			
Total Filterable Residue, mg/l	160.1	676	676	634	732	674	730	722	856	772	720	672	668	634	711	856
Dissolved Oxygen, mg/L	360.1	8	10	9	9	9	8	6	4	7	8	11	8	3.7	8.0	10.8
Chlorine Residual, mg/L	4500-Cl ^D															
Total Organic Carbon, mg/L	415.1		2.3		2.5	2.8	2.7							2.3	2.6	2.8
GENERAL PHYSICAL																
Threshold Odor Number, Unit	140.1	5.0	3.0	8.0	4.0	3.0	8.0	4.0	8.0	5.0	4.0	6.0	7.0	3.0	5.4	8.0
Flavor Rating Assessment (F)	2160 C															
Description of Odor Type	2170 B	Algal	Algal Fishy/algal		Algal	algal	earthy fishy/algal		algal	earthy	earthy	algal	algal			
Turbidity, NTU's	180.1	0.54	0.44	0.74	0.66	0.87	0.42	0.65	0.55	0.72	1.2	1.7	0.57	0.42	0.8	1.65
Color (Apparent), Units	2120 B	14	11	17	12	13	12	11	14	10	6	8	14	6.0	11.8	17.0
Temperature (Field), °C	SM2550B	6.8	7.0	12.0	13.0	15.0	17.0	16.0	18.5	20.5	20.1	15.4	13.9	6.8	14.6	20.5
TRACE METALS, µg/L																
Copper as Cu	220.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	NA	10	<10	<10	10
Iron as Fe	236.1	<30	43	33	<30	<30	<30	<30	<30	63	67	NA	<30	<30	19	67
Manganese as Mn	242.1	<10	<10	10	<10	<10	<10	<10	<10	<10	<10	NA	<10	<10	<10	<10
Zinc as Zn	289.2	<10	<10	<10	<10	41	<10	29	<10	<10	<10	NA	<10	<10	<10	41

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

* Elevation monitoring is based on *Cachuma Surface* monthly field data provided by the COMB
Ft. M.S.L. denotes Feet above Mean Sea Level

FILE: CACHUMA LAKE

NA - Not available

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

YEAR: **2001**

LAKE CACHUMA ANNUAL SUMMARY AT DRAFT GATE

	METHODS	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Elevation (Ft. M.S.L.) *		696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00
Lab Sample ID Number		W01-181	W01-400	W01-528	W01-774	W01-1125	W01-1353	W01-1734	W01-1905	W01-2165	W01-2533	W01-2826	W01-3193			
MAJOR CATIONS, mg/L																
Total Hardness as CaCO ₃	130.2	412	408	324	359	345	357	348	355	346	343	346	360	324	359	412
Calcium as Ca	215.2	86	86	71	78	82	85	77	79	82	79	74	81	71	80	86
Magnesium as Mg	242.1	84	82	39	43	42	40	47	45	44	55	46	42	39	51	84
Sodium as Na	273.1	44	41	32	34	43	24	47	45	39	36	50	45	24	40	50
Potassium as K	258.1	2.7	2.8	2.5	2.6	2.7	2.4	2.5	2.4	2.4	2.2	2.5	3.7	2.2	2.6	3.7
MAJOR ANIONS, mg/L																
Alkalinity as CaCO ₃	310.1	170	168	152	166	164	162	163	163	162	165	170	168	152	164	170
Sulfate as SO ₄	375.4	312	303	230	282	245	248	248	250	245	243	248	252	230	259	312
Chloride as Cl	4500-Cl ⁻ B	12.9	12	9	12	12	12	11	12	12	12	12	13	9.4	11.8	12.9
Nitrate as Nitrogen	353.3	<0.1	<0.1	<0.1	<0.1	0	0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.1	0.15	0.20
Nitrate as Nitrate		<0.5	<0.5	<0.5	<0.5	1	1	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.6	0.75	0.9
GENERAL CHEMICAL																
pH, Units	150.1	8.28	8.28	8.24	8.16	8.27	7.84	7.80	7.89	7.86	7.62	7.90	8.25	7.62	8.03	8.28
Conductivity, µmhos/cm	120.1	795	773	654	729	688	782	783	750	742	737	766	803			
Total Filterable Residue, mg/l	160.1	692	630	531	514	556	646	580	712	572	732	678	566	514	617	732
Dissolved Oxygen, mg/L	360.1	10.9	9	10	5	8	7	4	3	3	0	4	7	0.4	5.9	10.9
Chlorine Residual, mg/L	4500-Cl D											4				
Total Organic Carbon, mg/L	415.1										3.7	0.0	3.6	0	2.4	3.68
GENERAL PHYSICAL																
Threshold Odor Number, Unit	140.1	8.0	algal	rthy/musty	algal	Algal	algal/fishy	fishy	2.0	6.0	10.0	fishy/algal	12.0	2	7.6	12
Flavor Rating Assessment (F)	2160 C										2.05					
Description of Odor Type	2170 B	algal	12.0	22.0	20.0	16.0	12.0	14.0	earthy	1	sulfur	13	algal/bitter			
Turbidity, NTU's	180.1	1.25	11.10	11.20	11.70	14.40	14.00	15.90	0.89	6.00	1.20	17.90	1.50	0.89	8.92	17.90
Color (Apparent), Units	2120 B	8	0	0	0	0	0	0	17	16	10	0	12	0	5	17
Temperature (Field), °C	SM2550B	11.5	<10	<10	<10	<10	<10	<10	15.3	0	15	<10	13			
TRACE METALS, µg/L																
Copper as Cu	220.1	<10	<10	14.0	<10	<10	<10	<10	<10	<30	<10	<10	<10	<10	<10	14
Iron as Fe	236.1	<30	<10	<10	<10	<10	<10	<10	43.0	16	<30	<10	39	<30	0	43
Manganese as Mn	242.1	<10	0.0	0.0	0.0	0.0	0.0	0.0	26.0	<10	<10	0	<10	<10	0.0	26
Zinc as Zn	289.2	<10	0.0	0.0	0.0	0.0	0.0	0.0	23.0	0	<10	0	<10	<10	0	23

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

* Elevation monitoring is based on *Cachuma Surface* monthly field data provided by the COMB
Ft. M.S.L. denotes Feet above Mean Sea Level

FILE: CACHUMA LAKE

NA - Not available

YEAR:

2002

LAKE CACHUMA ANNUAL SUMMARY
AT DRAFT GATE

LAKE CACHUMA													
MONTHLY MONITORING													
2002													
ANALYTICAL REPORT	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN
Sample Description/Location	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	MO. AVG.
Elevation (Ft. M.S.L.)	696.00		696	696	696	696	696	696	696	696	696	696	MO. MAX
Lab Sample ID Number	W02-151		W02-719	W02-1008	W02-1344	W02-1480	W02-1792	W02-2092	W02-2382	W02-2734	W02-2949	W02-3259	
Date Sample Collected	Jan-14-02		Mar-07-02	Apr-09-02	May-22-02	Jun-05-02	Jul-10-02	Aug-12-02	Sep-10-02	Oct-15-02	Nov-06-02	Dec-09-02	
Time Sample Collected	1030 Hrs		0930 Hrs	1000-1100	945	1030	1300	1000	1045	915	1030	930	
Draft Gate Status	Open		Open	open	open	open	Open	OPEN	open	open	OPEN	OPEN	
Name of Sampler	Shane-COMB		Dave-COMB	AR	COMB-SH	FB-COMB	AR	FB	FB	SC	FB	SC	
METHODS (EPA/SM)													
MAJOR CATIONS, mg/L													
Total Hardness as CaCO ₃	130.2	371	370	362	382	363	362	370	372	380	374	378	
Calcium as Ca	215.2	81	81	79	82	79	77	77	77	78	74	78	
Magnesium as Mg	242.1	47.9	38.1	33.2	38	39	45	44	39	44	36	35	
Sodium as Na	273.1	35.9	32	25	22	39	31	29	24	26	26	28	
Potassium as K	258.1	2.57	2.22	1.93	2	2	2	2	2	3	2	2	
MAJOR ANIONS, mg/L													
Alkalinity as CaCO ₃	310.1	164	166	170	168	167	172	169	173	166	168	173	
Sulfate as SO ₄	300.0	244	248	255	249	251	256	264	267	261	263	258	
Chloride as Cl	300.0	11.9	12	13	13	13	14	14	15	15	15	15	
Nitrate as N	300.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Nitrate as NO ₃	300.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
Nitrite as N	300.0	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	
Nitrite as NO ₂	300.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	
GENERAL CHEMICAL													
pH, Units	150.1	8.18	8.20	8.13	8	8	8	8	8	8	8	8	
Conductivity, µS/cm	120.1	796	792	794	799	810	814	822	736	751	750	842	
Total Filterable Residue, mg	160.1	562	546	624	566	762	748	854	638	648	600	622	
Dissolved Oxygen, mg/L	4500-O G	10.3	10.0	8.5	6.7	9.0	6.0	4.1	4.2	8.4	4.1	8.8	
Total Organic Carbon, mg/L	415.1	3.84	3.38	3.72	3.76	3.42	3.38	3.28	3.11	3.53	3.25	3.52	
GENERAL PHYSICAL													
Threshold Odor Number, Ur	140.1	2	12	17	17	17	17	17	25	24	24	20	
Description of Odor Type	2170 B	Algal	earthy/algal	Earthy/algal ss/Cabbage		Algal	Algal	Algal/earthy	Fishy	Fishy	Algal/fishy	Earthy	
Turbidity, NTU's	180.1	1.86	0.89	1.68	1.04	1.03	0.56	2.29	1.56	3.80	3.22	1.67	
Color (Apparent), Units	2120 B	11	12	NA*	10	7	10	11	12	14	15	12	
Temperature (Field), °C	SM2550B	12.5	11.0	12.8	16.8	19.0	22.0	22.9	23.1	19.1	18.6	14.2	
TRACE METALS, µg/L													
Copper as Cu	220.1	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Iron as Fe	236.1	42	42	<30	56	32	<30	74	120	90	87	40	
Manganese as Mn	242.1	10	<20	<20	<20	<20	<20	<20	40	<20	<20	<20	
Zinc as Zn	289.2	<10	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	

CACHUMA LAKE

2003 ANNUAL SUMMARY
AT DRAFT GATE

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX
Sample Description/Location	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3			
Elevation (Ft. M.S.L.)	696	696.00	696.00												
State/ USGS Sample Location															
Lab Sample ID Number	W03-066	W03-290	W03-572	W03-890	W03-1215	W03-1543	W03-1780	W03-2078	W03-2328	W03-2570	W03-2863	W03-3073			
Date Sample Collected	Jan-08-03	Feb-05-03	May-14-03	Apr-09-03	May-14-03	Jun-18-03	Jul-14-03	Aug-14-03	Sep-11-03	Oct-09-03	Nov-12-03	Dec-10-03			
Time Sample Collected	1000 Hrs	1050	0	1000	1045	1030	930	915	915	1030	0930 Hrs	1010			
Draft Gate Status	Open	OPEN	OPEN	OPEN	OPEN	OPEN	Open	OPEN	OPEN	OPEN	OPEN	OPEN			
Name of Sampler	FB	SC	FB/COMB	DN	Dan	SC	SC	lane/COMB	lane/COMB	SC	SC	LC			

	METHODS (EPA/SM)	MDLs	DRLs												
MAJOR CATIONS, mg/L															
Total Hardness as CaCO ₃	130.2	0.1		361	366	366	341	374	382	384	362	362	364	384	382
Calcium as Ca	215.2	1		75	74.9	75	80.5	80.5	87.7	76.9	71.4	74.1	74.9	76.1	77.7
Magnesium as Mg	242.1	0.01		45.5	39.9	36.2	45.0	42	41.9	39.7	41.6	0	43	45.2	0
Sodium as Na	273.1	0.1		39.6	37.2	32.3	43.0	38	37.3	33.1	35.2	0	32.1	33.4	0
Potassium as K	258.1	0.1		2.76	2.44	2.20	2.50	2.6	2.33	2.28	2.45	0	2.85	2.15	0
MAJOR ANIONS, mg/L															
Alkalinity as CaCO ₃	310.1	0.1		171	169	161	165	177	165	177	157	159	160	166	164
Sulfate as SO ₄	300.0	0.1	0.5	251	257	257	251	252	255	255	268	272	272	256	262
Chloride as Cl	300.0	0.1		14.5	15.5	16.6	16.6	16.5	17.2	17.5	18	18.2	18.1	18.6	18.6
Nitrate as Nitrogen	300.0	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
Nitrate as Nitrate		0.5	2.0	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5
Nitrite as Nitrogen	300.0	0.1	400	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
Nitrite as Nitrite		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
Fluoride as F	300.0	0.1	0.1				0.32	0.22	0.21	0.24	0.25	0.27	0.25	0.21	0.27
Bromide as Br	300.0	0.05		<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1
GENERAL CHEMICAL															
pH, Units	150.1	0.1		8.29	8.23	8.23	8.4	8.22	8.19	8.26	8.45	8.43	8.34	8.18	8.22
Conductivity, µmhos/cm	120.1	2.0		834	838	838	877	829	864	886	927	883	880	847	815
Total Filterable Residue, mg/L	160.1	2.0		620	560	584	584	640	608	618	650	862	610	604	602
Chlorine Residual - Free, mg/L	4500-Cl D	0.1													
Chlorine Residual - Total, mg/L	4500-Cl D	0.1													
Dissolved Oxygen, mg/L	SM4500-OG			8.1	9.0	0.0	7.0	6.99	6.56	7.86	7.12	5.46	7.5	7.34	9.05
Total Organic Carbon- TOC, mg/L	415.1	0.5		2.98	3.26	0.00	3.35	3.33	3.65	3.73	3.66	0	7.8	3.34	3.26
Dissolved Organic Carbon - DOC, mg/L	415.1	0.5													
GENERAL PHYSICAL															
Threshold Odor Number, Units	140.1	2		15	17	20	17	17	17	17	12	15	15	12	24
Flavor Rating Assessment (FRA)	2160 C														
Description of Odor Type	2170 B			Earthy	Algal lgal/Mineral		Algal	Algal lgal/grassy		Algal lgal/Mineral	Earthy/Fishy	ALGAL	ALGAL	ALGAL	
Turbidity, NTU's	180.1	0.02		1.43	0.29	0.38	1.17	0.95	2.57	1.21	1.79	2.89	1.58	1.58	2.75
Color (Apparent), Units	2120 B	5		17	11	9	11	12	12	11	10	12	15	10	17
Temperature, °C	2550 B	0.05		13.5	13.4	14.4	16.2	16.5	19.7	22.7	24.3	23	22.1	17.6	15
Ultraviolet Absorbing Organic UV-254, nm	SM5910.B	0.010													
Specific Ultraviolet Absorbing - SUVA	Calc														
TRACE METALS, µg/L															
Aluminum as Al	202.2		50.0												
Arsenic as As	206.2		2.0												
Chromium as Cr	218.2	1	50.0												
Chromium, hexavalent (Cr VI)	218.6	1	1.0												
Copper as Cu	220.1	10	50.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Iron as Fe	236.1	30	100.0	58	39	72	200	100	100	40	37	60	30	50	
Manganese as Mn	242.1	20	20.0	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<20	
Zinc as Zn	289.2	20	50.0	<20	<20	<20	<10	<10	<20	<20	<20	<20	<20	<20	
VOLATILE ORGANICS, ug/L															
t-Amyl Methyl Ether (TAME)	524.2	0.5	3												
t-Butyl Alcohol (TBA)	524.2	0.5	-												
Diisopropyl Ether (DIPE)	524.2	0.5	-												
Ethyl-t-Butyl Ether (ETBE)	524.2	0.5	3												
Methyl ter-Butyl Ether (MTBE)	524.2	0.5	3												

BACTERIAL INDICATOR ORGANISM

Total Coliforms (MFT or QT, MPN/100 mL)	9221B/9223
Fecal Coliforms (MFT or QT, MPN/100 mL)	9221B/9223
Heterotrophic Plate Count (HPC, cfu/mL)	9215B

CITY OF SANTA BARBARA															2004 ANNUAL SUMMARY AT DRAFT GATE		
PUBLIC WORKS DEPARTMENT															CACHUMA LAKE		
WATER RESOURCES LABORATORY																	
ANALYTICAL REPORT																	
	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVG.	MO. MAX		
Sample Description/Location	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 4	GATE 4	GATE 4					
Elevation (Ft. M.S.L.)	696 Ft.	696.0 Ft	696 FT	696.00	696.00	696.00	696.00	696.00	696.00	678.00	678.00	678.00					
Lab Sample ID Number	W04-059	W04-292	W04-548	W04-800	W04-1087	W04-1308	W04-1529	W04-1751	W04-2027	W04-2363	W04-2559	W04-2777					
Date Sample Collected	Jan-08-04 Mnth	Feb-04-04 Mnth	Mar-03-04 Mnth	Apr-13-04 Mnth	May-13-04 Mnth	Jun-09-04 Mnth	Jul-08-04 Mnth	Aug-05-05 Mnth	Sep-08-04 Mnth	Oct-20-04 Mnth	Nov-10-04 Mnth	Dec-08-04 Mnth					
Time Sample Collected	0930 Hrs	0915 Hrs	1030 Hrs	1030 Hrs	0930 Hrs	0915 Hrs	1000 Hrs	0915 Hrs	1110 Hrs	1100 Hrs	1006 Hrs	1115 Hrs					
Draft Gate Status	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN					
Name of Sampler	DN	SC	DN	DN	LC	FB	LC	LC/SS	LC	SS	SS	DN					
MAJOR CATIONS, mg/L																	
	METHODS (EPA/SM)	MDLS	DRLs														
Total Hardness as CaCO ₃	130.2																
Calcium as Ca	215.2																
Magnesium as Mg	242.1																
Sodium as Na	273.1																
Potassium as K	258.1																
MAJOR ANIONS, mg/L																	
Alkalinity as CaCO ₃	310.1																
Sulfate as SO ₄	300.0	0.5															
Chloride as Cl	300.0																
Nitrate as Nitrogen	300.0																
Nitrate as Nitrate		2.0															
Nitrite as Nitrogen	300.0	400															
Nitrite as Nitrite																	
Fluoride as F	300.0	0.1															
Bromide as Br	300.0																
GENERAL CHEMICAL																	
pH, Units	150.1																
Conductivity, µmhos/cm	120.1																
Total Filterable Residue, mg/L	160.1																
Chlorine Residual - Free, mg/L	4500-Cl D																
Chlorine Residual - Total, mg/L	4500-Cl D																
Dissolved Oxygen, mg/L	SM4500-OG																
Total Organic Carbon- TOC, mg/L	415.1																
Dissolved Organic Carbon - DOC, mg/L	415.1																
GENERAL PHYSICAL																	
Threshold Odor Number, Units	140.1																
Flavor Rating Assessment (FRA)	2160 C																
Description of Odor Type	2170 B																
Turbidity, NTU's	180.1																
Color (Apparent), Units	2120 B																
Temperature, °C	2550 B																
Ultraviolet Absorbing Organic UV-254, nm	SM5910.B																
Specific Ultraviolet Absorbing - SUVA	Calc																
TRACE METALS, µg/L																	
Aluminum as Al	202.2		50.0														
Arsenic as As	206.2		2.0														
Chromium as Cr	218.2		50.0														
Chromium, hexavalent (Cr VI)	218.6		1.0														
Copper as Cu	220.1		50.0														
Iron as Fe	236.1		100.0														
Manganese as Mn	242.1		20.0														
Zinc as Zn	289.2		50.0														
VOLATILE ORGANICS, ug/L																	
t-Amyl Methyl Ether (TAME)	524.2	0.5	3														
t-Butyl Alcohol (TBA)	524.2	0.5	-														
Diisopropyl Ether (DIPE)	524.2	0.5	-														
Ethyl-t-Butyl Ether (ETBE)	524.2	0.5	3														
Methyl ter-Butyl Ether (MTBE)	524.2	0.5	3														
BACTERIAL INDICATOR ORGANISM																	
Total Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223																
Fecal Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223																
Total/Fecal Coliform (MTF)	9221																

C-SBAR SYSTEM 4210010_CACHUMA_1995_2009JAN09_URS

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY

ANALYTICAL REPORT

CACHUMA LAKE
MONTHLY MONITORING2005 ANNUAL SUMMARY
CACHUMA LAKE AT DRAFT GATE

				JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVE	MO. MAX
Sample Description/Location				GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3			
Elevation (Ft. M.S.L.)				696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00			
State/ USGS Sample Location				-	-	-	-	-	-	-	-	-	-	-	-			
Lab Sample ID Number				W05-0166	W05-0401	W05-541	W05-912	W05-1073	W05-1404	W05-1568	W05-2067	W05-2276	W05-2598	W05-2748	W05-3104			
Date Sample Collected				Jan-20-05	Feb-15-05	Mar-09-05	Apr-20-05	May-10-05	Jun-16-05	Jul-06-05	Aug-24-05	Sep-14-05	Oct-19-05	Nov-02-05	Dec-07-05			
Time Sample Collected				1145 Hrs	1000 Hrs	1030	1030	930	1100	1000 Hrs	0910 Hrs	945	1000	1115	945			
Draft Gate Status				OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	D.A.N.	OPEN	OPEN	OPEN			
Name of Sampler				S. SELLECK	SS/SO	SOC	DN	D.A.	SS	D.A.N.	SS	OPEN	DA N.	DA	SO			
MAJOR CATIONS, mg/L	METHODS (EPA/SM)	MDLs	DRLs															
Total Hardness as CaCO ₃	130.2			296	337	346	357	327	365	340	378	390	390	388	386	296	358	390
Calcium as Ca	215.2			73.7	82.5	86	88	64.4	89.7	80.1	85.7	83.3	86	88.1	89.7	64	83	90
Magnesium as Mg	242.1			29.0	34.4	32.3	32.6	35.4	32.2	32	37	33.9	46	43	37.2	29	35	46
Sodium as Na	273.1			12.6	30.0	26	28.5	28	25.4	30.1	33	27.2	22.4	30.3	33.5	13	27	34
Potassium as K	258.1			1.8	2.7	2.1	2.4	2.72	1.9	2.15	2.5	2.3	2.54	2.9	2.5	1.8	2.4	2.9
MAJOR ANIONS, mg/L																		
Alkalinity as CaCO ₃	310.1			154	159	139	179	184	184	159	174	188	183	185	182	139	173	188
Sulfate as SO ₄	300.0	0.5		154	223	217	231	259	232	240	252	240	265	266	258	154	236	266
Chloride as Cl	300.0			7.9	15.0	8.12	10.9	11.6	13.6	11	13.8	13	12.1	12.1	12.2	8	12	15
Nitrate as Nitrogen	300.0			0.5	0.3	0.27	0.22	0.19	0.22	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	<0.1	0.14	0.5
Nitrate as Nitrate		2.0		2.0	1.3	1.2	0.97	0.84	0.97	<0.5	<0.5	<0.5	<0.5	<0.5	<0.5	0.84	1.22	1.99
Nitrite as Nitrogen	300.0	400		<0.1	<0.5	<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
Nitrite as Nitrite				<0.5	<0.1	<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
Fluoride as F	300.0	0.1		0.36	0.25	0.19	0.3	0.34	0.36	0.34	0.29	0.34	0.29	0.3	0.34	0.19	0.31	0.36
Bromide as Br	300.0			<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
GENERAL CHEMICAL																		
pH, Units	150.1			8.10	8.12	8.25	8.15	7.9	7.88	8.36	8.09	7.66	8.11	8.19	7.94	8	8	8
Conductivity, µmhos/cm	120.1			627	741	733	784	795	786	791	846	803	848	852	842	627	787	852
Total Filterable Residue, mg/L	160.1			412	551	588	574	586	570	510	554	588	614	602	592	412	562	614
Chlorine Residual - Free, mg/L	4500-Cl D			-	-	-	-	-	-	-	-	-	-	-	-			
Chlorine Residual - Total, mg/L	4500-Cl D			-	-	-	-	-	-	-	-	-	-	-	-			
Dissolved Oxygen, mg/L	SM4500-OG			10	8.25	8.63	7.02	6.11	6.45	5.89	19.93	10.62	7.7	8.6	8.11	5.9	8.9	19.9
Total Organic Carbon- TOC, mg/L	415.1			3.32	3.49	3.31	3.5	3.81	3.63	3.5	3.46	3.15	3.41	3.48	3.46	3.2	3.5	3.8
Dissolved Organic Carbon - DOC, mg/L	415.1			-	-	-	-	-	-	-	-	-	-	-	-			
GENERAL PHYSICAL																		
Threshold Odor Number, Units	140.1			20	20	20	15	12	24	8	8	12	10	20	15	8.0	15.3	24.0
Flavor Rating Assessment (FRA)	2160 C			-	-	0	-	-	-	-	-	-	-	-	-			
Description of Odor Type	2170 B			EARTHY	MUSTY	EARTHY	EARTHY	ALGAL	ALGAL	ALGAL	ALGAL	ALGAL	EARTHY	ALGAL	EARTHY		Earthy - Algal	
Turbidity, NTU's	180.1			8.85	2.83	6.91	2.35	3.21	3.43	1.49	4.76	3.27	2.53	2.9	3.21	1.5	3.8	8.9
Color (Apparent), Units	2120 B			25	20	25	15	18	17	20	14	17	13	15	17	13	18	25
Temperature, °C	2550 B			12.1	11.8	13.8	14.7	15.2	16.3	17.2	22.7	17.3	18.6	17.9	14.6	12	16	23
Ultraviolet Absorbing Organic UV-254, nm	SM5910.B			-	-	-	-	-	-	-	-	-	-	-	-			
Specific Ultraviolet Absorbing - SUVA	Calc			-	-	-	-	-	-	-	-	-	-	-	-			
TRACE METALS, µg/L																		
Aluminum as Al	202.2	50.0		-	-	-	-	-	-	-	-	-	-	-	-			
Arsenic as As	206.2	2.0		-	-	-	-	-	-	-	-	-	-	-	-			
Chromium as Cr	218.2	50.0		-	-	-	-	-	-	-	-	-	-	-	-			
Chromium, hexavalent (Cr VI)	218.6	1.0		-	-	-	-	-	-	-	-	-	-	-	-			
Copper as Cu	220.1	50.0		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iron as Fe	236.1	100.0		210.0	100.0	130	80	90	80	40	100	120	<30	60	80	40	99	210
Manganese as Mn	242.1	20.0		<20	<20	<20	<20	<20	<20	<20	<20	80	<20	<20	<20	<20	6.7	80
Zinc as Zn	289.2	50.0		<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
VOLATILE ORGANICS, µg/L																		
t-Amyl Methyl Ether (TAME)	524.2	0.5	3	-	-	-	-	-	-	-	-	-	-	-	-			
t-Butyl Alcohol (TBA)	524.2	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-			
Diisopropyl Ether (DIPE)	524.2	0.5	-	-	-	-	-	-	-	-	-	-	-	-	-			
Ethyl-t-Butyl Ether (ETBE)	524.2	0.5	3	-	-	-	-	-	-	-	-	-	-	-	-			
Methyl ter-Butyl Ether (MTBE)	524.2	0.5	3	-	-	-	-	-	-	-	-	-	-	-	-			
BACTERIAL INDICATOR ORGANISM																		
Total Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223			-	-	-	-	-	-	-	-	-	-	-	-			
Fecal Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223			-	-	-	-	-	-	-	-	-	-	-	-			
Total/Fecal Coliform (MTF)	9221			-	-	-	-	-	-	-	-	-	-	-	-			

C-SBAR SYSTEM 4210010_CACHUMA_1995_2009JAN09_URS

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY
ANALYTICAL REPORT

CACHUMA LAKE
MONTHLY MONITORING

2006 ANNUAL SUMMARY
CACHUMA LAKE AT DRAFT GATE

			JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVE	MO. MAX	
Sample Description/Location			GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3				
Elevation (Ft. M.S.L.)			696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	698.00	696.00	696.00					
State/ USGS Sample Location																		
Lab Sample ID Number			W06-0139	W06-0397	W06-0633	W06-0855	W06-1147	W06-1455	W06-1741	W06-2156	W06-2351	W06-2586	W06-3014	W06-3266				
Date Sample Collected			Jan-30-06	Feb-15-06	Mar-15-06	Apr-17-06	May-17-06	Jun-21-06	Jul-19-06	Aug-28-06	Sep-13-06	Oct-04-06	Nov-15-06	Dec-06-06				
Time Sample Collected			1015 Hrs	0930 Hrs	1015	945	945	1110	1032	1105	1030	1015	945	1100				
Draft Gate Status			OPEN	OPEN	OPEN	OPEN	OPEN	SS	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN				
Name of Sampler			DA	FB	DA	DR	SS	0	DA	S.O.	DA	SO	F.B.	D.A.				
MAJOR CATIONS, mg/L			METHODS (EPA/SM)	MDLs	DRLs													
Total Hardness as CaCO ₃			130.2		384	380	390	354	370	380	346	392	372	379	382	346	377	392
Calcium as Ca			215.2		90.5	88.1	93.0	84.1	87.3	91.3	83.3	85.7	86.3	84.0	83.2	88.1	87	93
Magnesium as Mg			242.1		40.0	36.0	37.1	32	36.5	34.6	73.4	41.2	41.0	39.1	41.2	39.4	41	73
Sodium as Na			273.1		25.0	29.7	34.1	24.1	33.0	30.2	37.5	33.3	30.4	33.1	36.4	34.3	24	38
Potassium as K			258.1		2.2	2.2	2.6	2.3	2.6	2.1	2.5	2.6	2.5	2.3	2.5	2.3	2.1	2.6
MAJOR ANIONS, mg/L																		
Alkalinity as CaCO ₃			310.1		180	186	192	176	181	182	172	184	183	176	180	172	181	192
Sulfate as SO ₄			300.0	0.5	244	244	254	219	242	241	239	264	236	242	264	261	219	264
Chloride as Cl			300.0		9.8	11.5	12.3	10.1	10.6	11	11.2	12.6	11.1	11.2	11.9	12.4	10	13
Nitrate as Nitrogen			300.0		<0.1	<0.1	<0.1	<0.1	0.12	0.18	0.19	<0.1	0.14	<0.1	<0.1	<0.1	<0.1	0.05
Nitrate as Nitrate				2.0	<0.5	<0.5	<0.5	<0.5	0.53	0.8	0.84	<0.5	0.62	<0.5	<0.5	<0.5	0.53	0.70
Nitrite as Nitrogen			300.0	400	<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
Nitrite as Nitrite					<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
Fluoride as F			300.0	0.1	0.20	0.22	0.28	0.17	0.27	0.29	0.3	0.31	0.32	0.32	0.27	0.28	0.17	0.32
Bromide as Br			300.0		<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
GENERAL CHEMICAL																		
pH, Units			150.1		8.19	8.30	8.44	8.25	8.15	7.96	7.74	8.08	7.68	7.77	8.23	8.21	8	8
Conductivity, µmhos/cm			120.1		826	826	852	769	794	795	831	918	913	915	845	794	769	918
Total Filterable Residue, mg/L			160.1		586	588	592	544	582	592	576	616	596	622	626	606	544	626
Chlorine Residual - Free, mg/L			4500-Cl D															
Chlorine Residual - Total, mg/L			4500-Cl D															
Dissolved Oxygen, mg/L			SM4500-OG		9.7	10.9	9.98	10.1	9.17	6.8	4.36	918	1.55	1.62	6.90	8.37	1.6	918.0
Total Organic Carbon- TOC, mg/L			415.1		3.40	3.28	3.15	3.75	3.34	3.33	3.33	3.2	3.13	3.09	3.78	3.37	3.1	3.8
Dissolved Organic Carbon - DOC, mg/L			415.1		-	-	-	-	-	-	-	-	-	-	-	-		
GENERAL PHYSICAL																		
Threshold Odor Number, Units			140.1		20	20	15	15	20	20	12	20	20	40	25	25	12.0	40.0
Flavor Rating Assessment (FRA)			2160 C		-	-	-	-	-	-	-	-	-	-	-	-		
Description of Odor Type			2170 B		ALGAL	ALGAL	MUSTY	ALGAL	EARTHY	ALGAL	ALGAL	ALGAL	ALGAL	ALGAL	ALGAL		Earthy - Algal	
Turbidity, NTU's			180.1		4.16	1.56	2.06	1.69	2.68	3.34	2.47	1.90	2.90	3.10	2.99	4.08	1.6	4.2
Color (Apparent), Units			2120 B		12	12	13	17	14	13	14	12	12	12	11	8	8	17
Temperature, °C			2550 B		12.7	12.9	12.4	14.3	15.1	16.8	16.6	23.5	16.6	17.7	17.4	14.3	12	24
Ultraviolet Absorbing Organic UV-254, nm			SM5910.B		-	-	-	-	-	-	-	-	-	-	-	-		
Specific Ultraviolet Absorbing - SUVA			Calc		-	-	-	-	-	-	-	-	-	-	-	-		
TRACE METALS, µg/L																		
Aluminum as Al			202.2	50.0	-	-	-	-	-	-	-	-	-	-	-	-		
Arsenic as As			206.2	2.0	-	-	-	-	-	-	-	-	-	-	-	-		
Chromium as Cr			218.2	50.0	-	-	-	-	-	-	-	-	-	-	-	-		
Chromium, hexavalent (Cr VI)			218.6	1.0	-	-	-	-	-	-	-	-	-	-	-	-		
Copper as Cu			220.1	50.0	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Iron as Fe			236.1	100.0	110	30	69	34	50	49	47	<30	74	100	<30	103	30	110
Manganese as Mn			242.1	20.0	<20	<20	<20	<20	<20	<20	<20	<20	<20	30	<20	<20	<20	30
Zinc as Zn			289.2	50.0	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20	<20
VOLATILE ORGANICS, ug/L																		
t-Amyl Methyl Ether (TAME)			524.2	0.5	3	-	-	-	-	-	-	-	-	-	-	-		
t-Butyl Alcohol (TBA)			524.2	0.5	-	-	-	-	-	-	-	-	-	-	-	-		
Diisopropyl Ether (DIPE)			524.2	0.5	-	-	-	-	-	-	-	-	-	-	-	-		
Ethyl-t-Butyl Ether (ETBE)			524.2	0.5	3	-	-	-	-	-	-	-	-	-	-	-		
Methyl ter-Butyl Ether (MTBE)			524.2	0.5	3	-	-	-	-	-	-	-	-	-	-	-		
BACTERIAL INDICATOR ORGANISM																		
Total Coliforms P/A (+Q-tray on raw, MPN/100mL)			9223		-	-	-	-	-	-	-	-	-	-	-	-		
Fecal Coliforms P/A (+Q-tray on raw, MPN/100mL)			9223		-	-	-	-	-	-	-	-	-	-	-	-		
Total/Fecal Coliform (MTF)			9221		-	-	-	-	-	-	-	-	-	-	-	-		

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY
ANALYTICAL REPORT

2007 ANNUAL SUMMARY
CACHUMA LAKE AT DRAFT GATE

WATER RESOURCES LABORATORY - PW DEPARTMENT CA DHS ELAP CERT. NO. 1405

C-SBAR SYSTEM 4210010_CACHUMA_1995_2009JAN09_URS

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY
ANALYTICAL REPORT

CACHUMA LAKE
MONTHLY MONITORING

2008 ANNUAL SUMMARY
CACHUMA LAKE AT DRAFT GATE

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVE	MO. MAX
Sample Description/Location	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3			
Elevation (Ft. M.S.L.)	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00	696.00			
State/ USGS Sample Location	0	0	0	0	0	0	0	0	0	0	0	0			
Lab Sample ID Number	W08-0160	W08-0420	W08-0649	W08-1010	W08-1354	W08-1751	W08-1960	W08-2431	W08-2634	W08-3449	W08-3449	W08-3769			
Date Sample Collected	Jan-22-08	Feb-12-08	Mar-11-08	Apr-10-08	May-14-08	Jun-18-08	Jul-02-08	Aug-19-08	Sep-08-08	Nov-20-08	Nov-20-08	Dec-19-08			
Time Sample Collected	0930 Hrs	0945 Hrs	0900 Hrs	1030 Hrs	1000 Hrs	1030 Hrs	0852 Hrs	0945 Hrs	1025 Hrs	1000 Hrs	1000	1057			
Draft Gate Status	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	OPEN	0			
Name of Sampler	S.O.	S.O.	F.B.	D.N.	COMB	J.S	JS	D.N.	D.A.	FB	FB	JS			
MAJOR CATIONS, mg/L															
Alkalinity as CaCO ₃	0.0										0	0			0
Total Hardness as CaCO ₃	130.2										181	179			175
Calcium as Ca	215.2										87.3	245			85.7
Magnesium as Mg	242.1										33.8	41			37.4
Sodium as Na	273.1										28.7	34.4			34.6
Potassium as K	258.1										3.7	4			4.55
MAJOR ANIONS, mg/L															
Alkalinity as CaCO ₃	310.1										183	179			175
Sulfate as SO ₄	300.0	0.5									217	245			265
Chloride as Cl	300.0										12.8	15.4			16.2
Nitrate as Nitrogen	300.0										0.11	<0.1			0.1
Nitrate as Nitrate		2.0									0.89	<0.5			0.44
Nitrite as Nitrogen	300.0	400									<0.1	<0.1			<0.1
Nitrite as Nitrite											<0.5	<0.5			<0.5
Fluoride as F	300.0	0.1									0.21	0.32			0.32
Bromide as Br	300.0										<0.1	<0.1			<0.1
GENERAL CHEMICAL															
pH, Units	150.1										8.07	8.13			8.11
Conductivity, μmhos/cm	120.1										872	901			903
Total Filterable Residue, mg/L	160.1										546	578			563
Chlorine Residual - Free, mg/L	4500-Cl D														
Chlorine Residual - Total, mg/L	4500-Cl D														
Dissolved Oxygen, mg/L	SM4500-OG										2.1	6.7			7.23
Total Organic Carbon- TOC, mg/L	415.1										4.67	4.69			4.54
Dissolved Organic Carbon - DOC, mg/L	415.1														
GENERAL PHYSICAL															
Threshold Odor Number, Units	140.1										25	25			25
Flavor Rating Assessment (FRA)	2160 C														
Description of Odor Type	2170 B										ALGAL	ALGAL			EARTHY
Turbidity, NTU's	180.1										2.93	4.88			8.85
Color (Apparent), Units	2120 B										22	18			18
Temperature, °C	2550 B										18.1	16			12.9
Ultraviolet Absorbing Organic UV-254, nm	SM5910.B														
Specific Ultraviolet Absorbing - SUVA	Calc														
TRACE METALS, μg/L															
Aluminum as Al	202.2	50.0													
Arsenic as As	206.2	2.0													
Chromium as Cr	218.2	50.0													
Chromium, hexavalent (Cr VI)	218.6	1.0													
Copper as Cu	220.1	50.0									2.0	3.1			4.3
Iron as Fe	236.1	100.0									70	114			324
Manganese as Mn	242.1	20.0									82.2	21.3			30.3
Zinc as Zn	289.2	50.0									8.3	13.5			424
VOLATILE ORGANICS, ug/L															
t-Amyl Methyl Ether (TAME)	524.2	0.5	3												
t-Butyl Alcohol (TBA)	524.2	0.5	-												
Diisopropyl Ether (DIPE)	524.2	0.5	-												
Ethyl-t-Butyl Ether (ETBE)	524.2	0.5	3												
Methyl ter-Butyl Ether (MTBE)	524.2	0.5	3												
BACTERIAL INDICATOR ORGANISM															
Total Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223														
Fecal Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223														
Total/Fecal Coliform (MTF)	9221														

CITY OF SANTA BARBARA
PUBLIC WORKS DEPARTMENT
WATER RESOURCES LABORATORY
ANALYTICAL REPORT

CACHUMA LAKE
MONTHLY MONITORING

2009 ANNUAL SUMMARY
CACHUMA LAKE AT DRAFT GATE

	JAN	FEB	MAR	APR	MAY	JUN	JUL	AUG	SEP	OCT	NOV	DEC	MO. MIN	MO. AVE	MO. MAX
Sample Description/Location	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3	GATE 3			
Elevation (Ft. M.S.L.)	696.00														
State/ USGS Sample Location	0														
Lab Sample ID Number	W09-065														
Date Sample Collected	Jan-14-09														
Time Sample Collected	1015 Hrs														
Draft Gate Status	OPEN														
Name of Sampler	SO														
MAJOR CATIONS, mg/L	METHODS (EPA/ISM)	MDLs	DRLs												
Total Hardness as CaCO ₃	130.2														
Calcium as Ca	215.2														
Magnesium as Mg	242.1														
Sodium as Na	273.1														
Potassium as K	258.1														
MAJOR ANIONS, mg/L															
Alkalinity as CaCO ₃	310.1														
Sulfate as SO ₄	300.0	0.5													
Chloride as Cl	300.0														
Nitrate as Nitrogen	300.0														
Nitrate as Nitrate			2.0												
Nitrite as Nitrogen	300.0		400												
Nitrite as Nitrite															
Fluoride as F	300.0	0.1													
Bromide as Br	300.0														
GENERAL CHEMICAL															
pH, Units	150.1														
Conductivity, µmhos/cm	120.1														
Total Filterable Residue, mg/L	160.1														
Chlorine Residual - Free, mg/L	4500-Cl D														
Chlorine Residual - Total, mg/L	4500-Cl D														
Dissolved Oxygen, mg/L	SM4500-OG														
Total Organic Carbon- TOC, mg/L	415.1														
Dissolved Organic Carbon - DOC, mg/L	415.1														
GENERAL PHYSICAL															
Threshold Odor Number, Units	140.1														
Flavor Rating Assessment (FRA)	2160 C														
Description of Odor Type	2170 B														
Turbidity, NTU's	180.1														
Color (Apparent), Units	2120 B														
Temperature, °C	2550 B														
Ultraviolet Absorbing Organic UV-254, nm	SM5910.B														
Specific Ultraviolet Absorbing - SUVA	Calc														
TRACE METALS, µg/L															
Aluminum as Al	202.2	50.0													
Arsenic as As	206.2	2.0													
Chromium as Cr	218.2	50.0													
Chromium, hexavalent (Cr VI)	218.6	1.0													
Copper as Cu	220.1	50.0													
Iron as Fe	236.1	100.0													
Manganese as Mn	242.1	20.0													
Zinc as Zn	289.2	50.0													
VOLATILE ORGANICS, ug/L															
t-Amyl Methyl Ether (TAME)	524.2	0.5	3												
t-Butyl Alcohol (TBA)	524.2	0.5	-												
Diisopropyl Ether (DIPE)	524.2	0.5	-												
Ethyl-t-Butyl Ether (ETBE)	524.2	0.5	3												
Methyl ter-Butyl Ether (MTBE)	524.2	0.5	3												
BACTERIAL INDICATOR ORGANISM															
Total Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223														
Fecal Coliforms P/A (+Q-tray on raw, MPN/100mL)	9223														
Total/Fecal Coliform (MTF)	9221														

Part A-2

Cryptosporidium Data, William B. Cater Water Treatment Plant, 2007 and 2008

CITY OF SANTA BARBARA - SANTA
BARBARA WATER DISTRICT CA4210010

EPA LT2/ STAGE 2 - ESWTR 2007 - 2008
CRYPTOSPORIDIUM DATA COLLECTION

Status	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved
SYSTEM GENERATED CRYPTOSPORIDIUM CALCULATIONS												
Sample ID (optional)	2007000571	2007001999	2007003218	2007004811	2007005954	2007007597	2007010148	2007011905	2007011906	2007013752	2007016263	2007019453
PWS facility ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
PWS facility Name	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT
Sample collection point ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
Sample collection point Name	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw
Sample collection date	01/08/2007	01/22/2007	02/05/2007	02/20/2007	03/05/2007	03/19/2007	04/09/2007	04/23/2007	04/23/2007	05/07/2007	05/21/2007	06/11/2007
Sample type (Field or MS)	Field	Field	Field	Field	Field	Field	Field	Field	MS	Field	Field	Field
Sample volume analyzed (L)	10	10	10	10	10	10	10	10	10	10	10	10
Pellet volume analyzed (mL)												
Contaminant/parameter	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium
Analytical method number	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623
Analytical result - value	0	0	0	0	0	0	0	0	1.3	0	0	0
Analytical result - unit of measure	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L
Analytical accuracy (%) (MS only)									13%			
Flags												
Lab comments									SPIKE-QC			
Resample	No	No	No	No	No	No	No	No	No	No	No	No
Original sample collection date												

SOURCES: EPA CDX DATA COLLECTION

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CITY OF SANTA BARBARA - SANTA
BARBARA WATER DISTRICT CA4210010

EPA LT2/ STAGE 2 - ESWTR 2007 - 2008
CRYPTOSPORIDIUM DATA COLLECTION

Status	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved
SYSTEM GENERATED CRYPTOSPORIDIUM CALCULATIONS												
Sample ID (optional)	2007021593	2007023437	2007026413	2007029373	2007032052	2007035209	2007037633	2007039904	2007042120	2007043985	2007045858	2007046934
PWS facility ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
PWS facility Name	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT
Sample collection point ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
Sample collection point Name	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw
Sample collection date	06/25/2007	07/09/2007	07/23/2007	08/06/2007	08/20/2007	09/10/2007	09/24/2007	10/08/2007	10/22/2007	11/05/2007	11/19/2007	12/03/2007
Sample type (Field or MS)	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field
Sample volume analyzed (L)	10	10	10	10	10	10	10	10	10	10	10	10
Pellet volume analyzed (mL)												
Contaminant/parameter	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium
Analytical method number	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623
Analytical result - value	0	0	0	0	0	0	0	0	0	0.1	0	0
Analytical result - unit of measure	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L
Analytical accuracy (%) (MS only)												
Flags												
Lab comments												
Resample	No	No	No	No	No	No	No	No	No	No	No	No
Original sample collection date												

SOURCES: EPA CDX DATA COLLECTION

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CITY OF SANTA BARBARA - SANTA
BARBARA WATER DISTRICT CA4210010

EPA LT2/ STAGE 2 - ESWTR 2007 - 2008
CRYPTOSPORIDIUM DATA COLLECTION

Status	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved
SYSTEM GENERATED CRYPTOSPORIDIUM CALCULATIONS												
Sample ID (optional)	2007048443	200800609	2008002110	2008002111	2008003113	2008004470	2008006315	2008007650	2008009428	2008011561	2008013354	2008015894
PWS facility ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
PWS facility Name	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT
Sample collection point ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
Sample collection point Name	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw
Sample collection date	12/17/2007	01/07/2008	01/22/2008	01/22/2008	02/04/2008	02/19/2008	03/10/2008	03/24/2008	04/07/2008	04/21/2008	05/05/2008	05/19/2008
Sample type (Field or MS)	Field	Field	Field	MS	Field	Field	Field	Field	Field	Field	Field	Field
Sample volume analyzed (L)	10	10	10	10	10	10	10	12	10	10	10	10
Pellet volume analyzed (mL)												
Contaminant/parameter	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium
Analytical method number	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623
Analytical result - value	0	0	0	4.9	0	0	0	0	0	0	0	0
Analytical result - unit of measure	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L
Analytical accuracy (%) (MS only)				49%								
Flags				SPIKE-QC								
Lab comments												
Resample	No	No	No	No	No	No	No	No	No	No	No	No
Original sample collection date												

SOURCES: EPA CDX DATA COLLECTION

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CITY OF SANTA BARBARA - SANTA
BARBARA WATER DISTRICT CA4210010

EPA LT2/ STAGE 2 - ESWTR 2007 - 2008
CRYPTOSPORIDIUM DATA COLLECTION

Status	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved	Approved
SYSTEM GENERATED CRYPTOSPORIDIUM CALCULATIONS												
Sample ID (optional)	2008018946	2008021076	2008023335	2008026257	2008029885		2008034593	2008036641	2008038479	2008040510	2008042099	2008043733
PWS facility ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
PWS facility Name	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT
Sample collection point ID	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003	4210010-003
Sample collection point Name	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw
Sample collection date	06/09/2008	06/23/2008	07/07/2008	07/21/2008	08/11/2008	08/25/2008	09/08/2008	09/22/2008	10/06/2008	10/20/2008	11/03/2008	11/17/2008
Sample type (Field or MS)	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field	Field
Sample volume analyzed (L)	10	10	10	10	10	10	10	10	10	10	10	10
Pellet volume analyzed (mL)												
Contaminant/parameter	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium	Cryptosporidium
Analytical method number	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623	1622/1623
Analytical result - value	0	0	0	0	0	0	0	0	0	0	0	0
Analytical result - unit of measure	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L	oocysts/L
Analytical accuracy (%) (MS only)												
Flags										E		
Lab comments												
Resample	No	No	No	No	No	No	No	No	No	No	No	No
Original sample collection date												

SOURCES: EPA CDX DATA COLLECTION

Once the deadline has passed, you will not be able to approve the samples and no changes can be made to the samples or to the status. Once the deadline has passed, they are automatically sent to EPA or your State. The samples will still have the label "Not Reviewed" so that EPA/State knows that the PWS did not look at the samples. Systems with samples that are "Not Reviewed" are still in compliance (even though they are not labeled as "Approved")

CITY OF SANTA BARBARA - SANTA
BARBARA WATER DISTRICT CA4210010

EPA LT2/ STAGE 2 - ESWTR 2007 - 2008
CRYPTOSPORIDIUM DATA COLLECTION

Status	Approved	Approved	Approved
SYSTEM GENERATED CRYPTOSPORIDIUM CALCULATIONS			
Sample ID (optional)	2008043734	2008044864	2008046330
PWS facility ID	4210010-003	4210010-003	4210010-003
PWS facility Name	CATER TREATMENT	CATER TREATMENT	CATER TREATMENT
Sample collection point ID	4210010-003	4210010-003	4210010-003
Sample collection point Name	Cater WTP Influent-Raw	Cater WTP Influent-Raw	Cater WTP Influent-Raw
Sample collection date	11/17/2008	12/01/2008	12/15/2008
Sample type (Field or MS)	MS	Field	Field
Sample volume analyzed (L)	10	11	10
Pellet volume analyzed (mL)			
Contaminant/parameter	Cryptosporidium	Cryptosporidium	Cryptosporidium
Analytical method number	1622/1623	1622/1623	1622/1623
Analytical result - value	3.2	0	0
Analytical result - unit of measure	oocysts/L	oocysts/L	oocysts/L
Analytical accuracy (%) (MS only)	32%		
Flags			
Lab comments	SPIKE-QC		
Resample	No	No	No
Original sample collection date			

SOURCES: EPA CDX DATA COLLECTION

Once the deadline has passed, you will not be able to approve the samples and no changes can be made to the samples or to the status. Once the deadline has passed, they are automatically sent to EPA or your State. The samples will still have the label "Not Reviewed" so that EPA/State knows that the PWS did not look at the samples. Systems with samples that are "Not Reviewed" are still in compliance (even though they are not labeled as "Approved")

Part A-3

BTEX Compounds, William B. Cater Water Treatment Plant, 2004-2009

2004

ORGANIC CHEMICAL ANALYSIS (9/99)
 Date of Report: 11/02/04
 Laboratory Name: MWH Laboratories
 Name of Sampler: _____
 Date/Time Sample Collected: 10/05/04 0900
 Sample ID No. 2410060002-135900 EDT
 Signature Lab
 Director: JCH
 Employed By: _____
 Date/Time Sample Received @ Lab: 10/06/04
 Date Analyses Completed: 10/18/04

=====
 System Name: SANTA BARBARA WATER DISTRICT
 System Number: 4210010
 Name or Number of Sample Source: CATER TREATMENT PLANT RAW

 * User ID: tap Station Number: 4210010-003 *
 * Date/Time of Sample: |04|10|05|0900| Laboratory Code: 9590 *
 * YY MM DD TTTT YY MM DD *
 * Date Analysis completed: |04|10|18| *
 * Submitted by: Louis Chiourn Phone #: (805) 568-1104 *

Page 1

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Total Trihalomethane (THM's/TTHM)	82080	<0.5	100	0.5
524.2	Bromodichloromethane	32101	<0.5		0.5
524.2	Bromoform	32104	<0.5		0.5
524.2	Chloroform (Trichloromethane)	32106	<0.5		0.5
524.2	Dibromochloromethane	32105	<0.5		0.500
524.2	Benzene	34030	<0.5	1	0.5
524.2	Carbon Tetrachloride	32102	<0.5	.5	0.5
524.2	1,2-Dichlorobenzene (o-DCB)	34536	<0.5	600	0.5
524.2	1,4-Dichlorobenzene (p-DCB)	34571	<0.5	5	0.5
524.2	1,1-Dichloroethane (1,1-DCA)	34496	<0.5	5	0.5
524.2	1,2-Dichloroethane (1,2-DCA)	34531	<0.5	.5	0.5
524.2	1,1-Dichloroethylene (1,1-DCE)	34501	<0.5	6	0.5
524.2	cis-1,2-Dichloroethylene	77093	<0.5	6	0.5
524.2	trans-1,2-Dichloroethylene	34546	<0.5	10	0.5
524.2	Dichloromethane (Meth Chlor)	34423	<0.5	5	0.5
524.2	1,2-Dichloropropane	34541	<0.5	5	0.5
524.2	Total 1,3-Dichloropropene	34561	<0.5	.5	0.5
524.2	Ethyl benzene	34371	<0.5	300	0.5
524.2	Methyl Tert-butyl ether (MTBE)	46491	<3.0	5.0	3.0
524.2	Monochlorobenzene (Chlorobenzene)	34301	<0.5	70	0.5
524.2	Styrene	77128	<0.5	100	0.5
524.2	1,1,2,2-Tetrachloroethane	34516	<0.5	1	0.5
524.2	Tetrachloroethylene (PCE)	34475	<0.5	5	0.5
524.2	Toluene	34010	<0.5	150	0.5
524.2	1,2,4-Trichlorobenzene	34551	<0.5	5	0.5
524.2	1,1,1-Trichloroethane (1,1,1-TCA)	34506	<0.5	200	0.5
524.2	1,1,2-Trichloroethane (1,1,2-TCA)	34511	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	39180	<0.5	5	0.5
524.2	Trichlorofluoromethane (Freon 11)	34488	<5.0	150	5.0
524.2	Trichlorotrifluoroethane (Freon 113)	81611	<10.0	1200	10.0

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Vinyl Chloride (VC)	39175	<0.5	0.5	0.5
524.2	m,p-Xylene	A-014	<0.5		0.5
524.2	o-Xylene	77135	<0.5		0.5
524.2	Total Xylenes (m,p & o)	81551	<.50	1750	0.5
504	Dibromochloropropane (DBCP)	38761	<0.01	.2	0.01
504	Ethylene Dibromide (EDB)	77651	<0.02	0.05	0.02
505	Endrin	39390	<.1	2	.1
505	Lindane (gamma-BHC)	39340	<0.2	0.2	0.2
505	Methoxychlor	39480	<10.0	30	10.0
505	Toxaphene	39400	<1.0	3	1.0
505	Chlordane	39350	<.1	.1	.1
525.2	Diethylhexylphthalate (DEHP)	39100	<3.0	4	3.0
505	Heptachlor	39410	<0.01	.01	0.01
505	Heptachlor epoxide	39420	<0.01	.01	0.01
525.2	Atrazine	39033	<0.5	1	0.5
525.2	Molinate (Ordram)	82199	<2.0	20	2.0
525.2	Simazine (Princep)	39055	<1.0	4	1.0
525.2	Thiobencarb (Bolero)	A-001	<1.0	70	1.0
505	Alachlor (Alanex)	77825	<1.0	2	1.0
515.4	Bentazon (Basagran)	38710	<2.0	18	2.0
525.2	Benzo(a)pyrene	34247	<.1	0.2	.1
515.4	2,4-D	39730	<10.0	70	10.0
515.4	2,4,5-TP (Silvex)	39045	<1.0	50	1.0
531.1	Carbofuran (Furadan)	81405	<5.0	18	5.0
515.4	Dalapon (Dowpon)	38432	<10.0	200	10.0
515.4	Dinoseb (DNBP)	81287	<2.0	7	2.0
549	Diquat	78885	<4.	20	4.
525.2	Di(2-ethylhexyl)adipate	A-026	<5.0	400	5.0
548	Endothall	38926	<45.0	100	45.0
547	Glyphosate	79743	<25.0	700	25.0
525.2	Hexachlorobenzene	39700	<0.5	1	0.5
525.2	Hexachlorocyclopentadiene	34386	<1.0	50	1.0
531.1	Oxamyl (Vydate)	38865	<20.0	50	20.0
515.4	Pentachlorophenol (PCP)	39032	<0.2	1	0.2
515.4	Pichloram (Tordon)	39720	<1.0	500	1.0
505	Polychlorinated Biphenyls (Tot PCB's)	39516	<0.5	0.5	0.5
524.2	tert-Amyl-Methyl Ether (TAME)	A-034	<3.0		3.0
524.2	Bromobenzene	81555	<0.5		0.5
524.2	Bromochloromethane	A-012	<0.5		0.5
524.2	Bromomethane (Methyl Bromide)	34413	<0.5		0.5
524.2	n-Butylbenzene	A-010	<0.5		0.5
524.2	sec-Butylbenzene	77350	<0.5		0.5
524.2	tert-Butylbenzene	77353	<0.5		0.5
524.2	Chloroethane	34311	<0.5		0.5
524.2	Chloromethane (Methyl Chloride)	34418	<0.5		0.5
524.2	2-Chlorotoluene	A-008	<0.5		0.5

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	4-Chlorotoluene	A-009	<0.5		0.5
524.2	Dibromomethane	77596	<0.5		0.5
524.2	1,3-Dichlorobenzene (m-DCB)	34566	<0.5		0.5
524.2	Dichlorodifluoromethane (Freon 12)	34668	<0.5		0.5
524.2	1,3-Dichloropropane	77173	<0.5		0.5
524.2	2,2-Dichloropropane	77170	<0.5		0.5
524.2	1,1-Dichloropropene	77168	<0.5		0.5
524.2	Diisopropyl Ether (DIPE)	A-036	<3.0		3.0
524.2	Ethyl-tert-Butyl-Ether (ETBE)	A-033	<3.0		3.0
524.2	Hexachlorobutadiene	34391	<0.5		0.5
524.2	Isopropylbenzene (Cumene)	77223	<0.5		0.5
524.2	p-Isopropyltoluene	A-011	<0.5		0.5
524.2	Naphthalene	34696	<0.5		0.5
524.2	n-Propylbenzene	77224	<0.5		0.5
524.2	1,1,1,2-Tetrachloroethane	77562	<0.5		0.5
524.2	1,2,3-Trichlorobenzene	77613	<0.5		0.5
524.2	1,2,4-Trimethylbenzene	77222	<0.5		0.5
524.2	1,3,5-Trimethylbenzene	77226	<0.5		0.5
524.2	Methyl ethyl ketone (Butanone)	81595	<5.0		5.0
524.2	Methyl isobutyl ketone (MIBK)	81596	<5.0		5.0
531.1	Aldicarb (Temik)	39053	<3.0		3.0
531.1	Aldicarb sulfone	A-020	<4.		4.
531.1	Aldicarb sulfoxide	A-019	<3.0		3.0
505	Aldrin	39330	<.075		.075
525.2	Bromacil (Hyvar)	82198	<10.0		10.0
525.2	Butachlor	77860	<.38		.38
531.1	Carbaryl (Sevin)	77700	<5.0		5.0
525.2	Diazinon	39570	<0.25		0.25
515.4	Dicamba (Banvel)	82052	<1.50		1.50
505	Dieldrin	39380	<0.02		0.02
525.2	Dimethoate (Cygon)	38458	<10.0		10.0
532	Diuron	39650	<1.0		1.0
531.1	3-Hydroxycarbofuran	A-021	<3.0		3.0
531.1	Methomyl	39051	<2.0		2.0
525.2	Metolachlor	39356	<0.050		
525.2	Metribuzin	81408	<0.050		
525.2	Prometryn (Caparol)	39057	<2.0		2.0
525.2	Propachlor	38533	<0.5		0.5
505	PCB 1016 Aroclor	34671	<0.5	0.5	0.5
505	PCB 1221 Aroclor	39488	<0.5		0.5
505	PCB 1232 Aroclor	39492	<0.5		0.5
505	PCB 1242 Aroclor	39496	<0.5		0.5
505	PCB 1248 Aroclor	39500	<0.5		0.5
505	PCB 1254 Aroclor	39504	<0.5		0.5
505	PCB 1260 Aroclor	39508	<0.5		0.5

2005

ORGANIC CHEMICAL ANALYSIS (9/99)

Date of Report: 05/25/05

Laboratory

Name: MWH Laboratories

Name of Sampler:

Date/Time Sample

Collected: 05/10/05 1200

Sample ID No. 2505110035-147982 EDT

Signature Lab

Director: JCH

Employed By:

Date/Time Sample

Date Analyses

Received @ Lab: 05/11/05

Completed: 05/17/05

System Name: SANTA BARBARA WATER DISTRICT

System Number: 4210010

COC ID: W05-1060 CATER RAW INFLUENT

Name or Number of Sample Source: CATER TREATMENT PLANT RAW

* User ID: tap

Station Number: 4210010-003

* Date/Time of Sample: |05|05|10|1200|

Laboratory Code: 9590

* YY MM DD TTTT

YY MM DD

* Submitted by: Louis Chiourn

Date Analysis completed: |05|05|17|

Phone #: (805) 568-1004

Page 1

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Total Trihalomethane (THM's/TTHM)	82080	<0.500	80	
524.2	Bromodichloromethane	32101	<0.5		0.5
524.2	Bromoform	32104	<0.5		0.5
524.2	Chloroform (Trichloromethane)	32106	<0.5		0.5
524.2	Dibromochloromethane	32105	<0.5		0.500
524.2	Benzene	34030	<0.5	1	0.5
524.2	Carbon Tetrachloride	32102	<0.5	.5	0.5
524.2	1,2-Dichlorobenzene (o-DCB)	34536	<0.5	600	0.5
524.2	1,4-Dichlorobenzene (p-DCB)	34571	<0.5	5	0.5
524.2	1,1-Dichloroethane (1,1-DCA)	34496	<0.5	5	0.5
524.2	1,2-Dichloroethane (1,2-DCA)	34531	<0.5	.5	0.5
524.2	1,1-Dichloroethylene (1,1-DCE)	34501	<0.5	6	0.5
524.2	cis-1,2-Dichloroethylene	77093	<0.5	6	0.5
524.2	trans-1,2-Dichloroethylene	34546	<0.5	10	0.5
524.2	Dichloromethane (Meth Chlor)	34423	<0.5	5	0.5
524.2	1,2-Dichloropropane	34541	<0.5	5	0.5
524.2	Total 1,3-Dichloropropene	34561	<0.5	.5	0.5
524.2	Ethyl benzene	34371	<0.5	300	0.5
524.2	Methyl Tert-butyl ether (MTBE)	46491	<3.0	5.0	3.0
524.2	Monochlorobenzene (Chlorobenzene)	34301	<0.5	70	0.5
524.2	Styrene	77128	<0.5	100	0.5
524.2	1,1,2,2-Tetrachloroethane	34516	<0.5	1	0.5
524.2	Tetrachloroethylene (PCE)	34475	<0.5	5	0.5
524.2	Toluene	34010	<0.5	150	0.5
524.2	1,2,4-Trichlorobenzene	34551	<0.5	5	0.5
524.2	1,1,1-Trichloroethane (1,1,1-TCA)	34506	<0.5	200	0.5
524.2	1,1,2-Trichloroethane (1,1,2-TCA)	34511	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	39180	<0.5	5	0.5
524.2	Trichlorofluoromethane (Freon 11)	34488	<5.0	150	5.0
524.2	Trichlorotrifluoroethane (Freon 113)	81611	<10.0	1200	10.0

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Vinyl Chloride (VC)	39175	<0.5	0.5	0.5
524.2	m,p-Xylene	A-014	<0.5		0.5
524.2	o-Xylene	77135	<0.5		0.5
524.2	Total Xylenes (m,p & o)	81551	<0.500	1750	
524.2	tert-Amyl-Methyl Ether (TAME)	A-034	<3.0		3.0
524.2	Bromobenzene	81555	<0.5		0.5
524.2	Bromochloromethane	A-012	<0.5		0.5
524.2	Bromomethane (Methyl Bromide)	34413	<0.5		0.5
524.2	Tert Butyl Alcohol (TBA)	77035	<2.0		2.0
524.2	n-Butylbenzene	A-010	<0.5		0.5
524.2	sec-Butylbenzene	77350	<0.5		0.5
524.2	tert-Butylbenzene	77353	<0.5		0.5
524.2	Chloroethane	34311	<0.5		0.5
524.2	Chloromethane (Methyl Chloride)	34418	<0.5		0.5
524.2	2-Chlorotoluene	A-008	<0.5		0.5
524.2	4-Chlorotoluene	A-009	<0.5		0.5
524.2	Dibromomethane	77596	<0.5		0.5
524.2	1,3-Dichlorobenzene (m-DCB)	34566	<0.5		0.5
524.2	Dichlorodifluoromethane (Freon 12)	34668	<0.5		0.5
524.2	1,3-Dichloropropane	77173	<0.5		0.5
524.2	2,2-Dichloropropane	77170	<0.5		0.5
524.2	1,1-Dichloropropene	77168	<0.5		0.5
524.2	Diisopropyl Ether (DIPE)	A-036	<3.0		3.0
524.2	Ethyl-tert-Butyl-Ether (ETBE)	A-033	<3.0		3.0
524.2	Hexachlorobutadiene	34391	<0.5		0.5
524.2	Isopropylbenzene (Cumene)	77223	<0.5		0.5
524.2	p-Isopropyltoluene	A-011	<0.500		
524.2	Naphthalene	34696	<0.5		0.5
524.2	n-Propylbenzene	77224	<0.5		0.5
524.2	1,1,1,2-Tetrachloroethane	77562	<0.5		0.5
524.2	1,2,3-Trichlorobenzene	77613	<0.5		0.5
524.2	1,2,3-Trichloropropane	77443	<0.005		0.005
524.2	1,2,4-Trimethylbenzene	77222	<0.5		0.5
524.2	1,3,5-Trimethylbenzene	77226	<0.5		0.5
524.2	Methyl ethyl ketone (Butanone)	81595	<5.0		5.0
524.2	Methyl isobutyl ketone (MIBK)	81596	<5.0		5.0

2006

ORGANIC CHEMICAL ANALYSIS (9/99)

Date of Report: 08/04/06

Laboratory

Name: MWH Laboratories

Name of Sampler:

Date/Time Sample

Collected: 07/13/06 1000

Sample ID No. 2607140608-179003

Signature Lab

Director:

Employed By:

Date/Time Sample

Date Analyses

Received @ Lab: 07/14/06 Completed: 07/20/06

System Name: SANTA BARBARA WATER DISTRICT

System Number: 4210010

COC ID: W06-1665 CATER INF 4210010-003

Name or Number of Sample Source: CATER TREATMENT PLANT RAW

* User ID: tap

Station Number: 4210010-003

* Date/Time of Sample: |06|07|13|1000|

Laboratory Code: 9590

* YY MM DD TTTT

YY MM DD

* Submitted by: Louis Chiourn

Date Analysis completed: |06|07|20|

Phone #: (805) 568-1004

Page 1

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Total Trihalomethane (THM's/TTHM)	82080	<0.500	80	
524.2	Bromodichloromethane	32101	<0.5		0.5
524.2	Bromoform	32104	<0.5		0.5
524.2	Chloroform (Trichloromethane)	32106	<0.5		0.5
524.2	Dibromochloromethane	32105	<0.5		0.500
524.2	Benzene	34030	<0.5	1	0.5
524.2	Carbon Tetrachloride	32102	<0.5	.5	0.5
524.2	1,2-Dichlorobenzene (o-DCB)	34536	<0.5	600	0.5
524.2	1,4-Dichlorobenzene (p-DCB)	34571	<0.5	5	0.5
524.2	1,1-Dichloroethane (1,1-DCA)	34496	<0.5	5	0.5
524.2	1,2-Dichloroethane (1,2-DCA)	34531	<0.5	.5	0.5
524.2	1,1-Dichloroethylene (1,1-DCE)	34501	<0.5	6	0.5
524.2	cis-1,2-Dichloroethylene	77093	<0.5	6	0.5
524.2	trans-1,2-Dichloroethylene	34546	<0.5	10	0.5
524.2	Dichloromethane (Meth Chlor)	34423	<0.5	5	0.5
524.2	1,2-Dichloropropane	34541	<0.5	5	0.5
524.2	Total 1,3-Dichloropropene	34561	<0.5	.5	0.5
524.2	Ethyl benzene	34371	<0.5	300	0.5
524.2	Methyl Tert-butyl ether (MTBE)	46491	<3.0	5.0	3.0
524.2	Monochlorobenzene (Chlorobenzene)	34301	<0.5	70	0.5
524.2	Styrene	77128	<0.5	100	0.5
524.2	1,1,2,2-Tetrachloroethane	34516	<0.5	1	0.5
524.2	Tetrachloroethylene (PCE)	34475	<0.5	5	0.5
524.2	Toluene	34010	<0.5	150	0.5
524.2	1,2,4-Trichlorobenzene	34551	<0.5	5	0.5
524.2	1,1,1-Trichloroethane (1,1,1-TCA)	34506	<0.5	200	0.5
524.2	1,1,2-Trichloroethane (1,1,2-TCA)	34511	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	39180	<0.5	5	0.5
524.2	Trichlorofluoromethane (Freon 11)	34488	<5.0	150	5.0
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TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Vinyl Chloride (VC)	39175	<0.5	0.5	0.5
524.2	m,p-Xylene	A-014	<0.5		0.5
524.2	o-Xylene	77135	<0.5		0.5
524.2	Total Xylenes (m,p & o)	81551	<0.500	1750	
524.2	tert-Amyl-Methyl Ether (TAME)	A-034	<3.0		3.0
524.2	Bromobenzene	81555	<0.5		0.5
524.2	Bromochloromethane	A-012	<0.5		0.5
524.2	Bromomethane (Methyl Bromide)	34413	<0.5		0.5
524.2	Tert Butyl Alcohol (TBA)	77035	<2.0		2.0
524.2	n-Butylbenzene	A-010	<0.5		0.5
524.2	sec-Butylbenzene	77350	<0.5		0.5
524.2	tert-Butylbenzene	77353	<0.5		0.5
524.2	Chloroethane	34311	<0.5		0.5
524.2	Chloromethane (Methyl Chloride)	34418	<0.5		0.5
524.2	2-Chlorotoluene	A-008	<0.5		0.5
524.2	4-Chlorotoluene	A-009	<0.5		0.5
524.2	Dibromomethane	77596	<0.5		0.5
524.2	1,3-Dichlorobenzene (m-DCB)	34566	<0.5		0.5
524.2	Dichlorodifluoromethane (Freon 12)	34668	<0.5		0.5
524.2	1,3-Dichloropropane	77173	<0.5		0.5
524.2	2,2-Dichloropropane	77170	<0.5		0.5
524.2	1,1-Dichloropropene	77168	<0.5		0.5
524.2	Diisopropyl Ether (DIPE)	A-036	<3.0		3.0
524.2	Ethyl-tert-Butyl-Ether (ETBE)	A-033	<3.0		3.0
524.2	Hexachlorobutadiene	34391	<0.5		0.5
524.2	Isopropylbenzene (Cumene)	77223	<0.5		0.5
524.2	p-Isopropyltoluene	A-011	<0.500		
524.2	Naphthalene	34696	<0.5		0.5
524.2	n-Propylbenzene	77224	<0.5		0.5
524.2	1,1,1,2-Tetrachloroethane	77562	<0.5		0.5
524.2	1,2,3-Trichlorobenzene	77613	<0.5		0.5
524.2	1,2,3-Trichloropropane	77443	<0.005		0.005
524.2	1,2,4-Trimethylbenzene	77222	<0.5		0.5
524.2	1,3,5-Trimethylbenzene	77226	<0.5		0.5
524.2	Methyl ethyl ketone (Butanone)	81595	<5.0		5.0
524.2	Methyl isobutyl ketone (MIBK)	81596	<5.0		5.0

07

ORGANIC CHEMICAL ANALYSIS (9/99)

Date of Report: 06/01/07

Laboratory

Name: MWH Laboratories

Name of Sampler:

Date/Time Sample

Collected: 05/08/07 1215

Sample ID No. 2705090711-203996

Signature Lab

Director:

Employed By:

Date/Time Sample

Received @ Lab: 05/09/07

Date Analyses

Completed: 05/16/07

System Name: SANTA BARBARA WATER DISTRICT

System Number: 4210010

COC ID: W07-1046 CATER INF 4210010-003

Name or Number of Sample Source: CATER TREATMENT PLANT RAW

* User ID: tap

Station Number: 4210010-003

* Date/Time of Sample: |07|05|08|1215|

Laboratory Code: 9590

* YY MM DD TTTT

YY MM DD

*

Date Analysis completed: |07|05|16|

* Submitted by: Louis Chiourn

Phone #: (805) 568-1004

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TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Total Trihalomethane (THM's/TTHM)	82080	<0.500	80	
524.2	Bromodichloromethane	32101	<1.0		1.0
524.2	Bromoform	32104	<1.0		1.0
524.2	Chloroform (Trichloromethane)	32106	<1.0		1.0
524.2	Dibromochloromethane	32105	<1.0		1.0
524.2	Benzene	34030	<0.5	1	0.5
524.2	Carbon Tetrachloride	32102	<0.5	.5	0.5
524.2	1,2-Dichlorobenzene (o-DCB)	34536	<0.5	600	0.5
524.2	1,4-Dichlorobenzene (p-DCB)	34571	<0.5	5	0.5
524.2	1,1-Dichloroethane (1,1-DCA)	34496	<0.5	5	0.5
524.2	1,2-Dichloroethane (1,2-DCA)	34531	<0.5	.5	0.5
524.2	1,1-Dichloroethylene (1,1-DCE)	34501	<0.5	6	0.5
524.2	cis-1,2-Dichloroethylene	77093	<0.5	6	0.5
524.2	trans-1,2-Dichloroethylene	34546	<0.5	10	0.5
524.2	Dichloromethane (Meth Chlor)	34423	<0.5	5	0.5
524.2	1,2-Dichloropropane	34541	<0.5	5	0.5
524.2	Total 1,3-Dichloropropene	34561	<0.5	.5	0.5
524.2	Ethyl benzene	34371	<0.5	300	0.5
524.2	Methyl Tert-butyl ether (MTBE)	46491	<3.0	5.0	3.0
524.2	Monochlorobenzene (Chlorobenzene)	34301	<0.5	70	0.5
524.2	Styrene	77128	<0.5	100	0.5
524.2	1,1,2,2-Tetrachloroethane	34516	<0.5	1	0.5
524.2	Tetrachloroethylene (PCE)	34475	<0.5	5	0.5
524.2	Toluene	34010	<0.5	150	0.5
524.2	1,2,4-Trichlorobenzene	34551	<0.5	5	0.5
524.2	1,1,1-Trichloroethane (1,1,1-TCA)	34506	<0.5	200	0.5
524.2	1,1,2-Trichloroethane (1,1,2-TCA)	34511	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	39180	<0.5	5	0.5
524.2	Trichlorofluoromethane (Freon 11)	34488	<5.0	150	5.0
524.2	Trichlorotrifluoroethane (Freon113)	81611	<10.0	1200	10.0

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Vinyl Chloride (VC)	39175	<0.5	0.5	0.5
524.2	m,p-Xylene	A-014	<0.5		0.5
524.2	o-Xylene	77135	<0.5		0.5
524.2	Total Xylenes (m,p & o)	81551	<1.500	1750	
524.2	tert-Amyl-Methyl Ether (TAME)	A-034	<3.0		3.0
524.2	Bromobenzene	81555	<0.5		0.5
524.2	Bromochloromethane	A-012	<0.5		0.5
524.2	Bromomethane (Methyl Bromide)	34413	<0.5		0.5
524.2	Tert Butyl Alcohol (TBA)	77035	<2.0		2.0
524.2	n-Butylbenzene	A-010	<0.5		0.5
524.2	sec-Butylbenzene	77350	<0.5		0.5
524.2	tert-Butylbenzene	77353	<0.5		0.5
524.2	Chloroethane	34311	<0.5		0.5
524.2	Chloromethane (Methyl Chloride)	34418	<0.5		0.5
524.2	2-Chlorotoluene	A-008	<0.5		0.5
524.2	4-Chlorotoluene	A-009	<0.5		0.5
524.2	Dibromomethane	77596	<0.5		0.5
524.2	1,3-Dichlorobenzene (m-DCB)	34566	<0.5		0.5
524.2	Dichlorodifluoromethane (Freon 12)	34668	<0.5		0.5
524.2	1,3-Dichloropropane	77173	<0.5		0.5
524.2	2,2-Dichloropropane	77170	<0.5		0.5
524.2	1,1-Dichloropropene	77168	<0.5		0.5
524.2	Diisopropyl Ether (DIPE)	A-036	<3.0		3.0
524.2	Ethyl-tert-Butyl-Ether (ETBE)	A-033	<3.0		3.0
524.2	Hexachlorobutadiene	34391	<0.5		0.5
524.2	Isopropylbenzene (Cumene)	77223	<0.5		0.5
524.2	p-Isopropyltoluene	A-011	<0.500		
524.2	Naphthalene	34696	<0.5		0.5
524.2	n-Propylbenzene	77224	<0.5		0.5
524.2	1,1,1,2-Tetrachloroethane	77562	<0.5		0.5
524.2	1,2,3-Trichlorobenzene	77613	<0.5		0.5
524.2	1,2,3-Trichloropropane	77443	<0.005		0.005
524.2	1,2,4-Trimethylbenzene	77222	<0.5		0.5
524.2	1,3,5-Trimethylbenzene	77226	<0.5		0.5
524.2	Methyl ethyl ketone (Butanone)	81595	<5.0		5.0
524.2	Methyl isobutyl ketone (MIBK)	81596	<5.0		5.0

08

ORGANIC CHEMICAL ANALYSIS (9/99)

Date of Report: 08/05/08

Laboratory

Name: MWH Laboratories

Name of Sampler:

Date/Time Sample

Collected: 07/10/08 1130

Sample ID No. 2807120061-247314

Signature Lab

Director: JZH

Employed By:

Date/Time Sample

Received @ Lab: 07/12/08

Date Analyses

Completed: 07/16/08

System Name: SANTA BARBARA WATER DISTRICT

System Number: 4210010

COC ID: W08-2036 CATER TP TREATED

Name or Number of Sample Source: CATER TREATMENT PLANT TREATED

* User ID: tap

* Date/Time of Sample: |08|07|10|1130|

* YY MM DD TTTT

Station Number: 4210010-004

Laboratory Code: 9590

YY MM DD

* Submitted by: Louis Chiourn

Date Analysis completed: |08|07|16|

Phone #: (805) 568-1004

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TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Total Trihalomethane (THM's/TTHM)	82080	39	80	
524.2	Bromodichloromethane	32101	5.4		1.0
524.2	Bromoform	32104	<1.0		1.0
524.2	Chloroform (Trichloromethane)	32106	33		1.0
524.2	Dibromochloromethane	32105	<1.0		1.0
524.2	Benzene	34030	<0.5	1	0.5
524.2	Carbon Tetrachloride	32102	<0.5	.5	0.5
524.2	1,2-Dichlorobenzene (o-DCB)	34536	<0.5	600	0.5
524.2	1,4-Dichlorobenzene (p-DCB)	34571	<0.5	5	0.5
524.2	1,1-Dichloroethane (1,1-DCA)	34496	<0.5	5	0.5
524.2	1,2-Dichloroethane (1,2-DCA)	34531	<0.5	.5	0.5
524.2	1,1-Dichloroethylene (1,1-DCE)	34501	<0.5	6	0.5
524.2	cis-1,2-Dichloroethylene	77093	<0.5	6	0.5
524.2	trans-1,2-Dichloroethylene	34546	<0.5	10	0.5
524.2	Dichloromethane (Meth Chlor)	34423	<0.5	5	0.5
524.2	1,2-Dichloropropane	34541	<0.5	5	0.5
524.2	Total 1,3-Dichloropropene	34561	<0.5	.5	0.5
524.2	Ethyl benzene	34371	<0.5	300	0.5
524.2	Methyl Tert-butyl ether (MTBE)	46491	<3.0	5.0	3.0
524.2	Monochlorobenzene (Chlorobenzene)	34301	<0.5	70	0.5
524.2	Styrene	77128	<0.5	100	0.5
524.2	1,1,2,2-Tetrachloroethane	34516	<0.5	1	0.5
524.2	Tetrachloroethylene (PCE)	34475	<0.5	5	0.5
524.2	Toluene	34010	<0.5	150	0.5
524.2	1,2,4-Trichlorobenzene	34551	<0.5	5	0.5
524.2	1,1,1-Trichloroethane (1,1,1-TCA)	34506	<0.5	200	0.5
524.2	1,1,2-Trichloroethane (1,1,2-TCA)	34511	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	39180	<0.5	5	0.5
524.2	Trichlorofluoromethane (Freon 11)	34488	<5.0	150	5.0
524.2	Trichlorotrifluoroethane (Freon 113)	81611	<10.0	1200	10.0

TEST METHOD	CHEMICAL ALL CHEMICALS REPORTED ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Vinyl Chloride (VC)	39175	<0.5	0.5	0.5
524.2	m,p-Xylene	A-014	<0.5		0.5
524.2	o-Xylene	77135	<0.5		0.5
524.2	Total Xylenes (m,p & o)	81551	<1.000	1750	
524.2	tert-Amyl-Methyl Ether (TAME)	A-034	<3.0		3.0
524.2	Bromobenzene	81555	<0.5		0.5
524.2	Bromochloromethane	A-012	<0.5		0.5
524.2	Bromomethane (Methyl Bromide)	34413	<0.5		0.5
524.2	Tert Butyl Alcohol (TBA)	77035	<2.0		2.0
524.2	n-Butylbenzene	A-010	<0.5		0.5
524.2	sec-Butylbenzene	77350	<0.5		0.5
524.2	tert-Butylbenzene	77353	<0.5		0.5
524.2	Chloroethane	34311	<0.5		0.5
524.2	Chloromethane (Methyl Chloride)	34418	<0.5		0.5
524.2	2-Chlorotoluene	A-008	<0.5		0.5
524.2	4-Chlorotoluene	A-009	<0.5		0.5
524.2	Dibromomethane	77596	<0.5		0.5
524.2	1,3-Dichlorobenzene (m-DCB)	34566	<0.5		0.5
524.2	Dichlorodifluoromethane (Freon 12)	34668	<0.5		0.5
524.2	1,3-Dichloropropane	77173	<0.5		0.5
524.2	2,2-Dichloropropane	77170	<0.5		0.5
524.2	1,1-Dichloropropene	77168	<0.5		0.5
524.2	Diisopropyl Ether (DIPE)	A-036	<3.0		3.0
524.2	Ethyl-tert-Butyl-Ether (ETBE)	A-033	<3.0		3.0
524.2	Hexachlorobutadiene	34391	<0.5		0.5
524.2	Isopropylbenzene (Cumene)	77223	<0.5		0.5
524.2	p-Isopropyltoluene	A-011	<0.500		
524.2	Naphthalene	34696	<0.5		0.5
524.2	n-Propylbenzene	77224	<0.5		0.5
524.2	1,1,1,2-Tetrachloroethane	77562	<0.5		0.5
524.2	1,2,3-Trichlorobenzene	77613	<0.5		0.5
524.2	1,2,3-Trichloropropane	77443	<0.005		0.005
524.2	1,2,4-Trimethylbenzene	77222	<0.5		0.5
524.2	1,3,5-Trimethylbenzene	77226	<0.5		0.5
524.2	Methyl ethyl ketone (Butanone)	81595	<5.0		5.0
524.2	Methyl isobutyl ketone (MIBK)	81596	<5.0		5.0

ORGANIC CHEMICAL ANALYSIS (11/07)

2009

Date of Report: 10/8/2009

Sample ID No.: 200909180430 - 314908

Laboratory
Name: MWH Laboratories

Signature Lab
Director: _____

Name of Sampler: _____

Employed by: _____

Date/Time Sample
Collected: 9/17/2009 1339

Date/Time
Received @Lab: 09/18/2009

Date Analyses
Completed: 10/1/2009

System Name: SANTA BARBARA WATER DISTRICT

System Number: 4210010

Variable ID: W09-2792

COC ID: CATER RAW

Name or Number of Sample Source: CATER TREATMENT PLANT RAW

User ID: tap

Station number: 4210010-003

Date/Time of Sample: 09 09 17 1339
YY MM DD TTTT

Laboratory Code: 9/5/9/0

Date Analyses completed: 09 10 01
YY MM DD

Submitted by: Keith Kapuy

Phone# 805-568-1008

TEST
METHOD

CHEMICAL
ALL CHEMICALS EXCEPT 2,3,7,8 TCDD (DIOXIN)
reported uG/L

ENTRY
#

ANALYSES
RESULTS

MCL
ug/L

DLR
ug/L

REGULATED ORGANIC CHEMICALS

524.2	Total Trihalomethane(TTHMs)	ug/L	82080	<0.5	80	
524.2	Bromodichloromethane	ug/L	32101	<1.0		1.0
524.2	Bromoform	ug/L	32104	<1.0		1.0
524.2	Chloroform(Trichloromethane)	ug/L	32106	<1.0		1.0
524.2	Dibromochloromethane	ug/L	32105	<1.0		1.0
524.2	Benzene	ug/L	34030	<0.5	1	0.5
524.2	Carbon Tetrachloride	ug/L	32102	<0.5	0.5	0.5
524.2	1,2-Dichlorobenzene (o-DCB)	ug/L	34536	<0.5	600	0.5
524.2	1,4-Dichlorobenzene (p-DCB)	ug/L	34571	<0.5	5	0.5
524.2	1,1-Dichloroethane (1,1-DCA)	ug/L	34496	<0.5	5	0.5
524.2	1,2-Dichloroethane (1,2-DCA)	ug/L	34531	<0.5	0.5	0.5
524.2	1,1-Dichloroethylene (1,1-DCE)	ug/L	34501	<0.5	6	0.5
524.2	cis-1,2-Dichloroethylene (c-1,2-DCE)	ug/L	77093	<0.5	6	0.5
524.2	trans-1,2-Dichloroethylene	ug/L	34546	<0.5	10	0.5
524.2	Dichloromethane(Methylene Chloride)	ug/L	34423	<0.5	5	0.5
524.2	1,2-Dichloropropane	ug/L	34541	<0.5	5	0.5
524.2	cis-1,3-Dichloropropene	ug/L	34704	<0.5	0.5	0.5
524.2	trans-1,3-Dichloropropene	ug/L	34699	<0.5	0.5	0.5
524.2	Total 1,3-Dichloropropene	ug/L	34561	<0.5	0.5	0.5
524.2	Ethyl Benzene	ug/L	34371	<0.5	300	0.5
524.2	Methyl Tert-Butyl Ether (MTBE)	ug/L	46491	<3.0	5.0	3.0
524.2	Monochlorobenzene (Chlorobenzene)	ug/L	34301	<0.5	70	0.5
524.2	Styrene	ug/L	77128	<0.5	100	0.5
524.2	1,1,2,2-Tetrachloroethane	ug/L	34516	<0.5	1	0.5

TEST METHOD	CHEMICAL ALL CHEMICALS EXCEPT 2,3,7,8 TCDD (DIOXIN) reported ug/L	ENTRY #	ANALYSES RESULTS	MCL ug/L	DLR ug/L
524.2	Tetrachloroethylene (PCE)	ug/L 34475	<0.5	5	0.5
524.2	Toluene	ug/L 34010	<0.5	150	0.5
524.2	1,2,4-Trichlorobenzene	ug/L 34551	<0.5	5	0.5
524.2	1,1,1-Trichloroethane(1,1,1-TCA)	ug/L 34506	<0.5	200	0.5
524.2	1,1,2-Trichloroethane(1,1,2-TCA)	ug/L 34511	<0.5	5	0.5
524.2	Trichloroethylene (TCE)	ug/L 39180	<0.5	5	0.5
524.2	Trichlorofluoromethane (FREON 11)	ug/L 34488	<5	150	5
524.2	Trichlorotrifluoroethane(Freon113)	ug/L 81611	<10.0	1200	10.0
524.2	Vinyl Chloride (VC)	ug/L 39175	<0.5	0.5	0.5
524.2	m,p-Xylene	ug/L A-014	<0.5		0.5
524.2	o-Xylene	ug/L 77135	<0.5		0.5
524.2	Total Xylenes (m,p, & o)	ug/L 81551	<1	1750	

UNREGULATED ORGANIC CHEMICALS

524.2	Bromobenzene	ug/L 81555	<0.5		0.5
524.2	tert-Amyl-Methyl Ether (TAME)	ug/L A-034	<3.0		3.0
524.2	Bromochloromethane	ug/L A-012	<0.5		0.5
524.2	Bromomethane (Methyl Bromide)	ug/L 34413	<0.5		0.5
524.2	n-Butylbenzene	ug/L A-010	<0.5		0.5
524.2	tert-Butylbenzene	ug/L 77353	<0.5		0.5
524.2	Chloroethane	ug/L 34311	<0.5		0.5
524.2	Di-isopropyl Ether (DIPE)	ug/L A-036	<3.0		3.0
524.2	Chloromethane (Methyl Chloride)	ug/L 34418	<0.5		0.5
524.2	2-Chlorotoluene	ug/L A-008	<0.5		0.5
524.2	4-Chlorotoluene	ug/L A-009	<0.5		0.5
524.2	Dibromomethane	ug/L 77596	<0.5		0.5
524.2	m-Dichlorobenzene (1,3-DCB)	ug/L 34566	<0.5		0.5
524.2	1,3-Dichloropropane	ug/L 77173	<0.5		0.5
524.2	2,2-Dichloropropane	ug/L 77170	<0.5		0.5
524.2	1,1-Dichloropropene	ug/L 77168	<0.5		0.5
524.2	Dichlorodifluoromethane (Freon 12)	ug/L 34668	<0.5		0.5
524.2	Ethyl-tert-Butyl Ether (ETBE)	ug/L A-033	<3.0		3.0
524.2	Hexachlorobutadiene	ug/L 34391	<0.5		0.5
524.2	Isopropylbenzene (Cumene)	ug/L 77223	<0.5		0.5
524.2	p-Isopropyltoluene	ug/L A-011	<0.5		
524.2	sec-Butylbenzene	ug/L 77350	<0.5		0.5
524.2	Naphthalene	ug/L 34696	<0.5		0.5
524.2	n-Propylbenzene	ug/L 77224	<0.5		0.5
524.2	tert-Butyl Alcohol (TBA)	ug/L 77035	<2		2

524.2	1,1,1,2-Tetrachloroethane	ug/L 77562	<0.5		0.5
524.2	1,2,3-Trichlorobenzene	ug/L 77613	<0.5		0.5
524.2	1,3,5-Trimethylbenzene	ug/L 77226	<0.5		0.5
524.2	1,2,3-Trichloropropane	ug/L 77443	<0.005		0.005
524.2	1,2,4-Trimethylbenzene	ug/L 77222	<0.5		0.5
524.2	Methyl ethyl ketone (MEK, Butanone)	ug/L 81595	<5.0		5.0
524.2	Methyl isobutyl ketone (MIBK)	ug/L 81596	<5.0		5.0

