

PRIMARY PRODUCTIVITY CASTS

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 43.3 N	121 32.9 W	24/ 1/99	1757 UTC	13 m		1216 - 1755 PST	1218 PST	1751 PST	392.3 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	13.44	33.549	25.182	6.09	102.8	4.4	0.43	1.3	0.06	1.23	0.54	79. A	16.8	18.1	17.5	0.09
11	13.44	33.542	25.176	6.07	102.4	4.3	0.40	1.3	0.06	1.18	0.54	27. A	18.5	18.5	18.5	0.10
20	13.43	33.543	25.179	6.07	102.4	4.3	0.41	1.4	0.07	1.18	0.58	9.4	8.4	8.4	8.4	0.09
29	13.06	33.549	25.258	5.99	100.3	5.3	0.53	2.9	0.15	0.90	0.60	3.3	2.8	2.9	2.9	0.06
38	12.95	33.551	25.282	5.96	99.6	5.9	0.58	3.7	0.20	0.71	0.54	1.1	0.81	0.84	0.83	0.05
46	12.70	33.573	25.348	5.46	90.7	7.9	0.73	6.1	0.26	0.43	0.37					
54	11.63	33.623	25.591	4.56	74.1	13.2	1.11	12.5	0.15	0.19	0.28	0.17	0.00	0.01	0.00	0.04

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 77 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 23.3 N	124 19.4 W	23/ 1/99	1851 UTC	30 m		1230 - 1800 PST	1229 PST	1803 PST	122.9 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
3	15.53	33.307	24.552	5.79	101.8	2.5	0.31	1.1	0.00	0.11	0.04	86. A	1.2	1.5	1.4	0.06
11	15.53	33.309	24.553	5.77	101.5	2.2	0.25	0.1	0.00	0.12	0.03					
21	15.53	33.313	24.557	5.79	101.8	2.2	0.25	0.1	0.00	0.12	0.03	34.	0.99	1.0	1.0	0.07
31	16.17	33.631	24.658	5.67	101.2	2.1	0.20	0.1	0.00	0.18	0.07					
43	14.38	33.231	24.743	5.96	102.3	2.5	0.29	0.1	0.01	0.52	0.21	11.	2.5	2.4	2.5	0.05
53	13.16	33.079	24.875	6.08	101.7	3.0	0.36	0.3	0.06	0.68	0.32					
66	12.96	33.093	24.926	6.05	100.8	3.2	0.39	0.6	0.09	0.56	0.29	3.4	1.2	1.3	1.2	0.03
76	12.84	33.104	24.958	5.97	99.2	3.4	0.43	1.1	0.16	0.34	0.19					
85	12.66	33.101	24.991	5.91	97.8	4.0	0.49	2.1	0.26	0.22	0.15	1.3	0.17	0.17	0.17	0.03
97	12.22	33.131	25.099	5.77	94.7	5.4	0.61	4.3	0.16	0.13	0.12					
108	11.86	33.243	25.254	5.37	87.5	8.0	0.83	7.9	0.03	0.10	0.11					
121	11.77	33.385	25.381	5.35	87.1	9.0	0.88	8.8	0.09	0.08	0.12	0.20	0.00	0.00	0.00	0.01

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 80 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 49.0 N	121 50.6 W	22/ 1/99	1829 UTC	13 m		1218 - 1803 PST	1218 PST	1800 PST	300.0 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
1	13.00	33.324	25.095	6.25	104.4	4.4	0.42	1.6	0.13	1.24	0.53	89. A	14.7	15.3	15.0	0.16
10	12.95	33.323	25.105	6.26	104.4	4.4	0.42	1.6	0.13	1.31	0.49	31.	16.4	15.9	16.2	0.19
19	12.27	33.334	25.245	6.13	100.8	6.5	0.62	4.4	0.32	1.06	0.54	11.	6.0	6.1	6.1	0.11
28	12.01	33.351	25.308	5.92	96.8	7.3	0.73	5.8	0.50	0.54	0.34	3.7	1.5	1.6	1.5	0.06
37	11.90	33.358	25.334	5.88	96.0	8.1	0.78	6.7	0.47	0.48	0.32	1.3	0.28	0.24	0.26	0.05
45	11.98	33.411	25.360	5.87	96.0	7.9	0.77	6.5	0.47	0.37	0.26					
53	12.03	33.444	25.377	5.86	95.9	7.9	0.78	6.5	0.46	0.30	0.25	0.19	0.00	0.00	0.00	0.04

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 83 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 13.5 N	119 24.7 W	21/ 1/99	1847 UTC	11 m		1212 - 1750 PST	1209 PST	1744 PST	177.8 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	14.22	33.495	24.979	5.81	99.6	3.5	0.37	1.0	0.07	0.63	0.27	76. A	13.3	11.6	12.4	0.06
8	14.22	33.495	24.979	5.84	100.1	3.4	0.36	1.0	0.07	0.59	0.33	33.	11.9	11.1	11.5	0.08
16	14.19	33.497	24.987	5.80	99.4	3.5	0.36	1.1	0.09	0.67	0.27	11.	3.0	3.2	3.1	0.07
24	13.96	33.515	25.049	5.59	95.3	4.3	0.45	1.9	0.17	0.54	0.28	3.5	1.2	1.3	1.3	0.06
31	13.56	33.529	25.142	4.96	83.9	6.9	0.73	5.8	0.27	0.39	0.30	1.3	0.20	0.24	0.22	0.06

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 83 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 54.7 N	124 10.2 W	19/ 1/99	1800 UTC	38 m		1225 - 1803 PST	1228 PST	1803 PST	116.0 mg C/m ²

DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	mL/L	PCT	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
3	15.41	33.495	24.723	5.75	101.0	2.2	0.23	0.1	0.00	0.12	0.04	89. A	1.5	1.5	1.5	0.06
16	15.42	33.497	24.723	5.79	101.7	2.1	0.22	0.1	0.00	0.12	0.04					
28	15.70	33.619	24.755	5.71	100.9	2.1	0.20	0.1	0.00	0.13	0.05	32.	1.5	1.4	1.4	0.06
42	15.90	33.694	24.768	5.70	101.2	2.1	0.19	0.1	0.00	0.17	0.07					
55	15.87	33.682	24.766	5.68	100.8	2.1	0.20	0.1	0.01	0.19	0.09	11.	1.3	1.3	1.3	0.02
64	15.89	33.689	24.767	5.67	100.6	2.1	0.20	0.1	0.01	0.19	0.08					
71	15.91	33.693	24.766	5.68	100.9	2.0	0.20	0.1	0.01	0.20	0.09					
83	15.09	33.507	24.805	5.72	99.8	2.1	0.26	0.1	0.04	0.17	0.09	3.5	0.56	0.56	0.56	0.02
91	15.00	33.469	24.796	5.72	99.6	2.1	0.27	0.1	0.04	0.17	0.10					
98	15.03	33.477	24.795	5.73	99.8	2.1	0.27	0.1	0.04	0.17	0.10					
106	16.52	33.965	24.837	5.52	99.4	2.0	0.18	0.1	0.03	0.15	0.10	1.4	0.18	0.20	0.19	0.01
120	15.41	33.700	24.885	5.62	98.8	2.2	0.24	0.3	0.13	0.11	0.09					
131	14.97	33.836	25.086	5.50	95.9	2.9	0.27	1.1	0.09	0.10	0.10					
143	13.90	33.738	25.238	5.42	92.4	3.7	0.35	2.2	0.02	0.07	0.08					
152	13.29	33.716	25.345	5.20	87.5	5.3	0.50	4.5	0.01	0.05	0.06	0.22	0.00	-0.01	-0.01	0.01

A) INCUBATION LIGHT INTENSITIES WERE 90, 32, 11, 3.5, 1.3, 0.20 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV ROGER REVELLE			CALCOFI CRUISE 9901										STATION 87 50				
LATITUDE		LONGITUDE	DAY/MO/YR	CAST TIME		SECCHI	FOREL				INCUBATION TIME		LAN	CIVIL TWILIGHT		INTEGRATED VALUE	
33 19.4 N		119 39.8 W	17/ 1/99	1821 UTC		17 m					1206 - 1755 PST		1209 PST	1755 PST		300.8 mg C/m ²	
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)				
m	DEG C		THETA	ml/L	PCT	µM/L	µM/L	µM/L	µM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK	
2	13.61	33.516	25.121	5.92	100.2	4.2	0.43	2.1	0.07	0.46	0.18	83. A	11.1	10.6	10.9	0.09	
13	13.40	33.523	25.170	5.93	100.0	4.6	0.46	2.5	0.08	0.63	0.33	31.	13.0	12.4	12.7	0.10	
25	11.96	33.579	25.494	4.95	81.0	11.2	0.96	10.0	0.16	0.43	0.30	10.	4.9	4.9	4.9	0.10	
38	11.29	33.641	25.666	4.07	65.7	15.8	1.29	15.0	0.14	0.17	0.19	3.2	0.73	0.75	0.74	0.05	
49	11.10	33.674	25.727	3.95	63.5	17.2	1.37	16.1	0.15	0.13	0.21	1.2	0.19	0.16	0.18	0.06	
59	10.92	33.697	25.777	3.74	59.9	18.5	1.44	17.2	0.13	0.09	0.19						
70	10.76	33.716	25.820	3.64	58.1	19.2	1.48	18.0	0.12	0.08	0.18	0.18	0.00	0.01	0.00	0.06	
RV ROGER REVELLE			CALCOFI CRUISE 9901										STATION 87 80				
LATITUDE		LONGITUDE	DAY/MO/YR	CAST TIME		SECCHI	FOREL				INCUBATION TIME		LAN	CIVIL TWILIGHT		INTEGRATED VALUE	
32 20.1 N		121 43.4 W	18/ 1/99	1830 UTC		30 m					1214 - 1757 PST		1217 PST	1757 PST		303.6 mg C/m ²	
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)				
m	DEG C		THETA	ml/L	PCT	µM/L	µM/L	µM/L	µM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK	
2	14.46	33.264	24.750	5.88	101.2	2.5	0.30	0.2	0.02	0.23	0.06	90. A	4.3	4.1	4.2	0.03	
12	13.82	33.199	24.834	5.96	101.2	3.0	0.37	0.7	0.05	0.28	0.09						
22	13.42	33.163	24.887	5.99	100.8	3.2	0.39	0.9	0.07	0.32	0.10	32.	6.3	5.9	6.1	0.06	
31	13.20	33.160	24.929	6.01	100.7	3.3	0.40	1.1	0.08	0.43	0.16						
42	13.03	33.142	24.950	6.05	101.0	3.5	0.41	1.3	0.09	0.61	0.27	12.	4.8	4.8	4.8	0.02	
54	12.98	33.165	24.978	6.02	100.4	3.6	0.43	1.4	0.10	0.44	0.24						
65	12.96	33.223	25.027	5.86	97.7	3.9	0.46	2.0	0.13	0.31	0.18	3.6	1.1	1.1	1.1	0.01	
74	12.53	33.212	25.102	5.79	95.7	5.1	0.56	3.5	0.27	0.26	0.16						
84	13.06	33.368	25.120	5.71	95.5	5.0	0.53	3.6	0.25	0.23	0.16	1.4	0.19	0.17	0.18	0.02	
96	13.74	33.651	25.202	5.29	89.9	4.7	0.47	3.7	0.03	0.11	0.09						
106	13.87	33.822	25.308	5.26	89.7	4.6	0.44	3.5	0.02	0.08	0.08						
120	13.03	33.743	25.417	5.18	86.8	5.4	0.52	4.7	0.02	0.06	0.06	0.22	0.00	0.00	0.00	0.00	
RV ROGER REVELLE			CALCOFI CRUISE 9901										STATION 90 37				
LATITUDE		LONGITUDE	DAY/MO/YR	CAST TIME		SECCHI	FOREL				INCUBATION TIME		LAN	CIVIL TWILIGHT		INTEGRATED VALUE	
33 11.1 N		118 23.2 W	15/ 1/99	1858 UTC		14 m					1208 - 1750 PST		1203 PST	1736 PST		223.3 mg C/m ²	
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)				
m	DEG C		THETA	ml/L	PCT	µM/L	µM/L	µM/L	µM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK	
1	14.41	33.524	24.961	6.06	104.3	2.2	0.29	0.1	0.01	0.29	0.13	90. A	6.2	6.5	6.3	0.07	
10	14.15	33.556	25.041	6.21	106.4	2.1	0.29	0.1	0.00	0.50	0.20	33.	8.2	8.2	8.2	0.14	
19	14.06	33.566	25.068	6.24	106.7	2.1	0.30	0.1	0.00	0.66	0.29	12.	5.7	5.5	5.6	0.13	
30	13.27	33.606	25.261	5.49	92.4	6.0	0.64	4.3	0.24	1.56	0.68	3.7	5.8	5.6	5.7	0.05	
37	12.58	33.593	25.387	4.53	75.1	10.2	0.96	9.6	0.26	0.61	0.43	1.7	0.71	0.62	0.67	0.02	
45	11.93	33.611	25.525	4.04	66.1	13.7	1.19	13.5	0.04	0.25	0.33						
52	11.56	33.634	25.612	4.01	65.1	14.5	1.24	14.5	0.03	0.21	0.23	0.33	0.03	0.04	0.03	0.00	
62	11.37	33.700	25.698	3.55	57.4	17.1	1.42	16.8	0.02	0.14	0.20						
RV ROGER REVELLE			CALCOFI CRUISE 9901										STATION 90 60				
LATITUDE		LONGITUDE	DAY/MO/YR	CAST TIME		SECCHI	FOREL				INCUBATION TIME		LAN	CIVIL TWILIGHT		INTEGRATED VALUE	
32 25.1 N		119 57.6 W	14/ 1/99	1807 UTC		19 m					1209 - 1755 PST		1209 PST	1741 PST		280.0 mg C/m ²	
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)				
m	DEG C		THETA	ml/L	PCT	µM/L	µM/L	µM/L	µM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK	
1	12.67	33.484	25.284	6.26	103.9	5.6	0.57	3.5	0.11	0.65	0.33	92. A	6.2	6.2	6.2	0.06	
8	12.62	33.484	25.294	6.12	101.5	5.6	0.57	3.5	0.12	0.75	0.40						
15	12.62	33.485	25.295	6.12	101.5	5.6	0.57	3.5	0.12	0.76	0.46	30.	11.8	11.9	11.8	0.09	
27	12.39	33.549	25.389	5.93	97.9	5.5	0.69	4.5	0.26	0.40	0.41	11.	3.7	3.7	3.7	0.04	
34	12.35	33.552	25.399	5.90	97.3	5.5	0.70	4.7	0.27	0.39	0.42						
42	12.29	33.557	25.415	5.82	95.9	5.9	0.74	5.1	0.28	0.33	0.43	3.4	1.7	1.8	1.8	0.03	
52	11.78	33.571	25.522	5.18	84.4	9.9	0.99	9.5	0.33	0.23	0.38	1.5	0.28	0.34	0.31	0.04	
62	10.77	33.629	25.750	4.00	63.8	17.2	1.40	16.9	0.13	0.10	0.29						
72	10.08	33.717	25.938	3.53	55.5	21.2	1.61	20.3	0.03	0.05	0.19	0.30	0.00	-0.01	-0.01	0.02	
RV ROGER REVELLE			CALCOFI CRUISE 9901										STATION 90 90				
LATITUDE		LONGITUDE	DAY/MO/YR	CAST TIME		SECCHI	FOREL				INCUBATION TIME		LAN	CIVIL TWILIGHT		INTEGRATED VALUE	
31 25.6 N		122 1.0 W	13/ 1/99	1809 UTC		20 m					1217 - 1755 PST		1217 PST	1749 PST		176.4 mg C/m ²	
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)				
m	DEG C		THETA	ml/L	PCT	µM/L	µM/L	µM/L	µM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK	
1	14.16	33.346	24.877	5.97	102.1	2.9	0.33	0.2	0.01	0.39	0.17	93. A	4.1	4.0	4.0	0.04	
15	14.09	33.330	24.879	5.96	101.8	2.9	0.32	0.1	0.01	0.41	0.17	32.	5.3	5.3	5.3	0.04	
28	14.06	33.324	24.881	5.99	102.2	2.9	0.32	0.1	0.01	0.44	0.15	12.	3.3	3.3	3.3	0.03	
43	14.04	33.337	24.896	5.98	102.0	2.8	0.33	0.2	0.01	0.45	0.18	3.7	1.3	1.4	1.4	0.03	
55	13.21	33.278	25.020	5.97	100.1	3.5	0.42	1.1	0.14	0.51	0.28	1.5	0.47	0.47	0.47	0.01	
66	12.95	33.303	25.091	5.77	96.2	4.4	0.51	2.6	0.22	0.33	0.20						
75	12.89	33.458	25.223	5.39	89.9	5.3	0.57	4.2	0.04	0.14	0.12	0.32	0.02	0.02	0.02	0.01	

A) INCUBATION LIGHT INTENSITIES WERE 90, 32, 11, 3.5, 1.3, 0.20 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 90 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
30 25.1 N	123 59.9 W	12/ 1/99	1802 UTC	32 m		1223 - 1800 PST	1223 PST	1756 PST	103.9 mg C/m2							
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE	INTEGRATED VALUE		
m	DEG C		THETA	ml/L	PCT	um/L	um/L	um/L	um/L	ug/l	ug/l	PCT	1	2	MEAN	DARK
1	15.57	33.503	24.694	5.75	101.3	2.5	0.24	0.0	0.00	0.15	0.05	95. A	1.4	1.3	1.3	0.03
13	15.55	33.505	24.700	5.76	101.4	2.5	0.24	0.0	0.00	0.16	0.05					
25	15.54	33.505	24.703	5.75	101.2	2.5	0.24	0.0	0.00	0.16	0.06	30.	1.9	1.6	1.7	0.03
35	15.52	33.499	24.703	5.74	101.0	2.4	0.25	0.0	0.00	0.16	0.05					
45	15.47	33.487	24.705	5.76	101.3	2.3	0.24	0.0	0.00	0.17	0.06	12.	1.2	1.2	1.2	0.03
55	15.18	33.413	24.712	5.80	101.3	2.3	0.25	0.0	0.00	0.21	0.08					
67	15.19	33.422	24.717	5.79	101.2	2.3	0.25	0.0	0.00	0.25	0.10	4.0	0.78	0.88	0.83	0.01
78	15.18	33.420	24.718	5.78	101.0	2.3	0.25	0.0	0.00	0.27	0.12					
88	15.16	33.421	24.724	5.78	100.9	2.4	0.26	0.0	0.00	0.24	0.11	1.5	0.26	0.22	0.24	0.00
98	15.09	33.416	24.735	5.74	100.1	2.4	0.27	0.1	0.02	0.17	0.11					
109	15.06	33.585	24.872	5.66	98.7	2.9	0.28	0.4	0.11	0.19	0.14					
120	14.20	33.565	25.041	5.60	96.0	3.6	0.34	1.2	0.08	0.12	0.12	0.32	0.01	0.02	0.01	0.00

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
32 57.4 N	117 18.3 W	9/ 1/99	1949 UTC	15 m		1230 - 1730 PST	1156 PST	1727 PST	207.8 mg C/m2							
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE	INTEGRATED VALUE		
m	DEG C		THETA	ml/L	PCT	um/L	um/L	um/L	um/L	ug/l	ug/l	PCT	1	2	MEAN	DARK
1	14.19	33.486	24.978	5.99	102.6	3.6	0.32	0.7	0.07	1.05	0.56	90. A	15.9	14.2	15.0	0.11
12	14.12	33.484	24.992	5.93	101.5	3.7	0.33	0.9	0.09	0.98	0.62	29.	7.0	6.4	6.7	0.08
21	14.05	33.472	24.997	5.71	97.5	4.5	0.43	2.0	0.19	0.93	0.59	12.	3.2	3.1	3.1	0.03
32	13.68	33.484	25.083	5.38	91.2	5.7	0.55	3.7	0.30	0.71	0.58	3.8	1.0	1.0	1.0	0.02
41	13.55	33.530	25.146	5.24	88.6	6.7	0.62	4.4	0.37	0.41	0.42	1.5	0.15	0.21	0.18	0.04
49	13.53	33.555	25.169	5.14	86.9	7.3	0.69	4.9	0.36	0.27	0.36					
57	13.49	33.559	25.181	5.11	86.3	7.8	0.71	5.4	0.39	0.24	0.40	0.29	0.02	0.01	0.01	0.05

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
32 10.8 N	118 53.6 W	10/ 1/99	1816 UTC	17 m		1207 - 1752 PST	1203 PST	1747 PST	236.8 mg C/m2							
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE	INTEGRATED VALUE		
m	DEG C		THETA	ml/L	PCT	um/L	um/L	um/L	um/L	ug/l	ug/l	PCT	1	2	MEAN	DARK
1	14.02	33.482	25.011	5.99	102.3	1.6	0.31	0.1	0.01	0.78	0.34	91. A	9.1	8.9	9.0	0.09
13	14.00	33.483	25.016	5.97	101.9	1.6	0.31	0.1	0.01	0.77	0.34	31.	9.1	9.0	9.0	0.10
24	13.98	33.480	25.018	5.94	101.3	1.8	0.33	0.2	0.02	0.85	0.42	11.	5.1	4.7	4.9	0.06
36	13.13	33.491	25.200	5.09	85.3	7.0	0.68	5.7	0.08	0.37	0.27	3.9	0.95	1.0	0.99	0.02
47	12.35	33.514	25.370	4.57	75.4	10.6	0.94	9.9	0.05	0.17	0.16	1.4	0.17	0.18	0.18	0.02
55	11.80	33.550	25.502	4.29	69.9	12.8	1.09	12.5	0.02	0.15	0.19					
64	11.24	33.607	25.650	3.95	63.7	16.1	1.31	15.7	0.02	0.09	0.16	0.31	0.00	0.00	0.00	0.01

RV ROGER REVELLE

CALCOFI CRUISE 9901

STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
30 50.8 N	121 35.4 W	11/ 1/99	1906 UTC	28 m		1212 - 1756 PST	1214 PST	1753 PST	118.9 mg C/m2							
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	LIGHT	UPTAKE	INTEGRATED VALUE		
m	DEG C		THETA	ml/L	PCT	um/L	um/L	um/L	um/L	ug/l	ug/l	PCT	1	2	MEAN	DARK
1	14.96	33.358	24.716	5.84	101.6	2.5	0.28	0.1	0.00	0.25	0.08	95. A	2.7	2.4	2.6	0.04
10	14.90	33.356	24.727	5.85	101.6	2.5	0.28	0.1	0.00	0.23	0.08					
20	14.88	33.357	24.733	5.84	101.3	2.4	0.28	0.1	0.00	0.25	0.10	33.	2.6	2.5	2.5	0.05
30	14.87	33.354	24.733	5.85	101.5	2.4	0.28	0.1	0.00	0.27	0.10					
38	14.86	33.352	24.734	5.84	101.3	2.4	0.28	0.1	0.00	0.31	0.12	12.	1.4	1.4	1.4	0.03
49	14.85	33.350	24.735	5.82	101.0	2.4	0.28	0.1	0.00	0.36	0.16					
60	14.79	33.352	24.750	5.80	100.5	2.4	0.29	0.2	0.02	0.32	0.14	3.7	0.65	0.71	0.68	0.00
67	14.74	33.367	24.772	5.79	100.2	2.5	0.30	0.2	0.03	0.30	0.14					
77	14.72	33.416	24.814	5.76	99.7	2.5	0.30	0.2	0.03	0.25	0.12	1.5	0.17	0.18	0.18	0.00
86	14.23	33.426	24.926	5.64	96.7	3.3	0.36	1.2	0.09	0.18	0.14					
97	13.28	33.485	25.167	5.34	89.8	5.1	0.51	3.7	0.02	0.12	0.13					
105	12.75	33.484	25.271	4.98	82.8	7.3	0.72	6.6	0.02	0.11	0.12	0.32	-0.01	0.00	0.00	0.01

A) INCUBATION LIGHT INTENSITIES WERE 90, 32, 11, 3.5, 1.3, 0.20 PERCENT RESPECTIVELY.