

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 77 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
34 23.5 N	122 14.9 W	18/10/99	1847 UTC	22 m		1152 - 1755 PST	1154 PST	1755 PST	307.1 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	17.47	33.594	24.325	5.68	103.9	2.4	0.31	0.0	0.00	0.24	0.05	93. A	2.2	2.0	2.1	0.06
16	17.39	33.591	24.342	5.69	104.0	2.2	0.30	0.0	0.00	0.26	0.06	33.	5.2	5.3	5.3	0.10
32	17.11	33.583	24.403	5.72	103.9	2.3	0.30	0.0	0.00	0.66	0.19	11.	7.2	7.5	7.3	0.08
40	16.81	33.566	24.461	5.79	104.6	2.5	0.31	0.1	0.01	0.77	0.27					
48	15.64	33.482	24.663	5.86	103.4	3.1	0.42	1.1	0.13	0.72	0.34	3.5	4.6	4.7	4.6	0.05
56	14.04	33.393	24.939	5.85	99.9	4.1	0.61	3.6	0.42	0.55	0.37					
65	12.10	33.279	25.236	5.62	92.1	6.9	0.84	7.7	0.34	0.29	0.26	1.1	0.77	0.75	0.76	0.03
76	11.35	33.368	25.444	5.11	82.4	10.5	1.07	11.7	0.02	0.14	0.14					
85	10.74	33.449	25.616	4.67	74.4	14.4	1.30	15.2	0.01	0.08	0.08	0.27	0.02	0.03	0.03	0.02

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
34 10.1 N	121 9.9 W	16/10/99	1842 UTC	23 m		1151 - 1757 PST	1151 PST	1757 PST	285.6 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	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
1	16.86	33.608	24.480	5.70	103.1	3.0	0.33	0.0	0.01	0.25	0.08	94. A	6.1	6.0	6.1	0.09
10	16.85	33.608	24.483	5.68	102.7	3.0	0.33	0.0	0.01	0.31	0.12					
18	16.85	33.613	24.487	5.73	103.6	2.8	0.32	0.0	0.01	0.44	0.15	30.	7.4	7.6	7.5	0.10
26	16.77	33.630	24.519	5.78	104.4	2.7	0.30	0.0	0.01	0.60	0.28					
33	16.16	33.626	24.657	5.82	103.8	3.8	0.36	0.6	0.13	0.75	0.26	11.	5.0	5.3	5.1	0.08
43	14.61	33.615	24.990	5.47	94.6	6.4	0.64	4.6	0.89	0.79	0.45					
51	13.61	33.572	25.166	5.21	88.2	7.7	0.87	8.5	0.28	0.49	0.36	3.3	1.3	1.3	1.3	0.08
60	12.31	33.572	25.423	4.82	79.4	11.3	1.16	13.4	0.02	0.20	0.22					
67	11.13	33.563	25.635	4.50	72.3	15.2	1.37	16.4	0.02	0.08	0.12	1.1	0.09	0.06	0.07	0.02
79	10.31	33.657	25.853	3.97	62.7	20.6	1.64	20.6	0.01	0.03	0.08					
90	10.08	33.711	25.934	3.67	57.7	22.5	1.71	21.9	0.01	0.03	0.08	0.25	0.00	0.00	0.00	0.02

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
32 49.1 N	123 54.4 W	17/10/99	1815 UTC	32 m		1156 - 1807 PST	1201 PST	1807 PST	164.9 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
2	17.75	33.172	23.934	5.65	103.7	2.6	0.31	0.1	0.00	0.09	0.02	91. A	2.0	2.0	2.0	0.06
12	17.64	33.159	23.951	5.64	103.3	2.5	0.32	0.0	0.00	0.10	0.02					
24	17.32	33.179	24.043	5.70	103.7	2.5	0.31	0.0	0.00	0.17	0.03	32.	2.8	2.8	2.8	0.08
32	17.18	33.205	24.097	5.79	105.1	2.4	0.31	0.0	0.00	0.17	0.04					
39	15.54	33.106	24.396	6.17	108.4	2.2	0.32	0.1	0.00	0.21	0.06					
48	14.09	33.097	24.700	6.38	108.8	2.3	0.33	0.1	0.00	0.20	0.08	10.	1.6	1.6	1.6	0.04
58	13.08	33.039	24.860	6.30	105.2	2.6	0.36	0.0	0.00	0.29	0.15					
69	12.48	33.144	25.059	6.11	100.8	3.6	0.51	2.1	0.16	0.36	0.22	3.7	1.3	1.4	1.3	0.04
82	11.61	33.211	25.275	5.72	92.7	5.6	0.69	5.5	0.04	0.28	0.22					
95	11.31	33.274	25.379	5.60	90.2	6.1	0.71	6.0	0.02	0.19	0.17	1.0	0.31	0.26	0.28	0.02
104	10.78	33.283	25.480	5.55	88.4	6.9	0.73	6.5	0.01	0.13	0.11					
114	10.74	33.384	25.566	5.08	80.9	10.3	1.00	10.8	0.01	0.08	0.08					
125	10.58	33.518	25.699	4.55	72.2	13.4	1.20	14.2	0.01	0.05	0.06	0.25	0.01	0.01	0.01	0.01

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
34 10.9 N	119 30.6 W	15/10/99	1804 UTC	15 m		1144 - 1754 PST	1144 PST	1754 PST	703.6 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	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	16.80	33.639	24.518	5.99	108.2	4.1	0.27	0.1	0.01	0.90	0.24	81. A	32.3	32.4	32.3	0.17
11	16.45	33.640	24.600	6.00	107.7	3.8	0.28	0.1	0.01	1.13	0.29	32.	31.0	29.6	30.3	0.17
22	15.91	33.631	24.717	6.04	107.2	4.1	0.32	0.4	0.03	1.42	0.45	11.	14.3	14.4	14.3	0.13
33	12.32	33.525	25.384	4.98	82.1	10.2	1.00	10.3	0.27	0.56	0.40	3.4	2.2	2.4	2.3	0.07
44	11.73	33.604	25.557	4.45	72.5	13.5	1.24	14.2	0.11	0.37	0.36	1.1	0.64	0.59	0.61	0.03
52	11.42	33.620	25.627	4.31	69.7	14.6	1.33	15.6	0.03	0.27	0.29					
59	11.11	33.676	25.727	3.94	63.3	17.0	1.45	17.5	0.02	0.17	0.33	0.24	0.02	0.02	0.02	0.02

A) INCUBATION LIGHT INTENSITIES WERE 92, 33, 10, 3.4, 1.1, 0.25 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON			CALCOFI CRUISE 9910										STATION 83 60					
LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE									
33 34.6 N	120 46.0 W	14/10/99	1814 UTC	16 m		1149 - 1755 PST	1149 PST	1755 PST	380.6 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	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK		
1	15.73	33.617	24.746	6.03	106.7	3.0	0.41	1.2	0.12	0.68	0.25	91. A	18.1	19.8	18.9	0.10		
12	15.71	33.613	24.747	6.04	106.8	3.0	0.42	1.2	0.12	0.69	0.29	32.	15.9	15.0	15.4	0.11		
23	15.60	33.608	24.769	6.05	106.7	2.8	0.42	1.2	0.12	0.63	0.27	11.	4.7	5.1	4.9	0.07		
35	15.28	33.613	24.844	5.99	105.0	4.0	0.46	2.1	0.22	0.81	0.45	3.5	2.0	2.1	2.1	0.08		
47	13.74	33.574	25.141	5.30	90.0	7.3	0.82	7.3	0.57	0.48	0.37	1.1	0.53	0.46	0.49	0.07		
54	12.73	33.557	25.330	4.95	82.3	9.8	1.06	11.7	0.09	0.41	0.32							
62	11.89	33.588	25.515	4.54	74.2	12.8	1.26	14.8	0.02	0.27	0.24	0.26	0.01	0.02	0.02	0.03		

RV NEW HORIZON			CALCOFI CRUISE 9910										STATION 83 90					
LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE									
32 34.5 N	122 47.9 W	13/10/99	1743 UTC	24 m		1157 - 1803 PST	1157 PST	1803 PST	294.8 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		
1	17.57	33.181	23.984	5.66	103.5	3.2	0.33	0.0	0.00	0.13	0.03	94. A	2.5	2.5	2.5	0.06		
17	17.36	33.198	24.048	5.69	103.7	3.3	0.32	0.0	0.00	0.16	0.03	34.	3.5	3.5	3.5	0.08		
25	16.78	33.293	24.258	5.89	106.2	3.2	0.33	0.2	0.00	0.24	0.05							
35	14.76	33.270	24.692	6.33	109.6	3.7	0.40	0.4	0.03	0.75	0.25	11.	7.4	8.0	7.7	0.08		
43	12.80	33.110	24.970	6.32	105.0	4.1	0.48	1.2	0.11	0.78	0.42							
52	12.16	33.099	25.085	5.95	97.5	4.6	0.55	2.1	0.13	0.70	0.45	3.6	3.7	3.6	3.6	0.05		
61	11.59	33.094	25.187	5.90	95.5	5.8	0.64	4.2	0.10	0.48	0.34							
71	11.18	33.131	25.290	5.76	92.4	7.0	0.74	6.0	0.04	0.30	0.23	1.1	0.69	0.58	0.63	0.02		
81	10.98	33.228	25.402	5.50	87.9	8.9	0.91	8.7	0.04	0.20	0.17							
93	10.48	33.315	25.557	5.14	81.3	12.1	1.07	11.6	0.03	0.10	0.09	0.26	0.02	0.03	0.03	0.02		

RV NEW HORIZON			CALCOFI CRUISE 9910										STATION 87 45					
LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE									
33 29.7 N	119 19.0 W	10/10/99	1754 UTC	17 m		1144 - 1756 PST	1144 PST	1756 PST	852.1 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	16.40	33.569	24.557	6.00	107.5	4.3	0.34	0.5	0.05	0.77	0.19	91. A	23.9	25.0	24.4	0.10		
12	16.12	33.567	24.620	5.93	105.7	4.5	0.35	0.9	0.08	0.92	0.31	34.	26.7	27.1	26.9	0.18		
18	15.97	33.570	24.656	5.89	104.7	4.8	0.38	1.2	0.09	0.97	0.30							
25	15.80	33.569	24.694	5.88	104.1	5.0	0.39	1.5	0.11	1.05	0.38	10.	19.2	20.6	19.9	0.12		
37	15.21	33.548	24.809	5.83	102.0	5.5	0.48	2.6	0.15	1.09	0.40	3.5	8.0	8.6	8.3	0.09		
44	12.82	33.390	25.183	5.46	90.9	7.8	0.82	7.6	0.22	0.55	0.32							
51	11.73	33.367	25.373	5.18	84.2	10.1	1.01	10.5	0.20	0.37	0.16	1.00	1.1	0.88	0.98	0.04		
57	11.43	33.400	25.454	4.97	80.3	11.7	1.11	12.1	0.16	0.34	0.23							
65	11.11	33.576	25.649	4.31	69.2	15.6	1.36	16.0	0.04	0.23	0.15	0.28	0.04	0.04	0.04	0.03		

RV NEW HORIZON			CALCOFI CRUISE 9910										STATION 87 70					
LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE									
32 39.8 N	121 2.1 W	11/10/99	1827 UTC	29 m		1151 - 1804 PST	1151 PST	1804 PST	279.2 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	18.17	33.511	24.091	5.62	104.2	3.2	0.31	0.0	0.00	0.14	0.03	90. A	3.2	3.4	3.3	0.07		
13	17.94	33.571	24.194	5.60	103.4	3.1	0.31	0.0	0.00	0.15	0.04							
21	17.81	33.590	24.241	5.68	104.6	3.0	0.31	0.0	0.00	0.17	0.04	33.	3.7	3.6	3.6	0.10		
32	16.56	33.500	24.468	6.12	110.0	3.4	0.33	0.0	0.00	0.34	0.12							
42	14.23	33.395	24.901	6.15	105.4	4.5	0.51	2.3	0.18	0.60	0.32	11.	6.2	6.6	6.4	0.07		
54	11.27	33.192	25.321	5.65	90.9	7.8	0.79	7.0	0.04	0.50	0.42							
64	11.25	33.343	25.442	5.28	85.0	10.8	1.06	11.5	0.02	0.25	0.22	3.4	1.3	1.3	1.3	0.05		
75	10.42	33.496	25.708	4.47	70.7	17.8	1.43	17.6	0.02	0.10	0.09							
85	10.20	33.574	25.807	4.20	66.1	20.6	1.59	19.9	0.01	0.07	0.10	1.1	0.15	0.14	0.15	0.02		
98	9.72	33.713	25.996	3.81	59.4	24.0	1.70	22.0	0.01	0.03	0.04							
113	9.36	33.821	26.140	3.62	56.0	25.8	1.72	22.6	0.01	0.01	0.02	0.25	0.00	0.00	0.00	0.01		

A) INCUBATION LIGHT INTENSITIES WERE 92, 33, 10, 3.4, 1.1, 0.25 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 87 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
31 39.7 N	123 4.0 W	12/10/99	1736 UTC	36 m		1158 - 1814 PST	1159 PST	1814 PST	204.6 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	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	19.33	33.562	23.840	5.41	102.6	3.4	0.28	0.0	0.00	0.09	0.02	92. A	1.4	1.4	1.4	0.07
14	19.29	33.562	23.851	5.42	102.7	3.3	0.27	0.0	0.00	0.09	0.02					
26	19.26	33.567	23.863	5.42	102.6	3.3	0.27	0.0	0.00	0.09	0.02	33.	2.2	2.1	2.1	0.09
40	19.21	33.568	23.877	5.41	102.3	3.2	0.27	0.0	0.00	0.12	0.03					
54	16.47	33.381	24.398	6.09	109.1	3.2	0.28	0.0	0.00	0.15	0.05	10.	2.1	2.2	2.1	0.07
61	15.59	33.403	24.614	6.19	109.0	3.2	0.29	0.0	0.00	0.19	0.04					
70	14.52	33.336	24.795	6.21	107.0	3.3	0.32	0.0	0.00	0.19	0.10					
79	14.12	33.359	24.897	6.14	104.9	3.4	0.34	0.0	0.00	0.26	0.17	3.4	1.7	1.7	1.7	0.03
88	13.87	33.394	24.976	5.95	101.2	3.7	0.41	0.8	0.13	0.32	0.25					
96	13.91	33.579	25.111	5.66	96.5	4.1	0.46	2.2	0.21	0.29	0.25					
105	13.77	33.636	25.184	5.49	93.3	4.7	0.53	3.5	0.10	0.25	0.23	1.1	1.0	1.0	1.0	0.01
114	13.90	33.778	25.268	5.40	92.1	5.0	0.51	3.7	0.05	0.21	0.21					
124	13.22	33.718	25.360	5.25	88.3	6.0	0.62	5.5	0.02	0.16	0.17					
131	12.82	33.727	25.446	5.08	84.7	7.3	0.71	6.9	0.02	0.12	0.14					
140	12.48	33.728	25.514	4.89	81.0	8.5	0.79	8.4	0.01	0.09	0.10	0.26	0.05	0.06	0.05	0.01

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 90 30

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
33 25.3 N	117 54.7 W	9/10/99	1744 UTC	34 m		1139 - 1758 PST	1139 PST	1758 PST	458.4 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	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	19.50	33.713	23.911	5.51	104.9	2.8	0.24	0.0	0.00	0.19	0.03	91. A	6.0	5.7	5.8	0.08
14	18.56	33.641	24.095	5.82	108.8	2.9	0.26	0.1	0.00	0.29	0.06					
25	15.63	33.514	24.690	6.35	112.0	3.5	0.34	0.1	0.00	0.25	0.14	32.	8.4	8.0	8.2	0.08
34	14.27	33.491	24.966	6.26	107.4	4.0	0.37	0.1	0.00	0.30	0.10					
42	13.47	33.535	25.166	5.79	97.8	5.4	0.55	2.5	0.15	0.60	0.22					
51	12.83	33.565	25.317	5.24	87.3	7.5	0.82	7.1	0.22	0.60	0.35	10.	5.9	6.1	6.0	0.06
63	11.98	33.597	25.505	4.67	76.4	11.1	1.08	11.7	0.05	0.43	0.32					
75	11.47	33.638	25.632	4.34	70.3	13.6	1.24	14.4	0.03	0.22	0.24	3.4	1.1	1.1	1.1	0.04
87	10.96	33.650	25.734	4.24	67.9	15.8	1.37	16.3	0.01	0.12	0.15					
99	10.44	33.730	25.888	3.82	60.5	19.7	1.56	19.4	0.01	0.04	0.08	1.1	0.09	0.09	0.09	0.02
115	10.06	33.832	26.032	3.36	52.8	23.1	1.70	21.5	0.01	0.02	0.05					
133	9.58	33.875	26.146	3.19	49.6	26.5	1.84	23.7	0.00	0.01	0.06	0.25	0.01	0.00	0.01	0.01

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 90 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
32 26.1 N	119 58.6 W	8/10/99	1811 UTC	27 m		1147 - 1758 PST	1148 PST	1758 PST	276.5 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	17.48	33.444	24.207	5.65	103.3	2.4	0.31	0.0	0.00	0.13	0.03	89. A	1.7	1.8	1.8	0.08
10	17.35	33.442	24.237	5.67	103.4	2.4	0.31	0.0	0.00	0.14	0.04					
21	17.31	33.440	24.246	5.67	103.3	2.2	0.31	0.0	0.00	0.16	0.04	30.	3.5	3.6	3.5	0.10
30	17.28	33.443	24.255	5.68	103.5	2.2	0.30	0.0	0.00	0.20	0.05					
39	16.94	33.487	24.370	5.81	105.2	2.4	0.32	0.0	0.00	0.26	0.09	11.	3.7	4.0	3.8	0.08
49	15.59	33.445	24.646	6.12	107.8	2.7	0.33	0.0	0.00	0.51	0.23					
59	14.28	33.430	24.918	6.04	103.6	3.6	0.43	1.3	0.08	0.76	0.46	3.5	4.7	5.2	4.9	0.07
69	13.58	33.469	25.093	5.73	96.9	4.5	0.61	3.6	0.26	0.59	0.50					
77	13.00	33.525	25.253	5.44	90.9	5.8	0.75	6.6	0.14	0.39	0.40	1.3	1.1	1.1	1.1	0.02
87	12.30	33.560	25.417	5.09	83.9	8.2	0.93	9.8	0.04	0.18	0.24					
96	11.96	33.579	25.496	4.89	80.0	9.8	1.03	11.3	0.02	0.12	0.17					
105	11.43	33.590	25.603	4.67	75.5	12.1	1.18	13.7	0.02	0.08	0.10	0.26	0.03	0.03	0.03	0.02

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
31 24.2 N	122 1.6 W	7/10/99	1951 UTC	30 m		1240 - 1807 PST	1156 PST	1806 PST	92.6 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	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	18.50	33.379	23.909	5.49	102.3	2.9	0.29	0.1	0.00	0.08	0.01	90. A	0.81	1.0	0.92	0.06
12	18.50	33.370	23.903	5.47	102.0	2.8	0.28	0.1	0.00	0.08	0.01					
22	18.50	33.370	23.903	5.49	102.3	2.8	0.28	0.1	0.00	0.08	0.01	32.	1.5	1.5	1.5	0.08
35	18.46	33.371	23.914	5.49	102.2	2.9	0.28	0.1	0.00	0.09	0.02					
46	16.54	33.401	24.397	6.01	107.9	2.9	0.26	0.1	0.00	0.13	0.03	9.5	1.0	1.2	1.1	0.10
56	15.05	33.370	24.707	6.13	106.8	3.0	0.26	0.1	0.00	0.13	0.04					
67	14.58	33.366	24.805	6.14	105.9	3.0	0.27	0.1	0.00	0.14	0.04	3.2	0.54	0.56	0.55	0.08
76	14.30	33.444	24.925	6.06	104.0	3.1	0.27	0.1	0.00	0.17	0.07					
88	13.53	33.428	25.072	5.99	101.2	3.3	0.29	0.1	0.00	0.28	0.23	1.1	0.49	0.40	0.44	0.04
97	12.89	33.381	25.164	5.91	98.5	3.6	0.36	0.5	0.08	0.35	0.28					
108	12.36	33.344	25.238	5.81	95.7	4.1	0.43	1.5	0.10	0.26	0.24					
117	12.20	33.363	25.283	5.74	94.3	4.2	0.43	1.5	0.10	0.22	0.22	0.25	0.09	0.10	0.09	0.01

A) INCUBATION LIGHT INTENSITIES WERE 92, 33, 10, 3.4, 1.1, 0.25 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 93 28

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
32 54.2 N	117 23.9 W	3/10/99	1923 UTC	27 m		1222 - 1803 PST	1139 PST	1758 PST	309.2 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	19.47	33.678	23.892	5.48	104.2	2.7	0.26	0.1	0.00	0.18	0.03	94. A	3.3	3.3	3.3	0.09
10	18.68	33.645	24.068	5.55	104.0	2.6	0.26	0.1	0.00	0.19	0.03					
20	16.81	33.581	24.472	5.88	106.2	2.7	0.29	0.0	0.00	0.26	0.08	32.	5.4	5.5	5.5	0.13
30	14.55	33.460	24.883	5.97	103.0	4.1	0.49	2.1	0.17	0.49	0.24					
40	13.10	33.408	25.142	5.73	95.9	5.7	0.71	5.3	0.41	0.63	0.40	10.	6.4	6.2	6.3	0.13
50	12.59	33.517	25.326	5.31	88.0	7.5	0.92	8.7	0.31	0.44	0.45					
59	12.11	33.521	25.422	5.06	83.0	9.5	1.05	11.1	0.04	0.32	0.38	3.5	1.7	1.8	1.8	0.05
69	11.78	33.606	25.550	4.55	74.2	12.1	1.18	13.1	0.03	0.21	0.26					
80	11.21	33.611	25.658	4.31	69.4	15.3	1.38	16.0	0.02	0.12	0.15	1.1	0.37	0.34	0.36	0.01
92	10.77	33.643	25.762	4.12	65.7	17.7	1.49	18.1	0.01	0.06	0.08					
105	10.31	33.734	25.913	3.76	59.4	21.2	1.64	20.6	0.01	0.02	0.06	0.26	0.01	0.01	0.01	0.01

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
32 11.0 N	118 53.3 W	4/10/99	1812 UTC	21 m		1142 - 1804 PST	1144 PST	1803 PST	287.5 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	18.90	33.701	24.055	5.45	102.6	2.8	0.32	0.0	0.00	0.20	0.04	86. A	3.1	3.2	3.1	0.10
14	18.89	33.701	24.058	5.47	102.9	2.7	0.27	0.0	0.00	0.20	0.04	36.	5.2	5.3	5.2	0.08
31	18.04	33.645	24.227	5.69	105.3	2.6	0.31	0.0	0.00	0.26	0.08	10.	4.0	4.4	4.2	0.12
37	16.93	33.607	24.464	5.96	107.9	3.1	0.31	0.0	0.00	0.35	0.14					
46	15.30	33.565	24.802	6.15	107.8	4.1	0.39	0.0	0.01	0.75	0.34	3.5	5.4	4.8	5.1	0.10
54	14.16	33.545	25.032	6.01	102.9	4.9	0.46	0.6	0.04	0.80	0.43					
62	13.16	33.550	25.240	5.44	91.3	6.8	0.70	5.0	0.20	0.76	0.56	1.1	2.4	2.3	2.3	0.05
71	12.42	33.591	25.417	4.89	80.8	9.3	0.96	9.1	0.11	0.52	0.50					
81	11.63	33.603	25.576	4.61	74.9	12.1	1.21	12.9	0.02	0.21	0.27	0.27	0.08	0.08	0.08	0.02

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
31 10.9 N	120 56.4 W	5/10/99	1748 UTC	30 m		1153 - 1812 PST	1153 PST	1812 PST	191.9 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	18.19	33.286	23.914	5.52	102.2	3.5	0.31	0.0	0.00	0.13	0.03	86. A	1.2	1.2	1.2	0.10
12	18.18	33.285	23.917	5.53	102.4	3.5	0.30	0.0	0.00	0.13	0.03					
22	18.15	33.284	23.924	5.52	102.2	3.3	0.30	0.0	0.00	0.13	0.03	32.	3.0	3.1	3.0	0.12
34	17.98	33.277	23.960	5.59	103.1	3.4	0.30	0.0	0.00	0.16	0.03					
45	15.65	33.166	24.418	6.16	108.5	3.2	0.30	0.0	0.00	0.21	0.06	10.	2.1	2.3	2.2	0.08
56	14.57	33.139	24.632	6.30	108.5	3.3	0.34	0.0	0.00	0.25	0.09					
66	13.63	33.160	24.844	6.25	105.6	3.3	0.30	0.0	0.00	0.27	0.10	3.4	1.5	1.5	1.5	0.07
76	13.24	33.215	24.965	6.17	103.5	3.5	0.31	0.0	0.00	0.30	0.21					
87	12.65	33.212	25.079	6.06	100.4	3.8	0.38	0.3	0.04	0.35	0.30	1.2	1.3	1.3	1.3	0.02
97	12.10	33.242	25.208	5.83	95.5	4.5	0.49	2.0	0.14	0.25	0.25					
107	11.79	33.273	25.290	5.62	91.4	5.6	0.59	3.9	0.05	0.17	0.23					
116	11.56	33.286	25.343	5.56	90.0	6.3	0.64	4.9	0.03	0.16	0.19	0.26	0.10	0.10	0.10	0.01

RV NEW HORIZON

CALCOFI CRUISE 9910

STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE							
29 50.9 N	123 35.9 W	6/10/99	1747 UTC	32 m		1202 - 1820 PST	1202 PST	1820 PST	133.8 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	18.93	33.210	23.672	5.48	102.9	2.9	0.32	0.0	0.00	0.08	0.01	91. A	1.5	1.4	1.5	0.06
12	18.85	33.209	23.692	5.46	102.4	2.9	0.34	0.0	0.01	0.09	0.01					
22	18.36	33.164	23.780	5.62	104.3	2.9	0.30	0.0	0.00	0.10	0.02	35.	1.9	2.0	2.0	0.13
36	17.85	33.555	24.205	5.87	108.2	2.8	0.26	0.0	0.00	0.13	0.03					
48	17.35	33.720	24.452	5.92	108.2	2.8	0.22	0.0	0.00	0.14	0.03	10.	1.4	1.4	1.4	0.09
58	16.22	33.663	24.672	6.00	107.2	2.9	0.22	0.0	0.00	0.19	0.05					
70	15.57	33.764	24.897	5.92	104.5	3.0	0.23	0.0	0.00	0.24	0.10	3.5	0.90	0.93	0.91	0.08
82	15.49	33.855	24.985	5.81	102.4	2.9	0.24	0.0	0.00	0.26	0.16					
94	15.50	33.990	25.087	5.71	100.7	3.1	0.22	0.0	0.01	0.33	0.30	1.1	0.62	0.49	0.55	0.02
104	15.23	34.017	25.168	5.60	98.3	3.3	0.25	0.4	0.11	0.27	0.23					
114	14.14	33.821	25.251	5.59	95.8	3.8	0.36	1.5	0.10	0.18	0.18					
124	14.30	33.916	25.291	5.50	94.7	3.9	0.38	1.8	0.06	0.16	0.15	0.26	0.03	0.04	0.03	0.01

A) INCUBATION LIGHT INTENSITIES WERE 92, 33, 10, 3.4, 1.1, 0.25 PERCENT RESPECTIVELY.

