UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 9408
5 – 20 August 1994

CalCOFI Cruise 9410
30 September – 15 October 1994

SIO Reference 95-16
1 August 1995

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LA JOLLA, CALIFORNIA 92093-0227

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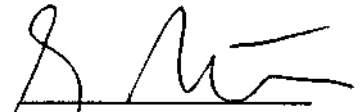
Approved for distribution:



Edward A. Frieman, Director

CONTENTS

INTRODUCTION

The data in this report were collected during Cruises 9408* and 9410 of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the *RV New Horizon* of the Scripps Institution of Oceanography, University of California, San Diego. The CalCOFI program was organized in the late 1940's to study the causes of variations in population size of fishes of importance to the State of California. It is carried out by NOAA's National Marine Fisheries Service Southwest Fisheries Science Center, the California Department of Fish and Game, and the Marine Life Research Group (MLRG) at Scripps Institution of Oceanography (SIO). MLRG contributes to this program by investigations of the physical, chemical and biological structure of the California Current. Data from CalCOFI Cruises 9408 and 9410 were collected and processed by personnel of the Marine Life Research Group and the Southwest Fisheries Science Center. Volunteers and other SIO staff members also assisted in the collection of data and chemical analyses at sea.

STANDARD PROCEDURES

Rosette Cast Data

At each station on cruises 9408 and 9410 a Sea-Bird Electronics, Inc., Conductivity-Temperature-Depth (CTD) instrument was deployed with a 24-place General Oceanics rosette. The rosette was equipped with 24 ten-liter plastic (PVC) bottles. The CTD/rosette cast usually sampled 20 depths to a maximum sampling depth of 525 meters, bottom depth permitting. Pressures and temperatures assigned to the water sample data were derived from the CTD signals collected just prior to the bottle trip. Pressures have been converted to depth by the Saunders (1981) pressure-to-depth conversion technique. CTD temperatures reported with the bottle data have been rounded to the nearest hundredth of a degree Celsius. Salinity, oxygen and nutrients were determined at sea for all depths sampled. Chlorophyll-a and phaeopigments were determined at sea from the top 14 depths, bottom depth permitting. «

Salinity samples were collected from all rosette bottles and analyzed at sea using a Guildline model 8400A Autosal salinometer. The results were compared with the CTD salinity in order to verify that the rosette bottle did not mis-trip or leak. The salinometer was standardized before and after each group of samples with substandard seawater. Periodic checks on the conductivity of the substandard were made by comparison with IAPSO Standard Seawater batch PI22. Salinity values have been calculated from the algorithms for the Practical Salinity Scale, 1978 (UNESCO, 1981a) and were reported to three decimal places, provided that accepted standards were met. If only one determination per sample was obtained, or there was doubt concerning the accuracy of the analytical results, the salinities were reported to two decimal places.

Dissolved oxygen was determined by the Winkler method, as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971). Percent oxygen saturation was calculated from the equations of Weiss (1970).

Silicate, phosphate, nitrate and nitrite nutrients were determined at sea using an automated analyzer. The procedures used are similar to those described in Atlas *et al.* (1971). On cruise 9408 the automated analyzer and operator experienced numerous problems which resulted in some lost data. The phosphate data for 9408 compared to preceding and following cruises appear to be high by 0.10 to 0.15 micro gram atoms per liter throughout the water column. We suspect that this is an artifact.

Samples for chlorophyll-a and phaeopigments were filtered onto GF/F filters. The pigments were extracted with a cold extraction technique in 90% acetone (Venrick and Hayward, 1984), and the fluorescence determined before and after acidification with a Turner Designs fluorometer (Yentsch and Menzel, 1963; Holm-Hansen *et al.* 1965).

Evaluation of the data involved comparisons with the CTD cast profiles, adjacent stations and consideration of the variation of a property as a function of density or depth and the relationships with other properties (Klein, 1973). Estimates of precision of the standard techniques are given in SIO, 1991.

* The first two digits represent the year and the last digits the month of the cruise.

Primary Productivity Sampling

Primary productivity samples were taken each day shortly before local apparent noon (LAN), from the standard rosette cast. Primary production was estimated from ^{14}C uptake using a simulated *in situ* technique. Light penetration was estimated from the Secchi depth (assuming that the 1% light level is three times the Secchi depth). The depths with ambient light intensities corresponding to light levels simulated by the on-deck incubators were identified and sampled on the up rosette cast. Occasionally an extra bottle or two were tripped in addition to the usual 20 levels sampled in the combined rosette-productivity cast in order to maintain the normal sampling depth resolution. The ten-liter bottles were equipped with epoxy-coated springs and Viton O-rings. Triplicate samples (two light and one dark control) were drawn from each productivity sample depth into 250 ml polycarbonate incubation bottles. Samples were inoculated with 10 uCi of ^{14}C as $NaHC0_3$ (200 ul of 50 uCi/ml stock) prepared in a 0.3 g/liter solution of sodium carbonate (Fitzwater *et al.* 1982). Samples were incubated from LAN to civil twilight in seawater-cooled incubators with neutral-density screens which simulate *in situ* light levels. At the end of the incubation, the samples were filtered onto Millipore HA filters and placed in scintillation vials. One half ml of 10% HC1 was added to each sample. The sample was then allowed to sit, without a cap, at room temperature for 12 hours (after Lean and Burnison, 1979). Following this, 10 ml of scintillation fluor were added to each sample and the samples were returned to SIO where the radioactivity was determined with a scintillation counter. Salinity, oxygen, nutrients, chlorophyll-a and phaeopigments were determined from all rosette productivity bottles.

Macrozooplankton Net Tows

Macrozooplankton was sampled with a 71 cm mouth diameter paired net (bongo net) equipped with 0.505 mm plankton mesh. Bottom depth permitting, the nets were towed obliquely from 210 m to the surface. The tow time for a standard tow was 21.5 minutes. Volumes filtered were determined from flowmeter readings and the mouth area of the net. Only one sample of each pair was retained and preserved. The biomass, as wet displacement volume, after removal of large (>5 ml) organisms, was determined in the laboratory ashore. These procedures are summarized in greater detail in Kramer *et al.* (1972). .....

Avifauna Observations

On cruise 9410 seabirds were counted within a 300 meter wide strip off to one side of the ship. Counts were made while underway between stations during periods of daylight. These counts were summed over 20 nautical mile (run) intervals, or the distance between consecutive stations, whichever was less. Included at the end of this report are individual maps of the most numerous bird species (individuals/nm).

TABULATED DATA

Rosette Cast Data

The time reported is the Coordinated Universal Time (UTC) of the first rosette bottle trip on the up cast. The rosette bottles tripped on the up cast are reported as cast 2, where cast 1 is considered to be the down CTD cast. Bottom depths, determined acoustically, have been corrected using British Admiralty Tables (Carter, 1980) and are reported in meters. Weather conditions have been coded using WMO code 4501. Secchi depths and Forel water color scales are also reported for most daylight stations.

Observed and interpolated standard depth data from CTD/rosette casts have been interspersed and are presented together sequentially by depth. Interpolated or extrapolated standard level data are noted by the footnote "ISL" printed after the depth. Density-related parameters have been calculated from the International Equation of State of Seawater 1980 (UNESCO, 1981, b). Computed values of potential temperature, sigma-theta, specific volume anomaly (SVA), and dynamic height or geopotential anomaly are included with both observed and interpolated standard depth levels.

On stations where primary productivity samples were drawn from six of the rosette bottles, a footnote appears after each productivity depth sampled. The corresponding primary productivity data are reported in a separate section following the tabulated rosette cast data.

Chlorofluorocarbon (CFC) Sampling

At eleven stations on cruise 9408 rosette samples were taken at depths deeper than the usual 525 meter maximum to collect samples for CFC analyses. The CFC data are not presented in this report. The usual hydrographic data for the observed depths beyond 525 meters are reported here.

The physical and chemical data presented in this report are available over the internet via the Nemo Oceanographic Server. To access these data telnet to nemo.ucsd.edu and login with username "info".

Primary Productivity Data

In addition to the normal hydrographic data also reported in the rosette cast data section, the tabulated data include: the *in situ* light levels at which the samples were collected, the uptake from each of the replicate light bottles, uptake 1 and uptake 2, (which have been corrected for dark uptake by subtracting the dark value), the mean of the two uptake values and the dark uptake. The uptake values are totals for the incubation period. Also shown are the times of LAN, civil twilight, and the value of the mean uptake integrated from the surface to the deepest sample, assuming the shallowest value continues to the surface and that negative values (when dark uptake exceeds light uptake) are zero. The uptake data have been presented to two significant digits (values <1.00) or one decimal (values >1.00). Precision of the higher production values may not warrant all of the digits presented. Incubation time, LAN, and civil twilight are given in local Pacific Standard Time (PST); to convert to UTC, add eight hours to the PST time. Incubation light intensities are listed in a footnote at the bottom of each page.

Macrozooplankton Data

Macrozooplankton biomass volumes are tabulated as total biomass volume (cm /1000m^3 strained) and as the total volume minus the volume of larger organisms under the heading "Small." Tow times are given in local PST (+8) time.

FOOTNOTES

In addition to footnotes, special notations are used without footnotes because the meaning is always the same.

D: CTD salinity value listed in place of normal ship-board salinity analysis.
ISL: After a depth value indicates that this is an interpolated or extrapolated standard level.
U: Uncertain value. Values which are not used in interpolation because they seem to be in error without apparent reason.

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PERSONNEL

CalCOFI Cruise 9408

SHIP'S CAPTAIN

Curtis Duane Johnson, *RV New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

		Participation (Leg)
Thomas L. Hayward (Chief Scientist)	Associate Research Oceanographer, SIO	I,II,III
Abramenkoff, Dimitry N.	Fishery Biologist, NMFS	I,II,III
Bower, Susan L.	Graduate Student, USC	I,II
Collier, Jackie L.	Post-Doctoral Fellow, SIO	I,II,III
Goericke, Ralf	Assistant Research Oceanographer, SIO	I,II,III
Griffith, David A.	Fishery Biologist, NMFS	I,II
Gripp, Sherry L.	Staff Research Associate, SIO	LILIII
Gruber, Dennis W.	Marine Technician, SIO	I,II,III
Hays, Amy E.	Biological Technician, NMFS	I,II,III
Min, Dong Ha	Graduate Student, SIO	I,II,III
Osgood, Kenric E.	Post Graduate Researcher, SIO	III
Renger, Edward H.	Staff Research Associate, SIO	I,II,III
Root, F. Elwood	Bird Observer, Volunteer	I
Streib Montee, Rebecca V.	Staff Research Associate, SIO	I,II,III
Van Woy, Frederick A.	Staff Research Associate, SIO	I,II
Wilkinson, James R.	Programmer/Analyst, SIO	I,II,III

Leg I: San Diego to Dana Pt., Ca., 5-11 Aug., 1994
Leg II: Dana Pt. to Port San Luis, Ca., 11-19 Aug., 1994
Leg III: Port San Luis to San Diego, Ca., 19-20 Aug., 1994

FIGURES

Cruise 9408

1. CalCOFI Cruise 9408, track and station positions.

2. Horizontal distribution of dynamic height anomaly (0 over 500m). In areas shallower than 500 m, the dynamic heights were extrapolated on the basis of the offshore deeper steric height as described in Reid and Mantyla (1976).

3. Horizontal distributions at 10 meters: A) chlorophyll-a; B) potential density; C) temperature; and D) salinity.

4. Horizontal distributions at 200 meters: A) dynamic height anomaly (200 over 500 m); B) potential density; C) temperature; and D) salinity.

5. Sections along CalCOFI line 90 (vertical exaggeration, 1000): A) potential density; B) temperature; C) salinity; D) silicate; E) nitrate; F) phosphate; G) chlorophyll-a; H) oxygen saturation; I) oxygen; J) nitrite; and K) phaeopigments.

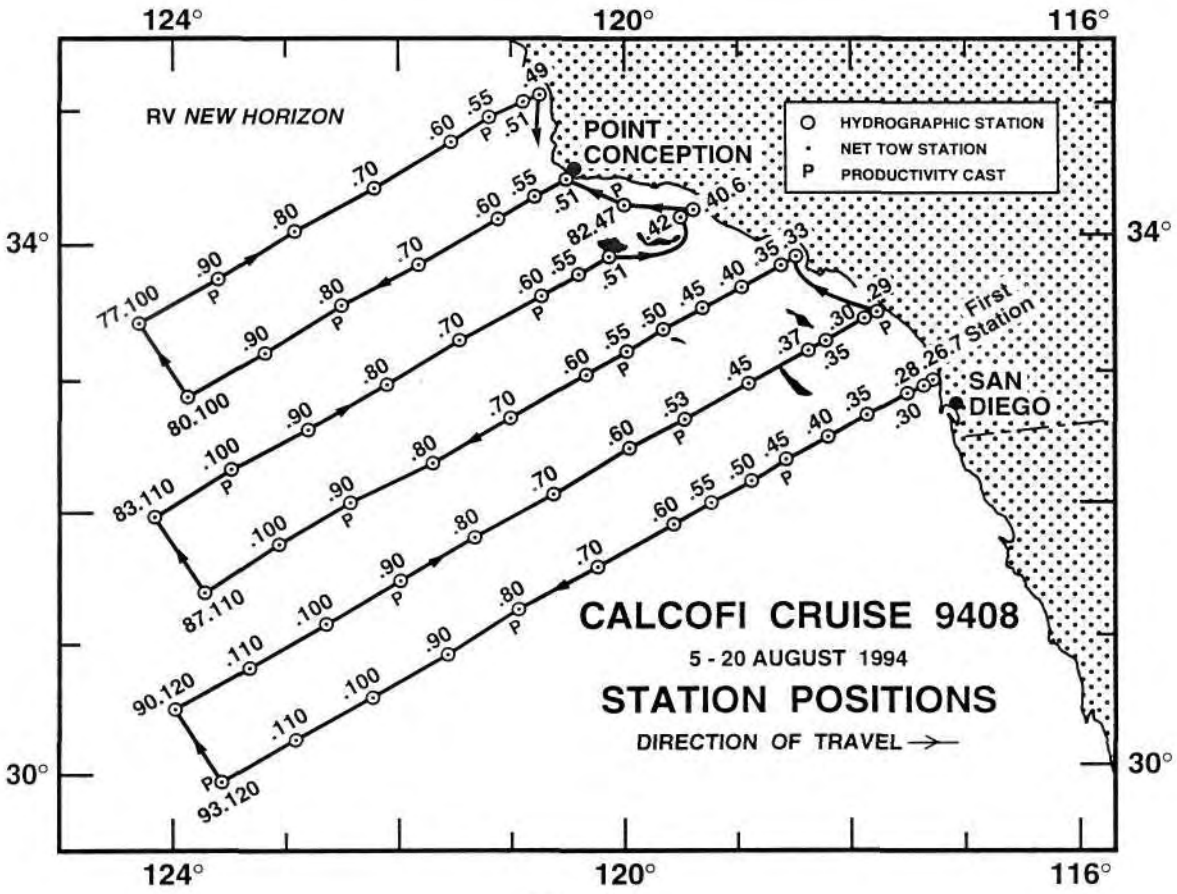
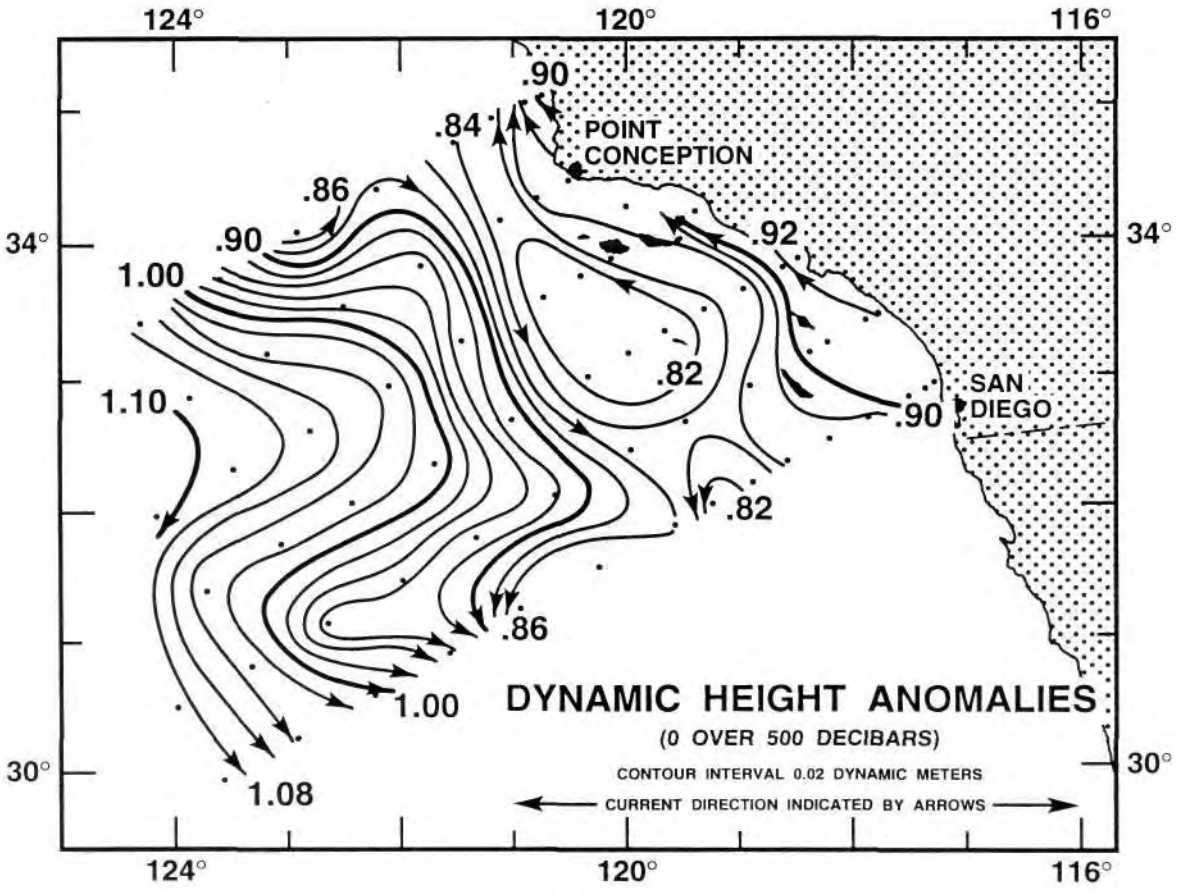


FIGURE 1



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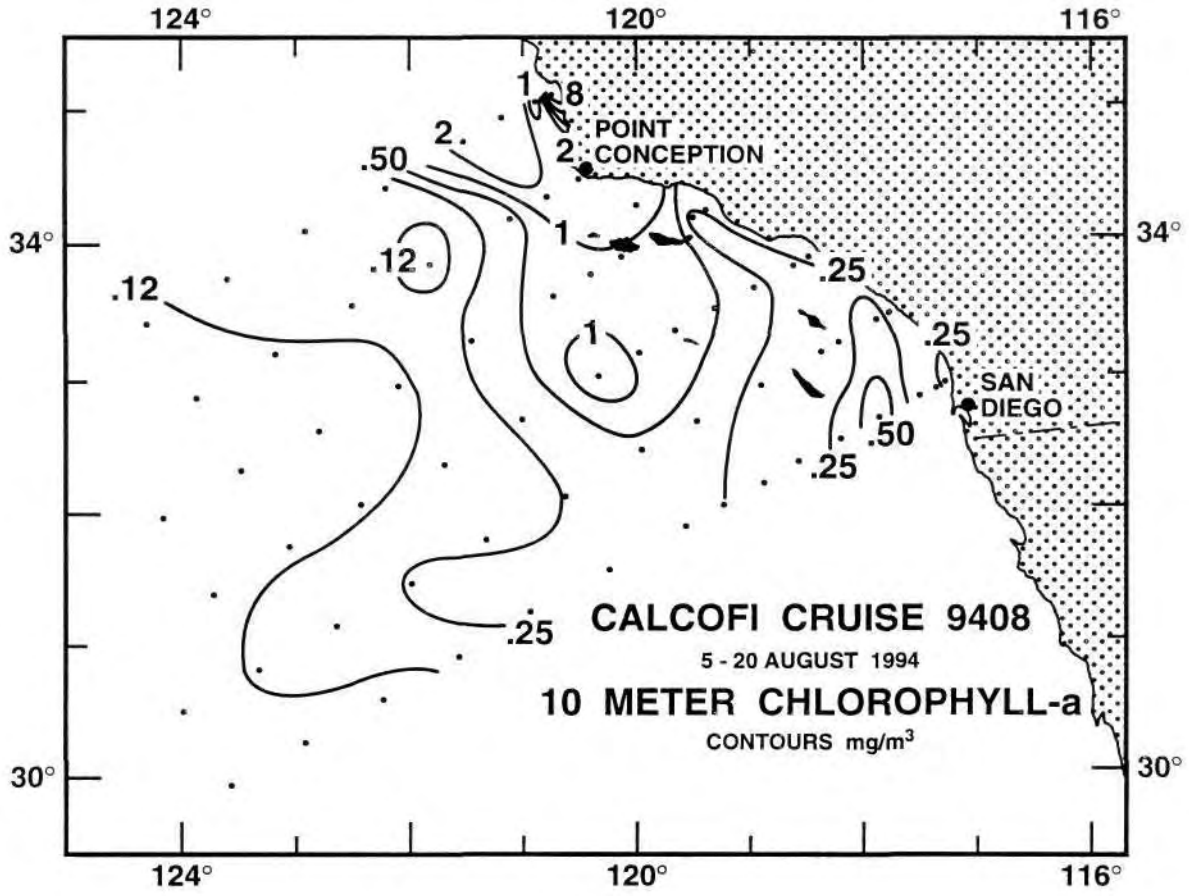
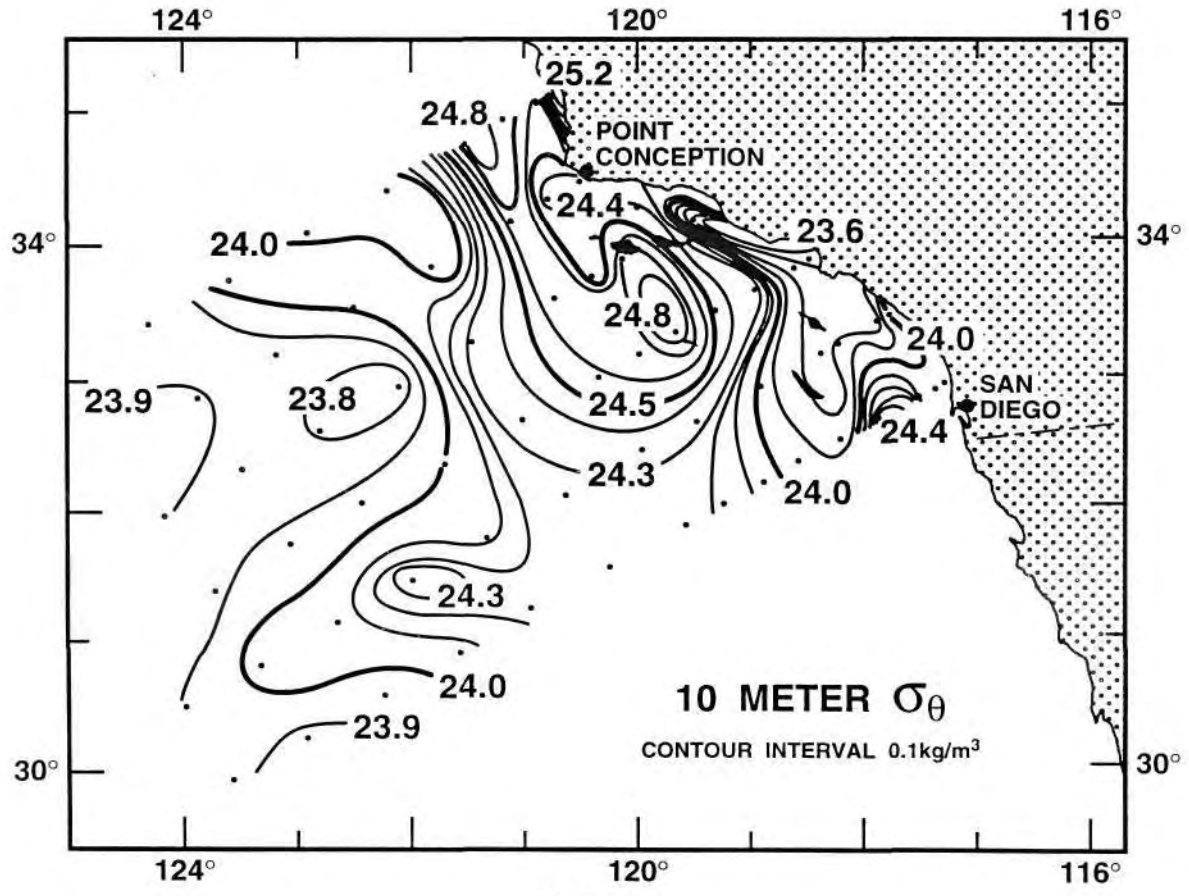


FIGURE 3A



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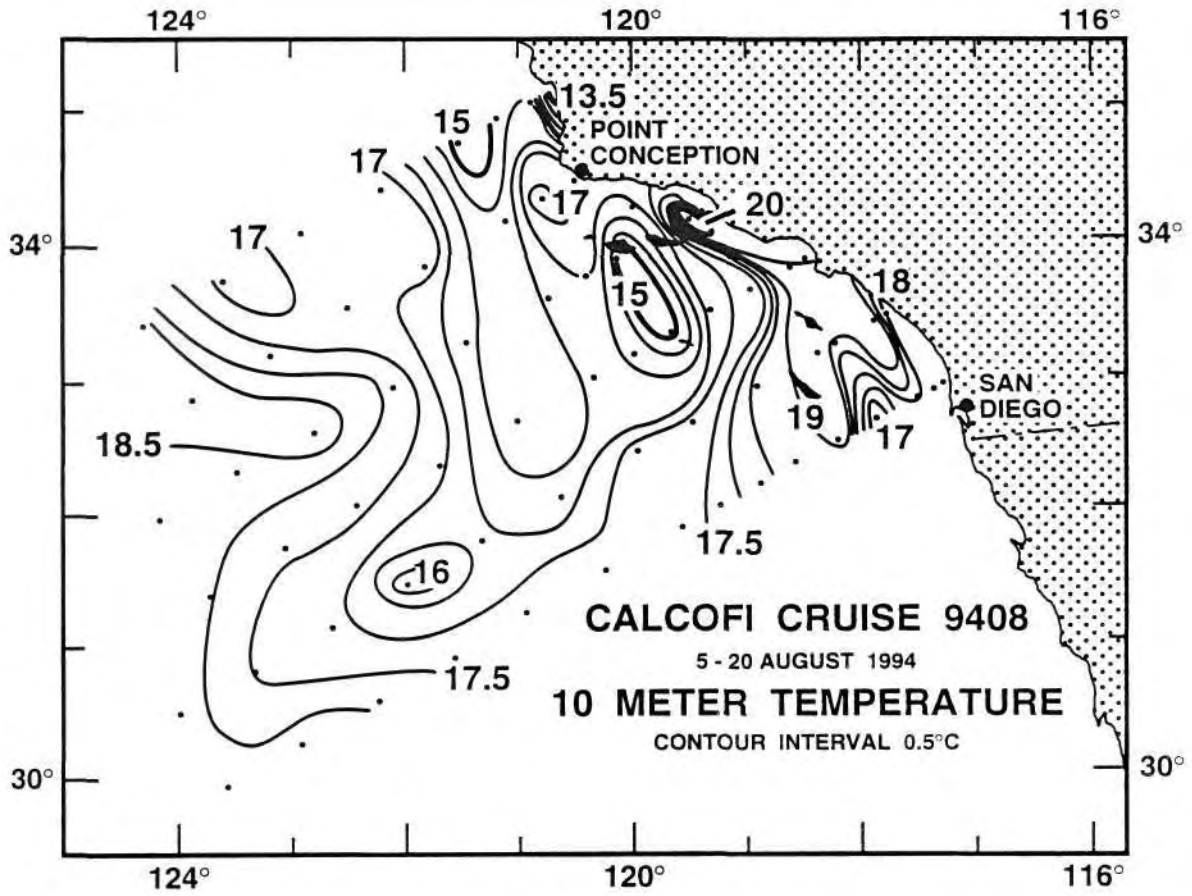


FIGURE 3C

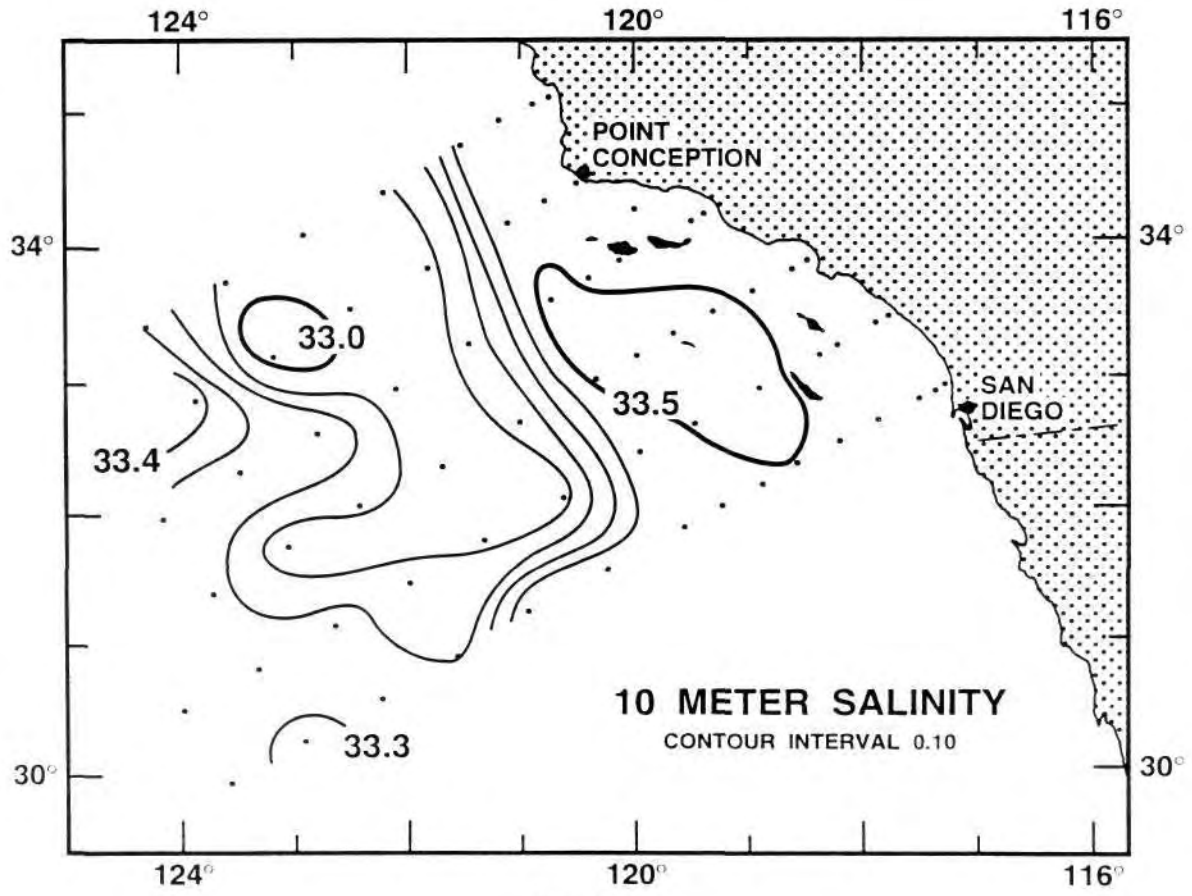


FIGURE 3D

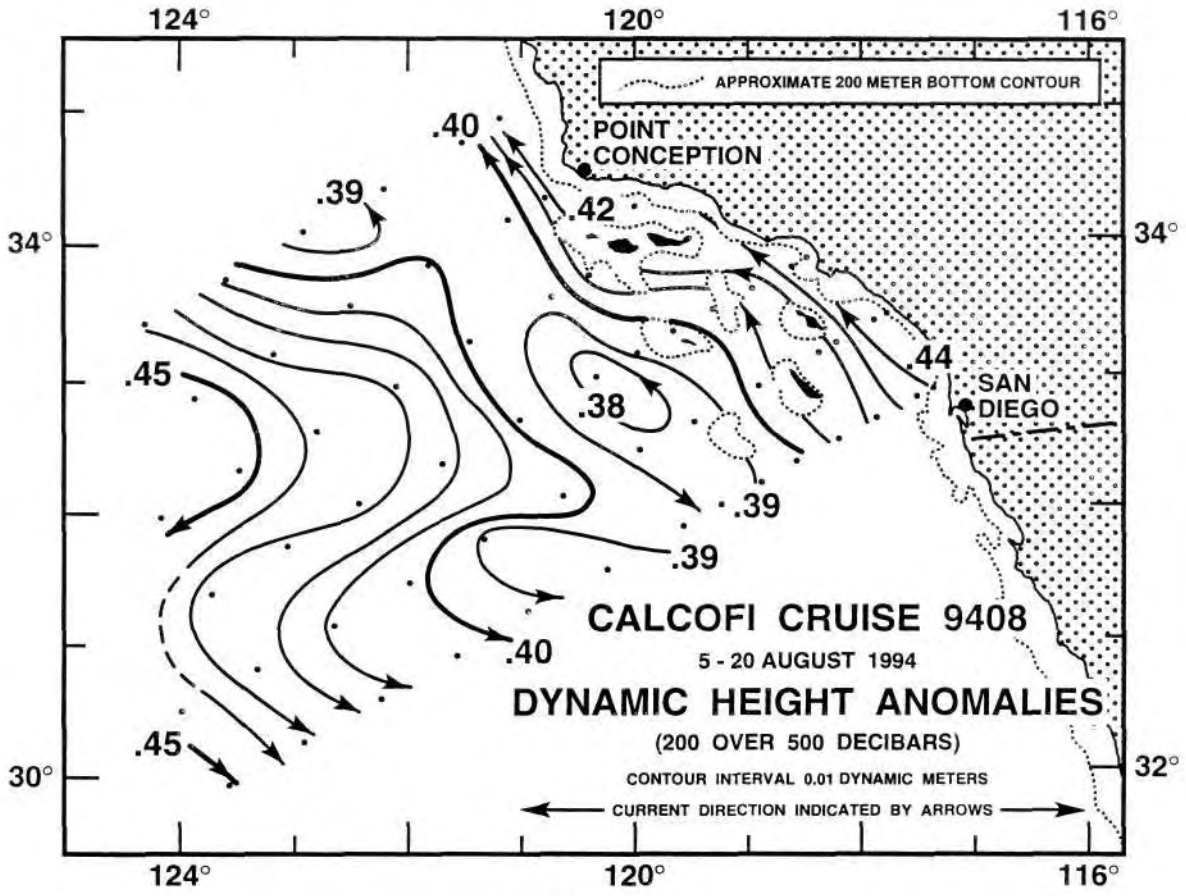


FIGURE 4A

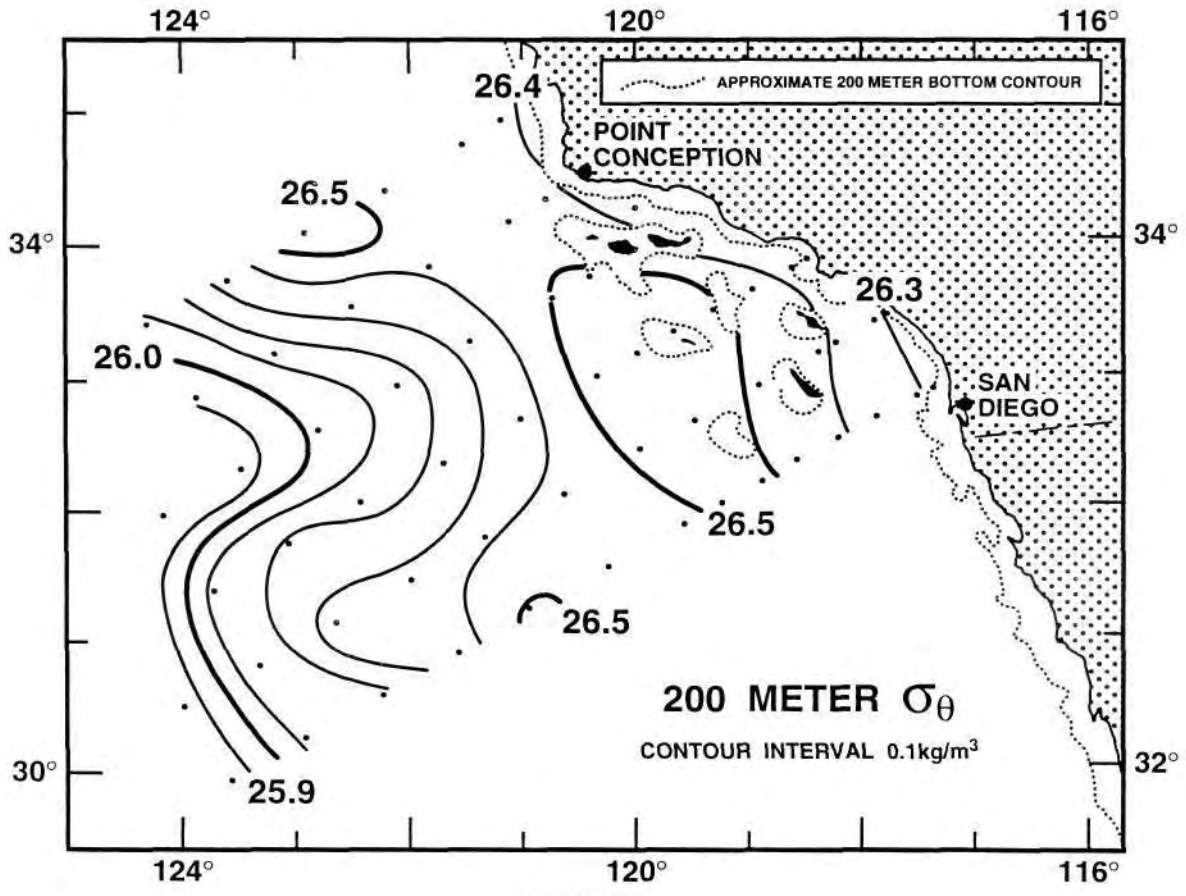
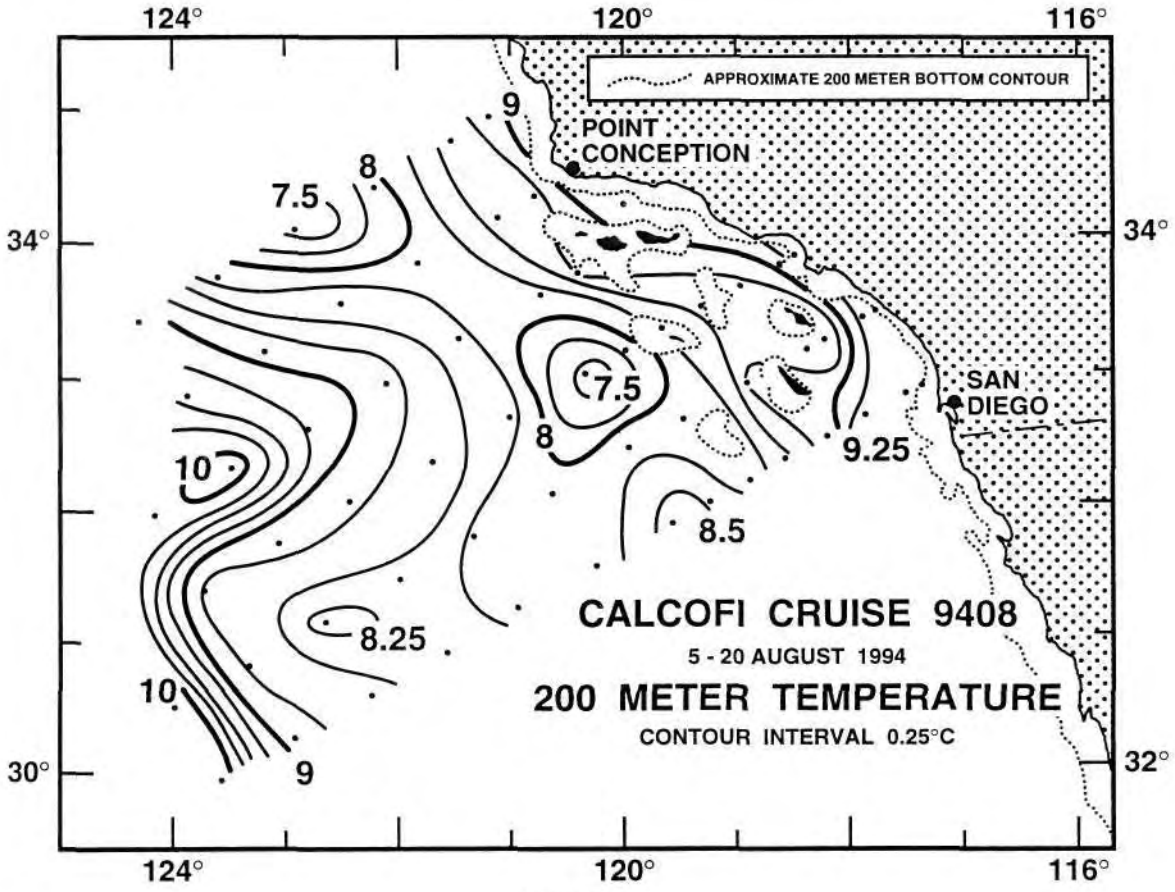


FIGURE 4B



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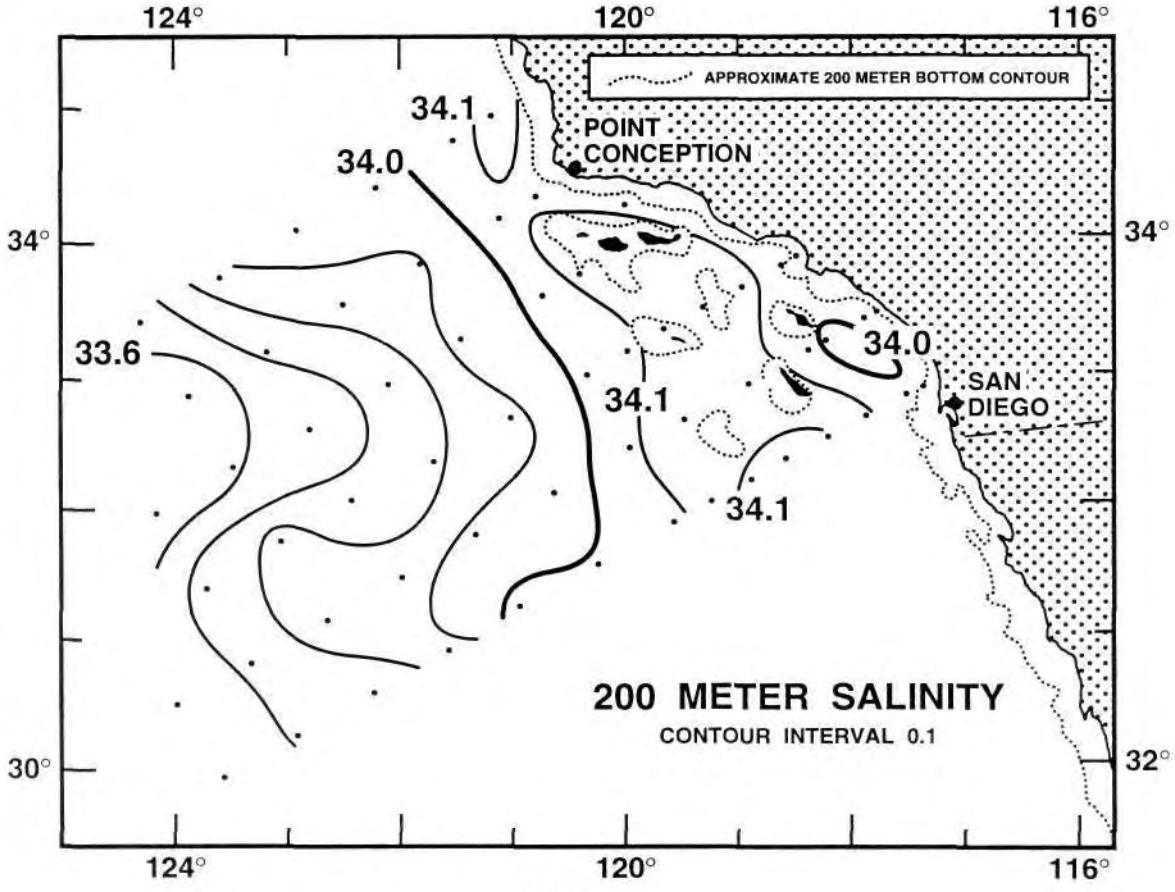

FIGURE 4D

CALCOFI CRUISE 9408

9 - 11 AUGUST 1994

POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

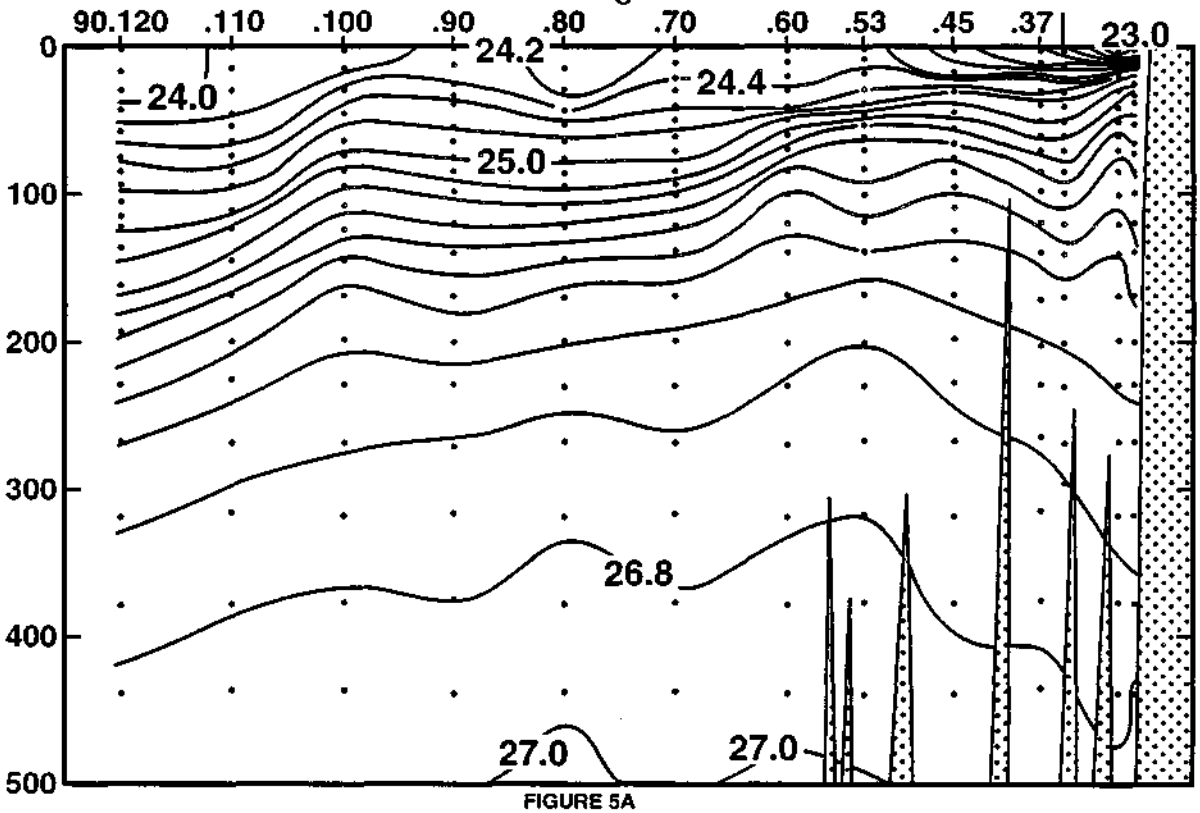

FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

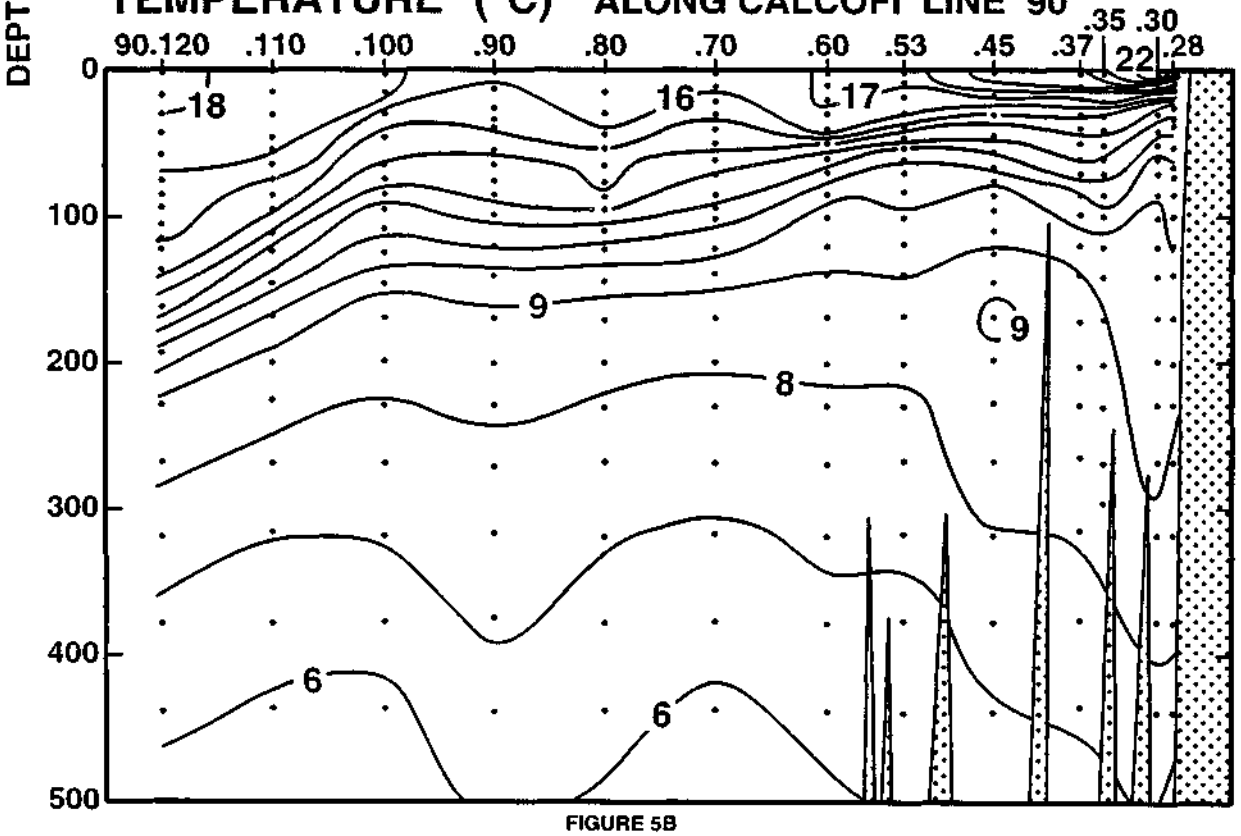

FIGURE 5B

CALCOFI CRUISE 9408

9 - 11 AUGUST 1994

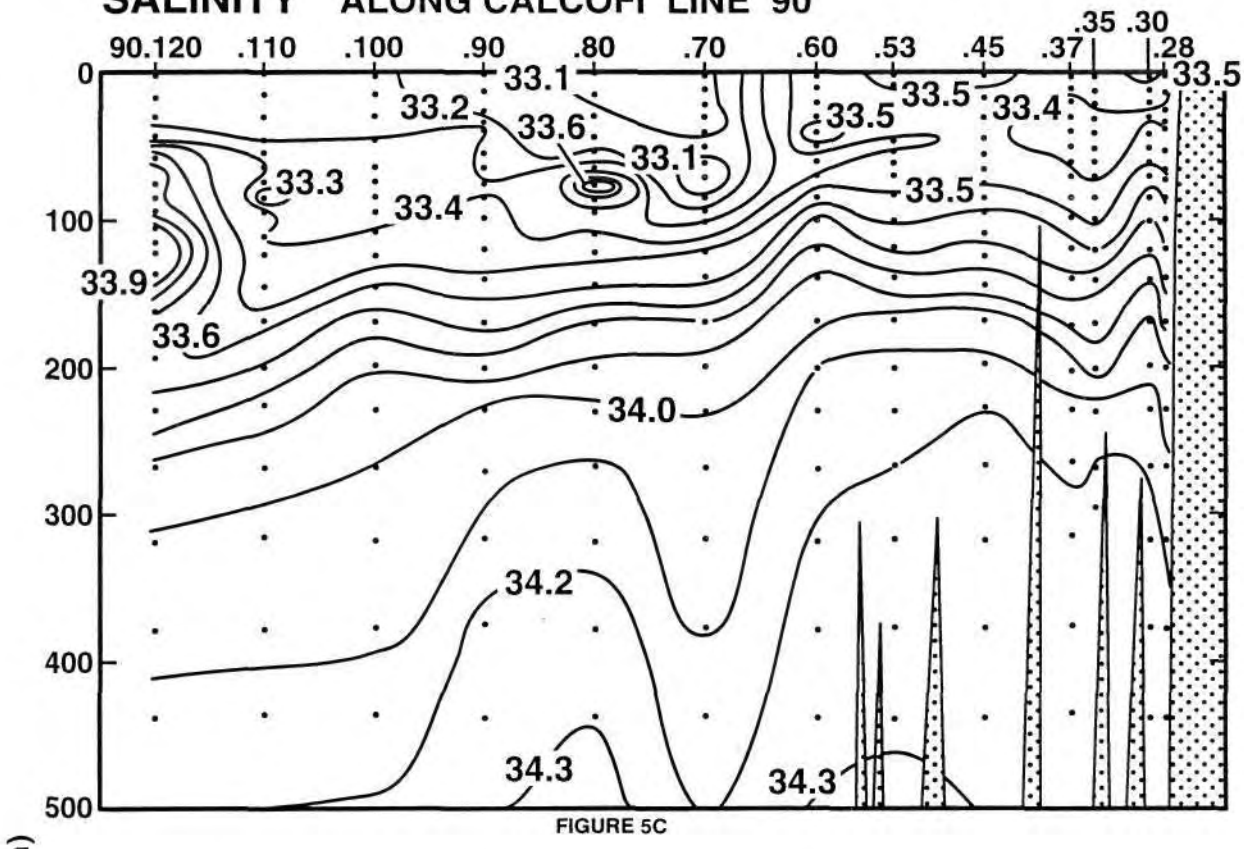

FIGURE 5C

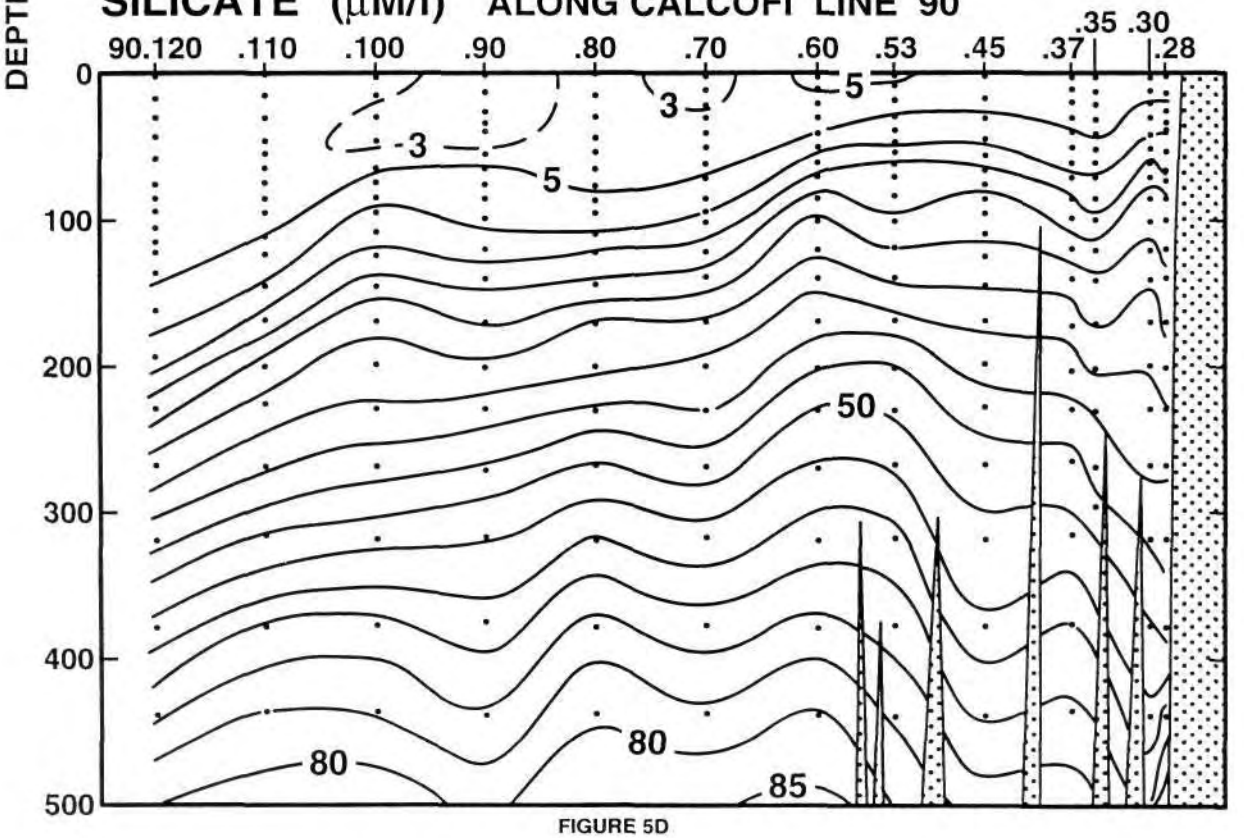

FIGURE 5D

CALCOFI CRUISE 9408

9 - 11 AUGUST 1994

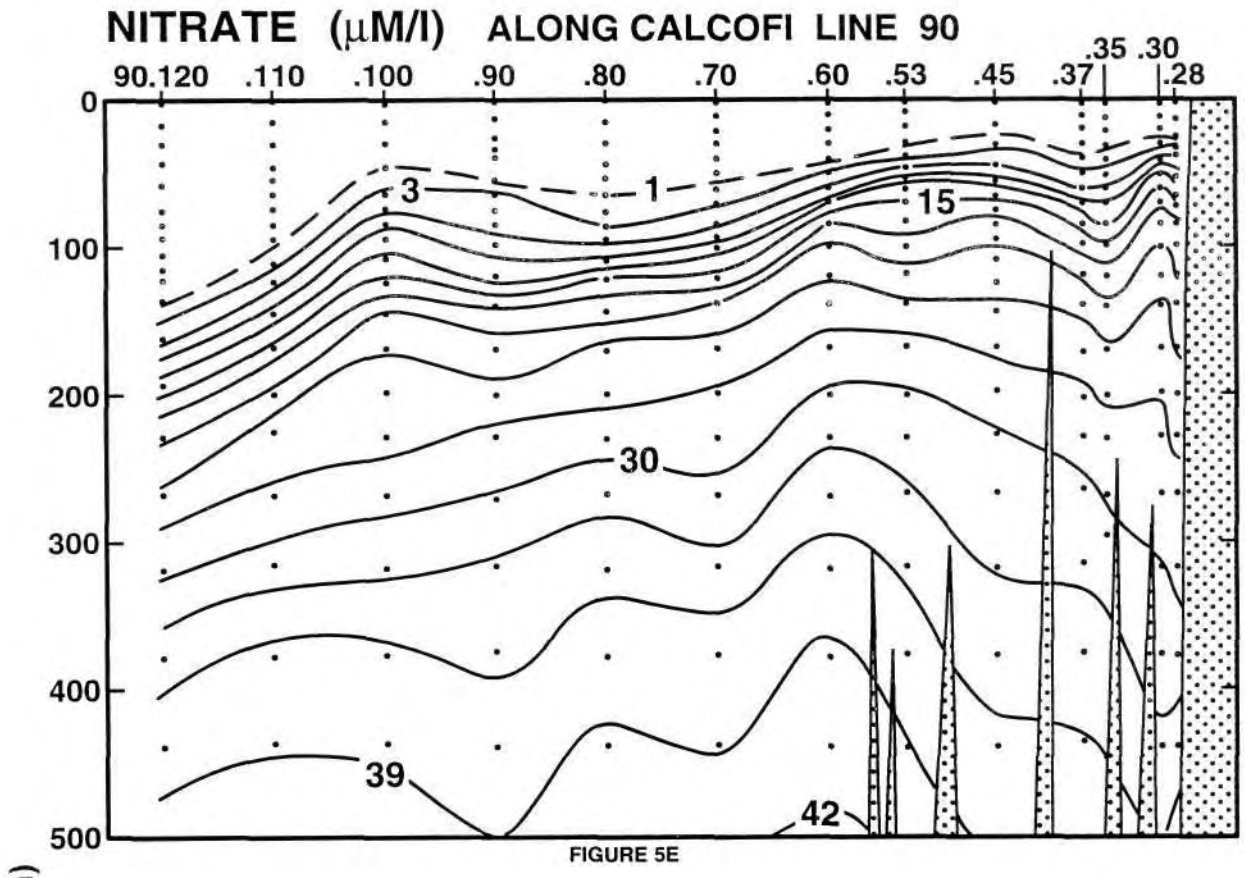

FIGURE 5E

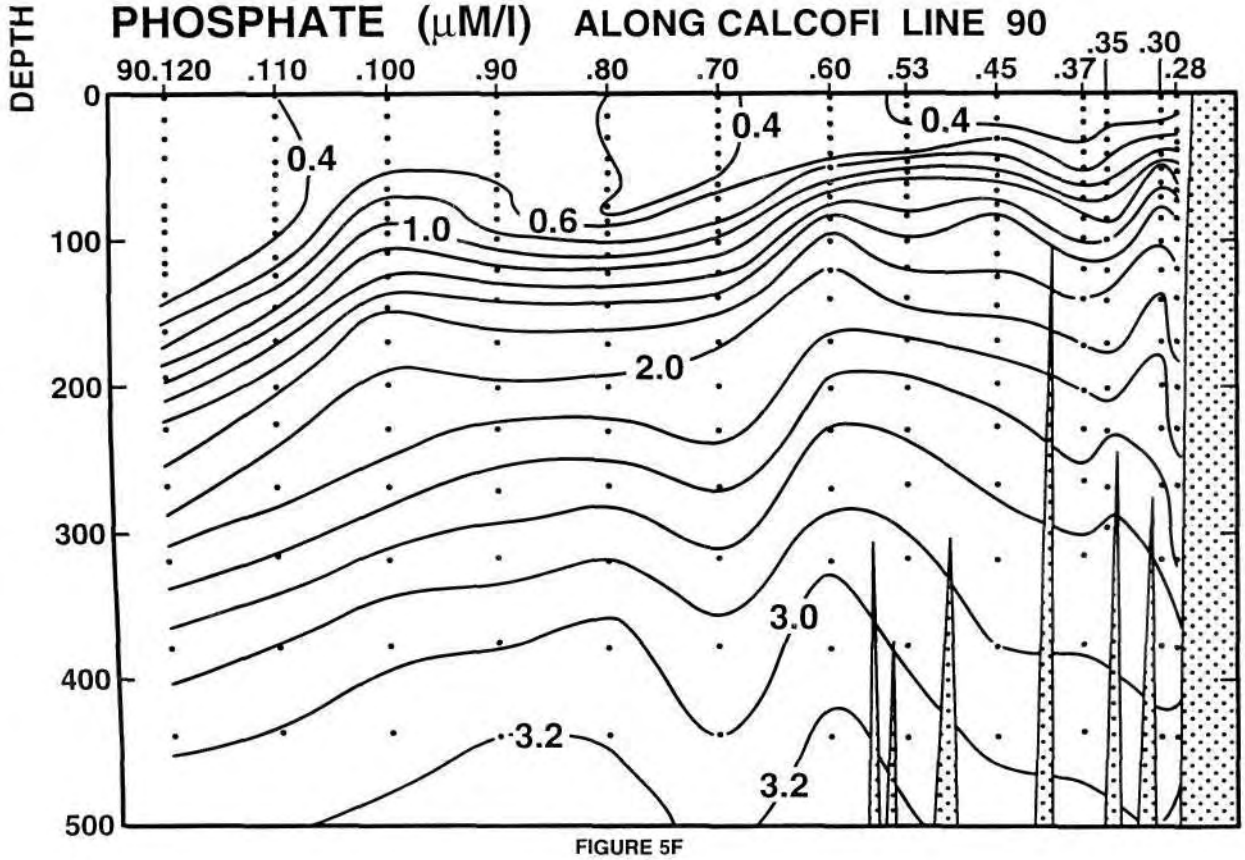

FIGURE 5F

CALCOFI CRUISE 9408

9 - 11 AUGUST 1994

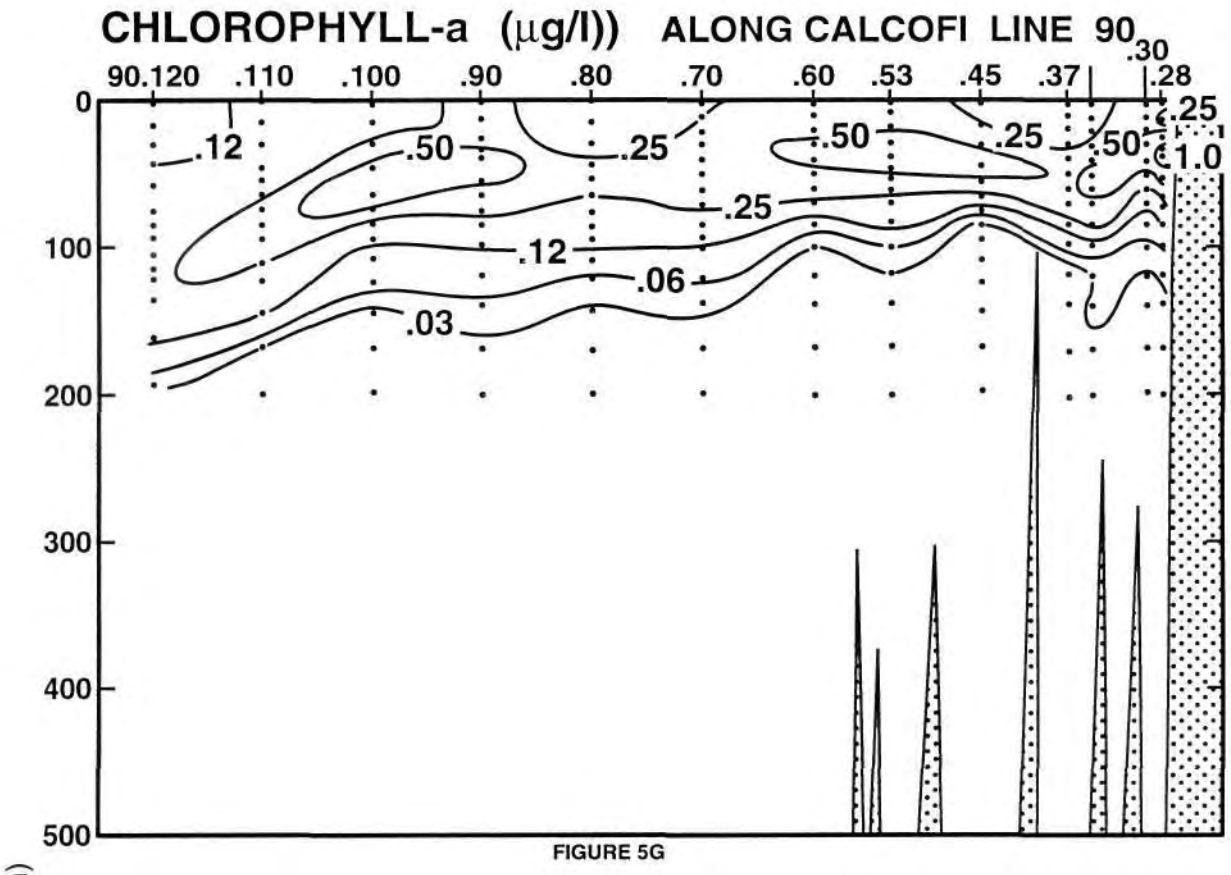

FIGURE 5G

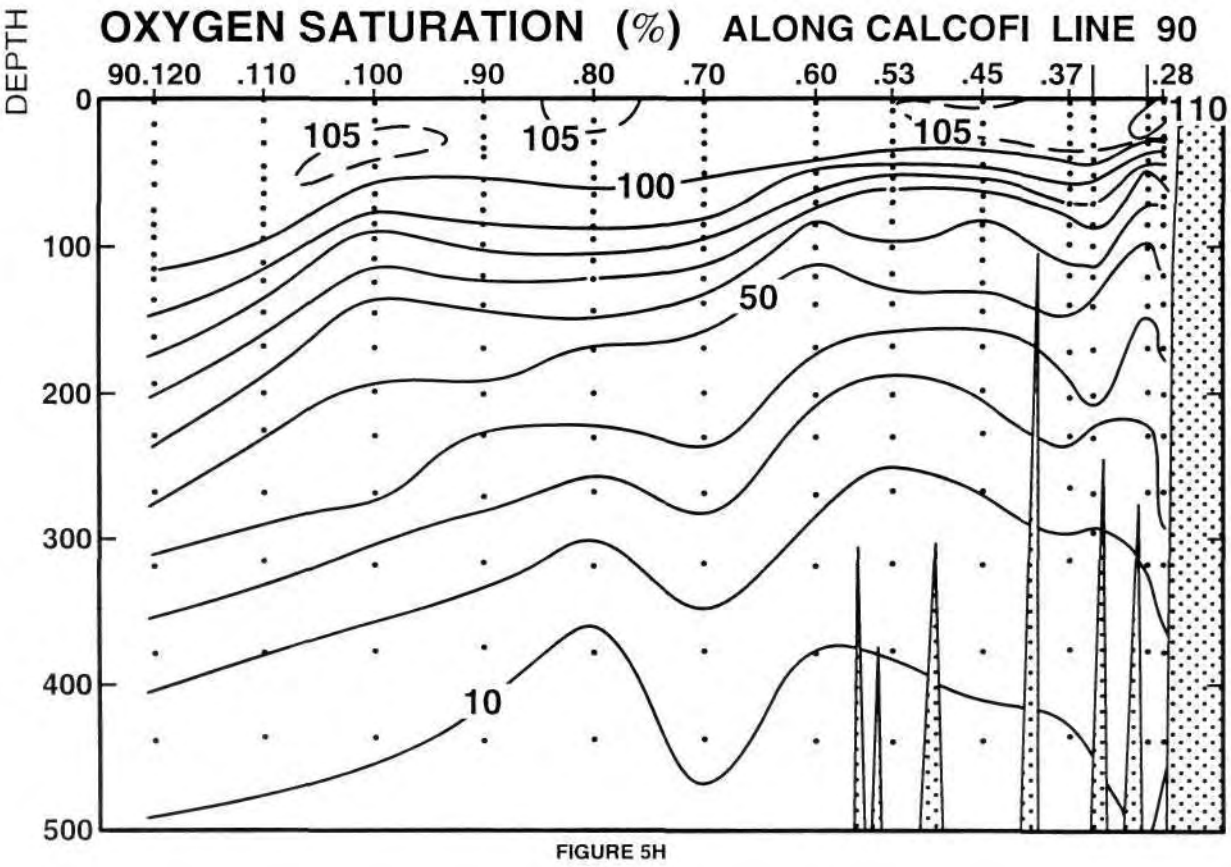

FIGURE 5H

CALCOFI CRUISE 9408

9 - 11 AUGUST 1994

OXYGEN (ml/l) ALONG CALCOFI LINE 90

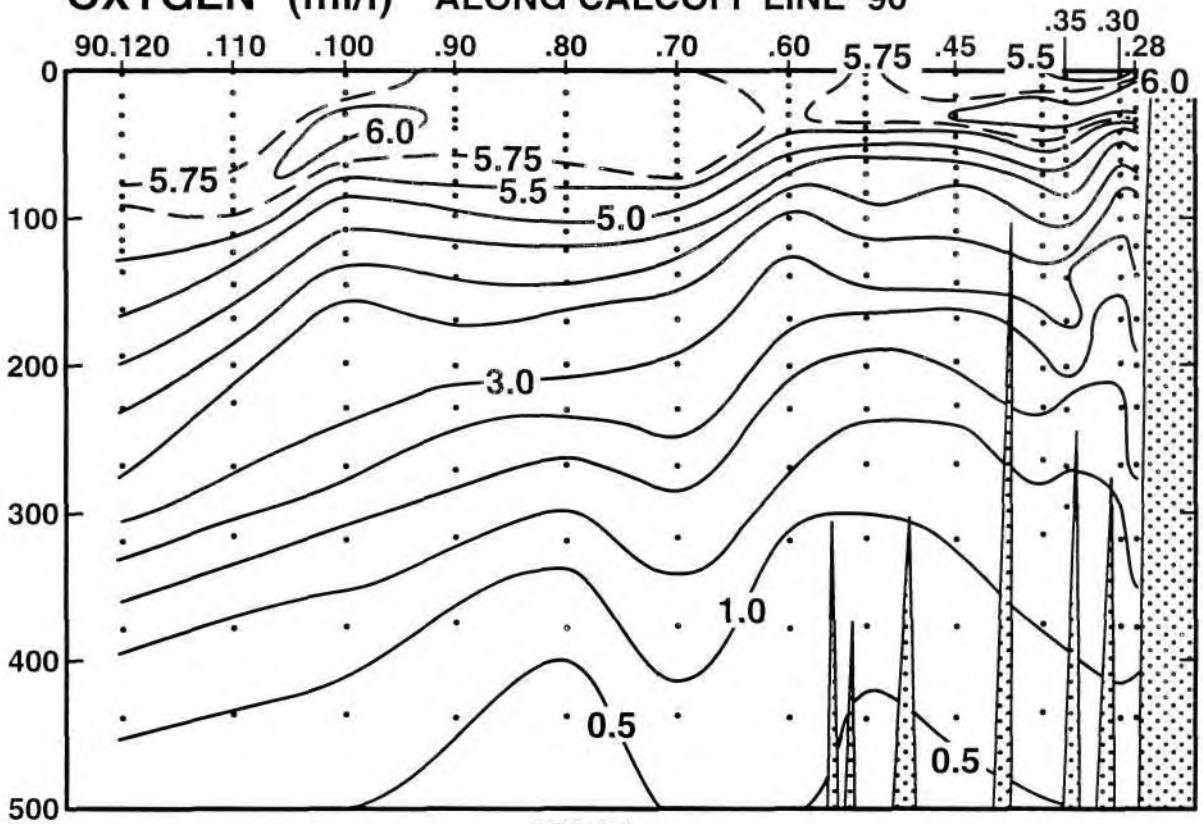

FIGURE 5I

NITRITE (μM/l) ALONG CALCOFI LINE 90

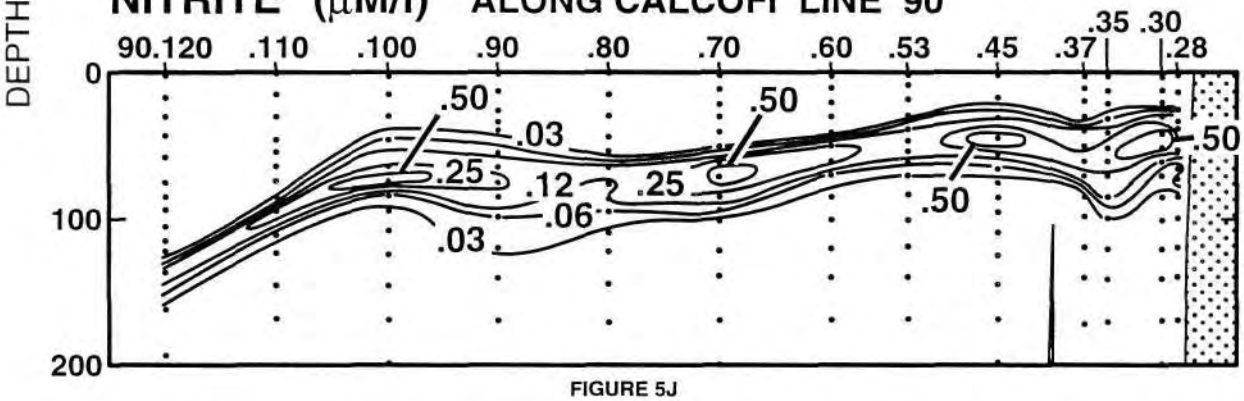

FIGURE 5J

PHAEOPIGMENTS (μg/l) ALONG CALCOFI LINE 90

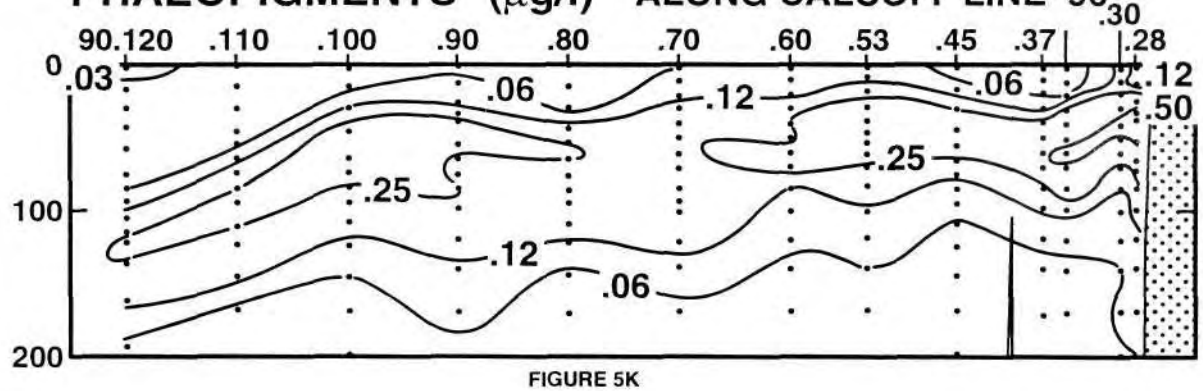

FIGURE 5K

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 77 49

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
35 5.4 N	120 46.3W	19/08/94	2313 UTC	69 m	290 15 kn	310 04 05	1	1014.4 mb	16.1 C	14.9 C	04m 07	6/8	ST

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	14.19	14.19	33.527	25.010	293.8	0.000	6.85	117.4	3.0	0.28	0.4	0.02	11.11	2.25	0
2	2		14.19	14.19	33.527	25.010	293.9	0.006	6.85	117.4	3.0	0.28	0.4	0.02	11.11	2.25	2
2	10		13.10	13.10	33.499	25.211	274.9	0.029	5.73	96.0	6.5	0.59	4.5	0.16	9.33	2.19	10
	20	ISL	12.69	12.69	33.491	25.286	268.1	0.056	5.21	86.5	8.9	0.35	6.5	0.30	5.74	1.64	20
2	21		12.68	12.68	33.491	25.288	267.9	0.058	5.19	86.2	9.0	0.87	6.6	0.31	5.43	1.58	21
2	30		12.56	12.56	33.495	25.315	265.6	0.082	5.08	84.1	9.7	0.89	7.1	0.34	4.96	1.51	30
2	40		12.52	12.51	33.516	25.339	263.6	0.109	5.06	83.7	9.8	1.00	6.8	0.32	5.39	1.86	40
2	50		12.43	12.42	33.523	25.362	261.6	0.135	4.96	81.9	10.5	1.03	7.4	0.29	5.51	1.67	50
2	60		12.19	12.18	33.515	25.402	258.1	0.161	4.59	75.4	13.7	1.22	9.5	0.37	2.68	1.35	60

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 77 51

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
35 1.5 N	120 55.2 W	19/08/94	2050 UTC	241 m	320 08 kn	310 04 05	2	1015.6 mb	16.0 C	15.0 C	08m 06	8/8	ST

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	16.80	16.80	33.496	24.408	351.2	0.000	6.10	110.1	4.2	0.33	0.0	0.00	1.45	0.67	0
2	3		16.80	16.80	33.496	24.408	351.3	0.011	6.10	110.1	4.2	0.33	0.0	0.00	1.45	0.67	3
2	10		15.57	15.57	33.497	24.689	324.7	0.034	6.11	107.7	4.a	0.42	0.9	0.03	0.99	0.57	10
	20	ISL	14.25	14.25	33.497	24.975	297.7	0.065	5.73	98.3	5.0	0.70	2.9	0.12	1.05	0.72	20
2	21		14.12	14.12	33.493	24.999	295.5	0.068	5.67	97.0	5.0	0.73	3.2	0.13	1.06	0.74	21
2	30		12.39	12.39	33.386	25.263	270.5	0.094	5.06	83.5	9.7	1.01	7.9	0.28	0.64	0.58	30
2	40		11.59	11.58	33.363	25.396	258.1	0.120	4.79	77.7	12.1	1.14	11.0	0.24	0.39	0.41	40
2	49		11.08	11.07	33.399	25.516	246.8	0.143	4.42	70.9	14.5	1.29	14.0	0.13	0.24	0.28	49
	50	ISL	11.05	11.04	33.405	25.526	245.9	0.145	4.39	70.4	14.7	1.30	14.3	0.12	0.23	0.28	50
2	60		10.86	10.85	33.483	25.621	237.1	0.170	4.05	64.7	16.6	1.42	16.4	0.06	0.15	0.25	60
2	70		10.63	10.62	33.588	25.743	225.7	0.193	3.58	56.9	19.3	1.58	18.3	0.15	0.14	0.31	70
	75	ISL	10.40	10.39	33.629	25.815	218.9	0.204	3.45	54.6	20.7	1.63	19.2	0.12	0.14	0.30	75
2	85		9.97	9.96	33.692	25.938	207.5	0.225	3.28	51.4	23.0	1.70	20.6	0.04	0.14	0.27	35
2	99		9.87	9.86	33.734	25.988	203.0	0.254	3.03	47.4	24.8	1.75	21.3	0.08	0.10	0.25	100
	100	ISL	9.87	9.86	33.736	25.989	202.9	0.256	3.03	47.4	24.9	1.76	21.4	0.08	0.10	0.25	101
2	120		9.81	9.80	33.767	26.024	200.0	0.296	2.97	46.4	25.6	1.85	22.3	0.06	0.06	0.18	121
	125	ISL	9.77	9.76	33.778	26.039	198.7	0.306	2.93	45.8	25.8	1.36	22.5	0.05	0.06	0.18	126
2	139		9.63	9.61	33.814	26.091	194.0	0.334	2.82	43.9	26.7	1.88	22.9	0.04	0.05	0.21	140
	150	ISL	9.55	9.53	33.840	26.124	191.1	0.355	2.75	42.8	27.6	1.91	23.3	0.04	0.04	0.21	151
2	169		9.43	9.41	33.892	26.185	185.7	0.391	2.60	40.3	29.6	1.99	24.2	0.04	0.02	0.20	170
2	199		9.24	9.22	34.009	26.307	174.6	0.445	2.25	34.8	33.3	2.12	26.4	0.01	0.01	0.14	200
	200	ISL	9.24	9.22	34.009	26.308	174.6	0.446	2.25	34.8	33.3	2.12	26.4	0.01			201
2	229		9.22	9.19	34.022	26.322	173.9	0.497	2.15	33.2	34.4	2.16	27.0	0.05			230

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 55.3 N	121 13.2 W	19/08/94	1823 UTC	567 m	340 13 kn	340 05 05	2	1016.2 mb	16.3 C	15.1 C	09m 07	8/8	ST

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uN/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	15.50	15.50	33.471	24.684	324.8	0.000	6.44	113.3	5.3	0.36	0.0	0.00	2.01	0.82	0
2	2	A	15.50	15.50	33.471	24.685	324.9	0.006	6.44	113.3	5.3	0.36	0.0	0.00	2.01	0.82	2
2	5	A	15.48	15.48	33.472	24.690	324.5	0.016	6.43	113.1	5.3	0.37	0.1	0.01	2.28	0.82	5
	10	ISL	15.41	15.41	33.469	24.703	323.3	0.032	6.40	112.4	5.3	0.40	0.1	0.01	2.33	0.89	10
2	12	A	15.38	15.38	33.477	24.716	322.2	0.039	6.39	112.1	5.3	0.41	0.1	0.01	2.35	0,92	12
2	18	A	15.02	15.02	33.480	24.797	314.6	0.058	6.22	108.4	5.9	0.47	0.a	0.04	2.04	0.87	13
	20	ISL	14.38	14.38	33.475	24.930	302.0	0.064	6.09	104.7	7.0	0.57	2.8	0.08	1.70	0.80	20
2	25	A	12.70	12.70	33.482	25.277	269.1	0.078	4.92 U	81.7 U	9.8	0.83	7.9	0.19	0.38	0.62	25
	30	ISL	12.14	12.14	33.483	25.386	258.8	0.092	5.27	86.5	9.7	0.87	8.2	0.30	0.90	0.63	30
2	33	A	12.02	12.02	33.483	25.409	256.7	0.099	4.98	81.5	9.6	0.90	8.3	0.34	0.91	0.64	33
2	42		11.45	11.44	33.544	25.562	242.3	0.122	4.24	68.6	19.0 U			0.17	0.57	0.57	42
2	50		10.91	10.90	33.588	25.694	230.0	0.141	3.83	61.3	17.0			0.10	0.48	0.55	50
2	60		10.51	10.50	33.626	25.794	220.7	0.163	3.56	56.5	19.0			0.08	0.28	0.40	60
2	71		9.97	9.96	33.699	25.943	206.7	0.187	3.26	51.1	21.6			0.02	0.15	0.27	71
	75	ISL	9.87	9.86	33.724	25.979	203.3	0.195	3.14	49.1	22.6			0.02	0.12	0.24	75
2	85		9.72	9.71	33.776	26.045	197.2	0.215	2.91	45.4	24.6			0.02	0.08	0.19	35
2	100		9.58	9.57	33.S08	26.093	192.9	0.244	2.86	44.5	25.6			0.01	0.06	0.20	101
2	120		9.41	9.40	33.957	26.238	179.6	0.281	2.37	36.8	29.7			0.03	0.02	0.19	121
	125	ISL	9.35	9.34	33.982	26.267	176.9	0.290	2.29	35.5	30.4			0.03	0.02	0.18	126
2	139		9.21	9.19	34.034	26.331	171.1	0.315	2.14	33.1	32.1			0.01	0.01	0.15	140
	15C	ISL	9.15	9.13	34.054	26.356	168.9	0.333	2.10	32.4	32.8			0.01			151
2	170		9.08	9.06	34.077	26.386	166.5	0.367	2.05	31.6	33.9			0.01			171
2	199		8.91	8.89	34.130	26.455	160.5	0.414	1.85	28.4	36.3			0.01			200
	200	ISL	8.90	8.88	34.131	26.457	160.3	0.416	1.85	28.4	36.4			0.01			201
2	228		8.77	8.75	34.152	26.495	157.3	0.461	1.74	26.6	38.2			0.01			229
	250	ISL	8.67	8.64	34.170	26.525	154.8	0.495	1.64	25.1	39.2			0.01			252
2	270		8.58	3.55	34.184	26.550	152.8	0.526	1.55	23.6	40.3			0.01			272
	300	ISL	8.43	8.40	34.198	26.584	150.0	0.571	1.45	22.0	43.4			0.00			302
2	317		8.30	8.27	34.201	26.607	148.1	0.596	1.40	21.2	45.6			0.00			319
2	375		7.32	7.28	54.179	26.733	136.5	0.679	1.23	18.2	55.0			0.00			377
	400	ISL	7.01	6.97	34.176	26.774	132.7	0.713	1.13	16.6	58.9			0.00			403
2	438		6.66	6.62	34.181	26.825	128.1	0.762	0.96	14.0	64.5			0.00			441
	500	ISL	6.34	6.29	34.230	26.907	121.1	0.839	0.68	9.8	72.6			0.01			504
2	513		6.27	6.22	34.240	26.924	119.5	0.855	0.62	9.0	74.3			0.01			517

A) PRIdARY PROUCTIVITY SAMPLES JERE TAKEN FROM THESE LEVELS

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD ANT TYPE
34 43.7 NI	121 33.3 W	19/08/94	1300 UTC	903 m	340 16 kn			1014.9 mb	14.0 C	13.4 C		I 2

CAST	DEPTH in	TEHP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0 ISL	14.87	14.87	33.490	24.837	310.3	0.000	6.65	115.5	1.7	0.28	0.0	0.00	2.12	0.64	0
2	2	14.87	14.87	33.490	24.837	310.4	0.006	6.65	115.5	1.7	0.28	0.0	0.00	2.12	0.64	2
	10 ISL	14.87	14.87	33.490	24.837	310.6	0.031	6.65	115.5	1.7	0.25	0.0	0.00	2.16	0.64	10
2	11	14.87	14.87	33.490	24.837	310.6	0.034	6.65	115.5	1.7	0.25	0.0	0.00	2.16	0.64	11
	20 ISL	14.81	14.81	33.493	24.853	309.4	0.062	6.69	116.1	1.6	0.28	0.0	0.01	1.69	0.64	20
2	21	14.80	14.80	33.493	24.855	309.2	0.065	6.69	116.1	1.6	0.28	0.0	0.01	1.61	0.64	21
	30 ISL	14.57	14.57	33.488	24.901	305.1	0.093	6.47	111.7	1.9	0.31	0.1	0.00	0.72	0.42	30
2	31	14.54	14.54	33.487	24.906	304.6	0.096	6.44	111.1	1.9	0.31	0.1	0.00	0.63	0.39	31
2	40	13.00	12.99	33.457	25.199	276.9	0.122	5.39	90.1	6.3	0.66	4.4	0.18	0.50	0.37	40
2	SO	12.31	12.30	33.447	25.326	265.0	0.149	5.07	83.5	9.0	0.77	6.0	0.09	0.52	0.43	50
2	60	11.27	11.26	33.391 D	25.476	250.9	0.175	5.07 U	81.6 U	8.9	0.76	4.8	0.68	0.50	0.43	60
2	70	10.81	10.80	33.456	25.609	238.5	0.199	4.49	71.6	14.9	0.97	9.5	0.21	0.42	0.32	70
	75 ISL	10.50	10.49	33.450	25.658	233.8	0.211	4.37	69.2	16.4	1.03	10.5	0.23	0.39	0.31	75
2	86	9.79	9.78	33.457	25.784	222.0	0.236	4.08	63.6	18.9	1.17	12.8	0.28	0.31	0.30	86
2	100	9.08	9.07	33.646	26.047	197.2	0.266	3.55	54.6	23.5				0.09	0.16	101
2	120	8.89	8.88	33.732	26.145	188.3	0.304	3.30	50.5	27.3				0.07	0.13	121
	125 ISL	8.92	8.91	33.766	26.167	186.3	0.314	3.18	48.7	28.0				0.07	0.14	126
2	139	9.06	9.04	33.864	26.222	181.4	0.339	2.81	43.2	29.6				0.06	0.17	140
	150 ISL	9.05	9.03	33.920	26.267	177.3	0.359	2.60	40.0	30.7				0.06	0.21	151
2	170	9.04	9.02	34.019	26.347	170.2	0.394	2.33	35.9	32.9				0.06	0.25	171
2	200	8.64	8.62	34.070	26.450	160.9	0.443	2.17	33.1	37.1				0.04	0.16	201
2	229	8.36	8.34	34.144	26.551	151.7	0.489	1.75	26.5	42.0						230
	250 ISL	8.10	8.07	34.179	26.618	145.6	0.520	1.48	22.3	46.4						252
2	270	7.85	7.82	34.203	26.674	140.6	0.549	1.26	18.9	50.4						272
	300 ISL	7.62	7.59	34.232	26.731	135.6	0.590	1.02	15.2	54.5						302
2	321	7.46	7.43	34.240	26.760	133.1	0.618	0.91	13.5	57.0						323
2	381	6.59	6.56	34.196	26.846	125.3	0.696	0.86	12.5	65.5						384
	400 ISL	6.56	6.52	34.211	26.862	124.0	0.719	0.80	11.6	67.0						403
2	437	6.51	6.47	34.236	26.888	122.0	0.765	0.66	9.6	69.5						440
	500 ISL	6.03	5.99	34.238	26.953	116.4	0.840	0.54	7.8	76.6						504
2	518	5.89	5.84	34.240	26.972	114.6	0.861	0.50	7.2	78.6						522

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 77 70

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD ANT TYPE
34 23.4 NI	122 15.1 W	19/08/94	0718 UTC	4020 m	350 22 kn			1015.4 mb	15.1 C	14.4 C		

CAST	DEPTH in	TEHP DEG C	POT TEHP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/I	PRESS db
	0 ISL	17.23	17.23	33.090	23.996	390.5	0.000	5.62	102.1	3.0	0.39	0.2	0.00	0.14	0.05	0
2	2	17.23	17.23	33.090	23.996	390.5	0.008	5.62	102.1	3.0	0.39	0.2	0.00	0.14	0.05	2
	10 ISL	17.22	17.22	33.090	23.998	390.5	0.039	5.63	102.2	2.9	0.37	0.1	0.00	0.14	0.05	10
2	14	17.22	17.22	33.090	23.998	390.7	0.055	5.63	102.2	2.9	0.35	0.1	0.00	0.14	0.05	14
	20 ISL	17.12	17-12	33.081	24.015	389.2	0.078	5.67	102.7	2.8	0.34	0.1	0.00	0.16	0.05	20
2	30	16.96	16.96	33.066	24.042	387.0	0.117	5.73	103.5	2.7	0.31	0.1	0.00	0.18	0.06	30
2	45	14.07	14.06	33.067	24.681	326.4	0.170	6.15	104.8	3.7	0.47	0.9	0.04	0.35	0.17	45
	50 ISL	13.80	13.79	33.200	24.840	311.4	0.186	6.10	103.5	4.0	0.60	2.6	0.13	0.38	0.21	50
2	55	13.44	13.43	33.308	24.997	296.6	0.202	6.04	101.8	4.8	0.73	4.6	0.19	0.40	0.24	55
2	65	11.12	11.11	33.226	25.375	260.6	0.229	5.12	82.1	9.8	0.91	8.8	0.07	0.24	0.20	65
2	75	10.50	10.49	33.380	25.604	239.0	0.254	4.71	74.6	12.2	1.12	12.4	0.09	0.18	0.17	75
2	85	9.95	9.94	33.398	25.712	228.9	0.278	4.35	68.1	16.9	1.16	14.0	0.04	0.09	0.09	85
2	94	10.03	10.02	33.608	25.862	214.8	0.298	3.92	61.5	21.7	1.69	21.3	0.03	0.05	0.06	94
	100 ISL	9.78	9.77	33.661	25.946	207.0	0.310	3.68	57.5	24.2	1.77	22.5	0.02	0.03	0.06	100
2	109	9.30	9.29	33.685	26.043	197.8	0.329	3.39	52.4	26.9	1.88	24.4	0.02	0.02	0.05	110
2	124	9.03	9.02	33.719	26.113	191.4	0.358	3.10	47.6	28.2	1.90	24.7	0.02	0.02	0.05	125
	125 ISL	9.00	8.99	33.722	26.120	190.8	0.360	3.09	47.4	28.3	1.91	24.8	0.02	0.02	0.05	126
2	142	8.50	8.49	33.769	26.234	180.1	0.391	3.00	45.5	30.4	2.00	26.0	0.01	0.00	0.05	143
	150 ISL	8.33	8.31	33.793	26.279	175.9	0.406	3.01	45.5	31.4	2.01	26.4	0.01	0.00	0.05	151
2	169	8.03	8.01	33.853	26.371	167.5	0.438	3.06	46.0	33.7	2.02	26.9	0.01	0.00	0.05	170
2	198	7.81	7.79	33.956	26.485	157.2	0.485	3.04	45.5	36.4	2.01	26.9	0.02	0.00	0.03	199
	200 ISL	7.80	7.78	33.961	26.490	156.7	0.488	3.01	45.0	36.7	2.02	27.0	0.02			201
2	232	7.63	7.61	34.019	26.561	150.5	0.537	2.38	35.5	42.4	2.27	29.9	0.01			233
	250 ISL	7.51	7.49	34.036	26.592	147.8	0.564	2.19	32.6	44.8	2.34	30.9	0.01			251
2	270	7.35	7.32	34.048	26.624	145.0	0.594	2.05	30.4	47.4	2.40	31.8	0.01			272
	300 ISL	7.05	7.02	34.066	26.680	140.0	0.636	1.82	26.8	52.2	2.48	32.8	0.01			302
2	317	6.86	6.83	34.074	26.713	137.0	0.660	1.69	24.7	55.2	2.51	33.3	0.01			319
2	373	6.09	6.06	34.085	26.823	126.9	0.734	1.21	17.4	67.0	2.53	34.3	0.05			375
	400 ISL	5.90	5.87	34.108	26.865	123.1	0.768	1.01	14.5	71.1	2.54	34.5	0.04			403
2	439	5.72	5.68	34.149	26.920	118.2	0.815	0.77	11.0	76.3	2.55	34.7	0.01			442
	500 ISL	5.39	5.35	34.204	27.004	110.8	0.884	0.49	6.9	85.4	2.93	38.9	0.02			503
2	514	5.32	5.28	34.217	27.022	109.1	0.900	0.43	6.1	87.5	3.02	39.9	0.02			518

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 3.7 N	122 57. 1 W	19/08/94	0047 UTC	4239 m	340 18 kn	350 07 07	2	1015 .7 mb	17.5 C	16.1 C		8/8	SC

CAST	DEPTH ID		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 UM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	17.23	17.23	33.087	23.993	390.7	0.000	5 .65	102.6	2 .8	0.39	0.0	0.00	0.19	0.06	0
2	2		17.23	17.23	33.087	23.993	390.8	0.008	5 .65	102 .6	2 .8	0.39	0.0	0.00	0.19	0.06	2
	10	ISL	17.23	17.23	33.087	23.994	391 .0	0.039	5.65	102 .6	2.8	0.37	0.0	0.00	0.19	0.06	10
2	17		17.23	17.23	33.087	23.994	391 .2	0.066	5.65	102 .6	2.7	0.36	0.0	0.00	0.19	0.06	17
	20	ISL	17.22	17.22	33.087	23.996	391 .1	0.078	5.65	102.6	2 .7	0.37	0.0	0.00	0.19	0.06	20
	30	ISL	17.20	17.20	33.086	24.001	391 .0	0.117	5.65	102 . 5	2 .5	0.39	0.0	0.00	0.20	0.07	30
2	32		17.20	17.19	33.086	24.001	391 .0	0.125	5 .65	102.5	2 .5	0.40	0.0	0.00	0.20	0.07	32
2	47		13.02	13.01	33.320	25 .089	287.5	0.176	6.17	103.1	5.1	0.76	5 .7	0.17	0.55	0.28	47
	SO	ISL	12.57	12.56	33.360	25.209	276.2	0.184	6.08	100.6	5.3	0.82	6 .8	0.20	0.61	0.41	50
2	56		11 .86	11 .85	33.426	25.395	258.6	0.201	5 .72	93.3	6.7	0.97	9.4	0.27	0.71	0.61	56
2	65		10.88	10.87	33.521	25.647	234.7	0.223	4.81	76.9	14.5	1 .33	14.7	0.45	0.75	0.46	65
	75	ISL	10.20	10.19	33.539	25.779	222 .3	0.246	4.27	67.2	18.6	1.51	18.1	0.19	0.68	0 .30	75
2	77		10.07	10.06	33.534	25.797	220.6	0.250	4.20	65 .9	19.1	1 .53	18.6	0.12	0.66	0.27	77
2	35		9.34	9.33	33.513	25.901	210.8	0.267	3.87	59.8	22.2	1 .63	20.4	0.03	0.12	0.10	85
2	96		8.95	8.94	33.586	26.021	199.6	0.290	3.57	54 .7	25.7	1 .79	23.0	0.02	0.04	0.08	96
	100	ISL	8.81	8.80	33.613	26.064	195.6	0.298	3.53	53.9	26.5	1.81	23.4	0.02	0.03	0.08	100
2	111		8.48	8.47	33.682	26.169	185.7	0.319	3.45	52.3	28.3	1 .83	24.0	0.02	0.01	0.07	1 12
	125	ISL	8.20	8.19	33.756	26.269	176.4	0.344	3.27	49.3	31 .0	1 .94	25.3	0.03	0.01	0.06	126
2	126		8.18	8.17	33.761	26.276	175.8	0.346	3.26	49. 1	31 .2	1 .95	25 .4	0.03	0.01	0.06	127
2	145		7.96	7.95	33.885	26.406	163.7	0.378	2.95	44.3	35.0	1 .99	26.6	0.01	0.01	0.06	146
	150	ISL	7.87	7.86	33.898	26.430	161.5	0.386	2.98	44.6	35.5	2 .00	26.8	0.01	0.01	0.06	151
2	171		7.52	7.50	33.922	26.500	155.2	0.419	3.18	47.3	37.3	2 .03	27.3	0.03	0.00	0.05	172
2	200		7.27	7.25	33.947	26.555	150.3	0.464	2 .98	44.0	40.7	1 .98	27.6	0.04	0.00 A	0.04 A	201
2	229		7.17	7.15	34.014	26.622	144.4	0.506	2.35	34 .7	46.4	2.14	29.4	0.04			230
	250	ISL	7.03	7.01	34.037	26.660	141.1	0.536	2.05	30.1	50. 1	2 .31	31 .5	0.04			251
2	269		6.88	6.86	34.051	26.691	138.3	0.563	1 .84	27.0	53 .3	2 .45	33.2	0.03			**271**
	300	ISL	6.63	6.60	34.080	26.748	133.3	0.605	1 .46	21.3	59.0	2 . 49	34.1	0 .02			**302**
2	321		6.47	6.44	34.101	26.786	129.9	0.633	1 .23	17.9	62 .7	2.51	34 . 4	0.01			**323**
2	378		6.16	6.13	34.162	26.875	122.1	0.705	0.85	12.2	70.8	2.73	36.4	0.01			**380**
	400	ISL	5.98	5 .95	34.165	26.900	119.9	0.731	0.77	11.0	73.9	2 .78	37.2	0.01			**403**
2	437		5.66	5.62	34.167	26.941	116.1	0.775	0.65	9.3	79.2	2 . 83	38.4	0.01			**440**
	500	ISL	5.27	5.23	34.223	27.033	107.9	0.845	0.41	5.8	88.4	2 .92	39.9	0 .03			**503**
2	512		5.20	5.16	34.234	27.050	106.3	0.858	0.36	5. 1	90.2	2.94	40.2	0.03			**516**

A) SECONt) FLUOROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPIGMENT CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 43.1 tI	123 38.0 W	18/08/94	1820 UTC	4259 m	350 21 kn	350 07 06	2	1018 . 4 mb	17.5 C	16.5 C	18m 03	8/8	ST

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 UM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	16.64	16.64	33.040	24.095	381 .0	0.000	5.82	104.5	3.2	0.41	0.2	0.00	0.25	0.06	0
2	1	A	16.64	16.64	33.040	24.095	381.0	0.004	5.82	104.5	3.2	0.41	0.2	0.00	0.25	0.06	1
	10	ISL	16.64	16.64	33.040	24.096	381 .3	0.038	5.82	104.4	3. 1	0.41	0.2	0.00	0.21	0.07	10
2	11	A	16.64	16.64	33.040	24.096	381 .3	0.042	5.82	104.4	3. 1	0.41	0.2	0.00	0.21	0.07	1 1
	20	ISL	16.49	16.49	33.008	24.106	380.6	0.076	5.89	105.4	3.2	0.40	0.2	0.00	0.25	0.08	20
2	24	A	16.43	16.43	32.994	24.109	380.4	0.091	5 .94	106. 1	3.3	0.39	0.2	0.00	0.28	0.09	24
	30	ISL	15.83	15.83	32.963	24.221	369.9	0.114	6.02	106.3	3.4	0.39	0.2	0.00	0.34	0.11	30
2	35	A	15.30	15.29	32.946	24.326	360.1	0.132	6.08	106.2	3.5	0.39	0.2	0 .00	0.37	0.13	35
2	48	A	14.65	14 .64	32.975	24 .489	344.9	0.178	6.07	104 .6	4 . 1	0.37	0.2	0.00	0.30	0.12	48
	50	ISL	14.46	14.45	32.963	24.520	342.0	0.185	6.10	104 .7	4.2	0.38	0.2	0.00	0.31	0.13	50
2	58		13.70	13.69	32.943	24.662	328.6	0.212	6.18	104.5	4.3	0.40	0.3	0.00	0.34	0.19	58
2	65	A	13.34	13.33	33.022	24 .796	316.0	0.234	6.10	102 .4	4.2	0.41	0.4	0.02	0.32	0.20	65
	75	ISL	12 .99	12.98	33.095	24.922	304.2	0.265	6.02	100.4	4.3	0.38	0.2	0.00	0.26	0.18	75
2	76		12.96	12.95	33.100	24.932	303.3	0.268	6.01	100. 1	4.3	0.38	0.2	0.00	0.25	0.18	76
2	84		12 .77	12.76	33.140	25.000	297.0	0.292	5.94	98.6	4.6	0.41	0.4	0.02	0.24	0.17	84
2	99		11.38	11 .37	33.216	25.321	266.6	0.335	5.30	85.4	8.2	0 .79	6.9	0.20	0.18	0.16	99
	100	ISL	11 .29	11.28	33.222	25.342	264.6	0.337	5 .26	84 .6	8.5	0.82	7.4	0.19	0.17	0.16	100
2	119		9.91	9.90	33.336	25 .670	233.5	0.385	4 .54	70.9	15.2	1 .32	15.6	0.02	0.07	0.09	120
	125	ISL	9.65	9.64	33.372	25.742	226.8	0.398	4.41	68.5	16.7	1.41	17.1	0.02	0. 06	0.09	126
2	139		9.19	9.17	33.455	25.881	213.8	0.429	4.17	64 .2	19.8	1.57	19.5	0.02	0. 04	0.08	140
	150	ISL	8.87	8.85	33.526	25.987	203.8	0.452	3.94	60.2	22.5	1 .69	21.5	0.02	0.03	0.06	151
2	169		8.43	8.41	33.655	26.156	188.0	0.489	3. 59	54 . 4	26.9	1 .86	24 .2	0.01	0.01	0 .04	170
	200	ISL	8.05	8.03	33.872	26.384	166.9	0.544	3.34	50.2	32.0	1 .96	26.0	0.01	0.00	0.05	201
2	201		8.04	8.02	33.878	26.390	166.3	0. 546	3.33	50. 1	32.1	1 .96	26.0	0.01	0.00	0.05	202
2	229		7.74	7.72	33.951	26.492	157.0	0.591	3.10	46.3	36.2	2 .06	27.6	0.01			230
	250	ISL	7.59	7.57	33.995	26.548	152.0	0.624	2.74	40.8	40.2	2.22	29.5	0.00			251
2	267		7.48	7.45	34.023	26.586	148.6	0.649	2 .42	35.9	43.7	2 .35	31 .0	0.00			**269**
	300	ISL	7.17	7.14	34 .049	26.650	142.9	0.697	2 .05	30.2	49.6	2.50	32.9	0.01			**302**
2	316		7.00	6.97	34.054	26.678	140.4	0.720	1 .91	28.1	52 .4	2.55	33.7	0.01			**318**
2	377		6.37	6.34	34.061	26.768	132 .3	0.803	1 . 42	20.6	64 . 5	2 . 80	37.2	0.00			**379**
	400	ISL	6.05	6.02	34.060	26.808	128.6	0.833	1 .30	18.7	68. 1	2 . 87	38.2	0.00			**403**
2	439		5.55	5.51	34.069	26.877	122.1	0.882	1.12	15.9	74 .0	2 .97	39.7	0.00			**442**
	500	ISL	5.16	5.12	34.128	26.970	113.6	0. 954	0.73	10.3	85 . 1	3.10	41.6	0.00			**503**
2	515		5 .07	5 .03	34.143	26.993	111.6	0.971	0.63	8.8	87.8	3.13	42 . 1	0 .00			**518**

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV **NEW** HORIZON — CALCOFI CRUISE 9408 — STATION 77 100

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOH	WIND SPEED	WAVES	WEA	BAROHETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
33 23.4 N	124 19.6 W	18/08/94	1208 UTC	3992 m	330 23 kn			1017 . 4 mb	17.6 C	16.1 C			

CAST	DEPTH m		TEHP DEG C	POT TEMP DEG C	SALINITY	SIGNA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uH/l	P04 *urn*/ i	N03 uM/l	N02 UN/ I	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.51	18.51	33.287	23.836	405.7	0.000	5 .44	101.4	3.9	0.38	0.0	0.00	0.09	0.03	0
2	1		18.51	18.51	33.287	23.836	405 .7	0.004	5 .44	101 .4	3.9	0.38	0.0	0.00	0.09	0.03	1
	10	ISL	18.52	18.52	33.287	23.834	406.2	0.041	5.45	101.6	4.0	0.38	0.0	0.00	0.08	0.02	10
2	15		18.52	18.52	33.286	23.834	406.5	0.061	5.46	101.8	4.0	0.37	0.0	0.00	0.08	0.02	15
	20	ISL	18.52	18.52	33.285	23.833	406.7	0.081	5.46	101.8	3.9	0.36	0.0	0.00	0.08	0.02	20
	30	ISL	18.52	18.51	33.284	23.833	407.1	0. 122	5.45	101.6	3.8	0.34	0.0	0.00	0.09	0.02	30
2	31		18.52	18.51	33.284	23.833	407.1	0.126	5.45	101.6	3.8	0.34	0.0	0.00	0.09	0.02	31
2	45		18.51	18.50	33.284	23.836	407.3	0.183	5.45	101.5	3.8	0.34	0.0	0.00	0.09	0.03	45
	50	ISL	17.84	17.83	33.186	23.925	398.9	0.203	5.57	102.4	3.8	0.35	0.0	0.00	0.09	0.03	50
2	61		16.20	16.19	33.006	24.172	375.6	0.246	5.84	103.9	3.8	0.37	0.0	0.00	0.12	0.05	61
	75	ISL	15.42	15.41	33.088	24.410	353.3	0.297	5.92	103.7	3.6	0.35	0.0	0.00	0.19	0.11	75
2	76		15.40	15.39	33.103	24.426	351 .8	0.300	5.93	103.9	3.6	0.35	0.0	0.00	0.20	0.11	76
2	85		15.16	15.15	33.263	24.602	335.3	0.331	5.93	103.5	3.6	0.31	0.0	0.00	0.25	0.14	85
2	96		15.22	15.21	33.392	24.688	327.4	0.368	5.89	103.0	3.6	0.31	0.0	0.01	0.26	0.16	96
	100	ISL	15.16	15.14	33.442	24.740	322.6	0.381	5.85	102.2	3.6	0.31	0.0	0.01	0.24	0.17	100
2	105		15.02	15.00	33.490	24.808	316.3	0.397	5.78	100.7	3.6	0.30	0.0	0.02	0.22	0.18	105
2	116		14.40	14.38	33.485	24.937	304.2	0.431	5.64	97.0	3.9	0.27	0.2	0.04	0.20	0.23	116
2	125		13.96	13.94	33.521	25.057	292.9	0.458	5.46	93.1	4.7	0.39	1 .0	0.23	0.21	0.21	126
2	141		12.25	12.23	33.312	25.235	276.0	0.503	5.20	85.4	7.7	0.69	5.7	0.06	0.12	0.13	142
	150	ISL	11.36	11.34	33.303	25.393	260.9	0.527	4.88	78.7	10.7	0. 94	9.6	0.04	0.08	0.11	151
2	165		10.16	10.14	33.383	25.666	235.0	0.565	4.27	67.1	16.3	1 .36	16.0	0.01	0.04	0.08	166
2	193		9.21	9.19	33.621	26.009	202.7	0.626	3.39	52.2	24.5	1 .81	22 .8	0.00	0.01	0.03	194
	200	ISL	9.02	9.00	33.677	26.083	195.8	0.640	3.29	50.5	26.1	1 .87	23.7	0.00			201
2	230		8.38	8.36	33.867	26.331	172.6	0.695	3.07	46.5	31 .9	2 .01	26.0	0.01			231
	250	ISL	8.13	8.10	33.925	26.414	164.9	0.729	2.94	44 .3	34.8	2 .06	27.2	0.01			251
2	270		7.93	7.90	33.956	26.469	160.1	0.761	2.82	42.3	37.5	2 .09	28.3	0.00			271
	300	ISL	7.59	7.56	34.001	26.553	152.3	0.808	2.59	38.6	42 .3	2.20	30.0	0.00			302
2	319		7.38	7.35	34.021	26.599	148.2	0.837	2.42	35.9							321
2	379		6.69	6.66	34.041	26.710	138.1	0.923	1 .84	26.8	56. 6	2 . 59	34.5	0.00			381
	400	ISL	6.45	6.41	34.053	26.751	134.3	0.951	1 .62	23.5	61 .0	2.70	35.9	0.00			402
2	438		6.07	6.03	34.079	26.821	127.9	1 .001	1 .24	17.8	68.7	2 .88	38.2	0.00			441
	500	ISL	5.69	5 .65	34.128	26.907	120.2	1 .078	0.81	11.5	78.3	3.05	40.4	0.00			503
2	515		5.62	5.58	34.142	26.927	118.4	1 .096	0.73	10.4	80.3	3.08	40.7	0.00			518
2	599		5.31	5.26	34.246	27.047	107.8	1 . 191	0.37	5.2	90.5	3.25	42 .0	0.00			603
2	675		**4.81**	4.76	34.285	27.136	99.6	1 .270	0.26	3.6	101.8	3.38	43.7	0.00			680
2	722		4.83	4.77	34.345	27.182	95.9	1.315	0.26	3.6	103.4	3.42	43.8	0.00			727
2	775		4.53	4.47	34.362	27.229	91 .5	1 .365	0.24	3.3	109.7	3.41	44.2	0.00			781

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 80 51

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIHE	BOTTOH	WIND SPEED	WAVES	WEA	BAROHETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
34 27.0 NI	120 31.6 W	16/08/94	2241 UTC	76 in	290 16 kn	300 03 05	1	1011 . 1 mb	17.9 C	16.7 C	13m 04	7/8	ST

CAST	DEPTH m		TEHP DEG C	POT TEMP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uH/ I	P04 uH/ I	N03 uH/ I	N02 uH/ I	CHL-A ug/ I	PHAEO ug/l	PRESS db
	0	ISL	18.98	18.98	33.475	23.862	403.2	0.000	6.16	115.9	4 .2	0.31	0. 1	0.00	1.16	0.25	0
2	1		18.98	18.98	33.475	23.862	403.2	0.004	6.16	115.9	4.2	0.31	0.1	0.00	1.16	0.25	1
2	9		16.92	16.92	33.452	24.347	357.3	0.034	6.31	114.1	3.9	0.35	0. 1	0.00	1.15	0.30	9
	10	ISL	16.74	16.74	33.449	24.386	353.6	0.038	6.32	113.9	4.0	0.35	0.1	0.00	1.14	0.31	10
2	19		15.32	15.32	33.416	24.682	325.6	0.069	6.42	112.5	4.4	0.43	0.2	0.00	0.98	0.44	19
	20	ISL	15.11	15.11	33.413	24.726	321 .5	0.072	6.35	110.8	4.7	0.46	0.5	0.02	0.98	0.45	20
	30	ISL	13.17	13.17	33.408	25.127	283.5	0.102	5.47	91 .7	8.3	0.81	4 .8	0.31	0.87	0.53	30
2	31		12.99	12.99	33.410	25.165	279.9	0.105	5.36	89.5	8.7	0.85	5.4	0.34	0.85	0.53	31
2	40		12.15	12.14	33.435	25.347	262.8	0.129	4 .62	75.8	11.7	1.13	9.7	0.55	0.45	0.50	40
2	49		11.68	11.67	33.448	25.445	253.6	0.153	4.49	73.0	12.1	1 .22	11.6	0.32	0. 39	0.49	49
	50	ISL	11.65	11.64	33.451	25.453	252.9	0.155	4 .47	72.6	12.3	1 .23	11.8	0.32	0.38	0.48	50
2	62		11.31	11.30	33.485	25.542	244.7	0.185	4.18	67.4	14.3	1 .36	13.8	0.27	0.26	0.37	62

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 80 55

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIHE	BOTTOH	WIND SPEED	WAVES	WEA	BAROHETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 19.3 KI	120 48.8 W	17/08/94	0139 UTC	772 in	320 13 kn	320 04 05	1	1010 . 6 mb	16.7 C	15.5 C		4/8	ST

CAST	DEPTH ffl		TEHP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	S 103 uH/ I	P04 uH/ I	N03 uH/ I	N02 uH/ L	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	17.12	17.12	33.498	24.334	358.2	0.000	5 .97	108.5	2.9	0.34	0. 1	0.01	1 . 96	0.61	0
2	2		17.12	17.12	33.498	24.334	358.2	0.007	5.97	108.5	2 .9	0.34	0. 1	0.01	1 .96	0.61	2
	10	ISL	17.12	17.12	33.497	24.334	358.5	0.036	5 .97	108.4	2.8	0.33	0.0	0.01	1 .90	0.62	10
2	1 1		17.12	17.12	33.497	24.334	358.6	0.039	5 .97	108.4	2 .3	0.33	0.0	0.01	1 .89	0.62	11
	20	ISL	16.93	16.93	33.498	24.380	354. 5	0.072	6.00	108.6	2.8	0.31	0.0	0.00	2 .27	0.77	20
2	21		16.89	16.89	33.498	24.389	353.6	0.075	6.00	108.5	2.8	0.31	0.0	0.00	2 .31	0.79	21
	30	ISL	16.31	16.31	33.493	24.520	341.5	0.106	6.02	107.6	2 .9	0.31	0.2	0.01	2 .05	0.91	30
2	31		16.25	16.25	33.493	24.534	340.2	0.110	6.02	107.5	2.9	0.31	0.2	0.01	2 .04	0. 93	31
2	40		13.08	13.07	33.481	25.202	276.6	0.137	5 .43	90.9	7.3	0.73	5.7	0.13	2 .93	1 .44	40
2	49		11.64	11.63	33.547	25.530	245.6	0.161	4.41	71 .7	14.4	1.18	12.6	0.19	0.98	0.75	49
	50	ISL	11.53	11.52	33.553	25.554	243.2	0.163	4.32	70.0	14.9	1.21	13.1	0.18	0.86	0. 70	50
2	59		10.85	10.84	33.597	25.711	228.5	0.185	3.77	60.2	18.4	1 .38	16.3	0.06	0.28	0.44	59
2	70		10.49	10.48	33.629	25.800	220.3	0.209	3.66	58.0	19.9	1 .42	16.7	0.04	0.39	0.46	70
	75	ISL	10.29	10.28	33.645	25.847	215.9	0.220	3.56	56.2	20.9	1.46	17.5	0.04	0.33	0. 43	75
2	85		9.96	9.95	33.678	25.928	208.3	0.241	3.36	52.7	22 .8	1 . 54	19.0	0.03	0.19	0.36	85
2	100		9. 83	9. 82	33.715	25.979	203.8	0.272	3.23	50.5	23.4				0.21	0.35	101
2	120		9. 42	9.41	33.803	26.116	191.2	0.312	3.00	46.5	26.8				0.06	0.22	121
	125	ISL	9.35	9.34	33.831	26.149	188.1	0.321	2 .93	45 .4	27.7				0.05	0.20	126
2	142		9.18	9.16	33.930	26.254	178.4	0.353	2 .67	41.2	30.6				0.03	0.16	143
	150	ISL	9.12	9.10	33.975	26.299	174.3	0. 367	2.51	38.7	32.2				0.03	0.15	151
2	169		8.97	8.95	34.058	26.388	166.2	0.399	2 .20	33.8	35.5				0.02	0.12	170
2	198		8. 66	8.64	34.074	26.450	160.8	0. 446	2.13	32 . 5	37.8				0.01	0.09	199
	200	ISL	8.65	8.63	34.078	26.455	160.4	0.450	2.11	32 .2	38.0						201
2	228		8.44	8.42	34. 123	26.523	154.4	0. 494	1 .88	28.6	41 . 1						229
	250	ISL	8.02	7.99	34.096	26.565	150.6	0.527	1 . 98	29.8	43.6						252
2	269		7.64	7.61	34.066	26.597	147.7	0.556	2.10	31 .3	45.7						271
	300	ISL	7.40	7.37	34.072	26.636	144.4	0.601	1 .97	29.2	49.2						302
2	319		7.32	7.29	34.088	26.660	142.3	0.628	1 .81	26.8	51.4						321
2	383		6.95	6.91	34.162	26.771	132 .7	0.716	1.18	17.3	60.2						386
	400	ISL	6.86	6.82	34.183	26.800	130.2	0.738	1 .03	15.1	62 .4						403
2	441		6. 65	6.61	34.229	26.865	124.5	0.791	0.72	10.5	67.6						444
	500	ISL	6. 31	6.26	34.258	26.933	118.6	0.862	0.53	7. 7	74.5						503
2	51 1		6.25	6.20	34.263	26.944	117.5	0.875	0.50	7.2	75.8						515

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 9.2 N	121 9.1 W	17/08/94	0527 UTC	2192 m	330 15 kn			1011.4 mb	16.1 C	15.1 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 UN/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	15.95	15.95	33.499	24.605	332.3	0.000	5.93	105.3	2.1	0.39	0.1	0.01	0.40	0.15	0
2	1		15.95	15.95	33.499	24.605	332.4	0.003	5.93	105.3	2.1	0.39	0.1	0.01	0.40	0.15	1
2	10		15.90	15.90	33.495	24.614	331.8	0.033	5.96	105.7	2.1	0.38	0.1	0.01	0.44	0.14	10
	20	ISL	15.06	15.06	33.432	24.752	319.0	0.066	6.11	106.5	1.9	0.39	0.3	0.03	0.73	0.27	20
2	21		14.92	14.92	33.423	24.775	316.8	0.069	6.11	106.2	1.9	0.39	0.3	0.03	0.77	0.30	21
2	30		12.98	12.98	33.340	25.112	284.9	0.096	5.74	95.8	5.0	0.73	3.8	0.24	1.03	0.71	30
2	39		12.48	12.47	33.364	25.229	274.0	0.121	5.38	88.9	7.5	0.92	6.3	0.32	0.83	0.68	39
2	49		10.50	10.49	33.339	25.571	241.5	0.147	4.60	72.8	14.2	1.36	14.9	0.12	0.53	0.49	49
	SO	ISL	10.48	10.47	33.353	25.586	240.2	0.149	4.57	72.3	14.5	1.38	15.1	0.11	0.52	0.49	50
2	60		10.32	10.31	33.412	25.659	233.4	0.173	4.43	69.9	16.4	1.47	16.7	0.06	0.46	0.48	60
2	71		9.95	9.94	33.478	25.774	222.7	0.198	4.14	64.8	18.2	1.58	18.2	0.05	0.39	0.46	71
	75	ISL	9.82	9.81	33.495	25.809	219.4	0.207	4.07	63.5	18.8	1.61	18.7	0.05	0.36	0.46	75
2	85		9.58	9.57	33.550	25.891	211.8	0.229	3.86	60.0	20.7	1.68	20.0	0.04	0.29	0.48	85
2	100		9.66	9.65	33.720	26.011	200.7	0.259	3.14	48.9	24.7	1.88	22.3	0.02	0.29	0.51	101
2	119		9.34	9.33	33.850	26.166	186.4	0.296	2.76	42.7	28.7	2.04	24.4	0.02	0.15	0.41	120
	125	ISL	9.28	9.27	33.882	26.200	183.2	0.307	2.68	41.4	29.5	2.08	24.8	0.02	0.13	0.35	126
2	138		9.19	9.17	33.942	26.262	177.6	0.331	2.52	38.9	31.0	2.16	25.5	0.02	0.09	0.24	139
	150	ISL	9.08	9.06	33.990	26.318	172.6	0.352	2.37	36.5	32.6	2.22	26.3	0.02	0.06	0.21	151
2	170		8.90	8.88	34.050	26.393	165.8	0.386	2.17	33.3	35.2	2.30	27.5	0.01	0.04	0.17	171
2	199		8.66	8.64	34.088	26.461	159.8	0.433	2.10	32.1	37.9	2.35	28.3	0.01	0.04	0.16	200
	200	ISL	8.66	8.64	34.090	26.463	159.7	0.434	2.09	31.9	38.0	2.35	28.3	0.01			201
2	231		8.45	8.43	34.138	26.533	153.5	0.483	1.84	28.0	41.6	2.47	29.4	0.01			232
	250	ISL	8.14	8.11	34.136	26.578	149.4	0.512	1.78	26.9	44.6	2.53	30.5	0.00			252
2	267		7.86	7.83	34.128	26.614	146.2	0.537	1.74	26.1	47.2	2.57	31.4	0.00			269
	300	ISL	7.60	7.57	34.129	26.653	143.0	0.585	1.65	24.6	50.1	2.63	32.2	0.00			302
2	315		7.52	7.49	34.137	26.671	141.5	0.606	1.58	23.5	51.5	2.67	32.5	0.00			317
2	377		6.97	6.93	34.249	26.836	126.4	0.689	0.76	11.2	64.8	3.02	36.1	0.00			379
	400	ISL	6.61	6.57	34.266	26.898	120.6	0.717	0.59	8.6	70.8	3.11	37.4	0.00			403
2	437		6.05	6.01	34.285	26.986	112.3	0.760	0.43	6.2	79.8	3.23	39.2	0.00			440
	500	ISL	5.69	5.65	34.322	27.061	105.7	0.829	0.33	4.7	87.5	3.33	40.7	0.00			504
2	515		5.60	5.56	34.331	27.079	104.1	0.845	0.30	4.3	89.3	3.35	41.0	0.00			519

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 80 70

LATITUDE	LONGITUDE	DAY/NO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 49.0 N	121 50.6 W	17/08/94	1111 UTC	3629 m	330 15 kn			1013.1 mb	16.8 C	16.1 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.32	17.32	33.078	23.965	393.4	0.000	5.63	102.4	3.0	0.39	0.1	0.00	0.11	0.03	0
2	2		17.32	17.32	33.078	23.965	393.4	0.008	5.63	102.4	3.0	0.39	0.1	0.00	0.11	0.03	2
	10	ISL	17.33	17.33	33.078	23.963	393.9	0.039	5.64	102.6	2.9	0.38	0.1	0.00	0.10	0.03	10
2	16		17.33	17.33	33.079	23.964	394.0	0.063	5.64	102.6	2.9	0.38	0.1	0.00	0.10	0.03	16
	20	ISL	17.33	17.33	33.079	23.964	394.1	0.079	5.64	102.6	2.9	0.38	0.1	0.00	0.10	0.03	20
2	30		17.32	17.32	33.079	23.967	394.2	0.118	5.63	102.4	2.9	0.38	0.1	0.00	0.10	0.04	30
2	45		14.77	14.76	32.955	24.447	348.7	0.174	6.13	105.9	3.8	0.43	0.5	0.02	0.29	0.11	45
	50	ISL	14.52	14.51	33.016	24.548	339.3	0.191	6.10	104.9	4.0	0.40	0.4	0.01	0.26	0.10	50
2	55		14.42	14.41	33.096	24.631	331.5	0.208	6.03	103.5	4.1	0.36	0.2	0.00	0.23	0.10	55
2	65		14.12	14.11	33.227	24.795	316.2	0.240	5.90	100.8	4.3	0.35	0.1	0.01	0.27	0.16	65
2	75		12.73	12.72	33.107	24.982	298.4	0.271	5.78	95.8	5.3	0.50	1.3	0.25	0.33	0.20	75
2	85		12.27	12.26	33.100	25.065	290.7	0.300	5.64	92.6	6.3	0.58	2.5	0.42	0.33	0.20	85
2	95		11.62	11.61	33.161	25.234	274.8	0.329	5.33	86.3	8.2	0.82	6.8	0.20	0.23	0.18	95
	100	ISL	11.36	11.35	33.247	25.349	264.0	0.342	5.13	82.7	9.4	0.92	8.7	0.14	0.18	0.17	100
2	109		10.87	10.86	33.401	25.556	244.4	0.365	4.76	76.0	12.1	1.10	11.9	0.07	0.11	0.15	109
2	123		9.82	9.81	33.460	25.782	223.0	0.398	4.31	67.3	17.1	1.42	17.0	0.01	0.07	0.10	124
	125	ISL	9.73	9.72	33.467	25.803	221.1	0.402	4.29	66.8	17.4	1.44	17.3	0.01	0.06	0.09	126
2	145		9.15	9.13	33.563	25.972	205.2	0.445	4.07	62.6	21.0	1.59	19.9	0.01	0.02	0.04	146
	150	ISL	9.02	9.00	33.607	26.027	200.1	0.455	3.83	58.8	23.1	1.69	21.4	0.01	0.01	0.04	151
2	170		8.56	8.54	33.784	26.238	180.4	0.493	2.87	43.6	31.6	2.05	26.9	0.00	0.00	0.04	171
2	199		8.08	8.06	33.897	26.399	165.4	0.543	2.86	43.0	35.0	2.10	27.7	0.00	0.01	0.04	200
	200	ISL	8.07	8.05	33.900	26.403	165.1	0.545	2.86	43.0	35.1	2.10	27.7	0.00			201
2	230		7.68	7.66	33.970	26.515	154.8	0.593	2.91	43.4	38.8	2.13	28.5	0.00			231
	250	ISL	7.42	7.40	33.993	26.571	149.7	0.623	2.74	40.6	42.3	2.18	29.6	0.01			251
2	269		7.19	7.16	34.010	26.616	145.6	0.651	2.47	36.4	46.0	2.26	30.9	0.01			271
	300	ISL	6.96	6.93	34.061	26.689	139.1	0.695	1.87	27.4	52.6	2.52	33.4	0.00			302
2	318		6.85	6.82	34.089	26.726	135.8	0.720	1.53	22.4	56.4	2.68	34.9	0.00			320
2	379		6.34	6.31	34.135	26.830	126.5	0.800	1.00	14.5	66.8	2.94	37.9	0.00			381
	400	ISL	6.10	6.06	34.130	26.857	124.0	0.826	0.93	13.4	70.3	2.99	38.8	0.00			403
2	439		5.68	5.64	34.120	26.902	119.9	0.874	0.85	12.1	76.6	3.07	40.2	0.00			442
	500	ISL	5.33	5.29	34.164	26.979	113.0	0.945	0.58	8.2	85.0	3.20	41.7	0.00			503
2	513		5.28	5.24	34.177	26.995	111.6	0.960	0.52	7.3	86.6	3.22	41.9	0.00			516
2	776		4.33	4.27	34.380	27.265	87.7	1.222	0.25	3.5	112.1	3.43	44.4	0.00			782

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 80 80

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPI
33 31.0 /n1	122 32.3 W	17/08/94	1814 UTC	3957 m	350 15 kn	350 06 04	2	1016.6 mb	17.1 C	16.2 C	20m 02	8/8	ST

CAST	DEPTH m		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uH/l	P04 un/1	N03 uH/l	N02 uH/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.05	17.05	33.047	24.005	389.6	0.000	5.72	103.5	2.9	0.34	0.1	0.00	0.17	0.05	1
2	2	A	17.05	17.05	33.047	24.005	389.6	0.008	5.72	103.5	2.9	0.34	0.1	0.00	0.17	0.05	2
	10	ISL	17.05	17.05	33.050	24.008	389.6	0.039	5.72	103.5	2.8	0.36	0.1	0.00	0.17	0.04	10
2	13	A	17.05	17.05	33.051	24.009	389.7	0.051	5.72	103.5	2.7	0.22 LJ	0.1	0.00	0.17	0.04	13
	20	ISL	17.04	17.04	33.058	24.017	389.1	0.078	5.73	103.6	2.6	0.38	0.1	0.00	0.18	0.05	21
2	25	A	17.04	17.04	33.069	24.025	388.5	0.097	5.73	103.7	2.5	0.39	0.1	0.00	0.19	0.06	25
	30	ISL	16.93	16.93	33.059	24.043	386.9	0.117	5.75	103.8	2.6	0.39	0.1	0.00	0.19	0.06	30
2	39	A	16.73	16.72	33.043	24.078	383.9	0.151	5.79	104.1	2.8	0.39	0.1	0.00	0.21	0.06	39
	50	ISL	14.87	14.86	32.938	24.413	352.1	0.192	6.10	105.6	3.2	0.39	0.3	0.02	0.28	0.11	51
2	52	A	14.52	14.51	32.925	24.478	346.0	0.199	6.15	105.7	3.3	0.39	0.4	0.02	0.30	0.12	52
2	64		13.95	13.94	32.941	24.609	333.8	0.240	6.18	105.0	3.4	0.46	0.8	0.02	0.43	0.22	64
2	73	A	13.54	13.53	33.025	24.758	319.8	0.269	6.08	102.5	4.2	0.43	1.3	0.04	0.34	0.18	73
	75	ISL	13.58	13.57	33.069	24.784	317.4	0.275	6.04	101.9	4.2	0.43	1.1	0.04	0.32	0.18	75
2	84		13.66	13.65	33.247	24.906	306.1	0.304	5.85	99.0	4.2	0.43	0.6	0.08	0.24	0.20	81
2	99		12.15	12.14	33.191	25.159	282.1	0.348	5.51	90.3	6.6	0.71	4.6	0.34	0.19	0.18	99
	100	ISL	12.07	12.06	33.195	25.177	280.4	0.350	5.48	89.6	6.8	0.73	4.9	0.33	0.18	0.18	101
2	118		10.88	10.87	33.313	25.486	251.2	0.398	4.85	77.4	11.1	1.06	11.0	0.03	0.09	0.15	111
	125	ISL	10.55	10.54	33.359	25.580	242.4	0.416	4.70	74.5	12.4	1.17	12.7	0.03	0.08	0.14	126
2	140		9.92	9.90	33.462	25.768	224.8	0.451	4.42	69.1	15.5	1.38	16.0	0.02	0.07	0.10	141
	150	ISL	9.40	9.38	33.539	25.913	211.0	0.472	4.20	65.0	18.8	1.55	18.6	0.02	0.05	0.07	151
2	165		8.71	8.69	33.657	26.115	191.9	0.503	3.85	58.7	24.1	1.78	22.3	0.01	0.01	0.03	164
2	200		8.31	8.29	33.872	26.345	170.6	0.566	2.92	44.2	32.6	2.10	27.0	0.00	0.00	0.03	201
2	230		8.00	7.98	33.969	26.468	159.4	0.616	2.59	38.9	37.4	2.25	29.1	0.00			231
	250	ISL	7.78	7.76	34.011	26.533	153.5	0.647	2.34	35.0	41.6	2.36	30.7	0.00			251
2	267		7.57	7.54	34.033	26.581	149.1	0.673	2.16	32.1	45.3	2.45	31.9	0.00			268
	300	ISL	6.97	6.94	34.033	26.665	141.3	0.721	2.03	29.8	51.3	2.55	33.4	0.00			302
2	315		6.69	6.66	34.027	26.698	138.2	0.741	1.99	29.0	53.9	2.59	33.9	0.00			317
2	377		6.07	6.04	34.036	26.786	130.3	0.825	1.56	22.4	64.6	2.74	36.4	0.00			379
	400	ISL	5.98	5.95	34.063	26.819	127.4	0.854	1.31	18.8	68.2	2.81	37.0	0.00			402
2	441		5.87	5.83	34.121	26.879	122.2	0.906	0.87	12.4	74.4	2.94	38.1	0.00			444
	500	ISL	5.58	5.54	34.189	26.969	114.3	0.975	0.60	8.5	83.5	3.15	40.7	0.00			503
2	514		5.51	5.47	34.205	26.990	112.3	0.991	0.53	7.5	85.6	3.20	41.3	0.00			517

A) PRIMARY PRODUCTIVITY' SAMPLES UERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 80 90

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
33 '?.0 /n1	123 13.3 W	17/08/94	2338 UTC	4233 in	330 21 kn	360 06 06	2	1016.0 mb	18.0 C	16.5 C	20m 01	8/8	SC

CAST	DEPTH ID		TEHP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uH/l	P04 un/1	N03 UM/l	N02 uN/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.51	17.51	32.935	23.810	408.1	0.000	5.60	102.2	4.5	0.37	0.0	0.00	0.10	0.03	0
2	2		17.51	17.51	32.935	23.810	408.2	0.008	5.60	102.2	4.5	0.37	0.0	0.00	0.10	0.03	2
	10	ISL	17.51	17.51	32.935	23.811	408.4	0.041	5.61	102.3	4.4	0.37	0.0	0.00	0.10	0.03	10
2	14		17.51	17.51	32.935	23.811	408.6	0.057	5.61	102.3	4.4	0.37	0.0	0.00	0.10	0.03	14
	20	ISL	17.48	17.48	32.930	23.814	408.4	0.082	5.61	102.3	4.3	0.37	0.0	0.00	0.10	0.03	20
2	28		17.44	17.44	32.925	23.820	408.1	0.114	5.60	102.0	4.2	0.37	0.0	0.00	0.11	0.03	28
	30	ISL	17.43	17.43	32.926	23.824	407.9	0.123	5.60	102.0	4.2	0.37	0.0	0.00	0.11	0.03	30
2	45		17.38	17.37	32.936	23.844	406.5	0.184	5.62	102.3	4.1	0.37	0.0	0.00	0.12	0.04	45
	50	ISL	16.56	16.55	32.963	24.056	386.3	0.203	5.79	103.7	4.1	0.35	0.0	0.00	0.13	0.05	50
2	55		15.73	15.72	33.002	24.274	365.6	0.222	5.95	104.8	4.1	0.34	0.0	0.00	0.14	0.05	55
2	64		15.16	15.15	33.061	24.446	349.5	0.254	6.00	104.6	3.9	0.34	0.0	0.00	0.14	0.05	64
2	74		14.76	14.75	33.245	24.674	328.0	0.288	5.97	103.3	3.8	0.32	0.0	0.00	0.19	0.09	74
	75	ISL	14.74	14.73	33.264	24.693	326.2	0.292	5.96	103.1	3.8	0.32	0.0	0.00	0.20	0.10	75
2	84		14.67	14.66	33.401	24.814	315.0	0.320	5.85	101.1	3.8	0.30	0.1	0.00	0.24	0.17	84
2	95		14.54	14.53	33.420	24.856	311.2	0.355	5.76	99.3	4.2	0.34	0.4	0.02	0.25	0.19	95
	100	ISL	14.45	14.44	33.458	24.905	306.8	0.370	5.73	98.7	4.2	0.33	0.3	0.02	0.23	0.20	100
2	109		14.28	14.26	33.569	25.027	295.4	0.397	5.65	97.0	4.1	0.32	0.2	0.01	0.19	0.22	109
2	124		12.54	12.52	33.465	25.298	269.7	0.440	5.27	87.2	6.5	0.61	4.4	0.19	0.17	0.18	125
	125	ISL	12.45	12.43	33.462	25.313	268.3	0.442	5.25	86.7	6.7	0.63	4.7	0.19	0.17	0.18	126
2	145		10.90	10.88	33.443	25.584	242.5	0.494	4.79	76.5	11.4	1.01	11.1	0.01	0.09	0.14	146
	150	ISL	10.56	10.54	33.444	25.645	236.8	0.506	4.66	73.9	12.8	1.12	12.7	0.01	0.08	0.12	151
2	168		9.56	9.54	33.483	25.844	218.0	0.546	4.18	64.9	18.3	1.49	18.0	0.00	0.04	0.07	169
2	200		8.85	8.83	33.702	26.129	191.3	0.612	3.23	49.4	27.2	1.87	24.1	0.00	0.00	0.03	201
2	227		8.18	8.16	33.859	26.355	170.2	0.661	3.36	50.7	31.4	1.90	24.9	0.00			228
	250	ISL	7.92	7.89	33.931	26.450	161.4	0.699	3.17	47.5	35.0	1.99	26.3	0.00			251
2	267		7.79	7.76	33.962	26.494	157.5	0.726	2.95	44.1	37.9	2.08	27.6	0.00			268
	300	ISL	7.32	7.29	34.005	26.595	148.2	0.776	2.54	37.6	45.1	2.27	30.2	0.00			302
2	319		7.05	7.02	34.021	26.645	143.6	0.804	2.29	33.7	49.4	2.38	31.6	0.00			321
2	379		6.46	6.43	34.056	26.752	133.9	0.887	1.60	23.2	60.5	2.61	34.7	0.01			381
	400	ISL	6.25	6.21	34.073	26.793	130.2	0.915	1.36	19.6	64.8	2.73	36.1	0.01			402
2	436		5.93	5.89	34.103	26.858	124.3	0.961	1.01	14.5	72.0	2.94	38.3	0.01			439
	500	ISL	5.54	5.50	34.153	26.945	116.4	1.038	0.69	9.8	81.6	3.10	39.9	0.00			503
2	514		5.45	5.41	34.164	26.965	114.6	1.054	0.62	8.8	83.7	3.14	40.3	0.00			517

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 49.1 N	123 54.3 W	18/08/94	0513 UTC	4366 in	350 16 kn			1016.5 mb	18.2 C	16.8 C			

CAST	DEPTH	ID	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 UN/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.72	18.72	33.439	23.900	399.6	0.000	5.44	101.9	4.0	0.33	0.2	0.00	0.08	0.02	0
2.	2		18.72	18.72	33.439	23.900	399.6	0.008	5.44	101.9	4.0	0.33	0.2	0.00	0.08	0.02	2
	10	ISL	18.72	18.72	33.440	23.901	399.8	0.040	5.44	101.9	3.9	0.34	0.2	0.00	0.08	0.02	10
2	15		18.72	18.72	33.441	23.902	399.9	0.060	5.44	101.9	3.8	0.34	0.2	0.00	0.08	0.02	15
	20	ISL	18.72	18.72	33.440	23.902	400.1	0.080	5.44	101.9	3.8	0.34	0.2	0.00	0.08	0.02	20
	30	ISL	18.72	18.71	33.439	23.901	400.5	0.120	5.44	101.9	3.8	0.34	0.2	0.00	0.08	0.02	30
2	31		18.72	18.71	33.439	23.901	400.6	0.124	5.44	101.9	3.8	0.34	0.2	0.00	0.08	0.02	31
2	45		18.11	18.10	33.503	24.102	381.9	0.179	5.61	103.9	3.6	0.31	0.2	0.00	0.12	0.03	45
	50	ISL	17.90	17.89	33.532	24.176	375.1	0.198	5.66	104.4	3.5	0.30	0.2	0.00	0.12	0.03	50
2	55		17.65	17.64	33.543	24.245	368.6	0.216	5.70	104.6	3.5	0.29	0.2	0.00	0.11	0.03	55
2	44		16.97	16.96	33.459	24.342	359.6	0.249	5.77	104.5	3.5	0.31	0.1	0.00	0.12	0.04	64
	75	ISL	16.33	16.32	33.438	24.475	347.2	0.288	5.85	104.6	3.4	0.27	0.1	0.00	0.13	0.05	75
2	76		16.28	16.27	33.442	24.489	345.9	0.291	5.85	104.5	3.4	0.27	0.1	0.00	0.13	0.05	76
2	86		16.01	16.00	33.572	24.651	330.8	0.325	5.84	103.8	3.4	0.25	0.1	0.00	0.16	0.06	86
2	96		15.74	15.73	33.632	24.758	320.8	0.358	5.79	102.4	3.3	0.23	0.1	0.00	0.18	0.09	96
	100	ISL	15.68	15.66	33.661	24.794	317.5	0.371	5.76	101.8	3.3	0.21	0.1	0.00	0.19	0.11	100
2	109		15.59	15.57	33.729	24.867	310.9	0.399	5.68	100.2	3.3	0.16	0.1	0.00	0.22	0.17	109
2	125		15.51	15.49	33.835	24.967	301.9	0.448	5.59	98.5	3.2	0.21	0.1	0.00	0.22	0.20	126
2	144		14.21	14.19	33.820	25.236	276.5	0.503	5.30	91.0	3.9	0.22	0.0	0.00	0.19	0.18	145
	150	ISL	13.55	13.53	33.725	25.299	270.5	0.519	5.17	87.5	5.0				0.17	0.17	151
2	168		11.53	11.51	33.459	25.484	252.8	0.566	4.76	77.1	9.4				0.10	0.12	169
2	198		9.45	9.43	33.539	25.906	212.7	0.636	4.12	63.8	17.9				0.03	0.05	199
	200	ISL	9.37	9.35	33.550	25.928	210.6	0.640	4.10	63.4	18.3						201
2	229		8.68	8.66	33.727	26.175	187.4	0.698	3.87	59.0	24.0						230
	250	ISL	8.49	8.46	33.843	26.296	176.3	0.736	3.39	51.5	28.3						251
2	269		8.38	8.35	33.925 D	26.377	168.9	0.769	2.97	45.0	31.9						270
	300	ISL	8.01	7.98	33.978	26.474	160.1	0.820	2.93	44.0	35.6						302
2	319		7.74	7.71	33.988	26.522	155.7	0.850	2.91	43.5	37.8						321
2	377		6.90	6.86	34.010	26.658	143.2	0.937	2.54	37.2	48.5						379
	400	ISL	6.64	6.60	34.027	26.706	138.8	0.969	2.20	32.0	53.7						402
2	439		6.24	6.20	34.058	26.783	131.7	1.022	1.58	22.8	62.7						442
	500	ISL	5.70	5.66	34.104	26.887	122.1	1.099	1.03	14.7	74.9						503
2	512		5.59	5.55	34.114	26.909	120.1	1.114	0.92	13.1	77.3						515

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 82 47

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 16.1 ft	120 2.4 W	16/08/94	1840 UTC	581 m	240 07 kn	270 02 04	0	1011.1 mb	21.0 C	19.1 C	13m 04	0/8	

CAST	DEPTH	ID	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/L	N03 ufl/L	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.45	19.45	33.454	23.727	416.1	0.000	5.91	112.2	4.0	0.34	0.0	0.00	0.54	0.17	0
2	2	A,B	19.45	19.45	33.454	23.727	416.2	0.008	5.91	112.2	4.0	0.34	0.0	0.00	0.54	0.17	2
2	8	B	17.04	17.04	33.448	24.315	360.3	0.032	6.24	113.1	4.1	0.34	0.0	0.00	1.18	0.57	8
	10	ISL	16.31	16.31	33.433	24.473	345.3	0.039	6.22	111.2	4.2	0.36	0.1	0.00	1.35	0.63	10
2	15	B	14.81	14.81	33.402	24.782	315.9	0.055	6.17	107.0	4.3	0.42	0.4	0.02	1.72	0.76	15
	20	ISL	14.23	14.23	33.413	24.914	303.5	0.071	6.01	103.0	5.0	0.48	1.4	0.05	2.00	1.05	20
2	25	B	13.83	13.83	33.422	25.004	295.1	0.086	5.73	97.4	6.3	0.57	3.2	0.07	2.27	1.21	25
	30	ISL	12.76	12.76	33.415	25.214	275.2	0.100	5.23	86.9	8.8	0.75	6.4	0.06	1.38	0.87	30
2	34	B	11.93	11.93	33.420	25.377	259.8	0.111	4.83	78.9	10.9	0.90	9.0	0.05	0.58	0.54	34
2	45	B	11.29	11.28	33.472	25.535	245.0	0.138	4.32	69.6	14.7	1.11	12.7	0.02	0.34	0.35	45
	50	ISL	10.93	10.92	33.518	25.635	235.5	0.150	4.06	65.0	16.8	1.21	14.2	0.02	0.25	0.29	50
2	57		10.45	10.44	33.578	25.766	223.2	0.166	3.78	59.9	19.3	1.32	15.9	0.02	0.16	0.23	57
2	69		9.93	9.92	33.592	25.866	213.9	0.193	3.73	58.4	20.3	1.37	16.9	0.01	0.09	0.18	69
	75	ISL	9.80	9.79	33.659	25.940	207.0	0.205	3.49	54.5	22.5	1.51	18.8	0.01	0.06	0.15	75
2	86		9.68	9.67	33.787	26.060	195.8	0.227	3.03	47.2	26.4	1.77	22.3	0.01	0.03	0.11	86
2	100		9.62	9.61	33.822	26.098	192.5	0.255	2.93	45.6	27.2	1.78	22.8	0.00	0.02	0.09	101
2	119		9.58	9.57	33.854	26.130	189.9	0.291	2.82	43.9	27.8	1.74	21.7	0.01	0.01	0.09	120
	125	ISL	9.55	9.54	33.870	26.147	188.4	0.302	2.77	43.1	28.4	1.78	22.1	0.01	0.01	0.09	126
2	139		9.46	9.44	33.915	26.197	183.9	0.328	2.62	40.7	30.0	1.89	23.5	0.01	0.01	0.08	140
	150	ISL	9.40	9.38	33.958	26.241	179.9	0.348	2.48	38.5	31.4	1.95	24.2	0.01	0.01	0.09	151
2	169		9.31	9.29	34.027	26.310	173.8	0.382	2.23	34.5	33.8	2.04	25.3	0.01	0.01	0.12	170
	200	ISL	9.12	9.10	34.085	26.386	167.1	0.435	1.90	29.3	36.6	2.17	27.0	0.00	0.01	0.11	201
2	202		9.11	9.09	34.088	26.390	166.8	0.438	1.88	29.0	36.8	2.18	27.1	0.00	0.01	0.11	203
2	230		8.99	8.97	34.141	26.451	161.5	0.484	1.58	24.3	40.1	2.32	28.6	0.01			231
	250	ISL	8.84	8.81	34.160	26.490	158.2	0.516	1.47	22.5	42.1	2.35	28.9	0.01			252
2	269		8.67	8.64	34.169	26.524	155.2	0.546	1.40	21.4	44.0	2.37	29.1	0.01			271
	300	ISL	8.33	8.30	34.176	26.582	150.1	0.593	1.31	19.9	48.1	2.43	29.8	0.01			302
2	315		8.15	8.12	34.177	26.610	147.6	0.616	1.26	19.0	50.3	2.46	30.3	0.01			317
2	377		7.47	7.43	34.177	26.710	138.8	0.704	0.87	12.9	61.0	2.67	32.6	0.02			379
	400	ISL	7.18	7.14	34.185	26.757	134.4	0.736	0.71	10.5	66.7	2.77	32.8	0.05			403
2	437		6.76	6.72	34.203	26.829	127.8	0.784	0.46	6.7	76.1	2.93	33.2	0.09			440
	500	ISL	6.44	6.39	34.222	26.887	123.0	0.863	0.21	3.0	88.1	3.10	30.9	0.02			503
2	510		6.42	6.37	34.224	26.892	122.7	0.876	0.18	2.6	89.8	3.13	30.5	0.01			514
2	535		6.34	6.29	34.230	26.907	121.5	0.906	0.06	0.9	94.5	3.24	30.2	0.01			539
2	563		6.31	6.26	34.233	26.914	121.3	0.940	0.04	0.6	101.4	3.46	29.7	0.00			567
2	568		6.31	6.26	34.232	26.913	121.4	0.946	0.04	0.6	100.9	3.46	29.4	0.00			572
2	572		6.31	6.26	34.235	26.915	121.3	0.951	0.04	0.6	101.6	3.20	27.0	0.03			576

A) SANTA BARBARA BASIN STATION.
B) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 83 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 1 3 . 5 *H*	119 24.6 W	16/08/94	1158 UTC	33 m	260 06 kn			1009 1 mb	19,8 C	18.7 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/l	PHAEO ug/I	PRESS db
	0 ISL	19,77	19.77	33.467	23.654	423.1	0.000	5.73	109.5	2.9	0.32	0.0	0.00	0.43	0.15	0
2	1	19,77	19.77	33.467	23.654	423.1	0.004	5.73	109.5	2.9	0.32	0.0	0.00	0,43	0,15	1
2	6	19,79	19.79	33,461	23.644	424.2	0.025	5,74	109.7	2.9	0,33	0.0	0,00	0.44	0.14	6
2	10	17.38	17.38	33.425	24.217	369.7	0,041	6.10	111.3	2.7	0 36	0.0	0.00	0,37	0.11	10
2	20	16.03	16 03	33.406	24.516	341.5	0.077	6.27	111.4	5.0	0,42	0.0	0,01	2.00	0-74	20
2	27	15.75	15.75	33.404	24.578	335.8	0.101	6.27	110.8	5.1	0.42	0,0	0.01	1.55	0.68	27

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 10.8 N	119 30.6 W	16/08/94	0958 UTC	126 m	270 09 kn			1009 4 mb	19,9 C	19.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/I	P04 ufl/l	N03 uB/l	N02 uM/I	CHL-A ug/l	PHAEO ug/l	PRESS db
	0 ISL	20.24	20.24	33.480	23.541	433.8	0.000	5.54	106.8	2.4	0.32	0.0	0.00	0,22	0.07	0
2	2	20.24	20.24	33.480	23.541	433.9	0.009	5.54	106.8	2.4	0.32	0.0	0.00	0.22	0.07	2
	10 ISL	20.12	20.12	33.477	23.571	431.4	0.043	5.58	107.3	2.2	0.31	0.0	0.00	0.23	0.05	10
2	11	20.10	20.10	33.477	23.576	430.9	0.048	5.58	107.2	2.2	0.31	0.0	0.00	0.23	0.05	11
2	20	15.84	15.84	33.423	24.572	336.1	0.082	6.15	108.9	2.9	0.39	0.0	0.02	0.51	0.17	20
2	30	13.51	13.51	33.408	25.059	290.0	0.113	5.51	93.0	6.5	0.70	4.8	0.28	0.56	0.35	30
2	40	12.51	12.50	33.408	25.257	271.3	0.141	5.00	82.7	9.0	0.92	8.2	0.41	0.52	0.45	40
2	50	11.98	11.97	33.424	25.371	260.8	0.168	4.67	76.4	11.0	1.06	10.7	0.14	0.44	0.39	50
2	60	11.37	11.36	33.445	25.500	248.7	0.194	4.46	72.0	12.5	1.12	11.9	0.07	0.34	0.37	60
2	70	10.82	10.81	33.510	25.649	234.6	0.218	4.04	64.5	15.6	1.28	14.8	0.01	0.21	0.28	70
	75 ISL	10.57	10.56	33.542	25.718	228.2	0.229	3.87	61.4	17.1	1.35	15.8	0.01	0.16	0.24	75
2	85	10.16	10.15	33.603	25.836	217.1	0.252	3.60	56.7	19.7	1.48	17.8	0.02	0.09	0.17	85
2	100	9.90	9.89	33.679	25.940	207.6	0.283	3.35	52.4	22.0				0.05	0.12	100
2	119	9.63	9.62	33.808	26.085	194.1	0.322	2.92	45.5	26.0				0.02	0.09	120

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LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 52.6 N	120 8.5 W	16/08/94	0320 UTC	108 m	310 08 kn	290 03 06	0	1010.0 mb	20.3 C	18.7 C		0/8	

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/I	P04 uM/I	N03 UN/I	N02 uM/I	CHL-A ug/l	PHAEO ug/I	PRESS db
	0 ISL	20.71	20.71	33.493	23.426	444.8	0.000	5.65	109.8	3.2	0.32	0.0	0.00	0.37	0.13	0
2	2	20.71	20.71	33.493	23.426	444.9	0.009	5.65	109.8	3.2	0.32	0.0	0.00	0.37	0.13	2
2	9	14.94	14.94	33.416	24.765	317.4	0.036	6.21	108.0	4.7	0.47	1.0	0.04	0.93	0.35	9
	10 ISL	14.84	14.84	33.415	24.786	315.5	0.039	6.19	107.4	4.8	0.48	1.1	0.04	0.94	0.36	10
2	19	13.96	13.96	33.408	24.967	298.5	0.066	6.03	102.8	5.5	0.56	2.2	0.08	1.00	0.42	19
	20 ISL	13.86	13.86	33.409	24.988	296.5	0.069	6.00	102.1	5.7	0.57	2.4	0.09	1.03	0.44	20
2	30	12.86	12.86	33.425	25.202	276.4	0.098	5.50	91.6	8.2	0.79	5.8	0.17	1.19	0.61	30
2	40	11.69	11.68	33.449	25.444	253.5	0.124	4.58	74.4	12.5	1.14	11.6	0.24	0.81	0.57	40
2	50	11.01	11.00	33.501	25.608	238.1	0.149	4.15	66.5	15.6	1.34	14.8	0.15	0.53	0.45	50
2	62	10.45	10.44	33.594	25.779	222.1	0.177	3.63	57.5	19.4	1.57	18.3	0.04	0.23	0.28	62
2	71	10.11	10.10	33.669	25.896	211.1	0.196	3.34	52.5	21.8	1.70	20.3	0.02	0.12	0.20	71
	75 ISL	10.03	10.02	33.690	25.926	208.4	0.205	3.27	51.3	22.4	1.73	20.8	0.02	0.10	0.18	75
2	80	9.98	9.97	33.708	25.948	206.3	0.215	3.23	50.7	22.9	1.76	21.1	0.03	0.08	0.16	80
2	92	9.96	9.95	33.714	25.957	205.8	0.240	3.21	50.3	23.3	1.77	21.2	0.04	0.07	0.17	92

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 83 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL.	CLD AMT	TYPE
33 45.0 N	120 24.6 W	15/08/94	2256 UTC	990 m	320 13 kn	320 05 06	0	1010.4 mb	19.2 C	16.9 C	11m 04	0/8	

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 ufl/l	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/I	PHAEO ug/l	PRESS db
	0 ISL	17.12	17.12	33.525	24.355	356.2	0.000	5.72	103.9	4.5	0.50	2.0	0.05	0.53	0.17	0
2	2	17.12	17.12	33.525	24.355	356.3	0.007	5.72	103.9	4.5	0.50	2.0	0.05	0.53	0.17	2
2	10	16.50	16.50	33.497	24.479	344.7	0.035	5.71	102.5	4.7	0.54	2.5	0.07	0.71	0.25	10
2	20	10.90	10.90	33.506	25.631	235.2	0.064	4.30	68.7	15.1	1.29	14.1	0.13	1.00	0.51	20
2	30	10.15	10.15	33.608	25.841	215.5	0.087	3.61	56.8	19.8	1.62	18.6	0.04	0.29	0.29	30
2	40	9.89	9.89	33.677	25.939	206.4	0.108	3.38	52.9	21.8	1.72	20.0	0.03	0.21	0.21	40
2	50	9.84	9.83	33.726	25.985	202.1	0.128	3.24	50.7	23.2	1.78	21.0	0.02	0.17	0.19	50
2	60	9.77	9.76	33.752	26.017	199.3	0.148	3.17	49.5	23.6	1.82	21.3	0.02	0.15	0.17	60
2	69	9.57	9.56	33.833	26.114	190.3	0.166	2.94	45.7	26.0	1.99	22.7	0.01	0.08	0.13	69
	75 ISL	9.50	9.49	33.868	26.153	186.7	0.177	2.83	44.0	26.9	1.99	23.2	0.01	0.06	0.11	75
2	84	9.43	9.42	33.905	26.193	183.1	0.194	2.72	42.2	27.9	2.00	23.6	0.02	0.04	0.10	84
2	99	9.36	9.35	33.949	26.240	179.0	0.221	2.59	40.1	29.3	2.04	24.1	0.03	0.02	0.10	100
	100 ISL	9.35	9.34	33.954	26.245	178.5	0.223	2.57	39.8	29.5	2.04	24.2	0.03	0.02	0.10	101
2	119	9.22	9.21	34.048	26.340	169.9	0.256	2.23	34.5	32.7	2.13	25.7	0.03	0.01	0.08	120
	125 ISL	9.21	9.20	34.059	26.350	169.0	0.266	2.19	33.8	33.1	2.15	25.9	0.03	0.01	0.08	126
2	139	9.19	9.17	34.071	26.363	168.1	0.290	2.15	33.2	33.7	2.20	26.1	0.04	0.00	0.08	140
	150 ISL	9.13	9.11	34.088	26.386	166.1	0.308	2.07	31.9	34.6	2.24	26.5	0.04	0.00	0.08	151
2	172	8.99	8.97	34.126	26.439	161.5	0.344	1.90	29.2	36.8	2.32	27.3	0.03	0,00	0.08	173
2	200	8.82	8.80	34.172	26.502	156.1	0.388	1.69	25.9	39.8	2.40	28.2	0.01	0.00	0.07	201
2	227	8.73	8.71	34.192	26.532	153.7	0.430	1.59	24.3	41.2	2.45	28.8	0.02			228
	250 ISL	8.60	8.57	34.201	26.560	151.5	0.465	1.52	23.2	42.8	2.48	29.2	0.03			252
2	267	8.47	8.44	34.206	26.584	149.4	0.491	1.46	22.2	44.3	2.51	29.6	0.03			269
	300 ISL	8.15	8.12	34.223	26.646	144.0	0.539	1.27	19.2	48.6	2.62	30.8	0.02			302
2	325	7.90	7.87	34.235	26.693	139.8	0.575	1.13	17.0	51.8	2.70	31.7	0.01			327
2	383	7.53	7.49	34.239	26.750	135.1	0.655	0.97	14.4	55.4	2.79	32.9	0.03			386
	400 ISL	7.42	7.38	34.240	26.767	133.8	0.677	0.92	13.7	57.1	2.81	33.5	0.03			403
2	457	7.04	7.00	34.248	26.827	128.7	0.752	0.75	11.0	64.0	2.89	35.6	0.01			460
	500 ISL	6.70	6.65	34.268	26.889	123.1	0.806	0.59	8.6	70.0	2.98	37.0	0.01			504
2	516	6.57	6.52	34.276	26.913	121.0	0.826	0.53	7.7	72.2	3.02	37.5	0.01			520

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 83 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLO AMT	TYPE
33 34.5 N	120 45.6 W	15/08/94	1826 UTC	1440 in	320 10 kn	320 04 05	0	1012.4 mb	19.0 C	17.1 C	13m 04	0/8	

CAST	DEPTH ID		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	16.22	16.22	33.520	24.560	336.7	0.000	5.80	103.5	5.5	0.51	2.6	0.08	0.83	0.27	0
2	1	A	16.22	16.22	33.520	24.560	336.7	0.003	5.80	103.5	5.5	0.51	2.6	0.08	0.83	0.27	1
2	7	A	16.14	16.14	33.520	24.579	335.1	0.024	5.80	103.4	5.1	0.55	2.6	0.08	0.81	0.27	7
	10	ISL	16.01	16.01	33.521	24.609	332.3	0.034	5.79	102.9	5.0	0.55	2.6	0.08	0.82	0.29	10
2	16	A	15.74	15.74	33.525	24.673	326.4	0.053	5.76	101.8	4.9	0.56	2.6	0.09	0.85	0.34	16
	20	ISL	14.81	14.81	33.527	24.879	306.9	0.066	5.52	95.8	6.4	0.68	4.6	0.14	1.01	0.50	20
2	24	A	13.74	13.74	33.540	25.114	284.6	0.078	5.19	88.1	8.5	0.85	7.2	0.21	1.15	0.64	24
	30	ISL	12.49	12.49	33.560	25.379	259.5	0.094	4.63	76.6	12.2	1.16	11.2	0.34	1.05	0.59	30
2	34	A	11.80	11.80	33.577	25.523	245.9	0.104	4.26	69.5	14.8	1.35	13.7	0.39	0.89	0.56	34
2	44	A	10.47	10.46	33.631	25.804	219.3	0.132	3.58	56.7	20.5	1.60	18.8	0.10	0.17	0.26	46
	50	ISL	10.34	10.33	33.641	25.834	216.5	0.141	3.55	56.1	21.0	1.63	19.3	0.09	0.18	0.26	50
2	57		10.24	10.23	33.654	25.862	214.1	0.156	3.50	55.2	21.5	1.66	19.8	0.08	0.21	0.26	57
2	68		9.81	9.80	33.691	25.963	204.6	0.179	3.29	51.4	23.9	1.77	21.4	0.04	0.12	0.21	68
	75	ISL	9.58	9.57	33.711	26.017	199.6	0.193	3.21	49.9	25.2	1.82	22.3	0.03	0.08	0.18	75
2	84		9.35	9.34	33.736	26.074	194.4	0.211	3.13	48.4	26.6	1.88	23.2	0.02	0.05	0.16	84
2	98		9.16	9.15	33.785	26.143	188.1	0.238	3.00	46.2	28.4	1.94	24.2	0.02	0.04	0.14	99
	100	ISL	9.13	9.12	33.789	26.151	187.3	0.241	2.99	46.0	28.6	1.95	24.3	0.02	0.04	0.14	101
2	118		8.83	8.82	33.827	26.229	180.3	0.274	2.86	43.8	30.5	2.01	25.2	0.02	0.03	0.14	119
	125	ISL	8.73	8.72	33.858	26.269	176.6	0.287	2.79	42.6	31.7	2.04	25.7	0.02	0.02	0.14	126
2	139		8.57	8.56	33.921	26.343	169.8	0.311	2.66	40.5	34.0	2.11	26.8	0.02	0.01	0.13	140
	150	ISL	8.50	8.48	33.944	26.372	167.2	0.330	2.60	39.5	35.0	2.14	27.2	0.02	0.01	0.12	151
2	169		8.41	8.39	33.973	26.409	164.1	0.361	2.50	37.9	36.4	2.17	27.6	0.03	0.01	0.11	170
2	200		8.24	8.22	34.056	26.500	156.0	0.411	2.24	33.9	40.2	2.28	28.8	0.03	0.01	0.09	201
2	230		7.87	7.85	34.069	26.565	150.1	0.457	2.14	32.1	43.9	2.37	30.0	0.01			231
	250	ISL	7.86	7.83	34.123	26.610	146.3	0.486	1.84	27.6	46.8	2.47	30.9	0.00			252
2	268		7.85	7.82	34.170	26.648	143.0	0.512	1.52	22.8	49.5	2.57	31.7	0.00			270
	300	ISL	7.73	7.70	34.220	26.706	138.1	0.557	1.16	17.3	53.9	2.72	33.0	0.00			302
2	316		7.63	7.60	34.235	26.732	135.8	0.579	1.03	15.4	56.1	2.78	33.6	0.00			318
2	377		6.96	6.92	34.248	26.837	126.4	0.659	0.79	11.6	64.4	2.92	35.9	0.00			379
	400	ISL	6.62	6.58	34.261	26.893	121.1	0.688	0.64	9.3	70.0	3.00	37.1	0.00			403
2	438		6.14	6.10	34.287	26.977	113.3	0.732	0.42	6.1	78.5	3.13	38.9	0.00			441
	500	ISL	6.00	5.96	34.308	27.012	110.8	0.802	0.36	5.2	81.1	3.18	39.5	0.00			504
2	511		5.97	5.93	34.312	27.019	110.2	0.814	0.35	5.0	81.6	3.19	39.6	0.00			515

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 83 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 14.5 N	121 28.8 W	15/08/94	1205 UTC	3803 in	330 18 kn			1011.9 mb	17.0 C	16.0 C			

CAST	DEPTH K		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	16.12	16.12	33.180	24.322	359.4	0.000	5.84	103.8	2.2	0.42	0.0	0.00	0.33	0.09	0
2	2		16.12	16.12	33.180	24.322	359.4	0.007	5.84	103.8	2.2	0.42	0.0	0.00	0.33	0.09	2
2	10		16.11	16.11	33.178	24.323	359.6	0.036	5.84	103.8	2.1	0.42	0.0	0.00	0.27	0.08	10
	20	ISL	16.11	16.11	33.179	24.324	359.8	0.072	5.84	103.8	2.0	0.41	0.0	0.00	0.28	0.08	20
2	21		16.11	16.11	33.179	24.324	359.8	0.076	5.84	103.8	2.0	0.41	0.0	0.00	0.28	0.08	21
2	30		16.06	16.06	33.185	24.340	358.6	0.108	5.86	104.1	1.5	0.40	0.0	0.00	0.25	0.08	30
2	41		15.57	15.56	33.177	24.444	349.0	0.147	5.94	104.4	1.7	0.38	0.0	0.00	0.32	0.14	41
2	50		15.11	15.10	33.139	24.516	342.4	0.178	5.97	104.0	3.0	0.38	0.0	0.00	0.41	0.18	50
2	60		14.51	14.50	33.147	24.651	329.7	0.211	5.96	102.6	3.4	0.52	0.6	0.03	0.30	0.22	60
2	71		14.15	14.14	33.294	24.841	312.0	0.247	5.86	100.2	2.6	0.58	1.2	0.12	0.31	0.27	71
	75	ISL	13.64	13.63	33.240	24.904	306.0	0.259	5.80	98.1	3.3	0.59	1.5	0.18	0.29	0.27	75
2	85		12.29	12.28	33.095	25.058	291.4	0.289	5.60	92.0	5.9	0.63	2.9	0.29	0.23	0.26	85
2	100		11.65	11.64	33.228	25.281	270.5	0.331	4.34 U	70.4 U	8.5	0.84	7.2	0.06	0.18	0.23	100
2	119		9.99	9.98	33.378	25.690	231.7	0.379	4.35	68.1	15.6	1.52	15.7	0.02	0.09	0.14	120
	125	ISL	9.70	9.69	33.423	25.773	223.8	0.393	4.16	64.7	17.7	1.60	17.6	0.01	0.07	0.13	126
2	140		9.23	9.21	33.532	25.935	208.7	0.425	3.77	58.1	22.2	1.70	21.0	0.00	0.02	0.10	141
	150	ISL	8.95	8.93	33.617	26.046	198.3	0.445	3.61	55.3	24.3	1.76	22.3	0.00	0.01	0.08	151
2	169		8.55	8.53	33.767	26.226	181.5	0.481	3.35	50.9	27.8	1.88	24.1	0.00	0.00	0.05	170
2	199		8.26	8.24	33.911	26.383	167.0	0.534	2.67	40.3	34.4	2.11	27.4	0.00	0.00	0.05	200
	200	ISL	8.25	8.23	33.915	26.388	166.6	0.535	2.66	40.2	34.6	2.12	27.5	0.00			201
2	229		7.94	7.92	34.007	26.506	155.7	0.582	2.37	35.6	39.5	2.25	28.8	0.00			230
	250	ISL	7.56	7.54	34.030	26.580	149.0	0.614	2.28	33.9	43.9	2.32	29.9	0.00			251
2	269		7.20	7.17	34.036	26.635	143.8	0.642	2.21	32.6	47.9	2.38	31.0	0.00			271
	300	ISL	6.82	6.79	34.046	26.696	138.3	0.686	1.94	28.4	53.4	2.51	32.9	0.00			302
2	318		6.64	6.61	34.051	26.724	135.8	0.710	1.77	25.8	56.3	2.58	33.9	0.00			320
2	378		6.14	6.11	34.080	26.812	128.0	0.789	1.29	18.6	66.1	2.79	36.7	0.00			380
	400	ISL	5.93	5.90	34.094	26.850	124.5	0.817	1.12	16.0	70.3	2.87	37.6	0.00			403
2	439		5.60	5.56	34.124	26.915	118.6	0.865	0.84	11.9	77.5	2.99	39.1	0.00			442
	500	ISL	5.28	5.24	34.182	26.999	111.1	0.935	0.54	7.6	86.4	3.12	40.7	0.00			503
2	512		5.23	5.19	34.194	27.015	109.7	0.948	0.49	6.9	87.9	3.14	40.9	0.00			515
2	746		4.76	4.70	34.414	27.245	90.1	1.180	0.29	4.0	103.7	3.28	42.6	0.00			752
2	946		4.08	4.01	34.471	27.365	79.6	1.349	0.46	6.3	118.0	3.27	42.7	0.01			954
2	1246		3.41	3.32	34.523	27.475	70.1	1.572	0.75	10.1	133.7	3.22	43.1	0.00			1257
2	1542		2.81	2.70	34.567	27.566	61.7	1.768	1.11	14.8	147.9	3.16	42.6	0.00			1557

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 83 80

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	8OTT0M	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.8 N	122 7.9 W	15/08/94	0557 UTC	4181 m	340 13 kn			1015 .4 mb	18.2 C	17.0 C			

CAST	DEPTH m		TEHP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uH/ l	P04 uM/ l	N03 uB/ l	N02 UH/ l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.93	17.93	33.042	23.791	410.0	0.000	5.54	102.0	4.5	0.35	0.0	0.00	0.09	0.02	0
2	1		17.93	17.93	33.042	23.791	410.0	0.004	5 .54	102 .0	4.5	0.35	0.0	0.00	0.09	0.02	1
	10	ISL	17.92	17.92	33.047	23.798	409.7	0.041	5.55	102 .1	4.5	0.35	0.0	0.00	0.09	0.03	10
2	16		17.89	17.89	33.045	23.804	409.3	0.066	5.55	102.1	4.4	0.34	0.0	0.00	0.09	0.03	16
	20	ISL	17.84	17.84	33.044	23.815	408.4	0.082	5.55	102 .0	4.4	0.34	0.0	0.00	0.09	0.03	20
	30	ISL	17.77	17.76	33.057	23.843	406.1	0.123	5.55	101.8	4.2	0.33	0.0	0.00	0.11	0.03	30
2	31		17.77	17.76	33.060	23.845	405.9	0.127	5.55	101 .8	4.2	0.33	0.0	0.00	0.11	0.03	31
2	44		18.00	17.99	33.406	24.054	386.4	0.178	5.65	104.3	3.7	0.29	0.0	0.00	0.12	0.04	44
	50	ISL	17.38	17.37	33.342	24.155	377.0	0.201	5.74	104.7	3.7	0.30	0.0	0.00	0.13	0.04	50
2	60		16.06	16.05	33.179	24.337	359.9	0.238	5.88	104.4	3.7	0.33	0.0	0.00	0.14	0.05	60
2	73		14.89	14.88	33.220	24.627	332.5	0.283	5.93	102.9	3.7	0.32	0.0	0.00	0.21	0.14	73
	75	ISL	14.80	14.79	33.218	24.645	330.9	0.290	5.92	102.5	3.7	0.32	0.0	0.00	0.23	0.16	75
2	82		14.64	14.63	33.251	24.704	325.3	0.313	5.88	101.5	3.9	0.31	0.0	0.00	0.29	0.22	82
2	93		14.66	14.65	33.555	24.935	303.7	0.347	5.64	97.6	4.3	0.25	0.0	0.02	0.29	0.25	93
	100	ISL	14.55	14.54	33.624	25.012	296.6	0.368	5.53	95.5	4 .4	0.26	0. 1	0.01	0.27	0.24	100
2	104		14.43	14.41	33.643	25.052	292.9	0.380	5.47	94.2	4.5	0.26	0.2	0.01	0.25	0.23	104
2	114		13.93	13.91	33.715	25.213	277.8	0.408	5.25	89.6	5.2				0.18	0.21	111
2	124		12.93	12.91	33.551	25.288	270.7	0.436	5.08	84.8	6.9				0.13	0.15	125
	125	ISL	12 .76	12.74	33.528	25.304	269.2	0.439	5 .05	84.0	7.3				0.13	0.15	126
2	137		10.75	10.73	33.320	25.515	248.9	0.470	4.70	74.8	12.0				0.08	0.10	138
	150	ISL	10.24	10.22	33.424	25.**684**	233.0	0.501	4.33	68.2	15.9				0.04	0.06	151
2	165		9.65	9.63	33.501	25.843	218.0	0.535	4 .04	62.8	19.0				0.02	0.04	166
2	193		8.91	8.89	33.691	26.111	192.9	0.592	4.15	63.5	21 .5				0.01	0.03	194
	200	ISL	8.77	8.75	33.731	26.164	188.0	0.606	3.94	60.2	23.4						201
2	228		8.32	8.30	33.857	26.332	172.4	0.656	3.06	46.3	31 .3						229
	250	ISL	8.11	8.08	33.917	26.411	165.2	0.693	3.08	46.4	33.4						251
2	268		7.95	7.92	33.949	26.460	160.8	0.723	3.10	46.5	34.9						269
	300	ISL	7.40	7.37	33.993	26.574	150.2	0.772	2.70	40.0	42.5						302
2	317		7.09	7.06	34.012	26.632	144.8	0.797	2.41	35.5	47.1						319
2	378		6.48	6.45	34.068	26.759	133.3	0.882	1 .54	22.3	59.9						380
	400	ISL	6.35	6.31	34.089	26.793	130.3	0.911	1 .33	19.2	63.1						402
2	438		6.15	6.11	34. 121	26.844	125.8	0.960	1 .04	15.0	68.2						441
	500	ISL	5.58	5.54	34.142	26.932	117.7	1 .035	0.75	10.7	78.9						503
2	517		5.43	**5.39**	34.148	26.955	115.6	1 .055	0.67	9.5	81 .8						520

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 83 90

LATITUDE	LONGITUDE	**DAY/HO/YR**	CAST TiIME	**BOTTOM**	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 34.4 *ttl*	122 48.9 U	14/08/94	2332 UTC	4258 m	360 15 kn	360 05 04	0	1015 .4 mb	19.5 C	18.2 C	26m 01	0/8	

CAST	DEPTH ra		TEHP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uH/l	P04 uH/ l	N03 uH/l	N02 uH/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	18.71	18.71	33.270	23.773	411.7	0.000	5.46	102.1	3.6	0.33	0. 1	0.00	0.08	0.02	0
2	2		18.71	18.71	33.270	23.773	411.7	0.008	5 .46	102.1	3.6	0.33	0. 1	0.00	0.08	0.02	2
	10	ISL	18.60	18.60	33.267	23.799	409.6	0.041	5.47	102. 1	3.4	0.33	0.1	0.00	0.08	0.02	10
2	15		18.50	18.50	33.264	23.822	407.6	0.062	5.48	102 . 1	3.2	0.33	0.1	0.00	0.08	0.02	15
	20	ISL	18.41	18.41	33.251	23.834	406.6	0.082	5.48	101.9	3.3	0.33	0. 1	0.00	0.08	0.02	20
2	30		18.33	18.32	33.256	23.858	404.6	0.122	5.47 "	101.6	3.5	0.33	0.1	0.00	0.09	0.02	30
2	44		18.60	18.59	33.647	24.091	383.0	0.178	5.45	101.9	3.3	0.29	0.1	0.00	0.09	0.02	44
	50	ISL	18.41	18.40	33.669	24.155	377.0	0.200	5.52	102 .9	3.3	0.29	0.1	0.00	0.10	0.02	50
2	59		17.83	17.82	33.621	24.261	367.2	0.234	5.65	104.1	3.3	0.28	0. 1	0.00	0.11	0.03	59
2	74		16.17	16.16	33.528	24.580	337. 1	0.287	5.83	104.0	2 .6	0.28	0. 1	0.00	0.14	0.05	74
	75	ISL	16.15	16.14	33.534	24.590	336.3	0.290	5.83	103.9	2 .6	0.28	0.1	0.00	0.14	0.05	75
2	84		15 .99	15.98	33.570	24.654	330.4	0.320	5.81	103.2	3.0	0.28	0.1	0.00	0.15	0.06	84
2	94		15.96	15.95	33.704	24.764	320.3	0.353	5 .72	101.7	3.2	0.26	0. 1	0.00	0.18	0.10	94
	100	ISL	15.82	15 .80	33.750	24.831	314.0	0.372	5.67	100.5	3.1	0.27	0.1	0.00	0.22	0.16	100
2	104		15.70	15 .68	33.770	24.874	310.1	0.384	5.63	99.6	3.0	0.27	0.1	0.00	0.24	0.20	104
2	114		15.33	15.31	33.794	24.975	300.8	0.415	5.49	96.4	3.6	0.31	0.2	0.04	0.28	0.27	114
2	125		14.52	14.50	33.805	25.159	283.4	0.447	5.27	91 .0	4.3	0.40	1 .7	0.22	0.23	0.23	124
2	140		13.46	13.44	33.705	25.302	270.0	0.488	5 .08	85.8	5.8	0.58	4.7	0.06	0.17	0.20	141
	150	ISL	12.37	12.35	33.628	25 .457	255.2	0.515	4 .90	80.9	8.2	0. 78	7.8	0.04	0.13	0.16	151
2	164		10.87	10.85	33.563	25.684	233.6	0. 549	4.64	74.1	12.2	1 .07	12.3	0.01	0.07	0.10	165
2	196		9.35	9.33	33.641	26.002	203.5	0.619	4.14	64.0	20.0	1 .49	18.8	0.01	0.01	0.03	197
	200	ISL	9 .22	9.20	33.661	26.038	200. 1	0.627	4 .07	62.7	21.0	1 .53	19.5	0.01			201
2	229		8.52	8 .50	33.811	26.266	178.8	0.682	3.55	53.9	28.2	1.81	23.6	0.00			230
	250	ISL	8.26	8.23	33.899	26.375	168.8	0.718	3.19	48.2	32.4	1 .96	25.7	0.00			251
2	268		8.08	8.05	33.957	26.447	162 . 1	0.748	2.93	44. 1	35.6	2 .05	27. 1	0.00			269
	300	ISL	7.58	7.55	34.000	26.554	152.3	0.798	2.79	41.5	41.4	2.15	28 .8	0.00			302
2	317		7.31	7.28	34.008	26.599	148.1	0.824	2.74	40. 5	44. 5	2.20	29.6	0.00			319
2	376		6.57	6.54	34.035	26.721	136.9	0.908	1 .98	28.8	57. 1	2.54	33.8	0.00			378
	400	ISL	6.26	6.22	34.048	26.772	132.2	0.940	1 .68	24.2	62.9	2.67	35.6	0.00			402
2	435		5 .86	5.82	34.069	26.839	125.9	0.985	1 .29	18.4	70.9	2.84	37.9	0.00			438
	500	ISL	5 .44	5.40	34.106	26.920	118.7	1 .065	0.95	13.5	80.5	2 .99	39.9	0.00			503
2	518		5 .32	5.28	34. 116	26.942	116.7	1 .086	0.86	12.1	83.2	3.03	40.4	0.00			521

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 83 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
16.8 N	123 30.0 W	14/08/94	1846 UTC	4122 m	360 14 kn	360 03 04	0	1017.6 mb	21.2 C	19.0 C	28m 01	0/8	

CAST	DEPTH m	TEMP DES C	POT TEMP DEG C	SALINITY	SISMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 UH/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/I	PHAEO ug/l	PRESS db
	0 ISL	18.34	18.34	33.229	**23.834**	405.9	0.000	5.51	102.3	4.8	0.36	0.0	0.00	0.09	0.02	0
	2 A	18.34	18.34	33.229	23.834	406.0	0.008	5.51	102.3	4.8	0.36	0.0	0.00	0.09	0.02	2
	10	18.27	18.27	33.233	23.855	404.3	0.041	5.51	102.2	4.7	0.34	0.0	0.00	0.09	0.02	10
	17 A	18.24	18.24	33.238	23.866	403.4	0.069	5.51	102.1	4.5	0.34	0.0	0.00	0.09	0.02	17
	20 ISL	18.24	18.24	33.239	23.867	403.4	0.081	5.51	102.1	4.5	0.34	0.0	0.00	0.09	0.02	20
	27	18.24	18.24	33.242	23.870	403.4	0.109	5.50	101.9	4.4	0.34	0.0	0.00	0.10	0.03	27
	30 ISL	18.25	18.24	33.251	23.874	403.1	0.121	5.51	102.1	4.3	0.33	0.0	0.00	0.10	0.03	30
	35 A	18.26	18.25	33.267	23.884	402.3	0.141	5.52	102.4	4.2	0.32	0.0	0.00	0.10	0.03	35
	44	18.27	18.26	33.551	24.099	382.1	0.177	5.52	102.5	3.9	0.32	0.0	0.00	0.09	0.03	44
	50 ISL	18.09	18.08	33.576	24.163	376.3	0.199	5.55	102.8	3.8	0.32	0.0	0.00	0.09	0.03	50
	55 A	17.84	17.83	33.559	24.211	371.8	0.218	5.59	103.0	3.7	0.32	0.0	0.00	0.10	0.03	55
	65	17.13	17.12	33.607	24.418	352.4	0.254	5.67	103.1	3.7	0.28	0.0	0.00	0.11	0.04	65
	73 A	16.80	16.79	33.580	24.475	347.2	0.282	5.76	104.0	3.7	0.30	0.0	0.00	0.12	0.04	73
	75 ISL	16.69	16.68	33.586	24.505	344.4	0.289	5.77	104.0	3.7	0.30	0.0	0.00	0.13	0.04	75
	86	16.20	16.19	33.661	24.676	328.4	0.326	5.81	103.7	3.7	0.29	0.0	0.00	0.16	0.08	86
	100 ISL	16.14	16.12	33.807	24.803	316.8	0.371	5.73	102.3	3.6	0.26	0.0	0.00	0.20	0.12	100
	101 A	16.14	16.12	33.815	24.809	316.3	0.375	5.72	102.1	3.6	0.26	0.0	0.00	0.20	0.13	101
	119	15.79	15.77	33.929	24.976	300.8	0.430	5.54	98.3	3.6	0.28	0.0	0.01	0.30	0.34	119
	125 ISL	15.61	15.59	33.933	25.020	296.9	0.448	5.48	96.9	3.7	0.30	0.2	0.08	0.28	0.32	126
	139	14.98	14.96	33.895	25.130	286.7	0.489	5.33	93.0	4.2	0.39	1.2	0.23	0.20	0.22	140
	150 ISL	14.07	14.05	33.813	25.260	274.4	0.520	5.18	88.7	5.3	0.48	2.8	0.17	0.16	0.18	151
	169	12.31	12.29	33.675	25.506	251.1	0.570	4.93	81.3	8.0	0.69	6.5	0.01	0.09	0.12	170
	199	10.17	10.15	33.596	25.831	220.1	0.640	4.62	72.7	14.0	1.15	13.1	0.01			200
	200 ISL	10.12	10.10	33.598	25.841	219.1	0.643	4.61	72.5	14.3	1.17	13.3	0.01			201
	229	8.93	8.91	33.717	26.129	192.0	0.702	4.19	64.2	22.2	1.56	19.7	0.00			230
	250 ISL	8.48	8.45	33.825	26.283	177.5	0.741	4.02	61.0	26.6	1.69	21.8	0.00			251
	267	8.24	8.21	33.904	26.382	168.4	0.770	3.87	58.4	29.9	1.75	22.9	0.00			268
	300 ISL	7.73	7.70	33.975	26.513	156.2	0.824	3.31	49.4	37.8	1.94	26.0	0.01			302
	317	7.49	7.46	33.991	26.560	151.9	0.850	3.01	44.7	41.8	2.04	27.5	0.01			319
	377	6.71	6.68	34.013	26.685	140.4	0.938	2.37	34.6	53.3	2.38	32.0	0.00			379
	400 ISL	6.44	6.40	34.022	26.728	136.5	0.970	2.08	30.1	58.0	2.51	33.8	0.00			402
	439	6.06	6.02	34.047	26.797	130.2	1.022	1.59	22.8	66.1	2.72	36.5	0.00			442
	500 ISL	5.73	5.69	34.133	26.907	120.3	1.098	0.92	13.1	78.1	3.00	39.5	0.00			503
	515	5.65	5.61	34.154	26.933	117.9	1.116	0.76	10.8	81.1	3.07	40.2	0.00			518

A) PRIMARY PRODUCTIVITY SAMPLES JERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 83 110

LATITUDE	L0N6ITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 54.9 N	124 11.1 W	14/08/94	1111 UTC	4271 m	360 17 kn			1015.7 mb	18.2 C	17.1 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/L	OXY PCT	S103 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/l	PHAEO ug/I	PRESS db
	0 ISL	18.23	18.23	33.279	23.899	399.7	0.000	5.48	101.6	4.1	0.35	0.1	0.00	0.08	0.02	0
2	1	18.23	18.23	33.279	23.899	399.7	0.004	5.48	101.6	4.1	0.35	0.1	0.00	0.08	0.02	1
	10 ISL	18.23	18.23	33.279	23.900	400.0	0.040	5.48	101.6	4.0	0.34	0.0	0.00	0.08	0.02	10
2	16	18.23	18.23	33.279	23.900	400.2	0.064	5.48	101.6	3.9	0.34	0.0	0.00	0.08	0.02	16
	20 ISL	18.24	18.24	33.289	23.905	399.8	0.080	5.48	101.6	3.8	0.34	0.0	0.00	0.08	0.03	20
	30 ISL	18.26	18.25	33.315	23.921	398.7	0.120	5.48	101.6	3.7	0.35	0.0	0.00	0.10	0.04	30
2	31	18.26	18.25	33.318	23.923	398.5	0.124	5.48	101.6	3.7	0.35	0.0	0.00	0.10	0.04	31
2	44	18.05	18.04	33.352	24.001	391.5	0.175	5.52	102.0	3.6	0.31	0.0	0.00	0.11	0.03	44
	50 ISL	17.96	17.95	33.453	24.100	382.2	0.198	5.54	102.2	3.4	0.27	0.0	0.00	0.12	0.03	50
2	60	17.63	17.62	33.576	24.275	365.9	0.236	5.61	103.0	3.2	0.21	0.0	0.00	0.13	0.04	60
2	74	16.42	16.41	33.378	24.408	353.5	0.286	5.78	103.5	3.3	0.25	0.0	0.00	0.16	0.06	74
	75 ISL	16.41	16.40	33.380	24.412	353.2	0.290	5.79	103.6	3.3	0.25	0.0	0.00	0.16	0.06	75
2	85	16.27	16.26	33.418	24.474	347.7	0.325	5.82	103.9	3.3	0.24	0.0	0.00	0.16	0.07	85
2	95	16.11	16.09	33.557	24.617	334.3	0.359	5.80	103.3	3.2	0.21	0.0	0.00	0.19	0.08	95
	100 ISL	16.10	16.08	33.619	24.667	329.7	0.375	5.77	102.8	3.2	0.21	0.0	0.00	0.20	0.09	100
2	105	16.08	16.06	33.676	24.716	325.2	0.392	5.74	102.2	3.2	0.21	0.0	0.00	0.21	0.10	105
2	115	15.90	15.88	33.770	24.829	314.7	0.424	5.65	100.3	3.3	0.22	0.0	0.00	0.22	0.20	115
2	125	14.73	14.71	33.611	24.964	301.9	0.455	5.54	96.0	3.9	0.28	0.2	0.02	0.26	0.23	125
2	141	13.55	13.53	33.584	25.190	280.6	0.501	5.20	87.9	5.4	0.49	3.3	0.04	0.16	0.18	142
	150 ISL	13.13	13.11	33.597	25.285	271.8	0.526	5.07	85.0	6.3	0.57	4.7	0.04	0.13	0.16	151
2	164	12.51	12.49	33.612	25.418	259.3	0.563	4.88	80.8	8.1	0.69	6.9	0.02	0.10	0.14	165
2	196	10.11	10.09	33.511	25.775	225.3	0.641	4.24	66.6					0.03	0.06	197
	200 ISL	9.92	9.90	33.529	25.821	221.0	0.650	4.22	66.0	15.3	1.13	14.1	0.01			201
2	231	8.88	**8**.86	33.723	26.141	190.8	0.714	4.05	62.0	22.8	1.49	19.8	0.00			232
	250 ISL	8.54	8.51	33.813	26.265	179.3	0.749	3.72	56.5	27.0	1.62	21.9	0.01			251
2	270	8.28	8.25	33.890	26.365	170.1	0.784	3.33	50.3	31.5	1.75	23.7	0.02			271
	300 ISL	7.85	7.82	33.979	26.499	157.7	0.833	2.88	43.1	38.5	1.99	26.8	0.01			302
2	322	7.52	7.49	34.021	26.579	150.2	0.867	2.59	38.5	43.8	2.15	29.0	0.00			324
2	381	6.46	6.43	34.034	26.735	135.6	0.951	1.91	27.7	59.3	2.44	33.1	0.01			383
	400 ISL	6.24	6.20	34.044	26.771	132.2	0.976	1.71	24.7	63.5	2.53	34.3	0.02			402
2	441	5.88	5.34	34.075	26.842	125.8	1.029	1.30	18.6	71.7	2.71	36.5	0.03			444
	500 ISL	5.55	5.51	34.144	26.937	117.2	1.101	0.79	11.2	81.4	2.96	39.0	0.02			503
2	520	5.46	5.42	34.169	26.968	114.5	1.124	0.64	9.1	84.3	3.03	39.7	0.01			523
2	747	4.53	4.47	34.360	27.227	91.3	1.356	0.24	3.3	108.9	3.26	42.9	0.00			752
2	944	3.99	3.92	34.442	27.351	80.6	1.524	0.41	5.6	122.4	3.26	43.4	0.00			951
2	244	3.22	3.13	34.522	27.492	68.0	1.746	0.83	11.1	139.6	3.20	43.0	0.00			1255
2	505	2.72	2.61	34.565	27.572	60.6	1.914	1.13	15.0	152.8	3.06	41.9	0.00			1519

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 87 33

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEJt	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
33 53.0 N	118 29.7 W	12/08/94	0012 UTC	58 in	230 12 kn	270 01 03	0	1008 .6 mb	22.6 C	20.3 C	15m 04	0/8	

CAST	DEPTH lll		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGMA TH6TA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ l	P04 uM/l	N03 uM/ l	N02 uM/ l	CHL-A ug/l	PHAEO ug/ l	PRESS db
	0	ISL	21 .84	21 .84	33.504	23.127	473.3	0.000	5.54	109.9	5.6	0.28	5.2	0.00	0.36	0.10	0
2	2		21.84	21 .84	33.504	23.127	473.4	0.009	5.54	109.9	5.6	0.28	5.2	0.00	0.36	0.10	2
2	6		21 .73	21 .73	33.502	23.157	470.8	0.028	5.56	110.1	5 .4	0.28	5 .2	0.00	0.36	0.11	6
2	10		19.83	19.83	33.484	23.652	423.6	0.046	5.79	110.7	4.4	0.32	5.2	0.00	0.34	0.12	10
2	19		15.96	15.96	33.406	24.532	339.9	0.081	6.47	114.8	5.4	0.39	5.2	0.00	0.35	0.13	19
	20	ISL	15.69	15.69	33.400	24.588	334.6	0.084	6.49	114.6	5 .6	0.39	5.2	0.00	0.57	0.21	20
2	29		13.95	13.95	33.353	24.926	302.6	0.113	6.66	113.4	7.8	0.43	5 .2	0.00	2.28	0.89	29
	30	ISL	13.79	13.79	33.351	24.958	299.6	0.116	6.54	111.0	8 .1	0.47	5 .3	0.03	2.19	0.87	30
2	40		12.54	12.53	33.367	25.219	274.9	0.144	5 .07	83.9	11.4	0.95	6.6	0.43	0.67	0.62	40
2	50		11 .78	11 .77	33.429	25.412	256.8	0.171	4.31	70.2	14.5	1 .24	11.5	0.62	0.34	0.44	50

' RV NEW HORIZON CALCOFI CRUISE 9408 STATION 87 35

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
33 49.2 N	118 38.0 W	12/08/94	0239 UTC	705 m	240 13 kn	240 02 04	0	1007 .7 mb	21.3 C	19.3 C		0/8	

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGRA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ l	P04 uM/l	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	20.41	20.41	33.479	23.495	438.2	0.000	5.48	105.9	4 .1	0.33	0.2	0.00	0.21	0.06	0
2	2		20.41	20.41	33.479	23.495	438.3	0.009	5 .48	105.9	4 .1	0.33	0.2	0.00	0.21	0.06	2
2	10		19.40	19.40	33.465	23.748	414.4	0.043	5.62	106.6	4.0	0.32	0.2	0.00	0.23	0 .06	10
2	19		16.12	16.12	33.412	24.501	342 .9	0.077	6.28	111.8	5.1	0.36	0.2	0.00	0.34	0.17	19
	20	ISL	15.88	15.88	33.409	24.553	338.0	0.080	6.25	110.7	5.2	0.37	0.2	0.00	0.41	0.21	20
2	30		14.02	14.02	33.393	24.943	301 .1	0.112	6.00	102.4	7.0	0.53	2.1	0.11	1 .00	0.55	30
2	40		12.48	12.47	33.412	25.266	270.5	0.141	5.06	83.6	10.3	0.88	7.4	0.47	0. 56	0.49	40
2	50		11.85	11.84	33.428	25.398	258.1	0.167	4.66	76.0	12.5	1 .06	10.2	0.40	0.39	0.40	50
2	60		11 .53	11 .52	33.479	25.497	248.9	0.193	4.25	68.9	15.0	1 .24	13.2	0.19	0.24	0.30	60
2	70		10.65	10.64	33.530	25.695	230.3	0.217	3.89	61 .9	18.5	1 .45	16.7	0.03	0.14	0.20	70
	75	ISL	10.44	10.43	33.553	25.749	225.2	0.228	3.79	60.0	19.7	1 .51	17.6	0.03	0.11	0.17	7!
2	86		10.19	10.18	33.591	25.822	218.5	0.252	3.68	58.0	21.6	1 .58	18.8	0.02	0.08	0.14	36
2	97		9.86	9.85	33.607	25.890	212.2	0.276	3.63	56.8	22.6	1 .66	19.8	0.02	0.05	0.10	97
	100	ISL	9.84	9.83	33.618	25.902	211.1	0.282	3.61	56.4	22.9	1 .67	20.0	0.02	0.05	0.09	100
2	119		9.70	9.69	33.670	25.966	205.4	0.322	3.43	53.5	24.6	1 .75	21.1	0.01	0.03	0.08	120
	125	ISL	9.67	9.66	33.692	25.988	203.4	0.334	3.34	52.0	25.3	1 .78	21 .5	0.01	0.02	0.07	124
2	140		9.57	9.55	33.746	26.047	198.1	0.364	3.12	48.5	27.1	1 .87	22 .5	0.01	0.01	0.06	141
	150	ISL	9.44	9.42	33.767	26.085	194.7	0.384	3.08	47.8	28.1	1 .90	23.0	0.01	0.01	0.06	151
2	170		9.22	9.20	33.829	26.169	187.1	0.422	2.95	45.5	30.2	1 .97	24.2	0.01	0.01	0.06	171
2	199		9.25	9.23	34.050	26.338	171.7	0.474	2.28	35.3	35.0	2.20	26.5	0.01	0.00	0.05	200
	200	ISL	9.25	9.23	34.053	26.340	171.5	0.476	2 .27	35. 1	35.1	2.20	26.5	0.01			201
2	231		9.12	9.09	34.116	26.411	165.4	0.528	1 .99	30.7	37.2	2 .31	27.8	0.01			232
	250	ISL	9.00	8.97	34.161	26.466	160.6	0.559	1 .79	27.5	39.6	2.39	28.6	0.02			251
2	268		8.87	8.84	34.197	26.515	156.2	0. 588	1 .63	25.0	42.0	2.47	29.4	0.02			270
	300	ISL	8.59	8.56	34.210	26.569	151.5	0.637	1 .53	23.3	44 .8	2.55	30.4	0.01			302
2	317		8.43	8.40	34.208	26.592	149.6	0.663	1 .50	22.8	46. 1	2.58	30.8	0.00			319
2	374		7.93	7.89	34.215	26.674	142.6	0.746	1 .28	19.2	51 .7	2.70	32.3	0.00			376
	400	ISL	7.72	7.68	34.230	26.716	138.8	0.782	1 .09	16.3	55 .2	2.79	33.4	0.00			403
2	438		7.40	7.36	34.253	26.781	133.1	0.834	0.82	12.2	60.8	2.93	35.0	0.00			441
	500	ISL	6.83	6.78	34.268	26.872	124.9	0.914	0.60	8.8	69.6	3 .09	36.8	0.01			503
2	513		6.71	6.66	34.272	26.891	123.1	0.930	0.55	8.0	71 .4	3.12	37.2	0.01			517

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 87 40

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TINE	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLO AMT	TYPE
33 39.4 K1	118 58.8 U	12/08/94	0634 UTC	723 m	200 05 kn			1009 .5 mb	19.5 C	18.0 C			

CAST	DEPTH ™		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	18.95	18.95	33.480	23.874	402 .1	0.000	5 .66	106.5	2.4	0.35	0.0	0.00	0.23	0.07	0
2	3		18.95	18.95	33.480	23.874	402.2	0.012	5 .66	106.5	2 .4	0.35	0.0	0.00	0.23	0.07	J
2	10		17.15	17.15	33.480	24.314	360. 5	0.039	5 .90	107.2	2 .3	0.36	0.0	0.00	0.34	0.13	10
2	20		15.02	15 .02	33.440	24.766	317.6	0.073	5 .87	102.3	4 .3	0.52	2 .0	0.12	0.94	0.41	20
2	30		12.93	12 .93	33.405	25.173	279.1	0.102	5.26	87.8	8.4	0.82	6 .6	0.26	1.16	0.64	30
2	40		11 .99	11.98	33.422	25.367	260.9	0.129	4.71	77.0	11.1	1 .02	10.1	0.16	0.50	0.42	40
2	50		11.71	11 .70	33.439	25.433	254.8	0.155	4.60	74 .8	12.1	1 .06	10.8	0.12	0.56	0.47	50
2	60		10.42	10.41	33.520	25.726	227.0	0.179	4 .03	63. 8	17.4	1 .37	15.8	0.04	0.20	0.25	60
2	70		10.15	10.14	33.573	25.814	218.9	0.202	3.82	60. 1	19.8	1 .56	18.3	0.02	0.11	0.15	70
	75	ISL	10.07	10.06	33.613	25.859	214.7	0.213	3.66	57.5	21 .0	1 .62	19.1	0.02	0.09	0.15	7!
2	85		9.93	9.92	33.693	25.945	206.7	0.234	3.34	52.3	23.3	1 .70	20.4	0.02	0.08	0.16	8!
2	100		9.68	9.67	33.765	26.043	197.7	0.264	3.13	48.8	25.7	1 .83	21.9	0.03	0.04	0.12	101
2	1 18		9.37	9.36	33.860	26.169	186. 1	0.298	2.91	45.1	28.3	1 .96	23.7	0.01	0.01	0.06	119
	125	ISL	9.35	9.34	33.896	26.200	183.3	0.311	2 .80	43.4	29. 1	2 .00	24.3	0.01	0.01	0.06	126
2	139		9.32	9.30	33.957	26.253	178.6	0.337	2 .57	39.8	30.7	2 .09	25.3	0.00	0.01	0.08	140
	1 50	ISL	9.23	9.21	34.013	26.311	173.2	0.356	2 .38	36.8	32 .6	2.16	26.1	0.00	0.01	0.07	151
2	168		9.06	9.04	34.088	26.398	165.4	0.387	2.13	32.8	35 .7	2 .27	27.3	0.01	0.00	0.06	169
	200	ISL	8.83	8.81	34.115	26.456	160.4	0.439	2 .01	30.8	38.7	2.35	28.2	0.02	0.00	0.07	201
2	201		8.82	8. 80	34.115	26.457	160.3	0.440	2 .01	30.8	38.8	2.35	28.2		0.00	0.07	202
2	228		8.73	8.71	34.145	26.495	157.2	0.483	1 .95	29.8	39.7	2 .38	28.5	0.02			229
	250	ISL	8. 59	8 .56	34.169	26.536	153.7	0.517	1 .78	27.1	42 .0	2 .40	28.8	0.02			251
2	268		8.45	8 .42	34.188	26.573	150.5	0. 545	1 .60	24.3	44 .5	2 .44	29.3	0.01			270
	300	ISL	8.20	8.17	34.225	26.640	144.6	0. 592	1.29	19.5	49.0	2.61	31 .0	0.00			30!
2	328		7.96	7.93	34.250	26.696	139.6	0.632	1 .05	15.8	53.0	2.77	32.6	0.00			330
2	380		7.47	7.43	34.261	26.776	132 .6	0.702	0.82	12.2	59. 7	2.87	33.9	0 .02			38!
	400	ISL	7.30	7.26	34.261	26.801	130.5	0.729	0. 76	11.3	62 .0	2 .90	34.3	0.01			403
2	436		7.02	6.98	34.262	26.841	127.0	0.775	0.66	9.7	65 .9	2 .96	35 .2	0.00			43!
	500	ISL	6.58	6.53	34.276	26.912	120.9	0.854	0. 50	7.3	73. 1	3.09	37.3	0.01			503
2	510		6.51	6.46	34.278	26.922	119.9	0.867	0.47	6.8	74.2	3.11	37.6	0.01			511

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 87 45

LATITUDE	LONGITUDE	DAY/NO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.9 N	119 19.7 V	12/08/94	1058 UTC	1659 in	270 09 kn			1008.7 mb	16.7 C	16.0 C			

CAST	DEPTH ID	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 UN/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0 ISL	16.92	16.92	33.532	24.408	351.2	0.000	5.71	103.3	2.7	0.38	0.3	0.00	0.53	0.19	0
2	2 A	16.92	16.92	33.532	24.408	351.3	0.007	5.71	103.3	2.7	0.38	0.3	0.00	0.53	0.19	2
	10 ISL	16.92	16.92	33.534	24.409	351.3	0.035	5.71	103.3	2.6	0.38	0.3	0.00	0.53	0.19	10
2	11	16.92	16.92	33.534	24.410	351.4	0.039	5.71	103.3	2.6	0.38	0.3	0.00	0.53	0.19	11
	20 ISL	16.27	16.27	33.539	24.564	336.9	0.070	5.68	101.5	4.3	0.46	1.7	0.05	0.85	0.40	20
2	21	16.14	16.14	33.540	24.595	334.0	0.073	5.68	101.2	4.6	0.48	2.0	0.06	0.89	0.43	21
2	30	14.26	14.26	33.557	25.019	293.8	0.101	5.43	93.2	8.8	0.75	6.0	0.10	1.15	0.64	30
2	40	12.58	12.57	33.566	25.366	261.0	0.129	4.75	78.7	13.2	1.09	11.4	0.22	1.37	0.69	40
2	50	12.05	12.04	33.580	25.479	250.5	0.155	4.44	72.8	15.3	1.18	12.9	0.13	1.06	0.62	50
2	60	11.13	11.12	33.591	25.657	233.7	0.179	4.06	65.3	18.1	1.37	15.8	0.08	0.73	0.42	60
2	71	10.70	10.69	33.594	25.736	226.4	0.204	3.90	62.1	19.6	1.52	17.6	0.14	0.54	0.36	71
	75 ISL	10.39	10.38	33.623	25.812	219.2	0.213	3.73	59.0	21.2	1.59	18.8	0.12	0.43	0.31	75
2	85	9.65	9.64	33.724	26.016	200.0	0.234	3.27	50.9	25.6	1.78	21.8	0.06	0.17	0.18	85
2	99	9.31	9.30	33.848	26.169	185.7	0.261	2.87	44.4	29.6	2.01	24.3	0.04	0.09	0.15	99
	100 ISL	9.30	9.29	33.852	26.173	185.3	0.263	2.85	44.1	29.7	2.02	24.4	0.04	0.09	0.15	101
2	120	9.21	9.20	33.914	26.237	179.7	0.299	2.63	40.6	31.5	2.11	25.4	0.04	0.03	0.13	121
	125 ISL	9.16	9.15	33.943	26.267	176.8	0.308	2.56	39.5	32.3	2.14	25.8	0.04	0.02	0.12	126
2	1*1	9.00	8.98	34.039	26.368	167.6	0.336	2.34	36.0	34.8	2.22	26.9	0.03	0.01	0.09	142
	150 ISL	9.01	8.99	34.075	26.395	165.2	0.351	2.20	33.8	35.7	2.26	27.2	0.02	0.01	0.09	151
2	171	9.02	9.00	34.130	26.437	161.7	0.385	1.98	30.5	37.5	2.33	27.8	0.00	0.00	0.08	172
2	199	8.53	8.51	34.127	26.512	155.0	0.429	2.06	31.4	40.6	2.37	28.6	0.00	0.00	0.04	200
	200 ISL	8.52	8.50	34.128	26.514	154.8	0.431	2.05	31.2	40.8	2.38	28.7	0.00			201
2	228	8.25	8.23	34.172	26.590	148.0	0.473	1.71	25.9	45.4	2.53	30.3	0.00			229
	250 ISL	8.07	8.04	34.196	26.636	143.9	0.505	1.47	22.2	48.6	2.60	31.0	0.00			252
2	268	7.95	7.92	34.212	26.667	141.3	0.531	1.30	19.5	51.0	2.65	31.5	0.01			270
	300 ISL	7.77	7.74	34.238	26.714	137.3	0.576	1.08	16.2	55.0	2.79	32.8	0.02			302
2	321	7.65	7.62	34.250	26.741	135.0	0.604	0.97	14.5	57.4	2.88	33.7	0.02			323
2	379	7.26	7.22	34.251	26.798	130.3	0.681	0.80	11.8	62.8	3.06	35.3	0.01			381
	400 ISL	7.14	7.10	34.254	26.817	128.8	0.708	0.75	11.1	64.6	3.09	35.8	0.01			403
2	*38	6.95	6.91	34.261	26.849	126.2	0.757	0.66	9.7	67.7	3.13	36.5	0.01			441
	500 ISL	6.70	6.65	34.272	26.893	122.8	0.834	0.56	8.2	71.9	3.20	37.4	0.01			503
2	512	6.65	6.60	34.274	26.901	122.1	0.849	0.55	8.0	72.7	3.21	37.5	0.01			516
2	860	4.66	4.59	34.433	27.272	88.6	1.215	0.24	3.3	116.0	3.55	41.3	0.00			867
2	1204	4.20	4.10	34.473	27.356	83.2	1.511	0.33	4.5	127.5	3.61	41.9	0.00			1215
2	1394	4.19	4.08	34.477	27.362	84.5	1.670	0.29	4.0	128.6	3.63	41.9	0.00			1407
2	1609	4.20	4.07	34.477	27.363	86.5	1.854	0.28	3.8	130.9	3.64	41.0	0.01			1625

A*) SANTA CRUZ BASIN STATION.

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEAi	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 19.5 N	119 3 9.9 U	12/08/94	1522 UTC	76 m	290 08 kn	300 02 05	0	1011.3 mb	17.4 C	16.5 C	13m 04	0/8	

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 UM/l	N03 uM/L	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0 ISL	15.11	15.11	33.539	24.823	311.7	0.000	5.61	98.0	7.1	0.70	4.5	0.13	0.87	0.33	0
2	2	15.11	15.11	33.539	24.823	311.7	0.006	5.61	98.0	7.1	0.70	4.5	0.13	0.87	0.33	2
2.	10	14.95	14.95	33.538	24.857	308.7	0.031	5.58	97.1	7.2	0.72	4.8	0.14	0.97	0.40	10
2	20	14.75	14.75	33.541	24.903	304.6	0.062	5.50	95.3	8.0	0.77	5.3	0.15	0.93	0.41	20
2	30	13.19	13.19	33.522	25.212	275.5	0.091	5.01	84.1	10.6	0.98	8.3	0.31	1.00	0.44	30
2	41	10.66	10.66	33.555	25.712	228.0	0.118	4.02	64.0	18.5	1.48	16.4	0.14	0.41	0.26	41
2	50	10.43	10.42	33.584	25.774	222.2	0.139	3.77	59.7	20.9	1.62	18.7	0.06	0.23	0.20	50
2	60	9.47	9.46	33.681	26.011	199.9	0.160	3.43	53.2	25.2	1.79	22.0	0.02	0.08	0.11	60
2	70	9.39	9.38	33.7*1	26.103	191.4	0.179	3.10	48.0	27.9	1.92	23.5	0.04	0.05	0.12	70

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 87 55

LATITUDE	LONGITUDE	DAY/NO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEAi	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 9.6N	120 0.4 U	12/08/94	1854 UTC	1189 m	330 06 kn	330 03 05	0	1012.6 mb	18.3 C	17.1 C	11m 04	0/8	

CAST	DEPTH HI	TENP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uK/l	N03 uM/l	N02 uM/L	CHL-A ug/l	PHAEO ug/l	PRESS db
	0 ISL	16.07	16.07	33.546	24.614	331.5	0.000	5.79	103.1	5.2	0.47	2.2	0.04	0.88	0.24	0
2	1 A	16.07	16.07	33.546	24.614	331.5	0.003	5.79	103.1	5.2	0.47	2.2	0.04	0.88	0.24	1
2	6 A	15.98	15.98	33.545	24.634	329.8	0.020	5.80	103.1	5.2	0.55	2.4	0.09	0.91	0.26	6
	10 ISL	15.80	15.80	33.542	24.673	326.3	0.033	5.78	102.3	5.3	0.54	2.6	0.10	0.98	0.29	10
2	13 A	15.58	15.58	33.539	24.719	321.9	0.043	5.77	101.7	5.4	0.53	2.9	0.11	1.04	0.33	13
2	20 A	14.76	14.76	33.540	24.900	304.9	0.065	5.57	96.6	7.3	0.65	4.8	0.08	1.06	0.44	20
2	29 A	13.38	13.38	33.535	25.183	278.1	0.091	4.98	83.9	11.1	0.93	9.0	0.24	0.95	0.52	29
	30 ISL	13.22	13.22	33.535	25.216	275.1	0.094	4.93	82.8	11.5	0.95	9.3	0.22	0.94	0.52	30
2	40 A	11.73	11.72	33.550	25.515	246.8	0.120	4.41	71.8	15.6	1.11	12.1	0.02	0.79	0.51	40
2	50	10.57	10.56	33.586	25.752	224.4	0.143	3.82	60.7	21.0	1.44	17.8	0.01	0.27	0.32	50
2	60	9.89	9.88	33.625	25.898	210.6	0.165	3.50	54.8	23.6	1.66	20.5	0.01	0.13	0.25	60
2	69	9.70	9.69	33.654	25.953	205.6	0.184	3.42	53.3	24.7	1.71	21.2	0.01	0.09	0.23	69
	75 ISL	9.56	9.55	33.673	25.991	202.1	0.196	3.35	52.1	25.5	1.76	21.9	0.01	0.08	0.20	75
2	86	9.27	9.26	33.718	26.073	194.5	0.218	3.19	49.3	27.5	1.85	23.3	0.01	0.06	0.16	86
2	99	8.91	8.90	33.794	26.190	183.6	0.242	2.98	45.7	30.8	1.95	24.8	0.00	0.03	0.14	100
	100 ISL	8.90	8.89	33.798	26.195	183.2	0.244	2.97	45.5	30.9	1.95	24.8	0.00	0.03	0.14	101
2	119	8.76	8.75	33.849	26.257	177.6	0.279	2.87	43.9	32.2	1.97	25.4	0.00	0.02	0.12	120
	125 ISL	8.67	8.66	33.865	26.283	175.2	0.289	2.82	43.0	32.9	2.00	25.8	0.00	0.02	0.13	126
2	137	8.48	8.47	33.898	26.339	170.1	0.310	2.71	41.2	34.6	2.07	26.6	0.00	0.01	0.15	138
	150 ISL	8.35	8.33	33.938	26.390	165.5	0.332	2.59	39.2	36.5	2.14	27.5	0.00	0.01	0.13	151
2	167	8.23	8.21	33.982	26.443	160.7	0.359	2.46	37.2	38.8	2.19	28.4	0.00	0.01	0.11	168
2	199	7.97	7.95	34.006	26.501	155.7	0.410	2.44	36.6	41.2	2.14	28.2	0.00			200
	200 ISL	7.96	7.94	34.007	26.503	155.5	0.412	2.43	36.5	41.4	2.14	28.3	0.00			201
2	229	7.57	7.55	34.048	26.592	147.4	0.455	2.17	32.3	46.6	2.33	30.6	0.01			230
	250 ISL	7.42	7.40	34.084	26.642	143.0	0.486	1.91	28.3	50.7	2.44	32.0	0.01			252
2	269	7.32	7.29	34.112	26.679	139.8	0.513	1.68	24.9	54.0	2.52	32.9	0.00			271
	300 ISL	7.15	7.12	34.129	26.716	136.7	0.556	1.48	21.8	57.5	2.57	33.5	0.01			302
2	318	7.07	7.04	34.138	26.734	135.2	0.580	1.38	20.3	59.0	2.60	33.8	0.01			320
2	379	7.04	7.00	34.242	26.821	127.9	0.660	0.82	12.1	64.4	2.88	36.0	0.00			381
	400 ISL	6.80	6.76	34.243	26.855	124.9	0.687	0.74	10.8	68.1	2.94	36.9	0.00			403
2	439	6.30	6.26	34.236	26.916	119.2	0.735	0.64	9.3	75.2	3.03	38.5	0.00			442
	500 ISL	6.03	5.99	34.276	26.983	113.5	0.806	0.47	6.8	81.1	3.18	39.9	0.00			503
2	514	5.97	5.92	34.285	26.997	112.3	0.821	0.43	6.2	82.4	3.21	40.2	0.00			518

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 87 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEAi	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPi
32 59.3 N	120 21.2 U	12/08/94	2309 UTC	766 in	310 18 kn	310 05 05	1	1010.6 mb	17.5 C	16.4 C	11m 04	1/8	CC

CAST	DEPTH •		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 UN/l	N03 UN/l	N02 UM/l	CHL-A ug/l	PHAEO ug/l	PRESS db	L 3
	0	ISL	16.18	16.18	33.500	24.554	337.2	0.000	6.03	107.5	2.4	0.35	0.2	0.01	1.05	0.28	/	
2	1		16.18	16.18	33.500	24.554	337.3	0.003	6.03	107.5	2.4	0.35	0.2	0.01	1.05	0.28	1	
	10	ISL	16.07	16.07	33.501	24.580	335.1	0.034	6.06	107.8	2.4	0.35	0.2	0.01	1.18	0.33	10	
2	11		16.06	16.06	33.501	24.582	334.9	0.037	6.07	108.0	2.4	0.35	0.2	0.01	1.19	0.33	11	
2	20		15.46	15.46	33.503	24.719	322.2	0.067	6.11	107.4	2.5	0.43	1.3	0.07	3.42	1.31	20	
	30	ISL	14.26	14.26	33.488	24.966	298.9	0.098	5.66	97.1	6.4	0.68	3.3	0.12	2.13	1.32	30	
2	31		14.14	14.14	33.488	24.991	296.5	0.101	5.61	96.0	6.8	0.71	3.5	0.13	1.90	1.32	31	
2	40		13.43	13.42	33.503	25.149	281.7	0.127	5.34	90.1	8.8	0.85	5.7	0.25	0.71	0.65	40	
2	50		12.53	12.52	33.525	25.344	263.3	0.154	4.91	81.3	11.6	1.11	9.1	0.41	0.56	0.47	50	
2	60		11.55	11.54	33.564	25.560	243.0	0.179	4.00	64.9	16.4	1.42	14.9	0.47	0.26	0.37	60	
2	70		10.89	10.88	33.594	25.702	229.6	0.203	3.72	59.5	19.1	1.52	17.7	0.18	0.17	0.39	IO	
	75	ISL	10.50	10.49	33.626	25.796	220.8	0.214	3.53	56.0	21.1	1.61	19.3	0.11	0.14	0.36	75	
2	85		9.78	9.77	33.700	25.976	203.8	0.235	3.18	49.7	25.1	1.81	22.4	0.04	0.11	0.28	8!	
2	100		9.10	9.09	33.789	26.156	186.9	0.265	2.94	45.2	29.1	1.97	25.2	0.03	0.07	0.27	100	
2	119		8.74	8.73	33.877	26.282	175.2	0.299	2.73	41.7	32.8	2.07	26.7	0.02	0.06	0.21	120	
	125	ISL	8.68	8.67	33.893	26.304	173.3	0.309	2.72	41.5	33.3	2.08	26.9	0.02	0.06	0.21	12(	
2	139		8.54	8.53	33.920	26.347	169.4	0.333	2.71	41.2	34.4	2.11	27.2	0.03	0.05	0.22	UO	
	150	ISL	8.30	8.28	33.941	26.400	164.5	0.352	2.76	41.8	35.8	2.16	27.5	0.02	0.05	0.20	151	
2	169		7.85	7.83	33.975	26.494	155.8	0.382	2.80	41.9	38.8	2.24	28.3	0.01	0.04	0.15	170	
2	198		7.49	7.47	34.019	26.580	148.0	0.426	2.52	37.4	44.2	2.26	30.2	0.01	0.03	0.11	191	
	200	ISL	7.48	7.46	34.023	26.585	147.6	0.429	2.48	36.8	44.6	2.27	30.3	0.01			201	
2	228		7.29	7.27	34.071	26.650	141.8	0.470	1.96	29.0	49.9	2.50	32.2	0.01			22!	
	250	ISL	7.00	6.98	34.077	26.695	137.7	0.501	1.75	25.7	54.3	2.61	33.7	0.00			251	
2	268		6.80	6.78	34.086	26.729	134.6	0.525	1.61	23.5	57.5	2.69	34.8	0.00			270	
	300	ISL	6.96	6.93	34.178	26.781	130.4	0.567	1.11	16.3	60.6	2.84	35.7	0.00			30!	
2	318		7.09	7.06	34.235	26.808	128.2	0.591	0.84	12.4	62.0	2.92	36.0	0.00			320	
2	379		6.78	6.74	34.292	26.896	120.7	0.667	0.49	7.2	68.8	3.15	37.6	0.00			381	
	400	ISL	6.62	6.58	34.300	26.924	118.2	0.692	0.43	6.3	71.6	3.18	38.4	0.00			40!	
2	439		6.30	6.26	34.310	26.974	113.8	0.737	0.36	5.2	76.9	3.22	39.7	0.00			442	
	500	ISL	5.91	5.87	34.330	27.040	108.0	0.805	0.29	4.2	84.1	3.26	40.9	0.00			50J	
2	514		5.82	5.78	34.335	27.056	106.6	0.820	0.28	4.0	85.7	3.27	41.2	0.00			51!	

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 87 70

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIHE	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 39.4 K1	121 2.0 U	13/08/94	0538 UTC	3769 m	340 14 kn			1011.7 mb	16.9 C	15.7 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 UN/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	15.82	15.82	33.127	24.349	356.8	0.000	5.94	104.9	3.9	0.38	0.1	0.00	0.28	0.08	1
2	1		15.82	15.82	33.127	24.349	356.8	0.004	5.94	104.9	3.9	0.38	0.1	0.00	0.28	0.08	1
2	10		15.81	15.81	33.128	24.352	356.8	0.036	5.92	104.6	3.9	0.37	0.1	0.00	0.27	0.09	1!
2	20		15.81	15.81	33.129	24.353	357.0	0.071	5.93	104.7	3.8	0.38	0.1	0.00	0.28	0.08	20
2	30		14.98	14.98	33.166	24.564	337.2	0.106	5.96	103.6	3.8	0.44	0.6	0.03	0.44	0.19	3!
2	41		14.80	14.79	33.166	24.604	333.7	0.143	5.95	103.0	3.8	0.39	0.2	0.02	0.36	0.22	41
2	50		13.91	13.90	33.125	24.759	319.1	0.172	5.95	101.1	5.3	0.39	0.4	0.03	0.35	0.26	50
2	61		13.06	13.05	33.167	24.964	299.9	0.206	5.74	95.9	6.3	0.48	1.7	0.13	0.38	0.26	61
2	71		12.40	12.39	33.171	25.095	287.5	0.236	5.58	91.9	7.7	0.77	5.2	0.33	0.24	0.18	71
	75	ISL	12.05	12.04	33.189	25.176	279.9	0.247	5.41	88.5	8.8	0.86	6.8	0.28	0.20	0.17	75
2	85		11.12	11.11	33.255	25.398	258.9	0.274	4.92	78.9	12.3	1.09	11.1	0.07	0.14	0.14	85
2	100		9.85	9.84	33.365	25.703	230.0	0.311	4.30	67.1	18.2	1.47	17.2	0.02	0.06	0.08	100
2	120		9.36	9.35	33.530	25.912	210.5	0.355	3.88	60.0	22.1	1.67	20.4	0.02	0.02	0.07	121
	125	ISL	9.30	9.29	33.561	25.946	207.3	0.365	3.73	57.6	23.3	1.73	21.3	0.02	0.02	0.06	121
2	140		9.14	9.12	33.644	26.037	199.0	0.396	3.33	51.2	26.6	1.91	23.6	0.01	0.01	0.05	141
	150	ISL	8.94	8.92	33.703	26.115	191.7	0.415	3.27	50.1	28.3	1.96	24.4	0.01	0.01	0.05	151
2	169		8.56	8.54	33.803	26.252	178.9	0.450	3.17	48.2	30.9	2.01	25.4	0.00	0.01	0.05	170
2	199		8.27	8.25	33.885	26.361	169.1	0.503	2.98	45.0	34.4	2.09	26.9	0.01	0.00	0.03	200
	200	ISL	8.25	8.23	33.888	26.367	168.6	0.504	2.97	44.9	34.6	2.09	27.0	0.01			201
2	227		7.78	7.76	33.970	26.501	156.2	0.548	2.77	41.4	40.2	2.20	28.9	0.01			221
	250	ISL	7.40	7.38	34.001	26.580	148.9	0.583	2.60	38.5	45.0	2.30	30.4	0.01			251
2	268		7.12	7.09	34.013	26.628	144.4	0.610	2.44	35.9	48.8	2.39	31.5	0.01			270
	300	ISL	6.71	6.68	34.039	26.705	137.4	0.655	2.04	29.8	56.0	2.59	33.9	0.02			302
2	317		6.54	6.51	34.051	26.737	134.5	0.678	1.82	26.4	59.6	2.70	35.1	0.02			31!
2	378		6.17	6.14	34.099	26.823	126.9	0.758	1.19	17.1	69.8	2.94	38.0	0.00			380
	400	ISL	6.01	5.98	34.116	26.857	123.9	0.785	1.02	14.6	73.4	3.01	38.9	0.00			403
2	439		5.75	5.71	34.149	26.916	118.6	0.832	0.78	11.1	79.4	3.13	40.3	0.00			442
	500	ISL	5.49	5.45	34.210	26.996	111.6	0.903	0.51	7.2	87.6	3.26	41.7	0.00			503
2	514		5.43	5.39	34.224	27.015	109.9	0.918	0.45	6.4	89.5	3.29	42.0	0.00			51?

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 87 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 19.4 N	121 43.2 W	13/08/94	1112 UTC	4052 m	320 15 kn			1012.8 mb	17.7 C	16.6 C			

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0 ISL	17.23	17.23	33.024	23.945	395.3	0.000	5.62	102.0	4.2	0.36	0.0	0.00	0.12	0.04	0
2	2	17.23	17.23	33.024	23.945	395.4	0.008	5.62	102.0	4.2	0.36	0.0	0.00	0.12	0.04	2
	10 ISL	17.04	17.04	33.039	24.002	390.2	0.039	5.68	102.7	3.7	0.36	0.0	0.00	0.16	0.06	10
2	16	16.87	16.87	33.056	24.055	385.3	0.063	5.73	103.3	3.2	0.36	0.0	0.00	0.19	0.08	16
	20 ISL	16.86	16.86	33.064	24.063	384.7	0.078	5.73	103.3	3.1	0.36	0.0	0.00	0.18	0.07	20
2	30	16.81	16.81	33.079	24.087	382.7	0.116	5.74	103.4	3.0	0.36	0.0	0.00	0.15	0.05	30
2	45	16.27	16.26	33.076	24.209	371.5	0.173	5.80	103.3	3.7	0.34	0.0	0.00	0.23	0.08	45
	50 ISL	16.27	16.26	33.149	24.266	366.3	0.191	5.80	103.4	3.8	0.34	0.0	0.00	0.22	0.09	50
2	56	16.27	16.26	33.240	24.336	359.8	0.213	5.80	103.4	3.9	0.33	0.0	0.00	0.22	0.10	56
2	66	15.51	15.50	33.147	24.435	350.6	0.249	5.89	103.4	4.0	0.36	0.0	0.00	0.27	0.17	66
2	75	14.71	14.70	33.077	24.555	339.3	0.280	5.93	102.4	4.0	0.35	0.1	0.00	0.26	0.18	75
2	85	14.18	14.17	33.086	24.674	328.2	0.313	5.91	101.0	4.2	0.40	0.2	0.03	0.27	0.24	85
2	95	14.06	14.05	33.094	24.706	325.5	0.346	5.92	100.9	4.4	0.40	0.2	0.02	0.22	0.15	95
	100 ISL	13.61	13.60	33.126	24.823	314.4	0.362	5.78	97.6	5.1	0.49	1.3	0.09	0.18	0.14	100
2	110	12.47	12.46	33.217	25.119	286.3	0.392	5.38	88.8	7.4	0.74	4.7	0.20	0.12	0.13	110
	125 ISL	11.17	11.15	33.338	25.454	254.5	0.432	4.73	76.0	12.5	1.14	11.6	0.03	0.08	0.11	126
2	126	11.10	11.08	33.345	25.472	252.8	0.435	4.69	75.2	12.8	1.16	12.0	0.02	0.08	0.11	127
2	145	10.36	10.34	33.465	25.696	231.8	0.481	4.39	69.3	15.9	1.37	15.2	0.00	0.04	0.07	146
	150 ISL	10.07	10.05	33.503	25.775	224.3	0.492	4.29	67.3	17.4	1.46	16.5	0.00	0.03	0.06	151
2	171	8.98	8.96	33.661	26.076	195.8	0.536	3.92	60.1	23.8	1.77	21.3	0.00	0.01	0.04	172
2	199	8.62	8.60	33.788	26.232	181.5	0.589	3.87	58.9	26.9	1.81	22.5	0.00	0.00	0.02	200
	200 ISL	8.60	8.58	33.793	26.239	180.8	0.591	3.85	58.6	27.2	1.82	22.6	0.00			201
2	215	8.36	8.34	33.861	26.329	172.5	0.618	3.59	54.3	30.8	1.92	24.3	0.00			216
2	227	8.20	8.18	33.890	26.376	168.2	0.638	3.56	53.7	32.3	1.99	25.1	0.00			228
	250 ISL	7.90	7.87	33.938	26.458	160.6	0.676	3.38	50.7	36.0	2.10	26.7	0.00			251
2	270	7.66	7.63	33.970	26.519	155.1	0.707	3.16	47.1	39.6	2.18	28.2	0.00			271
	300 ISL	7.32	7.29	33.997	26.589	148.8	0.753	2.80	41.4	45.2	2.32	30.4	0.00			302
2	319	7.11	7.08	34.009	26.627	145.3	0.781	2.54	37.4	49.0	2.42	31.9	0.00			321
2	379	6.51	6.48	34.064	26.752	134.0	0.865	1.63	23.7	62.5	2.81	36.6	0.00			381
	400 ISL	6.34	6.30	34.086	26.792	130.4	0.893	1.38	20.0	66.7	2.94	37.9	0.00			402
2	437	6.06	6.02	34.124	26.858	124.4	0.940	1.03	14.8	73.6	3.13	39.9	0.00			440
	500 ISL	5.63	5.59	34.165	26.944	116.6	1.016	0.69	9.8	83.3	3.31	42.0	0.00			503
2	517	5.51	5.47	34.177	26.968	114.5	1.035	0.60	8.5	85.9	3.36	42.6	0.00			520

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 87 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 0.7 N	122 26.5 W	13/08/94	1831 UTC	4094 m	360 20 kn	360 06 05 0		1015.4 mb	20.5 C	18.4 C	26m 02	0/8	

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 UN/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0 ISL	17.59	17.59	33.133	23.943	395.5	0.000	5.58	102.1	4.3	0.39	0.0	0.00	0.11	0.03	0
2	2 A	17.59	17.59	33.133	23.943	395.6	0.008	5.58	102.1	4.3	0.39	0.0	0.00	0.11	0.03	2
2	8	17.59	17.59	33.131	23.942	395.9	0.032	5.58	102.1	4.1	0.37	0.0	0.00	0.11	0.03	8
	10 ISL	17.58	17.58	33.131	23.944	395.7	0.040	5.58	102.0	4.1	0.37	0.0	0.00	0.11	0.03	10
2	16 A	17.53	17.53	33.133	23.958	394.6	0.063	5.57	101.8	4.0	0.36	0.0	0.00	0.11	0.03	16
	20 ISL	17.50	17.50	33.139	23.970	393.6	0.079	5.58	101.9	4.0	0.36	0.1	0.00	0.11	0.03	20
2	25	17.46	17.46	33.143	23.983	392.6	0.099	5.59	102.0	3.9	0.36	0.1	0.00	0.12	0.03	25
	30 ISL	17.40	17.40	33.141	23.995	391.5	0.118	5.60	102.1	3.8	0.37	0.0	0.00	0.13	0.04	30
2	33 A	17.32	17.31	33.126	24.003	390.9	0.130	5.61	102.1	3.7	0.37	0.0	0.00	0.14	0.04	33
2	42	16.70	16.69	33.133	24.154	376.7	0.165	5.74	103.2	3.3	0.36	0.0	0.00	0.21	0.06	42
	50 ISL	16.22	16.21	33.141	24.271	365.8	0.194	5.87	104.5	3.4	0.36	0.0	0.00	0.30	0.11	50
2	51 A	16.16	16.15	33.142	24.285	364.5	0.198	5.89	104.8	3.4	0.36	0.0	0.00	0.31	0.12	51
2	59	15.50	15.49	33.158	24.446	349.4	0.226	6.00	105.3	3.6	0.38	0.0	0.00	0.36	0.16	59
2	66 A	15.02	15.01	33.144	24.540	340.6	0.251	6.05	105.2	3.7	0.39	0.0	0.00	0.42	0.26	66
	75 ISL	14.49	14.48	33.171	24.674	328.0	0.281	5.94	102.2	4.2	0.33	0.0	0.00	0.44	0.36	75
2	80	14.24	14.23	33.197	24.747	321.1	0.297	5.84	100.0	4.5	0.31	0.0	0.00	0.45	0.39	80
2	92 A	13.83	13.82	33.261	24.882	308.6	0.335	5.71	97.0	5.0	0.45	1.4	0.13	0.36	0.36	92
	100 ISL	13.62	13.61	33.317	24.968	300.6	0.359	5.59	94.5	5.2	0.49	1.9	0.12	0.29	0.31	100
2	116	12.91	12.89	33.407	25.180	280.7	0.406	5.26	87.7	6.8	0.62	4.0	0.03	0.16	0.20	116
	125 ISL	12.02	12.00	33.418	25.360	263.6	0.430	4.96	81.2	9.2	0.82	7.3	0.02	0.12	0.16	126
2	139	10.60	10.58	33.443	25.637	237.3	0.465	4.48	71.1	13.6	1.17	12.8	0.01	0.07	0.11	140
	150 ISL	10.05	10.03	33.483	25.762	225.5	0.491	4.20	65.9	16.6	1.35	15.7	0.00	0.05	0.09	151
2	172	9.44	9.42	33.579	25.938	209.1	0.538	3.80	58.8	21.7	1.60	19.7	0.00	0.01	0.06	173
2	199	8.79	8.77	33.732	26.162	188.2	0.592	3.52	53.8	26.4	1.75	21.9	0.00			200
	200 ISL	8.77	8.75	33.738	26.170	187.4	0.594	3.50	53.4	26.6						201
2	229	8.47	8.45	33.909	26.350	170.8	0.646	3.01	45.7	32.6						230
	250 ISL	8.40	8.37	34.005	26.437	163.0	0.681	2.62	39.7	36.5						251
2	269	8.35	8.32	34.068	26.494	157.9	0.711	2.30	34.9	39.8						270
	300 ISL	8.03	8.00	34.115	26.579	150.2	0.759	1.96	29.5	44.9						302
2	319	7.78	7.75	34.123	26.622	146.3	0.787	1.82	27.2	48.0						321
2	378	6.88	6.84	34.111	26.740	135.4	0.870	1.53	22.4	58.2						380
	400 ISL	6.62	6.58	34.116	26.779	131.9	0.900	1.35	19.7	62.6						402
2	438	6.24	6.20	34.132	26.841	126.2	0.949	1.05	15.2	70.0						441
	500 ISL	5.83	5.79	34.169	26.923	118.9	1.025	0.76	10.9	78.6						503
2	514	5.74	5.70	34.178	26.941	117.3	1.041	0.69	9.8	80.6						517

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 87 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPI J
31 42.0 NI	123 4.8 U	13/08/94	2330 UTC	4118 m	350 19 kn	350 06 05	0	1014.0 mb	18.7 C	17.6 C	26m 01	0/8	

CAST	DEPTH in		TEMP DEG C	POT TENP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 ufl/I	P04 uM/I	N03 uM/I	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.53	17.53	33.073	23.911	398.5	0.000	5.61	102.5	4.2	0.34	0.2	0.01	0.12	0.03	0
2	2		17.53	17.53	33.073	23.911	398.6	0.008	5.61	102.5	4.2	0.34	0.2	0.01	0.12	0.03	2
	10	ISL	17.50	17.50	33.073	23.919	398.1	0.040	5.61	102.4	4.1	0.35	0.1	0.00	0.11	0.03	10
2	15		17.47	17.47	33.074	23.927	397.5	0.060	5.62	102.5	4.0	0.35	0.1	0.00	0.11	0.03	15
	20	ISL	17.41	17.41	33.063	23.933	397.1	0.080	5.63	102.6	3.9	0.35	0.1	0.00	0.12	0.03	20
2	30		17.31	17.31	33.083	23.972	393.7	0.119	5.64	102.6	3.8	0.35	0.1	0.00	0.13	0.04	30
2	45		17.34	17.33	33.343	24.165	375.8	0.177	5.67	103.3	3.9	0.31	0.1	0.00	0.14	0.05	45
	50	ISL	16.93	16.92	33.318	24.243	368.5	0.195	5.72	103.4	3.9	0.32	0.1	0.00	0.15	0.06	50
2	58		16.17	16.16	33.249	24.365	357.1	0.224	5.81	103.4	4.0	0.33	0.1	0.00	0.17	0.07	51
2	75		15.37	15.36	33.245	24.542	340.7	0.284	5.89	103.2	4.1	0.34	0.1	0.00	0.22	0.13	75
2	85		15.06	15.05	33.414	24.740	322.1	0.317	5.83	101.6	4.0	0.30	0.1	0.00	0.26	0.23	85
2	94		14.58	14.57	33.412	24.842	312.6	0.346	5.75	99.2	4.1	0.34	0.1	0.00	0.32	0.30	94
	100	ISL	14.26	14.25	33.431	24.924	304.9	0.364	5.62	96.4	4.5	0.39	0.5	0.11	0.31	0.30	100
2	105		13.91	13.90	33.453	25.014	296.4	0.379	5.47	93.1	5.2	0.45	1.4	0.18	0.30	0.30	105
2	114		12.84	12.82	33.500	25.266	272.5	0.405	5.13	85.5	7.4	0.65	5.1	0.02	0.18	0.18	114
2	125		11.92	11.90	33.502	25.444	255.7	0.434	4.79	78.3	10.2	0.90	9.0	0.01	0.10	0.14	126
2	142		11.54	11.52	33.491	25.507	250.0	0.477	4.58	74.2	12.5	1.09	11.7	0.01	0.08	0.11	143
	150	ISL	10.82	10.80	33.500	25.643	237.1	0.496	4.34	69.2	15.5	1.28	14.6	0.01	0.06	0.09	151
2	163		9.60	9.58	33.555	25.894	213.2	0.525	3.89	60.4	20.9	1.60	19.4	0.01	0.02	0.06	164
2	194		8.98	8.96	33.809	26.192	185.3	0.587	3.06	47.0	29.7	1.85	23.5	0.01	0.00	0.06	195
	200	ISL	8.91	8.89	33.837	26.225	182.2	0.598	2.99	45.8	30.6	1.89	24.0	0.01			201
2	233		8.65	8.63	33.950	26.355	170.5	0.656	2.72	41.5	34.3	2.06	26.1	0.00			231
	250	ISL	8.57	8.54	34.020	26.422	164.4	0.685	2.49	37.9	37.0	2.12	26.8	0.00			251
2	266		8.47	8.44	34.075	26.481	159.1	0.711	2.28	34.6	39.8	2.17	27.5	0.01			267
	300	ISL	7.82	7.79	34.086	26.587	149.3	0.763	2.12	31.7	46.2	2.26	29.3	0.01			302
2	321		7.37	7.34	34.073	26.642	144.2	0.794	2.06	30.5	50.3	2.33	30.5	0.01			323
2	377		6.80	6.77	34.095	26.738	135.5	0.872	1.55	22.7	60.4	2.65	34.2	0.00			379
	400	ISL	6.52	6.48	34.114	26.790	130.7	0.903	1.29	18.7	65.7	2.80	35.9	0.00			402
2	437		6.10	6.06	34.150	26.873	123.0	0.950	0.89	12.8	74.2	3.00	38.4	0.00			440
	500	ISL	5.62	5.58	34.202	26.974	113.8	1.025	0.54	7.7	84.8	3.11	40.0	0.01			503
2	510		5.54	5.50	34.210	26.991	112.3	1.036	0.49	7.0	86.5	3.13	40.2	0.01			513

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RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 87 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPi
31 19.5 nI	123 44.8 W	14/08/94	0456 UTC	3996 m	360 16 kn			1015.0 mb	18.4 C	17.3 C			

CAST	DEPTH in		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/L	P04 uM/L	N03 uM/I	N02 UM/L	CHL-A ug/l	PHAEO ug/I	PRESS db
	0	ISL	18.04	18.04	33.218	23.899	399.7	0.000	5.54	102.3	3.9	0.38	0.1	0.00	0.09	0.02	0
2	2		18.04	18.04	33.218	23.899	399.8	0.008	5.54	102.3	3.9	0.38	0.1	0.00	0.09	0.02	2
	10	ISL	18.05	18.05	33.217	23.896	400.3	0.040	5.53	102.1	3.8	0.39	0.1	0.00	0.09	0.02	10
2	15		18.05	18.05	33.217	23.896	400.5	0.060	5.53	102.1	3.8	0.39	0.1	0.00	0.09	0.02	15
	20	ISL	17.95	17.95	33.216	23.920	398.3	0.080	5.54	102.1	3.8	0.39	0.1	0.00	0.10	0.02	20
2	30		17.75	17.74	33.215	23.968	394.1	0.120	5.55	101.9	3.8	0.37	0.2	0.00	0.11	0.03	30
2	45		15.95	15.94	33.170	24.354	357.7	0.176	5.90	104.5	3.7	0.35	0.2	0.00	0.19	0.08	45
	50	ISL	15.70	15.69	33.188	24.424	351.2	0.194	5.89	103.8	3.7	0.35	0.2	0.00	0.28	0.16	50
2	56		15.56	15.55	33.236	24.492	344.9	0.215	5.88	103.4	3.7	0.35	0.2	0.00	0.38	0.24	56
2	65		15.53	15.52	33.381	24.611	333.9	0.245	5.83	102.5	3.7	0.29	0.2	0.00	0.38	0.25	65
2	75		15.48	15.47	33.514	24.725	323.3	0.278	5.76	101.3	3.7	0.28	0.2	0.00	0.30	0.27	75
2	85		15.34	15.33	33.587	24.812	315.3	0.310	5.68	99.6	3.7	0.26	0.2	0.00	0.28	0.27	85
2	95		15.09	15.08	33.627	24.898	307.4	0.341	5.58	97.4	3.8	0.28	0.2	0.00	0.25	0.25	95
	100	ISL	14.90	14.89	33.633	24.944	303.2	0.356	5.53	96.2	3.9	0.28	0.2	0.02	0.23	0.24	100
2	109		14.43	14.41	33.631	25.043	293.9	0.383	5.41	93.2	4.3	0.30	0.3	0.06	0.20	0.23	109
2	125		13.18	13.16	33.619	25.291	270.5	0.428	5.13	86.1	5.9	0.40	2.3	0.01	0.12	0.17	126
2	145		11.43	11.41	33.474	25.514	249.4	0.480	4.73	76.5	10.2	0.85	8.7	0.01	0.09	0.13	146
	150	ISL	11.04	11.02	33.471	25.582	243.0	0.493	4.62	74.0	11.7	0.95	10.3	0.01	0.08	0.11	151
2	172		9.62	9.60	33.544	25.882	214.5	0.543	4.16	64.7	18.4	1.34	16.3	0.00	0.02	0.04	173
2	199		8.74	8.72	33.720	26.160	188.3	0.597	3.82	58.3	25.0	1.65	20.6	0.07 U	0.00	0.02	200
	200	ISL	8.72	8.70	33.726	26.168	187.6	0.599	3.80	58.0	25.3	1.66	20.7	0.00			201
2	229		8.17	8.15	33.881	26.374	168.4	0.651	3.29	49.6	32.4	1.80	23.5	0.01			230
	250	ISL	7.94	7.91	33.953	26.464	160.1	0.685	3.05	45.8	36.3	1.91	25.3	0.00			251
2	266		7.80	7.77	33.989	26.513	155.6	0.711	2.90	43.4	39.1	2.01	26.6	0.00			267
	300	ISL	7.40	7.37	34.023	26.598	148.0	0.762	2.56	37.9	45.8	2.26	29.7	0.00			302
2	319		7.16	7.13	34.029	26.636	144.5	0.790	2.37	34.9	49.7	2.40	31.3	0.00			321
2	376		6.46	6.43	34.058	26.754	133.7	0.869	1.70	24.7	61.3	2.63	34.2	0.00			378
	400	ISL	6.27	6.23	34.073	26.791	130.4	0.901	1.47	21.2	65.3	2.72	35.4	0.00			402
2	437		6.03	5.99	34.100	26.843	125.8	0.948	1.15	16.5	71.2	2.86	37.1	0.00			440
	500	ISL	5.66	5.62	34.168	26.943	116.8	1.025	0.69	9.8	82.2	3.07	39.0	0.00			503
2	518		5.55	5.51	34.188	26.972	114.2	1.046	0.56	8.0	85.3	3.13	39.6	0.00			521

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 90 29

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA,	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 28.4 N	117 49. 1 W	11/08/94	1840 UTC	613 m	260 07 kn	280 01 04	1	1011 .2 mb	23.4 C	21.9 C	20m 04	3/8	AC

CAST	DEPTH D		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uM/l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/l	PRESS db
	0	ISL	21 .65	21 .65	33.493	23.171	469. 1	0.000	5 .58	110.3	4.4	0.30	0.0	0.00	0.32	0.09	0
2	1	A	21 .65	21.65	33.493	23.172	469.2	0.005	5 .58	110.3	4.4	0.30	0.0	0.00	0.32	0.09	1
	10	ISL	17.99	17.99	33.410	24.059	384.8	0.043	6.04	111.5	4. 1	0.35	0.0	0.00	0.22	0.06	10
2	11	A	17.42	17.42	33.409	24.195	371 .8	0.047	6.11	111.6	4. 1	0.36	0.0	0.00	0.21	0.06	11
	20	ISL	14.84	14.84	33.393	24.769	317.3	0.078	6.22	107.9	5.0	0.44	0.3	0.02	0. 45	0.19	20
2	25	A	13.81	13.81	33.385	24.980	297.4	0.093	6.28	106.7	6.0	0.48	0.4	0.03	0.67	0. 33	25
	30	ISL	12.95	12.95	33.381	25.150	281 .3	0.108	5.81	97.0	7.6	0.65	3.2	0.13	0.92	0.53	30
2	32		12.70	12.70	33.381	25.199	276.7	0.113	5.60	93.0	8.2	0.72	4.3	0.17	1 .00	0.60	32
2	38	A	12.35	12.35	33.404	25.285	268.7	0.130	5.22	86.0	9.5	0.78	5.9	0.18	1 .06	0.69	38
	SO	ISL	11 .79	11 .78	33.440	25.419	256.2	0.161	4.61	75.1	12.1	1 .05	9.8	0.33	0.70	0.56	50
2	52	A	11 .70	11 .69	33.445	25.439	254.3	0. 166	4. 54	73.8	12.5	1.10	10.4	0.34	0.61	0.52	52
2	63		10.98	10.97	33.460	25.582	240.9	0.194	4.32	69.2	14.5	1.21	13.3	0.04	0.30	0.32	63
2	72	A	10.64	10.63	33.532	25.698	230.0	0.215	3.76	59.8	18.3	1 .46	16.9	0.10	0.22	0.28	72
	75	ISL	10.58	10.57	33.546	25.719	228.1	0.222	3.66	58. 1	19.0	1 .51	17.6	0.09	0.19	0.27	75
2	85		10.44	10.43	33.584	25.773	223.1	0.244	3.48	55. 1	20.6	1 .61	18.9	0.02	0.12	0.23	85
2	99		10.19	10.18	33.654	25.871	214.1	0.275	3.33	52.5	22.9	1 .70	19.9	0.01	0.07	0.16	99
	100	ISL	10.18	10.17	33.657	25.875	213.7	0.277	3.32	52.3	23.0	1 .70	20.0	0.01	0.07	0.16	100
2	119		10.02	10.01	33.699	25.935	208.4	0.317	3.19	50.1	24.2	1 .78	20.9	0.00	0.04	0.10	120
	125	ISL	9.98	9.97	33.717	25.956	206.6	0.329	3.14	49.3	24.6	1 .81	21 .2	0.00	0.03	0.10	126
2	139		9.89	9.87	33.762	26.007	202.1	0.358	3.00	47.0	25.8	1 .87	21.9	0.00	0.02	0.09	140
	150	ISL	9.75	9.73	33.795	26.056	197.6	0.380	2.90	45.3	26.9	1 .90	22 .5	0.01	0.01	0.08	151
2	169		9.52	9.50	33.861	26.146	189.4	0.417	2.72	42 .3	29. 1	1 .94	23.5	0.02	0.01	0.07	170
2	200		9.35	9.33	34.017	26.296	175.8	0.473	2.36	36.6	33.0	2 .08	25.3	0.01	0.00	0.06	201
2	229		9.17	9.14	34.064	26.362	170.0	0.524	2.26	34.9	35.2	2.13	26.2	0.00			230
	250	ISL	8.95	8.92	34.093	26.420	164.8	0.559	2.18	33.5	37.5	2 .21	27.2	0.00			251
2	268		8.77	8.74	34.114	26.465	160.8	0.588	2.10	32 . 1	39. 5	2 .29	28.0	0.00			270
	300	ISL	8.63	8.60	34.144	26.511	157.0	0.639	1 .96	29.9	41.4	2 .35	28.6	0.01			302
2	318		8.58	8.55	34.160	26.532	155.4	0.667	1 .85	28.2	42 .5	2.38	28.9	0.01			320
2	378		8.32	8.28	34.237	26.633	146.8	0.758	1.26	19.1	49.5	2 .65	31 .4	0.00			380
	400	ISL	7.96	7.92	34.248	26.695	141.0	0.789	1 .06	15.9	54.2	2 .75	32 .7	0.00			403
2	437		7.30	7.26	34.261	26.801	131.1	0.840	0.77	11.4	62.6	2 .91	34.8	0.00			440
	500	ISL	6.70	6.65	34.273	26.893	122.7	0.920	0.55	8.0	72.2	3.07	37. 1	0.00			503
2	516		6.55	6. 50	34.277	26.917	120.6	0.939	0.50	7.3	74.6	3.11	37.7	0.00			520

A) PRIRARY PRODUCTIVITY SAMPLES WERE TAKEN IFROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 90 30

LATITUDE	L0N6ITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA\	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 25.1 N	117 54.7 U	11/08/94	1323 UTC	610 in	280 04 kn	290 01 04	1	1010 .7 mb	21.6 C	20.7 C	16m 04	2/8	AC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ L	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uM/ l	N02 UM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	22 .46	22.46	33.521	22.967	488.6	0.000	5.43	109.0	4.5	0.27	0.0	0.00	0.45	0.14	0
2	2		22.46	22.46	33.521	22.967	488.7	0.010	5.43	109.0	4.5	0.27	0.0	0.00	0.45	0.14	2
2	10		19.46	19.46	33.462	23.731	416.1	0.046	5.88	111.7	4.6	0.31	0.0	0.00	0.38	0.13	10
2	20		15.46	15.46	33.405	24.643	329.4	0.083	6.40	112.4	5.8	0.41	0.0	0.00	0.49	0.26	20
2	30		13.42	13.42	33.398	25.069	289.0	0.114	5.84	98.4	6.7	0.63	2 .9	0.16	0.73	0.37	30
2	41		12.37	12.36	33.404	25.281	269.1	0.145	4. 99	82 .3	10.0	0.94	7 .3	0.55	0.60	0.52	41
2	50		11 .52	11.51	33.427	25.458	252 .4	0.168	4.23	68.5	14.3	1 .33	12.8	0.60	0.45	0.41	50
2	60		10.87	10.86	33.493	25.627	236.5	0.193	4.09	65.3	15.6	1 .34	15.1	0.08	0.25	0.29	60
2	70		10.52	10.51	33.545	25.729	227.0	0.216	3.83	60.7	18.3	1 .50	17.1	0.05	0.15	0.20	70
	75	ISL	10.35	10.34	33.593	25.796	220.8	0.227	3.63	57.4	19.9	1 .59	18.3	0.04	0.12	0.17	75
2	85		10.08	10.07	33.683	25.912	209.9	0.249	3.27	51.4	22.6	1 .74	20.3	0.02	0.07	0.12	85
2	100		9.99	9.98	33.709	25.948	206.8	0.280	3.16	49.6	23.6	1 .79	21.2	0.02	0.05	0.11	100
2	120		9.77	9.76	33.795	26.052	197.3	0.320	2 .86	44 .7	26.4	1 .92	22.9	0.01	0.02	0.10	121
	125	ISL	9.65	9.64	33.816	26.089	193.9	0.330	2.83	44 . 1	27.2	1 .95	23.3	0.01	0.02	0.09	126
2	140		9.34	9.32	33.882	26.191	184.5	0.358	2.73	42 .3	29.4	2.03	24.6	0.02	0.01	0.06	141
	150	ISL	9.37	9.35	33.945	26.236	180.5	0.377	2.55	39.5	30.8	2.09	25.3	0.02	0.01	0.06	151
2	169		9.43	9. 41	34.029	26.292	175.5	0.411	2 .22	34 .5	32.9	2.18	26.3	0.01	0.00	0.07	170
2	199		9.29	9.27	34.072	26.349	170.7	0.462	2.12	32 .8	34.7	2.24	26. 8	0.00	0.00	0.05	200
	200	ISL	9.29	9.27	34.074	26 .350	170.6	0. 464	2.11	32 .7	34.8	2.24	26.8	0.00			201
2	229		9.28	9.25	34.130	26.396	166.9	0.513	1 .89	29.3	37.8	2.33	27.8	0.01			230
	250	ISL	9.24	9.21	34.161	26.427	164 .3	0.548	1 .76	27.2	38. 7	2.37	28.3	0.01			251
2	268		9.18	9.15	34.183	26.455	162.1	0.577	1 .66	25.6	39.4	2.41	28.7	0.01			270
	300	ISL	8.95	8.92	34.222	26.522	156.2	0.628	1.45	22 .3	42 .7	2.51	29.6	0.00			302
2	318		8.80	8.77	34.240	26.560	152.9	0.656	1 .34	20.5	44.8	2.57	30.2	0.00			320
2	377		8.33	8.29	34.258	26.648	145.4	0.744	1.13	17.1	50.5	2.71	31 .9	0.00			379
	400	ISL	8.10	8.06	34.261	26.685	142.1	0.777	1 .05	15.8	52.7	2 .76	32 .6	0.00			403
2	438		7.71	7 .67	34.263	26.744	136.8	0.830	0.92	13.8	56.7	2 .83	33.7	0.00			441
	500	ISL	7.15	7.10	34.265	26.826	129.6	0.913	0.71	10.5	64.8	2 .97	35.8	0.00			503
2	525		6.92	6.87	34.267	26.859	126.6	0.945	0.62	9. 1	68. 1	3.02	36.7	0.00			529

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 90 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYP!
33 15.2 NI	118 15.0 W	11/08/94	0939 UTC	306 in	270 13 kn			1011 . 1 mb	20.0 C	19.0 C			

CAST	DEPTH in		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ I	P04 UN/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	20.53	20.53	33.473	23.459	441 .7	0.000	5 .45	105.6	3.4	0.34	0.0	0.00	0.17	0.04	1
2	2		20.53	20.53	33.473	23.459	441 .7	0.009	5 .45	105.6	3.4	0.34	0.0	0.00	0.17	0.04	Z
	10	ISL	18.91	18.91	33.442	23.855	404.2	0.043	5.69	106.9	3.3	0.35	0.0	0.00	0.19	0.05	10
2	1 1		18.64	18.64	33.439	23.920	398.0	0.047	5.73	107.1	3.3	0.35	0.0	0.00	0.19	0.05	11
2	20		17.55	17.55	33.411	24.166	374.9	0.081	5.94	108.7	3.3	0.37	0.0	0.00	0.19	0.06	21
2	30		14.97	14.97	33.364	24.719	322.4	0.116	6.12	106.4	4.2	0.47	0.9	0.05	0.48	0.26	30
2	41		14.47	14.46	33.362	24.825	312.6	0.151	5.93	102 . 1	4.8	0.56	1 .9	0.14	0.44	0.27	41
	50	ISL	13.59	13.58	33.380	25.022	294.1	0.179	5.54	93.7	6.2	0.71	4.4	0.36	0.58	0.44	50
2	51		13.49	13.48	33.382	25.044	292.0	0.181	5.49	92 .6	6.4	0.73	4.7	0.38	0.60	0.46	51
2	60		12.83	12.82	33.388	25.180	279.3	0.207	5.13	85.4	8.4	0.85	6.8	0.39	0.58	0.55	60
2	70		12.29	12.28	33.399	25.293	268.7	0.235	4.86	80.0	10.1	0.99	9.1	0.21	0.47	0.48	70
	75	ISL	12.07	12.06	33.408	25.342	264.1	0.248	4.74	77.6	11.0	1 .05	10.0	0.17	0.42	0.46	75
2	85		11.57	11.56	33.432	25.454	253.7	0.274	4.50	72.9	12.9	1.18	12.0	0.12	0.31	0.39	85
2	99		10.52	10.51	33.484	25.682	232.1	0.308	4.17	66 . 1	16.3	1 .40	15.8	0.03	0.10	0.14	99
	100	ISL	10.46	10.45	33.488	25.695	230.9	0.310	4.15	65 .7	16.6	1 .41	16.0	0.03	0.10	0.14	100
2	1 19		9.66	9.65	33.589	25.909	210.8	0.352	3.73	58.1	21.4	1 .66	19-. 8	0.01	0.03	0.07	120
	125	ISL	9.69	9.68	33.650	25.952	206.9	0.365	3.50	54.5	22.7	1 .74	20.6	0.01	0.03	0.06	126
2	140		9.75	9.73	33.778	26.043	198.6	0.395	3.00	46.8	25.5	1 .90	22.1	0.00	0.04	0.05	141
	150	ISL	9.50	9.48	33.812	26.110	192.3	0.415	3.01	46.7	27.0	1 .92	22.9	0.00	0.04	0.05	151
2	170		8.89	8.87	33.852	26.240	180.3	0.452	3.04	46.6	29.9	1 .96	24.3	0.00	0.02	0.04	171
	200	ISL	8.47	8.45	33.964	26.393	166.2	0.504	2.78	42.2	34.5	2.10	26.4	0.00	0.00	0.03	201
2	201		8.47	8.45	33.969	26.397	165.8	0.505	2 .76	41 .9	34.7	2.11	26.5	0.00	0.00	0.03	202
2	230		8.87	8.85	34.165	26.489	157.9	0.552	1 .79	27.5	39.7	2.39	28.7	0.00			231
	250	ISL	8.78	8.75	34.190	26.523	155.0	0.584	1 .67	25 .6	41.6	2 .45	29.3	0.00			251
2	269		8.70	8.67	34.206	26.548	153.0	0.613	1.55	23.7	43.1	2 .49	29.6	0.00			271
2	296		8.54	8.51	34.243	26.603	148.3	0.654	1 .29	19.7	46.6	2.62	30.7	0.00			298

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 90 37

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYP!
33 11.1 ₩1	118 23.6 W	11/08/94	0645 UTC	1179 m	260 10 kn			1012 . 5 mb	19.7 C	18.5 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	19.74	19.74	33.463	23.659	422.6	0.000	5.53	105.6	4 .0	0.34	0.0	0.00	0.15	0.04	0
2	2		19.74	19.74	33.463	23.659	422.7	0.008	5.53	105.6	4.0	0.34	0.0	0.00	0.15	0.04	2
2	10		19.41	19.41	33.458	23.740	415.2	0.042	5 .66	107.4	3.9	0.33	0.0	0.00	0.17	0.04	10
2	19		16.72	16.72	33.375	24.334	358.8	0.077	6.03	108.6	3.9	0.35	0.0	0.00	0.16	0.05	19
	20	ISL	16.58	16.58	33.371	24.364	356.0	0.080	6.05	108.7	3.9	0.35	0.0	0.00	0.16	0.05	20
2	30		15.57	15.57	33.345	24.573	336.4	0.115	6.21	109.3	4. 1	0.36	0. 1	0.00	0.23	0.11	30
2	40		14.17	14.16	33.361	24.887	306.7	0.147	5 .88	100.6	5.2	0.50	2. 1	0.16	0.38	0.26	40
2	50		13.77	13 .76	33.380	24.985	297.6	0. 177	5 .68	96.4	6. 1	0.58	3.5	0.21	0.45	0.35	50
2	60		13.02	13.01	33.394	25.147	282.4	0.206	5.30	88.6	8.3	0.74	6.0	0.27	0.44	0.49	60
2	70		12.18	12.17	33.412	25.324	265.7	0.234	4.87	80.0	11.1	0.96	9.4	0.19	0.34	0 .39	70
	75	ISL	11 .75	11 .74	33.433	25.421	256.6	0.247	4.59	74.7	12.9	1 .07	11.3	0.13	0.28	0.33	75
2	85		10.97	10.96	33.479	25.599	239.8	0.272	4.12	65 .9	16.1	1 .25	14.5	0.02	0.16	0.23	85
2	98		10.33	10.32	33.507	25.733	227.3	0.302	4.07	64.3	18.2	1 .38	16.4	0.02	0.07	0.13	98
	100	ISL	10.23	10.22	33.516	25.757	225.0	0.307	4.04	63.6	18.7	1.41	16.8	0.02	0.06	0.12	100
2	1 19		9.45	9.44	33.621	25.969	205.1	0.347	3.67	56.9	23.7	1 .67	20.8	0.01	0.02	0.07	120
	125	ISL	9.28	9.27	33.655	26.023	200. 1	0.360	3.58	55.3	24.9	1 .72	21.6	0.01	0.01	0.06	120
2	139		8.98	8.97	33.732	26.131	190.0	0.387	3.40	52.2	27.3	1 .80	23.0	0.00	0.01	0.05	140
	150	ISL	8.82	8.80	33.788	26.200	183.6	0.407	3.26	49.9	29.3	1 .87	24.0	0.00	0.01	0.05	151
2	171		8.67	8.65	33.893	26.306	173.9	0.445	2.95	45 .0	32.9	2 .00	25.7	0.00	0.00	0.04	172
	200	ISL	8.74	8.72	34.052	26.420	163.7	0.494	2 .40	36.7	37.2	2.19	27.6	0.00	0 .00	0.03	201
2	202		8.74	8.72	34.061	26.427	163.1	0.497	2.36	36.1	37.5	2.20	27.7	0.00	0.00	0.03	203
2	229		8.52	8.50	34.124	26.511	155.6	0.540	2.05	31 .2	41 .9	2.31	29.2	0.00			230
	250	ISL	8.43	8.40	34.158	26.552	152.1	0.572	1 .82	27.6	44 .5	2.39	30.0	0.00			251
2	265		8.37	8.34	34 . 178	26.577	150.0	0.595	1 .66	25.2	46. 1	2.45	30.5	0.00			267
	300	ISL	8.19	8.16	34.222	26.639	144.6	0.647	1 . 35	20.4	49.9	2 .59	31 .8	0.00			302
2	315		8.08	8.05	34.234	26.665	142.4	0.668	1 .24	18.7	51.6	2 . 65	32 .3	0.00			307
2	376		7.36	7.32	34.219	26.759	134.1	0.753	1 .02	15.1	60.0	2 .78	34.5	0.00			378
	400	ISL	7.25	7.21	34.239	26.790	131.4	0.784	0.87	12.9	62.7	2 .85	35.2	0.00			403
2	436		7.12	7.08	34.274	26.836	127.5	0.831	0.65	9.6	66. 4	2 .95	36.2	0.00			439
	500	ISL	6.67	6.62	34.287	26.908	121.3	0.911	0.49	7.2	73.2	3.04	37.7	0.00			503
2	515		6.57	6.52	34.291	26.925	119.8	0.929	0.45	6.6	74.8	3.06	38. 1	0.00			519

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
N	118 55.5 W	11/08/94	0129 UTC	1700 m	300 10 kn	290 03 05	1	1012.6 mb	19.0 C	17.5 C		1/8	AC
32 55.5													

CAST	DEPTH		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ral/l	OXY PCT	SI03 UN/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.12	19.12	33.511	23.854	404.0	0.000	5.53	104.4	4.4	0.35	0.1	0.00	0.17	0.04	0
2	1	A	19.12	19.12	33.511	23.854	404.0	0.004	5.53	104.4	4.4	0.35	0.1	0.00	0.17	0.04	1
	10	ISL	18.66	18.66	33.505	23.966	393.7	0.040	5.61	105.0	4.3	0.35	0.1	0.00	0.22	0.06	10
2	17		17.75	17.75	33.484	24.174	374.1	0.067	5.74	105.5	4.3	0.35	0.1	0.00	0.26	0.08	17
	20	ISL	17.09	17.09	33.466	24.318	360.4	0.078	5.84	106.0	4.5	0.40	0.5	0.01	0.31	0.11	20
2	30		14.85	14.85	33.432	24.797	315.0	0.112	6.03	104.7	5.7	0.60	2.5	0.12	0.49	0.24	30
2	44		13.22	13.21	33.409	25.119	284.7	0.154	5.37	90.1	9.0	0.85	6.0	0.57	0.61	0.47	44
	50	ISL	12.56	12.55	33.411	25.250	272.3	0.170	5.07	83.9	10.6	0.97	8.4	0.38	0.53	0.43	50
2	55		12.03	12.02	33.420	25.358	262.1	0.184	4.82	78.9	12.1	1.08	10.6	0.18	0.43	0.36	55
2	65		11.04	11.03	33.459	25.570	242.0	0.209	4.31	69.1	15.9	1.33	14.9	0.04	0.17	0.20	65
2	75		10.09	10.08	33.497	25.765	223.6	0.232	4.04	63.4	18.3	1.46	17.0	0.02	0.07	0.13	75
2	85		9.55	9.54	33.572	25.913	209.7	0.254	3.80	59.0	21.9	1.64	19.9	0.02	0.02	0.09	85
2	95		9.39	9.38	33.614	25.973	204.2	0.274	3.68	56.9	23.1	1.69	20.8	0.01	0.02	0.08	95
	100	ISL	9.34	9.33	33.634	25.996	202.1	0.285	3.64	56.3	23.6	1.71	21.1	0.01	0.02	0.07	100
2	109		9.24	9.23	33.672	26.042	197.9	0.303	3.57	55.1	24.5	1.74	21.7	0.02	0.01	0.05	110
2	124		8.91	8.90	33.752	26.157	187.2	0.332	3.40	52.1	26.8	1.82	23.1	0.01	0.01	0.05	125
	125	ISL	8.91	8.90	33.758	26.162	186.7	0.333	3.39	51.9	27.0	1.83	23.2	0.01	0.01	0.05	126
2	144		8.82	8.80	33.860	26.256	178.1	0.368	3.04	46.5	29.9	1.95	24.8	0.00	0.00	0.04	145
	150	ISL	8.92	8.90	33.917	26.286	175.6	0.379	2.83	43.4	30.9	2.01	25.3	0.00	0.00	0.04	151
2	168		9.21	9.19	34.074	26.363	168.7	0.410	2.24	34.6	33.6	2.17	26.6	0.01	0.00	0.05	169
2	198		8.81	8.79	34.105	26.451	160.8	0.459	2.16	33.1	37.0	2.25	27.9	0.01	0.00	0.04	199
	200	ISL	8.79	8.77	34.112	26.460	160.0	0.462	2.12	32.5	37.4	2.26	28.1	0.01			201
2	227		8.51	8.49	34.199	26.572	149.9	0.504	1.60	24.4	43.4	2.46	30.2	0.02			228
	250	ISL	8.39	8.36	34.222	26.608	146.8	0.538	1.41	21.4	45.6	2.54	31.0	0.03			251
2	267		8.33	8.30	34.226	26.621	145.8	0.563	1.33	20.2	46.5	2.57	31.3	0.03			269
	300	ISL	8.12	8.09	34.245	26.668	141.9	0.611	1.15	17.4	49.3	2.64	32.3	0.02			302
2	318		7.99	7.96	34.254	26.694	139.6	0.636	1.06	15.9	50.9	2.68	32.9	0.01			320
2	377		7.61	7.57	34.263	26.758	134.4	0.717	0.86	12.8	56.1	2.80	34.4	0.00			379
	400	ISL	7.37	7.33	34.270	26.798	130.8	0.747	0.75	11.1	59.3	2.86	35.2	0.00			403
2	438		6.95	6.91	34.282	26.866	124.6	0.796	0.57	8.4	64.8	2.96	36.7	0.00			441
	500	ISL	6.44	6.39	34.297	26.947	117.4	0.871	0.41	6.0	72.4	3.07	38.7	0.00			503
2	511		6.36	6.31	34.299	26.959	116.3	0.884	0.39	5.7	73.6	3.08	39.0	0.00			515
2	795		4.84	4.78	34.414	27.236	91.6	1.176	0.26	3.6	100.5	3.26	42.5	0.00			801
2	1090		4.00	3.92	34.485	27.385	78.8	1.425	0.44	6.0	119.1	3.26	43.1	0.00			1099
2	1390		3.80	3.69	34.504	27.423	77.5	1.659	0.48	6.5	124.5	3.27	43.0	0.00			1403
2	1637		3.76	3.63	34.508	27.432	78.6	1.852	0.45	6.1	128.0	3.28	42.1	0.00			1653

A) SAN NICOLAS BASIN STATION.

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 39.3 N	119 28.9 W	10/08/94	1859 UTC	1319 in	330 10 kn	330 04 07	1	1015.5 mb	19.0 C	17.7 C	15m 03	7/8	CI

CAST	DEPTH		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 UN/l	N02 uM/l	CHL-A ug/l	PHAEO ug/L	PRESS db
	0	ISL	17.21	17.21	33.504	24.318	359.8	0.000	5.77	105.0	5.1	0.38	0.3	0.00	0.39	0.09	0
2	1	A	17.21	17.21	33.504	24.318	359.8	0.004	5.77	105.0	5.1	0.38	0.3	0.00	0.39	0.09	1
2	8	A	17.08	17.08	33.505	24.349	357.0	0.029	5.78	104.9	4.9	0.38	0.3	0.00	0.37	0.10	8
	10	ISL	17.01	17.01	33.502	24.364	355.7	0.036	5.78	104.8	4.8	0.38	0.3	0.00	0.39	0.10	10
2	18	A	16.64	16.64	33.483	24.436	349.1	0.064	5.79	104.2	4.7	0.39	0.3	0.00	0.48	0.16	18
	20	ISL	16.55	16.55	33.477	24.452	347.6	0.071	5.79	104.0	4.8	0.40	0.3	0.00	0.56	0.20	20
2	28	A	16.03	16.03	33.449	24.550	338.5	0.098	5.81	103.3	5.1	0.42	0.5	0.02	0.87	0.36	28
	30	ISL	15.85	15.85	33.445	24.587	335.0	0.105	5.78	102.4	5.2	0.44	0.7	0.04	0.87	0.38	30
2	38	A	14.85	14.84	33.426	24.793	315.6	0.131	5.65	98.1	6.6	0.57	2.5	0.12	0.85	0.44	38
2	46		13.28	13.27	33.394	25.095	287.0	0.155	5.16	86.7	9.9	0.86	6.8	0.21	0.63	0.47	46
	50	ISL	12.46	12.45	33.402	25.262	271.1	0.166	4.91	81.1	11.7	1.00	9.2	0.19	0.47	0.43	50
2	53	A	11.91	11.90	33.417	25.378	260.1	0.174	4.73	77.2	13.0	1.10	10.9	0.16	0.36	0.39	53
2	61		11.01	11.00	33.468	25.583	240.8	0.194	4.34	69.5	16.1	1.31	14.3	0.06	0.26	0.32	61
2	70		10.77	10.76	33.485	25.639	235.6	0.216	4.24	67.6	17.2	1.36	15.4	0.03	0.19	0.24	70
	75	ISL	10.66	10.65	33.489	25.661	233.6	0.228	4.22	67.1	17.3	1.38	15.6	0.03	0.17	0.22	75
2	83		10.48	10.47	33.501	25.702	229.9	0.246	4.16	65.9	17.6	1.42	15.9	0.02	0.14	0.19	83
2	100		9.89	9.88	33.593	25.874	213.8	0.284	3.77	59.0	21.5	1.63	19.3	0.01	0.06	0.11	100
2	118		9.40	9.39	33.688	26.029	199.3	0.321	3.46	53.6	25.0	1.78	21.8	0.00	0.03	0.09	119
	125	ISL	9.26	9.25	33.732	26.086	194.0	0.335	3.34	51.6	26.4	1.83	22.6	0.00	0.02	0.08	126
2	139		9.01	9.00	33.826	26.200	183.5	0.361	3.08	47.3	29.5	1.94	24.3	0.00	0.01	0.06	140
	150	ISL	8.78	8.76	33.911	26.303	173.9	0.381	2.85	43.6	32.8	2.04	25.8	0.00	0.01	0.05	151
2	168		8.44	8.42	34.038	26.455	159.7	0.411	2.46	37.4	38.3	2.21	28.0	0.00	0.00	0.03	169
	200	ISL	8.10	8.08	34.146	26.592	147.2	0.460	1.82	27.4	45.9	2.43	30.6	0.00			201
2	201		8.09	8.07	34.148	26.595	147.0	0.461	1.80	27.1	46.1	2.44	30.7	0.00			202
2	230		7.93	7.91	34.175	26.640	143.1	0.504	1.55	23.3	49.6	2.58	32.2	0.00			231
	250	ISL	7.76	7.74	34.189	26.676	140.0	0.532	1.38	20.7	52.3	2.65	32.9	0.01			251
2	267		7.60	7.57	34.200	26.708	137.2	0.555	1.25	18.6	54.7	2.70	33.5	0.01			269
	300	ISL	7.31	7.28	34.224	26.769	131.8	0.600	1.00	14.8	59.3	2.80	34.8	0.01			302
2	317		7.17	7.14	34.234	26.796	129.4	0.622	0.89	13.1	61.6	2.85	35.5	0.01			319
2	377		6.74	6.71	34.246	26.865	123.5	0.698	0.69	10.1	68.3	2.96	37.7	0.00			379
	400	ISL	6.61	6.57	34.261	26.895	121.0	0.726	0.60	8.7	70.7	3.03	38.2	0.00			403
2	439		6.42	6.38	34.289	26.942	116.9	0.772	0.45	6.5	74.8	3.14	39.1	0.00			442
	500	ISL	6.10	6.06	34.319	27.008	111.3	0.842	0.33	4.8							503
2	513		6.03	5.98	34.326	27.022	110.0	0.856	0.31	4.5							517

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 90 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 25.5 N1	119 57.7 W	10/08/94	1426 UTC	899 m	330 15 kn	350 05 05	1	1015 .3 mb	16.7 C	16.0 C	15m 03	7/8	AC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uH/ I	P04 uN/ I	N03 UN/ I	N02 uM/ I	CHL-A ug/l	PHAEO ug/ I	PRESS db
	0	ISL	17.17	17.17	33.491	24.317	359.8	0.000	5.66	102.9	5.3	0.47	0.0	0.01	0.37	0.10	0
2	2		17.17	17.17	33.491	24.317	359.9	0.007	5.66	102.9	5.3	0.47	0.0	0.01	0.37	0.10	2
2	10		17.18	17.18	33.491	24.315	360.3	0.036	5.66	102.9	5 . 1	0.47	0.0	0.00	0.38	0.11	10
2	20		17.16	17.16	33.488	24.318	360.4	0.072	5.66	102.9	4.7	0.47	0.0	0.00	0.39	0.11	20
2	30		16.61	16.61	33.473	24.436	349.5	0.108	5.72	102 .9	4.6	0.48	0.0	0.01	0.58	0.22	30
2	40		16.14	16.13	33.518	24.578	336.2	0.142	5.65	100.7	5.2	0.51	0.1	0.01	0.57	0.25	40
2	50		13.97	13.96	33.491	25.030	293.4	0.173	5.13	87.5	9.4	0.92	3.9	0.25	0.31	0.21	50
2	60		12.36	12.35	33.390	25.273	270.4	0.201	4.91	80.9	11.4	1 .03	6.5	0.28	0.39	0.45	60
2	70		11.43	11 .42	33.449	25.492	249.6	0.227	4.35	70.3	16.1	1 .35	12.6	0.05	0.22	0.30	70
	75	ISL	10.93	10.92	33.484	25.610	238.5	0.240	4.12	65.9	18.4	1 .48	15.1	0.04	0.16	0.23	75
2	85		10.08	10.07	33.569	25.823	218.3	0.263	3.74	58.7	22.4	1 .69	18.9	0.01	0.07	0.12	85
2	100		9.60	9.59	33.716	26.018	200.1	0.294	3.36	52.3	26.2	1 .87	21 .9	0.01	0.03	0.07	100
2	120		9.33	9.32	33.814	26.139	189.0	0.333	3.08	47.7	29.5	2.01	23.9	0.01	0.02	0.07	121
	125	ISL	9.24	9.23	33.844	26.177	185.4	0.342	3.00	46.3	30.6	2.05	24.5	0.01	0.02	0.07	126
2	139		8.98	8.97	33.919	26.278	176.1	0.367	2.79	42.9	33.8	2.14	26.0	0.01	0.01	0.05	140
	150	ISL	8.82	8.80	33.948	26.326	171 .7	0.387	2.73	41 .8	35.2	2.17	26.8	0.01	0.01	0.04	151
2	169		8.59	8.57	33.984	26.390	166.0	0.419	2.63	40. 1	37.6	2.23	27.9	0.01	0.00	0.04	170
	200	ISL	8.24	8.22	34.098	26.533	152.8	0.468	2.11	31 .9	44.8	2 .44	30.7	0.01	0.00	0.04	201
2	201		8.23	8.21	34.101	26.537	152.5	0.470	2 .09	31 .6	45 .0	2 .45	30.8	0.01	0.00	0.04	202
2	230		7.85	7.83	34.136	26.621	144.9	0.513	1 .75	26.2	50.8	2.61	32.9	0.01			231
	250	ISL	7.67	7.65	34.145	26.655	142 .0	0.541	1 .62	24.2	53.5	2.68	33.9	0.01			251
2	270		7.53	7.50	34. 155	26.683	139.6	0.570	1 .50	22.3	56.0	2.74	34.8	0.00			272
	300	ISL	7.34	7.31	34. 199	26.745	134. 1	0.611	1.15	17.0	60.6	2.89	36.3	0.00			302
2	319		7.22	7.19	34.227	26.784	130.6	0.636	0.93	13.7	63.6	2.98	37.2	0.00			321
2	379		6.74	6.70	34.245	26.864	123.6	0.712	0.67	9.8	72.0	3.12	39.5	0.00			381
	400	ISL	6.56	6.52	34.252	26.894	121 .0	0.738	0.67	9.8	75.0	3.17	40.3	0.00			403
2	438		6.25	6.21	34.267	26.947	116.3	0.783	0.67	9.7	80.1	3.24	41 .7	0.00			441
	500	ISL	5.92	5.88	34.304	27.018	110.0	0.853	0.52	7.5	86.5	3.33	42.9	0.00			503
2	512		5.86	5.82	34.311	27.031	108.9	0.866	0.49	7.0	87.7	3.35	43.1	0.00			516

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 90 70

LATITUDE	LONGITUDE	DAY/NO/YR	CAST TINE	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPi
32 4.9 dI	120 38.5 W	10/08/94	0850 UTC	3769 m	340 13 kn			1015 . 6 mb	16.2 C	15.8 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 UM/ I	CHL-A ug/ I	PHAEO ug/l	PRESS db
	0	ISL	16.31	16.31	33.099	24.216	369.4	0.000	5.79	103.3	2.8	0.39	0.1	0.00	0.22	0.06	0
2	2		16.31	16.31	33.099	24.216	369.5	0.007	5.79	103.3	2 .8	0.39	0. 1	0.00	0.22	0.06	2
	10	ISL	16.17	16.17	33.096	24.246	366.9	0.037	5.82	103.5	2.7	0.39	0. 1	0.00	0.25	0.08	10
2	1 1		16.13	16.13	33.096	24.255	366.1	0.041	5.83	103.6	2.7	0.39	0.1	0.00	0.25	0.08	11
	20	ISL	15.60	15.60	33.098	24.376	354.8	0.073	5.93	104.3	2.7	0.38	0. 1	0.00	0.36	0.11	20
2	21		15.53	15.53	33.097	24.391	353.4	0.076	5.94	104.3	2.7	0.38	0.1	0.00	0.37	0.11	21
2	30		15.06	15.06	33.051	24.458	347.2	0.108	5.99	104.2	3.4	0.39	0.2	0.00	0.35	0.14	30
2	40		14.61	14.60	33.090	24.585	335.4	0.142	5.99	103.3	4.0	0.38	0.2	0.00	0.31	0.17	40
2	50		14.39	14.38	33.189	24.709	324.0	0.175	5.90	101.3	4. 1	0.38	0.2	0.03	0.32	0.20	50
2	61		13.32	13.31	33.052	24.823	313.3	0.210	5.84	98.0	4.6	0.56	2.0	0.27	0.32	0.22	61
2	71		12.94	12.93	33.047	24.895	306.7	0.241	5.79	96.4	5. 1	0.63	2 .9	0.59	0.29	0.19	71
	75	ISL	12.76	12.75	33.070	24.948	301 .7	0.253	5.69	94 .4	5 .7	0.67	3.6	0. 50	0.26	0.20	75
2	85		12.23	12.22	33.151	25.113	286.2	0.283	5.36	88.0	7.7	0.79	5.9	0.16	0.19	0.21	85
	100	ISL	11.23	11 .22	33.279	25.397	259.4	0.324	4.81	77.3	11.6	1 .06	11.0	0.02	0.11	0.15	100
2	101		11.16	11.15	33.289	25.417	257.4	0.326	4.77	76.6	11.9	1 .08	11.4	0.02	0.11	0.15	101
2	121		10.23	10.22	33.505	25.749	226.2	0.375	4.20	66.2	16.8	1 .39	16.4	0.02	0.07	0.16	121
	125	ISL	10.01	10.00	33.527	25.803	221 . 1	0.384	4.09	64. 1	18.0	1 .46	17.5	0.02	0.06	0.15	126
2	139		9.28	9.26	33.593	25.975	204.9	0.413	3.73	57.6	22.4	1 .69	21.1	0.01	0.04	0.09	140
	150	ISL	8 .90	8. 88	33.673	26.098	193.3	0.435	3.49	53.4	25.7	1 .82	23. 1	0.01	0.03	0.06	151
2	169		8.45	8.43	33.811	26.276	176.7	0.470	3.17	48. 1	30.7	1 . 98	25.5	0.00	0.01	0.04	176
2	200		8.04	8.02	33.946	26.443	161 .2	0.523	2.95	44.4	36.4	2 .09	27.2	0.00	0.00	0.03	201
2	230		7.87	7.85	33.996	26.508	155.6	0.570	2.78	41 .7	40.0	2.15	28.3	0.00			231
	250	ISL	7.69	7.67	34.031	26.562	150.7	0.601	2.51	37.5	43.8	2.26	29.6	0.00			251
2	269		7.48	7.45	34.060	26.615	145.9	0.629	2.22	33.0	47.9	2.39	30. 9	0.00			271
	300	ISL	7.11	7.08	34.082	26.685	139.6	0.673	1 .86	27.4	53.9	2 .54	32.9	0.00			302
2	317		6.90	6.87	34.088	26.718	136.5	0.697	1 .69	24.8	57. 1	2 .62	34.0	0.00			319
2	377		6.26	6.23	34.096	26.810	128.3	0.776	1.24	17.9	67.5	2 .86	36.9	0.00			379
	400	ISL	6.10	6.06	34.107	26.839	125.7	0.806	1.10	15.8	70.7	2.92	37.7	0.00			402
2	437		5 .90	5 .86	34.132	26.884	121.8	0.851	0.89	12.7	75 .4	3.00	38.9	0.00			440
	500	ISL	5 .60	5.56	34.199	26.975	113.8	0.925	0.55	7. 8	84 . 1	3.15	40. 5	0.00			503
2	514		5.53	5.49	34.214	26.995	111.9	0.941	0.48	6.8	86.0	3.18	40.8	0.00			517

w

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 90 80

TITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 45.2 N	121 19.6 W	10/08/94	0227 UTC	3774 in	340 15 kn	340 05 05	1	1015 .0 mb	16.9 C	16.0 C	18m 02	4/8	SC

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/ l	P04 UM/ l	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ L	PRESS db
	0 ISL	16.80	16.80	33.086	24.093	381 .1	0.000	5 .91	106.4	3.3	0.40	0. 1	0.00	0.18	0.05	0
	1	16.80	16.80	33.086	24.093	381 .2	0.004	5 .91	106.4	3.3	0.40	0.1	0.00	0.18	0.05	1
	10 ISL	16.80	16.80	33.088	24.095	381 .3	0.038	5.88	105.9	3.3	0.39	0. 1	0.00	0.17	0.04	10
	15	16.80	16.80	33.090	24.097	381 .3	0.057	5.86	105.5	3.3	0.39	0. 1	0.00	0.16	0.04	15
	20 ISL	16.81	16.81	33.101	24.103	380.8	0.076	5 .88	105.9	3.3	0.39	0. 1	0.00	0.16	0.04	20
	30	16.84	16.84	33.124	24.114	380. 1	0.114			3.4	0.39	0. 1	0.00	0.16	0.05	30
	44	15.38	15.37	33.156	24.470	346.6	0.165	5.96	104.4	4.1	0.42	0. 1	0.00	0.29	0.17	44
	50 ISL	15.09	15.08	33.189	24.559	338.3	0.186	5.94	103.4	4.2	0.43	0.3	0.01	0.29	0.22	50
	54	14.95	14.94	33.220	24.613	333.2	0. 199	5 .91	102 .7	4.2	0.43	0.5	0.02	0.29	0.25	54
	65	14.51	14.50	33.368	24.822	313.7	0.235	5.74	98.9	4.6	0.46	1 .0	0.14	0.25	0.25	65
	75 ISL	14.73	14.72	33.599	24.953	301 .5	0.265	5.62	97.4	4.5	0.37	0 .6	0.09	0.21	0.22	75
	77	14.77	14.76	33.643	24.979	299. 1	0.271	5.59	97.0	4.5	0.36	0.5	0.08	0.20	0.21	77
	86	13.53	13.52	33.495	25.124	285 .4	0.298	5.39	91 .1	6.0	0.55	3.0	0.12	0.17	0.19	86
	95	12.95	12.94	33.394	25.162	281 .9	0.323	5.28	88. 1	7.2	0.69	5 .0	0.05	0.15	0.18	95
	100 ISL	12.59	12.58	33.386	25.226	275.9	0.337	5.15	85.3	8.0	0.78	6.4	0.04	0.13	0.17	100
	110	11 .76	11.75	33.417	25.408	258.7	0.364	4.82	78.4	10.3	0.99	9.9	0.02	0.09	0.14	110
	123	10.44	10.43	33.468	25.684	232.5	0.396	4.42	69.9	15.6	1 .33	15.5	0.01	0.05	0.11	124
	125 ISL	10.30	10.29	33.478	25.716	229.5	0.401	4.38	69.1	16.2	1 .37	16.1	0.01	0.05	0.10	126
	tu	9.32	9.30	33.599	25.973	205.2	0.442	4 .01	61 .9	21.2	1 .62	19.9	0.01	0.02	0.05	145
	150 ISL	9.11	9.09	33.661	26.055	197.5	0.454	3.82	58.8	23.3	1 .70	21.2	0.01	0.02	0.05	1 51
	171	8.61	8.59	33.860	26.290	175.5	0.493	3.26	49.6	30. 1	1 .93	24.9	0.00	0.01	0 .05	172
	200	8.22	8.20	33.919	26.395	165.8	0.543	3.21	48.5	34.0	2 .02	26.3	0 .00	0.00	0.05	201
	231	7.88	7.86	34.032	26.535	153.0	0.592	2 .54	38.1	41 .5	2 .25	29.2	0.00			232
	250 ISL	7.65	7.63	34.075	26.602	146.9	0.620	2.22	33.1	46 .2	2 .40	30.9	0.00			251
	268	7.44	7.41	34.105	26.656	142.0	0.646	1 .95	28.9	50. 4	2 .53	32 .3	0.00			**269**
	300 ISL	7.19	7.16	34.152	26.729	135.5	0.691	1 .45	21 .4	56.5	2 .71	34.2	0.00			**302**
	320	7.06	7.03	34.178	26.767	132. 1	0.718	1.16	17.1	60.2	2 .81	35.2	0.00			**322**
	379	6.54	6.51	34.272	26.912	118.9	0.792	0.55	8.0	72.8	3.10	38. 1	0.00			**381**
	400 ISL	6.39	6.35	34.286	26.943	116.2	0.816	0.50	7.3	75.7	3.15	38.7	0.00			**402**
	438	6.17	6.13	34.299	26.982	112.8	0.860	0.42	6. 1	79.5	3.19	39.3	0.00			**441**
	500 ISL	5.96	5.92	34.320	27.026	109.4	0.929	0.34	4 .9	83.3	3.25	39.7	0.00			**503**
	510	5.93	5.89	34.323	27.032	108.9	0.940	0.33	4 .7	83.9	3.26	39 .8	0.00			**513**

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 90 90

LAT ITUDE	LONGITUDE	DAY/HO/YR	CAST TINE	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 25.2 N	122 0.2 U	09/08/94	1907 UTC	3825 m	340 16 kn	340 05 04	1	1016 .1 mb	18.2 C	17.2 C	21m 03	1 /8	CU

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0 ISL	16.10	16.10	33.165	24.315	360.0	0.000	5 .83	103.6	2.6	0.43	0.0	0.00	0.29	0.06	0
2	2 A	16.10	16.10	33.165	24.315	360.1	0.007	5.83	103. 6	2.6	0. 43	0.0	0.00	0.29	0.06	2
	10 ISL	15.98	15.98	33.166	24.343	357.7	0.036	5.84	103.5	2.5	0. 43	0.0	0.00	0.28	0.07	10
2	13 A	15.92	15.92	33.168	24.358	356.3	0.047	5.85	103.6	2.5	0.43	0.0	0.00	0.28	0.07	13
	20 ISL	15.84	15.84	33.181	24.386	353.8	0.071	5.86	103.6	2.3	0.43	0.0	0.00	0.31	0.09	20
2	26 A	15.78	15.78	33.193	24.409	351 .9	0.093	5 .89	104.0	2.2	0.43	0.0	0.00	0.34	0.10	26
	30 ISL	15.54	15.54	33.225	24.487	344 .5	0.107	5.93	104.2	2.2	0.44	0.0	0.00	0.43	0.15	30
2	34	15.30	15.29	33.260	24.567	337.0	0.120	5.96	104.3	2.2	0.45	0.0	0.01	0.53	0.20	34
2	40 A	15.15	15.14	33.301	24.632	331 .1	0.140	5.93	103.5	2.0	0 .47	0.0	0.02	0. 62	0.26	40
	50 ISL	14.70	14.69	33.294	24.724	322.5	0.173	5 .85	101.1	2 .8	0.51	0. 5	0.06	0.59	0.30	50
2	55 A	14.39	14.38	33.277	24.777	317.6	0.189	5 .80	99.6	3.2	0.53	0. 7	0.10	0.57	0.32	55
2	65	13.63	13.62	33.273	24.931	303.1	0.220	5 .68	96. 1	5 .5	0.72	3.3	0.24	0.25	0.23	65
	75 ISL	13.46	13.45	33.305	24.991	297.7	0.250	5.62	94.7	5 .7	0.76	3. 8	0.26	0.28	0.23	75
2	76 A	13.44	13.43	33.307	24.996	297.2	0.253	5.61	94. 5	5.7	0.76	3 .8	0.26	0.28	0.23	76
2	86	13.49	13.48	33.466	25.109	286.7	0.282	5.32	89.8	5.8	0.66	3 .6	0.20	0.21	0.26	86
2	99	12.43	12.42	33.477	25.328	266.2	0.318	4.97	82 . 1	8.3	0.88	7 .4	0.06	0.13	0.20	99
	100 ISL	12.36	12 .35	33.475	25.339	265.1	0.321	4 .94	81 .5	8.5	0.90	7 .5	0.06	0.13	0.20	100
2	120	11 .02	11 .01	33.444	25.563	244.0	0.372	4 .47	71.6	13.4	1 .26	10.7	0.04	0.09	0.14	121
	125 ISL	10.71	10.70	33.460	25.631	237.6	0.384	4.35	69.2	14.7	1 .34	12.5	0.03	0.08	0.13	126
2	UO	9.87	9.85	33.534	25.832	218.6	0.418	4 .02	62.8	18.6	1 .57	17.9	0.01	0. 05	0.11	141
	150 ISL	9.46	9.44	33.583	25 .938	208.7	0. 439	3.84	59.5	20.8	1 .69	19.9	0.01	0.04	0.09	151
2	170	8.88	8.86	33.685	26.110	192 .5	0.479	3.56	54.5	24.9	1 .86	22 .3	0.01	0. 02	0.06	171
	200 ISL	8. 47	8.45	33.852	26.305	174.5	0.534	3.24	49.2	30 .4	2 .03	24.7	0.00	0 .02	0.06	201
2	201	8.46	8.44	33.858	26.311	173.9	0.536	3.23	49.0	30.6	2 .03	24.8	0.00	0.02	0.06	202
2	230	8.17	8.15	34 .026	26.487	157.7	0.584	2.63	39.7	38.4	2 .24	27.8	0.01			231
	250 ISL	7.91	7.88	34.064	26.556	151.4	0.615	2 .40	36.0	42 .2	2 .35	29.2	0.01			251
2	272	7.64	7.61	34.077	26.606	146.9	0.648	2.19	32 .7	45.9	2 .47	30. 5	0.00			274
	300 ISL	7.38	7.35	34 . 110	26.669	141.3	0.688	1 .80	26.7	51.6	2 .64	32 .4	0.00			302
2	317	7.27	7.24	34.131	26.701	138.4	0.712	1 .56	23.1	54.8	2 .74	33.4	0.00			319
2	375	7.13	7.09	34.224	26.795	130.5	0.790	0.92	13.6	61 .9	2 .99	35 .4	0.00			377
	400 ISL	7 .00	6.96	34.252	26.835	127.0	0.822	0. 73	10.7	65.2	3.08	36 .2	0. 00			**402**
2	439	6. 73	6.69	34.281	26.895	121.7	0.871	0.53	7.7	70. 5	3.20	37.3	0.00			**442**
	500 ISL	6.22	6.18	34.291	26.970	114.9	0.943	0.43	6.2	78.7	3.30	39.0	0.00			**503**
2	516	6.08	6 .03	34.295	26.991	113.0	0.961	0.40	5 .8	80.9	3.32	39.4	0.00			**519**

RV NEU HORIZON | CALCOFI CRUISE 9408 | STATION 90 100

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 l5.3 N	122 39.8 W	09/08/94	1300 UTC	3979 m	350 12 kn	350 02 04		1014 .3 mb	17.0 C	16.7 C			

CAST	DEPTH m		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/L	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.37	17.37	33.211	24.055	384.8	0.000	5.62	102.4	3.3	0.41	0.0	0.00	0.17	0.05	0
2	3		17.37	17.37	33.211	24.055	384.9	0.012	5.62	102 .4	3.3	0.41	0.0	0.00	0.17	0.05	3
	10	ISL	17.34	17.34	33.214	24.065	384.2	0.038	5.63	102.5	3.2	0.41	0.0	0.00	0.18	0.05	10
2	16		17.32	17.32	33.216	24.071	383.8	0.062	5.64	102.7	3.1	0.42	0.0	0.00	0.18	0.05	16
	20	ISL	16.90	16.90	33.231	24.182	373.4	0.077	5.80	104.7	2.9	0.42	0.0	0.00	0.19	0.06	20
	30	ISL	15.70	15.70	33.280	24.494	343.9	0.113	6.16	108.7	2.5	0.43	0.0	0.00	0.29	0.13	30
2	31		15.57	15.57	33.286	24.528	340.7	0.116	6.20	109.1	2.5	0.43	0.0	0.00	0.31	0.14	31
2	46		14.61	14.60	33.303	24.750	320.0	0.165	6.06	104.6	2.6	0.52	1 .0	0.07	0.75	0.39	46
	50	ISL	14.50	14.49	33.316	24.783	316.9	0.178	5.99	103.2	2.8	0.57	1 .6	0.10	0.73	0.42	50
2	55		14.37	14.36	33.331	24.823	313.3	0.194	5.89	101 .2	3.3	0.63	2 .4	0.14	0.70	0.45	55
2	65		13.96	13.95	33.344	24.918	304.4	0.225	5.68	96.8	4.7	0.75	3.4	0.26	0.60	0. 47	65
2	75		13.36	13.35	33.336	25.035	293.5	0.255	5.46	91 .9	6.3	0.85	4 .9	0.75	0.43	0. 34	75
2	85		12.47	12.46	33.369	25.236	274.6	0.283	5.07	83.7	8.8	0.95	8.2	0.04	0.18	0.21	85
2	95		11 .68	11 .67	33.363	25.380	260.9	0.310	4.74	77.0	11.1	1.11	10.9	0.02	0.13	0.18	95
	100	ISL	11.43	11.42	33.383	25.442	255.2	0.323	4.64	75.0	12.0	1.17	11.8	0.02	0.10	0.16	100
2	109		11 .07	11 .06	33.429	25.543	245.7	0.345	4. 50	72.2	13.4	1 .25	13.1	0.02	0.07	0.12	109
2	125		10.42	10.41	33.475	25.693	231 .7	0.384	4.23	66.9	16.0	1.41	15.8	0.01	0.07	0.12	126
2	146		9.11	9.09	33.616	26.020	200.7	0.429	3.63	55.8	23.6	1 .79	21 .4	0.01	0.01	0.06	147
	150	ISL	8.96	8.94	33.643	26.065	196.5	0.437	3.57	54.7	24.7	1 .83	22.0	0.01	0.01	0.05	151
2	170		8.51	8.49	33.766	26.231	180.9	0.475	3.38	51.3	28.7	1 .96	23.9	0.01	0.00	0.04	171
2	199		8.24	8.22	33.895	26.374	167.9	0.525	3.27	49.4	32.2	2 .03	24 .9	0.00	0.00	0.04	200
	200	ISL	8.23	8.21	33.898	26.377	167.5	0.527	3.27	49.4	32.3	2.03	24.9	0.00			201
2	230		7.94	7.94	33.959	26.466	159.6	0.576	3.13	47.0	35.5	2.12	25.7	0.00			231
	250	ISL	7.68	7.66	33.984	26.526	154.1	0.607	2.97	44.3	39.0	2.18	27.0	0.00			251
2	269		7.42	7.39	34.004	26.580	149.2	0.636	2.76	40.9	42 .9	2 .27	28.5	0.00			270
	300	ISL	7.18	7.15	34.052	26.651	142.8	0.681	2.18	32.2	49.9	2.53	31 .1	0.00			302
2	319		7.04	7.01	34.076	26.690	139.4	0. 708	1 .82	26.8	54.4	2.69	32.7	0.00			321
2	378		6.14	6.11	34.083	26.815	127.7	0.787	1 .29	18.6	67.5	2.94	36.6	0.00			380
	400	ISL	6.03	6.00	34.105	26.846	125.0	0.815	1.11	15.9	70.5	3.01	37.4	0.00			402
2	437		5.93	5 .89	34.147	26.892	121 .0	0.860	0.84	12.0	74.8	3.11	38.3	0.00			440
	500	ISL	5.53	5.49	34.201	26.985	112.7	0.934	0.51	7.2	84.2	3.25	40.2	0.00			503
2	511		5.46	5.42	34.210	27.000	111.3	0.946	0.47	6.7	85.8	3.27	40.5	0.00			514
2	651		5.01	4.96	34.351	27.166	96.9	1 .092	0.24	3.4	99.2	3.44	42 .0	0.00			656
2	804		4.55	4.49	34.422	27.275	87.5	1 .232	0.31	4.3	109.5	3.49	43.0	0.00			810
2	913		4.15	4.08	34.460	27.348	80.9	1 .324	0.43	5.9	118.6	3.46	43 .4	0.00			920
2	1027		3.86	3.78	34.481	27.396	76.9	1.414	0.54	7.4	124.8	3.47	43.4	0.00			1035

RV NEU HORIZON | CALCOFI CRUISE 9408 | STATION 90 110

LATITUDE	LONGITUDE	DAY/NO/YR	CAST TIHE	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 45.4 Kl	123 20.1 W	09/08/94	0704 UTC	4026 m	360 12 kn			1014 .9 mb	17.6 C	16.5 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/L	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.47	17.47	33.214	24.034	386.8	0.000	5.60	102 .3	4. 1	0.40	0. 1	0.00	0.13	0.04	0
2	1		17.47	17.47	33.214	24.034	386.9	0.004	5 .60	102.3	4. 1	0.40	0. 1	0.00	0.13	0.04	1
	10	ISL	17.47	17.47	33.214	24.034	387. 1	0.039	5.61	102.4	4.1	0.39	0. 1	0.00	0.13	0.03	10
2	15		17.47	17.47	33.214	24.034	387.3	0.058	5.61	102.4	4. 1	0.39	0.1	0.00	0.13	0.03	15
	20	ISL	17.47	17.47	33.214	24.034	387.4	0.077	5.61	102.4	4.0	0.39	0.1	0.00	0.13	0.03	20
	30	ISL	17.46	17.45	33.214	24.037	387.5	0.116	5 .61	102.4	3.9	0.38	0.1	0.00	0.13	0.03	30
2	31		17.46	17.45	33.214	24.037	387.6	0.120	5.61	102 .4	3.9	0.38	0. 1	0.00	0.13	0.03	31
2	46		17.17	17.16	33.300	24.172	375. 1	0.177	5 .66	102.8	3.9	0.36	0.1	0.00	0.18	0.05	46
	50	ISL	17.10	17.09	33.339	24.219	370.8	0.192	5 .67	102 .8	3.9	0.35	0.1	0.00	0.17	0.05	50
2	54		17.02	17.01	33.374	24.265	366.6	0.207	5.67	102 .7	3.9	0.34	0. 1	0.00	0.17	0.05	54
2	64		16.76	16.75	33.403	24.348	358.9	0.243	5 .69	102.6	3.9	0.33	0.1	0.00	0.22	0.08	64
2	74		16.01	16.00	33.395	24.515	343.4	0.278	5.82	103.4	3.8	0.33	0.0	0.01	0.30	0.17	74
	75	ISL	15.91	15.90	33.380	24.526	342.3	0.282	5 .83	103.3	3.8	0.33	0.0	0.01	0.31	0.18	75
2	85		15.13	15.12	33.284	24.625	333.1	0.316	5 .90	102.9	3.9	0.36	0.1	0.03	0.36	0.25	85
2	95		15.10	15.09	33.478	24.781	318.5	0.348	5.77	100.7	3.8	0.34	0.0	0.29	0.32	0.30	95
	100	ISL	14 .84	14.83	33.471	24.832	313.8	0.364	5.72	99.3	4.0	0.37	0.4	0.24	0.30	0.30	100
2	11 1		13.98	13.96	33.400	24.959	301 .8	0.398	5.55	94 .6	5 .0	0.50	2 .0	0.04	0.25	0.25	111
2	124		12.85	12 .83	33.447	25.223	276.8	0.435	5.17	86. 1	7.0	0.68	5.2	0.01	0.17	0.18	124
	125	ISL	12 .79	12 .77	33.447	25.235	275.7	0.438	5.15	85.7	7. 1	0.69	5.4	0.01	0.17	0.18	12S
2	145		11.64	11.62	33.436	25 .446	255.9	0.491	4.77	77.4	10.5	0.99	10.0	0.00	0.12	0.14	146
	1 50	ISL	11.27	11.25	33.454	25.527	248.2	0. 504	4.67	75 .2	11.9	1 .08	11.4	0.00	0.10	0.12	151
2	169		9.92	9.90	33.555	25.841	218.4	0.548	4.31	67.4	17.6	1 .39	16.7	0.00	0.03	0 .05	170
2	200		8.69	8.67	33.709	26.159	188.4	0.611	3.77	57.4	26.1	1 .76	22.3	0.00	0.00	0.03	201
2	226		8.36	8.34	33.838	26.311	174.3	0.658	3.35	50.7	31 .4	1 .94	25.0	0.00			227
	250	ISL	8.02	7.99	33.928	26.433	163.1	0.699	3.17	47.6	35 .9	2 .04	26.5	0.00			251
2	269		7.74	7.71	33.979	26.514	155.6	0.729	3.05	45 .6	39.6	2.11	27.5	0.00			270
	300	ISL	7.26	7.23	34.013	26.609	146.8	0.776	2 .62	38.7	46.7	2 .30	30. 1	0.00			302
2	316		7.03	7.00	34.021	26.648	143.3	0.799	2 .37	34.8	50.6	2.41	31 .5	0.00			318
2	378		6.36	6.33	34.082	26.786	130.7	0.884	1 .40	20.3	65 .9	2.82	36.4	0.00			380
	400	ISL	6.17	6.13	34.096	26.821	127.4	0.913	1.21	17.4	69.7	2 .91	37. 5	0.00			402
2	436		5.93	5.89	34.121	26.872	122.9	0.958	0.99	14.2	75.0	3.02	38.7	0.00			439
	500	ISL	5.74	5.70	34.200	26.958	115.4	1 .034	0.58	8.3	83.2	3.19	40.2	0.00			503
2	509		5 .71	5 .67	34.211	26.971	114.4	1 .044	0.52	7.4	84.3	3.21	40.4	0.00			512

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 90 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
20 25.5 N	124 0.2 U	09/08/94	0113 UTC	3979 in	350 15 kn	360 06 05	1	1014 . 0 mb	18.2 C	17.0 C	22m 01	6/8	SC

CAST	DEPTH in		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGNA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uH/ I	P04 uM/ I	N03 uM/ I	N02 uH/ I	CHL-A ug/ I	PHAEO ug/t	PRESS db
	0	ISL	18.16	18.16	33.257	23.900	399.6	0.000	5.54	102 . 5	4.3	0.36	0.0	0.00	0.10	0.02	0
2	2		18.16	18.16	33.257	23.900	399.7	0.008	5.54	102.5	4 .3	0.36	0.0	0.00	0.10	0.02	2
	10	ISL	18.14	18.14	33.256	23.904	399.5	0.040	5.54	102.5	4.3	0.36	0.0	0.00	0.10	0.03	10
2	17		18.13	18.13	33.255	23.906	399.6	0.068	5.54	102.5	4.2	0.35	0.0	0.00	0.10	0.04	17
	20	ISL	18.10	18.10	33.248	23.908	399.5	0.080	5.54	102 .4	4.2	0.35	0.0	0.00	0.10	0.04	20
2	30		18.00	17.99	33.251	23.935	397.3	0.120	5 .55	102.4	4. 1	0.35	0.0	0.00	0.12	0.03	30
2	43		17.96	17.95	33.375	24.040	387.7	0.171	5.58	102.9	4.0	0.34	0.0	0.00	0.12	0.03	43
	50	ISL	17.96	17.95	33.502	24.138	378.6	0.198	5.59	103.2	3.9	0.32	0.0	0.00	0.12	0.03	50
2	58		17.95	17.94	33.673	24.272	366.2	0.227	5.60	103.5	3.7	0.30	0.0	0.00	0.12	0.04	58
2	75		16.93	16.92	33.747	24.573	338.0	0.287	5.74	104.0	3.7	0.27	0.0	0.00	0.14	0.05	75
2	85		16.35	16.34	33.709	24.679	328.1	0.321	5.77	103.4	3.7	0.27	0.0	0.00	0.16	0.06	85
2	94		16.20	16.19	33.759	24.752	321 .5	0.350	5.74	102.5	3.7	0.26	0.0	0.00	0.19	0.08	94
	100	ISL	16.19	16.17	33.837	24.814	315.7	0.369	5.70	101.9	3.7	0.25	0.0	0 .00	0.20	0.11	100
2	106		16.18	16.16	33.907	24.871	310.6	0.388	5.67	101.3	3.7	0.25	0.0	0.00	0.20	0.15	106
2	115		16.09	16.07	33.932	24.911	307.0	0.415	5.66	101.0	3.7	0.25	0.0	0.00	0.22	0.20	115
2	123		15.85	15.83	33.968	24.993	299.4	0.440	5.57	98.9	3.7	0.26	0.0	0.01	0.24	0.26	123
	125	ISL	15.77	15.75	33.967	25.010	297.8	0.446	5.55	98.4	3.7	0.27	0.0	0.03	0.24	0.26	125
2	137		15.15	15.13	33.921	25.113	288.3	0.481	5 .42	94.9	4 . 1	0.33	0.8	0.17	0.22	0.23	138
	150	ISL	14.19	14.17	33.808	25.232	277.2	0.518	5 .24	89.9	5.2	0.48	2 .8	0.12	0.18	0.19	151
2	162		13.19	13.17	33.703	25.355	265.4	0.550	5.06	85.0	6.9	0.65	5 .4	0.02	0.14	0.15	163
2	194		10.61	10.59	33.626	25.779	225.1	0.629	4.58	72.8	13.9	1.18	13.4	0.01	0.04	0.05	195
	200	ISL	10.25	10.23	33.637	25.850	218.4	0.642	4.48	70.6	15.5	1 .27	14.8	0.01			201
2	229		8.93	8.91	33.738	26.145	190.4	0.701	4.02	61 .6	23.4	1 .64	20.4	0.00			230
	250	ISL	8.44	8.41	33.837	26.299	176.0	0.740	3.81	57.8	27.9	1 .79	22.7	0.00			251
2	268		8.18	8.15	33.915	26.399	166.7	0.771	3.62	54 .6	31 .6	1 . 89	24.2	0.00			269
	300	ISL	7.75	7.72	33.990	26.522	155.4	0.822	3.04	45 .4	39.3	2.13	27.5	0.00			302
2	320		7.52	7.49	34.017	26.576	150.4	0.853	2 .64	39.2	44.2	2.28	29.5	0 .00			322
2	379		6.75	6.72	34.071	26.726	136.7	0.937	1 .72	25. 1	58.2	2 .69	34.3	0 .00			381
	400	ISL	6.54	6.50	34.090	26.769	132.7	0.966	1 .47	21.4	62.4	2.80	35.6	0.00			402
2	439		6.21	6.17	34.123	26.838	126.5	1.016	1 .09	15.7	69.7	2.97	37.6	0.00			442
	500	ISL	5.74	5.70	34.174	26.938	117.4	1 .091	0.69	9.8	80.0	3.17	39.8	0.00			503
2	514		5.63	5.59	34.186	26.961	115.3	1 .107	0.60	8.5	82.4	3.21	40 .3	0.00			517

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 93 26.7

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 157.2 N	117 18.2 W	05/08/94	2340 UTC	63 m	300 06 kn	330 02 04	2	1013 .3 mb	20.0 C	19.3 C	16m 03	8/8	ST

CAST	DEPTH m		TEMP DEG C	POT TENP DEG C	SALINITY	SIGNA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 UN/ L	P04 uM/ I	N03 UN/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	21 .70	21 .70	33.531	23.187	467.7	0.000	5 .56	110.1	4.0	0.31	0.1	0 .00	0.26	0.08	0
2	1		21 .70	21 .70	33.531	23.187	467.7	0.005	5.56	110.1	4.0	0.31	0.1	0.00	0.26	0.08	1
2	6		20.41	20.41	33.455	23.477	440. 1	0.027	5.90	114.0	3.7	0.33	0.1	0.00	0.24	0.10	6
	10	ISL	17.92	17.92	33.405	24.072	383.5	0.044	6.16	113.6	4 .0	0.37	0.0	0.00	0.26	0.09	10
2	11		17.24	17.24	33.402	24.233	368.2	0.048	6.21	113.0	4. 1	0.39	0.0	0.00	0.26	0.09	11
2	20		13.35	13.35	33.378	25.068	288.9	0.077	6.06	102 .0	7.7	0.60	2 .4	0.08	1 .49	0. 78	20
2	30		12.03	12.03	33.371	25.320	265.1	0.105	4.70	76.9	11.8	1.18	10.3	0.58	0.74	0. 67	30
2	40		11.57	11.56	33.459	25.474	250.7	0.131	4.41	71 .5	12.6	1 .20	12.3	0.25	0.42	0. 44	40
	50	ISL	11 .30	11.29	33.486	25.544	244.2	0.155	4.06	65.5	15.1	1 .34	14.0	0.47	0.27	0.41	50
2	52		11.25	11.24	33.492	25.558	242.9	0.160	3.99	64.3	15.6	1 .37	14.4	0.51	0.24	0. 40	52

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 93 28

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTON	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.2 N	117 23.3 W	06/08/94	0152 UTC	548 m	190 08 kn	360 03 05	1	1011 .2 mb	21.0 C	20.0 C	16m 03	6/8	ST

CAST	DEPTH ID		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ I	P04 UN/ I	N03 UN/ L	N02 uH/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	21.51	21.51	33.530	23.238	462 .8	0.000	5 .48	108.1	3.8	0.31	0. 1	0.00	0.19	0.05	0
2	2		21.51	21.51	33.530	23.238	462 .8	0.009	5 .48	108.1	3.8	0.31	0. 1	0.00	0.19	0.05	2
2	10		18.15	18.15	33.418	24.026	388.0	0.043	5 .93	109.8	3 . 1	0.38	0. 1	0.00	0.20	0.07	10
2	19		14.80	14.80	33.377	24.765	317.7	0.075	6.04	104.7	4.3	0.51	1 .3	0.08	0.34	0.16	19
	20	ISL	14.56	14.56	33.378	24.818	312.7	0.078	6.00	103.5	4 .6	0.53	1 . 6	0.10	0. 40	0.20	20
2	29		13.04	13.04	33.393	25.142	282 .1	0.105	5 .46	91.3	7.8	0.75	4 .9	0.29	0 .83	0.53	29
	30	ISL	12 .94	12.94	33.395	25.163	280. 1	0. 108	5 .40	90. 1	8.0	0.77	5 .2	0.31	0.82	0. 54	30
2	39		12.19	12.18	33.416	25.325	264.9	0.132	4 .86	79.8	10.3	0.98	8.3	0.44	0.69	0.63	39
2	50		11.19	11.18	33.472	25.553	243.3	0. 160	4.21	67.7	14.6	1.27	13.8	0.18	0.31	0.34	50
2	60		10.90	10.89	33.545	25.662	233.2	0.184	3.80	60.8	17.7	1 .44	16.1	0.10	0.18	0.29	60
2	69		10.80	10.79	33.564	25.695	230.3	0.205	3.68	58.7	18.4	1 .50	17.1	0.11	0.14	0.25	69
	75	ISL	10.67	10.66	33.579	25.729	227. 1	0.219	3 . 58	57.0	19.2	1 .54	17.9	0.14	0.11	0.22	75
2	84		10.45	10.44	33.608	25.790	221 .5	0.239	3.44	54.5	20.6	1 .61	19.0	0.16	0. 07	0.17	84
2	99		10.16	10.15	33 .679	25.896	211.8	0.271	3.25	51 .2	22.6	1 . 72	20.4	0.02	0.04	0.13	99
	100	ISL	10.15	10.14	33.681	25.899	211.5	0.273	3.25	51.2	22.7	1 .72	20. 4	0.02	0.04	0.13	100
2	118		9.93	9.92	33.694	25.947	207.3	0.311	3.26	51.1	23.3	1 .75	21 . 1	0.02	0.05	0.16	119
	125	ISL	9.83	9.82	33.699	25.967	205.5	0.326	3.23	50.5	23.7	1 .77	21.4	0.02	0.05	0.15	126
2	140		9.64	9.62	33.725	26.019	200.8	0.356	3.17	49.4	24 .9	1 .83	22 .2	0.01	0.04	0.12	141
	150	ISL	9.64	9.62	33.774	26.058	197.4	0.376	2 .97	46.3	26.1	1 .90	22 .9	0.01	0. 03	0.11	151
2	168		9.63	9.61	33.869	26.134	190. 5	0.411	2 . 59	40.3	28.3	2.02	24 . 3	0.01	0.02	0.09	169
2	197		9. 50	9.48	33.995	26.254	179.7	0.465	2 .38	37.0	31.1	2.11	25.7	0.01	0.01	0.09	198
	200	ISL	9.49	9 .47	34.008	26.266	178.6	0.470	2 .34	36.4	31.4	2.12	25.9	0.01			201
2	227		9 .35	9. 32	34.102	26.363	170.0	0.517	2 .03	31.5	34.3	2.24	27.2	0.01			228
	250	ISL	9.06	9.03	34.101	26.409	165.9	0.556	2.13	32.8	35.5	2 .24	27.6	0.02			251
2	269		8.83	8.80	34.092	26.439	163.4	0.587	2.21	33.9	36. 5	2.25	27.8	0.02			271
	300	ISL	8.74	8.71	34.170	26.515	156.8	0.637	1 . 79	27.4	40 .6	2 .42	29.2	0.01			302
2	318		8.69	8.66	34.220	26. 562	152.7	0.664	1 .48	22 .6	43 . 5	2.53	30.2	0.01			320
2	377		7.95	7.91	34.249	26.697	140.4	0.751	1 .07	16.1	52 .3	2 . 73	32 .8	0. 00			379
	400	ISL	7.72	7.68	34.258	26.738	136.7	0. 783	0.92	13.8	55.7	2 .81	33 . 7	0.00			403
2	437		7.39	7.35	34.270	26. 796	131.7	0.832	0.72	10.7	61.0	2 .92	35 .0	0.01			440
	500	ISL	6.86	6.81	34 .285	26.881	124.1	0.913	0.54	7 .9	68 .9	3 .05	36. 9	0.01			503
2	513		6.75	6.70	34.288	26.899	122.5	0.929	0.50	7.3	70. 5	3.08	37.3	0.01			516

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 93 30

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WE*I	BAROMETER	DRY	WET	SECCHI/FOREL	CLD ANT	TYPE
32 50.6 N1	117 32 . 1 W	06/08/94	0449 UTC	863 HI	220 04 kn			1011 .9 mb	20.8 C	19.5 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uH/ l	P04 UH/ l	N03 uM/ l	N02 UN/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	21.10	21.10	33.526	23.346	452.4	0.000	5 .44	106.5	5.2	0.36	0.0	0.01	0.18	0.06	0
2	2		21.10	21.10	33.526	23.347	452.5	0.009	5 .44	106.5	5.2	0.36	0.0	0.01	0.18	0.06	2
2	10		18.02	18.02	33.464	24.093	381 .6	0.042	5 .60	103.5	5.6	0.35	0.0	0.01	0.17	0.05	10
2	20		14.84	14.84	33.375	24.755	318.7	0.077	6.36	110.3	6.6	0.42	0.0	0.02	0.52	0.22	20
2	30		13.73	13.73	33.385	24.996	296.0	0.108	6.28	106.5	8.8	0.44	0.0	0.02	1 .89	0.76	30
2	40		12.85	12.84	33.404	25.188	278.0	0.137	5.39	89.8	11.0	0.69	2.5	0.19	1 .93	0.75	40
2	50		11 .97	11 .96	33.419	25 .369	261 .0	0. 164	4.74	77.5	12.7	1 .02	8.8	0.25	0.50	0.45	50
2	60		11.29	11.28	33.440	25.511	247.6	0.189	4.45	71 .7	14.5	1.19	12.4	0.07	0.25	0.28	60
2	69		10.98	10.97	33.467	25.587	240.5	0.211	4.26	68.2	16.2	1 .29	14.2	0.04	0.22	0.25	69
	75	ISL	10.78	10.77	33.476	25.630	236.6	0.226	4.18	66.6	17.0	1 .34	15.1	0.04	0.18	0.22	75
2	84		10.51	10.50	33.503	25.698	230.3	0.247	4.04	64.0	18.3	1 .43	16.3	0.03	0.12	0.17	84
2	99		10.13	10.12	33.634	25.866	214.6	0.280	3.53	55.5	22.3	1 .64	19.3	0.03	0.06	0.13	99
	100	ISL	10.12	10.11	33.641	25.873	214.0	0.282	3.50	55.0	22.5	1 .65	19.4	0.03	0.06	0.13	100
2	119		9.98	9.97	33.755	25.986	203.6	0.322	3.03	47.5	25.8	1 .82	21.7	0.01	0.03	0.09	120
	125	ISL	9.98	9.97	33.782	26.007	201 .8	0.334	2.85	44.7	26.9	1 .89	22.3	0.01	0.03	0.09	126
2	138		9.97	9.95	33.833	26.049	198.1	0.360	2.53	39.7	29.0	2.01	23.5	0.02	0.02	0.09	139
	150	ISL	9.83	9.81	33.867	26.099	193.5	0.383	2.52	39.4	29.8	2.05	24.1	0.02	0.02	0.08	151
2	169		9.57	9.55	33.920	26.184	185.8	0.419	2.50	38.9	30.7	2.07	24.8	0.01	0.01	0.07	170
2	197		9.46	9.44	34.036	26.293	176.0	0.470	2.09	32.5	34.0	2.22	26.6	0.01	0.01	0.06	198
	200	ISL	9.43	9.41	34.047	26.307	174.8	0.475	2.07	32. 1	34.3	2.23	26.7	0.01			201
2	228		9.17	9.14	34.132	26.416	164.9	0.523	1 .92	29.7	37.4	2.33	28.0	0.01			229
	250	ISL	9.02	8.99	34.182	26.479	159.3	0.559	1 .70	26.2	39.9	2.43	29.1	0.01			251
2	266		8.93	8.90	34.209	26.515	156.2	0.584	1 .54	23.7	41 .7	2.50	29.8	0.01			268
	300	ISL	8.71	8.68	34.244	26.577	150.9	0.636	1 .36	20.8	44 .5	2.59	30.7	0.00			302
2	316		8.60	8.57	34.252	26.601	148.9	0.660	1 .30	19.8	45.8	2 .62	31 .0	0.00			318
2	378		8.04	8.00	34.261	26.693	140.9	0.750	1 .02	15.4	52 .4	2 .78	33.0	0.00			380
	400	ISL	7.79	7.75	34.263	26.732	137.4	0.780	0.92	13.8	55.4	2 .85	33.9	0.00			403
2	438		7.35	7.31	34.267	26.799	131.3	0.831	0.75	11.1	60.7	2 .96	35.4	0.00			441
	500	ISL	6.78	6.73	34.278	26.887	123.5	0.910	0.55	8.0	68.7	3.09	37.6	0.00			503
2	518		6.61	6.56	34.282	26.913	121.1	0.932	0.49	7.1	71 .0	3.13	38.3	0.00			522

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 93 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 40.8 til	117 52.7 W	06/08/94	0848 UTC	609 m	210 04 kn			1012 .0 mb	19.8 C	18.9 C			

CAST	DEPTH in		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml,/l	OXY PCT	SI03 uM/l	P04 UN/ l	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	19.93	19.93	33.503	23.640	424.4	0.000	5 .63	107.9	6.4	0.30	0.0	0.00	0.35	0.09	0
2	2		19.93	19.93	33.503	23.640	424.5	0.008	5.63	107.9	6.4	0.30	0.0	0.00	0.35	0.09	2
2	10		16.53	16.53	33.431	24.421	350.2	0.039	6.41	115.1	7.2	0.30	0.0	0.00	0.61	0.17	10
	20	ISL	13.91	13.91	33.417	24.984	296.9	0.072	6.47	110.2	9.3	0.39	0.0	0.00	1 .43	0.46	20
2	21		13.73	13.73	33.416	25.020	293.4	0.075	6.48	109.9	9.6	0.40	0.0	0.00	1 .52	0.50	21
2	30		12.47	12.47	33.435	25.286	268.4	0.100	4 .95	81.8	11.6	0.86	4 .8	0.26	2.12	0.88	30
2	40		11 .98	11 .97	33.449	25.390	258.7	0.126	4.63	75.7	13.2	1 .02	8.7	0.42	0.86	0.53	40
2	50		10.89	10.88	33.511	25.637	235.3	0.151	4.01	64.1	17.9	1 .38	15.8	0.06	0.16	0.27	50
2	60		10.62	10.61	33.542	25.709	228.7	0.174	3.86	61 .3	18.9	1 .46	16.7	0.03	0.12	0.21	60
2	70		10.35	10.34	33.597	25.799	220.4	0.197	3.66	57.8	20.8	1 .56	18.4	0.03	0. 08	0.18	70
	75	ISL	10.19	10.18	33.611	25.837	216.8	0.208	3.64	57.3	21.5	1 .60	19.0	0.03	0.06	0.16	75
2	85		9.87	9.86	33.631	25.907	210.4	0.229	3.60	56.3	22.6	1 .65	19.8	0.03	0.03	0.12	85
2	100		9.42	9.41	33.675	26.016	200.3	0.260	3.60	55.8	24.0	1 .72	21 .0	0.02	0.02	0.08	101
2	120		9.04	9.03	33.787	26.164	186.5	0.299	3.29	50.6	27.7	1 .86	23.4	0.01	0.01	0.05	121
	125	ISL	9.07	9.06	33.824	26.189	184.3	0.308	3.20	49.2	28.4	1 .89	23.8	0.01	0.01	0.05	126
2	140		9.15	9.13	33.915	26.247	179.1	0.335	2.88	44 .4	30.3	1 .99	24.7	0.01	0.01	0.07	141
	150	ISL	9.30	9.28	33.989	26.281	176.1	0.353	2.55	39.5	31 .8	2.09	25.5	0.01	0.01	0.07	151
2	169		9.55	9.53	34.103	26.330	172.0	0.386	2.01	31 .3	34.2	2.25	26.9	0.01	0.01	0.06	170
2	200		9.46	9.44	34.124	26.362	169.6	0.439	1 .95	30.3	35.0	2.29	27.3	0.01	0.01	0.05	201
2	229		9.03	9.01	34.107	26.418	164.6	0.487	2 .08	32.0	36. 5	2.28	27.7	0.01			230
	250	ISL	8.99	8.96	34.140	26.451	162.0	0.522	1 .96	30. 1	37.6	2.33	28. 1	0.01			251
2	270		8.96	8.93	34.182	26.489	158.8	0.554	1 .77	27.2	39.2	2 .40	28.7	0.01			272
	300	ISL	8.54	8.51	34.224	26.588	149.7	0.600	1 .46	22.2	44. 5	2.56	30.5	0.01			302
2	319		8.22	8.19	34.245	26.653	143.7	0.628	1 .26	19.1	48.3	2 .66	31 .8	0.01			321
2	379		7.51	7.47	34.263	26.772	133.0	0.711	0.83	12.4	57.4	2 .89	34 .7	0.00			381
	400	ISL	7.37	7.33	34.266	26.795	131.1	0.739	0.76	11.3	59. 1	2 .93	35 .3	0.00			403
2	437		7.15	7.11	34.271	26.830	128.2	0.787	0.67	9.9	61 .9	2 .98	36. 1	0.00			440
	500	ISL	6.52	6.47	34.301	26.939	118.2	0.864	0.42	6. 1	70.9	3.14	38.3	0.00			503
2	516		6.36	6.31	34.310	26.967	115.6	0.883	0.36	5.2	73.2	3.18	38.9	0.00			520

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 40

TITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WE'	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30.6 N	118 13.2 W	06/08/94	1256 UTC	1616 m	270 07 kn			101 1.7 mb	18.5 C	17.7 C	17m 02		

CAST	DEPTH in		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/L	PRESS db
	0	ISL	20.16	20.16	33.491	23.570	431 .0	0.000	5.48	105.5	4.3	0.34	0.1	0.01	0.21	0.06	0
	1	A,B	20.16	20.16	33.491	23.570	431 . 1	0.004	5.48	105.5	4.3	0.34	0 . 1	0.01	0.21	0.06	1
	10	ISL	19.04	19.04	33.453	23.831	406.6	0.042	5.89	111.0	4.5	0.33	0.0	0.00	0.33	0.09	10
	11		18.79	18.79	33.445	23.888	401 .2	0.046	5.96	111.8	4.5	0.33	0.0	0.00	0.35	0.10	11
	20	ISL	15.30	15.30	33.364	24.647	329.0	0.079	6.35	111.2	5.0	0.37	0 . 1	0.00	0.37	0.15	20
	21		14.93	14.93	33.364	24.727	321 .3	0.082	6.37	110.7	5. 1	0.38	0 . 1	0.00	0.37	0.15	21
	30	ISL	14.37	14.37	33.377	24.857	309.2	0.111	6.11	105.0	5.4	0.46	0.7	0.06	1 .20	0.41	30
	31		14.31	14.31	33.379	24.871	307.9	0.114	6.05	103.8	5.4	0.47	0.8	0.07	1 .27	0.44	31
	41		13.33	13.32	33.376	25.071	289.2	0.143	5.37	90.3	7.4	0.73	5.0	0.46	0.50	0.40	41
	50		12.85	12.84	33.378	25.168	280.1	0.169			8.7	0.84	6.7	0.34	0.49	0.44	50
	61		12.08	12.07	33.397	25.331	264.8	0. 199	4.81	78.8	10.9	0.97	9.6	0.16	0.42	0. 37	61
	70		11 .33	11 .32	33.442	25.505	248.4	0.222	4.39	70.8	14.1	1.19	13.3	0.12	0.34	0.33	70
	75	ISL	11 .03	11 .02	33.481	25.589	240.5	0.234	4.16	66.7	15.9	1 .30	15.0	0.08	0.28	0.29	75
	85		10.57	10.56	33.559	25.731	227.1	0.258	3.78	60.0	19.2	1 .47	17.6	0.02	0.16	0.20	85
	100		9.95	9.94	33.634	25.896	211.7	0.291	3.61	56.6	21.9	1 .62	20.0	0.01	0.04	0.10	100
	121		9.68	9.67	33.759	26.039	198.6	0.334	3.24	50.5	25.3	1 .78	22 .3	0.01	0.02	0.06	122
	125	ISL	9.62	9.61	33.781	26.066	196.1	0.342	3.18	49.5	25.9	1.81	22 .7	0.01	0.02	0.06	126
	HI		9.42	9.40	33.869	26.168	186.7	0.372	2.95	45.7	28.5	1 .91	24.2	0.01	0.01	0.06	142
	150	ISL	9.42	9.40	33.925	26.212	182.7	0.389	2.74	42 .5	30.0	1 .98	25.0	0.01	0.01	0.06	151
	171		9.40	9.38	34.037	26.303	174.5	0.426	2.33	36.2	33.4	2.13	26.6	0.00	0.00	0.06	172
	198		8.94	8.92	34.092	26.420	163.8	0.472	2.31	35.5	36.8	2.18	27.9	0.01	0.00	0.05	199
	200	ISL	8.91	8.89	34.096	26.428	163.1	0.475	2.30	35.3	37. 1	2.19	28.0	0.01			201
	229		8.57	8.55	34.137	26.514	155.4	0.521	2.06	31 .4	41 .3	2.32	29.5	0.01			230
	250	ISL	8.32	8.29	34.147	26.560	151.3	0.554	1 .91	28.9	44.2	2.39	30.5	0.00			251
	269		8.15	8.12	34.158	26.595	148.3	0.582	1 .76	26.6	46.6	2.45	31 .4	0.00			271
	300	ISL	8.14	8.11	34.221	26.646	144.0	0.627	1 .37	20.7	50. 1	2 . 59	32 .5	0.00			302
	318		8.13	8.10	34.257	26.676	141.5	0.653	1.14	17.2	52. 1	2 .68	33.1	0.00			320
	378		7.58	7. 54	34.293	26.786	131.8	0.735	0.75	11.2	60.6	2 .90	35.4	0.00			380
	400	ISL	7.34	7.30	34.293	26.820	128.7	0.764	0.65	9.6	63.6	2.96	36.3	0.00			403
	438		6.93	6.89	34.289	26.874	123.8	0.812	0.53	7.8	68.6	3.03	37.7	0.00			441
	500	ISL	6.35	6.30	34.292	26.954	116.6	0.886	0.41	5.9	77. 1	3.12	39. 8	0.00			503
	513		6.24	6.19	34.294	26.970	115.1	0.901	0.39	5.6	78.8	3.14	40.2	0.00			516
	794		4 . 86	4 .80	34.416	27.236	91 .7	1 .189	0.28	3.9	105.6	3.33	44 .0	0.00			800
	1090		3 .94	3.86	34.491	27.396	77.6	1 .438	0.51	7.0	128.2	3.33	44 .6	0.00			1099
	1292		3.40	3.30	34.533	27.484	69.6	1 .587	0.79	10.7	136.8	3.29	44 . 1	0.00			1304
	1397		3.11	3.01	34.554	27.528	65.3	1 .658	0.95	12.7	146.6	3.26	43.6	0.00			1410

A) SAN CLEMENTE BASIN STATION.
B) SAMPLE TAKEN FROM SEPARATE HYDROUIRE NISKIN CAST.

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 20.7 N	118 36.0 W	06/08/94	1858 UTC	1674 in	260 04 kn	280 03 05	1	1013 . 9 mb	19.5 C	18.2 c	24m 01	5/8	CC

CAST	DEPTH il		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ L	PHAEO ug/ I	PRESS db
2	0	A	19.37	19.37	33.497	23.780	411.1	0.000	5.49	104.1	4 .6	0.40	0.0	0.02	0.18	0.05	0
	10	ISL	18.67	18.67	33.499	23.959	394 .3	0.040	5.53	103.5	4.5	0.41	0.0	0.02	0.19	0.05	10
2	14	A	18.39	18.39	33.501	24.030	387.7	0.056	5.55	103.3	4.5	0.42	0.0	0.02	0.20	0.05	14
2	19		18.13	18.13	33.494	24 .089	382 .2	0.075	5.71	105.8	4.3	0.42	0.0	0.02	0.33	0.09	19
	20	ISL	17.98	17.98	33.493	24.125	378.8	0.079	5.76	106.4	4.3	0. 42	0 . 1	0.02	0.37	0.10	20
2	30	A	15.80	15.80	33.453	24.605	333.4	0.115	6.07	107.4	4.4	0.50	0.6	0.06	0. 69	0.20	30
2	38		13.89	13.88	33.362	24.946	301 .0	0.140	5 .92	100.7	5.0	0.68	3. 1	0.23	0.62	0.30	38
2	47	A	12.96	12.95	33.391	25.156	281 .2	0.166	5.24	87.5	9.6	0.96	7.5	0.79	0. 59	0.46	47
	50	ISL	12.58	12.57	33.405	25.242	273.1	0.174	5.10	84.5	10.7	1 .03	8.9	0.64	0.48	0.41	50
2	54		12.12	12.11	33.421	25 .342	263.6	0.185	4.94	81 .0	11.8	1.10	10.5	0.36	0.32	0. 33	54
2	61	A	11.66	11.65	33.423	25.430	255.4	0.203	4.68	76.0	13.2	1 .20	12.3	0.08	0.23	0.27	61
2	74		10.70	10.69	33.457	25.629	236.6	0.235	4.27	67.9	16.5	1 .36	15.2	0.03	0.12	0.19	74
	75	ISL	10.65	10.64	33.462	25.642	235.4	0.238	4.24	67.4	16.8	1 .38	15.5	0.03	0.11	0.19	75
2	87	A	10.19	10.18	33.522	25.768	223.7	0.265	3.88	61.1	20.5	1.59	18.8	0.02	0.07	0.15	87
2	100		9.72	9 .71	33.556	25.873	213.8	0.294	3.75	58.4	22.3	1 .67	20.2	0.02	0 .04	0.10	100
2	119		8.93	8.92	33.749	26.152	187.6	0.332	3.28	50.3	28.2	1 .89	23.7	0. 01	0.01	0.06	120
	125	ISL	8. 84	8.83	33.783	26. 193	183.8	0. 343	3.16	48.3	29.5	1 . 94	24.4	0.01	0.01	0 .06	126
2	139		8.74	8.73	33.841	26.254	178.3	0.368	2 .93	44 .7	32.1	2 .02	25.6	0.01	0.01	0.05	140
	150	ISL	8. 66	8.64	33.895	26.309	173.3	0.388	2.77	42.2	33.8	2 .08	26.4	0.01	0.01	0.05	151
2	169		8.55	8.53	33.973	26.387	166.2	0.420	2.56	39.0	36.3	2.17	27.6	0.01	0.01	0.05	170
2	200		8. 36	8.34	34.026	26.458	159.9	0.470	2.36	35.8	39.4	2.25	28.8	0.00			201
2	228		7.97	7.95	34.071	26.552	151.4	0.514	2.13	32 .0	43.9	2 .37	30. 1	0.01			229
	250	ISL	7.68	7.66	34.104	26.621	145.1	0.547	1 .87	27.9	48.2	2 . 48	31 .6	0.01			251
2	268		7.45	7.42	34.127	26.672	140.5	0.572	1 .66	24.7	51.8	2 . 57	32 .9	0.01			270
	300	ISL	7.09	7.06	34.147	26.739	134.5	0.616	1 .37	20.2	57.8	2.71	34.7	0.01			302
2	318		6.93	6.90	34.156	26.768	131.9	0.640	1.24	18.2	60. 7	2 . 78	35.5	0.01			320
2	378		6.76	6.72	34.208	26.832	126.6	0.718	0.92	13.5	65 .3	2 .92	36.8	0.00			380
	400	ISL	6.66	6.62	34.224	26.859	124.4	0.745	0.80	11.7	67.6	2 .97	37.3	0.00			403
2	437		6.47	6.43	34.250	26.905	120.4	0.791	0. 62	9 .0	71 .7	3 .04	38.2	0.00			440
	500	ISL	6.18	6.14	34.306	26.987	113.3	0.864	0.44	6.3	78.3	3.15	39.5	0.00			503
2	514		6.11	6.06	34.318	27.006	111.7	0.880	0.40	5.8	79.8	3.17	39. 8	0.00			518

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 10.7 N	118 53.5 W	06/08/94	2217 UTC	1463 m	270 04 kn	280 04 05	1	1013.2 mb	19.3 C	17.6 C	25m 03	7/8	ST

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.13	19.13	33.491	23.836	405.7	0.000	5.54	104.6	4.5	0.37	0.0	0.00	0.18	0.04	0
2	2		19.13	19.13	33.491	23.836	405.7	0.008	5.54	104.6	4.5	0.37	0.0	0.00	0.18	0.04	2
	10	ISL	18.31	18.31	33.487	24.039	386.7	0.040	5.58	103.7	4.6	0.38	0.0	0.00	0.21	0.06	10
2	11		18.17	18.17	33.487	24.073	383.4	0.044	5.58	103.4	4.6	0.38	0.0	0.00	0.21	0.06	11
2	20		17.55	17.55	33.480	24.219	369.9	0.078	5.76	105.5	3.9	0.38	0.0	0.01	0.49	0.15	20
	30	ISL	14.86	14.86	33.419	24.785	316.1	0.112	5.87	101.9	5.7	0.54	1.6	0.08	0.66	0.31	30
2	31		14.55	14.55	33.417	24.850	310.0	0.115	5.88	101.4	5.9	0.57	1.8	0.09	0.67	0.33	31
2	40		12.56	12.55	33.432	25.266	270.5	0.141	5.07	83.9	12.1	1.01	8.9	0.66	0.78	0.48	40
2	49		11.64	11.63	33.443	25.449	253.3	0.165	4.53	73.6	15.0	1.22	13.1	0.18	0.39	0.39	49
	50	ISL	11.54	11.53	33.446	25.469	251.3	0.167	4.48	72.6	15.4	1.24	13.5	0.15	0.36	0.37	50
2	60		10.72	10.71	33.477	25.641	235.2	0.192	4.13	65.8	18.6	1.41	16.4	0.02	0.19	0.22	60
2	70		10.37	10.36	33.505 D	25.724	227.5	0.215	3.97	62.7	19.7	1.50	17.7	0.02	0.15	0.21	70
	75	ISL	10.08	10.07	33.544	25.803	220.0	0.226	3.83	60.2	21.4	1.59	19.0	0.02	0.12	0.18	75
2	84		9.56	9.55	33.626	25.954	205.8	0.245	3.55	55.1	25.0	1.75	21.4	0.01	0.06	0.13	84
2	99		9.17	9.16	33.721	26.092	193.0	0.275	3.24	49.9	28.9	1.89	23.5	0.01	0.04	0.10	99
	100	ISL	9.15	9.14	33.728	26.100	192.2	0.277	3.22	49.6	29.1	1.90	23.6	0.01	0.04	0.10	100
2	119		8.80	8.79	33.842	26.245	178.7	0.312	2.92	44.7	32.7	2.03	25.6	0.01	0.01	0.06	120
	125	ISL	8.75	8.74	33.863	26.269	176.5	0.323	2.87	43.8	33.5	2.06	26.0	0.01	0.01	0.06	126
2	140		8.65	8.64	33.906	26.319	172.1	0.349	2.76	42.1	35.4	2.11	26.7	0.01	0.01	0.08	141
	150	ISL	8.58	8.56	33.941	26.357	168.6	0.366	2.66	40.5	36.8	2.15	27.2	0.01	0.01	0.08	151
2	169		8.42	8.40	34.001	26.429	162.2	0.397	2.45	37.2	39.6	2.23	28.3	0.00	0.01	0.07	170
2	200		8.03	8.01	34.055	26.531	153.0	0.446	2.19	32.9	44.8	2.36	30.0	0.00	0.01	0.05	201
2	228		7.83	7.81	34.108	26.602	146.6	0.488	1.86	27.9	49.2	2.50	31.7	0.01			229
	250	ISL	7.55	7.53	34.114	26.647	142.6	0.520	1.80	26.8	52.4	2.56	32.5	0.01			251
2	268		7.32	7.29	34.112	26.679	139.8	0.545	1.77	26.2	54.9	2.60	33.1	0.01			270
	300	ISL	7.12	7.09	34.128	26.719	136.3	0.590	1.51	22.3	59.0	2.71	34.4	0.00			302
2	318		7.05	7.02	34.142	26.740	134.6	0.614	1.33	19.6	61.3	2.78	35.2	0.00			320
2	377		6.72	6.69	34.208	26.838	126.1	0.691	0.84	12.3	69.1	3.00	37.2	0.00			379
	400	ISL	6.63	6.59	34.232	26.869	123.4	0.720	0.70	10.2	71.8	3.07	37.8	0.00			403
2	438		6.48	6.44	34.268	26.918	119.2	0.766	0.52	7.6	76.1	3.16	38.7	0.00			441
	500	ISL	6.12	6.08	34.317	27.004	111.7	0.837	0.32	4.6	83.8	3.28	40.1	0.00			503
2	513		6.04	5.99	34.327	27.022	110.1	0.852	0.28	4.0	85.4	3.30	40.4	0.00			517

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 10.7 N	119 14.5 W	07/08/94	0210 UTC	1614 m	280 10 kn	300 05 05	1	1011.6 mb	17.4 C	16.7 C	15m 02	5/8	ST

CAST	DEPTH in		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.16	18.16	33.478	24.069	383.5	0.000	5.67	105.1	3.5	0.42	0.0	0.00	0.28	0.08	0
2	2		18.16	18.16	33.478	24.069	383.6	0.008	5.67	105.1	3.5	0.42	0.0	0.00	0.28	0.08	2
2	10		17.69	17.69	33.477	24.183	373.0	0.038	5.70	104.7	3.4	0.41	0.0	0.00	0.25	0.08	10
2	20		14.61	14.61	33.419	24.839	310.7	0.072	6.05	104.5	4.8	0.60	2.2	0.14	0.74	0.27	20
	30	ISL	13.05	13.05	33.393	25.140	282.3	0.102	5.35	89.5	8.5	0.84	6.1	0.49	0.79	0.49	30
2	31		12.94	12.94	33.391	25.160	280.4	0.105	5.25	87.6	8.9	0.87	6.6	0.51	0.79	0.50	31
2	39		11.87	11.87	33.421	25.389	258.8	0.126	4.73	77.2	11.8	1.08	10.6	0.11	0.45	0.40	39
2	50		11.30	11.29	33.445	25.512	247.2	0.154	4.50	72.5	13.6	1.19	12.5	0.06	0.29	0.30	50
2	61		10.65	10.64	33.489	25.662	233.1	0.180	4.15	66.0	17.1	1.41	16.1	0.02	0.15	0.20	61
2	71		9.88	9.87	33.561	25.850	215.4	0.203	3.85	60.2	20.6	1.59	19.0	0.01	0.06	0.12	71
	75	ISL	9.65	9.64	33.594	25.914	209.4	0.211	3.77	58.7	21.9	1.65	19.9	0.01	0.04	0.10	75
2	85		9.23	9.22	33.669	26.041	197.5	0.232	3.59	55.4	24.8	1.77	21.7	0.01	0.02	0.08	85
2	96		9.01	9.00	33.722	26.118	190.4	0.253	3.39	52.0	27.0	1.86	23.1	0.01	0.01	0.05	96
	100	ISL	8.95	8.94	33.731	26.134	188.9	0.261	3.36	51.5	27.5	1.88	23.4	0.01	0.01	0.05	100
2-	120		8.75	8.74	33.808	26.226	180.5	0.298	3.16	48.3	30.1	1.96	24.7	0.00	0.01	0.06	121
	125	ISL	8.70	8.69	33.861	26.276	175.9	0.306	3.03	46.2	31.5	2.01	25.3	0.00	0.01	0.06	126
2.	139		8.60	8.59	34.012	26.410	163.5	0.330	2.62	39.9	35.4	2.15	27.0	0.00	0.00	0.06	140
	150	ISL	8.65	8.63	34.077	26.453	159.6	0.348	2.32	35.4	37.4	2.24	27.9	0.00	0.00	0.06	151
2	168		8.73	8.71	34.135	26.486	156.8	0.376	1.94	29.7	39.9	2.35	29.0	0.01	0.01	0.05	169
2	199		8.37	8.35	34.165	26.566	149.8	0.424	1.73	26.2	44.3	2.48	30.4	0.03	0.00	0.05	200
	200	ISL	8.36	8.34	34.166	26.568	149.6	0.425	1.72	26.1	44.5	2.48	30.4	0.03			201
2	230		8.05	8.03	34.189	26.633	143.8	0.469	1.48	22.3	49.1	2.60	31.9	0.01			231
	250	ISL	7.81	7.79	34.192	26.671	140.5	0.498	1.38	20.7	52.0	2.66	32.7	0.01			251
2	268		7.62	7.59	34.196	26.702	137.8	0.523	1.29	19.2	54.4	2.72	33.4	0.01			270
	300	ISL	7.43	7.40	34.229	26.756	133.1	0.566	1.01	15.0	58.4	2.85	34.5	0.01			302
2	320		7.34	7.31	34.250	26.785	130.6	0.593	0.84	12.5	60.6	2.92	35.2	0.01			322
2	379		6.98	6.94	34.264	26.847	125.5	0.668	0.66	9.7	66.2	3.02	36.8	0.00			381
	400	ISL	6.77	6.73	34.273	26.883	122.2	0.694	0.57	8.3	69.7	3.07	37.6	0.00			401
2	438		6.38	6.34	34.293	26.950	116.1	0.740	0.42	6.1	76.2	3.17	39.0	0.01			441
	500	ISL	6.01	5.97	34.325	27.024	109.7	0.809	0.31	4.5	83.2	3.24	40.3	0.01			503
2	512		5.94	5.90	34.331	27.037	108.4	0.823	0.29	4.2	84.6	3.25	40.5	0.01			516

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 60

TITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
50.8 N	119 34.5 W	07/08/94	0541 UTC	1832 in	320 13 kn			1012 .4 mb	17.0 C	16.2 C			

CAST	BERTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 UN/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0 ISL	17.27	17.27	33.453	24.264	364.9	0.000	5.69	103.6	3.6	0.40	0.0	0.00	0.35	0.12	0
	2	17.27	17.27	33.453	24.264	364.9	0.007	5.69	103.6	3.6	0.40	0.0	0.00	0.35	0.12	2
	10	17.27	17.27	33.452	24.264	365.2	0.037	5.70	103.8	3.5	0.40	0.0	0.00	0.33	0.13	10
	20	17.08	17.08	33.458	24.314	360.8	0.073	5.71	103.6	3 .4	0.38	0.0	0.00	0.39	0.16	20
	30	17.03	17.03	33.458	24.326	360.0	0.109	5.71	103.5	3.5	0.38	0.0	0.00	0.51	0.22	30
	39	14.69	14.68	33.400	24.807	314.3	0.139	5.85	101 .2	4.9	0.57	2. 1	0.12	0.75	0.35	39
	49	13.00	12 .99	33.390	25.148	282.0	0.169	5.31	88.7	7.5	0.82	5.7	0.29	0. 50	0.41	49
	50 ISL	12.88	12.87	33.392	25.173	279.7	0.172	5.24	87.3	7.9	0.85	6. 1	0.29	0.48	0.41	50
	60	11 .93	11 .92	33.427	25.383	259.9	0.199	4.62	75.5	11.6	1.10	10.3	0.31	0.34	0.37	60
	70	11.18	11.17	33.463	25.549	244.2	0.224	4.30	69. 1	14.6	1 .33	14.3	0.07	0.23	0.29	70
	75 ISL	10.79	10.78	33.490	25.639	235.7	0.236	4.12	65.7	16.4	1 .43	16.1	0.06	0.18	0.23	75
	84	10.16	10.15	33.546	25.792	221 .3	0.257	3.83	60.3	19.6	1 .57	18.7	0.03	0.11	0.14	84
	100	9.58	9.57	33.645	25.966	205.0	0.291	3.53	54.9	23.5	1 . 72	21.1	0.02	0.05	0.10	100
	118	9.11	9.10	33.779	26.147	188.1	0.326	3.18	48.9	27.6	1 .89	23.4	0.01	0.01	0.06	119
	125 ISL	8.97	8.96	33.815	26.197	183.4	0.339	3.11	47.7	28.9	1 .93	24.1	0.01	0.01	0.06	126
	139	8.75	8.74	33.873	26.277	176.0	0.364	3.00	45.8	31 .1	1 .99	25.1	0.01	0.01	0.05	140
	150 ISL	8.72	8.70	33.916	26.316	172.6	0.383	2 .90	44.3	32.3	2.04	25.7	0.01	0.01	0.05	151
	169	8.66	8.64	33.967	26.366	168.3	0.416	2.69	41 .0	34.3	2.12	26.6	0.00	0.00	0.06	170
	199	8.61	8.59	34.073	26.457	160.2	0.465	2.23	34.0	38.4	2 .27	28.2	0.00	0.01	0.05	200
	200 ISL	8.60	8. 58	34.074	26.459	160.0	0.467	2.23	34.0	38.5	2.27	28.2	0.00			201
	227	8.19	8.17	34.092	26.536	153.0	0.509	2.14	32.3	42.5	2.36	29.4	0.00			228
	250 ISL	7.88	7.85	34.125	26.608	146.5	0.543	1 .85	27.7	47.4	2 .50	31 .0	0.00			**251**
	269	7.64	7.61	34.151	26.664	141.4	0.571	1 . 59	23.7	51.5	2 .62	32 .3	0.00			**271**
	300 ISL	7.31	7.28	34.157	26.716	136.8	0.614	1 .39	20.6	55.7	2 .69	33.6	0.00			**302**
	318	7.15	7.12	34. 157	26.738	134.9	0.638	1.31	19.3	57.9	2.72	34 .2	0.00			**320**
	380	6.71	6.67	34.197	26.831	126.8	0.719	0.89	13.0	67.6	2 .99	37.0	0.00			**382**
	400 ISL	6.56	6.52	34.219	26.868	123.4	0.744	0.75	10.9	71 .0	3.07	37.8	0.00			**403**
	437	6.30	6.26	34.259	26.934	117.5	0.789	0.52	7. 5	76.6	3.18	39.0	0.00			**440**
	500 ISL	6.07	6.03	34.295	26.992	112.7	0.861	0.38	5 .5	81 .5	3.26	39.9	0.00			**503**
	515	6.01	5.96	34.304	27.007	111.4	0.878	0.35	5.0	82.7	3.28	40. 1	0.00			**519**

V NEW HORIZON CALCOFI CRUISE 9408 STATION 93 70

LAI ITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 30.8 N	120 14.7 W	07/08/94	1140 UTC	3932 m	310 09 kn			1012 . 1 mb	17.2 C	16.7 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/l	PHAEO ug/ I	PRESS db
	0 ISL	17.36	17.36	33.471	24.257	365.6	0.000	5.67	103.5	7.2	0.41	0.0	0.00	0.35	0.09	0
2	2	17.36	17.36	33.471	24.257	365.6	0.007	5 .67	103.5	7.2	0.41	0. 0	0.00	0.35	0.09	2
2	10	17.35	17.35	33.472	24.260	365 .6	0.037	5 .69	103.8	6.9	0.40	0.0	0.00	0 .36	0.09	10
2	20	17.20	17.20	33.479	24.302	362.0	0.073	5.70	103.7	6.5	0.39	0.0	0.00	0.42	0.12	20
2	30	16.17	16.17	33.466	24.531	340.4	0.108	5.72	102.0	6. 1	0.42	0.0	0.01	0.47	0.21	30
2	40	13.48	13.47	33.323	25.000	295.9	0.140	5.55	93.6	9.6	0.79	4 .3	0.41	0. 54	0.35	40
	50 ISL	12 .66	12.65	33.338	25.174	279.5	0. 169	5.17	85.7	12.1	0.94	7.5	0.49	0 . 48	0.38	50
2	51	12.62	12.61	33.342	25.185	278.5	0.171	5.13	85 .0	12.3	0.95	7. 8	0.50	0 .47	0.38	51
2	61	11 .72	11.71	33.359	25.369	261 .2	0.198	4 .73	76.9	15.4	1.15	11.5	0.03	0.28	0.27	61
2	70	10.99	10.98	33.443	25.567	242.5	0.221	4.42	70.8	18.0	1 .32	14.5	0.01	0.10	0.15	70
	75 ISL	10.68	10.67	33.458	25.633	236.2	0.233	4.33	68.9	18.9	1 .37	15.4	0.01	0.09	0.14	75
2	86	10.13	10.12	33.482	25 .747	225.6	0.258	4.12	64.8	21.0	1 . 49	17.1	0.02	0.06	0.11	86
	100 ISL	9.55	9.54	33.597	25.933	208.1	0.289	3.57	55.4	26.0	1 .76	21.0	0.00	0.03	0.10	100
2	101	9.51	9.50	33.606	25.947	206.8	0.291	3.53	54.8	26.3	1 . 78	21.3	0.00	0.03	0.10	101
2	120	8.96	8.95	33.701	26.110	191.6	0.329	3.46	53. 1	29. 1	1 .85	22 .7	0.00	0.01	0.07	121
	125 ISL	8.94	8.93	33.741	26.144	188.5	0.338	3.37	51 .7	29 .9	1 .88	23.1	0.00	0.01	0.06	126
2	139	8.88	8.87	33.839	26.231	180.5	0.364	3.11	47.6	32. 1	1 .96	24.1	0.00	0.01	0.05	140
	150 ISL	8.75	8.73	33.891	26.292	174.9	0.384	2 .99	45.7	33.9	2 .02	24 .8	0.00	0.01	0.06	151
2	170	8.47	8.45	33.956	26.386	166.3	0.418	2.83	43.0	37.2	2.10	26.1	0.00	0.01	0.08	171
2	199	8.15	8.13	34.015	26.481	157.7	0.465	2 .62	39.5	41 .7	2.19	27.7	0.00	0.00	0 .04	200
	200 ISL	8.13	8.11	34.016	26.485	157.3	0.466	2.61	39.3	41.9	2.19	27.8	0.00			201
2	229	7.70	7.68	34.044	26.570	149.5	0.511	2 .43	36.3	46.9	2 .32	29.3	0.00			**230**
	250 ISL	7.47	7.45	34.070	26.624	144.7	0. 542	2.16	32 . 1	50.8	2 .44	30 . 7	0. 00			251
2	269	7.30	7.27	34.094	26.667	140.9	0. 569	1 .89	28.0	54 . 4	2 .55	31 . 9	0.00			271
	300 ISL	7.13	7.10	34.134	26.723	136.0	0.612	1 .49	22.0	59.6	2 .70	33.6	0. 00			**302**
2	319	7.01	6.98	34. 152	26.754	133.3	0.637	1 .28	18.8	62 .8	2 .78	34 . 6	0.00			**321**
2	379	6.23	6.20	34.153	26.859	123.7	0.714	0.95	13.7	74.5	2 .98	37.3	0.00			**381**
	400 ISL	6.11	6.07	34.173	26.890	120.9	0.740	0.82	11.8	77.4	3.04	38 .0	0.00			**403**
2	437	5 .96	5 .92	34.214	26.942	116.4	0.784	0.60	8.6	81 .8	3.14	39.0	0.00			**440**
	500 ISL	5.60	5 .56	34.263	27.025	109.0	0.855	0.38	5.4	89.6	3.25	40. 4	0.00			**503**
2	511	5.54	5 . 50	34.271	27.039	107.8	0.867	0.35	5.0	90. 9	3.26	40.6	0.00			514
2	647	5 .01	4 .96	34.364	27.176	95 .8	1 .005	0.24	3.4	104 .7	3.36	42 . 4	0.00			**652**
2	791	4.53	4.47	34.428	27.282	86.7	1.136	0.31	4.3	114.9	3.38	43 . 4	0. 00			797
2	895	4.18	4.11	34.460	27.345	81 . 1	1 .224	0.42	5 .8	122.6	3.37	43 . 7	0.00			902
2	1030	3.84	3 .76	34.494	27.408	75.7	1 .330	0.56	7.6	130.7	3.37	43.8	0. 00			1039

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 30

LATITUDE	LONGITUDE	OAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WE/I	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 11.5 N	120 56.6 W	07/08/94	1907 UTC	3871 *m*	320 10 kn	330 04 05	2	1013.9 mb	18.8 C	17.6 C	18m 02	8/8	ST

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uH/l	P04 uM/l	N03 uN/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.68	17.68	33.488	24.193	371.6	0.000	5.62	103.2	6.1	0.39	0.1	0.00	0.24	0.06	0
2	1	A	17.68	17.68	33.488	24.193	371.7	0.004	5.62	103.2	6.1	0.39	0.1	0.00	0.24	0.06	1
2	10	A	17.47	17.47	33.478	24.236	367.9	0.037	5.64	103.1	5.7	0.38	0.1	0.00	0.26	0.08	10
	20	ISL	17.10	17.10	33.460	24.311	361.1	0.073	5.67	102.9	5.3	0.43	0.1	0.00	0.28	0.09	20
2	23	A	16.99	16.99	33.455	24.333	359.1	0.084	5.68	102.9	5.2	0.45	0.1	0.00	0.29	0.09	23
	30	ISL	15.39	15.39	33.426	24.675	326.6	0.108	5.99	105.1	5.5	0.58	1.2	0.06	0.44	0.18	30
2	34	A	14.40	14.40	33.422	24.886	306.6	0.121	6.10	104.9	5.7	0.67	2.2	0.13	0.53	0.24	34
2	47	A	12.80	12.79	33.410	25.203	276.8	0.159	5.27	87.7	11.3	0.99	7.5	0.69	0.63	0.48	47
	SO	ISL	12.49	12.48	33.405	25.259	271.4	0.167	5.09	84.1	12.0	1.04	8.6	0.46	0.56	0.47	50
2	55		12.05	12.04	33.399	25.338	264.0	0.180	4.84	79.3	12.8	1.12	10.3	0.06	0.43	0.42	55
2	64	A	11.54	11.53	33.409	25.441	254.4	0.204	4.65	75.3	14.0	1.22	12.0	0.03	0.33	0.34	64
2	74		10.66	10.65	33.436	25.620	237.5	0.228	4.33	68.8	16.5	1.36	14.5	0.02	0.18	0.24	74
	75	ISL	10.62	10.61	33.441	25.631	236.5	0.231	4.31	68.5	16.7	1.37	14.7	0.02	0.17	0.23	75
2	85		10.28	10.27	33.302	25.737	226.6	0.254	4.14	65.3	18.6	1.46	16.6	0.02	0.10	0.20	35
2	99		9.47	9.46	33.614	25.960	205.6	0.284	3.61	56.0	24.2	1.73	21.1	0.01	0.06	0.15	99
	100	ISL	9.43	9.42	33.620	25.971	204.5	0.286	3.59	55.6	24.5	1.74	21.3	0.01	0.06	0.15	100
2	119		8.95	8.94	33.721	26.127	190.0	0.324	3.41	52.3	28.1	1.87	23.3	0.00	0.02	0.11	120
	125	ISL	8.86	8.85	33.765	26.176	185.5	0.335	3.31	50.7	29.1	1.91	23.8	0.00	0.02	0.10	126
2	141		8.69	8.68	33.876	26.289	175.0	0.364	3.06	46.7	31.7	1.99	24.9	0.00	0.02	0.09	141
	150	ISL	8.56	8.54	33.911	26.337	170.6	0.379	3.01	45.8	32.9	2.01	25.5	0.00	0.02	0.08	151
2	168		8.32	8.30	33.956	26.409	164.0	0.409	2.95	44.7	35.3	2.05	26.5	0.00	0.01	0.06	169
2	200		8.01	7.99	34.017	26.504	155.5	0.461	2.70	40.6	40.0	2.17	28.1	0.00	0.00	0.06	201
2	229		7.79	7.77	34.069	26.577	149.0	0.505	2.23	33.4	45.0	2.35	30.2	0.00			230
	250	ISL	7.69	7.67	34.089	26.608	146.4	0.536	2.04	30.5	47.4	2.43	31.0	0.00			251
2	267		7.58	7.55	34.098	26.631	144.4	0.560	1.93	28.7	49.2	2.48	31.6	0.00			269
	300	ISL	7.13	7.10	34.101	26.697	138.5	0.607	1.74	25.6	54.8	2.60	33.3	0.00			302
2	317		6.88	6.85	34.103	26.733	135.2	0.630	1.64	24.0	57.9	2.66	34.3	0.00			319
2	379		6.40	6.37	34.160	26.842	125.4	0.711	1.01	14.6	68.4	2.94	37.4	0.00			381
	400	ISL	6.25	6.21	34.174	26.873	122.7	0.737	0.87	12.6	70.9	3.00	38.2	0.00			403
2	438		5.99	5.95	34.198	26.925	118.0	0.783	0.68	9.8	75.2	3.09	39.3	0.00			441
	500	ISL	5.64	5.60	34.250	27.010	110.5	0.854	0.45	6.4	84.1	3.21	40.8	0.00			503
2	526		5.50	5.46	34.272	27.045	107.4	0.882	0.35	5.0	87.9	3.26	41.4	0.00			530

A) PRIMARY PRODUCTIVITY SAMPLES IMERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 51.0 ft1	121 35.4 W	08/08/94	0031 UTC	4094 i*	340 10 kn	360 07 05	2	1012.0 mb	17.3 C	16.9 C	21m 01	8/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO 3 uH/l	P04 uM/l	N03 uM/l	N02 uH/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.43	17.43	33.195	24.028	387.3	0.000	5.64	102.9	5.9	0.44	0.1	0.00	0.14	0.04	0
2	2		17.43	17.43	33.195	24.029	387.4	0.008	5.64	102.9	5.9	0.44	0.1	0.00	0.14	0.04	2
2	10		17.42	17.42	33.194	24.031	387.5	0.039	5.64	102.9	5.7	0.44	0.1	0.00	0.14	0.04	10
2	18		17.34	17.34	33.193	24.049	386.0	0.070	5.64	102.7	5.7	0.42	0.1	0.00	0.15	0.04	11
	20	ISL	17.06	17.06	33.188	24.112	380.1	0.077	5.69	103.0	5.7	0.42	0.1	0.00	0.16	0.04	20
2	28		15.79	15.79	33.171	24.390	353.7	0.107	5.96	105.3	5.8	0.42	0.1	0.00	0.22	0.09	21
	30	ISL	15.60	15.60	33.166	24.429	350.1	0.114	6.02	105.9	5.6	0.43	0.1	0.00	0.28	0.12	30
2	39		15.03	15.02	33.154	24.545	339.3	0.145	6.17	107.3	4.8	0.47	0.3	0.03	0.57	0.24	39
2	49		14.76	14.75	33.184	24.626	331.8	0.178	6.04	104.5	5.0	0.52	1.1	0.05	0.79	0.34	49
	50	ISL	14.72	14.71	33.192	24.641	330.4	0.182	6.02	104.1	5.1	0.53	1.2	0.05	0.78	0.35	50
2	61		14.24	14.23	33.283	24.813	314.3	0.217	5.83	99.8	6.0	0.62	2.2	0.14	0.59	0.40	61
2	69		13.97	13.96	33.313	24.893	307.0	0.242	5.67	96.6	7.0	0.69	2.9	0.35	0.53	0.37	69
	75	ISL	13.78	13.77	33.337	24.950	301.6	0.260	5.59	94.9	7.5	0.74	3.9	0.44	0.40	0.30	75
2	85		13.31	13.30	33.366	25.068	290.6	0.290	5.41	90.9	8.5	0.84	6.2	0.59	0.18	0.17	85
2	100		11.90	11.89	33.381	25.354	263.6	0.331	4.34	79.0	12.0	1.02	10.0	0.01	0.08	0.12	100
2	118		10.35	10.34	33.466	25.698	231.0	0.376	4.32	68.2	17.8	1.36	15.8	0.01	0.05	0.10	119
	125	ISL	10.07	10.06	33.501	25.773	224.0	0.392	4.14	65.0	19.6	1.46	17.4	0.01	0.04	0.10	126
2	141		9.68	9.66	33.585	25.903	211.8	0.427	3.78	58.9	23.5	1.65	20.2	0.00	0.03	0.09	141
	150	ISL	9.42	9.40	33.648	25.995	203.2	0.445	3.57	55.3	25.8	1.75	21.7	0.00	0.02	0.09	151
2	169		8.92	8.90	33.772	26.172	186.6	0.482	3.24	49.7	30.1	1.92	24.2	0.01	0.01	0.09	170
2	199		8.43	8.41	33.870	26.325	172.5	0.536	3.25	49.J	33.7	1.98	25.3	0.00	0.01	0.05	200
	200	ISL	8.42	8.40	33.875	26.331	172.0	0.538	3.23	49.0	33.9	1.99	25.4	0.00			201
2	228		8.20	8.18	34.009	26.469	159.3	0.584	2.67	40.3	40.2	2.18	28.0	0.00			229
	250	ISL	7.93	7.90	34.056	26.547	152.3	0.619	2.37	35.6	44.9	2.31	29.7	0.00			251
2	268		7.69	7.66	34.075	26.597	147.7	0.646	2.17	32.4	48.5	2.41	30.9	0.00			269
	300	ISL	7.40	7.37	34.106	26.663	141.9	0.692	1.81	26.8	54.3	2.56	32.8	0.00			302
2	320		7.22	7.19	34.119	26.699	138.7	0.720	1.61	23.8	57.9	2.65	33.9	0.00			322
2	377		6.55	6.52	34.144	26.810	128.5	0.796	1.13	16.4	68.9	2.89	36.9	0.00			379
	400	ISL	6.30	6.26	34.158	26.854	124.5	0.825	0.94	13.6	73.7	2.99	38.0	0.00			402
2	438		5.97	5.93	34.188	26.920	118.5	0.872	0.68	9.8	80.8	3.13	39.5	0.00			441
	500	ISL	5.80	5.76	34.255	26.995	112.1	0.943	0.46	6.6	86.9	3.24	40.3	0.00			503
2	516		5.75	5.71	34.272	27.014	110.4	0.961	0.40	5.7	88.5	3.27	41.1	0.00			519

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 93 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 30.9 N	122 15.4 W	08/08/94	0613 UTC	4162 m	350 11 kn			1012.7 mb	17.0 C	16.5 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 UM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.81	17.81	33.244	23.975	392.4	0.000	5.57	102.4	5.2	0.40	0.2	0.00	0.09	0.03	0
2	1		17.81	17.81	33.244	23.975	392.5	0.004	5.57	102.4	5.2	0.40	0.2	0.00	0.09	0.03	1
	10	ISL	17.82	17.82	33.244	23.973	393.0	0.039	5.57	102.4	5.2	0.39	0.2	0.00	0.10	0.02	10
2	15		17.82	17.82	33.244	23.973	393.1	0.059	5.57	102.4	5.2	0.39	0.2	0.00	0.10	0.02	15
	20	ISL	17.78	17.78	33.244	23.983	392.4	0.079	5.57	102.3	5.2	0.39	0.2	0.00	0.10	0.02	20
2	30		17.70	17.69	33.245	24.003	390.8	0.118	5.58	102.3	5.1	0.38	0.2	0.00	0.10	0.03	30
2	45		16.70	16.69	33.269	24.259	366.8	0.175	5.74	103.3	5.0	0.36	0.2	0.00	0.13	0.05	45
	SO	ISL	15.93	15.92	33.142	24.337	359.5	0.193	5.86	103.8	5.1	0.39	0.2	0.00	0.18	0.07	50
2	54		15.34	15.33	33.048	24.396	353.9	0.207	5.93	103.7	5.1	0.41	0.2	0.00	0.23	0.12	54
2	64		14.76	14.75	33.042	24.517	342.6	0.242	5.86	101.3	5.1	0.46	0.6	0.02	0.44	0.44	64
2	75		14.47	14.46	33.059	24.592	335.8	0.279	5.79	99.5	5.6	0.54	1.2	0.05	0.40	0.38	75
2	83		14.26	14.25	33.096	24.665	329.0	0.306	5.79	99.1	6.0	0.58	1.7	0.09	0.26	0.24	83
2	95		14.11	14.10	33.158	24.745	321.8	0.345	5.76	98.3	6.3	0.63	2.4	0.27	0.18	0.16	95
	100	ISL	14.00	13.99	33.212	24.809	315.8	0.361	5.71	97.3	6.3	0.65	2.8	0.42	0.18	0.16	100
2	109		13.71	13.69	33.318	24.951	302.5	0.389	5.58	94.5	6.3	0.68	3.5	0.60	0.17	0.18	109
2	125		12.93	12.91	33.461	25.219	277.3	0.435	5.19	86.6	7.5	0.68	4.9	0.07	0.11	0.13	125
2	145		10.76	10.74	33.465	25.626	238.5	0.486	4.51	71.8	14.2	1.16	13.5	0.01	0.05	0.10	146
	150	ISL	10.44	10.42	33.476	25.691	232.4	0.498	4.39	69.5	15.5	1.25	14.9	0.01	0.04	0.09	151
2	169		9.61	9.59	33.539	25.879	214.6	0.541	4.04	62.8	20.2	1.51	18.8	0.00	0.02	0.05	170
2	197		8.62	8.60	33.711	26.172	187.1	0.597	3.60	54.8	27.6	1.80	23.2	0.00	0.01	0.03	198
	200	ISL	8.57	8.55	33.732	26.196	184.9	0.603	3.55	54.0	28.3	1.82	23.6	0.00			201
2	228		8.22	8.20	33.906	26.386	167.3	0.652	3.07	46.3	34.6	2.01	26.4	0.00			229
	250	ISL	7.89	7.87	33.979	26.492	157.4	0.688	2.84	42.6	39.6	2.13	28.1	0.00			251
2	267		7.63	7.60	34.010	26.554	151.7	0.714	2.69	40.1	43.4	2.21	29.2	0.00			268
	300	ISL	7.14	7.11	34.033	26.642	143.7	0.763	2.36	34.8	49.7	2.37	31.4	0.00			302
2	316		6.91	6.88	34.036	26.676	140.5	0.785	2.18	32.0	52.9	2.45	32.5	0.00			318
2	377		6.22	6.19	34.090	26.810	128.2	0.867	1.28	18.5	68.4	2.85	37.2	0.00			379
	400	ISL	6.04	6.01	34.110	26.849	124.7	0.896	1.07	15.4	72.8	2.94	38.3	0.00			402
2	438		5.80	5.76	34.145	26.907	119.5	0.943	0.81	11.6	78.9	3.05	39.7	0.00			441
	500	ISL	5.56	5.52	34.208	26.986	112.6	1.015	0.52	7.4	86.3	3.19	40.9	0.00			503
2	518		5.49	5.45	34.227	27.010	110.5	1.035	0.44	6.2	88.5	3.23	41.3	0.00			521

RV NEW HORIZON | CALCOFI CRUISE 9408 | STATION 93 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 11.0 N	122 56.0 W	08/08/94	1237 UTC	3865 m	340 12 kn			1012.6 mb	17.1 C	16.3 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.38	18.38	33.319	23.893	400.3	0.000	5.47	101.7	4.7	0.39	0.1	0.00	0.09	0.02	0
2	1		18.38	18.38	33.319	23.893	400.3	0.004	5.47	101.7	4.7	0.39	0.1	0.00	0.09	0.02	1
	10	ISL	18.38	18.38	33.319	23.893	400.6	0.040	5.47	101.7	4.7	0.39	0.1	0.00	0.09	0.03	10
2	16		18.38	18.38	33.319	23.893	400.8	0.064	5.47	101.7	4.6	0.38	0.1	0.00	0.09	0.03	16
	20	ISL	18.32	18.32	33.312	23.903	400.0	0.080	5.48	101.8	4.6	0.38	0.1	0.00	0.09	0.03	20
	30	ISL	18.18	18.17	33.295	23.925	398.3	0.120	5.51	102.0	4.5	0.37	0.1	0.00	0.10	0.03	30
2	32		18.15	18.14	33.292	23.930	397.8	0.128	5.51	102.0	4.5	0.37	0.1	0.00	0.10	0.03	32
2	45		16.71	16.70	33.200	24.203	372.1	0.178	5.74	103.2	4.5	0.38	0.1	0.00	0.13	0.04	45
	50	ISL	16.41	16.40	33.201	24.274	365.6	0.196	5.79	103.5	4.5	0.38	0.1	0.00	0.15	0.06	50
2	61		15.92	15.91	33.229	24.407	353.2	0.236	5.84	103.4	4.4	0.38	0.1	0.00	0.22	0.10	61
2	75		15.10	15.09	33.260	24.612	334.0	0.284	5.83	101.6	4.4	0.43	0.4	0.02	0.41	0.33	75
2	84		14.55	14.54	33.271	24.739	322.1	0.314	5.77	99.4	4.5	0.45	0.6	0.04	0.38	0.36	84
2	96		13.95	13.94	33.304	24.891	307.9	0.351	5.58	95.0	6.0	0.54	1.5	0.69	0.29	0.29	96
	100	ISL	13.66	13.65	33.319	24.962	301.2	0.364	5.46	92.4	6.5	0.58	2.7	0.42	0.22	0.23	100
2	105		13.28	13.27	33.336	25.052	292.7	0.378	5.30	89.0	7.1	0.64	4.3	0.03	0.13	0.16	105
2	115		12.66	12.64	33.348	25.184	280.3	0.407	5.08	84.2	8.3	0.76	6.3	0.01	0.09	0.13	115
2	125		12.10	12.08	33.450	25.370	262.7	0.434	4.86	79.7	9.8	0.89	8.6	0.01	0.07	0.11	125
2	140		11.88	11.86	33.495	25.447	255.8	0.473	4.77	77.9	10.6	0.95	9.6	0.01	0.08	0.12	141
	150	ISL	11.29	11.27	33.545	25.594	241.8	0.498	4.67	75.3	12.4	1.06	11.6	0.01	0.06	0.09	151
2	167		10.12	10.10	33.636	25.870	215.7	0.537	4.42	69.5	16.7	1.29	15.7	0.01	0.02	0.04	168
2	196		8.93	8.91	33.688	26.105	193.5	0.596	3.76	57.6	24.8	1.72	22.0	0.00	0.01	0.03	197
	200	ISL	8.85	8.83	33.706	26.132	191.1	0.604	3.72	56.9	25.5	1.75	22.4	0.00			201
2	229		8.47	8.45	33.849	26.303	175.2	0.657	3.53	53.6	29.9	1.87	24.0	0.00			230
	250	ISL	8.19	8.16	33.922	26.403	166.0	0.693	3.30	49.8	33.7	1.97	25.6	0.00			251
2	269		7.93	7.90	33.969	26.479	159.1	0.724	3.06	45.9	37.3	2.07	27.2	0.00			270
	300	ISL	7.50	7.47	34.008	26.572	150.5	0.772	2.71	40.3	43.5	2.25	29.4	0.00			302
2	319		7.24	7.21	34.020	26.618	146.3	0.800	2.49	36.8	47.4	2.36	30.8	0.00			321
2	377		6.58	6.55	34.066	26.744	134.7	0.881	1.67	24.3	60.0	2.71	35.3	0.00			379
	400	ISL	6.42	6.38	34.093	26.787	130.9	0.912	1.39	20.1	64.2	2.82	36.5	0.00			402
2	438		6.18	6.14	34.137	26.853	125.0	0.961	0.99	14.3	70.8	2.99	38.2	0.00			441
	500	ISL	5.67	5.63	34.190	26.959	115.3	1.035	0.58	8.3	82.0	3.21	40.7	0.00			503
2	513		5.56	5.52	34.200	26.980	113.3	1.050	0.52	7.4	84.2	3.25	41.1	0.00			516
2	859		4.23	4.16	34.432	27.317	83.5	1.383	0.35	4.8	115.7	3.43	44.2	0.00			865
2	1211		3.28	3.19	34.532	27.494	67.7	1.646	0.82	11.0	136.7	3.39	44.0	0.00			1221
2	1412		2.86	2.76	34.563	27.558	61.8	1.776	1.09	14.5	146.8	3.34	43.6	0.00			1425
2	1613		2.53	2.42	34.587	27.607	57.3	1.896	1.33	17.6	154.6	3.25	43.0	0.00			1629

RV NEW HORIZON CALCOFI CRUISE 9408 STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/ FOREL	CLD AMT	TYPE
29 51.0 hl	123 35.3 W	08/08/94	1846 UTC	4086 in	010 11 kn	010 04 03	2	1015 .2 mb	19.0 C	17.3 C	29m 01	8/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uM/ l	N02 uM/ l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.17	18.17	33.261	23.900	399.6	0.000	5 .53	102.4	5 .0	0.37	0.0	0.00	0.09	0 .03	0
2	1	A	18.17	18.17	33.261	23.900	399. 6	0.004	5 .53	102.4	5 .0	0 . 37	0.0	0 .00	0. 09	0 .03	1
2	9		18„16	18.16	33.262	23. 904	399. 5	0.036	5 .53	102.3	4.8	0 .37	0.0	0 .00	0.10	0 . 02	9
	10	ISL	18.16	18.16	33.262	23.904	399.6	0.040	5 .53	102 .3	4.8	0.3 7	0.0	0.00	0.10	0 . 02	10
2	17	A	18,15	18.15	33.263	23.907	399.5	0.068	5 .55	102 .7	4.6	0.36	0.0	0.00	0.10	0.03	17
	20	ISL	18.15	18.15	33.269	23.912	399. 1	0.080	5.55	1 02 .7	4 . 6	0. 36	0,0	0. 00	0.10	0.03	20
2	27		18.15	18.15	33.282	23.922	398. 4	0. 108	5 .56	102 .9	4 . 6	0.36	0.0	0.00	0.10	0 .03	27
	30	ISL	18.18	18.17	33.340	23.959	395 .0	0.120	5 .55	102 .8	4. 5	0.3 5	0. 0	0.00	0.10	0. 03	30
2	36	A	18.31	18.30	33.498	24 . 049	386.7	0.143	5 .53	102 . 8	4.3	0.32	0.0	0.00	0.10	0.02	36
2	47		18.81	18.80	33.845	24. 190	373.7	0.185	5 .51	103.6	3.9	0.27	0.0	0.00	0.10	0.03	47
	50	ISL	18.72	18.71	33.850	24.216	3 71,2	0.196	5 .53	103.8	3.9	0.27	0. 0	0„0 0	0.10	0. 03	50
2	56	A	18.54	18.53	33.860	24.269	366.4	0.218	5,59	104.6	3.9	0.27	0.0	0. 00	0.10	0 . 03	56
2	66		17.61	17.60	33.736	24 .403	354 .0	0.254	5 . 69	104.5	3.9	0.27	0.0	0.00	0.12	0 . 04	66
2	75	A	17.47	17.46	33.809	24.492	345 .7	0.286	5 . 72	104.8	3.8	0.26	0 .0	0. 00	0.13	0 . 04	75
2	90		17.52	17.50	33 .999	24.627	333.5	0.337	5 . 64	103.5	3 .7	0.24	0.0	0. 00	0.14	0.05	90
	100	ISL	16.69	16.67	33.882	24.734	323.5	0.370	5 .68	102.5	3.8	0.25	0.0	0.00	0.17	0.07	100
2	105	A	16,26	16.24	33.821	24.786	318.6	0.386	5.70	102 .0	3.8	0.25	0.0	0 .00	0.19	0.09	105
2	1 19		16.05	16.03	33.927	24.916	306.6	0.429	5 .60	99.8	3 . 9	0.25	0.0	0 .00	0.23	0.22	119
	125	ISL	15.74	15.72	33.905	24.969	301 .7	0.448	5 .53	98.0	4 . 1	0.28	0.2	0.07	0.23	0.22	125
2	138		14,83	14.81	33.808	25 .095	289.9	0.486	5 .34	92 .8	4.8	0.39	1 .3	0.21	0.22	0 .22	139
	1 50	ISL	13.82	13 .80	33.737	25 .254	275.0	0. 520	5.16	87. 8	6.2	0.51	3.6	0.16	0.17	0.18	151
2	1 69		12.17	12.15	33.658	25.519	249.7	0.570	4.87	80.1	9. 5	0.74	8.2	0.01	0.09	0.12	170
2	1 99		10.15	10.13	33.618	25.852	218.1	0.640	4 .51	71 .0	16.2	1 .25	15.1	0. 00			200
	200	ISL	10.10	10.08	33.620	25.862	217.2	0.642	4.50	70.7	16.4	1 .26	15.3	0. 00			201
2	227		8.98	8.96	33.725	26.127	192 . 1	0 . 697	4.29	65 . 8	21.9	1 . 47	18.9	0.00			228
	250	ISL	8 . 44	8.41	33.839	26 .300	175.9	0.740	3.90	59. 1	28.3	1 . 68	22.3	0.00			251
2	268		8.17	8.14	33.920	26.405	166.2	0.771	3.55	53. 5	33. 4	1 . 84	24 . 7	0.00			269
	300	ISL	7.73	7.70	33.990	26.525	155.1	0.822	3.04	45 . 4	40 . 4	2 .05	27.7	0.00			302
2	318		7.52	7.49	34.010	26.571	150.9	0.850	2 .77	41.2	44 . 1	2.15	29.1	0.00			320
2	377		6 . 78	6.75	34.054	26.708	138.3	0.935	1 .96	28.6	58. 1	2.51	33.8	0.00			379
	400	ISL	6.52	6.48	34.070	26.756	134.0	0.966	1 .69	24.5	63. 1	2 .64	35.4	0.00			402
2	437		6.16	6.12	34.097	26.824	127.7	1.015	1 .26	18.1	70 .7	2 .82	37.5	0.00			440
	500	ISL	5 .76	5 .72	34.156	26.921	119.0	1 .092			81 . 6	3. 02	39.8	0.0 0			503
2	516		5,66	5 .62	34. 171	26 . 945	116.8	1.111			84 . 4	3.07	40 . 4	0.00			519

A) PRIMARY PRODUCTIVITY' SAMPLES WERE TAKEN FROM THESE LEVELS

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 7408 — STATION 77 55

LATITUDE	LONGITUDE	DAY/NO/YR	CAST TINE	SECCHI	FOREL	INCUBATION TINE	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 55.3 N	121 13.2 W	19/ 8/94	1823 UTC	9 m	07	209 - 1917 PST	1209 PST	1917 PST	922.5 mg C/m2

DEPTH *	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uM/ l	N02 uN/l	CHL ug/ l	PHAEO ug/l	LIGHT PCT	1	UPTAKE (mg C/m3) 2	MEAN	DARK
2	15.50	33.471	24.685	6.44	113.3	5 .3	0.36	0.0	0.00	2.01	0.82	71 . A	33.0	34.5	33.8	0.45
5	15.48	33.472	24.690	6.43	113.1	5.3	0.37	0.1	0.01	2.28	0.82	43.	66.0	62 .6	64 .3	0. 63
12	15.38	33.477	24.716	6.39	112.1	5.3	0.41	0. 1	0.01	2 .35	0.92	13.	48.0	48.3	48.2	0. 48
11	15.02	33.480	24.797	6.22	108.4	5.9	0.47	0.8	0.04	2.04	0.87	4.6	23.4	23.2	23.3	0.21
25	12.70	33.482	25.277	4.92 U	81.7 U	9.8	0.83	7.9	0.19	0.88	0.62	1 .4	2 .4	2.0	2.2	0.16
33	12.02	33.483	25.409	4.98	81.5	9.6	0.90	8.3	0.34	0.91	0.64	0.36	0.37	0.34	0.35	0.12

RV NEW HORIZON — CALCOFI CRUISE ?408 — STATION 77 90

LATITUDE	LONGITUDE	**OAY/NO/YR**	CAST TINE	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 43.1 N	123 38.0 W	18/ 8/94	1820 UTC	18 m	03	1219 - 1945 PST	1219 PST	1922 PST	188.1 mg C/m2

DEPTH it	TENP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uN/ l	N02 uM/ l	CHL jg/ l	PHAEO ug/ l	LIGHT PCT	1	UPTAKE < mg C/m3) 2	MEAN	DARK
	16.64	33.040	24.095	5.82	104.5	3.2	0.41	0.2	0.00	0.25	0.06	92. A	6.3	5 .8	6 .1	0.08
11	16.64	33.040	24.096	5.82	104.4	3 .1	0.41	0.2	0.00	0.21	0.07	39.	6.7	6 .8	6.8	0.10
24	16.43	32.994	24.109	5 .94	106.1	3.3	0.39	0.2	0.00	0.28	0.09	13.	3.7	3. 5	3 .6	0.07
35	15.30	32.946	24.326	6.08	106.2	3.5	0.39	0.2	0.00	0.37	0.13	5 .1	1 .8	1 .8	1 .8	0. 05
41	14.65	32.975	24.489	6.07	104.6	4 .1	0.37	0.2	0.00	0.30	0.12	1 .7	0. 55	0.51	0.53	0.06
51	13.70	32.943	24.662	6.18	104.5	4.3	0.40	0.3	0.00	0.34	0.19					
65	13.34	33.022	24.796	6.10	102.4	4.2	0.41	0.4	0.02	0.32	0.20	0.39	0.07	0 .06	0.07	0.05

RV NEW HORIZON — CALCOFI CRUISE ?408 — STATION 80 80

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 31.0 N	122 32.3 W	17/ 8/94	1814 UTC	20 m	02	1214 - 1925 PST	1214 PST	1923 PST	130.0 mg C/m2

DEPTH	TEPIP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l.	OXY PCT	SI03 uM/ l	P04 uN/ l	N03 uM/l	N02 uN/ l	CHL ug/ l	PHAEO ug/ l	LIGHT PCT	1	UPTAKE (mg C/m3) 2	MEAN	DARK
2	17.05	33.047	24.005	5.72	103.5	2.9	0.34	0.1	0.00	0.17	0.05	86. A	3.2	4 .7	3.9	0.09
13	17.05	33.051	24.009	5.72	103.5	2.7	0.22 U	0.1	0.00	0.17	0.04	37.	4.6	4.5	4 .6	0 .09
25	17.04	33.069	24.025	5.73	103.7	2.5	0.39	0.1	0.00	0.19	0.06	15.	2 .1	2 .1	2 .1	0.07
3?	16.73	33.043	24.078	5.79	104.1	" 2.8	0.39	0.1	0.00	0.21	0.06	5 .0	0.95	0 .93	0. 94	0.02
52	14.52	32.925	24.478	6.15	105.7	3.3	0.39	0.4	0.02	0.30	0.12	1 .8	0 .44	0 .42	0. 43	0.06
64	13.95	32.941	24.609	6.18	105.0	3.4	0.46	0.8	0.02	0.43	0.22					
73	13.54	33.025	24.758	6.08	102.5	4.2	0.43	1.3	0.04	0.34	0.18	0.37	0.05	0 .04	0.05	0.04

RV NEW HORIZON — CALCOFI CRUISE ?408 — STATION 82 47

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TINE	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 16. 1 N	120 2 . 4 W	16/ 8/94	1840 UTC	13 m	04	1207 - 1925 PST	1204 PST	1917 PST	790.8 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/L	OXY PCT	SI03 uN/ l	P04 uN/ l	N03 uM/ l	N02 uM/ l	CHL ug/ l	PHAEO ug/ l	LIGHT PCT	1	UPTAKE (mg C/m3) 2	MEAN	DARK
2	19.45	33.454	23.727	5.91	112.2	4.0	0.34	0.0	0.00	0.54	0.17	79. A	21 .1	24.0	22.5	0.26
8	17.04	33.448	24.315	6.24	113.1	4 .1	0.34	0.0	0.00	1.18	0. 57	39.	33.6	31 .7	32.6	0.33
15	14.81	33.402	24 . 782	6.17	107.0	4 .3	0.42	0.4	0.02	1 . 72	0. 76	17.	32 .3	30. 3	31.3	0.21
25	13.83	33.422	25 . 004	5.73	97.4	6. 3	0.57	3.2	0.07	2 .27	1.21	5 .2	18.5	19.9	19.2	0.16
34	11.93	33.420	25.377	4.83	78.9	10.9	0. 90	9.0	0 .05	0.58.	0. 54	1 .8	1 .7	1 .7	1 .7	0.07
45	11.29	33.472	25.535	4.32	69.6	14.7	1.11	12.7	0 . 02	0 .34	0. 35	0 . 49	0.18	0.18	0.18	0.05

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 83 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 34.8 N	120 45.6 U	15/ 8/94	1826 UTC	13 m	04	1208 - 1918 PST	1207 PST	1915 PST	614.4 mg C/m2

DEPTH	TENP DEG C	SALINITY	SIGMA THETA	0 ISS 02 ml/l	OXY PCT	S 103 uM/ l	P04 uM/ l	N03 uN/ l	N02 uM/ l	CHL ug/l	PHAEO ug/l	LIGHT PCT	1	UPTAKE (mg C/m3) 2	MEAN	DARK
1	16.22	33. 520	24.560	5.80	103.5	5.5	0.51	2.6	0.08	0. 83	0.27	89. A	15.1	15.2	15.1	0.19
7	16.14	33. 520	24.579	5.80	103.4	5.1	0.55	2 .6	0.08	0. 81	0.27	44 .	28.6	28 .1	28. 4	0.23
16	15.74	33.525	24 . 673	5.76	101.8	4.9	0.56	2 .6	0 . 09	0 . 85	0. 34	15.	20. 9	20 .0	20 .5	0.22
24	13.74	33.540	25.114	5.19	88.1	8 .5	0.85	7.2	0.21	1.15	0 . 64	5 .9	13.5	13.9	13.7	0.23
34	11.80	33.577	25.523	4.26	69.5	14.8	1 .35	13.7	0 . 39	0 . 89	0.56	1 .8	4 .1	3 .8	3 .9	0. 09
46	10.47	33.631	25 . 804	3.58	56.7	20 .5	1 . 60	18.8	0.10	0.17	0 . 26	0.44	0.10	0 . 08	0 . 09	0 . 06

A) INCUBATION LIGHT INTENSITIES WERE 96, 40, 14, 5.0, 1.8, 0.38 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 83 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 16.8 N	123 30.0 W	14/ 8/94	1846 UTC	28 m	01	1220 - 1923 PST	1219 PST	1923 PST	100.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	18.34	33.229	23.834	5.51	102.3	4.8	0.36	0.0	0.00	0.09	0.02	90. A	1.4	1.5	1.5	0.07
10	18.27	33.233	23.855	5.51	102.2	4.7	0.34	0.0	0.00	0.09	0.02					
17	18.24	33.238	23.866	5.51	102.1	4.5	0.34	0.0	0.00	0.09	0.02	39.	2.3	2.3	2.3	0.07
27	18.24	33.242	23.870	5.50	101.9	4.4	0.34	0.0	0.00	0.10	0.03					
35	18.26	33.267	23.884	5.52	102.4	4.2	0.32	0.0	0.00	0.10	0.03	15.	1.5	1.6	1.5	0.08
44	18.27	33.551	24.099	5.52	102.5	3.9	0.32	0.0	0.00	0.09	0.03					
55	17.84	33.559	24.211	5.59	103.0	3.7	0.32	0.0	0.00	0.10	0.03	4.9	0.75	0.70	0.72	0.08
65	17.13	33.607	24.418	5.67	103.1	3.7	0.28	0.0	0.00	0.11	0.04					
73	16.80	33.580	24.475	5.76	104.0	3.7	0.30	0.0	0.00	0.12	0.04	1.8	0.26	0.18	0.22	0.07
86	16.20	33.661	24.676	5.81	103.7	3.7	0.29	0.0	0.00	0.16	0.08					
101	16.14	33.815	24.809	5.72	102.1	3.6	0.26	0.0	0.00	0.20	0.13	0.39	0.06	0.07	0.07	0.03

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 87 55

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 9.6 N	120 0.4 W	12/ 8/94	1854 UTC	11 m	04	1210 - 1921 PST	1205 PST	1919 PST	508.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 nl/l	OXY PCT	SI03 UM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL iug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	16.07	33.546	24.614	5.79	103.1	5.2	0.47	2.2	0.04	0.88	0.24	87. A	16.1	17.7	16.9	0.16
6	15.98	33.545	24.634	5.80	103.1	5.2	0.55	2.4	0.09	0.91	0.26	43.	25.7	24.3	25.0	0.20
13	15.58	33.539	24.719	5.77	101.7	5.4	0.53	2.9	0.11	1.04	0.33	16.	22.2	22.7	22.5	0.24
20	14.76	33.540	24.900	5.57	96.6	7.3	0.65	4.8	0.08	1.06	0.44	6.1	12.6	12.4	12.5	0.16
29	13.38	33.535	25.183	4.98	83.9	11.1	0.93	9.0	0.24	0.95	0.52	1.7	4.2	3.6	3.9	0.12
40	11.73	33.550	25.515	4.41	71.8	15.6	1.11	12.1	0.02	0.79	0.51	0.38	0.45	0.46	0.45	0.09

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 87 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 0.7 N	122 26.5 W	13/ 8/94	1831 UTC	26 *m*	02	1215 - 1935 PST	1215 PST	1928 PST	167.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.59	33.133	23.943	5.58	102.1	4.3	0.39	0.0	0.00	0.11	0.03	89. A	1.6	1.8	1.7	0.07
8	17.59	33.131	23.942	5.58	102.1	4.1	0.37	0.0	0.00	0.11	0.03					
16	17.53	33.133	23.958	5.57	101.8	4.0	0.36	0.0	0.00	0.11	0.03	39.	2.6	2.5	2.6	0.08
25	17.46	33.143	23.983	5.59	102.0	3.9	0.36	0.1	0.00	0.12	0.03					
33	17.32	33.126	24.003	5.61	102.1	3.7	0.37	0.0	0.00	0.14	0.04	14.	2.3	2.3	2.3	0.09
42	16.70	33.133	24.154	5.74	103.2	3.3	0.36	0.0	0.00	0.21	0.06					
51	16.16	33.142	24.285	5.89	104.8	3.4	0.36	0.0	0.00	0.31	0.12	4.9	2.5	2.5	2.5	0.09
59	15.50	33.158	24.446	6.00	105.3	3.6	0.38	0.0	0.00	0.36	0.16					
66	15.02	33.144	24.540	6.05	105.2	3.7	0.39	0.0	0.00	0.42	0.26	2.0	1.4	1.3	1.3	0.07
80	14.24	33.197	24.747	5.84	100.0	4.5	0.31	0.0	0.00	0.45	0.39					
92	13.83	33.261	24.882	5.71	97.0	5.0	0.45	1.4	0.13	0.36	0.36	0.44	0.25	0.25	0.25	0.04

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 90 29

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 28.4 N	117 49.1 W	11/ 8/94	1840 UTC	20 m	04	1159 - 1915 PST	1156 PST	1911 PST	616.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uH/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	21.65	33.493	23.172	5.58	110.3	4.4	0.30	0.0	0.00	0.32	0.09	93. A	11.5	11.8	11.6	0.25
11	17.42	33.409	24.195	6.11	111.6	4.1	0.36	0.0	0.00	0.21	0.06	43.	6.6	6.4	6.5	0.21
25	13.81	33.385	24.980	6.28	106.7	6.0	0.48	0.4	0.03	0.67	0.33	15.	17.5	18.0	17.7	0.24
32	12.70	33.381	25.199	5.60	93.0	8.2	0.72	4.3	0.17	1.00	0.60					
38	12.35	33.404	25.285	5.22	86.0	9.5	0.78	5.9	0.18	1.06	0.69	5.4	13.8	14.1	14.0	0.12
52	11.70	33.445	25.439	4.54	73.8	12.5	1.10	10.4	0.34	0.61	0.52	1.8	2.4	2.3	2.3	0.07
63	10.98	33.460	25.582	4.32	69.2	14.5	1.21	13.3	0.04	0.30	0.32					
72	10.64	33.532	25.698	3.76	59.8	18.3	1.46	16.9	0.10	0.22	0.28	0.40	0.18	0.19	0.18	0.04

RV NEW HORIZONI — CALCOFI CRUISE 9408 — STATION 90 53

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TINE	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 39.3 N	119 28.9 W	10/8/94	1859 UTC	15 m	03	1213 - 1928 PST	1203 PST	1914 PST	330.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	S103 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.21	33.504	24.318	5.77	105.0	5.1	0.38	0.3	0.00	0.39	0.09	90. A	5.2	5.5	5.4	0.21
8	17.08	33.505	24.349	5.78	104.9	4.9	0.38	0.3	0.00	0.37	0.10	44.	8.2	8.5	8.3	0.19
18	16.64	33.483	24.436	5.79	104.2	4.7	0.39	0.3	0.00	0.48	0.16	16.	9.4	8.7	9.1	0.25
28	16.03	33.449	24.550	5.81	103.3	5.1	0.42	0.5	0.02	0.87	0.36	5.7	9.9	9.9	9.9	0.22
38	14.85	33.426	24.793	5.65	98.1	6.6	0.57	2.5	0.12	0.85	0.44	*2.0*	3.4	3.3	3.4	0.14
46	13.28	33.394	25.095	5.16	86.7	9.9	0.86	6.8	0.21	0.63	0.47					
53	11.91	33.417	25.378	4.73	77.2	13.0	1.10	10.9	0.16	0.36	0.39	0.44	0.35	0.42	0.39	0.03

A) INCUBATION LIGHT INTENSITIES WERE 96, 40, 14, 5.0, 1.8, 0.38 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 25.2 N	122 0.2 W	9/ 8/94	1907 UTC	21 m	03	1223 - 1922 PST	1214 PST	1921 PST	387.2 mg C/m2

DEPTH •	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/1	OXY PCT	SI03 uM/ I	P04 uN/I	N03 uM/ I	N02 uM/ I	CHL ug/ I	PHAEO ug/ I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	16.10	33.165	24.315	5.83	103.6	2.6	0.43	0.0	0.00	0.29	0.06	86. A	4.5	4.3	4.4	0.07
13	15.92	33.168	24.358	5.85	103.6	2.5	0.43	0.0	0.00	0.28	0.07	39.	7.7	7.8	7.7	0.09
26	15.78	33. 193	24.409	5.89	104.0	2.2	0.43	0.0	0.00	0.34	0.10	15 .	8.2	7.7	7.9	0.11
34	15.30	33.260	24.567	5.96	104.3	2.2	0.45	0.0	0.01	0.53	0.20					
40	15.15	33.301	24.632	5.93	103.5	2.0	0.47	0.0	0.02	0.62	0.26	5.4	7.8	7.6	7.7	0.10
55	14.39	33.277	24.777	5.80	99.6	3.2	0,53	0.7	0.10	0.57	0.32	1 .8	2 .5	2 .0	2 .3	0.07
65	13.63	33.273	24.931	5.68	96.1	5.5	0.72	3.3	0.24	0.25	0.23					
76	13.44	33.307	24.996	5.61	94.5	5.7	0.76	3.8	0.26	0.28	0.23	0.39	0.18	0.22	0.20	0.03

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 20.7 N	118 36.0 W	6/ 8/94	1858 UTC	24 m	01	1205 - 1917 PST	1200 PST	1916 PST	478.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/l	P04 uM/ I	N03 uM/l	N02 uM/L	CHL ug/ I	PHAEO ug/ I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
0	19.37	33.497	23.780	5.49	104.1	4.6	0.40	0.0	0.02	0.18	0„05	100. A	4.2	4.6	4.4	0.10
14	18.39	33.501	24.030	5.55	103.3	4.5	0.42	0.0	0.02	0.20	0.05	41 .	6.2	5 .8	6.0	0.15
19	18.13	33.494	24.089	5.71	105.8	4.3	0.42	0.0	0. 02	0.33	0.09					
30	15.80	33.453	24.605	6.07	107.4	4. 4	0. 50	0.6	0.06	0.69	0.20	15.	15.1	14.6	14.9	0.12
38	13.89	33.362	24.946	5.92	100.7	5.0	0.68	3. 1	0.23	0.62	0.30					
47	12.96	33.391	25.156	5.24	87.5	9.6	0.96	7.5	0.79	0.59	0.46	4.9	6.0	6. 1	6.0	0.06
54	12.12	33.421	25.342	4.94	81.0	11 .8	1 .10	10.5	0.36	0.32	0.33					
61	11 .66	33.423	25.430	4.68	76.0	13.2	1 .20	12.3	0.08	0.23	0.27	2 .0	0.94	0.85	0.90	0.02
74	10.70	33.457	25.629	4.27	67.9	16.5	1 .36	15.2	0.03	0.12	0.19					
87	10.19	33.522	25.768	3.88	61.1	20.5	1 .59	18.8	0.02	0.07	0.15	0.38	0.06	0.06	0.06	0.02

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 11.5 N	120 56.6 W	7/ 8/94	1907 UTC	18 m	02	1207 - 1928 PST	1210 PST	1925 PST	259.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uN/ I	P04 uM/ I	N03 uM/ I	N02 uN/ I	CHL ug/ I	PHAEO ug/ I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.68	33.488	24 .193	5.62	103.2	6. 1	0.39	0. 1	0.00	0.24	0.06	92. A	5 .6	5 .6	5 .6	0.13
10	17.47	33.478	24.236	5.64	103.1	5.7	0.38	0. 1	0.00	0.26	0.08	43.	6.6	6.6	6.6	0.12
23	16.99	33.455	24.333	5.68	102 .9	5.2	0.45	0. 1	0.00	0.29	0.09	14 .	5 .2	5 .2	5.2	0.12
34	14.40	33.422	24.886	6.10	104.9	5 .7	0.67	2 .2	0.13	0.53	0.24	5 .5	5 .2	5 .2	5.2	0.09
47	12.80	33.410	25.203	5.27	87.7	11.3	0.99	7.5	0.69	0.63	0.48	1 .8	2 .1	1 .9	2 .0	0.05
55	12.05	33.399	25.338	4.84	79.3	12.8	1.12	10.3	0.06	0.43	0.42					
64	11.54	33.409	25 .441	4.65	75.3	14.0	1 .22	12.0	0.03	0.33	0.34	0.43	0.15	0.15	0.15	0.03

RV NEW HORIZON — CALCOFI CRUISE 9408 — STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
29 51.0 N	123 35.3 W	8/ 8/94	1846 UTC	29 in	01	1220 - 1930 PST	1220 PST	1928 PST	102.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL ug/L	PHAEO ug/ I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.17	33.261	23.900	5.53	102 .4	5.0	0.37	0.0	0.00	0.09	0.03	95. A	1 .5	1 .6	1 .5	0.05
9	18.16	33.262	23.904	5.53	102 .3	4.8	0.37	0.0	0.00	0.10	0.02					
17	18.15	33.263	23.907	5.55	102.7	4 .6	0.36	0.0	0.00	0.10	0.03	41 .	2.5	2 .5	2.5	0.06
27	18.15	33.282	23.922	5.56	102.9	4 .6	0.36	0.0	0.00	0.10	0.03					
36	18.31	33.498	24.049	5.53	102.8	4.3	0.32	0.0	0.00	0.10	0.02	15 .	1 .4	1 .4	1 .4	0.07
47	18.81	33.845	24.190	5.51	103.6	3.9	0.27	0.0	0.00	0.10	0.03					
56	18.54	33.860	24.269	5.59	104.6	3.9	0.27	0.0	0.00	0.10	0.03	5.2	0.64	0.69	0.67	0.05
66	17.61	33.736	24.403	5.69	104.5	3.9	0.27	0.0	0.00	0.12	0.04					
75	17.47	33.809	24.492	5.72	104.8	3.8	0.26	0.0	0.00	0.13	0.04	1 .9	0.18	0.16	0.17	0. 04
90	17.52	33.999	24.627	5.64	103.5	3.7	0.24	0.0	0.00	0.14	0.05					
105	16.26	33.821	24.786	5.70	102.0	3.8	0.25	0.0	0.00	0.19	0. 09	0 .39	0.03	0.04	0 .04	0.03

A) INCUBATION LIGHT INTENSITIES WERE 96, 40, 14, 5„0, 1.8„ 0.38 PERCENT RESPECTIVELY.

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505mm

Line	Sta.	Latitude N	Longitude W	Date Mo/Day	Time (PST) Start	End	Water Volume Strained (m^3)	Max. Tow Depth (m)	Volume per 1000 m^3 Strained Total (cm^3)	Small (cm^3)
77	49	35 05.8	120 47.8	08/19	1600	1607	120	67	117	117
77	51	35 02.2	120 56.0	08/19	1342	1405	443	223	88	88
77	55	34 53.9	121 12.4	08/19	0910	0931	422	202	47	47
77	60	34 44.3	121 34.8	08/19	0605	0627	409	217	157	157
77	70	34 23.9	122 15.7	08/19	0024	0047	426	233	101	101
77	80	34 04.5	122 58.9	08/18	1820	1843	437	221	66	66
77	90	33 42.9	123 37.8	08/18	1144	1207	415	223	63	63
77	100	33 23.8	124 20.4	08/18	0516	0538	452	211	24	24
80	51	34 27.0	120 33.4	08/16	1535	1544	164	84	98	98
80	55	34 20.5	120 50.9	08/16	1845	1908	408	231	157	157
80	60	34 10.0	121 09.3	08/16	2230	2252	370	213	197	197
80	70	33 49.1	121 51.3	08/17	0417	0439	395	218	94	94
80	80	33 29.6	122 32.1	08/17	0900	0921	396	213	73	56
80	90	33 09.3	123 13.8	08/17	1638	1700	421	217	21	21
80	100	32 49.8	123 54.3	08/17	2215	2237	406	231	17	17
82	47	34 16.3	120 02.9	08/16	0900	0921	437	180	50	50
83	40.6	34 13.3	119 25.2	08/16	0425	0429	59	28	84	84
83	42	34 10.5	119 31.2	08/16	0243	0252	167	78	72	72
83	51	33 53.0	120 11.1	08/15	2015	2035	375	184	45	45
83	55	33 45.7	120 26.9	08/15	1645	1707	442	206	41	41
83	60	33 35.4	120 46.4	08/15	1140	1202	397	215	S3	83
83	70	33 14.4	121 27.8	08/15	0530	0552	390	226	85	85
83	80	32 55.4	122 08.4	08/14	2254	2316	397	202	63	63
83	90	32 34.8	122 50.2	08/14	1710	1733	423	219	14	14
83	100	32 15.2	123 29.8	08/14	0933	0955	434	198	16	16
83	110	31 56.0	124 12.6	08/14	0440	0502	401	226	22	22
87	33	33 51.3	118 30.0	08/11	1725	1731	105	48	86	86
87	35	33 48.9	118 37.9	08/11	1953	2015	415	197	137	137
87	40	33 39.9	118 59.1	08/11	2349	0011	412	201	56	56
87	45	33 31.7	119 19.0	08/12	0433	0455	425	200	150	150
87	50	33 20.0	119 40.3	08/12	0807	0816	151	75	133	133
87	55	33 10.3	120 01.4	08/12	1218	1240	405	224	123	123
87	60	32 59.3	120 22.2	08/12	1708	1730	364	222	176	176
87	70	32 39.7	121 02.2	08/12	2241	2304	384	239	125	125
87	80	32 19.5	121 44.4	08/13	0415	0437	427	216	98	56
87	90	31 59.8	122 24.4	08/13	0900	0922	392	233	38	38
87	100	31 40.4	123 06.4	08/13	1638	1700	423	222	31	31
87	110	31 20.4	123 45.5	08/13	2157	2219	420	216	33	33
90	28	33 28.5	117 48.4	08/11	0948	1009	368	224	38	38
90	30	33 25.5	117 55.3	08/11	0633	0655	386	213	41	41
90	35	33 14.6	118 16.0	08/11	0238	0300	392	203	71	71
90	37	33 10.6	118 25.0	08/10	2350	0012	388	207	85	64
90	45	32 55.8	118 56.6	08/10	1855	1917	386	225	70	70
90	53	32 40.0	119 29.4	08/10	1230	1252	390	207	41	41
90	60	32 26.3	119 58.5	08/10	0732	0754	386	211	57	57
90	70	32 04.9	120 39.4	08/10	0153	0215	396	204	114	114
90	80	31 45.9	121 21.2	08/09	1943	2006	421	219	64	64
90	90	31 26.0	122 02.9	08/09	1245	1307	430	201	61	61
90	100	31 06.0	122 40.7	08/09	0613	0635	410	220	56	56
90	110	30 46.2	123 20.4	08/09	0005	0027	455	210	40	40
90	120	30 26.6	124 00.4	08/08	1815	1837	422	223	17	17
93	26.7	32 57.0	117 18.6	08/05	1255	1302	135	53	82	82
93	28	32 53.7	117 24.9	08/05	1910	1932	420	212	102	102
93	30	32 49.5	117 33.2	08/05	2218	2240	400	205	73	73
93	35	32 40.8	117 53.5	08/06	0153	0215	431	185	46	46
93	40	32 30.5	118 14.9	08/06	0641	0703	411	210	29	29
93	45	32 20.7	118 34.2	08/06	0921	0943	428	212	51	51
93	50	32 10.6	118 54.7	08/06	1530	1553	415	229	58	58
93	55	32 00.4	119 16.2	08/06	1915	1937	424	214	61	61
93	60	31 51.3	119 36.0	08/06	2255	2318	399	233	75	75
93	70	31 31.6	120 15.6	08/07	0502	0524	413	215	61	61
93	80	31 11.3	120 55.5	08/07	0944	1006	407	203	81	81
93	90	30 51.3	121 35.5	08/07	1735	1757	408	221	49	49
93	100	30 31.7	122 15.7	08/07	2315	2337	395	218	71	71
93	110	30 11.7	122 57.1	08/08	0602	0624	418	223	24	24
93	120	29 51.9	123 34.9	08/08	1219	1241	393	226	15	15

PERSONNEL

CalCOFI Cruise 9410

SHIP'S CAPTAIN

Christopher H. Curl, *RV New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

		Participation (Leg)
Renger, Edward H. (Chief Scientist)	Staff Research Associate, SIO	I,II
Abramenkoff, Dimitry N.	Fishery Biologist, NMFS	I,II
Fournier-Sicre, Vincent	Programmer/Analyst, SIO	I,II
Griffith, David A.	Fishery Biologist, NMFS	I,II
Gripp, Sherry L.	Staff Research Associate, SIO	I,II
Gruber, Dennis W.	Marine Technician, SIO	I,II
Hays, Amy E.	Biological Technician, NMFS	I,II
Marquez, Jaime S.	Volunteer, UCSB	I,II
Miller, Benjamin R.	Graduate Student, SIO	I,II
Mitchell, B. Greg	Assistant Research Biologist, SIO	I,II
Osgood, Kenric E.	Post Graduate Researcher, SIO	II
Reitsch, G. Alan	Field Biologist, University of Washington	I,II
Streib Montee, Rebecca V.	Staff Research Associate, SIO	I,II
Stuart, Steven L.	Staff Research Associate, SIO	I,II
Wilkinson, James R.	Programmer/Analyst, SIO	I,II

Leg I: San Diego to Dana Pt., Ca., 30 Sept - 6 Oct., 1994
Leg II: Dana Pt. to Port San Luis, Ca., 6-16 Oct., 1994

FIGURES

Cruise 9410

1. CalCOFI Cruise 9410, track and station positions.

2. Horizontal distribution of dynamic height anomaly (0 over 500m). In areas shallower than 500 m, the dynamic heights were extrapolated on the basis of the offshore deeper steric height as described in Reid and Mantyla (1976).

3. Horizontal distributions at 10 meters: A) chlorophyll-a; B) potential density; C) temperature; and D) salinity.

4. Horizontal distributions at 200 meters: A) dynamic height anomaly (200 over 500 m); B) potential density; C) temperature; and D) salinity.

5. Sections along CalCOFI line 90 (vertical exaggeration, 1000): A) potential density; B) temperature; C) salinity; D) silicate; E) nitrate; F) phosphate; G) chlorophyll-a; H) oxygen saturation; I) oxygen; J) nitrite; and K) phaeopigments.

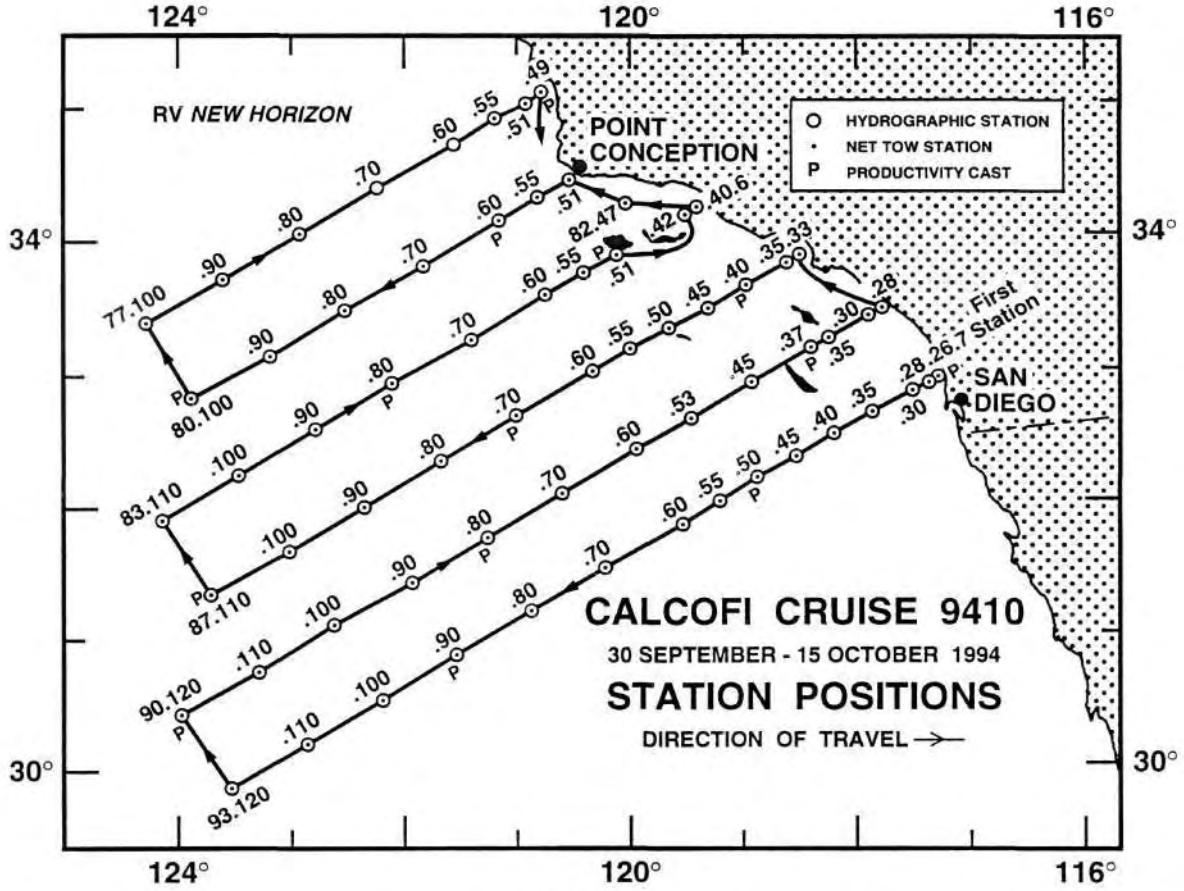


FIGURE 1

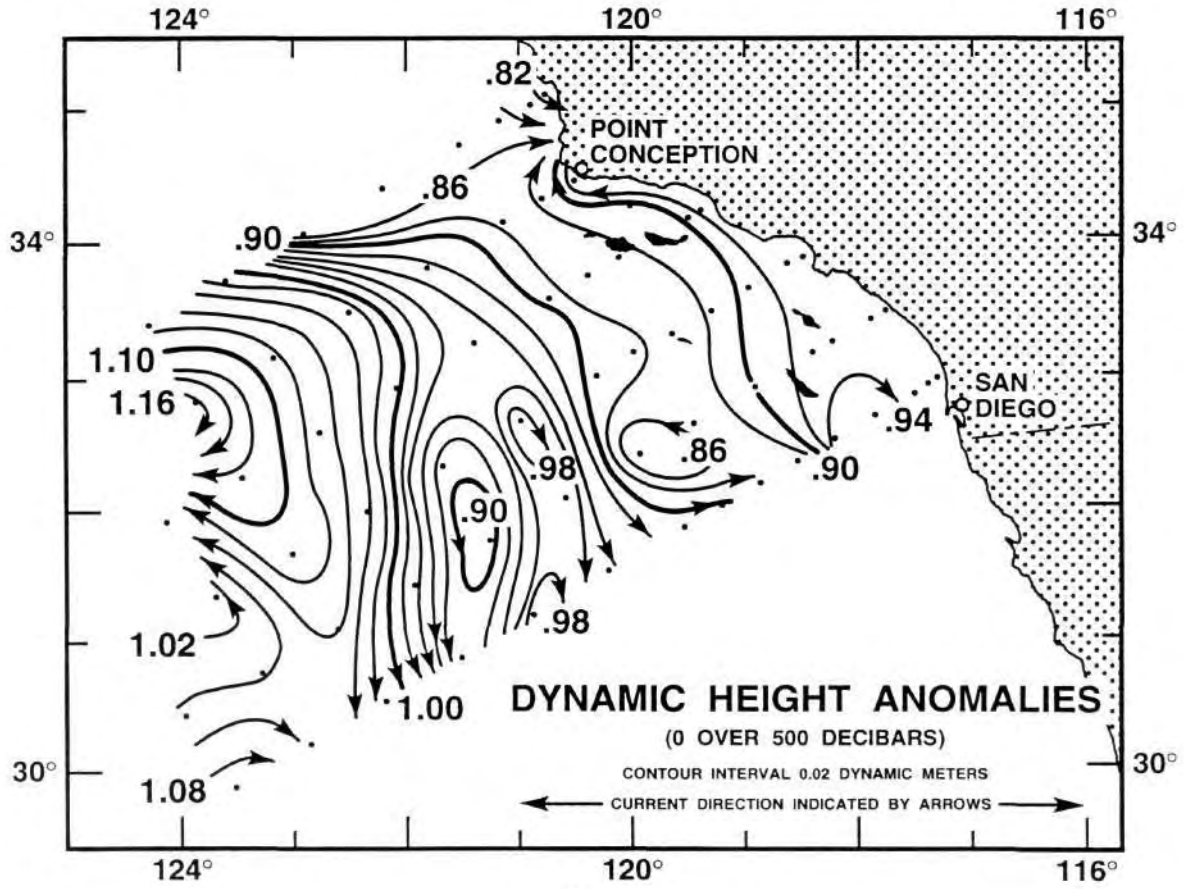


FIGURE 2

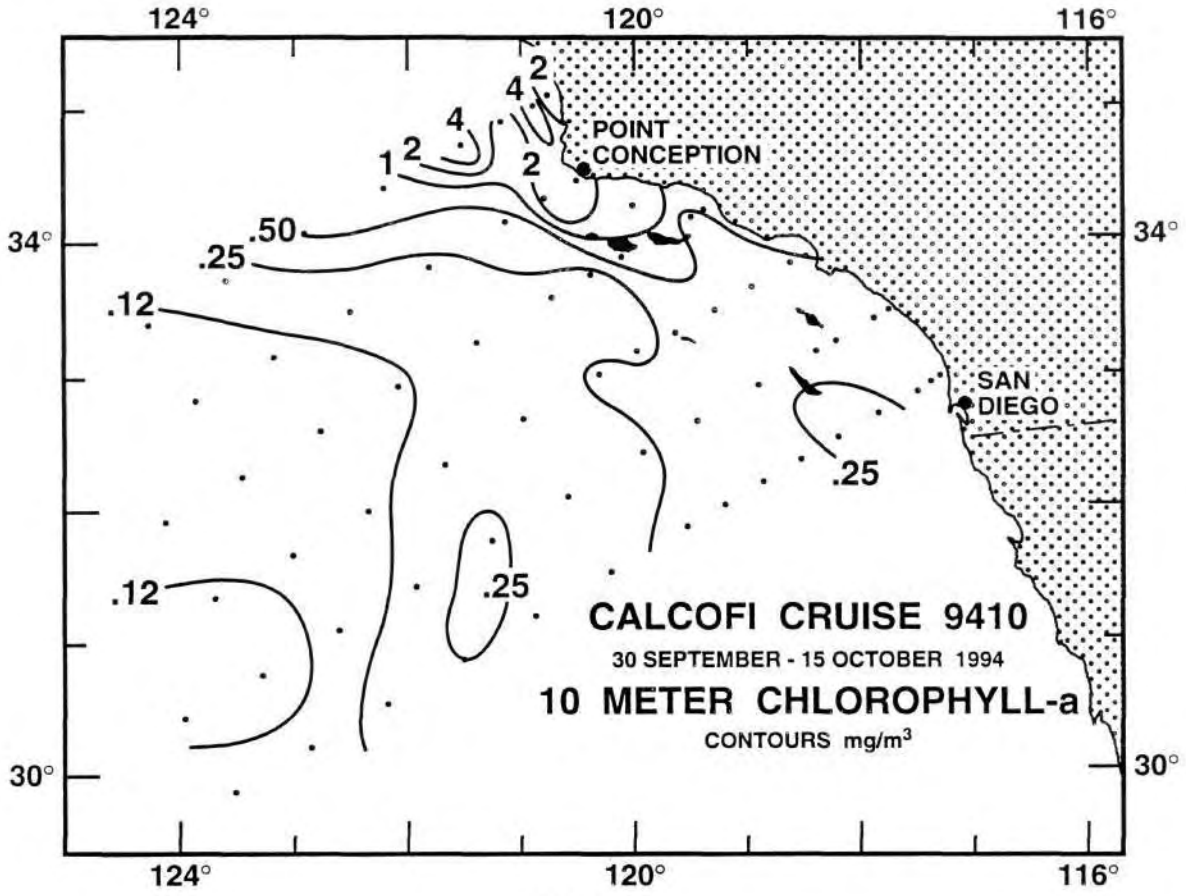


FIGURE 3A

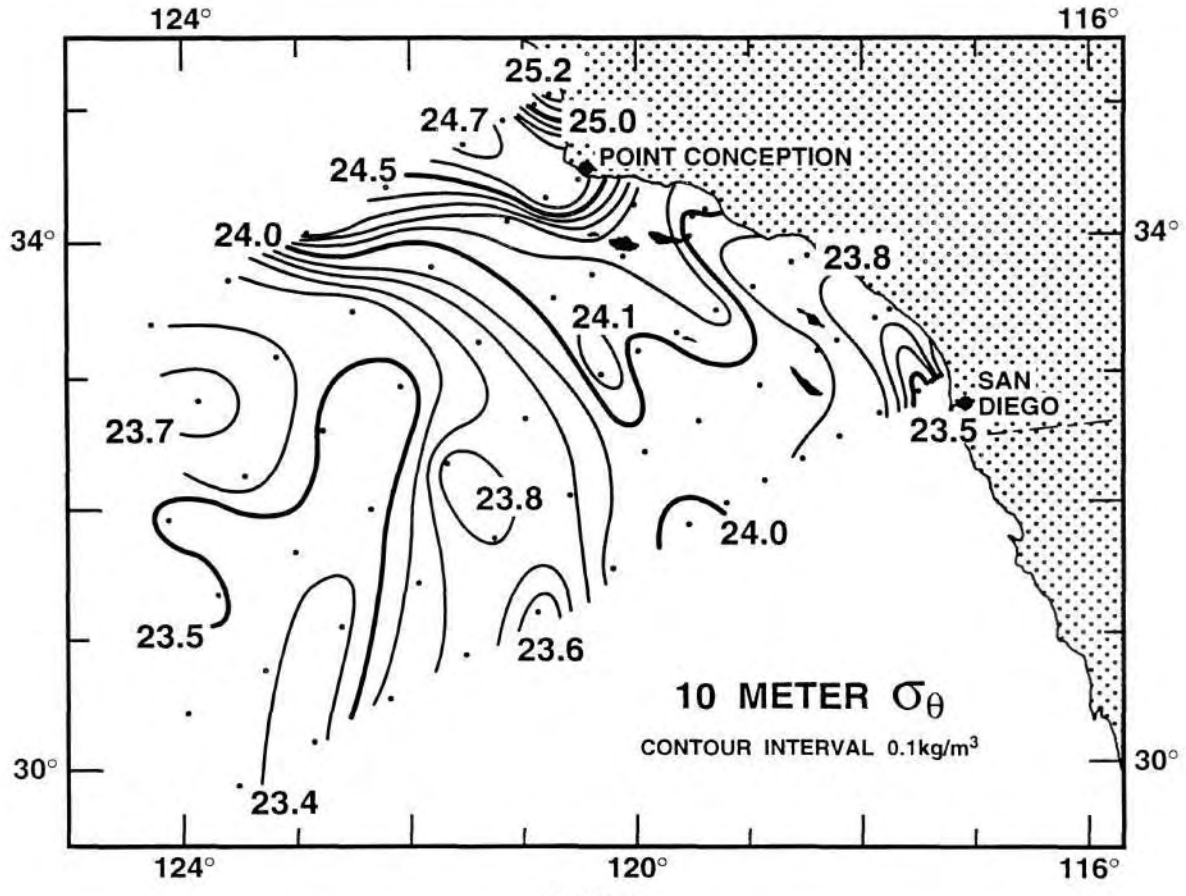


FIGURE 3B

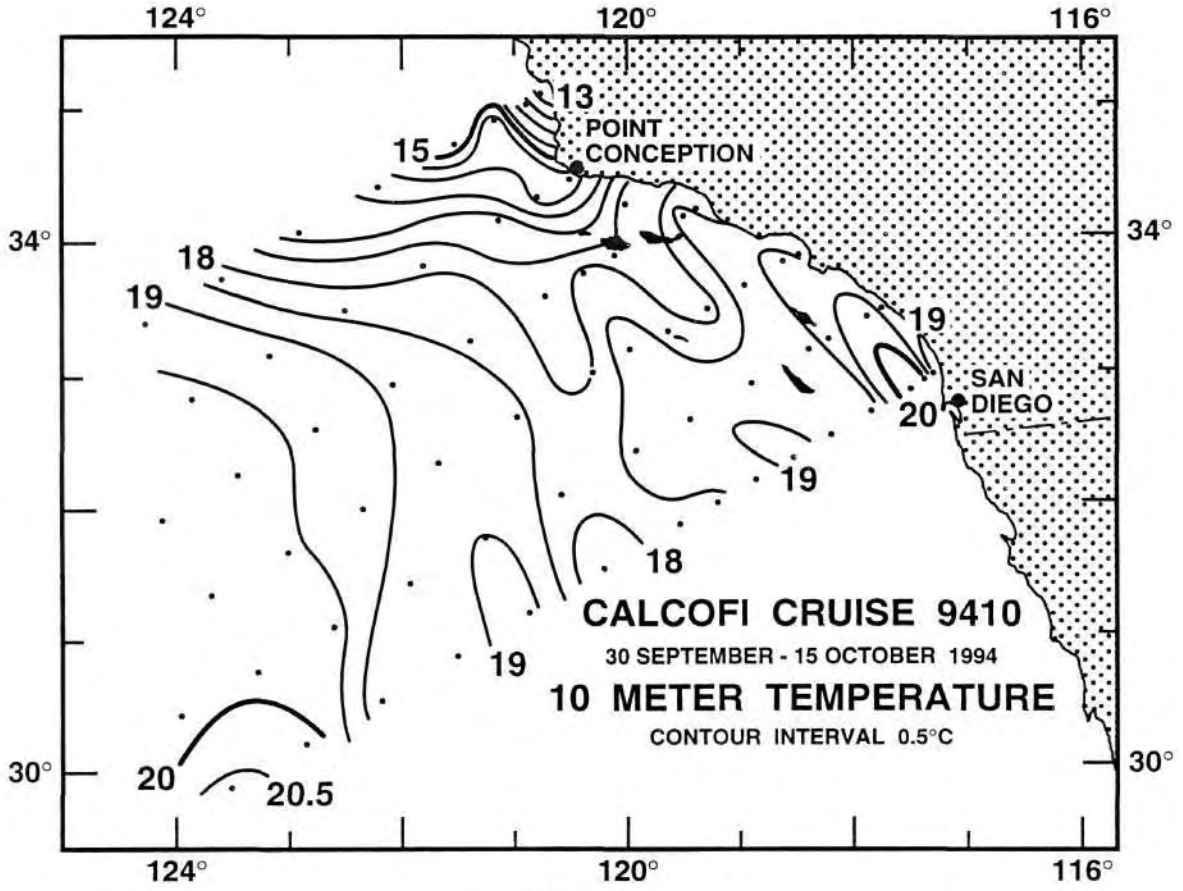


FIGURE 3C

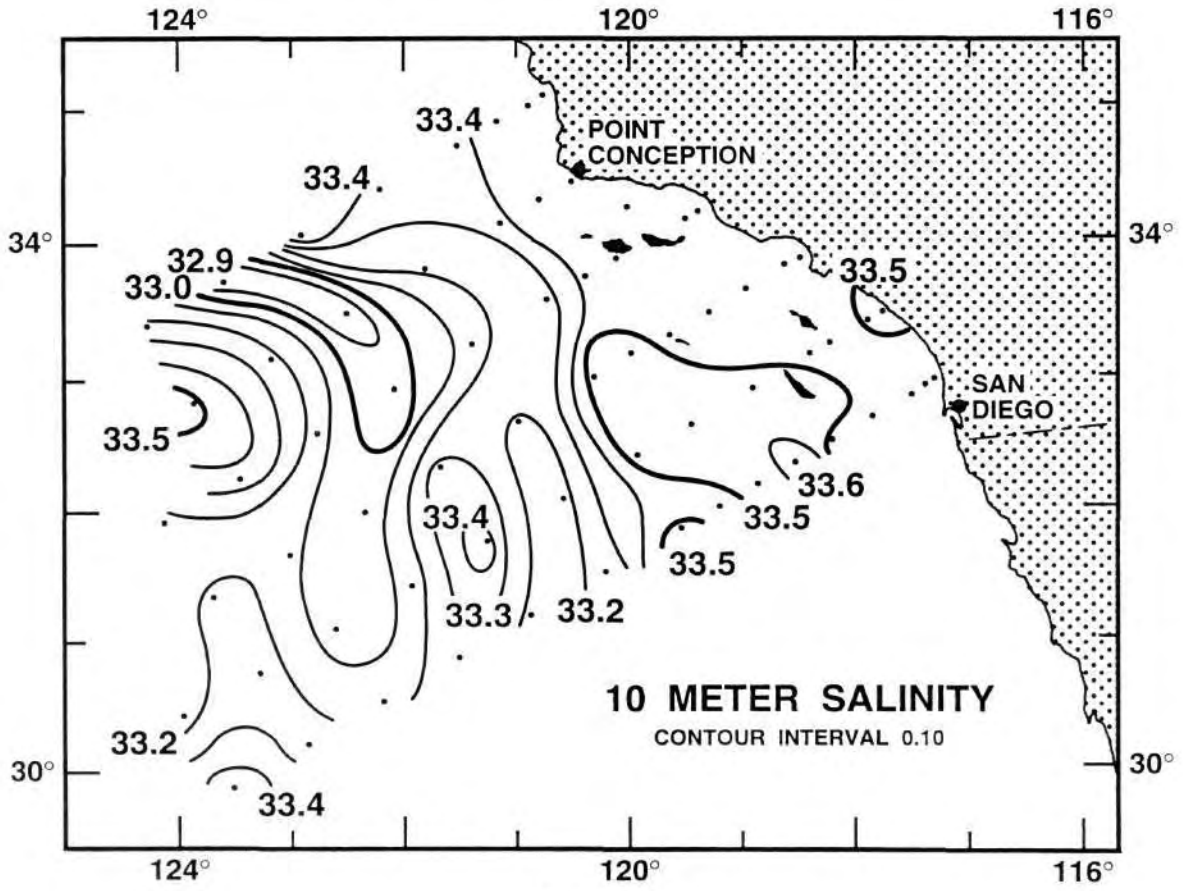


FIGURE 3D

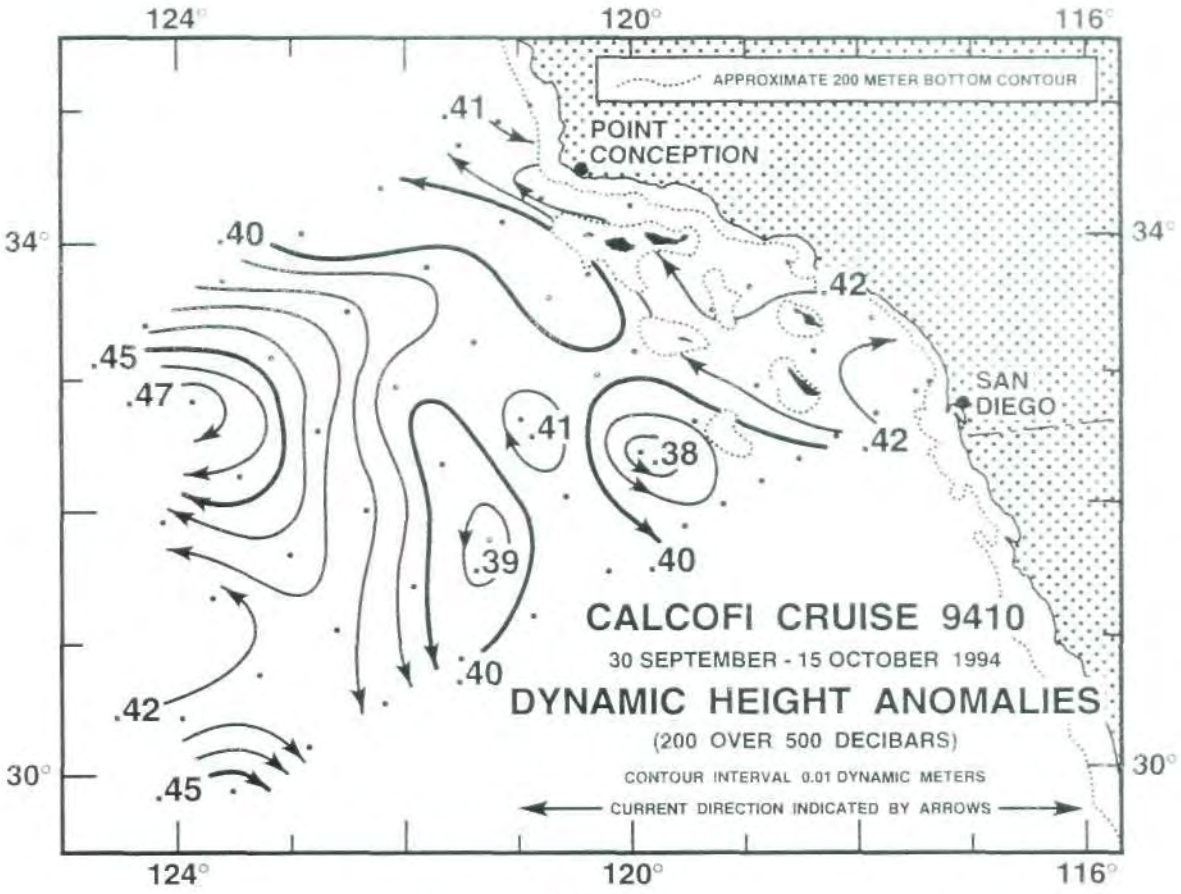


FIGURE 4A

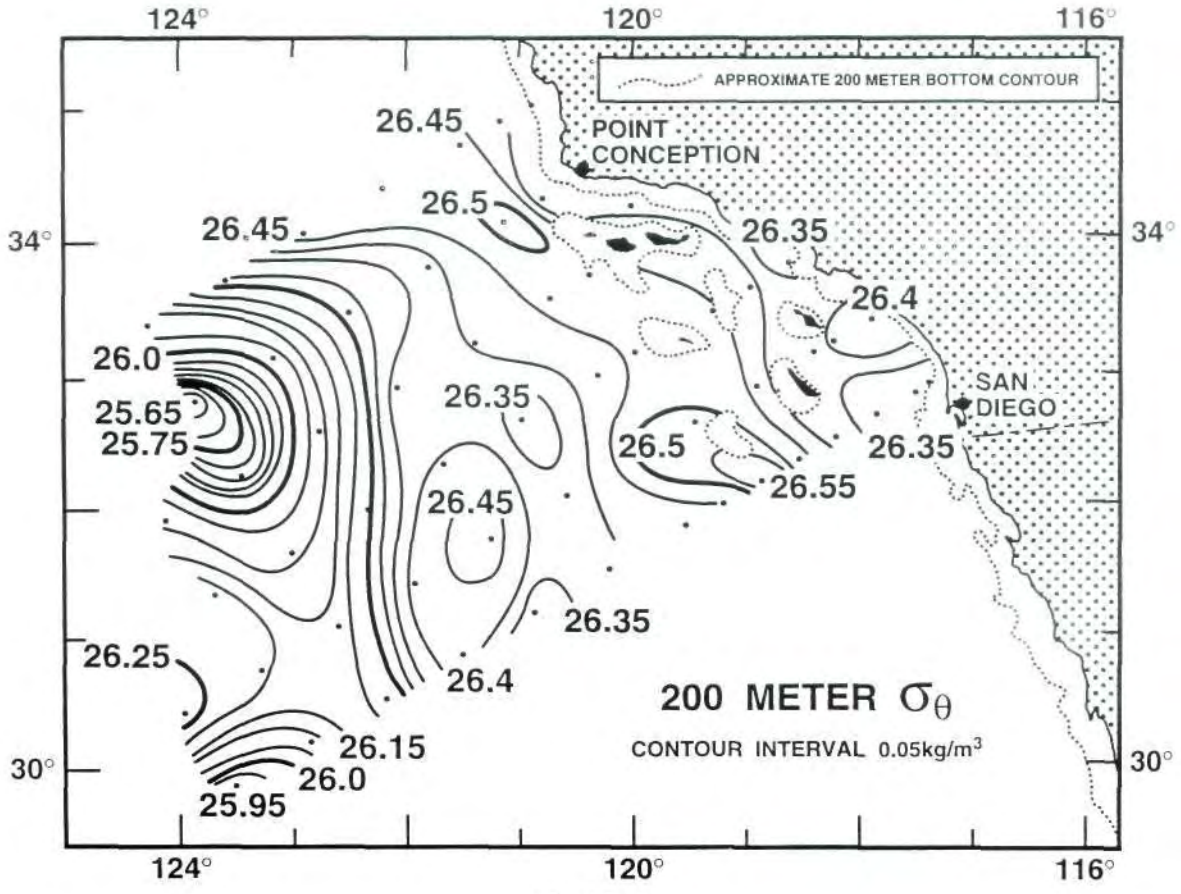


FIGURE 4B

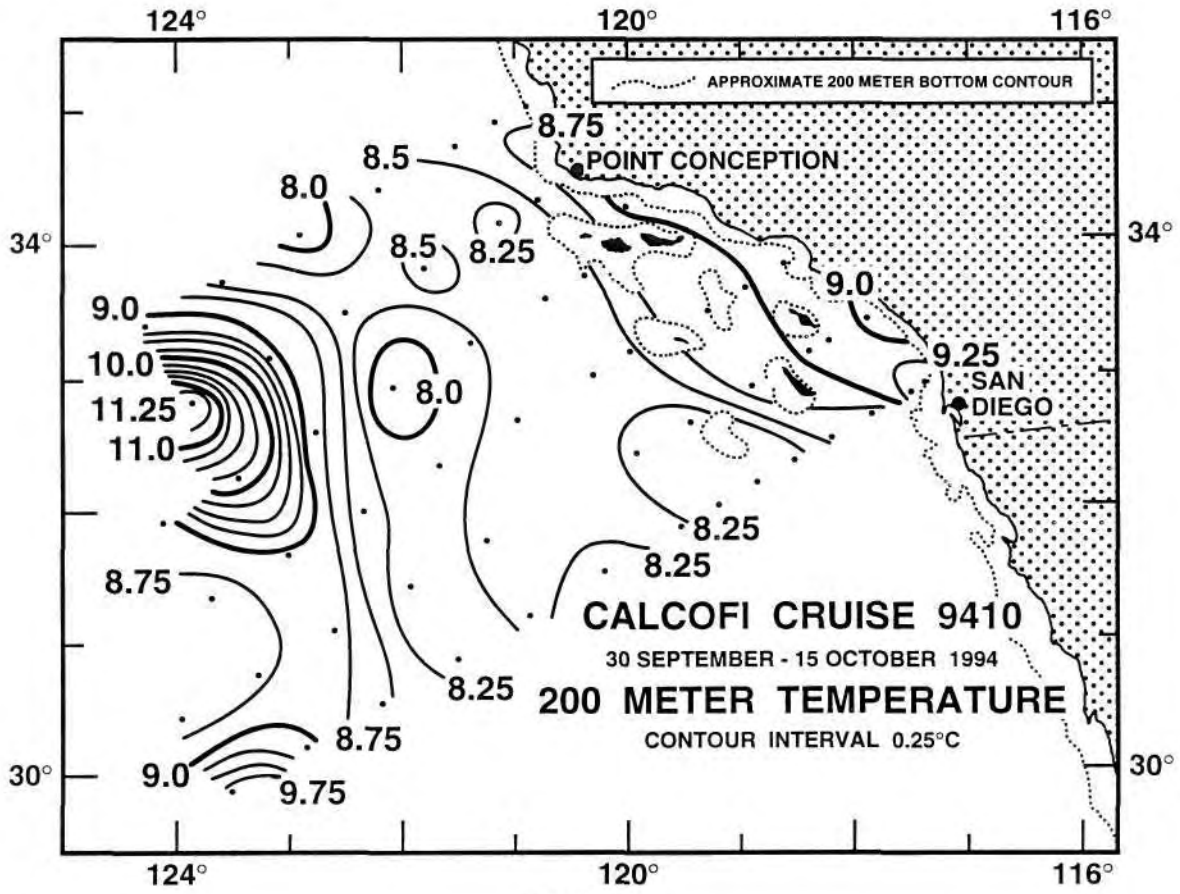


FIGURE 4C

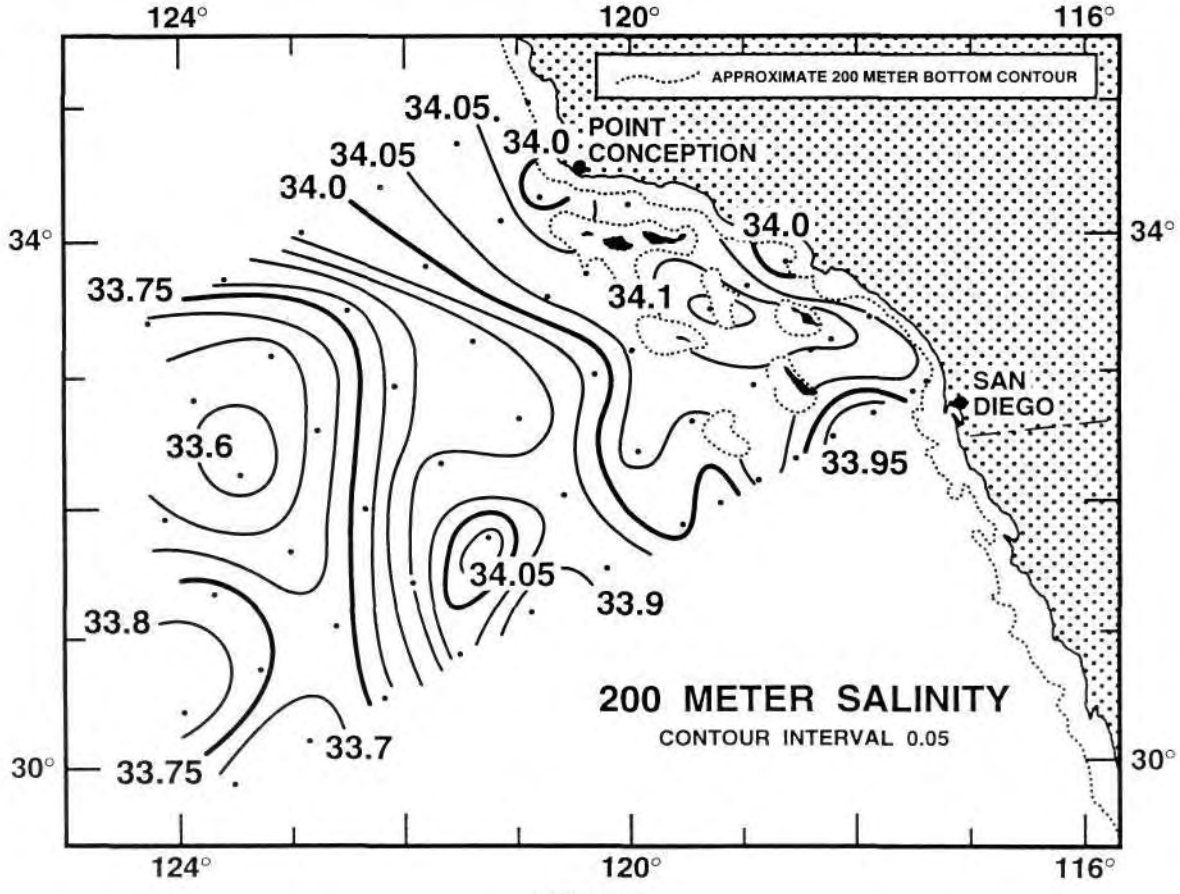


FIGURE 4D

CALCOFI CRUISE 9410

3 - 6 OCTOBER 1994

POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

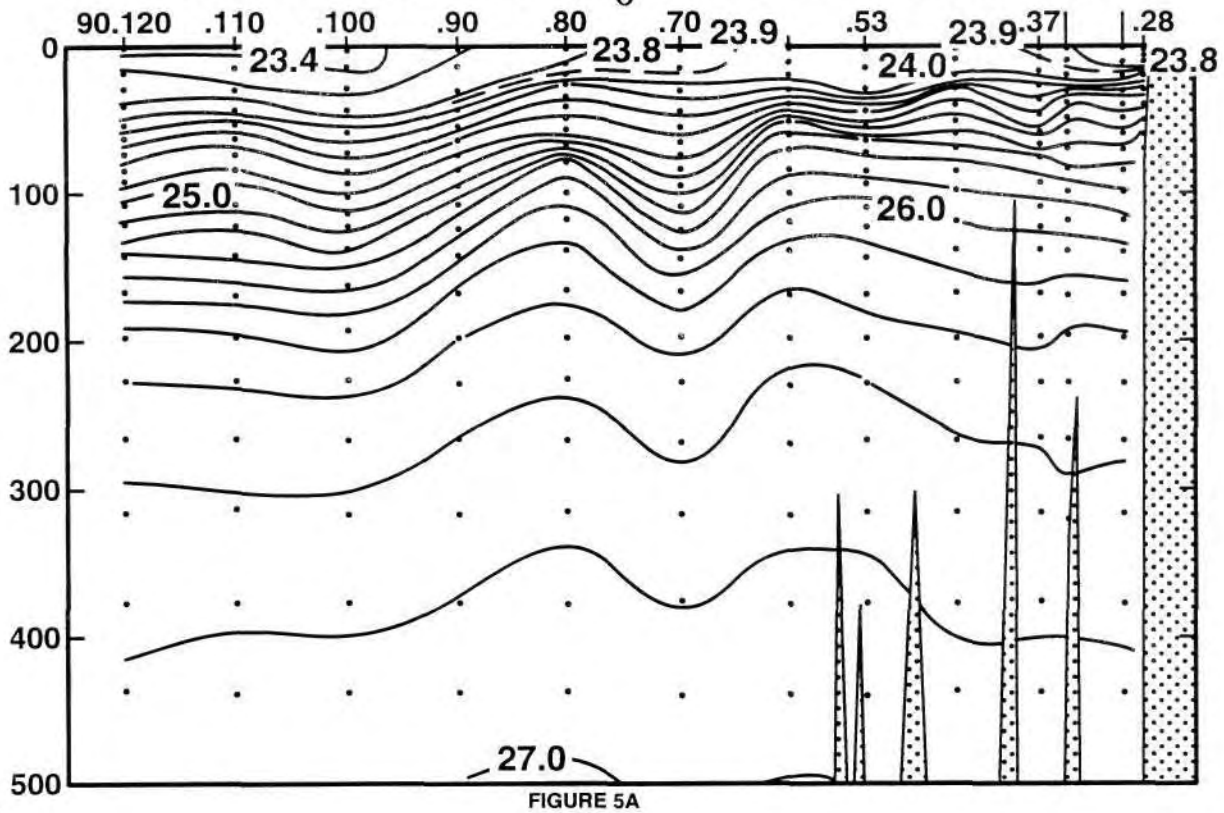


FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

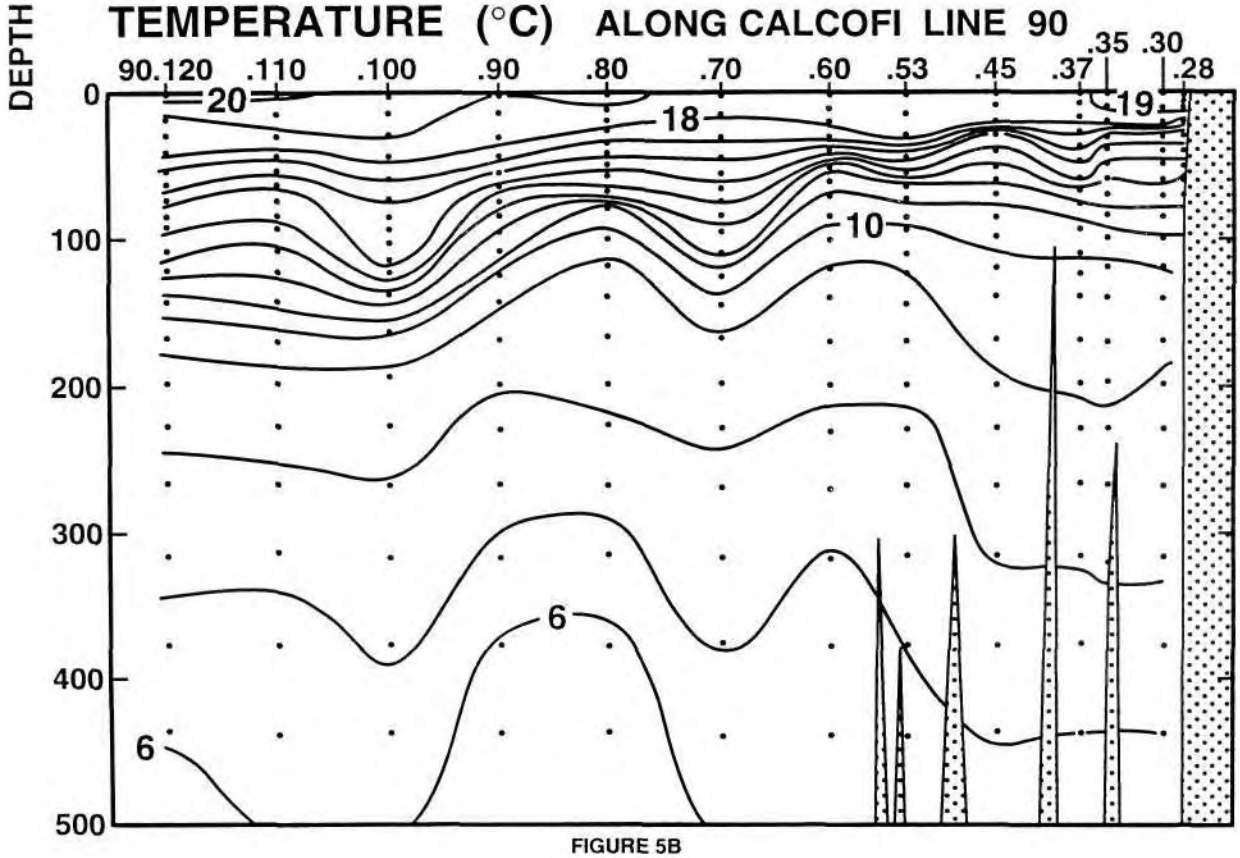


FIGURE 5B

CALCOFI CRUISE 9410

3 - 6 OCTOBER 1994

SALINITY ALONG CALCOFI LINE 90

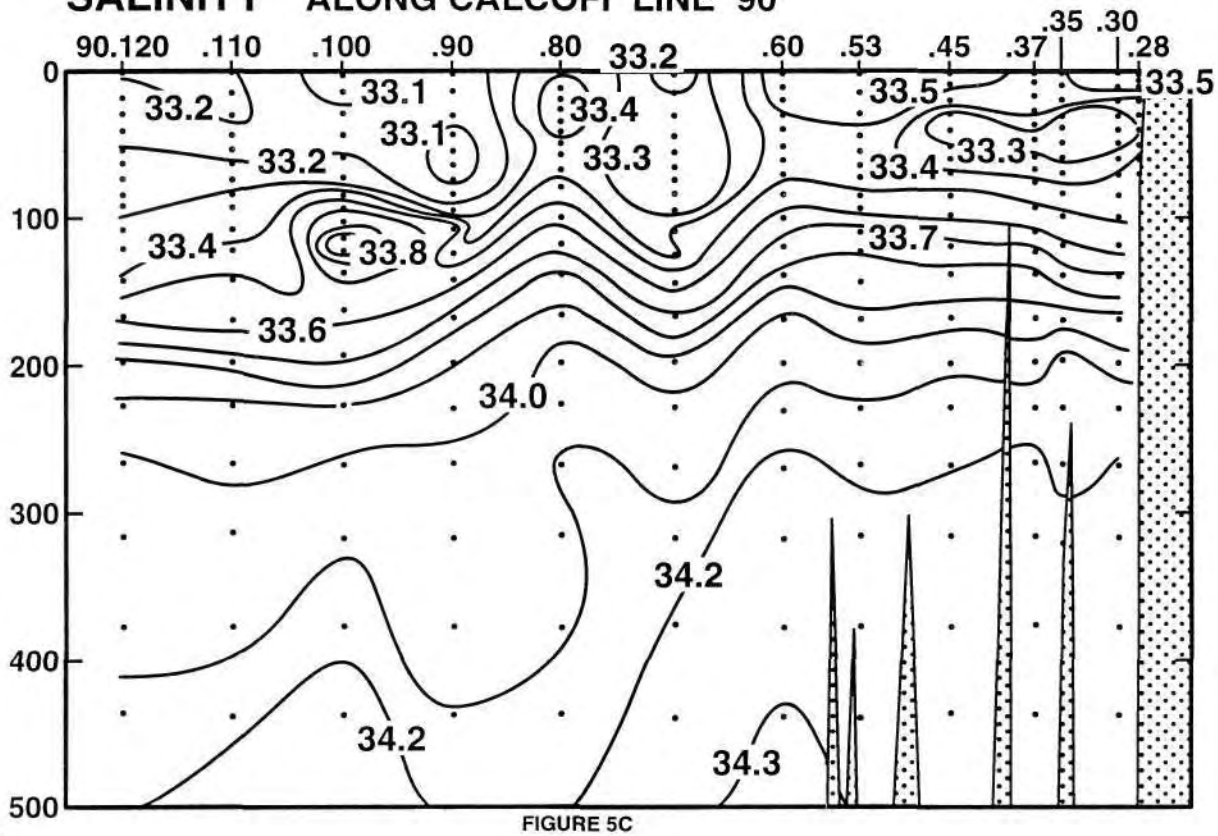


FIGURE 5C

SILICATE (μM/l) ALONG CALCOFI LINE 90

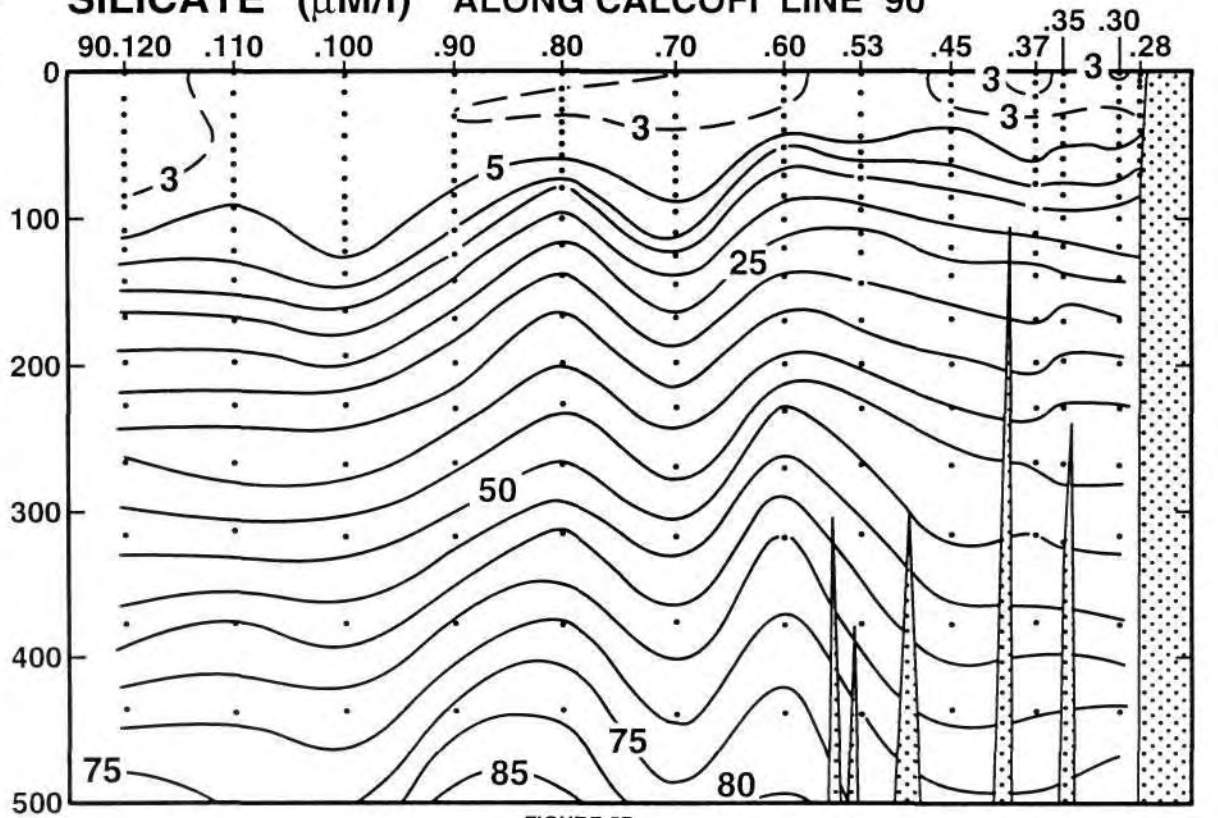


FIGURE 5D

CALCOFI CRUISE 9410

3 - 6 OCTOBER 1994

NITRATE (μM/l) ALONG CALCOFI LINE 90

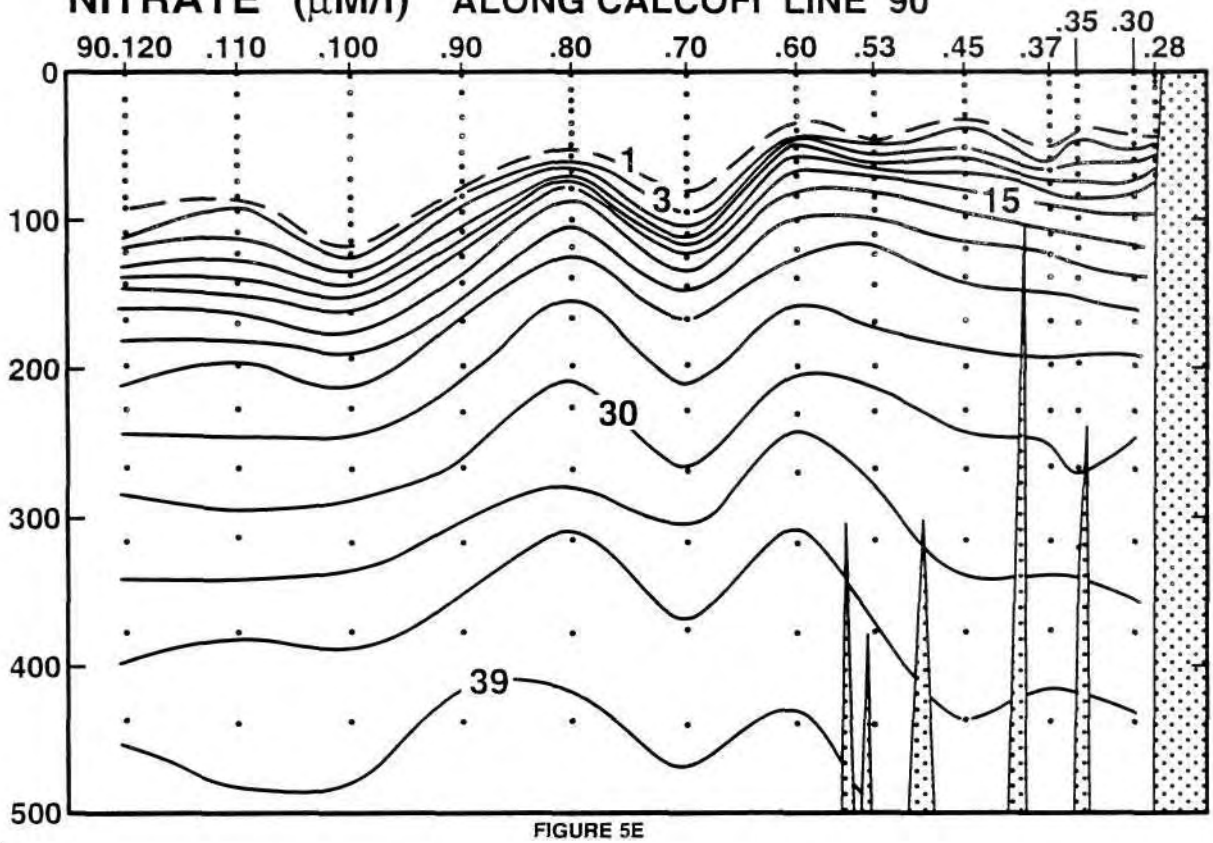


FIGURE 5E

PHOSPHATE (μM/l) ALONG CALCOFI LINE 90

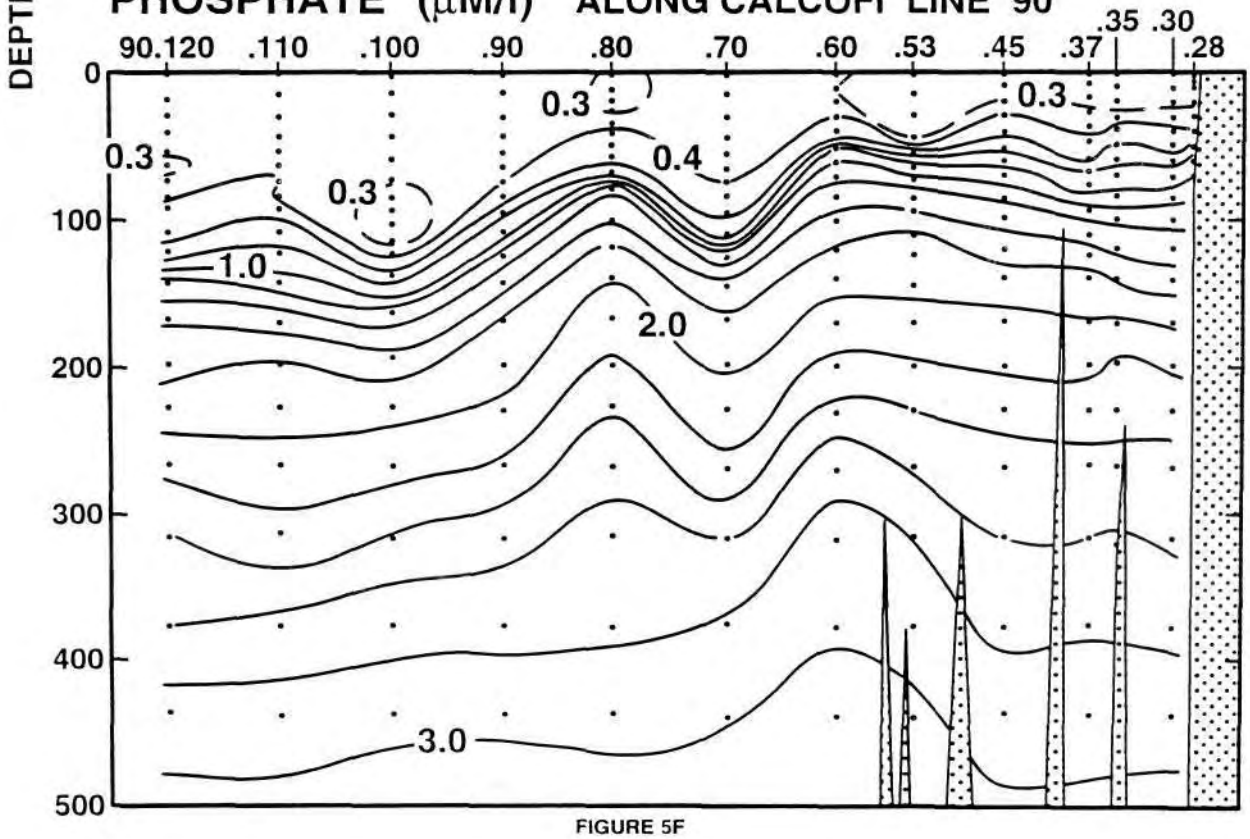


FIGURE 5F

CALCOFI CRUISE 9410

3 - 6 OCTOBER 1994

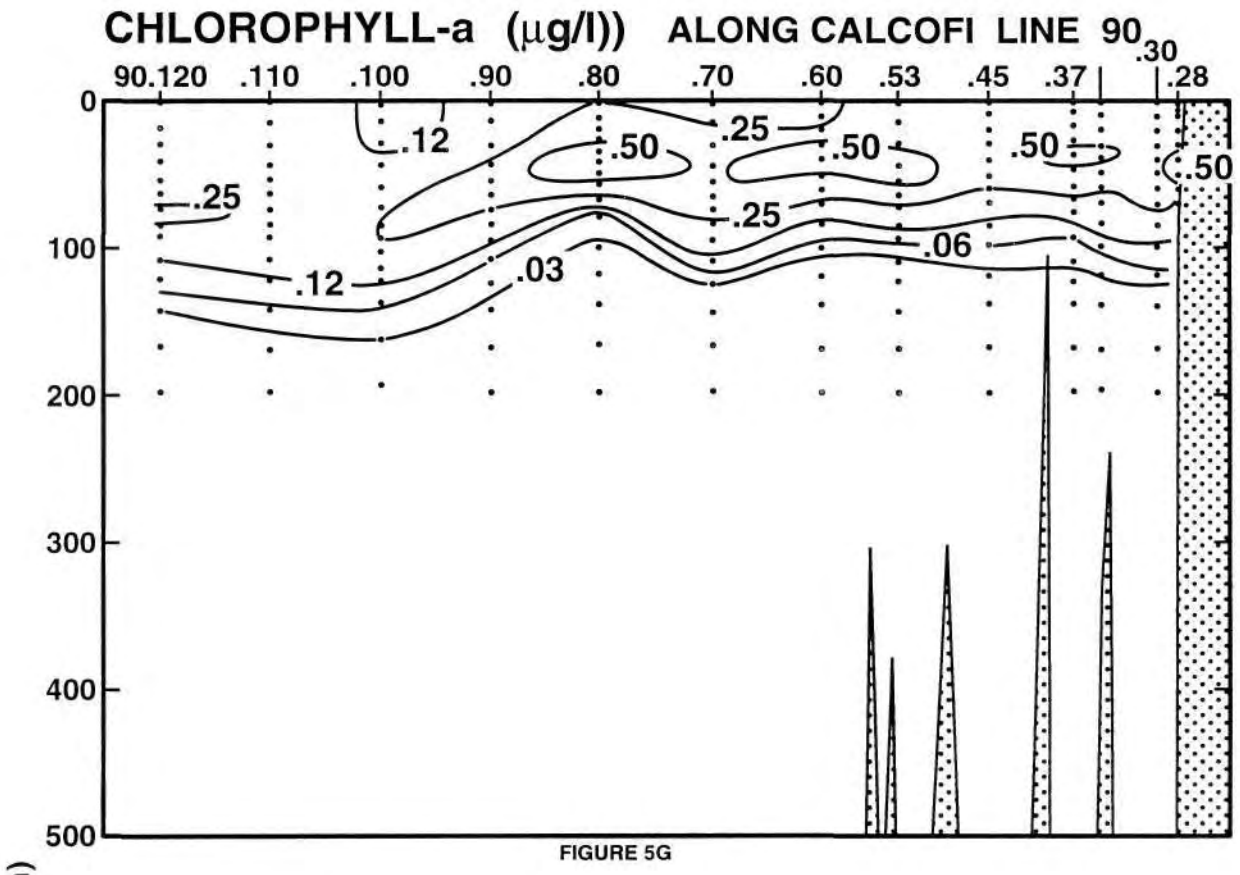


FIGURE 5G

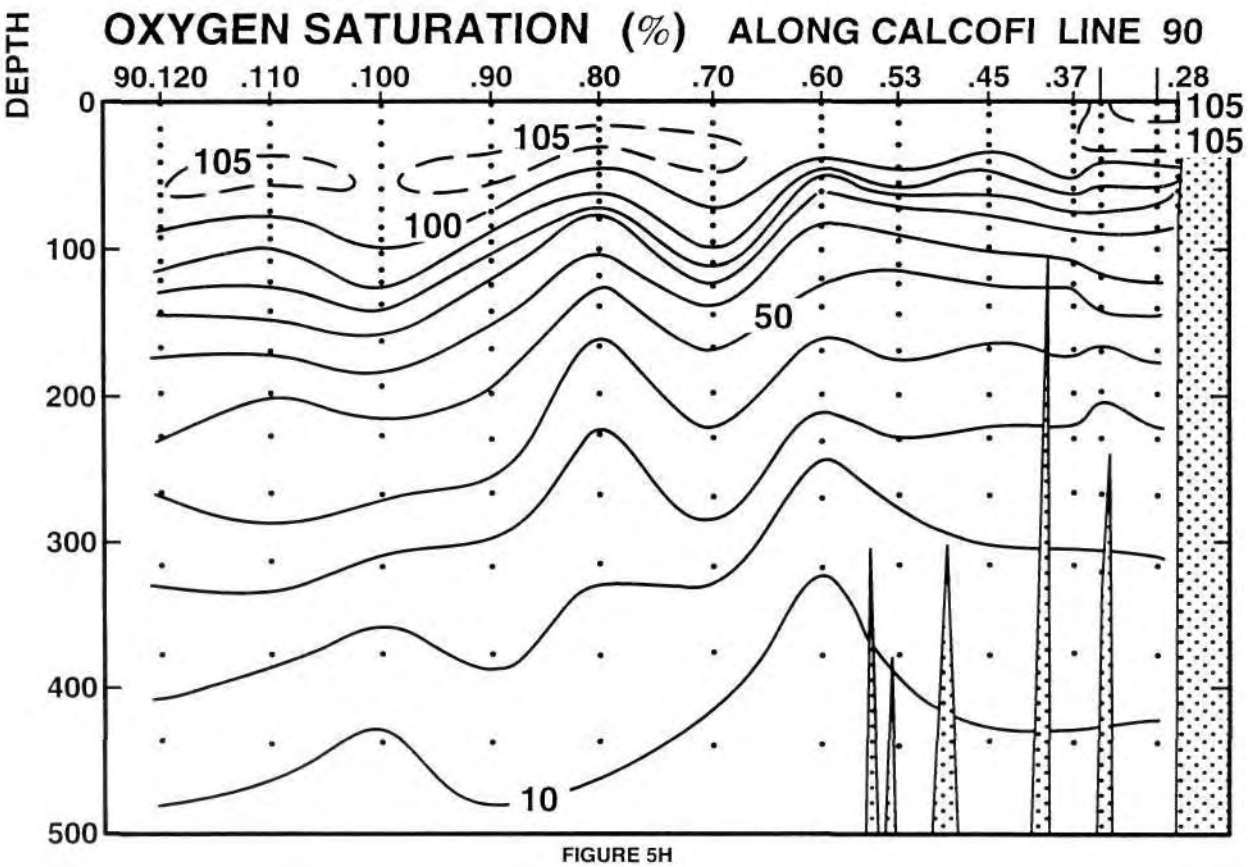


FIGURE 5H

CALCOFI CRUISE 9410

3 - 6 OCTOBER 1994

OXYGEN (ml/l) ALONG CALCOFI LINE 90

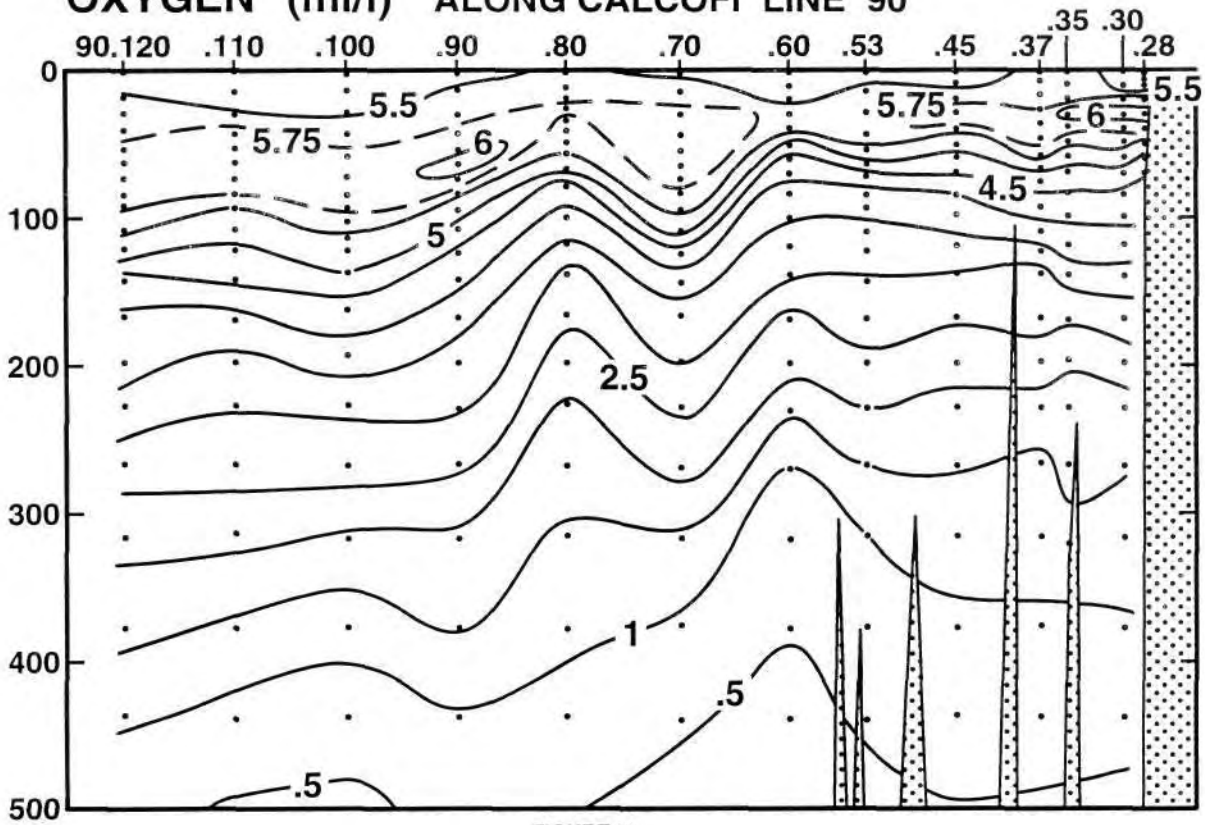


FIGURE 5I

NITRITE (μM/l) ALONG CALCOFI LINE 90

DEPTH (m)

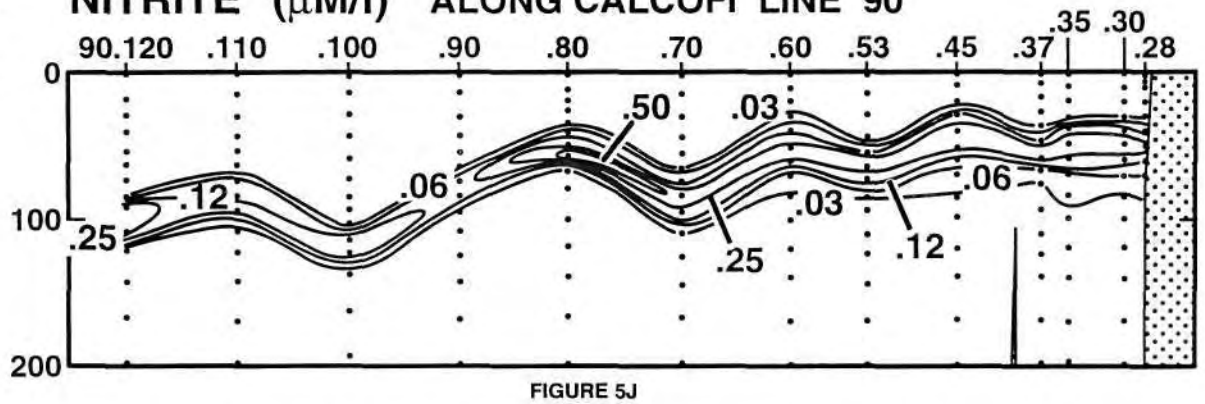


FIGURE 5J

PHAEOPIGMENTS (μg/l) ALONG CALCOFI LINE 90

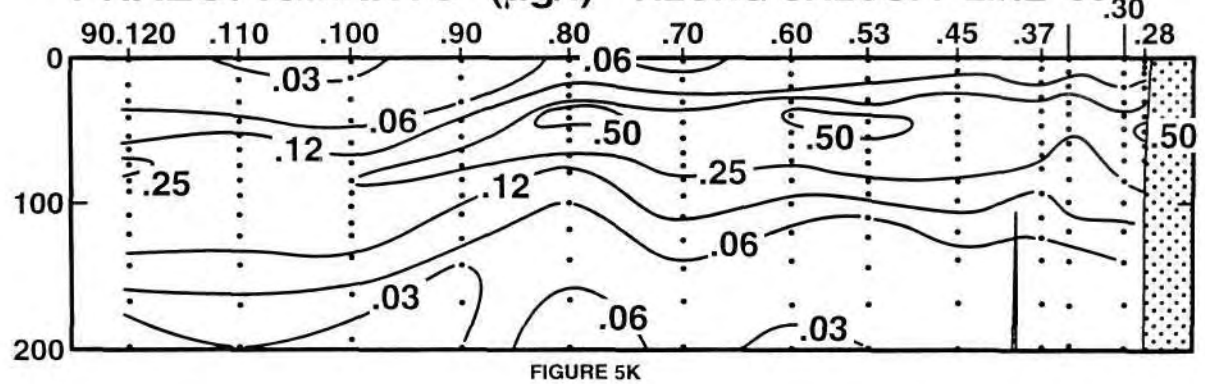


FIGURE 5K

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 77 49

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
35 5.6 N	120 46.7 W	14/10/94	1823 UTC	68 m	150 04 kn	260 04 06	1	1015.6 mb	14.8 C	13.5 C	11m 05	7/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/L	N02 uM/t	CHL-A ug/L	PHAEO ug/L	PRESS db
2	0	A	13.63	13.63	33.441	25.059	289.1	0.000	5.69	96.3	7.2	0.70	5.3	0.19	5.36	1.04	0
2	7	A	13.01	13.01	33.452	25.193	276.6	0.020	5.18	86.6	10.8	0.91	8.6	0.23	2.85	0.52	7
	10	ISL	12.55	12.55	33.459	25.288	267.6	0.028	4.91	81.3	12.3	1.01	10.3	0.22	1.75	0.35	10
2	14	A	11.99	11.99	33.471	25.404	256.6	0.038	4.59	75.1	13.8	1.13	12.2	0.20	0.62	0.21	14
	20	ISL	11.86	11.86	33.477	25.434	254.0	0.054	4.48	73.1	14.1	1.19	12.8	0.17	0.68	0.28	20
2	22	A	11.81	11.81	33.479	25.445	253.0	0.059	4.45	72.5	14.2	1.19	13.0	0.16	0.70	0.30	22
2	30	A	11.63	11.63	33.494	25.490	248.9	0.079	4.32	70.2	14.5	1.23	13.7	0.14	0.72	0.38	30
2	43	A	10.97	10.96	33.541	25.646	234.3	0.110	3.90	62.5	17.6	1.41	16.4	0.12	0.17	0.29	43
	50	ISL	10.84	10.83	33.560	25.684	230.9	0.127	3.80	60.7	18.7	1.46	17.2	0.12	0.14	0.27	50
2	56		10.73	10.72	33.576	25.716	227.9	0.140	3.71	59.1	19.6	1.50	17.8	0.12	0.11	0.26	56

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS,

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 77 51

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
35 1.4 NI	120 54.9 W	14/10/94	1512 UTC	233 m	330 12 kn	330 06 05	2	1015.9 mb	13.9 C	13.0 C	11m 04	8/8	AS

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/L	CHL-A ug/L	PHAEO ug/l	PRESS db
	0	ISL	13.90	13.90	33.440	25.003	294.5	0.000	5.64	96.0	6.2	0.65	4.4	0.19	5.75	1.45	0
2	3		13.90	13.90	33.440	25.003	294.5	0.009	5.64	96.0	6.2	0.65	4.4	0.19	5.75	1.45	3
2	10		13.89	13.89	33.439	25.005	294.6	0.029	5.62	95.7	6.3	0.65	4.5	0.19	5.57	1.86	10
	20	ISL	13.77	13.77	33.439	25.030	292.5	0.059	5.57	94.6	6.4	0.67	4.7	0.19	5.45	1.45	20
2	21		13.76	13.76	33.439	25.032	292.4	0.062	5.57	94.6	6.4	0.67	4.7	0.19	5.44	1.38	21
	30	ISL	12.80	12.80	33.440	25.225	274.1	0.087	5.60	93.2	6.4	0.66	4.7	0.19	5.32	1.24	30
2	31		12.65	12.65	33.442	25.256	271.2	0.090	5.60	92.9	6.4	0.66	4.7	0.19	5.31	1.21	31
2	40		11.00	11.00	33.514	25.620	236.7	0.113	3.95	63.3	16.8	1.36	15.9	0.06	0.16	0.30	40
2	49		10.91	10.90	33.533	25.651	234.0	0.134	3.87	61.9	17.7	1.41	16.5	0.05	0.12	0.22	49
	50	ISL	10.87	10.86	33.536	25.660	233.1	0.136	3.86	61.7	17.8	1.42	16.6	0.05	0.12	0.22	50
2	60		10.46	10.45	33.573	25.761	223.8	0.159	3.72	58.9	19.2	1.51	18.0	0.05	0.09	0.21	60
2	69		10.19	10.18	33.608	25.835	216.9	0.179	3.59	56.5	20.7	1.57	19.2	0.03	0.06	0.15	69
	75	ISL	9.99	9.98	33.640	25.894	211.4	0.192	3.48	54.6	21.9	1.63	20.1	0.03	0.05	0.15	75
2	84		9.76	9.75	33.684	25.966	204.7	0.211	3.33	52.0	23.5	1.71	21.2	0.02	0.04	0.16	84
2	99		9.74	9.73	33.706	25.987	203.0	0.241	3.25	50.7	24.7	1.75	21.7	0.03	0.04	0.15	100
	100	ISL	9.73	9.72	33.707	25.990	202.8	0.243	3.25	50.7	24.8	1.75	21.7	0.03	0.04	0.15	101
2	118		9.55	9.54	33.745	26.049	197.5	0.279	3.12	48.5	26.4	1.81	22.6	0.05	0.04	0.15	119
	125	ISL	9.48	9.47	33.772	26.082	194.5	0.293	3.03	47.0	27.7	1.86	23.2	0.08	0.04	0.15	126
2	138		9.35	9.33	33.830	26.149	188.4	0.318	2.82	43.7	30.3	1.96	24.4	0.14	0.03	0.16	139
	150	ISL	9.20	9.18	33.880	26.212	182.6	0.340	2.61	40.3	32.5	2.04	25.5	0.13	0.03	0.15	151
2	170		8.95	8.93	33.952	26.309	173.8	0.376	2.30	35.3	35.6	2.16	27.2	0.11	0.02	0.14	171
2	200		8.70	8.68	34.013	26.396	166.0	0.427	2.16	33.0	38.4	2.26	28.4	0.12	0.02	0.14	201
2	224		8.64	8.62	34.030	26.419	164.3	0.466	2.01	30.7	39.4	2.30	28.8	0.15	0.01	0.17	225

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 53.8 N	121 12.3 W	14/10/94	1130 UTC	562 m	330 25 kn			1015.8 mb	15.5 C	14.3 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/L	P04 uM/l	N03 uM/I	N02 uM/L	CHL-A ug/I	PHAEO ug/I	PRESS db
	0	ISL	15.56	15.56	33.426	24.637	329.4	0.000	5.72	100.7	3.7	0.42	1.6	0.11	1.08	0.48	0
2	3		15.56	15.56	33.426	24.637	329.5	0.010	5.72	100.7	3.7	0.42	1.6	0.11	1.08	0.48	3
	10	ISL	15.56	15.56	33.426	24.637	329.7	0.033	5.75	101.2	3.7	0.42	1.6	0.11	1.13	0.46	10
2	11		15.56	15.56	33.426	24.637	329.7	0.036	5.75	101.2	3.7	0.42	1.6	0.11	1.14	0.46	11
2	20		15.55	15.55	33.427	24.640	329.6	0.066	5.74	101.0	3.7	0.42	1.6	0.11	1.14	0.46	20
	30	ISL	13.32	13.32	33.393	25.086	287.4	0.097	5.19	87.3	6.5	0.79	7.3	0.25	0.52	0.51	30
2	31		13.06	13.06	33.394	25.138	282.4	0.100	5.12	85.6	6.9	0.84	8.0	0.26	0.45	0.51	31
2	41		11.61	11.60	33.441	25.453	252.7	0.126	4.40	71.4	12.5	1.21	13.9	0.06	0.15	0.20	41
2	50		11.38	11.37	33.462	25.511	247.4	0.149	4.29	69.3	13.9	1.30	15.2	0.04	0.12	0.17	50
2	62		11.02	11.01	33.491	25.599	239.3	0.178	4.08	65.4	15.7	1.40	16.7	0.04	0.08	0.15	62
2	71		10.41	10.40	33.573	25.770	223.2	0.199	3.66	57.9	19.2	1.60	19.8	0.03	0.04	0.10	71
	75	ISL	10.30	10.29	33.587	25.800	220.4	0.208	3.61	57.0	19.8	1.63	20.3	0.03	0.03	0.10	75
2	80		10.21	10.20	33.599	25.824	218.1	0.219	3.57	56.2	20.4	1.66	20.7	0.02	0.03	0.11	80
2	99		9.61	9.60	33.726	26.024	199.5	0.258	3.07	47.8	24.9	1.86	23.6	0.02	0.01	0.08	100
	100	ISL	9.59	9.58	33.730	26.031	198.9	0.260	3.05	47.4	25.1	1.87	23.7	0.02	0.01	0.08	101
2	121		9.37	9.36	33.814 D	26.133	189.6	0.301									122
	125	ISL	9.33	9.32	33.835	26.156	187.5	0.309	2.63	40.7	29.3	2.01	25.9	0.01	0.01	0.08	126
2	138		9.18	9.16	33.899	26.230	180.7	0.333	2.48	38.3	31.0	2.06	26.6	0.01	0.01	0.08	139
	150	ISL	9.02	9.00	33.941	26.289	175.3	0.354	2.40	36.9	32.1	2.10	27.1	0.01	0.01	0.08	151
2	166		8.84	8.82	33.982 D	26.349	169.8	0.382									167
2	198		8.75	8.73	34.025	26.398	165.8	0.435	2.21	33.8	35.8	2.23	28.4	0.01	0.00	0.06	199
	200	ISL	8.74	8.72	34.029	26.402	165.4	0.439	2.20	33.6	36.0	2.24	28.5	0.01			201
2	227		8.48	8.46	34.086	26.488	157.8	0.482	2.02	30.7	39.3	2.33	29.6	0.01			228
	250	ISL	8.20	8.17	34.109	26.548	152.3	0.518	1.95	29.5	42.3	2.40	30.6	0.01			252
2	269		7.97	7.94	34.123	26.594	148.2	0.546	1.87	28.1	45.0	2.46	31.4	0.01			271
	300	ISL	7.67	7.64	34.164	26.670	141.4	0.591	1.52	22.7	49.9	2.60	32.9	0.00			302
2	318		7.51	7.48	34.185	26.710	137.8	0.616	1.31	19.5	52.7	2.67	33.8	0.00			320
2	375		7.08	7.04	34.200	26.783	131.6	0.693	1.04	15.3	59.9	2.78	35.7	0.00			377
	400	ISL	6.90	6.86	34.208	26.814	128.8	0.726	0.89	13.1	63.2	2.86	36.4	0.01			403
2	438		6.60	6.56	34.221	26.865	124.3	0.774	0.68	9.9	68.8	2.97	37.4	0.03			441
	500	ISL	6.00	5.96	34.242	26.959	115.7	0.848	0.53	7.6	79.8	3.09	39.5	0.02			504
2	513		5.87	5.83	34.247	26.980	113.8	0.863	0.50	7.2	82.1	3.11	40.0	0.02			517

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 42.9 N	121 33.8 W	14/10/94	0653 UTC	988 m	320 30 kn			1007.6 mb	15.6 C	13.5 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	14.94	14.94	33.388	24.743	319.2	0.000	5.95	103.4	3.1	0.40	0.9	0.15	5.49	1.10	0
2	2		14.94	14.94	33.388	24.743	319.3	0.006	5.95	103.4	3.1	0.40	0.9	0.15	5.49	1.10	2
2	10		14.95	14.95	33.388	24.741	319.7	0.032	5.97	103.8	3.1	0.41	0.9	0.15	5.66	1.23	10
2	20		14.94	14.94	33.390	24.745	319.6	0.064	5.96	103.6	3.1	0.40	0.9	0.15	5.53	1.05	20
	30	ISL	14.89	14.89	33.390	24.756	318.9	0.096	5.96	103.5	3.1	0.40	0.9	0.15	5.57	1.12	30
2	31		14.89	14.89	33.390	24.756	318.9	0.099	5.96	103.5	3.1	0.40	0.9	0.15	5.57	1.13	31
2	41		12.97	12.96	33.363	25.133	283.3	0.129	5.00	83.5	8.4	0.87	8.1	0.36	0.54	0.34	41
2	50		11.81	11.80	33.373	25.363	261.5	0.154	4.75	77.4	10.6	1.07	11.4	0.12	0.23	0.28	50
2	60		11.15	11.14	33.478	25.565	242.4	0.179	4.16	66.9	15.2	1.31	15.5	0.04	0.12	0.18	60
2	70		10.49	10.48	33.540 D	25.730	226.9	0.202									70
	75	ISL	10.23	10.22	33.570	25.798	220.5	0.213	3.68	58.0	19.9	1.56	19.4	0.03	0.08	0.15	75
2	85		9.82	9.81	33.625	25.910	210.0	0.235	3.54	55.3	22.0	1.66	20.9	0.03	0.05	0.13	85
2	99		9.47	9.46	33.680	26.011	200.7	0.264	3.41	52.9	23.9	1.73	22.1	0.02	0.03	0.10	100
	100	ISL	9.44	9.43	33.686	26.021	199.8	0.266	3.40	52.7	24.1	1.74	22.2	0.02	0.03	0.10	101
2	119		8.96	8.95	33.810	26.195	183.5	0.302	3.08	47.3	28.5	1.88	24.6	0.01	0.01	0.06	120
	125	ISL	8.88	8.87	33.837	26.229	180.4	0.313	2.99	45.8	29.4	1.92	25.1	0.01	0.01	0.06	126
2	139		8.78	8.77	33.889 D	26.285	175.3	0.338									HO
	150	ISL	8.78	8.76	33.934	26.321	172.2	0.357	2.63	40.2	32.7	2.05	26.7	0.01	0.00	0.06	151
2	168		8.78	8.76	33.998	26.371	167.8	0.388	2.41	36.9	34.4	2.12	27.5	0.01	0.00	0.06	169
2	199		8.55	8.53	34.071	26.465	159.4	0.438	2.11	32.1	38.2	2.24	29.1	0.01	0.00	0.04	200
	200	ISL	8.55	8.53	34.073	26.466	159.3	0.440	2.10	32.0	38.3	2.24	29.1	0.01			201
2	229		8.52	8.50	34.114	26.503	156.3	0.486	1.90	28.9	40.2	2.30	29.8	0.01			230
	250	ISL	8.42	8.39	34.143	26.542	153.0	0.518	1.74	26.4	42.3	2.36	30.5	0.01			252
2	268		8.30	8.27	34.163	26.576	150.1	0.546	1.61	24.4	44.2	2.42	31.1	0.01			270
	300	ISL	8.03	8.00	34.178	26.629	145.5	0.593	1.46	22.0	47.5	2.50	32.0	0.01			302
2	318		7.87	7.84	34.183	26.656	143.1	0.619	1.39	20.8	49.4	2.55	32.5	0.01			320
2	377		7.35	7.31	34.208	26.751	134.8	0.701	1.07	15.9	56.9	2.71	34.7	0.00			379
	400	ISL	6.84	6.80	34.167	26.790	131.1	0.731	1.08	15.8	61.1	2.75	36.0	0.00			403
2	438		6.02	5.98	34.104	26.847	125.4	0.780	1.10	15.8	68.2	2.80	38.0	0.00			441
	500	ISL	5.68	5.64	34.143	26.921	118.9	0.856	0.80	11.4	76.3	2.93	39.7	0.00			504
2	511		5.62	5.58	34.150	26.933	117.8	0.869	0.75	10.7	77.7	2.95	40.0	0.00			515

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 77 70

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 23.7 NI	122 15.1 W	13/10/94	2344 UTC	4015 m	330 30 kn	340 14 05	1	1009.1 mb	16.3 C	13.9 C		5/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/L	PRESS db
	0	ISL	16.45	16.45	33.393	24.410	351.0	0.000	5.69	102.0	3.0	0.36	0.5	0.04	0.80	0.30	0
2	3		16.45	16.45	33.393	24.410	351.0	0.011	5.69	102.0	3.0	0.36	0.5	0.04	0.80	0.30	3
2	10		16.46	16.46	33.393	24.408	351.5	0.035	5.66	101.4	2.8	0.37	0.6	0.04	0.81	0.29	10
2	20		16.45	16.45	33.393	24.411	351.5	0.070	5.70	102.1	2.8	0.38	0.5	0.04	0.82	0.30	20
	30	ISL	16.44	16.44	33.394	24.414	351.5	0.105	5.70	102.1	2.8	0.37	0.6	0.04	0.81	0.31	30
2	31		16.44	16.44	33.394	24.414	351.6	0.109	5.70	102.1	2.8	0.37	0.6	0.04	0.81	0.31	31
2	40		16.38	16.37	33.399	24.432	350.2	0.141	5.62	100.6	3.2	0.38	0.9	0.06	0.75	0.29	40
	50	ISL	12.67	12.66	33.478	25.281	269.4	0.171	4.35	72.2	11.4	1.07	11.3	0.31	0.31	0.22	50
2	51		12.26	12.25	33.496	25.374	260.5	0.174	4.21	69.3	12.4	1.15	12.5	0.33	0.26	0.21	51
2	60		11.03	11.02	33.539 D	25.634	235.9	0.196									60
2	70		10.42	10.41	33.587	25.779	222.3	0.219	3.64	57.6	19.2	1.54	18.8	0.04	0.11	0.14	70
	75	ISL	10.22	10.21	33.613	25.834	217.2	0.230	3.54	55.8	20.4	1.60	19.7	0.03	0.09	0.15	75
2	87		9.85	9.84	33.665	25.937	207.6	0.256	3.38	52.9	22.6	1.72	21.1	0.02	0.07	0.16	87
2	100		9.39	9.38	33.686	26.029	199.0	0.282	3.32	51.4	24.0	1.83	22.3	0.02	0.03	0.11	100
2	120		9.02	9.01	33.780	26.162	186.7	0.321	3.14	48.2	27.6	1.88	24.1	0.01	0.01	0.06	121
	125	ISL	8.98	8.97	33.794	26.179	185.1	0.330	3.11	47.7	28.0	1.89	24.3	0.01	0.01	0.06	126
2	138		8.89	8.88	33.826	26.219	181.6	0.354	3.05	46.7	28.8	1.91	24.8	0.01	0.01	0.06	139
	150	ISL	8.78	8.76	33.863	26.265	177.4	0.376	2.93	44.8	30.1	1.96	25.4	0.01	0.01	0.06	151
2	170		8.61	8.59	33.932 D	26.346	170.1	0.410									171
2	199		8.48	8.46	34.040	26.451	160.7	0.458	2.38	36.2	36.6	2.17	28.1	0.01	0.00	0.05	200
	200	ISL	8.47	8.45	34.041	26.453	160.5	0.460	2.37	36.0	36.7	2.17	28.1	0.01			201
2	227		8.14	8.12	34.063	26.521	154.4	0.502	2.13	32.1	40.1	2.24	29.5	0.01			228
	250	ISL	7.86	7.84	34.106	26.596	147.6	0.537	1.77	26.5	44.6	2.39	31.1	0.02			251
2	266		7.68	7.65	34.138	26.648	142.9	0.560	1.51	22.5	48.1	2.50	32.2	0.02			268
	300	ISL	7.38	7.35	34.184	26.727	135.8	0.608	1.17	17.4	54.7	2.67	34.0	0.01			302
2	317		7.25	7.22	34.201	26.759	133.0	0.631	1.04	15.4	57.7	2.74	34.8	0.01			319
2	378		6.72	6.69	34.241	26.864	123.6	0.709	0.67	9.8	66.0	2.91	37.1	0.01			380
	400	ISL	6.50	6.46	34.247	26.898	120.6	0.736	0.61	8.9	69.3	2.97	37.9	0.01			403
2	438		6.15	6.11	34.255	26.950	115.9	0.781	0.53	7.6	74.6	3.05	39.2	0.01			441
	500	ISL	5.77	5.73	34.271	27.011	110.6	0.851	0.40	5.7	80.7	3.12	40.4	0.00			503
2	514		5.68	5.64	34.275	27.025	109.3	0.866	0.37	5.3	82.1	3.14	40.7	0.00			518

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 77 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 3.6 N	122 56.5 W	13/10/94	1756 UTC	4232 m	330 27 kn	320 10 07	1	1014.6 mb	16.8 C	14.6 C	15m 03	4/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	16.80	16.80	33.447	24.370	354.7	0.000	5.71	103.1	2.5	0.29	0.4	0.00	0.47	0.18	0
2	2		16.80	16.80	33.447	24.370	354.8	0.007	5.71	103.1	2.5	0.29	0.4	0.00	0.47	0.18	2
2	8		16.81	16.81	33.448	24.369	355.1	0.028	5.71	103.1	2.4	0.29	0.4	0.00	0.49	0.18	8
	10	ISL	16.81	16.81	33.448	24.369	355.2	0.035	5.71	103.1	2.4	0.29	0.4	0.00	0.50	0.18	10
2	20		16.80	16.80	33.447	24.371	355.3	0.071	5.70	102.9	2.3	0.29	0.4	0.01	0.53	0.19	20
2	30		16.71	16.71	33.447	24.392	353.6	0.106	5.70	102.7	2.3	0.29	0.4	0.00	0.48	0.19	30
2	40		13.49	13.48	33.375	25.038	292.3	0.139	5.62	94.8	4.7	0.69	4.8	0.66	0.77	0.54	40
2	48		12.51	12.50	33.383	25.238	273.4	0.161	4.93	81.5	8.8	1.00	10.1	0.20	0.56	0.40	48
	50	ISL	12.30	12.29	33.388	25.282	269.2	0.167	4.82	79.3	9.6	1.05	11.0	0.14	0.50	0.36	50
2	55		11.85	11.84	33.403	25.379	260.1	0.180	4.63	75.5	11.3	1.16	12.9	0.05	0.37	0.28	55
2	68		11.01	11.00	33.441	25.562	242.9	0.213	4.48	71.8	14.3	1.35	16.0	0.02	0.09	0.13	68
	75	ISL	10.70	10.69	33.474	25.642	235.4	0.229	4.27	67.9	16.1	1.44	17.4	0.01	0.07	0.11	75
2	85		10.31	10.30	33.533	25.756	224.8	0.252	3.90	61.6	18.8	1.55	19.3	0.01	0.04	0.09	85
2	99		9.68	9.67	33.631	25.939	207.6	0.283	3.45	53.7	22.7	1.71	22.0	0.00	0.02	0.09	99
	100	ISL	9.65	9.64	33.635	25.947	206.9	0.285	3.44	53.5	22.9	1.72	22.1	0.00	0.02	0.09	100
2	119		9.19	9.18	33.700	26.072	195.2	0.323	3.28	50.6	25.5	1.81	23.6	0.00	0.01	0.08	120
	125	ISL	9.06	9.05	33.740	26.125	190.4	0.335	3.17	48.7	26.8	1.86	24.3	0.00	0.01	0.08	126
2	139		8.78	8.77	33.833	26.241	179.5	0.360	2.92	44.6	29.8	1.96	25.8	0.00	0.01	0.07	140
	150	ISL	8.53	8.51	33.868	26.308	173.3	0.380	2.91	44.2	31.5	2.00	26.7	0.00	0.01	0.06	151
2	169		8.16	8.14	33.902	26.391	165.7	0.412	2.88	43.4	33.8	2.04	27.8	0.00	0.00	0.04	170
2	199		7.97	7.95	33.963	26.467	158.9	0.461	2.64	39.6	37.2	2.13	29.0	0.01	0.00	0.04	200
	200	ISL	7.96	7.94	33.965	26.470	158.6	0.462	2.63	39.5	37.4	2.13	29.1	0.01			201
2	228		7.59	7.57	34.010	26.560	150.5	0.506	2.39	35.6	42.3	2.25	30.7	0.01			229
	250	ISL	7.32	7.30	34.028	26.612	145.7	0.538	2.19	32.4	46.1	2.34	32.1	0.00			251
2	268		7.11	7.08	34.037	26.649	142.5	0.564	2.01	29.6	49.2	2.42	33.3	0.00			270
	300	ISL	6.79	6.76	34.059	26.710	137.0	0.609	1.66	24.3	54.9	2.56	35.3	0.00			302
2	318		6.62	6.59	34.069	26.741	134.2	0.633	1.48	21.5	58.0	2.63	36.3	0.00			320
2	381		6.11	6.08	34.085	26.820	127.2	0.716	1.15	16.5	66.6	2.80	38.6	0.00			383
	400	ISL	5.98	5.95	34.101	26.849	124.6	0.740	1.02	14.6	69.6	2.86	39.2	0.00			403
2	431		5.79	5.75	34.133	26.898	120.2	0.778	0.81	11.6	74.4	2.95	40.2	0.00			434
	500	ISL	5.48	5.44	34.196	26.987	112.5	0.858	0.54	7.7	82.4	3.07	41.5	0.00			503
2	514		5.42	5.38	34.209	27.004	110.9	0.873	0.48	6.8	84.0	3.10	41.8	0.00			518

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 77 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 43.5 NI	123 38.0 W	13/10/94	0819 UTC	4234 in	330 28 kn			1016.3 mb	16.8 C	13.7 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.09	18.09	32.876	23.625	425.8	0.000	5.62	103.6	3.5	0.30	0.5	0.00	0.17	0.05	0
2	3		18.09	18.09	32.876	23.625	425.9	0.013	5.62	103.6	3.5	0.30	0.5	0.00	0.17	0.05	3
	10	ISL	18.10	18.10	32.875	23.622	426.4	0.043	5.61	103.5	3.4	0.30	0.4	0.00	0.17	0.05	10
2	16		18.11	18.11	32.875	23.620	426.8	0.068	5.61	103.5	3.4	0.30	0.4	0.00	0.17	0.05	16
	20	ISL	18.11	18.11	32.876	23.621	426.9	0.085	5.61	103.5	3.4	0.30	0.4	0.00	0.17	0.05	20
2	28		18.11	18.11	32.877	23.622	427.1	0.119	5.61	103.5	3.4	0.29	0.5	0.00	0.18	0.05	28
	30	ISL	18.05	18.04	32.876	23.636	425.8	0.128	5.63	103.7	3.4	0.30	0.5	0.00	0.18	0.05	30
2	44		17.60	17.59	33.040	23.871	403.8	0.186	5.85	107.0	3.5	0.37	0.5	0.00	0.21	0.08	44
	50	ISL	16.53	16.52	32.982	24.078	384.2	0.210	5.96	106.7	3.5	0.36	0.5	0.00	0.29	0.13	50
2	56		15.46	15.45	32.909	24.263	366.7	0.232	6.06	106.1	3.6	0.34	0.5	0.00	0.36	0.20	56
2	63		14.94	14.93	32.837	24.321	361.3	0.258	6.17	106.9	3.7	0.43	0.4	0.00	0.38	0.28	63
2	74		13.75	13.74	32.907	24.624	332.6	0.296	6.17	104.4	3.9		0.4	0.00	0.33	0.27	74
	75	ISL	13.66	13.65	32.915	24.649	330.3	0.299	6.16	104.0	3.9	0.41	0.4	0.00	0.33	0.27	75
2	86		12.95	12.94	33.001	24.857	310.6	0.334	6.03	100.4	3.8	0.39	0.3	0.05	0.29	0.27	86
2	97		12.61	12.60	33.081	24.986	298.6	0.368	5.91	97.7	4.5	0.42	0.7	0.09	0.20	0.21	97
	100	ISL	12.42	12.41	33.078	25.020	295.4	0.377	5.87	96.7	4.7	0.44	1.0	0.08	0.18	0.20	100
2	112		11.57	11.56	33.058	25.164	281.9	0.411	5.65	91.4	5.9	0.57	2.9	0.02	0.12	0.15	112
2	124		10.81	10.80	33.107	25.338	265.4	0.444	5.35	85.1	8.6	0.79	6.4	0.02	0.09	0.11	125
	125	ISL	10.75	10.74	33.119	25.358	263.5	0.447	5.31	84.4	8.9	0.82	6.9	0.02	0.09	0.11	126
2	145		9.76	9.74	33.411	25.754	226.1	0.496	4.33	67.5	16.9	1.40	17.0	0.01	0.04	0.07	146
	150	ISL	9.56	9.54	33.476	25.838	218.2	0.507	4.10	63.6	19.0	1.51	18.9	0.01	0.03	0.06	151
2	170		8.90	8.88	33.686	26.108	192.7	0.548	3.35	51.3	26.6	1.86	24.7	0.01	0.01	0.04	171
	200	ISL	8.38	8.36	33.803	26.280	176.8	0.604	3.36	50.9	30.8	1.89	25.5	0.00			201
2	201		8.37	8.35	33.805 D	26.283	176.5	0.605									202
2	228		8.02	8.00	33.903	26.413	164.6	0.651	3.36	50.5	32.6	1.92	26.3	0.00			229
	250	ISL	7.77	7.75	33.956	26.492	157.4	0.687	3.16	47.2	36.1	2.01	27.7	0.00			251
2	271		7.53	7.50	33.989	26.552	151.9	0.719	2.90	43.1	40.1	2.11	29.4	0.00			272
	300	ISL	7.07	7.04	34.012	26.635	144.3	0.762	2.51	36.9	46.7	2.28	32.2	0.00			302
2	318		6.80	6.77	34.021	26.679	140.2	0.788	2.25	32.9	50.9	2.39	33.9	0.00			320
2	378		6.29	6.26	34.065	26.781	131.0	0.869	1.49	21.5	61.5	2.69	38.1	0.00			380
	400	ISL	6.10	6.06	34.078	26.816	127.9	0.898	1.29	18.6	65.3	2.78	39.4	0.00			402
2	439		5.79	5.75	34.103	26.875	122.5	0.946	1.00	14.3	71.9	2.91	41.4	0.00			442
	500	ISL	5.37	5.33	34.153	26.966	114.3	1.019	0.70	9.9	81.7	3.05	43.4	0.00			503
2	518		5.24	5.20	34.168	26.993	111.8	1.039	0.61	8.6	84.6	3.09	44.0	0.00			521

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 77 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 23.6 NI	124 19.0 W	13/10/94	0214 UTC	4567 m	340 24 kn	340 08 05	1	1017.1 nib	17.2 C	14.5 C		4/8	SC

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml./l	OXY PCT	SI03 uM/ l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/ l	PHAEO ug/l	PRESS db
	0 ISL	19.43	19.43	33.280	23.599	428.3	0.000	5.37	101.8	3.2	0.28	0.0	0.00	0.10	0.03	0
2	2	19.43	19.43	33.280	23.599	428.4	0.009	5.37	101.8	3.2	0.28	0.0	0.00	0.10	0.03	2
	10 ISL	19.43	19.43	33.281	23.600	428.6	0.043	5.37	101.8	3.2	0.28	0.0	0.00	0.10	0.03	10
2	15	19.43	19.43	33.282	23.601	428.7	0.064	5.37	101.8	3.2	0.28	0.0	0.00	0.10	0.03	15
	20 ISL	19.43	19.43	33.285	23.604	428.6	0.086	5.37	101.8	3.2	0.28	0.0	0.00	0.10	0.03	20
2	30	19.44	19.43	33.291	23.606	428.7	0.129	5.38	102.0	3.2	0.28	0.0	0.00	0.10	0.02	30
2	45	18.72	18.71	33.287 D	23.786	412.1	0.192	5.62	105.1	3.0	0.27	0.0	0.00	0.14	0.04	45
	50 ISL	17.97	17.96	33.244	23.938	397.7	0.212	5.73	105.6	3.0	0.28	0.0	0.00	0.16	0.05	50
2	60	16.50	16.49	33.195	24.249	368.3	0.250	5.90	105.7	3.0	0.29	0.0	0.00	0.21	0.09	60
	75 ISL	15.98	15 .97	33.328	24.470	347.6	0.304	5.92	105.0	2.9	0.28	0.0	0.00	0.23	0.19	75
2	76	15.98	15.97	33.340	24 .479	346.8	0.307	5.92	105.0	2 .9	0.28	0.0	0.00	0.23	0.20	76
2	86	15.73	15.72	33.434 D	24.608	334.8	0.341									86
2	95	14.38	14.37	33.235	24.748	321 .6	0.371	5.84	100.3	3.2	0.37	0.4	0.05	0.26	0.25	95
	100 ISL	14.02	14.01	33.237	24.824	314.3	0.387	5.76	98.2	3.6	0.41	1.1	0.08	0.25	0.25	100
2	105	13.80	13.79	33.270	24.895	307.7	0.402	5 .67	96.2	4.0	0.45	1 .9	0.09	0.23	0.26	105
2	114	13.42	13.40	33.295	24.992	298.7	0.430	5.56	93.6	4.4	0.51	2 .8	0.04	0.18	0.17	114
2	125	13.34	13.32	33.413	25.100	288.7	0.462	5.41	91 .0	5.1	0.53	3.5	0.02	0.15	0.14	126
2	140	12 .02	12.00	33.371	25.324	267.5	0.504	4.99	81 .6	8.2	0.83	8.3	0.01	0.08	0.11	141
	150 ISL	11 .22	11 .20	33.384	25.482	252.5	0.530	4.66	74.9	10.8	1 .03	11.4	0.00	0.06	0.09	151
2	165	10.22	10.20	33.448	25.707	231 .2	0.566	4.26	67.1	14.5	1 .27	15.3	0.00	0.04	0.06	166
2	195	9.18	9.16	33.668	26.050	198.8	0.630	4.33	66.7	19.0	1 .41	18.1	0.00	0.01	0.02	196
	200 ISL	9.04	9.02	33.696	26.094	194.7	0.640	4.21	64.7	20.3	1 .46	19.0	0.00			201
2	229	8.37	8.35	33.824	26.299	175.6	0.694	3.49	52.8	28 .1	1 .77	23.7	0.00			230
	250 ISL	7.97	7.94	33.892	26.412	165.0	0.730	3.50	52.5	31 .3	1 .82	24.9	0.00			251
2	268	7.68	7.65	33.936	26.489	157.9	0.759	3.51	52.3	33.6	1 .84	25 .4	0.00			269
	300 ISL	7.27	7.24	33.980	26.582	149.4	0.808	3.08	45.5	39.9	2.02	27.9	0.00			302
2	319	7.06	7.03	33.993	26.622	145.8	0.836	2.76	40.6	44.0	2.15	29.5	0.00			321
2	377	6.32	6.29	34.017	26.740	135.0	0.917	2.06	29.8	56.8	2.47	33.9	0.00			379
	400 ISL	6.14	6.10	34.034	26.776	131.7	0.948	1 .77	25.5	60.9	2.57	35.3	0.00			402
2	437	5.91	5.87	34.066	26.831	126.8	0.996	1 .34	19.2	67.0	2.72	37.3	0.00			440
	500 ISL	5 .59	5.55	34.133	26.923	118.5	1 .073	0.81	11 .5	76.7	2.91	39.5	0.00			503
2	521	5.49	5.45	34.156	26.954	115.8	1 .098	0.63	8.9	79.9	2.98	40.3	0.00			524

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 80

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 27.2 NI	120 31.5 W	1 1/10/94	1033 UTC	72 m	310 17 kn			1010.7 mb	16.5 C	15.0 C			

CAST	DEPTH in	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/ l	P04 uM/ 1	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0 ISL	16.24	16.24	33.433	24.489	343.5	0.000	5.96	106.4	3.7	0.34	0.2	0.06	1 .93	0.77	0
2	1	16.24	16.24	33.433	24.489	343.5	0.00 3	5.96	106.4	3.7	.0.34	0.2	0.06	1 .93	0.77	1
2	9	15.73	15.73	33.418	24.593	333.8	0.031	5 .86	103.5	4.6	0.41	0.6	0.13	2.30	0.75	9
	10 ISL	15.64	15.64	33.415	24.611	332 .2	0.034	5.84	103.0	4.8	0.42	0.7	0.14	2.28	0.74	10
2	19	14.96	14.96	33.395	24 .745	319.6	0.063	5.70	99.1	6. 1	0.52	1 .6	0.27	1 .94	0.68	19
	20 ISL	14.94	14.94	33.394	24.748	319.3	0.066	5.69	98.9	6.1	0.52	1 .7	0.28	1 .92	0.68	20
2	30	14.73	14.73	33.394	24.794	315.3	0.098	5.62	97.3	6.3	0.56	2.2	0.35	1 .62	0.63	30
2	41	13.66	13.65	33.425	25.042	291 .9	0. 132	5.08	86.1	8.6	0.79	6.2	0.40	0.75	0.53	41
2	50	12 .80	12 .79	33.435	25.222	275.0	0.157	4.70	78.2	11.0	0.99	9.5	0.38	0.40	0.42	50
2	59	11 .42	11.41	33.495	25.530	245.8	0.180	4.09	66.1	16.3	1 .32	14.6	0.15	0.17	0.31	59
2	66	10.71	10.70	33.570	25.715	228.3	0.197	3.71	59.1	19.3	1 .51	17.8	0.05	0.10	0.26	66

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 80 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 19.2 N	120 48.6 W	11/10/94	1312 UTC	785 m	330 20 kn			1011.4 mb	16.2 C	15.0 C			

CAST	DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/ l	P04 uM/ t	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/l	PRESS db
	0 ISL	15 .77	15 .77	33.434	24.596	333.3	0.000	5.80	102 .6	3.9	0.41	0.8	0.10	1 .91	2.10	0
2	2	15.77	15 .77	33.434	24.596	333.3	0.007	5 .80	102 .6	3.9	0.41	0.8	0.10	1 .91	2.10	2
2	10	15.68	15 .68	33.432	24.615	331 .8	0.033	5 .78	102.0	4.0	0.43	1 .0	0.13	2 .02	1 .33	10
2	20	15.46	15.46	33.427	24 .660	327.7	0.066	5.74	100.9	4.2	0. 46	1 .5	0.19	2 .20	0.98	20
2	30	15.13	15.13	33.423	24.730	321 .4	0.099	5.66	98.8	4.8	0.50	2 .3	0.27	2 .53	1 .24	30
2	39	12 .60	12.59	33.404	25.237	273.3	0.125	4.67	77.4	10.2	0.97	9.3	0.46	0.38	0.31	39
2	49	11 .33	11 .32	33.508	25 .556	243.1	0.151	4 .04	65.2	16.0	1 .31	15.2	0.05	0.15	0.26	49
	50 ISL	11 .25	11 .24	33.513	25.574	241 .3	0.154	4 .01	64.6	16.1	1 .33	15.5	0.05	0.15	0.25	50
2	61	10.79	10.78	33.536	25.675	232 .0	0. 180	3.86	61 .6	17.6	1 .44	17.1	0.03	0.09	0.18	61
2	69	10.71	10.70	33.553	25.702	229.6	0.198	3.76	59.9	17.8	1 .46	17.5	0.01	0.09	0.19	69
	75 ISL	10.69	10.68	33.555	25 .707	229.2	0.212	3.75	59.7	18.1	1 .47	17.6	0.01	0.09	0.18	75
2	84	10.67	10.66	33.567	25.720	228.2	0.233	3.74	59.5	18.7	1 .50	17.8	0.02	0.08	0.16	84
2	100	10.22	10.21	33.618	25 .838	217.3	0.268	3.50	55 .2	20.9	1 .60	19.6	0.02	0.05	0.14	101
2	119	9.95	9.94	33.685	25 .936	208.3	0.309	3.30	51 .7	23.4	1 .71	21 .2	0.01	0.04	0. 12	120
	125 ISL	9.84	9.83	33.710	25.974	204.8	0.321	3.23	50.5	24.2	1 .75	21.7	0.01	0.03	0.11	126
2	138	9.60	9. 58	33.770	26.061	196.8	0.347	3.07	47.8	26.2	1 .83	22 .9	0.02	0.02	0.08	139
	150 ISL	9.36	9.34	33.834	26.151	188.5	0.370	2.90	44 .9	28.5	1 .92	24.2	0.03	0 .02	0.08	151
2	170	9.00	8. 98	33.930	26.283	176.2	0.407	2 .66	40.9	32.0	2 .04	26.0	0.04	0.01	0.09	171
2	200	8.73	8.71	33.992	26.375	168.0	0.458	2 .55	39.0	34.7	2.11	27.2	0.04	0.01	0.05	201
2	229	8.55	8.53	34.099	26.487	157.9	0.506	2 .08	31 .7	39.6	2 .27	29 .1	0.02			230
	250 ISL	8.47	8 .44	34.144	26.535	153.7	0.538	1 .83	27.8	42 .1	2.36	30.0	0.01			251
2	271	8.38	8.35	34.173	26.572	150.6	0. 570	1 .64	24.9	44.3	2 .44	30.8	0.01			273
	300 ISL	8.17	8.14	34.200	26.625	146.0	0.613	1 .40	21 .1	47.8	2.54	31 .9	0.00			302
2	319	8.02	7 .99	34.211	26.656	143.3	0.641	1 .28	19.3	50.0	2.60	32.5	0.00			321
2	380	7.56	7. 52	34.233	26.741	136.0	0. 726	1 .07	15.9	55 .8	2 .73	34.1	0.00			382
	400 ISL	7.48	7 .44	34.241	26.759	134 .5	0.753	0.99	14.7	57.2	2 .76	34 .4	0.00			403
2	435	7.33	7.29	34.254	26.791	132 .0	0.800	0.85	12.6	60.1	2 .81	35.0	0.00			438
2	499	6.69	6.64	34.271	26.893	122.7	0.881	0. 59	8.6	69.7	2 .98	37.5	0.00			502
	500 ISL	6. 69	6.64	34.271	26.893	122.7	0.882	0. 59	8.6	69.7	2 .98	37.5	0.00			503

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 80 60

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIHE	BOTTOH	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT TYPE
34 9.4 N	121 9.6 W	11/10/94	1855 UTC	2253 m	320 22 kn	330 06 06	1	1014 .4 mb	17.8 C	15.9 C	15m 03	4/8 SC

CAST	DEPTH m		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uH/l	P04 uH/ I	N03 uH/ I	N02 uH/ I	CHL-A ug/l	PHAEO ug/ I	PRESS db
	0	ISL	17.42	17.42	33.397	24. 186	372.3	0.000	5.71	104.3	3.0	0.30	0.2	0.00	0.34	0.12	0
2	2	A	17.42	17.42	33.397	24.186	372.4	0.007	5.71	104.3	3.0	0.30	0.2	0.00	0.34	0.12	2
2	9	A	17.42	17.42	33.397	24.186	372.6	0.034	5 .71	104.3	2.8	0.30	0. 1	0.00	0.33	0.12	9
	10	ISL	17.42	17.42	33.397	24.186	372.6	0.037	5 .71	104.3	2.8	0.30	0. 1	0.00	0.33	0.12	10
2	19	A	17.39	17.39	33.395	24.192	372.4	0.071	5 .71	104.2	2 .8	0.30	0. 1	0.00	0.34	0.11	19
	20	ISL	17.35	17.35	33.390	24.198	371.9	0.074	5.72	104.3	2.8	0.30	0. 1	0.00	0.35	0.12	20
2	29	A	16.49	16.49	33.296	24.327	359.8	0.107	5.89	105.6	2.9	0.33	0. 1	0.00	0.50	0.22	29
	30	ISL	16.27	16.27	33.269	24.357	357.0	0.111	5.92	105.6	3.0	0.34	0. 1	0.00	0.54	0.24	30
2	40	A	14.10	14.09	33.066	24.674	326.9	0.145	6.13	104.6	4.1	0.43	0.8	0.10	0.85	0.46	40
2	49		13.39	13.38	33.125	24.865	309.0	0. 174	5.86	98. 5	5.1	0. 53	2.2	0.34	0.70	0.49	49
	50	ISL	13.27	13.26	33.121	24.886	307.0	0.177	5.83	97.8	5.3	0.55	2 .4	0.36	0.66	0.47	50
2	55	A	12.64	12.63	33.100	24.994	296.8	0.192	5.67	93.8	6.2	0.63	3.8	0.40	0.44	0.38	55
2	68		11.49	11.48	33.193	25.282	269.5	0.229	5.23	84.5	8.7	0.82	7.6	0.03	0.21	0.21	68
	75	ISL	10.84	10.83	33.281	25.467	252.0	0.247	4.84	77.2	11.9	1 .05	11.5	0.03	0.13	0.14	75
2	85		9.98	9.97	33.419	25.723	227.8	0.271	4.33	67.8	16.9	1 .37	16.9	0.02	0.05	0.08	85
2	100		9.05	9.04	33.576	25.997	201.9	0.303	4.07	62 .5	21.6	1 .57	20.3	0.01	0.02	0.04	100
2	118		8.56	8.55	33.696	26.168	186.0	0.338	3.69	56.1	26.5	1 .76	23.4	0.00	0.01	0.03	119
	125	ISL	8.51	8.50	33.744	26.213	181.8	0.351	3.52	53.4	28.0	1 .82	24.3	0.00	0.01	0.03	126
2	138		8.42	8.41	33.813	26.281	175.6	0.374	3.19	48.4	30.6	1 .93	25 .7	0.01	0.00	0.04	139
	150	ISL	8.45	8.43	33.891	26.338	170.4	0.395	2 .91	44.2	32.8	2 .01	26. 6	0.01	0.00	0.04	151
2	169		8.49	8.47	33.997	26.415	163.5	0.427	2.53	38.5	36.0	2.11	27.8	0.01	0.00	0.04	170
2	198		8.24	8.22	34.068	26.509	155.0	0.473	2.19	33. 1	40.6	2 .24	29.4	0.01	0.00	0.03	199
	200	ISL	8.23	8.21	34.071	26.513	154.7	0.476	2.17	32.8	40.8	2.25	29. 5	0.01			201
2	229		8.16	8.14	34.117	26.560	150.8	0.520	1 .93	29.1	43.2	2 .34	30. 5	0.01			230
	250	ISL	8.03	8.00	34.151	26.607	146.7	0.552	1 .69	25 .4	46.2	2 .44	31 .4	0.01			251
2	267		7.90	7.87	34.176	26.646	143.2	0.576	1 .48	22.2	48.9	2.53	32 .2	0.01			**269**
	300	ISL	7.62	7.59	34.212	26.715	137.1	0.622	1.14	17.0	54.2	2.67	33.8	0.01			**302**
2	318		7.46	7.43	34.227	26.750	134.0	0.647	0.99	14.7	57.1	2.74	34.6	0.01			**320**
2	383		6.8 4	6.80	34.252	26.856	124.5	0.731	0.70	10.3	66.3	2 .92	36.9	0.01			38 5
	400	ISL	6.74	6.70	34.258	26.875	123.0	0.752	0.64	9.4	67.8	2 .95	37.3	0.01			**403**
2	439		6.56	6.52	34.272	26.910	120.0	0.799	0.54	7.9	70.7	2 .99	37.9	0.00			**442**
	500	ISL	6.27	6.23	34.293	26.965	115.4	0.871	0.43	6.2	75 . 5	3.07	38.9	0.00			**503**
2	515		6.20	6.15	34.298	26.979	114.4	0.888	0.40	5.8	76.7	3.09	39. 1	0.00			**519**

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN 1FROH THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 80 70

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIHE	BOTTOH	WIND SPEED	WAVES	WEA	BAROHETER	DRY	WET	SECCHI/FOREL	CLD AHT TYPE
33 49.4 N	121 51.0 W	12/10/94	0116 UTC	3636 m	330 23 kn	330 07 05	1	1013 .7 mb	16.4 C	14.4 C	16m 02	5/8 SC

CAST	DEPTH m		TEHP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uH/ I	P04 uH/ I	N03 uH/ I	N02 uH/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	17.95	17.95	33.238	23.936	396.1	0.000	5.63	103.8	3.0	0.34	0.2	0.00	0.19	0.06	0
2	2		17.95	17.95	33.238	23.936	396.2	0.008	5.63	103.8	3.0	0.34	0.2	0.00	0.19	0.06	2
2	10		17.96	17.96	33.238	23.934	396.7	0.040	5 .63	103.8	2 .8	0.34	0.2	0.00	0.19	0.07	10
2	20		17.91	17.91	33.228	23.939	396.5	0.079	5 .64	103.9	2 .8	0.33	0.2	0.00	0.20	0.07	20
2	30		16.77	16.77	33.072	24.091	382.4	0.118	6.09	109.6	3.3	0.34	0. 1	0.00	0.29	0.13	30
2	40		15.13	15.12	33.027	24.425	350.7	0.155	6.28	109.4	3.7	0.38	0.3	0.02	0.42	0.20	40
2	50		14.02	14.01	32.992	24.634	331 .0	0.189	6.18	105 .2	3.9	0.44	1 .0	0.04	0.41	0.23	50
2	60		12 .64	12 .63	32.982	24.902	305.6	0.221	5.99	99. 1	5 .0	0. 50	1 .4	0.11	0.44	0.30	60
2	70		12.04	12 .03	33.080	25.093	287.7	0.250	5 .67	92 .6	6.3	0.68	4.3	0.27	0.34	0.24	70
	75	ISL	11.71	11 .70	33.138	25.199	277.6	0.265	5 .48	88.9	7.3	0.75	5 .8	0.21	0.27	0.20	75
2	85		11 .06	11 .05	33.245	25.401	258.6	0.291	5.10	81 .7	9.7	0.89	9.0	0.03	0.13	0.14	85
2	100		10.23	10.22	33.326	25.608	239.1	0.329	4 .64	73.0	13.8	1.18	14.0	0.01	0.08	0.10	100
2	119		9.41	9 .40	33.598	25.957	206.2	0.371	3.52	54.5	23.4	1 .73	22 .5	0.01	0.02	0.05	120
	125	ISL	9.32	9.31	33.653	26.015	200.8	0.383	3.34	51 .6	24.9	1 .80	23.0	0.01	0. 02	0.05	126
2	140		9.22	9.20	33.753	26.109	192.2	0.413	3.06	47.2	27.2	1 .87	24.2	0.01	0.01	0.06	141
	150	ISL	9.05	9.03	33.803	26.176	186.0	0.432	2 .94	45.2	28.8	1 .92	25 .0	0.01	0.01	0.06	1 51
2	169		8.75	8.73	33.879	26.283	176. 1	0.466	2.76	42 .2	31 . 6	2 .00	26 . 4	0.01	0.00	0.06	170
2	199		8.71	8 .69	33.992	26.378	167.7	0.518	2.43	37. 1	35.0	2.13	27.6	0.01	0.01	0.05	200
	200	ISL	8.70	8.68	33.995	26.382	167.3	0.519	2 .42	37.0	35 . 1	2.13	27.7	0.01			201
2	229		8.37	8.35	34.066	26.489	157.7	0.566	2.15	32 .6	39.7	2 .25	29.3	0.01			230
	250	ISL	8.18	8.15	34.104	26.547	152 .4	0.599	1 .96	29.6	42 .7	2 .32	30.2	0.01			251
2	268		8.03	8.00	34. 129	26.590	148.6	0.626	1 .80	27. 1	45.2	2.39	31 .0	0.01			**270**
	300	ISL	7.76	7.73	34.162	26.656	142.8	0.673	1 .49	22.3	50.5	2.53	32 .6	0.01			**302**
2	318		7.60	7.57	34.176	26.690	139.8	0.698	1 .33	19.8	53.5	2 .61	33.5	0.01			**320**
2	379		6.98	6.94	34.205	26.800	129.9	0.780	0.94	13.8	62 .7	2 .79	35.9	0.01			**381**
	400	ISL	6.69	6 .65	34.212	26.845	125.7	0.807	0.81	11.8	66.8	2 .86	37.0	0.01			**403**
2	439		6.16	6.12	34.227	26.927	118.1	0.855	0. 59	8. 5	74 .4	2 .99	38.9	0 .00			**442**
	500	ISL	5 .69	5 .65	34.261	27.013	110.3	0.924	0.41	5 .8	83.7	3.10	40.6	0.00			**503**
2	514		5.58	5 .54	34.269	27.033	108.5	0.940	0.37	5 .3	85 . 8	3.13	41.0	0. 00			**518**

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 80 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 28.8 N	122 32.8 W	12/10/94	0731 UTC	3987 m	330 27 kn			1015.3 mb	16.7 C	14.9 C			

CAST	DEPTH m		TEMP DE6 C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
2	0		18.34	18.34	32.849	23.543	433.6	0.000	5.57	103.2	4.1	0.32	0.1	0.00	0.12	0.04	0
	10	ISL	18.36	18.36	32.850	23.540	434.3	0.043	5.57	103.2	4.1	0.32	0.1	0.00	0.13	0.04	10
2	15		18.37	18.37	32.850	23.537	434.7	0.065	5.57	103.2	4.1	0.32	0.1	0.00	0.13	0.04	15
	20	ISL	18.36	18.36	32.853	23.542	434.4	0.087	5.58	103.4	4.1	0.32	0.1	0.00	0.13	0.04	20
2	30		18.34	18.33	32.858	23.551	433.9	0.130	5.59	103.6	3.9	0.32	0.1	0.00	0.13	0.04	30
2	45		17.25	17.24	32.919	23.862	404.8	0.193	5.87	106.5	3.3	0.33	0.1	0.00	0.20	0.09	45
	50	ISL	16.71	16.70	32.880	23.958	395.7	0.213	5.94	106.6	3.6	0.33	0.1	0.00	0.23	0.11	50
2	54		16.28	16.27	32.861	24.042	387.7	0.229	6.00	106.8	3.9	0.33	0.1	0.00	0.25	0.13	54
2	65		15.55	15.54	33.029	24.335	360.1	0.270	6.14	107.8	4.0	0.32	0.0	0.00	0.28	0.17	65
2	75		15.12	15.11	33.280	24.623	332.9	0.305	5.96	103.9	3.8	0.32	0.1	0.01	0.25	0.22	75
2	84		15.18	15.17	33.569	24.833	313.2	0.334	5.89	103.0	3.7	0.25	0.1	0.01	0.23	0.21	84
2	95		15.02	15.01	33.608	24.898	307.3	0.368	5.86	102.2	3.7	0.26	0.1	0.01	0.19	0.18	95
	100	ISL	14.06	14.05	33.467	24.994	298.3	0.383	5.80	99.1	4.4	0.35	1.1	0.04	0.17	0.18	100
2	110		11.99	11.98	33.214	25.207	277.8	0.412	5.59	91.3	6.4	0.58	3.9	0.08	0.14	0.17	110
2	125		11.30	11.28	33.293	25.396	260.1	0.452	5.10	82.1	9.6	0.87	8.7	0.01	0.10	0.13	126
2	144		9.71	9.69	33.411	25.763	225.3	0.498	4.30	66.9	17.5	1.44	17.5	0.01	0.04	0.06	145
	150	ISL	9.43	9.41	33.456	25.844	217.6	0.512	4.20	65.0	19.2	1.53	19.0	0.01	0.03	0.05	151
2	169		8.88	8.86	33.594	26.039	199.3	0.551	4.04	61.8	23.3	1.67	21.6	0.01	0.01	0.03	170
2	200		8.29	8.27	33.757	26.258	178.9	0.610	3.70	55.9	28.3	1.81	24.0	0.01	0.00	0.03	201
2	230		7.87	7.85	33.891	26.426	163.3	0.661	3.23	48.4	34.2	2.01	26.7	0.01			231
	250	ISL	7.70	7.68	33.944	26.492	157.3	0.693	3.07	45.8	37.3	2.08	27.9	0.01			251
2	269		7.57	7.54	33.979	26.539	153.2	0.723	2.91	43.3	40.3	2.15	28.9	0.00			270
	300	ISL	7.32	7.29	34.027	26.612	146.6	0.769	2.38	35.2	46.6	2.35	31.2	0.00			302
2	318		7.17	7.14	34.048	26.650	143.2	0.795	2.06	30.4	50.3	2.47	32.6	0.00			320
2	377		6.67	6.64	34.088	26.750	134.3	0.877	1.43	20.8	59.9	2.71	35.6	0.00			379
	400	ISL	6.44	6.40	34.101	26.791	130.6	0.907	1.24	18.0	64.0	2.79	36.7	0.00			402
2	438		6.07	6.03	34.124	26.857	124.5	0.956	0.99	14.2	70.7	2.91	38.4	0.00			441
	500	ISL	5.67	5.63	34.170	26.943	116.8	1.031	0.70	10.0	79.7	3.07	40.0	0.00			503
2	513		5.59	5.55	34.180	26.961	115.2	1.046	0.64	9.1	81.6	3.10	40.3	0.00			516

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 80 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 9.2 K	123 13.4 W	12/10/94	1311 UTC	4228 m	340 23 kn			1015.9 mb	16.8 C	14.2 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.39	19.39	33.279	23.608	427.4	0.000	5.40	102.3	3.2	0.29	0.0	0.00	0.10	0.03	0
2	3		19.39	19.39	33.279	23.609	427.5	0.013	5.40	102.3	3.2	0.29	0.0	0.00	0.10	0.03	3
	10	ISL	19.40	19.40	33.279	23.606	428.0	0.043	5.40	102.3	3.2	0.28	0.0	0.00	0.10	0.03	10
2	15		19.41	19.41	33.279	23.604	428.4	0.064	5.40	102.3	3.2	0.28	0.0	0.00	0.10	0.03	15
	20	ISL	19.41	19.41	33.279	23.604	428.5	0.086	5.39	102.2	3.2	0.28	0.0	0.00	0.10	0.03	20
2	30		19.41	19.40	33.279	23.605	428.9	0.128	5.38	102.0	3.3	0.29	0.0	0.00	0.10	0.02	30
2	46		19.37	19.36	33.286	23.621	427.9	0.197	5.42	102.6	3.2	0.28	0.0	0.00	0.12	0.04	46
	50	ISL	18.79	18.78	33.280	23.763	414.4	0.214	5.55	104.0	3.1	0.28	0.0	0.00	0.13	0.04	50
2	60		17.18	17.17	33.326	24.191	373.9	0.253	5.86	106.4	2.8	0.27	0.0	0.00	0.15	0.06	60
2	75		16.08	16.07	33.612	24.666	329.0	0.306	5.90	105.1	2.8	0.23	0.0	0.00	0.21	0.14	75
2	83		15.86	15.85	33.675	24.764	319.9	0.332	5.92	105.0	2.8	0.21	0.0	0.00	0.25	0.17	83
2	94		15.34	15.33	33.676	24.881	309.1	0.367	5.91	103.7	2.8	0.23	0.0	0.00	0.22	0.15	94
	100	ISL	15.30	15.28	33.733	24.934	304.2	0.385	5.76	101.1	3.1	0.22	0.0	0.00	0.22	0.21	100
2	104		15.27	15.25	33.776	24.974	300.5	0.397	5.64	98.9	3.3	0.22	0.0	0.00	0.21	0.24	104
2	114		14.85	14.83	33.841	25.115	287.3	0.426	5.50	95.7	3.7	0.27	1.3	0.09	0.16	0.16	114
2	124		14.32	14.30	33.794	25.193	280.1	0.455	5.37	92.4	4.5	0.29	1.5	0.00	0.11	0.12	124
	125	ISL	14.25	14.23	33.794	25.207	278.7	0.458	5.36	92.1	4.6	0.29	1.5	0.00	0.11	0.12	126
2	140		13.15	13.13	33.790	25.430	257.7	0.498	5.20	87.3	5.7	0.37	3.1	0.00	0.07	0.10	141
	150	ISL	12.35	12.33	33.706	25.522	249.1	0.523	5.09	84.0	7.1	0.56	5.7	0.00	0.05	0.09	151
2	162		11.40	11.38	33.601	25.618	239.9	0.553	4.92	79.5	9.3	0.81	9.2	0.00	0.04	0.07	163
2	191		9.52	9.50	33.606	25.947	208.7	0.618	4.33	67.2	17.5	1.17	15.3	0.00	0.01	0.03	192
	200	ISL	9.20	9.18	33.638	26.024	201.5	0.636	4.18	64.4	19.7	1.21	16.6	0.00			201
2	227		8.58	8.56	33.757	26.214	183.6	0.688	3.83	58.2	25.3	1.29	19.3	0.00			228
	250	ISL	8.18	8.15	33.846	26.345	171.5	0.729	3.70	55.8	29.1	1.43	20.7	0.01			251
2	269		7.91	7.88	33.906	26.432	163.4	0.761	3.62	54.3	32.1	1.56	21.8	0.01			270
	300	ISL	7.43	7.40	33.951	26.537	153.8	0.810	3.38	50.1	37.4	1.74	24.5	0.00			302
2	317		7.20	7.17	33.965	26.580	149.8	0.836	3.19	47.0	40.6	1.84	26.1	0.00			319
2	378		6.64	6.61	34.029	26.707	138.3	0.923	2.03	29.6	54.0	1.84 U	27.0 U	0.00			380
	400	ISL	6.43	6.39	34.052	26.753	134.1	0.953	1.69	24.5	58.7	2.41	33.5	0.00			402
2	437		6.09	6.05	34.087	26.825	127.6	1.002	1.24	17.8	66.3	2.64	36.3	0.00			440
	500	ISL	5.56	5.52	34.125	26.921	118.8	1.079	0.88	12.5	77.5	2.88	39.3	0.00			503
2	522		5.37	5.33	34.139	26.955	115.6	1.105	0.75	10.6	81.4	2.97	40.3	0.00			525

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 49.2 N	123 54 .5 W	12/10/94	1852 UTC	4359 m	340 21 kn	350 08 06	1	1017 . 9 mb	18.8 C	15.5 C	28m	01	6/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/L	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/L	N02 uM/L	CHL-A ug/L	PHAEO ug/L	PRESS db
	0	ISL	19.52	19.52	33.502	23.745	414.4	0.000	5 .37	102 . 1	4 . 0	0.28	0.2	0.00	0 . 08	0 . 02	0
2	2	A	19.52	19.52	33.502	23.745	414.4	0.008	5 .37	102 . 1	4 . 0	0.28	0 .2	0.00	0 . 08	0 . 02	2
	10	ISL	19.52	19.52	33.504	23.747	414.5	0.041	5.37	102 . 1	4.0	0.28	0.2	0. 00	0.08	0.02	10
2	17	A	19.52	19.52	33.507	23.750	414.5	0.070	5.36	101.9	3 .9	0.28	0.2	0 . 00	0.09	0 .02	17
	20	ISL	19.52	19.52	33. 507	23.750	414.6	0.083	5.36	101.9	3 . 9	0.28	0.2	0 . 00	0 . 09	0 . 02	20
	30	ISL	19.52	19.51	33.506	23.750	415.0	0.124	5.36	101.9	3.9	0.28	0 .2	0 . 00	0 . 09	0 .03	30
2	36	A	19.52	19.51	33.506	23.750	415.2	0.149	5 .36	101.9	3.9	0.28	0.2	0 .00	0 . 09	0.03	36
2	46		19.52	19.51	33.512	23.755	415.1	0.191	5 .37	102 . 1	3.7	0 .29	0.2	0.00	0 . 09	0.02	46
	50	ISL	19.42	19.41	33.509	23.779	413.0	0.207	5.37	101.9	3 . 7	0.29	0.3	0 .00	0 . 09	0.02	50
2	55	A	19.23	19.22	33.513	23.830	408.3	0.228	5 .37	101.6	3.6	0.28	0.3	0.00	0 . 09	0.02	55
2	64		18.76	18.75	33.579	24.000	392 .4	0.264	5 . 56	104.3	3.4	0.26	0.2	0.00	0.15	0.06	64
2	74	A	17.84	17.83	33. 581	24.229	370.8	0.302	5 .69	104 .8	3.3	0.25	0 . 1	0 .00	0.17	0.06	74
	75	ISL	17.74	17.73	33.580	24.252	368.6	0.306	5 .70	104.8	3.3	0.25	0 . 1	0.00	0.18	0.06	75
2	85		16.86	16.85	33.586	24.466	348.4	0.342	5 . 78	104.5	3.3	0.25	0 . 1	0.00	0.23	0.10	35
2	96		16.38	16.36	33.649	24.626	333.5	0.379	5 . 78	103.6	3.3	0.24	0 . 1	0.00	0.25	0.13	96
	100	ISL	16.29	16.27	33.681	24.672	329.3	0.392	5.77	103.2	3.3	0.24	0 . 1	0. 00	0.24	0.16	100
2	106	A	16.20	16.18	33.729	24 . 729	324.0	0.412	5 .74	102.5	3.2	0.23	0 . 1	0.00	0 .23	0.20	106
2	115		16.10	16.08	33. 783	24.794	318.1	0.441	5 .67	101.1	3.2	0.23	0 . 1	0.00	0.23	0.25	115
2	124		15.97	15.95	33.862	24.884	309.8	0.469	5 .57	99 . 1	3.2	0.24	0.2	0.03	0 .23	0 .23	124
	125	ISL	15.94	15 .92	33.863	24 . 892	309 . 1	0.472	5 .56	98 . 9	3.2	0.24	0.2	0 . 04	0.23	0.23	125
2	138		15.47	15.45	33.837	24.978	301 .3	0.512	5 .43	95 .6	3 . 8	0.29	0.3	0.19	0.18	0.18	139
	150	ISL	15.04	15 .02	33.821	25 .060	293 . 7	0. 548	5 .32	92 .9	4 .2	0.35	1 . 1	0.14	0.14	0.16	151
2	163		14.44	14 .42	33.791	25 . 166	283.8	0. 585	5 .20	89 . 7	5.0	0 . 44	2 .6	0.03	0.10	0.15	164
2	194		12 .00	11.97	33.635	25 .534	248.9	0. 668	4.83	79 . 1	9 . 3	0. 84	9 . 1	0 . 00	0 . 05	0 .07	195
	200	ISL	11.48	11.45	33.615	25.615	241.1	0. 682	4 . 71	76.3	11.0	0.96	10.9	0 . 00			201
2	228		9 . 40	9.37	33.611	25 .971	207 . 1	0.745	4.16	64 . 4	19.5	1 . 48	18.8	0.00			229
	250	ISL	8.77	8.74	33.713	26.151	190.2	0.789	3 .90	59.5	24.0	1 .64	21.7	0 .00			251
2	267		8.56	8.53	33.804	26.255	180.6	0.820	3.74	56.8	26.9	1.71	23.0	0 .00			268
	300	ISL	8.08	8.05	33.921	26.419	165.3	0.877	3 .32	50.0	33.2	1 .91	26.0	0 . 00			302
2	317		7 . 88	7.85	33.965	26.484	159.4	0. 905	3.10	46. 4	36 . 5	2 .01	27. 4	0 . 00			319
2	377		7.19	7.15	34.031	26.634	145.6	0. 997	2 .39	35 .3	47. 7	2 .31	31.4	0 . 00			379
	400	ISL	6.93	6.89	34.048	26.684	141.1	1 .030	2 .08	30. 5	52 . 5	2 .45	33.2	0 . 00			402
2	437		6.53	6.49	34.072	26.756	134. 5	1 .081	1 . 59	23.1	60.3	2 . 66	35 .9	0 .00			440
	500	ISL	6.00	5 .96	34.122	26.865	124.6	1 . 162	1 .02	14.6	71 .8	2 .91	38.8	0 .00			503
2	516		5 .86	5.82	34. 135	26.892	122.0	1 . 182	0.88	12.6	74 . 7	2 . 97	39. 5	0 . 00			519

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 82 47

LATITUDE	LONG ITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
34 16.4 N	120 1 .5 U	11/10/94	0547 UTC	577 in	250 13 kn			1010 . 0 mb	18.4 C	16.7 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/L	PHAEO ug/L	PRESS db
	0	ISL	17.63	17.63	33 .440	24.168	374.0	0.000	6.17	113.2	2 . 9	0.28	0 . 1	0. 00	1.51	0.68	0
2	2	A	17.63	17.63	33.440	24.168	374 . 1	0.007	6.17	113.2	2 . 9	0.28	0 . 1	0 . 00	1.51	0 .68	2
2	10		17.61	17.61	33 . 437	24.171	374 . 1	0 .037	6.18	113.3	2 . 5	0.25	0 . 1	0 . 00	1.51	0 . 70	10
	20	ISL	16.40	16.40	33.419	24 . 442	348. 5	0 . 074	5 .99	107.2	3. 5	0 . 35	0 . 3	0 .03	3 .65	1.12	20
2	21		16.24	16.24	33.419	24 .479	345 . 1	0 .077	5 . 97	106.5	3.6	0 . 36	0 . 3	0 .03	3 . 79	1.15	21
2	30		1 5 .04	15.04	33 . 444	24.766	318.0	0.107	5.29	92 .2	6. 7	0 . 65	3 .9	0.22	1.10	0 . 67	30
2	40		14.38	14.37	33. 448	24.910	304 . 5	0.138	5.10	87.7	8 . 1	0.75	5 . 5	0.24	0 . 38	0 . 72	40
2	50		12.97	12.96	33.434	25.188	278.2	0.167	4 . 84	80. 8	10.3	0 . 93	8 . 4	0.45	0.27	0 . 34	50
2	60		11.51	11.50	33.503	25 .520	246.8	0. 193	4.11	66 . 6	16.3	1 . 30	14.9	0.05	0.13	0.28	60
2	70		10.27	10.26	33.615	25 .827	217.7	0.217	3. 52	55.5	21.5	1 . 60	19.2	0.01	0 . 06	0.19	70
	75	ISL	10.17	10.16	33.638	25 .862	214.5	0.227	3.37	53 . 1	22 . 8	1 . 67	20. 3	0.01	0 . 04	0.16	75
2	85		9 . 97	9 . 96	33.685	25 . 932	208 . 0	0.249	3 .23	50 . 7	24.1	1 . 73	21. 3	0.01	0 . 03	0.13	35
2	100		9.86	9.85	33.727	25 . 984	203. 4	0.279	3.11	48 . 7	25.4	1 . 80	22 .2	0.01	0 . 03	0.11	100
2	119		9. 52	9.51	33.825	26.117	191.1	0.317	2 . 80	43.5	28.8	1 . 92	24.1	0 . 00	0 . 02	0 . 09	120
	125	ISL	9 . 46	9.45	33 .845	26.142	188.8	0.328	2 . 74	42 . 5	2 9.4	1.95	24.5	0 . 00	0 . 02	0 . 08	126
2	1 39		9 . 36	9 . 34	33.886	26.191	184.4	0. 354	2 . 62	40 . 6	30 . 5	2.01	25.3	0 . 00	0.01	0 . 07	140
	1 50	ISL	9.29	9.27	33 . 933	26.239	180. 1	0. 374	*2 .46*	38 . 1	31.9	2 . 07	26.1	0 . 00	0.01	0.07	151
2	169		9.19	9.17	34.012	26.317	173 .0	0 . 408	2.17	33 . 5	34 . 5	2.16	*27 .4*	0 . 00	0.01	0 . 07	170
2	200		9 . 06	9 .04	34.083	26.394	166.3	0 . 461	1 .82	28.0	37 . 4	2 .29	28 .9	0.00	0.01	0 . 06	201
2	229		8 . 94	8 .92	34.124	26.446	162 .0	0. 508	1.51	23 .2	40 . 5	2.41	30 . 3	0 .00			230
	250	ISL	8. 73	8.70	34.147	26.497	157.4	0. 542	1 . 34	20. 5	43. 7	2 . 50	31 .3	0 .00			251
2	270		8.51	8 . 48	34.164	26.545	153.2	0. 573	1.21	18.4	46 . 8	2.57	32 . 1	0 . 00			272
	300	ISL	8.26	8.23	34.173	26 . 590	149.3	0.618	1 . 08	16.3	50. 4	2 .64	32 .9	0 . 00			302
2	319		8.11	8 . 08	34.175	26.615	147.3	0 . 646	1 . 02	15.4	52 . 5	2 . 67	33 .2	0 . 00			321
2	378		7.61	7.57	34.190	26 . 700	139.8	0. 731	0 . 86	12.8	59.9	*2 . 72*	33.7	0. 00			380
	400	ISL	7. 33	7 .29	34.194	26.744	135.9	0.761	0 . 73	10.8	64 . 9	*2* . 83	34.4	0 . 00			403
2	438		6. 87	6 . 83	34 .203	26.814	129.4	0.812	0. 47	6 . 9	75 . 0	3 . 06	35.2	0 . 00			441
	500	ISL	6 . 43	6 . 38	34.223	26.889	122.8	0 . 890	0.10	1 . 5	91.6	3.28	32 . 5	0 . 00			503
2	519		6 . 36	6. 31	34 .228	26 . 903	121.7	0.913	0 .02	0 . 3	96 . 6	3. 33	30 . 8	0 . 00			523
2	558		6. 32	6.27	34 .229	26.909	121.6	0.961	0 . 00	0 .0	106.2	3 . 43	26.1	0 . 00			562
2	565		6 . 32	6.27	34.230	26.910	121.7	0 . 969	0.01	0 .1	106.7	3.45	25.9	0 . 00			569
2	570		6 . 32	6.27	34.230	26.910	121.7	0.975	0 . 00	0 .0	106.9	3 . 42	25.8	0 . 00			574
2	571		6 . 32	6.27	34.230	26.910	121.7	0.976	0 . 00	0 .0	106.6	3.45	25.8	0 . 00			575

A) SANTA BARBARA BASIN STATION.

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 13.5 N	119 24.7 W	11/10/94	0143 UTC	35 m	270 14 kn		0	1009.5 mb	19.0 C	17.9 C		0/8

CAST	DEPTH in		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.16	19.16	33.456	23.802	408.9	0.000	5.87	110.9	2.3	0.20	0.0	0.00	0.49	0.11	0
2	1		19.16	19.16	33.456	23.802	409.0	0.004	5.87	110.9	2.3	0.20	0.0	0.00	0. 49	0.11	1
2	5		19.14	19.14	33.455	23.807	408.7	0.020	5.88	111.0	2.2	0.21	0.0	0.00	0.51	0.11	5
2	10		18.14	18.14	33.449	24.052	385.5	0.040	5.93	109.8	2.1	0.20	0.0	0.00	0.57	0.14	10
2	20		15.37	15.37	33.379	24.643	329.4	0.076	5.98	104.9	4.6	0.39	0.1	0.05	2.22	0.91	20
2	30		14.30	14.30	33.357	24.857	309.3	0. 108	5.55	95.2	5.9	0.61	2.4	0.39	1 .24	0.65	30

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	**WIND** SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
34 10.7 N	119 30.6 W	10/10/94	2309 UTC	144 in	270 10 kn	270 02 04	0	1009.7 mb	20.0 C	18.0 C	16m 03	0/8

CAST	DEPTH **HI**		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 **uM/l**	N03 **uM/l**	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.42	19.42	33.465	23.743	414.6	0.000	5.73	108.7	2.8	0.21	0.0	0.00	0.39	0.13	0
2	1		19.42	19.42	33.465	23.743	414.6	0.004	5.73	108.7	2.8	0.21	0.0	0.00	0.39	0.13	1
2	10		18.71	18.71	33.448	23.910	399.0	0.041	5.93	111.0	2.3	0.21	0.0	0.00	0.38	0.14	10
2	19		17.20	17.20	33.416	24.253	366.5	0.075	6.19	112.6	2.0	0.25	0.0	0.00	0.62	0.32	19
	20	ISL	16.91	16.91	33.408	24.315	360.6	0.079	6.15	111.2	2.3	0.27	0.2	0.02	0.71	0.35	20
2	29		14.41	14.41	33.375	24.847	310.2	0.109	5.62	96.7	5.5	0.53	2.5	0.22	1 .31	0.58	29
	30	ISL	14.27	14.27	33.374	24.876	307.4	0.112	5.57	95.5	5.8	0.55	2.7	0.26	1 .27	0.58	30
2	40		13.47	13.46	33.371	25.039	292.2	0.142	5.16	87.0	7.6	0.75	5.0	0.55	0.61	0.45	40
2	50		13.10	13.09	33.388	25.126	284.1	0.171	4.96	83.0	8.6	0.83	6.8	0.53	0.43	0.39	50
2	59		12.42	12.41	33.406	25.273	270.3	0. 196	4.76	78.6	10.1	0.97	9.0	0.44	0.27	0.30	59
2	69		11.99	11 .98	33.428	25.372	261 .1	0.222	4.56	74.6	11.1	1 .04	10.9	0.06	0.25	0.31	69
	75	ISL	11 .69	11 .68	33.446	25.442	254.5	0.238	4.40	71 .5	12.4	1.13	12.3	0.06	0.19	0.26	75
2	84		11 .22	11 .21	33.483	25.557	243.8	0.260	4.15	66.8	14.8	1 .29	14.4	0.07	0.10	0.18	84
2	99		10.43	10.42	33.582	25.774	223.4	0.295	3.77	59.7	18.5	1 .49	17.6	0.03	0.07	0.15	99
	100	ISL	10.40	10.39	33.588	25.784	222.5	0.298	3.75	59.3	18.7	1 .50	17.8	0.03	0.07	0.15	100
2	115		10.11	10.10	33.658	25.888	212.8	0.330	3.44	54.1	21 .9	1 .66	19.9	0.03	0.04	0.11	116
	125	ISL	9.99	9.98	33.691	25 .934	208.7	0.351	3.30	51 .8	23.2	1 .72	20.7	0.03	0.03	0. 10	126
2	133		9.90	9.88	33.717	25.970	205.4	0.368	3.19	49.9	24.2	1 .76	21.4	0.03	0.03	0.09	134

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 52.8 N	120 8.4 W	10/10/94	1822 UTC	103 m	290 10 kn	300 03 05	0	1011.8 mb	18.8 C	17.4 C	14m 04	0/8

CAST	DEPTH *m*		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 **uM/l**	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	17.67	17.67	33.442	24.160	374.8	0.000	5.85	107.4	3.3	0.28	0.0	0.00	0.61	0.29	0
2	1	A	17.67	17.67	33.442 -	24. 160	374.8	0.004	5.85	107.4	3.3	0.28	0.0	0.00	0.61	0.29	1
2	8	A	17.65	17.65	33.442	24.165	374.6	0.030	5.84	107.1	3.1	0.28	0.0	0.00	0.63	0.29	8
	10	ISL	17.56	17.56	33.441	24.186	372.6	0.037	5.85	107. 1	3.1	0.28	0.0	0.00	0.77	0.31	10
2	17	A	17.25	17.25	33.437	24.257	366.1	0.063	5.90	107.4	3.2	0.30	0.1	0.01	1 .25	0.41	17
	20	ISL	16.29	16.29	33.425	24.472	345.7	0.074	5.75	102 .7	4.5	0.41	1 .5	0.06	1 .24	0.46	20
2	27	A	13.79	13.79	33.432	25.020	293.6	0.096	5.27	89.5	8.1	0.72	5.6	0.16	1 .22	0.54	27
	30	ISL	13.13	13.13	33.427	25.150	281 .3	0.105	5.09	85.3	9.2	0.82	7.2	0.16	1 .00	0.53	30
2	37	A	12.06	12.06	33.426	25.357	261 .7	0.124	4.68	76.7	11.6	1 .03	10.6	0.15	0.45	0.46	37
2	45		11 .42	11.41	33.493	25.528	245.7	0.144	4.27	69.0	14.9	1 .25	13.8	0.11	0.27	0.32	45
	50	ISL	11 .39	11 .38	33.501	25.540	244.7	0.157	4.23	68.3	15.2	1 .27	14.0	0.11	0.26	0.28	50
2	54	A	11 .37	11 .36	33.507	25.548	243.9	0.166	4.20	67.8	15.4	1 .28	14.2	0.11	0.25	0.27	54
2	65		11 .35	11 .34	33.511	25.555	243.6	0.193	4.22	68. 1	15.5	1 .29	14.4	0.11	0.26	0.31	65
2	74		11.01	11 .00	33.563	25.657	234.0	0.215	4.00	64. 1	17.7	1 .39	15.9	0.11	0.22	0.25	74
	75	ISL	10.96	10.95	33.568	25.670	232.8	0.217	3.97	63.6	18.0	1 .40	16.1	0.11	0.21	0.25	75
2	91		10.11	10.10	33.657	25.887	212.4	0.253	3.51	55.2	22 .3	1 .63	19.9	0.07	0.07	0.17	91

A> PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
33 44.7 M	120 24.5 W	10/10/94	1054 UTC	966 m	330 13 kn			1010 .1 mb	18.2 C	17.6 C		

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.22	18.22	33.450	24.032	386.9	0.000	5.57	103.3	3.1	0.30	0. 1	0.00	0.21	0.07	0
2	1		18.22	18.22	33.450	24.032	387.0	0.004	5 .57	103.3	3. 1	0.30	0. 1	0.00	0.21	0.07	1
2	10		18.22	18.22	33.449	24.032	387.3	0.039	5 .55	103.0	2 .9	0.29	0. 1	0.00	0.21	0.07	10
2	20		17.74	17.74	33.440	24.143	377. 1	0.077	5 .56	102.2	2.9	0.30	0. 1	0.00	0.28	0.11	20
2	30		14.39	14.39	33.356	24.837	311.2	0.111	5 .59	96. 1	5 .3	0.55	3.2	0.17	0.75	0.52	30
2	40		14.12	14.11	33.352	24.891	306.3	0.142	5 .47	93.5	5.9	0.64	4 .4	0.21	0.67	0.52	40
2	50		12.38	12 .37	33.377	25 .258	271 .5	0.171	4.92	81 . 1	9.3	0.91	9.2	0.11	0.29	0.32	50
2	61		11.59	11.58	33.416	25.437	254.7	0.200	4. 57	74. 1	12.4	1.11	12.5	0.02	0.18	0.23	61
2	71		11.28	11.27	33.450	25 . 520	247.0	0.225	4.39	70.7	13.8	1 .20	13.8	0.02	0.14	0.20	71
	75	ISL	11.10	11 .09	33.468	25.567	242 .6	0.235	4.33	69.5	14.3	1 .23	14.3	0.02	0.12	0.19	75
2	84		10.68	10.67	33.515	25.678	232 .2	0.256	4.16	66.2	15.9	1 .32	15.8	0.02	0.08	0.17	84
2	99		10.05	10.04	33.612	25.862	215.0	0.290	3.71	58.3	20.2	1 .56	19.3	0.01	0.04	0.10	99
	100	ISL	10.03	10.02	33.615	25 .868	214.4	0.292	3. 70	58. 1	20.3	1 .57	19.4	0.01	0.04	0.10	100
2	119		9.71	9.70	33.678	25.971	205.0	0.332	3.53	55.0	22 .8	1 .68	21.1	0.00	0.02	0.07	120
	125	ISL	9.56	9.55	33.732	26.038	198.7	0.344	3.35	52. 1	24.5	1 .75	22 .2	0.00	0.01	0.06	126
2	138		9.20	9.18	33.855	26.192	184.2	0.369	2 .95	45.5	28.6	1 .92	24.6	0.00	0.00	0.05	139
	150	ISL	8.89	8.87	33.914	26.288	175.3	0.390	2.79	42.8	31 .4	2 .00	25 .9	0.00	0.00	0.04	151
2	168		8.52	8. 50	33.967	26.387	166. 1	0.421	2 .65	40.3	34 .9	2 .08	27.2	0.00	0.00	0.04	169
2	199		8.31	8.29	34 .049	26.484	157.5	0.471	2 .29	34.7	39.6	2 .22	28.9	0.00	0.00	0.03	200
	200	ISL	8.30	8.28	34.051	26.487	157.2	0.473	2.28	34.5	39.7	2 .22	28.9	0.00			201
2	228		8.01	7.99	34. 107	26.575	149.3	0.516	1 .96	29.5	43.9	2.34	30.3	0.00			229
	250	ISL	7.79	7.77	34.156	26.646	142 .8	0.548	1 .62	24.3	48.5	2 .48	31 .7	0.00			251
2	267		7.66	7. 63	34.189	26.691	138.8	0. 572	1 .38	20.6	51.9	2 .58	32 .8	0.00			269
	300	ISL	7.58	7.55	34.216	26.724	136.2	0.617	1.15	17.1	54.5	2 .68	33.8	0.00			302
2	318		7. 55	7. 52	34.222	26.733	135.6	0.642	1 .08	16.1	55 .4	2 .72	34 . 1	0.00			320
2	377		7.15	7.11	34 .240	26.805	129.6	0.720	0.92	13.6	61 .4	2 .86	35 .7	0.00			379
	400	ISL	6.99	6.95	34.249	26.834	127.1	0.749	0.82	12.1	63.7	2 .92	36.2	0.00			403
2	437		6.73	6.69	34 .264	26.881	122.9	0.796	0.65	9.5	67.7	3.00	37.0	0.00			440
	500	ISL	6.19	6.15	34.292	26.975	114.5	0.870	0.47	6 .8	77. 1	3.09	38 .8	0.00			503
2	523		5 .99	5 .94	34.303	27.009	111.3	0.896	0.41	5 .9	80.5	3.12	39.5	0.00			527

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 60

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIHE	80TT0H	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 34.6 0	120 45.8 W	10/10/94	0704 UTC	1517 m	320 13 kn			1011 .2 mb	18.0 C	17.5 C			

CAST	DEPTH ID		TEMP OEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ L	N02 uM/l	CHL-A ug/ L	PHAEO ug/ I	PRESS db
	0	ISL	18.16	18.16	33.290	23.925	397.2	0.000	5 .55	102.7	3.0	0.33	0. 1	0.00	0.21	0.06	0
2	2		18.16	18.16	33.290	23.925	397.3	0.008	5.55	102.7	3.0	0.33	0. 1	0.00	0.21	0.06	2
	10	ISL	17.60	17.60	33.251	24.031	387.4	0.039	5.73	104.9	3.1	0.33	0.1	0.00	0.23	0.08	10
2	11		17.49	17.49	33.245	24.053	385.4	0.043	5.76	105 .2	3. 1	0.33	0.1	0.00	0.23	0.09	11
2	20		16.66	16.66	33.215	24.226	369.2	0.077	5.89	105.9	3.1	0.33	0. 1	0.00	0.34	0.16	20
2	30		15.04	15.04	33.093	24.495	343.8	0.113	6.07	105.5	3.8	0.35	0.2	0.01	0.51	0.26	30
2	40		13.06	13.05	32.966	24.807	314.2	0.146	6.08	101.4	4.8	0.43	0.8	0.06	0.46	0.32	40
2	50		12.00	11 .99	33.028	25.060	290.3	0.176	5.71	93.2	6.6	0.59	3.4	0.26	0.31	0.29	50
2	60		11 .84	11 .83	33.112	25.155	281 .5	0.205	5.51	89.7	7.1	0.71	5.4	0.19	0.26	0.24	60
2	70		11.26	11 .25	33.273	25.386	259.7	0.232	4.98	80. 1	10.6	0.99	10.4	0.02	0.14	0.15	70
	75	ISL	10.97	10.96	33.314	25.470	251 .8	0.244	4.80	76.8	12.0	1 .08	12.0	0.02	0.11	0.14	75
2	85		10.51	10.50	33.381	25.603	239.3	0.269	4.48	71 .0	14.7	1 .23	14.6	0.01	0.08	0.11	85
2	100		10.29	10.28	33.553	25.775	223.2	0.304	3.79	59.8	19.5	1 .51	18.7	0.01	0.06	0.13	100
2	120		9.57	9. 56	33.686	26.000	202.2	0.346	3.37	52 .4	24.5	1 .73	22 .0	0.01	0.02	0.07	121
	125	ISL	9.44	9.43	33.717	26.046	198.0	0.356	3.29	51 .0	25.5	1 .76	22.5	0.01	0.02	0.06	126
2	140		9.12	9.10	33.806	26.167	186.7	0.385	3.05	47.0	28.3	1 .83	23.8	0.00	0.01	0.05	141
	150	ISL	8.93	8.91	33.874	26.250	178.9	0.403	2.87	44.0	30.6	1 .91	25.0	0.00	0.01	0.04	151
2	169		8.65	8.63	33.987	26.383	166.6	0.436	2.56	39.0	34.9	2 .06	27.0	0.00	0.00	0.04	170
2	199		8.46	8.44	34.070	26.478	158.2	0.485	2 .20	33.4	39. 1	2 .21	28.5	0.00	0.00	0.04	200
	200	ISL	8.45	8.43	34.073	26.482	157.8	0.486	2.18	33.1	39.3	2 .22	28.6	0.00			201
2	228		8.08	8.06	34.132	26.584	148.5	0.529	1 .80	27. 1	45.2	2 .37	30.5	0.00			**229**
	250	ISL	7.86	7.83	34.146	26.628	144.6	0.562	1 .68	25.2	47.8	2 .43	31 .2	0.00			**251**
2	269		7.69	7.66	34. 147	26.653	142 .4	0.589	1 .63	24.3	49.6	2 .46	31 .6	0.00			**271**
	300	ISL	7.38	7.35	34. 149	26.700	138.4	0.632	1 .47	21.8	53.6	2.49	32 .3	0.00			**302**
2	318		7.21	7.18	34.153	26.727	136.0	0.657	1 .36	20.1	56.0	2.52	32 .8	0.00			320
2	379		6.88	6.84	34.228	26.832	126.8	0.737	0.82	12.0	64.3	2 .80	35.5	0.00			**381**
	400	ISL	6.77	6.73	34.243	26.859	124.5	0.764	0.73	10.7	66.5	2 .85	36.0	0.00			**403**
2	437		6.57	6.53	34.260	26.900	121.0	0.809	0.63	9.2	70.2	2.91	36.7	0.00			**440**
	500	ISL	6.10	6.06	34.270	26.969	114.9	0.883	0.48	6.9	77.3	3.06	39. 1	0.00			**503**
2	512		6.01	5.96	34.272	26.982	113.7	0.897	0.45	6.5	78.7	3.09	39.5	0.00			516

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 70

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIHE	BOTTOH	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 14.6 N	121 26.3 W	10/10/94	0123 UTC	3799 m	330 18 kn	350 03 04	0	1012 . 1 mb	18.9 C	17.7 C	18m	0/8	
02													

CAST	DEPTH m		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGHA THETA	SVA	DYN HT	OXYGEN ml/ L	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ L	PRESS db
	0	ISL	18.44	18.44	33.164	23.759	413.0	0.000	5.56	103.4	3.3	0.35	0.2	0.00	0.17	0.06	0
2	1		18.44	18.44	33.164	23.760	413.0	0.004	5.56	103.4	3.3	0.35	0.2	0.00	0.17	0.06	1
	10	ISL	18.31	18.31	33.154	23.784	411.0	0.041	5 .59	103.7	3.3	0.35	0.2	0.00	0.18	0.06	10
2	11		18.30	18.30	33. 156	23.788	410.6	0.045	5.60	103.9	3.3	0.35	0.2	0.00	0.18	0.06	1 1
2	20		17.89	17.89	33.124	23.864	403.7	0.082	5.70	104.9	3.3	0.49 U	0.2	0.00	0.20	0.08	20
2	30		17.47	17.47	33. 153	23.988	392.2	0.122	5.78	105.5	3.3	0. 34	0.2	0.00	0.31	0.14	30
2	40		15.65	15 .64	33.015	24 .302	362 . 5	0.159	6.07	106.8	4.0	0.35	0.2	0.00	0.43	0.29	40
2	50		15.16	15.15	32 .987	24.388	354.5	0.195	6.10	106.3	4 . 1	0.37	0.2	0.00	0. 42	0.29	50
2	60		13.46	13.45	32 .985	24.743	320.9	0.229	6.08	102.3	4.4	0.38	0.3	0.02	0.38	0.34	60
2	71		13.00	12.99	33.022	24.863	309.7	0.264	5 .97	99.5	5 .0	0.43	0.7	0.09	0.27	0.29	71
	75	ISL	12.74	12 .73	33.062	24.945	301 .9	0.276	5.85	97.0	5.4	0.47	1 .5	0.10	0.24	0.26	75
2	85		12.00	1 1 .99	33. 177	25 . 176	280. 1	0.305	5.48	89.5	6.8	0.63	4 .4	0.11	0.17	0.19	85
2	100		10.99	10.98	33.291	25 .449	254.3	0.345	4.94	79.0	10.9	1 .00	10.6	0.02	0.08	0.10	100
2	120		9.87	9.86	33.431	25.751	225.9	0.393	4.41	68.9	16.4	1 .35	16.2	0.01	0.04	0.07	121
	125	ISL	9.57	9.56	33.471	25.832	218.2	0.404	4.27	66.3	18.3	1 .44	17.7	0.01	0.03	0.06	126
2	139		8.85	8.84	33.583	26.035	199.1	0.434	3.95	60.4	23.4	1 .66	21.3	0.01	0.01	0.05	140
	150	ISL	8.56	8.54	33.661	26.141	189.1	0.455	3.86	58.6	25.5	1 .69	22.4	0.01	0.01	0.04	151
2	169		8.31	8.29	33.772	26.266	177.5	0.490	3.79	57.3	28.0	1 .75	23.3	0.01	0.00	0.03	170
2	199		8.03	8.01	33.889	26.400	165.3	0.541	3.40	51.1	33.2	1 .92	25 .7	0.00	0.00	0.03	200
	200	ISL	8.02	8.00	33.892	26. 404	164.9	0. 543	3.38	50.8	33.4	1 .93	25 .8	0.00			201
2	229		7.62	7.60	33.961	26.517	154.6	0.589	2 .92	43 . 5	39.6	2.10	28. 1	0 . 00			230
	250	ISL	7.50	7.48	33.994	26.560	150.8	0.621	2 .66	39.5	42 .7	2 .20	29.4	0.00			**251**
2	268		7.40	7.37	34.012	26.589	148.3	0.648	2 .46	36.5	45 .2	2 .28	30.4	0.00			**270**
	300	ISL	6.95	6.92	34.028	26.664	141.4	0.694	2.10	30.8	51 .8	2 .42	32 .6	0.00			**302**
2	318		6.68	6.65	34 .034	26.705	137.6	0.720	1 .91	27.8	55 .8	2 .50	33.9	0.00			**320**
2	378		6.16	6.13	34.079	26.809	128.3	0.799	1 .29	18.6	67.1	2.78	37. 1	0.00			**380**
	400	ISL	5 .96	5.93	34.091	26.844	125.1	0.827	1.14	16.3	71 .0	2 .83	37.9	0.00			**403**
2	438		5 .65	5 .61	34.112	26.899	120.1	0.874	0.93	13.2	77.3	2 .90	39. 1	0.00			**441**
	500	ISL	5 .29	5 .25	34. 152	26.974	113.4	0.946	0.66	9.3	85 .8	3.06	40.9	0.00			**503**
2	519		5.18	5.14	34.164	26.997	111.4	0.968	0.58	8.2	88.4	3.11	41.4	0.00			**523**

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.7 N	122 7.9 W	09/10/94	1830 UTC	4183 m	330 13 kn	320 D3 04	0	1014.4 mb	20.6 C	18.9 C	29m 01	0/8	

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.00	19.00	32.926	23.438	443.7	0.000	5.46	102.5	5.0	0.30	0.0	0.00	0.10	0.03	o
2	1	A	19.00	19.00	32.926	23.438	443.7	0.004	5.46	102.5	5.0	0.30	0.0	0.00	0.10	0.03	1
	10	ISL	18.96	18.96	32.944	23.462	441.7	0.044	5.47	102.6	4.9	0.30	0.0	0.00	0.11	0.03	10
2	17	A	18.88	18.88	32.943	23.482	440.1	0.075	5.48	102.6	4.9	0.30	0.0	0.00	0.11	0.03	17
	20	ISL	18.84	18.84	32.955	23.501	438.4	0.088	5.49	102.7	4.8	0.30	0.0	0.00	0.12	0.03	20
2	27		18.70	18.70	33.006	23.575	431.5	0.119	5.54	103.4	4.7	0.30	0.0	0.00	0.13	0.04	27
	30	ISL	18.60	18.59	33.055	23.638	425.7	0.132	5.58	104.0	4.7	0.30	0.0	0.00	0.13	0.04	30
2	38	A	18.28	18.27	33.171	23.806	409.9	0.165	5.71	105.9	4.6	0.29	0.0	0.00	0.14	0.05	38
2	48		17.81	17.80	33.166	23.917	399.6	0.206	5.80	106.6	4.6	0.29	0.0	0.00	0.14	0.05	48
	50	ISL	17.38	17.37	33.112	23.979	393.7	0.213	5.85	106.5	4.6	0.29	0.0	0.00	0.15	0.06	50
2	57	A	15.78	15.77	32.943	24.218	371.0	0.240	6.04	106.5	4.7	0.31	0.0	0.00	0.18	0.10	57
2	68		14.68	14.67	32.979	24.486	345.7	0.280	6.12	105.6	4.6	0.32	0.0	0.00	0.22	0.17	68
	75	ISL	14.19	14.18	32.978	24.588	336.1	0.304	6.10	104.2	4.7	0.34	0.0	0.00	0.25	0.19	75
2	77	A	14.08	14.07	32.981	24.614	333.7	0.310	6.10	103.9	4.7	0.34	0.0	0.00	0.26	0.20	77
2	88		13.62	13.61	33.106	24.805	315.8	0.346	6.00	101.3	4.8	0.35	0.2	0.05	0.24	0.23	88
2	98		13.55	13.54	33.223	24.910	306.1	0.377	5.96	100.6	4.8	0.33	0.2	0.05	0.23	0.21	98
	100	ISL	13.46	13.45	33.220	24.926	304.6	0.383	5.94	100.1	4.9	0.35	0.3	0.07	0.22	0.21	100
2	110	A	12.73	12.72	33.184	25.043	293.6	0.413	5.73	95.0	6.0	0.49	2.0	0.17	0.18	0.20	110
2	125		11.08	11.06	33.265	25.414	258.3	0.454	5.14	82.3	9.6	0.83	8.0	0.05	0.11	0.16	126
2	143		9.87	9.85	33.355	25.692	231.9	0.499	4.53	70.7	16.6	1.36	16.4	0.01	0.05	0.09	144
	150	ISL	9.49	9.47	33.435	25.817	220.1	0.514	4.36	67.5	18.9	1.47	18.2	0.01	0.03	0.07	151
2	168		8.73	8.71	33.653	26.109	192.6	0.552	4.01	61.1	24.2	1.65	21.4	0.01	0.01	0.04	169
2	199		8.00	7.98	33.839	26.365	168.6	0.608			33.4	1.94	26.3	0.00	0.00	0.03	200
	200	ISL	7.98	7.96	33.843	26.371	168.0	0.609	3.59	53.9	33.6	1.94	26.4	0.00			201
2	227		7.65	7.63	33.937	26.494	156.7	0.653	3.27	48.7	38.0	2.01	27.4	0.00			228
	250	ISL	7.38	7.36	33.985	26.570	149.8	0.688	2.83	41.9	43.3	2.16	29.5	0.00			251
2	268		7.17	7.14	34.009	26.618	145.4	0.715	2.49	36.7	47.7	2.29	31.4	0.00			269
	300	ISL	6.82	6.79	34.033	26.685	139.3	0.760	2.06	30.1	54.3	2.48	33.7	0.00			302
2	316		6.65	6.62	34.039	26.713	136.8	0.782	1.88	27.4	57.4	2.56	34.7	0.00			318
2	376		6.00	5.97	34.070	26.822	126.9	0.862	1.27	18.2	69.1	2.81	38.2	0.00			378
	400	ISL	5.86	5.83	34.086	26.852	124.2	0.892	1.10	15.7	72.5	2.88	39.0	0.00			402
2	436		5.71	5.67	34.111	26.891	120.9	0.936	0.91	13.0	77.0	2.97	39.9	0.00			439
	500	ISL	5.35	5.31	34.159	26.973	113.6	1.011	0.68	9.6	85.7	3.08	41.4	0.00			503
2	515		5.27	5.23	34.170	26.991	112.0	1.028	0.62	8.7	87.8	3.11	41.8	0.00			518

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
32 34.8 N	122 48.9 W	09/10/94	1301 UTC	4271 m	310 11 kn			1014.1 mb	18.7 C	17.5 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uH/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.46	19.46	33.120	23.469	440.7	0.000	5.37	101.8	4.7	0.32	0.2	0.00	0.08	0.02	0
2	1		19.46	19.46	33.120	23.469	440.7	0.004	5.37	101.8	4.7	0.32	0.2	0.00	0.08	0.02	1
	10	ISL	19.46	19.46	33.121	23.470	440.9	0.044	5.39	102.2	4.5	0.32	0.1	0.00	0.09	0.02	10
2	15		19.46	19.46	33.121	23.471	441.1	0.066	5.40	102.3	4.4	0.32	0.1	0.00	0.09	0.02	15
	20	ISL	19.45	19.45	33.135	23.484	440.0	0.088	5.41	102.5	4.3	0.32	0.1	0.00	0.09	0.02	20
2	30		19.43	19.42	33.162	23.510	437.9	0.132	5.43	102.9	4.2	0.32	0.1	0.00	0.09	0.03	30
2	45		17.81	17.80	33.211	23.951	396.2	0.195	5.73	105.3	4.1	0.31	0.1	0.00	0.12	0.04	45
	50	ISL	17.17	17.16	33.119	24.034	388.5	0.214	5.81	105.4	4.1	0.32	0.1	0.00	0.13	0.05	50
2	61		15.98	15.97	32.967	24.192	373.7	0.256	5.93	105.0	4.2	0.33	0.1	0.00	0.17	0.09	61
	75	ISL	15.48	15.47	33.218	24.497	345.0	0.306	5.97	104.8	3.9	0.32	0.1	0.00	0.25	0.21	75
2	76		15.46	15.45	33.241	24.519	342.9	0.310	5.97	104.8	3.9	0.32	0.1	0.00	0.25	0.22	76
2	85		15.10	15.09	33.325	24.663	329.5	0.340	5.93	103.4	4.0	0.33	0.1	0.02	0.26	0.32	85
2	95		14.61	14.60	33.404	24.829	313.8	0.372	5.78	99.8	4.2	0.37	0.7	0.09	0.23	0.26	95
	100	ISL	14.18	14.17	33.370	24.894	307.8	0.388	5.72	97.9	4.5	0.41	1.3	0.08	0.21	0.23	100
2	104		13.88	13.87	33.349	24.940	303.4	0.400	5.67	96.4	4.8	0.45	1.8	0.07	0.19	0.20	104
2	114		13.78	13.76	33.489	25.069	291.4	0.430	5.53	93.9	5.2	0.48	2.7	0.04	0.14	0.16	114
2	124		13.27	13.25	33.531	25.205	278.7	0.458	5.39	90.6	6.0	0.54	3.8	0.02	0.10	0.14	124
	125	ISL	13.18	13.16	33.521	25.215	277.7	0.461	5.37	90.1	6.1	0.55	4.0	0.02	0.10	0.14	125
2	144		11.31	11.29	33.316	25.412	259.0	0.512	4.99	80.4	9.9	0.91	9.2	0.00	0.07	0.10	145
	150	ISL	10.83	10.81	33.323	25.503	250.3	0.527	4.85	77.3	11.5	1.02	11.1	0.00	0.06	0.09	151
2	164		9.93	9.91	33.402	25.719	229.8	0.561	4.49	70.2	15.6	1.26	15.4	0.00	0.03	0.06	165
2	193		9.09	9.07	33.633	26.037	200.0	0.623	3.68	56.6	23.8	1.69	22.0	0.00	0.01	0.03	194
	200	ISL	8.91	8.89	33.674	26.098	194.3	0.637	3.70	56.6	24.9	1.70	22.2	0.00			201
2	228		8.32	8.30	33.804	26.291	176.3	0.689	3.79	57.3	28.2	1.73	23.1	0.00			229
	250	ISL	7.99	7.96	33.882	26.401	166.1	0.727	3.65	54.8	31.6	1.80	24.3	0.00			251
2	268		7.76	7.73	33.930	26.473	159.5	0.756	3.46	51.7	34.8	1.87	25.4	0.00			269
	300	ISL	7.36	7.33	33.977	26.567	150.9	0.806	3.03	44.9	41.1	2.02	27.8	0.00			302
2	318		7.16	7.13	33.993	26.608	147.2	0.832	2.75	40.5	44.9	2.12	29.3	0.00			320
2	377		6.60	6.57	34.051	26.730	136.1	0.916	1.76	25.6	57.7	2.50	34.2	0.00			379
	400	ISL	6.35	6.31	34.073	26.780	131.5	0.947	1.45	21.0	63.0	2.63	35.7	0.00			402
2	438		5.97	5.93	34.106	26.855	124.6	0.995	1.04	14.9	71.0	2.80	37.7	0.00			441
	500	ISL	5.63	5.59	34.144	26.927	118.2	1.071	0.78	11.1	78.9	2.98	39.7	0.00			503
2	515		5.55	5.51	34.153	26.944	116.7	1.088	0.72	10.2	80.8	3.02	40.2	0.00			518

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT TYPE
32 14.7 N	123 29.8 W	09/10/94	0703 UTC	4130 m	330 09 kn			1015 .4 mb	18.8 C	17.0 C		

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ L	OXY PCT	SI03 uM/l	P04 uH/ L	N03 uH/ L	N02 uH/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	19.67	19.67	33.385	23.617	426.6	0.000	5.34	101.8	4.1	0.30	0.0	0.00	0.07	0.02	0
2	2		19.67	19.67	33.385	23.617	426.6	0.009	5 .34	101.8	4. 1	0.30	0.0	0.00	0.07	0.02	2
	10	ISL	19.66	19.66	33.387	23.622	426.5	0.043	5 .34	101.7	4.0	0.29	0.0	0.00	0.07	0.02	10
2	15		19.66	19.66	33.388	23.623	426.6	0.064	5 .34	101.7	4.0	0.29	0.0	0.00	0.07	0.02	15
	20	ISL	19.66	19.66	33.404	23.635	425.6	0.085	5.34	101.8	4.0	0.29	0.0	0.00	0.07	0.02	20
2	30		19.66	19.65	33.436	23.660	423.6	0.128	5.35	102 .0	3.9	0.29	0.0	0.00	0.07	0.02	30
2	45		19.38	19.37	33.554	23.823	408.6	0. 190	5.48	104.0	3.8	0.27	0.0	0.00	0.09	0.03	45
	50	ISL	18.86	18.85	33.516	23.926	398.9	0.210	5.57	104.6	3.8	0.27	0.0	0.00	0.10	0.04	50
2	60		17.68	17.67	33.428	24.150	377.9	0.249	5.74	105 .3	3.7	0.27	0.0	0.00	0.14	0.06	60
2	75		16.59	16.58	33.427	24.407	353.8	0.304	5.82	104.6	3.7	0.28	0.0	0.00	0.20	0.11	75
2	85		16.07	16.06	33.426	24.525	342.7	0.339	5.85	104.0	3.7	0.28	0.0	0.00	0.22	0.18	85
2	95		15.85	15.84	33.551	24.671	329.1	0.372	5 .79	102.6	3.7	0.27	0.0	0.00	0.25	0.24	95
	100	ISL	15.77	15.75	33.608	24.733	323.3	0.389	5 .76	101.9	3.7	0.26	0.0	0.00	0.26	0.25	100
2	105		15.71	15.69	33.667	24.792	317.9	0.405	5.71	101.0	3.7	0.25	0.0	0.00	0.27	0.26	105
2	115		15.62	15.60	33.801	24.916	306.5	0.436	5.55	98.0	3.8	0.26	0. 1	0.09	0.23	0.21	115
2	125		14.70	14.68	33.674	25.019	296.7	0.466	5.54	96.0	4.4	0.32	0.7	0.12	0.15	0.18	125
2	139		13.96	13.94	33.770	25 .250	275.0	0.506	5.15	87.9	5.6	0.43	2.9	0.01	0.10	0.13	140
	150	ISL	13.22	13.20	33.724	25.365	264.2	0.536	5.00	84.1	6.8	0.56	4.9	0.01	0.07	0.11	151
2	165		12.18	12.16	33.618	25.486	252.7	0.575	4.87	80.1	8.9	0.77	7.9	0.01	0.05	0.09	166
2	194		10.53	10.51	33.568	25.748	228.1	0.644	4.42	70.1	15.2	1 .21	14.3	0.00	0.01	0.06	195
	200	ISL	10.20	10.18	33.582	25.815	221 .6	0.658	4.32	68.0	16.8	1 .29	15.6	0.00			201
2	229		8.87	8.85	33.702	26.126	192 .2	0.718	3.83	58.6	24.8	1 .61	20.9	0.00			230
	250	ISL	8.44	8.41	33.800	26.270	178.8	0.757	3.50	53.1	29.4	1 .78	23.5	0.00			251
2	269		8.22	8.19	33.879	26.365	170.0	0.790	3.24	48.9	33.1	1 .89	25 . 1	0.00			270
	300	ISL	7.81	7.78	33.962	26.491	158.3	0.841	2 .96	44.3	38.4	1 .97	26. 7	0.00			302
2	318		7.59	7.56	33.992	26.547	153.3	0.869	2 .81	41 .8	41 .5	2.01	27.5	0.00			320
2	377		6.82	6.79	34.027	26.682	140.9	0.956	2.15	31 .4	53.8	2 .39	32.6	0.00			379
	400	ISL	6.56	6.52	34.048	26.733	136.1	0.987	1 .79	26.0	58.9	2 .56	34.7	0.00			402
2	437		6.20	6.16	34.083	26.808	129.3	1 .037	1 .26	18.2	66.9	2 .79	37.5	0.00			440
	500	ISL	5.70	5 .66	34.132	26.909	120.0	1.115	0.90	12.8	77.8	2 .96	39.5	0.00			503
2	513		5.60	5.56	34.143	26.930	118.1	1.131	0.83	11.8	80. 1	2 .99	39.9	0.00			516

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 83 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT TYPE
31 54.9 N	124 10.6 W	09/10/94	0122 UTC	4181 m	330 12 kn	340 04 05	1	1015 .3 mb	19.0 C	16.8 C	32m 01	1/8 CU

CAST	DEPTH m		TEMP DEG C	POT TEHP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uR/ I	P04 uH/ L	N03 uH/ I	N02 uH/ I	CHL-A ug/ I	PHAEO ug/ L	PRESS db
	0	ISL	19.69	19.69	33.200	23.471	440.5	0.000	5 .37	102 .3	4.4	0.30	0.0	0.00	0.07	0.02	0
2	1		19.69	19.69	33.200	23.471	440.5	0.004	5 .37	102.3	4.4	0.30	0.0	0.00	0.07	0.02	1
	10	ISL	19.55	19.55	33.178	23.491	439.0	0.044	5 .38	102.2	4.4	0.31	0.0	0.00	0.08	0.03	10
2	15		19.45	19.45	33.163	23.505	437.8	0.066	5 .39	102.2	4.4	0.31	0.0	0.00	0.09	0.03	15
	20	ISL	19.45	19.45	33. 166	23.508	437.7	0.088	5.39	102.2	4.3	0.31	0.0	0.00	0.09	0.03	20
2	30		19.44	19.43	33.171	23.515	437.5	0.132	5 .39	102.1	4.2	0.30	0.0	0.00	0.09	0.03	30
2	46		18.58	18.57	33.171	23.732	417.2	0.200	5 .59	104.2	4.0	0.29	0.0	0.00	0.13	0.05	46
	50	ISL	18.29	18.28	33.240	23.857	405.5	0.216	5 .64	104.6	4.0	0.28	0.0	0.00	0.15	0.06	50
2	60		17.50	17.49	33.409	24.178	375.1	0.255	5.77	105.5	4. 1	0.27	0.0	0.00	0.20	0.08	60
2	75		16.28	16.27	33.394	24.452	349.4	0.310	5 .88	105.0	4. 1	0.27	0.0	0.00	0.23	0.14	75
2	86		15.59	15.58	33.398	24.611	334.5	0.347	5.87	103.4	4.0	0.27	0.0	0.01	0.29	0.27	86
2	95		15.11	15.10	33.450	24.757	320.8	0.377	5 .80	101.2	4.0	0.28	0.1	0.05	0.26	0.31	95
	100	ISL	15.11	15 .09	33.536	24 .824	314.6	0.393	5.73	100.0	4. 1	0.28	0. 1	0.06	0.25	0.27	100
2	105		15.11	15 .09	33.606	24.878	309.7	0.408	5 .66	98.8	4.2	0.28	0.2	0.07	0.24	0.23	105
2	114		14.94	14.92	33.630	24.933	304.6	0.436	5 .61	97.6	4.2	0.30	0.6	0.09	0.22	0.22	114
2	125		14.47	14.45	33.659	25 .057	293.1	0.469	5 .44	93.8	5 .0	0.36	1 .2	0.14	0.19	0.22	125
2	140		12 .39	12.37	33.485	25 .343	265.8	0.511	5.17	85 .3	7.5	0.64	5 .7	0.01	0.11	0.13	141
	150	ISL	11.21	11.19	33.474	25 .553	245 .7	0.536	4.76	76.6	11.4	0.96	10.7	0.01	0.07	0.09	151
2	164		9 .94	9.92	33.523	25 .812	221 .0	0.569	4.18	65.4	17.2	1 .38	17.4	0.00	0.03	0.06	165
2	194		9.08	9.06	33.611	26.021	201 .5	0.632	3.79	58.2	22 .7	1 .64	21.5	0.00	0.01	0.03	195
	200	ISL	8.97	8.95	33.655	26.073	196.6	0.644	3.66	56. 1	24.2	1 .70	22 .4	0.00			201
2	229		8.54	8.52	33.866	26.306	175.0	0.698	3.08	46.8	30.8	1 .93	25.9	0.00			230
	250	ISL	8.24	8.21	33.929	26.401	166.2	0.734	3.05	46.1	33.5	1 .98	26.9	0.00			251
2	268		8.01	7.98	33.956	26.457	161 .2	0.764	3.02	45.4	35 .4	2 .00	27.5	0.00			269
	300	ISL	7.65	7.62	34.003	26.547	153.0	0.814	2 .73	40.7	40.3	2.13	29.4	0.00			302
2	319		7.45	7.42	34.022	26.590	149.1	0.842	2 .51	37.2	43.6	2.23	30.6	0.00			321
2	378		6.70	6.67	34.051	26.717	137.5	0.927	1 .88	27.4	54.7	2.51	34.6	0.00			380
	400	ISL	6.52	6.48	34.074	26.759	133.7	0.957	1 . 59	23. 1	59.0	2 .60	35 .8	0.00			402
2	438		6.28	6.24	34. 122	26.828	127.4	1 .006	1.11	16.0	66.0	2 .73	37 .4	0.00			441
	500	ISL	6.03	5 .99	34.206	26.927	118.7	1 .083	0.64	9.2	74.2	2 . 90	39.0	0.00			503
2	514		5 .97	5 .92	34.225	26.950	116.7	1 .099	0. 53	7.6	76. 1	2 .94	39.3	0.00			517

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 33

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 53.4 N	118 29.5 W	06/10/94	1331 UTC	56 in	100 05 kn	290 02 05	1	1011 .9 mb	18.5 C	16.4 C	17m 03	7/8	AC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.11	19.11	33.470	23.825	406.7	0.000	5.61	105.9	3.5	0.21	0.0	0.00	0.48	0.13	0
2	1		19.11	19.11	33.470	23.826	406.7	0.004	5 .61	105.9	3.5	0.21	0.0	0.00	0.48	0.13	1
2	5		19.12	19.12	33.469	23.822	407.2	0.020	5 .61	105.9	3.4	0.20	0.0	0.00	0.49	0.12	5
2	10		19.00	19.00	33.463	23.848	404.9	0.041	5.66	106.6	3.5	0.20	0.0	0.00	0.50	0.13	10
2	20		17.86	17.86	33.429	24.105	380.7	0.080	5.85	107.8	3.5	0.21	0. 1	0.00	0.58	0.20	20
2	30		15.23	15.23	33.350	24.652	328.9	0.115	6.30	110.1	4.3	0.33	0.1	0.00	0.89	0.35	30
2	40		13.86	13.85	33.350	24.943	301 .3	0. 147	5.75	97.8	6.2	0.55	1 .8	0.30	0.81	0.56	40
2	50		13.52	13.51	33.356	25.017	294.5	0.177	5.40	91 .2	7.3	0.71	4. 1	0.59	0.68	0.81	50

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 49.5 N	118 37.7 W	06/10/94	1533 UTC	641 m	200 05 kn	230 02 04	1	1012 .7 mb	17.3 C	16.3 C	22m 02	7/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/L	P04 uM/l	N03 UN/ l	N02 uM/l	CHL-A ug/t	PHAEO ug/l	PRESS db
	0	ISL	19.17	19.17	33.482	23.819	407.3	0.000	5.52	104.3	2.5	0.23	0.0	0.00	0.37	0.09	0
2	1		19.17	19.17	33.482	23.819	407.3	0.004	5.52	104.3	2.5	0.23	0.0	0.00	0.37	0.09	1
	10	ISL	19.16	19.16	33.481	23.822	407.4	0.041	5.53	104.4	2.5	0.23	0.0	0.00	0.38	0.10	10
2	14		19.16	19.16	33.481	23.822	407.5	0.057	5.53	104.4	2.5	0.23	0.0	0.00	0.39	0.11	14
	20	ISL	18.16	18.16	33.421	24.026	388.3	0.081	5 .80	107.4	2 .8	0.26	0.0	0.00	0.43	0.16	20
2	30		16.01	16.01	33.341	24.471	346.1	0.118	6.13	108.8	3.3	0.32	0.0	0.00	0.51	0.29	30
2	44		13.49	13.48	33.358	25.025	293.6	0.162	5.49	92.6	6.0	0.62	3.6	0.36	0.61	0.57	44
	50	ISL	12.95	12.94	33.387	25.155	281 .3	0. 180	5.15	85.9	7.5	0.77	6. 1	0.25	0.46	0.49	50
2	54		12 .67	12.66	33.406	25.225	274.8	0.191	4.92	81 .6	8.6	0.86	7.8	0.14	0.35	0.41	54
2	65		11 .80	11 .79	33.406 U			0.220	4.42	72.0	8.6 U	0.86 U	7.8 U	0.14 U	0.21	0.29	65
2	75		11 .35	11 .34	33.463	25.518	247.3	0.245	4.30	69.4	13.3	1.18	13.2	0.03	0.17	0.28	75
2	84		10.82	10.81	33.507	25.647	235.2	0.267	3.99	63.7	16.1	1 .36	15.9	0.02	0.09	0.20	84
2	95		10.52	10.51	33.551	25.734	227.1	0.292	3.80	60.3	18.0	1 .48	17.5	0.02	0.05	0.13	95
	100	ISL	10.42	10.41	33.564	25.762	224.6	0.304	3.75	59.3	18.5	1.51	17.9	0.02	0.04	0.12	100
2	109		10.27	10.26	33.587	25.805	220.6	0.324	3.66	57.7	19.5	1 .55	18.6	0.01	0.04	0.10	110
2	124		9.95	9.94	33.655	25.913	210.6	0.356	3.43	53.7	22.0	1 .68	20.4	0.01	0.02	0.07	125
	125	ISL	9.93	9.92	33.660	25.920	210.0	0.358	3.41	53.4	22.2	1 .69	20.5	0.01	0.02	0.07	126
2	144		9.67	9.65	33.759	26.041	198.8	0.397	3.08	48.0	25.2	1 .84	22 .6	0.01	0.01	0.05	145
	150	ISL	9.62	9.60	33.795	26.078	195 .5	0.409	2 .96	46.1	26.2	1 .89	23.2	0.01	0.01	0.05	151
2	169		9.49	9.47	33.899	26.181	186.1	0.445	2.62	40.7	29.0	2.01	24.7	0.01	0.00	0.05	170
2	199		9.19	9.17	33.985	26.297	175.6	0.499	2.49	38.4	32.1	2.10	26. 1	0.00	0.00	0.04	200
	200	ISL	9.18	9.16	33.989	26.302	175.2	0.501	2 .48	38.3	32.2	2.10	26.2	0.00			201
2	228		9.06	9.04	34.086	26.397	166.6	0.549	2.12	32.7	35.7	2.23	27.8	0.00			229
	250	ISL	8.91	8.88	34.132	26.457	161.3	0.585	1 .95	29.9	38.1	2.31	28.6	0.00			251
2	268		8.77	8.74	34. 160	26.501	157.4	0.614	1 .83	28.0	40.2	2.37	29.2	0.00			270
	300	ISL	8.49	8.46	34.207	26.582	150.2	0.663	1 .50	22.8	44.8	2.52	30.8	0.00			302
2	318		8.31	8.28	34.227	26.625	146.4	0.690	1 .32	20.0	47.7	2.61	31 .7	0.00			320
2	378		7.52	7.48	34.249	26.760	134.2	0.774	0.90	13.4	57.7	2 .82	34 .4	0.00			380
	400	ISL	7.28	7.24	34.255	26.799	130.7	0.803	0.79	11.7	60.9	2 .89	35 .2	0.01			403
2	439		6.90	6.86	34.266	26.860	125.1	0.853	0.62	9.1	66.6	3.00	36.4	0.02			442
	500	ISL	6.39	6.34	34.293	26.950	117.1	0.927	0.43	6.2	76.2	3.13	38. 1	0.01			503
2	517		6.25	6.20	34.301	26.974	114.8	0.946	0.38	5.5	78.9	3.16	38.6	0.01			521

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 40

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 39.2 N	118 58.9 W	06/10/94	1859 UTC	673 m	150 03 kn	250 01 04	0	1012 .7 mb	19.6 C	17.1 C	25m 03	0/8	

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/ l	P04 uM/ l	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db	J
	0	ISL	19.05	19.05	33.456	23.830	406.3	0.000	5 .68	107.0	2 .9	0.22	0.0	0.00	0.31	0.09	0	
2	1	A	19.05	19.05	33.456	23.830	406.3	0.004	5 .68	107.0	2.9	0.22	0.0	0.00	0.31	0.09	1	
2	8		18.78	18.78	33.454	23.897	400.2	0.032	5 .68	106.5	2 .9	0.22	0.0	0.00	0.38	0.11	8	
	10	ISL	18.77	18.77	33.453	23.899	400. 1	0.040	5 .69	106.7	2 .9	0.22	0.0	0.00	0.40	0.12	10	
2	15	A	18.73	18.73	33 .449	23.906	399.6	0.060	5 .71	106.9	2 .8	0.22	0.0	0.00	0.45	0.14	15	
	20	ISL	16.85	16.85	33.360	24.293	362 .8	0.079	6 .03	108.9	3 .0	0.27	0 .0	0 .00	0.43	0.17	20	
2	24		15.11	15.11	33.319	24.654	328.5	0.093	6.19	107.9	3.1	0.35	0.0	0.00	0. 42	0.22	24	
	30	ISL	13.79	13.79	33.330	24.942	301 .2	0.112	5 .73	97.3	5 .0	0.56	2 .8	0.17	0.58	0.36	30	
2	32	A	13.51	13.51	33.339	25.006	295.1	0.118	5 .53	93.3	5.7	0.63	3 .9	0.23	0.63	0.41	32	
2	42		13.00	12 .99	33.370	25.132	283.3	0.147	5.23	87.4	7.3	0.77	6.2	0.29	0. 56	0.43	42	
2	49	A	12.50	12.49	33.413	25.263	271 .0	0. 166	4 .88	80.7	9. 1	0.90	8.6	0.08	0.32	0.33	49	
	50	ISL	12.47	12.46	33.415	25.271	270.3	0.169	4 .86	80.3	9.2	0.91	8.7	0.08	0.32	0.32	50	
2	59		12.22	12.21	33.422	25.324	265.4	0.193	4.75	78.1	9.8	0.97	9.6	0.06	0.28	0.28	59	
2	67	A	11 .79	11.78	33.440	25.419	256.6	0.214	4.54	73.9	11.7	1 .09	11.7	0.04	0.21	0.25	67	
	75	ISL	11 .32	11.31	33.469	25.528	246.3	0.234	4.31	69.5	13.6	1 .22	13.8	0.03	0.15	0.21	75	
2	81		10.98	10.97	33.496	25.610	238.6	0.249	4.14	66. 3	15.0	1 .31	15.2	0.02	0.11	0.18	81	
2	95	A	10.35	10.34	33.562	25.772	223.5	0.281	3.82	60.4	18.2	1 .49	17.8	0.01	0.05	0.11	95	
	100	ISL	10.23	10.22	33.584	25.810	220.0	0.292	3.72	58.6	19.1	1 .54	18.5	0.01	0.04	0.10	100	
2	1 19		9.91	9 .90	33.671	25 .932	208.7	0.333	3.37	52 .8	22 .2	1 .69	20.7	0.00	0.02	0.08	1 2 0	I
	125	ISL	9.77	9.76	33.704	25.981	204. 1	0.345	3.29	51 .4	23.2	1 .73	21.4	0.00	0.02	0.07	126	
2	139		9.48	9 . 46	33.787	26.094	193.7	0.373	3.08	47.8	25.7	1 .83	23.0	0 .00	0.01	0.06	140	
	150	ISL	9.42	9.40	33.861	26.162	187.4	0.394	2 .81	43.6	27.8	1 .92	24.2	0.00	0.01	0.05	151	
2	169		9.36	9.34	33.976	26.262	178.4	0.429	2 .39	37.0	31 .2	2 .07	26.0	0.00	0.00	0.05	170	
2	197		8.88	8.86	34.059	26.404	165.3	0.477	2.32	35 .6	35 .1	2.16	27.4	0.01	0.00	0.04	198	
	200	ISL	8.87	8.85	34 .072	26.416	164 .2	0.482	2.27	34.8	35 .6	2.18	27.6	0.01			201	
2	228		8.82	8.80	34.162	26.495	157.3	0.527	1 .79	27.4	39.7	2 .36	29. 1	0.00			229	
	250	ISL	8.68	8.65	34. 190	26.539	153.5	0.561	1 .64	25.1	42.0	2 .43	29.6	0.00			251	
2	266		8.55	8.52	34.198	26. 565	151 .2	0.585	1 .58	24.1	43.4	2.47	29.8	0. 00			268	
	300	ISL	8.26	8.23	34.211	26.620	146.5	0.636	1 .39	21 .0	46.6	2 .55	31 .2	0.00			302	
2	318		8.11	8.08	34.216	26.647	144.2	0.662	1 .30	19.6	48.4	2.59	32 .0	0 .00			320	
2	378		7. 68	7 .64	34 .245	26.734	136.8	0. 747	1 .02	15.2	54.8	2 .75	33.8	0.01			380	
	400	ISL	7.47	7.43	34.251	26.769	133.7	0.776	0.91	13.5	57.9	2 .80	34.6	0.01			403	
2	437		7 .09	7.05	34.260	26.829	128.2	0.825	0 .73	10.8	63.6	2 .89	35 .9	0.01			440	
	500	ISL	6. 48	6.43	34.289	26. 935	118.5	0.902	0 . 48	7.0	73.3	3.03	37.9	0.00			503	
2	514		6.35	6.30	34.296	26.958	116.5	0.919	0.43	6.2	75 .4	3 .06	38.4	0.00			518	

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 29.4 *h*	119 18.9 W	06/10/94	2337 UTC	1642 in	290 08 kn	300 32 04	0	1010.9 mb	18.7 C	16.1 C	15m 03	0/8	

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/I	P04 uM/l	N03 UN/I	N02 uM/I	CHL-A ug/I	PHAEO ug/I	PRESS db
	0	ISL	19.04	19.04	33.502	23.868	402.7	0.000	5.67	106.9	2.8	0.19	0.1	0.00	0.37	0.11	0
2	1		19.04	19.04	33.502	23.868	402.7	0.004	5.67	106.9	2.8	0.19	0.1	0.00	0.37	0.11	1
2	10		17.90	17.90	33.456	24.116	379.4	0.039	5.71	105.3	2.9	0.27	0.1	0.00	0.37	0.13	10
2	20		17.41	17.41	33.446	24.226	369.1	0.077	5.73	104.6	2.9	0.30	0.2	0.01	0.54	0.25	20
2	29		14.62	14.62	33.329	24.767	317.8	0.108	5.83	100.7	4.4	0.49	2.1	0.13	0.68	0.42	29
	30	ISL	14.39	14.39	33.321	24.810	313.7	0.111	5.79	99.5	4.7	0.52	2.5	0.15	0.68	0.44	30
2	39		12.89	12.88	33.297	25.097	286.6	0.138	5.33	88.8	7.4	0.76	6.2	0.23	0.68	0.52	39
2	50		12.12	12.11	33.385	25.314	266.2	0.168	4.76	78.1	10.4	1.01	10.4	0.12	0.49	0.48	50
2	60		11.35	11.34	33.440	25.500	248.7	0.194	4.39	70.8	13.7	1.21	13.7	0.04	0.26	0.28	60
2	69		10.80	10.79	33.491	25.638	235.7	0.216	4.16	66.4	15.9	1.33	15.7	0.02	0.16	0.23	69
	75	ISL	10.57	10.56	33.530	25.709	229.1	0.230	3.94	62.5	17.4	1.41	17.1	0.01	0.11	0.18	75
2	84		10.28	10.27	33.591	25.806	219.9	0.250	3.63	57.3	19.7	1.53	19.0	0.01	0.05	0.12	84
2	97		9.72	9.71	33.684	25.973	204.3	0.277	3.43	53.5	22.8	1.69	21.2	0.01	0.02	0.08	97
	100	ISL	9.69	9.68	33.712	26.000	201.8	0.283	3.36	52.4	23.5	1.72	21.6	0.01	0.02	0.08	100
2	119		9.49	9.48	33.832	26.127	190.1	0.321	2.93	45.5	27.2	1.90	23.8	0.01	0.01	0.06	120
	125	ISL	9.45	9.44	33.865	26.160	187.1	0.332	2.81	43.6	28.1	1.93	24.3	0.01	0.01	0.06	126
2	139		9.37	9.35	33.936	26.228	180.9	0.358	2.57	39.8	29.8	2.00	25.4	0.00	0.00	0.05	140
	150	ISL	9.34	9.32	33.988	26.274	176.8	0.377	2.42	37.5	31.1	2.05	26.0	0.00	0.00	0.05	151
2	168		9.29	9.27	34.063	26.341	170.8	0.409	2.20	34.1	33.4	2.13	26.9	0.01	0.00	0.05	169
2	199		8.99	8.97	34.157	26.463	159.8	0.460	1.82	28.0	38.1	2.31	28.8	0.01	0.00	0.05	200
	200	ISL	8.98	8.96	34.158	26.466	159.5	0.462	1.82	28.0	38.2	2.31	28.8	0.01			201
2	229		8.82	8.80	34.168	26.499	156.9	0.507	1.76	27.0	39.7	2.35	29.3	0.01			230
	250	ISL	8.65	8.62	34.172	26.529	154.4	0.540	1.71	26.1	41.3	2.38	29.8	0.01			251
2	268		8.49	8.46	34.178	26.559	151.8	0.568	1.64	24.9	42.9	2.42	30.3	0.01			**270**
	300	ISL	8.26	8.23	34.206	26.616	146.9	0.615	1.40	21.2	46.5	2.53	31.5	0.01			**302**
2	317		8.14	8.11	34.222	26.647	144.2	0.640	1.26	19.0	48.5	2.59	32.1	0.01			**319**
2	376		7.69	7.65	34.243	26.731	137.0	0.723	0.98	14.6	55.2	2.74	33.8	0.00			**378**
	400	ISL	7.47	7.43	34.250	26.768	133.7	0.756	0.86	12.8	58.1	2.79	34.7	0.00			**403**
2	434		7.14	7.10	34.262	26.824	128.7	0.800	0.69	10.2	62.7	2.86	35.9	0.00			**437**
	500	ISL	6.48	6.43	34.294	26.939	118.2	0.882	0.46	6.7	73.7	3.01	38.0	0.00			**503**
2	512		6.36	6.31	34.300	26.959	116.3	0.896	0.42	6.1	75.7	3.04	38.4	0.00			**516**

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 19.2 N	119 39.9 W	07/10/94	0355 UTC	78 m	300 15 kn			1011.4 mb	17.3 C	16.2 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/I	PHAEO ug/I	PRESS db
	0	ISL	18.08	18.08	33.451	24.068	383.6	0.000	5.57	103.1	2.4	0.26	0.0	0.00	0.29	0.13	0
2	2		18.08	18.08	33.451	24.068	383.7	0.008	5.57	103.0	2.4	0.26	0.0	0.00	0.29	0.13	2
	10	ISL	18.07	18.07	33.451	24.070	383.7	0.038	5.57	103.0	2.4	0.27	0.0	0.00	0.30	0.13	10
2	11		18.07	18.07	33.451	24.070	383.7	0.042	5.57	103.0	2.4	0.27	0.0	0.00	0.30	0.13	11
	20	ISL	15.96	15.96	33.364	24.500	343.0	0.075	5.69	100.9	3.3	0.38	0.8	0.14	0.59	0.43	20
2	21		15.67	15.67	33.354	24.557	337.6	0.078	5.70	100.5	3.4	0.40	0.9	0.16	0.62	0.46	21
	30	ISL	13.83	13.83	33.255	24.875	307.5	0.107	5.59	94.9	4.6	0.55	2.9	0.32	0.50	0.39	30
2	31		13.67	13.67	33.247	24.902	305.0	0.110	5.57	94.3	4.8	0.57	3.2	0.33	0.48	0.38	31
2	40		12.93	12.92	33.254	25.056	290.5	0.137	5.32	88.7	6.2	0.72	5.7	0.18	0.35	0.31	40
2	49		12.80	12.79	33.256	25.083	288.2	0.163	5.28	87.8	6.7	0.75	6.2	0.15	0.33	0.30	49
	50	ISL	12.74	12.73	33.265	25.102	286.4	0.166	5.24	87.0	7.0	0.77	6.5	0.15	0.32	0.29	50
2	60		12.14	12.13	33.358	25.290	268.7	0.194	4.83	79.2	10.2	0.97	9.5	0.15	0.21	0.23	60
2	71		12.05	12.04	33.375	25.320	266.1	0.223	4.75	77.8	11.1	1.01	10.1	0.15	0.19	0.21	71

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 55

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 10.0 N	120 1.4 W	07/10/94	0732 UTC	1163 in	310 18 kn			1012.4 mb	17.7 C	16.3 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/I	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/I	PHAEO ug/I	PRESS db
	0	ISL	18.74	18.74	33.529	23.964	393.5	0.000	5.46	102.3	2.1	0.30	0.0	0.00	0.21	0.08	0
2	1		18.74	18.74	33.529	23.964	393.5	0.004	5.46	102.3	2.1	0.30	0.0	0.00	0.21	0.08	1
2	10		18.75	18.75	33.529	23.962	394.1	0.039	5.45	102.2	2.0	0.30	0.0	0.00	0.22	0.07	10
2	20		18.75	18.75	33.529	23.962	394.4	0.079	5.45	102.2	1.9	0.30	0.0	0.00	0.21	0.08	20
2	30		18.61	18.60	33.521	23.991	391.9	0.118	5.48	102.4	1.9	0.31	0.0	0.00	0.27	0.11	30
2	40		16.09	16.08	33.446	24.534	340.4	0.155	5.63	100.2	3.8	0.48	1.7	0.10	0.63	0.47	40
2	50		14.47	14.46	33.407	24.860	309.6	0.187	5.58	96.1	5.4	0.63	3.8	0.30	0.63	0.56	50
2	60		12.38	12.37	33.387	25.266	271.0	0.216	4.94	81.5	9.6	0.98	9.6	0.22	0.39	0.43	60
2	70		11.58	11.57	33.381	25.412	257.3	0.243	4.59	74.4	11.9	1.16	12.5	0.05	0.24	0.32	70
	75	ISL	10.99	10.98	33.429	25.556	243.6	0.255	4.40	70.4	14.1	1.27	14.5	0.04	0.16	0.24	75
2	85		9.90	9.89	33.563	25.849	215.9	0.278	4.02	62.9	19.0	1.50	18.4	0.01	0.04	0.09	85
2	100		9.27	9.26	33.695	26.055	196.5	0.309	3.48	53.7	24.3	1.76	22.1	0.01	0.02	0.05	100
2	120		9.13	9.12	33.772	26.138	189.0	0.348	3.25	50.0	26.7	1.85	23.5	0.01	0.01	0.05	121
	125	ISL	9.01	9.00	33.788	26.170	186.0	0.357	3.24	49.8	27.5	1.87	23.8	0.01	0.01	0.05	126
2	140		8.64	8.63	33.838	26.267	177.0	0.384	3.21	48.9	29.8	1.92	24.8	0.01	0.00	0.04	141
	150	ISL	8.63	8.61	33.885	26.306	173.6	0.402	3.09	47.1	31.1	1.97	25.4	0.01	0.00	0.04	151
2	170		8.61	8.59	33.954	26.363	168.5	0.436	2.76	42.1	33.6	2.07	26.7	0.01	0.00	0.04	171
2	200		8.49	8.47	34.058	26.464	159.5	0.485	2.29	34.8	38.0	2.22	28.6	0.01	0.00	0.03	201
2	22 9		8.36	8.34	34.102	26.518	154.8	0.531	2.06	31.2	40.5	2.34	29.6	0.01			230
	250	ISL	8.21	8.18	34.118	26.554	151.8	0.563	1.97	29.8	42.6	2.39	30.3	0.01			251
2	269		8.04	8.01	34.129	26.588	148.8	0.592	1.89	28.5	44.8	2.44	31.0	0.01			271
	300	ISL	7.71	7.68	34.160	26.661	142.2	0.637	1.57	23.5	49.8	2.58	32.6	0.00			302
2	318		7.52	7.49	34.179	26.704	138.4	0.662	1.37	20.4	52.9	2.67	33.5	0.00			320
2	378		7.04	7.00	34.217	26.802	129.8	0.742	0.94	13.8	61.2	2.87	35.9	0.00			380
	400	ISL	6.87	6.83	34.231	26.836	126.7	0.771	0.82	12.0	64.1	2.93	36.7	0.00			403
2	438		6.61	6.57	34.254	26.890	122.0	0.818	0.65	9.5	68.9	3.03	37.8	0.00			441
	500	ISL	6.30	6.25	34.292	26.961	115.9	0.892	0.48	6.9	75.3	3.14	39.1	0.00			503
2	512		6.24	6.19	34.299	26.974	114.8	0.905	0.45	6.5	76.5	3.16	39.3	0.00			516

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 60

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 59.6 N	120 20.9 W	07/10/94	1154 UTC	714 m	340 15 kn			1012.4 mb	17.7 C	16.7 C			

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	in		DEG C	DEG C		THETA			ml/l	PCT	uN/l	uM/l	uM/l	uM/l	ug/l	ug/l	db
	0	ISL	18.00	18.00	33.509	24.131	377.5	0.000	5.57	102.9	1.8	0.33	0.0	0.00	0.32	0.12	0
2	1		18.00	18.00	33.509	24.131	377.5	0.004	5.57	102.9	1.8	0.33	0.0	0.00	0.32	0.12	1
2	10		18.00	18.00	33.510	24.133	377.8	0.038	5.57	102.9	3.3	0.32	0.0	0.00	0.33	0.13	10
2	20		17.79	17.79	33.47 D	24.153	376.1	0.075	5.68	104.5	3.4	0.33	0.1	0.00	0.38	0.17	20
2	30		14.14	14.14	32.990	24.607	333.1	0.111	6.17	105.3	4.6	0.41	0.4	0.03	0.44	0.38	30
2	40		13.59	13.58	33.043	24.761	318.7	0.144	5.96	100.6	5.4	0.49	1.1	0.11	0.45	0.43	40
2	49		12.62	12.61	33.219	25.090	287.5	0.171	5.39	39.2	8.1	0.76	5.7	0.27	0.24	0.25	49
	50	ISL	12.54	12.53	33.236	25.118	284.8	0.174	5.32	87.9	8.5	0.80	6.3	0.25	0.22	0.23	50
2	60		11.89	11.88	33.361	25.339	264.0	0.201	4.72	77.0	12.5	1.10	11.7	0.02	0.08	0.12	60
2	69		11.43	11.42	33.389	25.446	254.0	0.224	4.53	73.2	13.8	1.18	13.1	0.02	0.08	0.13	69
	75	ISL	11.25	11.24	33.402	25.489	250.1	0.240	4.49	72.3	14.3	1.21	13.6	0.02	0.08	0.15	75
2	85		10.93	10.92	33.430	25.568	242.7	0.264	4.40	70.3	15.5	1.29	14.7	0.02	0.08	0.16	85
2	99		10.04	10.03	33.517	25.790	221.8	0.297	3.94	61.8	19.6	1.53	18.5	0.01	0.03	0.08	99
	100	ISL	10.00	9.99	33.525	25.803	220.6	0.299	3.91	61.3	19.9	1.55	18.8	0.01	0.03	0.08	100
2	119		9.42	9.41	33.680	26.020	200.3	0.339	3.39	52.5	25.4	1.79	22.6	0.01	0.01	0.06	120
	125	ISL	9.30	9.29	33.718	26.069	195.7	0.351	3.31	51.1	26.6	1.84	23.2	0.01	0.01	0.06	126
2	139		9.07	9.06	33.792	26.164	186.9	0.378	3.17	48.8	29.0	1.92	24.1	0.01	0.01	0.05	140
	150	ISL	8.93	8.91	33.833	26.218	181.9	0.398	3.06	46.9	30.5	1.97	24.9	0.01	0.01	0.05	151
2	169		8.73	8.71	33.886	26.291	175.3	0.432	2.89	44.1	32.8	2.03	26.0	0.01	0.00	0.05	170
2	199		8.39	8.37	33.960	26.402	165.3	0.483	2.75	41.7	36.5	2.11	27.3	0.01	0.00	0.05	200
	200	ISL	8.38	8.36	33.963	26.406	164.9	0.485	2.74	41.5	36.6	2.11	27.4	0.01			201
2	229		8.10	8.08	34.031	26.502	156.3	0.531	2.47	37.2	41.1	2.23	28.9	0.01			230
	250	ISL	7.87	7.85	34.064	26.562	150.8	0.563	2.26	33.9	44.4	2.32	30.1	0.01			251
2	267		7.68	7.65	34.083	26.605	147.0	0.589	2.09	31.2	47.2	2.39	31.0	0.01			269
	300	ISL	7.30	7.27	34.101	26.673	140.8	0.636	1.81	26.8	52.7	2.52	32.7	0.00			302
2	318		7.11	7.08	34.111	26.708	137.7	0.661	1.65	24.3	55.8	2.59	33.6	0.00			320
2	379		6.76	6.72	34.207	26.832	126.7	0.742	0.88	12.9	66.6	2.90	36.6	0.00			381
	400	ISL	6.68	6.64	34.223	26.855	124.7	0.768	0.77	11.2	68.5	2.95	37.1	0.00			403
2	437		6.53	6.49	34.244	26.892	121.7	0.814	0.66	9.6	71.4	3.02	37.8	0.00			440
	500	ISL	6.11	6.07	34.295	26.987	113.2	0.888	0.44	6.3	79.7	3.13	39.5	0.00			503
2	516		6.00	5.95	34.308	27.012	111.0	0.906	0.39	5.6	81.8	3.16	39.9	0.00			520

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 40.0 N	121 2.2 W	07/10/94	1851 UTC	3762 m	310 15 kn	340 04 05	0	1012.4 mb	19.5 C	18.0 C	31m	01	0/8

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	ID		DEG C	DEG C		THETA			ml/l	PCT	uN/l	uM/l	uM/l	uM/l	ug/l	ug/L	db
	0	ISL	18.81	18.81	33.196	23.692	419.4	0.000	5.47	102.5	3.8	0.33	0.0	0.00	0.12	0.03	0
2	1	A	18.81	18.81	33.196	23.692	419.5	0.004	5.47	102.5	3.8	0.33	0.0	0.00	0.12	0.03	1
	10	ISL	18.77	18.77	33.196	23.702	418.8	0.042	5.47	102.4	3.7	0.32	0.0	0.00	0.13	0.04	10
2	17	A	18.74	18.74	33.196	23.710	418.3	0.071	5.47	102.3	3.6	0.32	0.0	0.00	0.13	0.04	17
	20	ISL	18.58	18.58	33.198	23.752	414.5	0.084	5.52	102.9	3.5	0.32	0.0	0.00	0.14	0.05	20
2	29		17.88	17.88	33.218	23.939	396.9	0.120	5.72	105.3	3.1	0.33	0.0	0.00	0.19	0.07	29
	30	ISL	17.77	17.76	33.226	23.972	393.8	0.124	5.74	105.4	3.1	0.33	0.0	0.00	0.20	0.08	30
2	40	A	16.66	16.65	33.282	24.278	364.9	0.162	5.92	106.4	3.0	0.34	0.0	0.00	0.30	0.19	40
	50	ISL	15.71	15.70	33.222	24.448	348.9	0.198	5.96	105.1	3.3	0.36	0.0	0.01	0.54	0.42	50
2	51		15.62	15.61	33.213	24.461	347.7	0.201	5.96	104.9	3.3	0.36	0.0	0.01	0.56	0.44	51
2	60	A	14.65	14.64	33.171	24.640	330.8	0.232	5.90	101.8	4.2	0.42	0.3	0.05	0.54	0.43	60
2	71		14.64	14.63	33.256	24.708	324.7	0.268	5.86	101.2	4.2	0.39	0.3	0.04	0.43	0.37	71
	75	ISL	14.57	14.56	33.298	24.755	320.3	0.281	5.85	100.9	4.3	0.36	0.3	0.05	0.38	0.36	75
2	82	A	14.30	14.29	33.355	24.857	310.8	0.303	5.79	99.3	4.5	0.34	0.2	0.08	0.28	0.34	82
2	95		13.14	13.13	33.340	25.083	289.5	0.342	5.46	91.4	6.3	0.53	2.9	0.07	0.16	0.18	95
	100	ISL	12.64	12.63	33.347	25.186	279.7	0.356	5.32	88.2	7.3	0.63	4.5	0.05	0.12	0.15	100
2	107		12.05	12.04	33.371	25.318	267.2	0.375	5.14	84.1	8.6	0.75	6.7	0.02	0.09	0.12	107
2	119	A	11.72	11.70	33.446	25.438	256.1	0.407	4.99	81.1	9.5	0.83	8.2	0.02	0.09	0.11	120
	125	ISL	11.19	11.17	33.479	25.560	244.4	0.422	4.65	74.8	12.7	1.04	11.5	0.02	0.07	0.10	126
2	139		9.82	9.80	33.565	25.865	215.5	0.454	3.79	59.2	21.2	1.58	19.7	0.01	0.02	0.06	140
	150	ISL	9.29	9.27	33.626	25.999	202.8	0.477	3.66	56.5	24.3	1.67	20.9	0.01	0.02	0.05	151
2	168		8.84	8.82	33.712	26.138	189.9	0.512	3.45	52.8	27.2	1.81	22.9	0.01	0.01	0.04	169
2	198		8.45	8.43	33.849	26.306	174.4	0.567	3.03	46.0	32.1	1.99	26.1	0.00	0.00	0.03	199
	200	ISL	8.42	8.40	33.856	26.316	173.4	0.570	3.01	45.6	32.4	2.00	26.3	0.00			201
2	228		8.05	8.03	33.937	26.435	162.5	0.617	2.79	42.0	36.9	2.11	27.9	0.00			229
	250	ISL	7.77	7.75	33.975	26.506	156.0	0.652	2.74	41.0	39.9	2.15	28.7	0.00			251
2	268		7.55	7.52	33.996	26.555	151.6	0.680	2.68	39.9	42.5	2.18	29.4	0.00			269
	300	ISL	7.13	7.10	34.024	26.636	144.2	0.727	2.32	34.2	48.8	2.35	31.6	0.00			302
2	317		6.91	6.88	34.035	26.675	140.6	0.752	2.08	30.5	52.6	2.46	32.9	0.00			319
2	378		6.17	6.14	34.072	26.802	128.9	0.834	1.37	19.7	66.5	2.77	37.0	0.00			380
	400	ISL	6.03	6.00	34.079	26.826	126.9	0.862	1.25	17.9	69.1	2.82	37.7	0.00			402
2	435		5.86	5.82	34.094	26.859	124.1	0.906	1.11	15.9	72.5	2.88	38.6	0.00			438
	500	ISL	5.51	5.47	34.171	26.963	114.7	0.983	0.70	9.9	82.1	3.07	40.5	0.00			503
2	519		5.41	5.37	34.194	26.994	112.0	1.005	0.58	8.2	84.9	3.12	41.0	0.00			522

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 87 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TINE	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 19.5 4	121 43.0 W	08/10/94	0056 UTC	4049 m	330 14 kn	330 D4 04	1	1014 .4 mb	18.4 C	17.3 C	22m 02	4/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 UN/ I	P04 uM/ I	N03 uM/ L	N02 uM/ I	CHL-A ug/ L	PHAEO ug/ I	PRESS db
	0	ISL	18.82	18.82	33.362	23.816	407.6	0.000	5.51	103.3	3.2	0.30	0.0	0.00	0.22	0.06	0
2	1		18.82	18.82	33.362	23.816	407.6	0.004	5.51	103.3	3.2	0.30	0.0	0.00	0.22	0.06	1
	10	ISL	18.82	18.82	33.363	23.817	407.8	0.041	5.49	103.0	3.2	0.29	0.0	0.00	0.22	0.06	10
2	11		18.82	18.82	33.363	23.817	407.9	0.045	5.49	103.0	3.2	0.29	0.0	0.00	0.22	0.06	11
	20	ISL	18.73	18.73	33.374	23.849	405.2	0.081	5.51	103.2	3.0	0.30	0.0	0.00	0.22	0.07	20
2	21		18.72	18.72	33.375	23.852	404.9	0.085	5.51	103.1	3.0	0.30	0.0	0.00	0.22	0.07	21
2	30		17.26	17.26	33.404	24.230	369.1	0.120	5.87	106.9	3.0	0.30	0.0	0.00	0.39	0.21	30
2	40		16.00	15.99	33.384	24.507	343.0	0.156	5.66	100.5	3.8	0.44	0.8	0.21	0.55	0.39	40
2	50		13.95	13.94	33.274	24.866	309.0	0.189	5.49	93.5	5.8	0.59	3.1	0.65	0.45	0.35	50
2	60		12.77	12.76	33.275	25.104	286.5	0.218	5.17	85.9	8.2	0.79	6.9	0.02	0.22	0.24	60
2	70		11.94	11.93	33.318	25.296	268.3	0.246	4.92	80.3	9.9	0.92	9.3	0.02	0.16	0.17	70
	75	ISL	11.61	11.60	33.357	25.388	259.7	0.259	4.73	76.7	11.3	1.03	11.0	0.02	0.13	0.15	75
2	85		11.03	11.02	33.438	25.556	243.9	0.284	4.35	69.7	14.4	1.25	14.5	0.01	0.09	0.13	85
2	100		10.15	10.14	33.515	25.770	223.8	0.319	3.95	62.1	18.8	1.48	18.3	0.01	0.04	0.08	100
2	120		9.50	9.49	33.638	25.974	204.6	0.362	3.46	53.7	23.7	1.72	22.0	0.01	0.01	0.07	121
	125	ISL	9.37	9.36	33.680	26.028	199.6	0.372	3.29	50.9	25.2	1.78	23.0	0.01	0.01	0.07	126
2	UO		9.04	9.02	33.794	26.170	186.3	0.401	2.88	44.3	29.3	1.94	25.5	0.00	0.01	0.08	141
	150	ISL	8.89	8.87	33.824	26.217	182.0	0.420	2.92	44.7	29.8	1.95	25.6	0.00	0.01	0.07	151
2	169		8.63	8.61	33.848	26.277	176.6	0.454	3.00	45.7	30.8	1.97	25.7	0.00	0.00	0.05	170
2	199		8.06	8.04	33.905	26.408	164.5	0.505	3.44	51.7	32.5	1.90	25.3	0.00	0.00	0.03	200
	200	ISL	8.05	8.03	33.908	26.412	164.2	0.507	3.42	51.4	32.7	1.91	25.4	0.00			201
2	229		7.78	7.76	33.995	26.520	154.3	0.553	2.55	38.1	40.1	2.19	29.4	0.00			230
	250	ISL	7.54	7.52	34.021	26.576	149.3	0.585	2.35	35.0	43.7	2.28	30.7	0.00			251
2	269		7.31	7.28	34.032	26.617	145.6	0.613	2.27	33.6	46.6	2.34	31.4	0.00			271
	300	ISL	6.94	6.91	34.054	26.686	139.4	0.657	1.91	28.0	52.7	2.49	33.5	0.00			302
2	317		6.74	6.71	34.065	26.722	136.1	0.680	1.71	25.0	56.1	2.57	34.6	0.00			319
2	377		6.19	6.16	34.098	26.820	127.2	0.759	1.21	17.4	66.0	2.79	37.6	0.00			379
	400	ISL	6.01	5.98	34.121	26.861	123.5	0.788	1.01	14.5	70.0	2.87	38.6	0.00			403
2	438		5.74	5.70	34.160	26.926	117.7	0.834	0.71	10.1	76.2	2.99	39.9	0.00			441
	500	ISL	5.43	5.39	34.202	26.997	111.4	0.905	0.50	7.1	83.2	3.11	41.1	0.00			503
2	513		5.36	5.32	34.211	27.013	110.0	0.919	0.45	6.4	84.7	3.14	41.4	0.00			516

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 87 90

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TINE	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 59.3 *H*	122 23.8 W	08/10/94	0901 UTC	4126 m	340 09 kn			1015 .5 mb	18.2 C	17.1 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	19.22	19.22	33.033	23.464	441.2	0.000	5.44	102.6	4.5	0.33	0.3	0.00	0.11	0.03	0
2	2		19.22	19.22	33.033	23.464	441.3	0.009	5.44	102.6	4.5	0.33	0.3	0.00	0.11	0.03	2
	10	ISL	19.23	19.23	33.033	23.462	441.8	0.044	5.41	102.0	4.4	0.32	0.2	0.00	0.11	0.04	10
2	14		19.23	19.23	33.033	23.462	441.9	0.062	5.40	101.9	4.4	0.32	0.2	0.00	0.11	0.04	14
	20	ISL	19.23	19.23	33.031	23.461	442.2	0.088	5.40	101.8	4.3	0.32	0.2	0.00	0.11	0.04	20
2	29		19.22	19.21	33.028	23.461	442.5	0.128	5.41	102.0	4.2	0.32	0.2	0.00	0.11	0.03	29
	30	ISL	19.19	19.18	33.031	23.471	441.6	0.133	5.42	102.1	4.2	0.32	0.2	0.00	0.11	0.03	30
2	45		18.74	18.73	33.073	23.617	428.1	0.198	5.51	103.0	4.2	0.31	0.2	0.00	0.13	0.04	45
	50	ISL	17.90	17.89	33.078	23.828	408.2	0.219	5.75	105.8	4.3	0.31	0.2	0.00	0.16	0.07	50
2	55		16.95	16.94	33.082	24.057	386.4	0.239	5.98	108.0	4.3	0.31	0.2	0.00	0.19	0.10	55
2	66		15.37	15.36	33.045	24.387	355.1	0.279	6.05	105.9	4.1	0.33	0.2	0.00	0.19	0.13	66
2	74		14.74	14.73	32.982	24.475	346.9	0.307	6.08	105.0	4.2	0.33	0.2	0.00	0.20	0.19	74
	75	ISL	14.69	14.68	32.983	24.487	345.8	0.311	6.08	104.9	4.2	0.33	0.2	0.00	0.21	0.20	75
2	84		14.26	14.25	33.012	24.600	335.2	0.342	6.08	104.0	4.2	0.34	0.2	0.01	0.25	0.22	84
2	95		13.38	13.37	33.023	24.789	317.4	0.377	6.09	102.3	4.3	0.37	0.2	0.08	0.25	0.20	95
	100	ISL	13.31	13.30	33.055	24.828	313.8	0.393	6.04	101.3	4.5	0.38	0.5	0.12	0.23	0.20	100
2	110		13.18	13.16	33.134	24.916	305.8	0.424	5.86	98.1	4.8	0.42	1.0	0.17	0.18	0.19	110
2	124		12.05	12.03	33.229	25.208	278.1	0.465	5.47	89.5	6.9	0.63	4.6	0.08	0.12	0.15	124
	125	ISL	11.96	11.94	33.233	25.228	276.2	0.468	5.43	88.6	7.2	0.65	5.0	0.07	0.12	0.15	125
2	143		10.50	10.48	33.321	25.559	244.8	0.515	4.73	74.9	13.1	1.12	13.0	0.01	0.05	0.10	144
	150	ISL	10.04	10.02	33.382	25.685	232.8	0.531	4.47	70.1	15.8	1.29	15.6	0.01	0.03	0.08	151
2	168		9.13	9.11	33.553	25.968	206.1	0.571	3.97	61.0	21.9	1.62	20.7	0.00	0.01	0.04	169
2	198		8.46	8.44	33.760	26.234	181.1	0.629	3.92	59.4	26.5	1.70	22.4	0.00	0.00	0.02	199
	200	ISL	8.42	8.40	33.769	26.248	179.9	0.633	3.92	59.4	26.8	1.70	22.5	0.00			201
2	228		8.01	7.99	33.865	26.385	167.3	0.681	3.94	59.2	30.5	1.74	23.5	0.00			229
	250	ISL	7.77	7.75	33.928	26.469	159.5	0.717	3.61	53.9	34.5	1.87	25.3	0.00			251
2	267		7.60	7.57	33.966	26.524	154.5	0.744	3.27	48.7	38.1	1.99	26.9	0.00			268
	300	ISL	7.18	7.15	34.006	26.615	146.2	0.794	2.65	39.1	46.1	2.23	30.2	0.00			302
2	317		6.96	6.93	34.018	26.655	142.6	0.818	2.35	34.5	50.2	2.35	31.8	0.00			319
2	376		6.41	6.38	34.058	26.760	133.1	0.899	1.75	25.4	61.0	2.63	35.2	0.00			378
	400	ISL	6.20	6.16	34.076	26.802	129.3	0.931	1.47	21.2	65.4	2.72	36.5	0.00			402
2	436		5.91	5.87	34.103	26.860	124.0	0.976	1.09	15.6	71.9	2.84	38.2	0.00			439
	500	ISL	5.45	5.41	34.146	26.951	115.8	1.053	0.77	10.9	81.9	3.00	40.1	0.00			503
2	515		5.34	5.30	34.157	26.972	113.8	1.070	0.69	9.7	84.2	3.04	40.6	0.00			518

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 100

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 39.4 N	123 4.1 W	08/10/94	1321 UTC	4126 m	340 10 kn			1016 .4 mb	18.2 C	16.7 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.53	19.53	33.108	23.442	443.3	0.000	5.39	102.3	4.2	0.32	0.1	0.00	0.10	0.03	0
2	1		19.53	19.53	33.108	23.442	443.3	0.004	5.39	102.3	4.2	0.32	0.1	0.00	0.10	0.03	1
	10	ISL	19.54	19.54	33. 109	23.441	443.8	0.044	5 .39	102 .3	4.1	0.32	0.2	0.00	0.10	0.03	10
2	15		19.54	19.54	33.109	23.441	443.9	0.067	5 .39	102 .3	4.1	0.32	0.2	0.00	0.10	0.03	15
	20	ISL	19.53	19.53	33.112	23.446	443.6	0.089	5 .38	102 .1	4. 1	0.32	0.2	0.00	0.10	0.03	20
	30	ISL	19.52	19.51	33. 117	23.453	443.4	0. 133	5.37	101.9	4.0	0.31	0.2	0.00	0.10	0.03	30
2	31		19.52	19.51	33.118	23.454	443.3	0. 138	5.37	101.9	4 .0	0.31	0.2	0.00	0.10	0.03	31
2	46		18.90	18.89	33.254	23.716	418.8	0.202	5.64	105 .8	3.9	0.29	0.2	0.00	0.12	0.04	46
	50	ISL	18.81	18.80	33.304	23.776	413.2	0.219	5 .67	106.3	3.8	0.28	0.2	0.00	0.13	0.04	50
2	61		18.26	18.25	33.388	23.978	394.3	0.263	5 .75	106.7	3.7	0.27	0.2	0.00	0.15	0.06	61
2	75		16.28	16.27	33.275	24.361	358.0	0.316	5.93	105 .8	3.6	0.29	0.3	0.00	0.19	0.14	75
2	86		15.67	15 .66	33.235	24.468	348.1	0.355	5.97	105.2	3.5	0.29	0. 4	0.00	0.21	0.20	86
2	94		15.24	15.23	33.316	24.625	333.3	0.382	5.93	103.7	3.6	0.28	0. 4	0.00	0.31	0.34	94
	100	ISL	15.32	15.30	33.459	24.718	324.7	0.402	5.84	102 .3	3.6	0.27	0.4	0.01	0.27	0.31	100
2	104		15.41	15.39	33.553	24.771	319.8	0.415	5.77	101.3	3.6	0.27	0.5	0.02	0.22	0.26	104
2	118		14.84	14.82	33.618	24.946	303.5	0.458	5.61	97.4	3.9	0.32	1 .0	0.12	0.17	0.18	118
2	124		14.41	14.39	33.613	25.034	295.2	0.476	5.48	94.4	4.1	0.37	1 .6	0.12	0.15	0.18	124
	125	ISL	14.33	14.31	33.610	25.048	293.9	0.479	5.46	93.9	4.2	0.38	1 .8	0.11	0.15	0.18	125
2	138		13.26	13.24	33.553	25.225	277.2	0.516	5 .26	88.4	6. 1	0.55	4.5	0.02	0.10	0.13	139
	150	ISL	12.10	12 .08	33.506	25.414	259.2	0.548	4.99	81 .8	8.8	0. 79	8.2	0.02	0.07	0.10	151
2	163		10.90	10.88	33.492	25 .623	239.3	0.581	4.66	74 .5	12.4	1 .08	12.7	0.01	0.04	0 .08	164
2	194		9.16	9.14	33.646	26.036	200. 1	0.649	3.78	58.2	23.3	1 .68	21.8	0.00	0.00	0.03	195
	200	ISL	8.98	8.96	33.681	26.092	194.9	0.661	3.69	56.6	24.6	1 .73	22 .7	0.00			201
2	228		8.45	8.43	33.836	26.296	175.9	0.713	3.40	51 .6	29.8	1 .88	25 .1	0.00			229
	250	ISL	8.21	8.18	33.934	26.410	165.4	0.750	3.08	46.5	34.2	2 .01	26.9	0.00			251
2	267		8.07	8.04	33.993	26.477	159.3	0.778	2 .83	42 .6	37.5	2.10	28 .1	0.00			268
	300	ISL	7.68	7.65	34 .048	26.578	150.1	0.829	2 .43	36.3	43.4	2 .26	30 .1	0.00			302
2	318		7.47	7.44	34.063	26.620	146.3	0.856	2.22	33.0	46.5	2 .35	31 .2	0.00			320
2	377		6.90	6.86	34.114	26.740	135.5	0.939	1 .52	22.3	57.8	2 .66	35.0	0.00			379
	400	ISL	6.63	6.59	34.116	26.777	132.0	0.969	1 .37	20.0	61 .9	2 .74	36.2	0.00			402
2	437		6.22	6.18	34. 1 16	26.831	127.1	1.017	1.19	17.2	68.2	2 .84	37.8	0.00			440
	500	ISL	5.80	5 .76	34.158	26.918	119.3	1 .095	0.82	11.7	77. 1	3.01	39.7	0.00			503
2	525		5.64	5 .60	34.176	26.952	116.3	1.124	0.67	9. 5	80.6	3.08	40.5	0.00			528

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 87 IIO

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 19.9 Al	123 44.9 W	08/10/94	1839 UTC	4012 m	340 09 kn	350 04 06	1	1017 .4 mb	20.0 C	17.4 C	36m 01	1/8	CU

CAST	DEPTH ID		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/t	P04 uM/l	N03 uM/l	N02 uH/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.64	19.64	33.209	23.491	438.6	0.000	5.40	102 .7	3.5	0.33	0.1	0.00	0.13	0.03	0
2	1	A	19.64	19.64	33.209	23.491	438.7	0.004	5 .40	102 .7	3.5	0.33	0.1	0.00	0.13	0.03	1
2	10		19.52	19.52	33.206	23.520	436.2	0.044	5.41	102.7	3.5	0.32	0.1	0.00	0.13	0.03	10
2	20	A	19.49	19.49	33.205	23.527	435.9	0.087	5.41	102.6	3.2	0.31	0.1	0.00	0.13	0.04	20
	30	ISL	18.50	18.49	33.194	23.769	413.2	0.130	5 .64	105.0	3.0	0.32	0.1	0.00	0.16	0.05	30
2	34		17.97	17.96	33.191	23.897	401 .1	0.146	5 .75	106.0	2 .9	0.32	0.1	0.00	0.17	0.06	34
2	47	A	16.41	16.40	33.176	24.254	367.3	0. 196	5 .97	106.7	3.0	0.32	0 .0	0.00	0.20	0.11	47
	50	ISL	16.07	16.06	33.173	24.329	360.2	0.207	6.00	106.5	3. 1	0.32	0 .0	0.00	0.20	0.11	50
2	55		15.55	15.54	33.181	24.452	348.7	0.225	6.02	105 .8	3.3	0.32	0 .0	0.00	0.20	0. 12	55
2	62		15.03	15.02	33.247	24.617	333.1	0.249	5.96	103.7	3.4	0.34	0.1	0.00	0.26	0.26	62
2	70	A	14.74	14.73	33.266	24.694	325.9	0.275	5 .88	101.7	3. 3	0.38	0.4	0.08	0.27	0.23	70
	75	ISL	14.42	14.41	33.268	24. 764	319.4	0.291	5 .76	99.0	3.6	0. 46	1 .3	0.32	0.25	0.23	75
2	83		13.89	13.88	33.278	24.882	308.3	0.316	5 .56	94.5	4.2	0.57	2 .9	0.62	0.21	0.24	83
2	96	A	13.45	13.44	33.353	25 .031	294 .5	0.355	5 .46	92 .0	5.1	0.55	3.3	0 .09	0.18	0.18	96
	100	ISL	13.27	13.26	33.347	25 .062	291 .6	0.367	5 .44	91 .4	5.2	0. 57	3.5	0.07	0.17	0.18	100
2	109		12 .72	12.71	33.323	25.152	283. 1	0.393	5 .32	88 .3	6.0	0 .63	4 .9	0.03	0.15	0.17	109
2	123		11.39	11.37	33.336	25.413	258.4	0.431	4.79	77.3	10.6	1 .01	11.0	0.00	0.07	0.14	123
	125	ISL	11.26	11.24	33.348	25 .446	255.3	0.436	4.72	76.0	11.2	1 .05	11.7	0. 00	0.06	0.13	126
2	137	A	10.66	10.64	33.431	25.617	239.2	0.466	4.35	69. 1	14.3	1 .28	15.3	0.00	0.03	0.07	138
	150	ISL	10.11	10.09	33.500	25.766	225 .2	0.496	4.03	63.3	17.3	1 .46	18.2	0.00	0.02	0.06	151
2	168		9.49	9.47	33.591	25.940	208.9	0.535	3.69	57.2	21.1	1 .63	21.1	0.00	0.01	0.05	169
2	199		8.60	8.58	33.786	26.234	181.3	0.595	3. 36	51 .1	27.4	1 .85	24.6	0.00	0.00	0.03	200
	200	ISL	8.58	8.56	33.790	26.240	180.7	0.597	3.35	50.9	27.5	1 .85	24.7	0.00			201
2	228		8.23	8.21	33.892	26.373	168.5	0.646	3.10	46.8	31 .8	1 .97	26.6	0.00			229
	250	ISL	8.06	8.03	34.002	26.485	158.2	0.682	2.61	39.3	37. 1	2.14	28.7	0.00			251
2	267		7.94	7.91	34.071	26.557	151.6	0.708	2 .23	33.5	41.2	2 .27	30.2	0.00			268
	300	ISL	7.58	7.55	34.080	26.617	146.3	0.757	2 .00	29. 8	45 .7	2.38	31 .8	0.00			302
2	320		7.32	7.29	34.082	26 .656	142.8	0. 786	1 .94	28.7	48. 1	2 .42	32 .5	0.00			322
2	378		6.50	6.47	34.087	26.771	132 .1	0.866	1 .50	21.8	59.6	2 .65	36. 1	0.00			380
	400	ISL	6.24	6 .20	34.102	26.817	127.9	0.895	1 .27	18.3	64 .2	2 .75	37. 5	0.00			402
2	437		5 .89	5.85	34.133	26.886	121.5	0.941	0.90	12.9	71 .3	2 .90	39.4	0.00			440
	500	ISL	5 .57	5 .53	34. 182	26.965	114.6	1.015	0. 60	8.5	79.3	3.04	40.8	0.00			503
2	511		5.51	5 .47	34. 191	26.979	113.4	1 .028	0.55	7.8	80.7	3.06	41 .1	0.00			514

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 28

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
33 28.8 N	117 46.1 W	06/10/94	0512 UTC	78 m	360 03 kn			1112.6 mb	18.4 C	16.2 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA-T THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.50	19.50	33.513	23.759	413.1	0.000	5.49	104.4	2.5	0.24	0.0	0.00	0.36	0.09	0
2	2		19.50	19.50	33.513	23.759	413.1	0.008	5.49	104.4	2.5	0.24	0.0	0.00	0.36	0.09	2
2	6		19.51	19.51	33.512	23.756	413.6	0.025	5.50	104.6	2.5	0.23	0.0	0.00	0.36	0.09	6
2	10		19.50	19.50	33.513	23.759	413.4	0.041	5.48	104.2	2.5	0.23	0.0	0.00	0.37	0.08	10
2	20		17.31	17.31	33.302	24.186	373.0	0.081	5.88	107.1	2.6	0.30	0.0	0.00	0.34	0.14	20
2	30		15.61	15.61	33.302	24.531	340.4	0.116	6.04	106.4	2.8	0.34	0.1	0.00	0.36	0.21	30
2	40		14.53	14.52	33.200	24.764	318.4	0.149	5.97	102.9	3.6	0.41	0.6	0.10	0.63	0.35	40
2	50		13.54	13.53	33.380	25.032	293.1	0.180	5.48	92.6	6.3	0.62	3.3	0.32	0.84	0.64	50
2	60		12.69	12.68	33.413	25.227	274.8	0.208	4.78	79.3	9.4	0.93	8.3	0.12	0.36	0.44	60
2	70		12.35	12.34	33.426	25.303	267.8	0.235	4.58	75.5	10.6	1.00	10.2	0.06	0.24	0.37	70

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 30

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
33 25.3 NI	117 54.4 W	06/10/94	0234 UTC	613 m	280 07 kn			1011.2 mb	18.4 C	15.7 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA-T THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.62	19.62	33.509	23.725	416.3	0.000	5.45	103.8	3.1	0.23	0.0	0.00	0.33	0.06	0
2	1		19.62	19.62	33.509	23.725	416.3	0.004	5.45	103.8	3.1	0.23	0.0	0.00	0.33	0.06	1
2	10		19.59	19.59	33.506	23.731	416.1	0.042	5.47	104.2	2.9	0.23	0.0	0.00	0.31	0.08	10
2	20		18.28	18.28	33.394	23.976	393.1	0.082	5.76	106.9	2.9	0.29	0.0	0.00	0.40	0.12	20
2	30		15.74	15.74	33.281	24.486	344.7	0.119	6.00	105.9	3.5	0.35	0.0	0.03	0.36	0.19	30
2	40		14.44	14.43	33.249	24.744	320.3	0.152	5.84	100.4	4.0	0.44	0.9	0.24	0.46	0.26	40
2	50		13.72	13.71	33.246	24.892	306.5	0.184	5.62	95.2	5.0	0.56	2.6	0.48	0.42	0.34	50
2	60		13.11	13.10	33.354	25.098	287.0	0.213	5.20	87.0	7.1	0.74	5.9	0.16	0.32	0.35	60
2	71		12.53	12.52	33.409	25.255	272.4	0.244	4.83	79.9	9.5	0.91	8.8	0.06	0.26	0.34	71
	75	ISL	12.21	12.20	33.423	25.327	265.6	0.255	4.69	77.1	10.5	0.98	10.0	0.04	0.23	0.32	75
2	85		11.44	11.43	33.455	25.495	249.7	0.281	4.37	70.7	13.1	1.14	12.8	0.02	0.16	0.25	85
2	100		10.94	10.93	33.498	25.619	238.2	0.317	4.06	64.9	16.0	1.34	15.7	0.02	0.11	0.18	100
2	119		10.01	10.00	33.578	25.843	217.2	0.360	3.91	61.3	19.1	1.49	18.1	0.01	0.04	0.09	120
	125	ISL	9.84	9.83	33.614	25.899	211.9	0.373	3.75	58.6	20.5	1.55	19.1	0.01	0.03	0.08	126
2	140		9.56	9.54	33.715	26.025	200.3	0.404	3.31	51.4	24.3	1.70	21.6	0.00	0.01	0.06	141
	150	ISL	9.44	9.42	33.790	26.103	193.0	0.424	3.08	47.8	26.4	1.80	23.0	0.00	0.01	0.05	151
2	169		9.24	9.22	33.924	26.240	180.3	0.459	2.72	42.0	30.2	1.98	25.1	0.01	0.00	0.04	170
2	199		8.81	8.79	34.060	26.416	164.2	0.511	2.28	34.9	35.9	2.18	27.5	0.00	0.00	0.04	200
	200	ISL	8.81	8.79	34.064	26.419	163.9	0.513	2.26	34.6	36.1	2.19	27.6	0.00			201
2	229		8.74	8.72	34.163	26.508	156.0	0.559	1.80	27.5	40.4	2.34	29.5	0.00			230
	250	ISL	8.63	8.60	34.192	26.548	152.6	0.591	1.64	25.0	42.3	2.42	30.2	0.00			251
2	268		8.51	8.48	34.203	26.575	150.3	0.619	1.55	23.6	43.7	2.47	30.6	0.00			270
	300	ISL	8.27	8.24	34.220	26.626	146.0	0.666	1.37	20.7	47.0	2.54	31.3	0.00			302
2	317		8.14	8.11	34.226	26.650	143.9	0.691	1.28	19.3	48.8	2.57	31.7	0.00			319
2	378		7.67	7.63	34.252	26.740	136.1	0.776	0.95	14.2	55.5	2.75	34.0	0.00			380
	400	ISL	7.43	7.39	34.261	26.782	132.3	0.806	0.81	12.0	59.1	2.81	34.8	0.00			403
2	438		7.00	6.96	34.277	26.855	125.7	0.855	0.60	8.8	65.7	2.91	36.1	0.00			441
	500	ISL	6.44	6.39	34.295	26.945	117.6	0.930	0.42	6.1	74.6	3.07	38.4	0.00			503
2	516		6.30	6.25	34.300	26.967	115.5	0.949	0.37	5.4	76.9	3.11	39.0	0.00			520

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
33 15.1 N1	118 14.9 W	05/10/94	2227 UTC	338 m	270 16 kn	250 02 04	1	1011.7 mb	20.1 C	16.3 C	20m	3/8	CU

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA-T THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.25	19.25	33.497	23.810	408.1	0.000	5.56	105.2	2.6	0.23	0.0	0.00	0.42	0.10	0
2	1		19.25	19.25	33.497	23.811	408.2	0.004	5.56	105.2	2.6	0.23	0.0	0.00	0.42	0.10	1
2	10		19.10	19.10	33.487	23.841	405.5	0.041	5.60	105.7	2.3	0.21	0.0	0.00	0.43	0.11	10
2	20		18.58	18.58	33.466	23.956	394.9	0.081	5.63	105.2	2.6	0.25	0.0	0.00	0.45	0.15	20
2	30		15.69	15.69	33.285	24.500	343.3	0.118	6.02	106.2	3.1	0.34	0.0	0.00	0.50	0.36	30
2	39		14.46	14.45	33.269	24.755	319.2	0.147	5.82	100.1	3.6	0.48	1.0	0.24	0.55	0.36	39
2	49		13.64	13.63	33.261	24.920	303.8	0.179	5.52	93.4	4.8	0.61	3.4	0.47	0.34	0.26	49
	50	ISL	13.58	13.57	33.263	24.933	302.5	0.182	5.50	92.9	5.0	0.62	3.6	0.45	0.33	0.26	50
2	59		13.08	13.07	33.294	25.058	290.9	0.208	5.29	88.5	6.8	0.72	5.6	0.20	0.26	0.24	59
2	70		12.39	12.38	33.360	25.244	273.4	0.239	4.92	81.1	9.1	0.90	8.5	0.05	0.18	0.22	70
	75	ISL	12.17	12.16	33.390	25.309	267.3	0.253	4.76	78.1	10.0	0.97	9.7	0.05	0.17	0.23	75
2	84		11.74	11.73	33.442	25.430	255.9	0.276	4.49	73.1	11.9	1.09	11.8	0.04	0.17	0.23	84
2	99		10.56	10.55	33.534	25.714	229.1	0.313	4.06	64.4	16.5	1.36	16.2	0.02	0.08	0.16	99
	100	ISL	10.50	10.49	33.537	25.727	227.9	0.315	4.05	64.2	16.7	1.37	16.4	0.02	0.08	0.15	100
2	119		9.76	9.75	33.603	25.904	211.3	0.357	3.81	59.4	20.3	1.56	19.2	0.01	0.03	0.07	120
	125	ISL	9.61	9.60	33.646	25.962	205.9	0.369	3.67	57.1	21.7	1.63	20.2	0.01	0.02	0.06	126
2	139		9.36	9.34	33.761	26.093	193.7	0.397	3.29	50.9	25.1	1.78	22.3	0.01	0.01	0.05	140
	150	ISL	9.24	9.22	33.844	26.178	185.9	0.418	3.01	46.5	27.7	1.89	23.8	0.01	0.01	0.04	151
2	169		9.13	9.11	33.972	26.296	175.1	0.452	2.57	39.6	31.6	2.05	25.8	0.00	0.00	0.04	170
2	197		9.12	9.10	34.115	26.410	164.8	0.500	2.05	31.6	35.6	2.22	27.5	0.02	0.01	0.04	198
	200	ISL	9.10	9.08	34.125	26.421	163.8	0.505	2.01	31.0	36.1	2.24	27.7	0.02			201
2	228		8.88	8.86	34.182	26.501	156.7	0.550	1.73	26.6	40.0	2.36	29.0	0.01			229
	250	ISL	8.67	8.64	34.182	26.534	153.9	0.584	1.72	26.3	41.6	2.41	29.5	0.01			251
2	267		8.51	8.48	34.175	26.553	152.3	0.610	1.71	26.0	42.7	2.44	29.8	0.01			269
	300	ISL	8.25	8.22	34.207	26.619	146.7	0.659	1.42	21.5	47.0	2.56	31.2	0.02			302
2	321		8.09	8.06	34.227	26.658	143.2	0.690	1.23	18.5	49.7	2.63	32.1	0.02			323

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 37

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
33 10.2 NI	118 25.3 W	05/10/94	1915 UTC	1198 *m*	290 11 kn	280 03 05	1	1012 .7 ffIb	20.3 C	16.8 C	29m 02	3/8	CU

CAST	DEPTH *m*		TEMP DE6 C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/ l	P04 uM/l	N03 uM/ l	N02 uM/ l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	18.88	18.88	33.483	23.893	400.2	0.000	5.52	103.7	3.2	0.24	0.1	0.00	0.28	0.08	0
2	1	A	18.88	18.88	33.483	23.893	400.2	0.004	5.52	103.7	3.2	0.24	0. 1	0.00	0.28	0.08	1
2	8		18.84	18.84	33.484	23.905	399.4	0.032	5.53	103.8	3.1	0.24	0. 1	0.00	0.31	0.08	8
	10	ISL	18.81	18. SI	33.484	23.912	398.8	0.040	5 .53	103.8	3.0	0.24	0.1	0.00	0.31	0.08	10
2	16	A	18.71	18.71	33.485	23.938	396.5	0.064	5.54	103.7	2 .9	0.26	0.1	0.00	0.32	0.09	16
	20	ISL	18.16	18.16	33.460	24.056	385.4	0.079	5 .61	103.9	2 .9	0.28	0.1	0.00	0.35	0.13	20
2	27		17.04	17.04	33.406	24.284	363.9	0.106	5.75	104.2	2 .9	0.33	0. 1	0.00	0.42	0.22	27
	30	ISL	16.74	16.74	33.382	24.336	359.0	0.117	5 .78	104 . 1	3.0	0.34	0. 1	0.00	0.47	0.26	30
2	37	A	16.12	16.11	33.329	24.438	349.5	0.141	5.82	103.6	3.4	0.37	0.2	0.03	0.55	0.32	37
2	47		15.05	15.04	33.281	24.638	330.6	0. 175	5.84	101.7	3.7	0.43	0.9	0.13	0.49	0.31	47
	50	ISL	14.76	14.75	33.295	24.712	323.7	0.185	5 .79	100.2	3.9	0.45	1 .2	0.23	0. 48	0.34	50
2	57	A	14.05	14.04	33.340	24.896	306.3	0.207	5.59	95.4	4.9	0.54	2 .6	0.40	0.43	0.40	57
2	67		12.70	12 .69	33.374	25.195	278.0	0.236	5.09	84.5	7.9	0.81	7.5	0.06	0.24	0.30	67
	75	ISL	11 .92	11.91	33.425	25.383	260.2	0.258	4.83	78.9	9.8	0.92	9.5	0.03	0.16	0.19	75
2	76	A	11 .84	11 .83	33.432	25.404	258.2	0.261	4.80	78.3	10.0	0.93	9.7	0.03	0.15	0.18	76
2	93		10.57	10.56	33.510	25.693	230.9	0.302	4.22	67.0	15.8	1 .30	15.6	0.01	0.06	0.12	93
	100	ISL	10.27	10.26	33.546	25.773	223.5	0.318	4.04	63.7	17.6	1 .40	17.1	0.01	0.05	0.11	100
2	110	A	10.01	10.00	33.608	25.866	214.8	0.340	3.78	59.3	19.9	1 .52	18.9	0.01	0.04	0.09	111
2	124		9.88	9.87	33.740	25.991	203.2	0.369	3.27	51 .2	23.6	1 .73	21 .5	0.01	0.01	0.06	125
	125	ISL	9.87	9.86	33.748	25.999	202.5	0.371	3.23	50.6	23.8	1 .74	21 .7	0.01	0.01	0.06	126
2	139		9.70	9.68	33.843	26.102	193.0	0.399	2.78	43.4	26.8	1 .89	23.5	0.00	0.01	0.05	UO
	150	ISL	9.59	9.57	33.887	26.154	188.2	0.420	2.72	42.3	28.1	1 .95	24.3	0.00	0.01	0.04	151
2	169		9.41	9.39	33.945	26.229	181.4	0.455	2 .63	40.8	29.8	2 .01	25.2	0.00	0.00	0.04	170
2	198		9.08	9.06	34.060	26.373	168.3	0.506	2.28	35.1	34.3	2.14	27.2	0.00	0.00	0.04	199
	200	ISL	9.07	9.05	34.068	26.381	167.6	0. 509	2.25	34.7	34.6	2.15	27.3	0.00			201
2	229		8.89	8.87	34.164	26.485	158.3	0.556	1 .80	27.6	39. 1	2 .31	29.2	0.00			230
	250	ISL	8.65	8.62	34.199	26.550	152.4	0.589	1 .59	24.3	42 .4	2.40	30.2	0.01			251
2	266		8.46	8.43	34.213	26.591	148.7	0.613	1 .47	22.4	44.7	2 .46	30.9	0.01			268
	300	ISL	8.17	8.14	34.225	26.645	144.1	0.663	1 .32	19.9	48.3	2 .56	31 .9	0.00			302
2	317		8.03	8.00	34.226	26.667	142.3	0.687	1 .26	19.0	50.0	2 .60	32 .4	0.00			319
2	376		7.46	7.42	34.254	26.772	132.9	0.768	0.86	12.8	57.8	2 .78	34.7	0.00			378
	400	ISL	7.26	7.22	34.260	26.805	130.0	0.800	0.75	11.1	60.7	2 .84	35.5	0.00			403
2	437		7.00	6.96	34.269	26.849	126.3	0.847	0.63	9.3	64.9	2.92	36.6	0.00			440
	500	ISL	6.66	6.61	34.290	26.912	120.9	0.925	0.47	6.9	70.6	3.03	37.9	0.00			503
2	512		6.59	6.54	34.294	26.925	119.8	0.940	0.44	6.4	71 .7	3.05	38.1	0.00			515

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 45

LATITUDE	L0N6ITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AHT	TYPE
32 55.1 NI	118 56.1 W	05/10/94	1431 UTC	1691 m	240 15 kn	250 04 05	1	1011 .4 mb	19.0 C	17.0 C	24m 02	6/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/ l	N02 uM/l	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	18.82	18.82	33.525	23.941	395.7	0.000	5.47	102.7	2.8	0.28	0.1	0.00	0.26	0.10	0
2	2		18.82	18.82	33.525	23.941	395.8	0.008	5.47	102.7	2.8	0.28	0. 1	0.00	0.26	0.10	2
2	9		18.82	18.82	33.525	23.941	396.0	0.036	5 .47	102 .7	2.9	0.27	0. 1	0.00	0.27	0.10	9
	10	ISL	18.75	18.75	33.515	23.951	395.1	0.040	5 .48	102.7	2.9	0.27	0.1	0.00	0.27	0.11	10
2	20		18.02	18.02	33.413	24.054	385 .6	0.079	5.64	104.2	2 .9	0.31	0.1	0.01	0.33	0.19	20
2	29		14.86	14.86	33.269	24.670	327.1	0.111	5 .84	101.3	3.8	0.42	0.9	0.17	0.38	0.29	29
	30	ISL	14.68	14.68	33.264	24.704	323.8	0.114	5.83	100.7	3.9	0.44	1 .1	0.19	0.38	0.30	30
2	40		13.67	13.66	33.250	24.905	305.0	0.145	5.58	94.4	5 .5	0. 59	3.3	0.37	0.38	0.40	40
	50	ISL	13.01	13.00	33.305	25.080	288.5	0. 175	5.30	88. 5	7.0	0.72	5.7	0.27	0.35	0.37	50
2	51		12.95	12 .94	33.311	25 .096	287.0	0. 178	5.27	87.9	7.2	0.73	6.0	0.26	0.34	0.36	51
2	60		12.19	12.18	33.331	25.259	271 .6	0.203	4.95	81 .3	9.5	0.93	9.2	0.07	0.25	0.34	60
2	70		11.56	11.55	33.435	25 .458	252.9	0.229	4.57	74. 1	12.3	1.11	12.1	0.05	0.19	0.31	70
	75	ISL	11.19	11.18	33.475	25 .556	243.7	0.242	4.36	70. 1	14.1	1 .21	13.8	0.04	0.16	0.2S	75
2	85		10.55	10.54	33.537	25.718	228.4	0.265	4.00	63.5	17.2	1 .39	16.7	0.02	0.10	0.22	85
2	99		10.23	10.22	33.581	25 .807	220.2	0.297	3.83	60. 4	18.9	1 .49	18.3	0.02	0.06	0.16	99
	100	ISL	10.21	10.20	33.587	25.815	219.4	0.299	3.81	60.0	19.1	1 .50	18.5	0.02	0.06	0.15	100
2	120		9.76	9.75	33.727	26.001	202 .2	0.341	3.34	52. 1	23.6	1 .73	21 .5	0.01	0.02	0.07	121
	125	ISL	9.68	9.67	33.755	26.036	198.9	0.351	3.24	50.5	24.5	1 .77	22 . 1	0.01	0.02	0.06	126
2	139		9.51	9. 49	33.827	26. 120	191.2	0.378	2 .99	46.4	26.8	1 .87	23.5	0.00	0.01	0.05	140
	150	ISL	9.39	9.37	33.890	26.189	184.8	0.399	2 .81	43.6	28.8	1 .95	24 .5	0.00	0.01	0.05	151
2	168		9.21	9.19	33.985	26.293	175.3	0.432	2 .55	39.4	31 .8	2 .06	26.0	0.01	0.00	0.04	169
2	199		8.95	8.93	34.086	26.414	164.4	0.484	2 .20	33.8	35.9	2.18	27.7	0.01	0.00	0.05	200
	200	ISL	8.94	8.92	34.089	26.418	164.0	0.486	2.19	33.6	36.0	2.18	27.8	0 .01			201
2	229		8.67	8 .65	34.150	26.509	155.9	0.532	1 .86	28.4	40.2	2.33	29 .2	0.01			230
	250	ISL	8.45	8 . 42	34.179	26.565	150.8	0.564	1 .66	25 .2	43.5	2 .43	30.3	0.01			251
2	268		8.28	8.25	34.197	26.606	147.3	0.591	1 .52	23.0	46.0	2 .50	31 .2	0.01			270
	300	ISL	8.13	8.10	34.222	26.648	143.8	0.638	1 .34	20.2	48.4	2 .57	31 .9	0.00			302
2	316		8.06	8.03	34.230	26.665	142.4	0.661	1 .27	19.1	49.5	2.60	32.2	0.00			318
2	377		7.45	7.41	34.250	26.770	133.1	0.745	0.92	13.7	57.6	2 .76	34.5	0.00			379
	400	ISL	7.29	7.25	34.260	26.801	130.4	0.775	0.80	11.8	60. 1	2 .81	35 .1	0.00			403
2	436		7.06	7.02	34 .275	26.845	126.6	0.821	0.65	9.6	63.9	2 .89	36.0	0.00			439
	500	ISL	6.58	6.53	34.295	26.927	119.5	0.900	0.50	7.3	71 .3	3.02	37.9	0.00			503
2	524		6.40	6.35	34.304	26.958	116.7	0.928	0.44	6.4	74.1	3.07	38.6	0.00			528

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 39.4 M	119 29.0 W	05/10/94	0956 UTC	1318 m	240 12 kn			1011.2 mb	18.9 C	17.3 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.89	18.89	33.555	23.946	395.2	0.000	5.50	103.4	3.5	0.29	0.1	0.00	0.32	0.12	0
2	2		18.89	18.89	33.555	23.946	395.3	0.008	5.50	103.4	3.5	0.29	0.1	0.00	0.32	0.12	2
	10	ISL	18.90	18.90	33.555	23.944	395.8	0.040	5.50	103.4	3.4	0.29	0.1	0.00	0.33	0.11	10
2	15		18.91	18.91	33.555	23.942	396.2	0.059	5.50	103.4	3.4	0.29	0.1	0.00	0.33	0.11	15
	20	ISL	18.84	18.84	33.551	23.956	394.9	0.079	5.51	103.5	3.4	0.29	0.1	0.00	0.35	0.14	20
2	29		18.70	18.69	33.544	23.987	392.4	0.115	5.54	103.8	3.5	0.29	0.1	0.00	0.42	0.20	29
	30	ISL	18.53	18.52	33.537	24.024	388.9	0.118	5.56	103.8	3.5	0.29	0.1	0.00	0.44	0.23	30
2	44		15.67	15.66	33.465	24.644	330.1	0.169	5.67	100.1	3.3	0.29	0.1	0.00	0.67	0.58	44
	50	ISL	14.77	14.76	33.454	24.832	312.3	0.188	5.56	96.4	5.5	0.51	2.9	0.09	0.64	0.54	50
2	55		13.96	13.95	33.445	24.996	296.7	0.203	5.38	91.7	7.8	0.74	5.9	0.17	0.57	0.50	55
2	64		11.90	11.89	33.445	25.402	258.1	0.228	4.82	78.7	12.1	1.08	11.1	0.29	0.37	0.42	64
2	73		11.13	11.12	33.490	25.579	241.5	0.251	4.27	68.6	16.0	1.31	15.7	0.14	0.22	0.37	73
	75	ISL	10.98	10.97	33.495	25.609	238.6	0.256	4.20	67.3	16.5	1.35	16.3	0.11	0.20	0.35	75
2	85		10.32	10.31	33.526	25.749	225.4	0.279	3.94	62.2	18.6	1.49	18.3	0.03	0.13	0.24	85
2	94		9.89	9.88	33.586	25.869	214.2	0.299	3.71	58.0	21.1	1.60	20.0	0.02	0.08	0.16	94
	100	ISL	9.55	9.54	33.647	25.972	204.4	0.311	3.55	55.1	23.3	1.69	21.4	0.02	0.05	0.11	100
2	110		9.09	9.08	33.745	26.123	190.2	0.331	3.32	51.1	26.7	1.82	23.5	0.01	0.02	0.06	111
2	123		9.00	8.99	33.797	26.179	185.2	0.355	3.14	48.2	28.9	1.90	24.6	0.01	0.01	0.05	124
	125	ISL	8.99	8.98	33.802	26.184	184.7	0.359	3.12	47.9	29.1	1.91	24.7	0.01	0.01	0.05	126
2	144		8.87	8.85	33.845	26.237	180.0	0.394	2.96	45.3	30.2	1.95	25.4	0.01	0.01	0.04	145
	150	ISL	8.84	8.82	33.862	26.255	178.4	0.404	2.91	44.5	30.7	1.98	25.7	0.01	0.01	0.04	151
2	169		8.71	8.69	33.925	26.325	172.1	0.438	2.72	41.5	33.0	2.07	26.8	0.01	0.00	0.04	170
2	199		8.16	8.14	34.047	26.505	155.4	0.487	2.39	36.1	39.7	2.23	29.0	0.03	0.00	0.03	200
	200	ISL	8.14	8.12	34.049	26.509	155.0	0.488	2.38	35.9	39.9	2.24	29.1	0.03			201
2	229		7.80	7.78	34.103	26.602	146.6	0.532	2.00	29.9	45.6	2.40	31.1	0.02			230
	250	ISL	7.70	7.68	34.143	26.649	142.5	0.562	1.73	25.8	48.3	2.51	32.0	0.01			251
2	268		7.65	7.62	34.175	26.681	139.8	0.588	1.50	22.4	50.3	2.59	32.6	0.01			270
	300	ISL	7.49	7.46	34.218	26.738	134.8	0.632	1.15	17.1	54.9	2.73	34.0	0.01			302
2	316		7.40	7.37	34.234	26.764	132.6	0.653	1.00	14.8	57.1	2.79	34.6	0.01			318
2	377		7.04	7.00	34.269	26.843	125.9	0.732	0.73	10.7	62.6	2.93	36.1	0.00			379
	400	ISL	6.85	6.81	34.274	26.873	123.3	0.761	0.65	9.5	65.4	2.98	36.8	0.00			403
2	438		6.55	6.51	34.281	26.919	119.2	0.807	0.54	7.9	70.0	3.04	38.0	0.00			441
	500	ISL	6.28	6.24	34.297	26.967	115.3	0.879	0.44	6.4	74.7	3.09	39.0	0.00			503
2	524		6.18	6.13	34.304	26.986	113.8	0.907	0.40	5.8	76.5	3.11	39.4	0.00			528

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 24.8 *h*	119 57.9 W	05/10/94	0512 UTC	812 m	210 12 kn			1011.3 mb	19.3 C	17.4 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/t	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.83	18.83	33.525	23.938	395.9	0.000	5.44	102.1	2.7	0.33	0.1	0.00	0.23	0.08	0
2	2		18.83	18.83	33.525	23.938	396.0	0.008	5.44	102.1	2.7	0.33	0.1	0.00	0.23	0.08	2
	10	ISL	18.83	18.83	33.525	23.939	396.3	0.040	5.43	101.9	2.5	0.30	0.1	0.00	0.23	0.07	10
2	11		18.83	18.83	33.525	23.939	396.3	0.044	5.43	101.9	2.5	0.30	0.1	0.00	0.23	0.07	11
2	20		18.77	18.77	33.531	23.959	394.7	0.079	5.44	102.0	2.4	0.35	0.1	0.00	0.26	0.08	20
2	30		17.01	17.01	33.494	24.358	356.9	0.117	5.70	103.3	3.6	0.40	0.7	0.04	0.64	0.40	30
2	40		15.58	15.57	33.459	24.659	328.5	0.151	5.63	99.2	4.8	0.53	2.4	0.09	0.68	0.51	40
	50	ISL	12.57	12.56	33.416	25.252	272.1	0.181	4.89	81.0	10.4	0.97	9.4	0.25	0.46	0.41	50
2	51		12.28	12.27	33.418	25.309	266.7	0.184	4.81	79.2	11.0	1.02	10.2	0.26	0.43	0.40	51
2	61		11.44	11.43	33.454	25.494	249.2	0.210	4.38	70.8	14.4	1.22	13.9	0.17	0.29	0.37	61
2	71		10.92	10.91	33.485	25.612	238.2	0.234	4.10	65.6	16.8	1.37	16.2	0.05	0.22	0.31	71
	75	ISL	10.69	10.68	33.500	25.664	233.3	0.243	4.00	63.6	17.6	1.42	17.1	0.04	0.18	0.26	75
2	85		10.16	10.15	33.545	25.791	221.4	0.266	3.78	59.5	19.7	1.53	19.1	0.02	0.09	0.15	85
2	100		9.70	9.69	33.632	25.936	207.9	0.298	3.52	54.8	23.1	1.67	21.2	0.01	0.04	0.10	100
2	120		8.95	8.94	33.742	26.143	188.4	0.338	3.34	51.2	27.4	1.82	23.6	0.01	0.01	0.05	121
	125	ISL	8.87	8.86	33.771	26.179	185.2	0.347	3.28	50.2	28.2	1.85	24.0	0.01	0.01	0.05	126
2	139		8.75	8.74	33.850	26.260	177.8	0.373	3.06	46.7	30.6	1.92	25.2	0.00	0.00	0.04	140
	150	ISL	8.65	8.63	33.917	26.328	171.5	0.392	2.82	43.0	33.1	2.00	26.3	0.00	0.00	0.04	151
2	169		8.49	8.47	34.015	26.429	162.1	0.424	2.43	36.9	37.4	2.14	28.0	0.00	0.00	0.03	170
2	199		8.18	8.16	34.071	26.521	153.9	0.471	2.19	33.1	41.6	2.25	29.6	0.00	0.00	0.03	200
	200	ISL	8.17	8.15	34.074	26.525	153.6	0.473	2.17	32.8	41.9	2.26	29.7	0.00			201
2	231		7.78	7.76	34.164	26.653	141.8	0.518	1.52	22.8	50.5	2.54	32.4	0.00			232
	250	ISL	7.59	7.57	34.199	26.708	136.8	0.545	1.23	18.3	54.5	2.65	33.6	0.00			251
2	270		7.41	7.38	34.225	26.755	132.7	0.572	1.00	14.8	58.0	2.74	34.6	0.00			272
	300	ISL	7.13	7.10	34.247	26.812	127.6	0.611	0.79	11.7	62.8	2.84	35.8	0.00			302
2	318		6.98	6.95	34.255	26.839	125.2	0.634	0.71	10.4	65.2	2.89	36.4	0.00			320
2	378		6.66	6.63	34.277	26.900	120.1	0.707	0.52	7.6	70.7	2.98	37.7	0.00			380
	400	ISL	6.51	6.47	34.286	26.927	117.8	0.733	0.47	6.8	73.3	3.02	38.3	0.00			403
2	439		6.26	6.22	34.302	26.973	113.8	0.778	0.39	5.6	77.4	3.08	39.2	0.00			442
	500	ISL	6.11	6.07	34.312	27.001	111.9	0.847	0.33	4.8	80.1	3.12	39.7	0.00			503
2	516		6.07	6.02	34.315	27.008	111.4	0.865	0.32	4.6	80.8	3.13	39.8	0.00			520

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 '4.9 N	120 38.2 U	04/10/94	2259 UTC	3817 m	220 09 kn	270 04 04	1	1009.8 mb	21.6 C	18.8 C	22m 03	3/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uN/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.83	18.83	33.178	23.673	421.2	0.000	5.47	102.5	3.0	0.33	0.0	0.00	0.16	0.04	0
2	2		18.83	18.83	33.178	23.673	421.3	0.008	5.47	102.5	3.0	0.33	0.0	0.00	0.16	0.04	2
	10	ISL	18.43	18.43	33.193	23.784	411.0	0.042	5.57	103.6	2.9	0.33	0.0	0.00	0.19	0.06	10
2	15		18.06	18.06	33.208	23.887	401.3	0.062	5.65	104.3	2.8	0.33	0.0	0.00	0.23	0.08	15
	20	ISL	17.86	17.86	33.222	23.947	395.8	0.082	5.70	104.9	2.8	0.33	0.0	0.00	0.26	0.10	20
2	30		17.38	17.38	33.236	24.073	384.1	0.121	5.79	105.5	2.8	0.32	0.0	0.00	0.34	0.15	30
2	44		16.17	16.16	33.203	24.330	360.0	0.173	5.92	105.4	3.1	0.32	0.0	0.00	0.47	0.32	44
	50	ISL	15.73	15.72	33.210	24.434	350.2	0.194	5.94	104.8	3.1	0.33	0.0	0.00	0.47	0.37	50
2	55		15.39	15.38	33.221	24.518	342.3	0.212	5.95	104.3	3.1	0.35	0.0	0.00	0.47	0.39	55
2	65		14.77	14.76	33.245	24.672	328.0	0.245	5.87	101.6	3.4	0.39	0.1	0.03	0.42	0.33	65
2	74		14.14	14.13	33.208	24.776	318.2	0.274	5.85	99.9	4.0	0.40	0.4	0.10	0.30	0.34	74
	75	ISL	14.09	14.08	33.209	24.787	317.2	0.277	5.84	99.7	4.0	0.41	0.5	0.14	0.29	0.33	75
2	84		13.59	13.58	33.224	24.902	306.4	0.305	5.70	96.3	4.5	0.48	1.2	0.48	0.22	0.22	84
2	95		12.80	12.79	33.228	25.063	291.3	0.338	5.53	91.9	5.6	0.55	3.0	0.21	0.16	0.18	95
	100	ISL	12.57	12.56	33.292	25.157	282.4	0.353	5.42	89.7	6.1	0.59	4.0	0.13	0.14	0.16	100
2	109		12.09	12.08	33.403	25.335	265.6	0.377	5.13	84.1	7.8	0.74	6.7	0.03	0.11	0.13	109
2	124		10.51	10.50	33.375	25.599	240.6	0.415	4.39	69.5	15.1	1.29	15.2	0.01	0.03	0.09	125
	125	ISL	10.44	10.43	33.382	25.617	238.9	0.418	4.35	68.8	15.5	1.32	15.6	0.01	0.03	0.09	126
2	144		9.59	9.57	33.560	25.899	212.3	0.461	3.71	57.6	21.5	1.65	20.7	0.01	0.01	0.05	145
	150	ISL	9.40	9.38	33.601	25.962	206.4	0.473	3.58	55.4	23.0	1.72	21.8	0.01	0.01	0.05	151
2	167		8.99	8.97	33.705	26.109	192.7	0.507	3.30	50.6	26.6	1.84	24.0	0.01	0.00	0.04	168
2	198		8.50	8.48	33.919	26.353	170.0	0.563	3.01	45.7	32.1	1.96	26.0	0.01	0.00	0.04	199
	200	ISL	8.48	8.46	33.928	26.363	169.0	0.567	2.98	45.3	32.5	1.97	26.2	0.01			201
2	228		8.17	8.15	34.018	26.481	158.2	0.612	2.58	38.9	38.0	2.13	28.4	0.00			229
	250	ISL	7.93	7.90	34.038	26.533	153.6	0.647	2.47	37.1	40.8	2.19	29.4	0.00			251
2	269		7.74	7.71	34.048	26.568	150.5	0.676	2.37	35.4	43.1	2.25	30.2	0.00			270
	300	ISL	7.54	7.51	34.114	26.650	143.2	0.721	1.79	26.6	49.3	2.47	32.5	0.00			302
2	317		7.45	7.42	34.151	26.692	139.5	0.745	1.44	21.4	52.8	2.60	33.7	0.00			319
2	376		7.02	6.98	34.206	26.796	130.3	0.825	0.93	13.7	61.2	2.81	36.1	0.00			378
	400	ISL	6.85	6.81	34.227	26.836	126.8	0.856	0.77	11.3	64.4	2.89	37.0	0.00			402
2	439		6.58	6.54	34.256	26.895	121.5	0.904	0.56	8.2	69.3	2.99	38.2	0.00			442
	500	ISL	6.17	6.13	34.283	26.970	114.9	0.976	0.41	5.9	76.5	3.10	39.7	0.00			503
2	514		6.08	6.03	34.289	26.987	113.4	0.992	0.37	5.3	78.2	3.12	40.1	0.00			517

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 45.2 KI	121 19.3 U	04/10/94	1817 UTC	3746 in	260 09 kn	290 03 05	1	1009.9 mb	20.2 C	17.5 C	21m 03	6/8	AC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	19.09	19.09	33.397	23.775	411.5	0.000	5.51	103.9	3.1	0.29	0.0	0.00	0.25	0.07	0
2	1	A	19.09	19.09	33.397	23.775	411.6	0.004	5.51	103.9	3.1	0.29	0.0	0.00	0.25	0.07	1
	10	ISL	19.00	19.00	33.409	23.807	408.8	0.041	5.52	103.9	3.0	0.28	0.0	0.00	0.27	0.08	10
2	12	A	18.96	18.96	33.405	23.814	408.2	0.049	5.52	103.8	3.0	0.28	0.0	0.00	0.28	0.09	12
2	20		18.71	18.71	33.463	23.922	398.2	0.081	5.63	105.4	2.8	0.27	0.1	0.00	0.36	0.13	20
2	26	A	17.54	17.54	33.476	24.219	370.1	0.105	5.88	107.7	2.9	0.30	0.0	0.00	0.47	0.24	26
	30	ISL	17.21	17.21	33.495	24.312	361.3	0.119	5.82	105.9	3.1	0.32	0.0	0.00	0.62	0.44	30
2	35		16.96	16.95	33.500	24.375	355.5	0.137	5.66	102.5	3.3	0.36	0.1	0.01	0.77	0.64	35
2	42	A	16.39	16.38	33.439	24.461	347.5	0.162	5.59	100.1	3.6	0.45	0.5	0.07	0.65	0.52	42
2	50		15.35	15.34	33.350	24.626	331.9	0.189	5.66	99.2	3.9	0.46	0.7	0.19	0.56	0.48	50
2	58	A	14.60	14.59	33.320	24.766	318.8	0.215	5.50	94.9	5.0	0.57	2.1	0.81	0.45	0.36	58
2	68		13.35	13.34	33.353	25.050	291.9	0.245	5.04	84.8	8.1	0.78	6.8	0.02	0.21	0.20	68
	75	ISL	11.59	11.58	33.420	25.441	254.7	0.265	4.47	72.5	13.6	1.17	13.1	0.01	0.10	0.13	75
2	79	A	10.59	10.58	33.475	25.662	233.6	0.274	4.15	65.9	16.9	1.39	16.7	0.01	0.05	0.10	79
2	100		9.40	9.39	33.560	25.929	208.5	0.321	3.92	60.6	21.5	1.59	20.3	0.02	0.02	0.06	100
2	119		8.90	8.89	33.675	26.099	192.6	0.359	3.48	53.3	25.9	1.81	23.4	0.01	0.01	0.04	120
	125	ISL	8.89	8.88	33.725	26.140	188.9	0.370	3.29	50.4	27.3	1.87	24.3	0.01	0.01	0.04	126
2	139		8.85	8.84	33.827	26.226	181.0	0.396	2.88	44.1	30.5	1.99	26.0	0.00	0.01	0.06	140
	150	ISL	8.68	8.66	33.875	26.290	175.0	0.416	2.74	41.8	32.5	2.05	27.0	0.00	0.01	0.06	151
2	167		8.41	8.39	33.931	26.376	167.2	0.445	2.60	39.4	35.3	2.12	28.0	0.00	0.00	0.06	168
2	198		8.28	8.26	34.054	26.492	156.7	0.495	2.20	33.3	39.8	2.23	29.2	0.00	0.09 U	0.13 U	199
	200	ISL	8.26	8.24	34.058	26.499	156.1	0.498	2.18	33.0	40.2	2.24	29.3	0.00			201
2	227		7.90	7.88	34.089	26.577	149.0	0.539	1.98	29.7	44.9	2.38	31.3	0.00			228
	250	ISL	7.68	7.66	34.106	26.622	145.0	0.573	1.84	27.5	47.7	2.46	31.9	0.00			251
2	268		7.49	7.46	34.111	26.654	142.2	0.599	1.74	25.9	50.1	2.52	32.4	0.00			270
	300	ISL	6.90	6.87	34.103	26.730	135.2	0.643	1.54	22.6	57.0	2.65	34.9	0.00			302
2	315		6.61	6.58	34.098	26.765	131.9	0.663	1.45	21.1	60.4	2.70	36.2	0.00			317
2	378		5.89	5.86	34.096	26.856	123.6	0.744	1.11	15.9	70.6	2.76	38.2	0.03			380
	400	ISL	5.71	5.68	34.107	26.887	120.8	0.771	1.00	14.3	73.9	2.80	38.6	0.02			403
2	437		5.47	5.43	34.133	26.937	116.3	0.815	0.81	11.5	79.1	2.89	39.4	0.01			440
	500	ISL	5.18	5.14	34.194	27.020	108.9	0.886	0.51	7.2	87.5	3.12	42.0	0.00			503
2	514		5.11	5.07	34.208	27.040	107.2	0.901	0.44	6.2	89.4	3.17	42.6	0.00			517

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 24.7 N	121 59.4 W	04/10/94	1107 UTC	3921 m	240 09 kn			1007.6 mb	19.7 C	18.0 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/L	N03 uM/L	N02 uM/I	CHL-A ug/I	PHAEO ug/I	PRESS db
	0	ISL	19.00	19.00	33.107	23.576	430.5	0.000	5.47	102.8	3.5	0.35	0.1	0.00	0.14	0.04	0
2	2		19.00	19.00	33.107	23.576	430.6	0.009	5.47	102.8	3.5	0.35	0.1	0.00	0.14	0.04	2
	10	ISL	18.88	18.88	33.112	23.610	427.6	0.043	5.50	103.1	3.5	0.35	0.1	0.00	0.14	0.04	10
2	15		18.77	18.77	33.119	23.644	424.6	0.064	5.52	103.3	3.4	0.35	0.1	0.00	0.14	0.04	15
	20	ISL	18.70	18.70	33.109	23.654	423.8	0.085	5.53	103.3	3.3	0.35	0.1	0.00	0.15	0.05	20
	30	ISL	18.57	18.56	33.149	23.717	418.1	0.128	5.54	103.3	3.0	0.36	0.1	0.00	0.19	0.06	30
2	31		18.56	18.55	33.157	23.726	417.3	0.132	5.54	103.2	3.0	0.36	0.1	0.00	0.19	0.06	31
2	44		17.14	17.13	33.089	24.018	389.8	0.184	5.86	106.2	3.2	0.36	0.2	0.00	0.27	0.13	44
	50	ISL	16.33	16.32	33.079	24.198	372.8	0.207	5.94	106.0	3.3	0.37	0.3	0.01	0.29	0.17	50
2	55		15.62	15.61	33.073	24.354	358.0	0.225	5.99	105.4	3.5	0.37	0.3	0.01	0.30	0.20	55
2	65		14.21	14.20	33.041	24.633	331.6	0.260	6.07	103.7	4.2	0.35	0.3	0.01	0.29	0.25	65
2	75		13.25	13.24	33.071	24.852	310.9	0.292	5.96	99.9	4.6	0.40	0.4	0.09	0.25	0.28	75
2	85		12.63	12.62	33.156	25.040	293.2	0.322	5.58	92.4	6.1	0.56	3.2	0.09	0.18	0.21	85
2	96		11.92	11.91	33.232	25.234	274.9	0.353	5.24	85.5	7.9	0.74	6.5	0.02	0.13	0.14	96
	100	ISL	11.81	11.80	33.329	25.330	265.9	0.364	5.12	83.4	8.5	0.79	7.5	0.02	0.11	0.12	100
2	109		11.52	11.51	33.524	25.535	246.5	0.387	4.87	78.9	10.1	0.92	10.0	0.02	0.06	0.10	109
2	125		9.92	9.91	33.414	25.730	228.0	0.425	4.47	69.9	15.6	1.30	16.0	0.02	0.04	0.07	126
2	143		9.18	9.16	33.577	25.978	204.6	0.464	4.20	64.7	20.1	1.51	19.5	0.00	0.02	0.03	144
	150	ISL	8.92	8.90	33.631	26.062	196.8	0.478	4.05	62.0	22.2	1.60	20.9	0.00	0.01	0.03	151
2	169		8.36	8.34	33.757	26.247	179.4	0.514	3.64	55.1	27.7	1.81	24.3	0.00	0.00	0.02	170
2	199		8.03	8.01	33.897	26.406	164.7	0.566	3.31	49.7	32.6	1.91	26.3	0.00	0.00	0.03	200
	200	ISL	8.02	8.00	33.900	26.410	164.3	0.567	3.30	49.6	32.7	1.91	26.4	0.00			201
2	229		7.66	7.64	33.970	26.518	154.5	0.613	3.07	45.8	37.2	2.05	28.0	0.00			230
	250	ISL	7.45	7.43	33.996	26.569	149.9	0.645	2.82	41.8	41.1	2.15	29.5	0.00			251
2	267		7.30	7.27	34.011	26.602	147.0	0.671	2.59	38.3	44.4	2.23	30.7	0.00			268
	300	ISL	7.01	6.98	34.048	26.672	140.8	0.718	2.10	30.9	50.7	2.43	33.1	0.00			302
2	318		6.83	6.80	34.062	26.707	137.5	0.743	1.86	27.2	54.2	2.54	34.3	0.00			320
2	378		5.98	5.95	34.051	26.809	128.1	0.823	1.53	21.9	65.9	2.72	37.2	0.00			380
	400	ISL	5.78	5.75	34.067	26.847	124.6	0.851	1.33	19.0	70.2	2.81	38.2	0.00			402
2	438		5.50	5.46	34.104	26.911	118.8	0.897	0.99	14.0	77.2	2.95	40.0	0.00			441
	500	ISL	5.12	5.08	34.160	27.000	110.7	0.968	0.66	9.3	86.9	3.08		0.00			503
2	510		5.06	5.02	34.169	27.014	109.5	0.979	0.61	8.6	88.5	3.10		0.00			513

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 90 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 5.2 N	122 40.2 W	04/10/94	0516 UTC	3966 m	250 13 kn			1008.8 mb	20.1 C	17.8 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/L	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL-A ug/L	PHAEO ug/L	PRESS db
	0	ISL	19.68	19.68	33.000	23.321	454.8	0.000	5.37	102.1	4.8	0.32	0.0	0.00	0.10	0.03	0
2	2		19.68	19.68	33.000	23.321	454.9	0.009	5.37	102.1	4.8	0.32	0.0	0.00	0.10	0.03	2
	10	ISL	19.62	19.62	33.017	23.350	452.4	0.045	5.38	102.2	4.8	0.32	0.0	0.00	0.10	0.03	10
2	15		19.53	19.53	33.012	23.370	450.8	0.068	5.40	102.4	4.7	0.32	0.0	0.00	0.10	0.03	15
	20	ISL	19.42	19.42	33.049	23.426	445.5	0.090	5.42	102.6	4.7	0.32	0.0	0.00	0.10	0.03	20
2	30		19.09	19.08	33.122	23.566	432.5	0.134	5.47	102.9	4.5	0.32	0.0	0.00	0.10	0.03	30
2	45		18.25	18.24	33.120	23.775	413.1	0.198	5.59	103.5	3.9	0.32	0.0	0.00	0.15	0.05	45
	50	ISL	17.93	17.92	33.146	23.873	403.9	0.218	5.65	104.0	3.9	0.32	0.0	0.00	0.16	0.06	50
2	60		17.25	17.24	33.205	24.081	384.3	0.258	5.77	104.9	4.1	0.31	0.0	0.00	0.19	0.09	60
2	74		16.17	16.16	33.237	24.357	358.4	0.310	5.89	104.8	4.2	0.31	0.1	0.00	0.22	0.14	74
	75	ISL	16.12	16.11	33.248	24.377	356.5	0.313	5.89	104.7	4.2	0.31	0.1	0.00	0.22	0.15	75
2	86		15.78	15.77	33.415	24.582	337.3	0.351	5.88	104.0	4.1	0.28	0.1	0.00	0.25	0.25	86
2	95		15.62	15.61	33.585	24.749	321.7	0.381	5.78	102.0	4.1	0.26	0.1	0.01	0.25	0.24	95
	100	ISL	15.56	15.54	33.642	24.806	316.4	0.397	5.72	100.8	4.1	0.26	0.1	0.02	0.24	0.24	100
2	104		15.52	15.50	33.684	24.848	312.6	0.409	5.67	99.9	4.1	0.26	0.1	0.02	0.23	0.23	104
2	115		15.39	15.37	33.853	25.007	297.7	0.443	5.47	96.2	4.3	0.27	0.3	0.18	0.17	0.20	115
2	124		14.47	14.45	33.812	25.175	281.9	0.469	5.31	91.7	4.8	0.37	1.6	0.18	0.13	0.15	124
	125	ISL	14.35	14.33	33.800	25.191	280.3	0.472	5.29	91.1	4.9	0.39	1.9	0.17	0.13	0.15	125
2	139		12.66	12.64	33.627	25.400	260.4	0.510	5.00	83.0	7.7	0.69	6.6	0.01	0.07	0.10	140
	150	ISL	11.41	11.39	33.553	25.579	243.4	0.537	4.71	76.1	11.2	0.97	10.9	0.01	0.05	0.07	151
2	164		10.09	10.07	33.532	25.794	222.8	0.570	4.35	68.3	16.0	1.31	16.0	0.00	0.03	0.04	165
2	194		8.91	8.89	33.688	26.109	193.2	0.632	3.84	58.8	23.8	1.66	21.7	0.00	0.01	0.02	195
	200	ISL	8.78	8.76	33.728	26.160	188.3	0.644	3.70	56.5	25.4	1.72	22.6	0.00			201
2	228		8.37	8.35	33.900	26.358	169.9	0.694	3.11	47.1	32.1	1.95	26.1	0.00			229
	250	ISL	8.13	8.10	33.971	26.450	161.5	0.731	2.87	43.2	35.9	2.06	27.7	0.00			251
2	269		7.96	7.93	34.010	26.506	156.5	0.761	2.69	40.4	38.8	2.14	28.7	0.00			270
	300	ISL	7.67	7.64	34.066	26.593	148.6	0.808	2.22	33.1	44.5	2.32	30.9	0.00			302
2	318		7.51	7.48	34.093	26.637	144.6	0.834	1.93	28.7	47.9	2.43	32.2	0.00			320
2	378		7.11	7.07	34.174	26.758	133.9	0.918	1.18	17.4	57.6	2.73	35.5	0.00			380
	400	ISL	6.94	6.90	34.202	26.804	129.8	0.947	0.96	14.1	61.3	2.82	36.5	0.00			402
2	438		6.66	6.62	34.243	26.874	123.5	0.995	0.65	9.5	67.2	2.96	38.0	0.00			441
	500	ISL	6.29	6.24	34.277	26.950	116.9	1.070	0.45	6.5	73.7	3.09	39.4	0.00			503
2	512		6.22	6.17	34.284	26.965	115.6	1.084	0.41	5.9	74.9	3.11	39.7	0.00			515

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	80TT0M	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 45.2 N	123 20.0 U	03/10/94	2316 UTC	4021 m	270 09 kn	270 03 04	1	1008.4 mb	21.4 C	18.4 C	28m 01	4/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	20.06	20.06	33.200	23.375	449.7	0.000	5.35	102.6	3.6	0.33	0.0	0.00	0.15	0.03	0
2	1		20.06	20.06	33.200	23.375	449.7	0.004	5.35	102.6	3.6	0.33	0.0	0.00	0.15	0.03	1
	10	ISL	19.92	19.92	33.203	23.414	446.3	0.045	5.36	102.5	3.4	0.35	0.0	0.00	0.16	0.03	10
2	16		19.83	19.83	33.206	23.440	444.1	0.072	5.37	102.5	3.3	0.36	0.0	0.00	0.16	0.03	16
	20	ISL	19.64	19.64	33.215	23.496	438.8	0.089	5.40	102.7	3.3	0.35	0.0	0.00	0.16	0.03	20
	30	ISL	18.96	18.95	33.225	23.678	421.9	0.132	5.52	103.7	3.2	0.32	0.0	0.00	0.15	0.04	30
2	31		18.88	18.87	33.225	23.698	420.0	0.136	5.54	103.9	3.2	0.32	0.0	0.00	0.15	0.04	31
2	44		17.55	17.54	33.170	23.982	393.2	0.189	5.82	106.4	3.1	0.32	0.1	0.00	0.19	0.08	44
	50	ISL	16.64	16.63	33.167	24.195	373.1	0.212	5.90	106.0	3.5	0.32	0.1	0.00	0.21	0.11	50
2	54		16.05	16.04	33.174	24.335	359.8	0.227	5.94	105.4	3.7	0.32	0.1	0.00	0.22	0.13	54
2	64		15.14	15.13	33.203	24.559	338.7	0.262	5.96	103.9	3.8	0.33	0.1	0.00	0.21	0.14	64
2	75		14.58	14.57	33.236	24.705	325.0	0.298	5.83	100.5	4.1	0.40	0.5	0.07	0.23	0.20	75
2	85		14.37	14.36	33.321	24.816	314.8	0.330	5.75	98.8	4.3	0.37	0.6	0.10	0.23	0.17	85
2	94		13.44	13.43	33.311	25.000	297.4	0.358	5.50	92.7	5.3	0.56	3.1	0.12	0.20	0.17	94
	100	ISL	13.08	13.07	33.303	25.066	291.2	0.376	5.38	90.0	6.0	0.64	4.3	0.08	0.19	0.17	100
2	109		12.71	12.70	33.315	25.148	283.6	0.401	5.22	86.6	7.2	0.73	5.9	0.02	0.16	0.18	109
2	123		12.17	12.15	33.457	25.362	263.4	0.440	4.88	80.1	8.9	0.85	8.6	0.01	0.09	0.13	123
	125	ISL	12.08	12.06	33.466	25.386	261.2	0.445	4.84	79.3	9.2	0.87	9.0	0.01	0.08	0.13	125
2	143		11.16	11.14	33.506	25.587	242.3	0.490	4.54	73.0	12.4	1.11	12.6	0.01	0.05	0.10	144
	150	ISL	10.70	10.68	33.517	25.677	233.8	0.507	4.38	69.7	14.4	1.23	14.5	0.01	0.04	0.08	151
2	170		9.48	9.46	33.579	25.932	209.7	0.551	3.90	60.4	20.6	1.57	19.8	0.00	0.01	0.04	171
2	199		8.69	8.67	33.786	26.220	182.7	0.608	3.32	50.6	28.2	1.84	24.3	0.00	0.00	0.03	200
	200	ISL	8.68	8.66	33.792	26.226	182.1	0.610	3.31	50.5	28.4	1.85	24.4	0.00			201
2	228		8.36	8.34	33.914	26.371	168.8	0.659	3.04	46.0	32.5	1.95	26.1	0.00			229
	250	ISL	8.04	8.01	33.961	26.456	160.9	0.695	2.97	44.7	35.5	2.00	27.2	0.00			251
2	267		7.79	7.76	33.982	26.509	156.1	0.722	2.91	43.5	37.9	2.05	28.1	0.00			268
	300	ISL	7.46	7.43	34.021	26.588	149.0	0.773	2.54	37.7	43.6	2.21	30.2	0.00			302
2	314		7.33	7.30	34.034	26.616	146.4	0.793	2.34	34.6	46.3	2.29	31.2	0.00			316
2	377		6.53	6.50	34.085	26.766	132.7	0.881	1.47	21.4	60.7	2.65	35.9	0.00			379
	400	ISL	6.39	6.35	34.114	26.807	129.0	0.911	1.21	17.5	64.5	2.75	36.9	0.00			402
2	439		6.26	6.22	34.170	26.869	123.6	0.961	0.85	12.3	69.5	2.88	38.2	0.00			442
	500	ISL	6.19	6.15	34.261	26.950	116.7	1.034	0.49	7.1	74.9	3.03	39.3	0.00			503
2	515		6.17	6.12	34.283	26.970	115.0	1.051	0.40	5.8	76.2	3.07	39.6	0.00			518

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 90 120

LATITUDE	L0N6ITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 25.3 KI	124 0.7 W	03/10/94	1831 UTC	4218 m	270 06 kn	330 03 06	1	1011.3 mb	21.3 C	18.6 C	32m 01	6/8	AC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	20.18	20.18	33.219	23.358	451.3	0.000	5.35	102.8	2.2	0.33	0.2	0.00	0.17	0.04	0
2	1	A	20.18	20.18	33.219	23.358	451.3	0.005	5.35	102.8	2.2	0.33	0.2	0.00	0.17	0.04	1
	10	ISL	19.56	19.56	33.170	23.482	439.8	0.045	5.44	103.3	2.3	0.33	0.2	0.00	0.14	0.04	10
2	18	A	18.85	18.85	33.124	23.628	426.2	0.079	5.54	103.8	2.4	0.32	0.2	0.00	0.12	0.04	18
	20	ISL	18.79	18.79	33.122	23.641	425.0	0.088	5.55	103.9	2.4	0.32	0.2	0.00	0.12	0.04	20
2	30		18.57	18.56	33.127	23.700	419.7	0.130	5.58	104.0	2.3	0.32	0.2	0.00	0.14	0.05	30
2	42	A	18.24	18.23	33.155	23.804	410.2	0.180	5.65	104.7	2.0	0.32	0.2	0.00	0.19	0.07	42
	50	ISL	17.39	17.38	33.170	24.021	389.7	0.212	5.75	104.8	2.1	0.32	0.2	0.00	0.20	0.10	50
2	55		16.88	16.87	33.203	24.167	376.0	0.231	5.81	104.8	2.1	0.32	0.2	0.00	0.21	0.12	55
2	63	A	16.67	16.66	33.332	24.315	362.1	0.260	5.84	105.0	2.5	0.29	0.2	0.00	0.20	0.12	63
2	75		15.20	15.19	33.218	24.558	339.1	0.303	5.89	102.8	2.6	0.36	0.2	0.00	0.28	0.26	75
2	85	A	14.58	14.57	33.187	24.668	328.9	0.336	5.88	101.3	3.0	0.38	0.4	0.03	0.24	0.23	85
2	93		14.25	14.24	33.247	24.784	318.0	0.362	5.76	98.6	3.1	0.46	1.0	0.30	0.21	0.24	93
	100	ISL	14.00	13.99	33.306	24.882	308.9	0.384	5.69	97.0	3.3	0.46	1.2	0.28	0.17	0.23	100
2	109		13.55	13.53	33.361	25.017	296.2	0.411	5.57	94.1	4.1	0.47	2.2	0.26	0.12	0.22	109
2	121	A	12.51	12.49	33.357	25.220	277.0	0.445	5.20	85.9	6.6	0.71	6.2	0.01	0.08	0.16	121
	125	ISL	12.15	12.13	33.360	25.291	270.3	0.456	5.06	83.0	7.8	0.81	7.7	0.01	0.07	0.14	125
2	144		10.59	10.57	33.422	25.622	238.8	0.505	4.44	70.4	13.7	1.24	14.6	0.01	0.03	0.08	145
	150	ISL	10.22	10.20	33.461	25.716	229.9	0.519	4.29	67.5	15.5	1.34	16.2	0.01	0.02	0.07	151
2	168		9.36	9.34	33.597	25.965	206.4	0.558	3.96	61.2	20.3	1.57	19.9	0.00	0.01	0.04	169
2	199		8.55	8.53	33.813	26.262	178.6	0.618	3.76	57.2	26.6	1.73	22.9	0.00	0.00	0.01	200
	200	ISL	8.53	8.51	33.817	26.269	178.0	0.619	3.75	57.0	26.8	1.74	23.0	0.00			201
2	228		8.18	8.16	33.908	26.393	166.5	0.668	3.36	50.7	31.8	1.89	25.4	0.00			229
	250	ISL	7.92	7.89	33.971	26.481	158.5	0.703	2.98	44.7	36.5	2.04	27.5	0.00			251
2	267		7.73	7.70	34.011	26.541	153.0	0.730	2.69	40.2	40.1	2.16	29.0	0.00			268
	300	ISL	7.43	7.40	34.051	26.616	146.3	0.779	2.27	33.7	45.7	2.34	31.2	0.00			302
2	317		7.28	7.25	34.060	26.644	143.8	0.804	2.10	31.0	48.2	2.41	32.1	0.00			319
2	378		6.68	6.65	34.072	26.736	135.6	0.889	1.71	24.9	56.8	2.60	34.8	0.00			380
	400	ISL	6.44	6.40	34.087	26.780	131.6	0.919	1.48	21.5	61.2	2.70	36.1	0.00			402
2	437		6.06	6.02	34.120	26.855	124.7	0.966	1.08	15.5	68.9	2.87	38.4	0.00			440
	500	ISL	5.60	5.56	34.178	26.958	115.3	1.042	0.65	9.2	79.4	3.05	41.3	0.00			503
2	512		5.51	5.47	34.189	26.978	113.5	1.055	0.57	8.1	81.4	3.08	41.8	0.00			515

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 57.6 N	117 18.5 W	30/09/94	1805 UTC	68 m	220 05 kn	270 02 05	1	1008.9 mb	21.7 C	19.6 C	18m 03	6/8	AC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	D		DEG C	DEG C		THETA			ml/L	PCT	uM/l	uM/I	uM/l	uM/L	ug/I	ug/l	db
	0	ISL	20.86	20.86	33.471	23.369	450.2	0.000	5.68	110.7	3.3	0.26	0.0	0.00	0.41	0.10	0
2	1	A	20.86	20.86	33.471	23.369	450.3	0.005	5.68	110.7	3.3	0.26	0.0	0.00	0.41	0.10	1
2	10	A	18.49	18.49	33.409	23.935	396.6	0.043	6.10	113.7	3.5	0.29	0.1	0.00	0.48	0.14	10
	20	ISL	15.84	15.84	33.373	24.534	339.8	0.079	6.17	109.2	4.6	0.39	0.1	0.00	1.16	0.53	20
2	24	A	14.93	14.93	33.372	24.734	320.8	0.093	6.20	107.8	5.1	0.43	0.1	0.00	1.35	0.65	24
2	30		13.98	13.98	33.377	24.939	301.5	0.111	5.92	100.9	5.5	0.48	0.7	0.09	1.07	0.57	30
2	36	A	13.36	13.36	33.397	25.081	288.1	0.129	5.33	89.7	7.1	0.72	4.2	0.37	0.61	0.57	36
2	49	A	12.75	12.74	33.422	25.222	275.0	0.166	4.75	79.0	10.0	0.94	8.7	0.23	0.28	0.38	49
	50	ISL	12.69	12.68	33.423	25.234	273.8	0.168	4.73	78.5	10.2	0.95	8.9	0.23	0.27	0.37	50
2	60		12.11	12.10	33.438	25.357	262.3	0.195	4.50	73.8	11.7	1.08	10.9	0.26	0.20	0.28	60

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 28

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 54.8 N	117 23.8 W	30/09/94	2106 UTC	624 m	250 04 kn	270 02 04	1	1008.2 mb	21.7 C	19.1 C	18m 03	4/8	AC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	m		DEG C	DEG C		THETA			ml/L	PCT	uM/l	uM/l	uM/L	uM/I	ug/I	ug/L	db
	0	ISL	21.56	21.56	33.527	23.222	464.3	0.000	5.51	108.8	3.2	0.19	0.1	0.00	0.45	0.08	0
2	1		21.56	21.56	33.527	23.222	464.3	0.005	5.51	108.8	3.2	0.19	0.1	0.00	0.45	0.08	1
2	10		20.00	20.00	33.437	23.572	431.3	0.045	5.83	111.8	3.3	0.25	0.1	0.00	0.38	0.10	10
2	20		16.81	16.81	33.378	24.316	360.6	0.085	6.42	115.8	3.9	0.32	0.1	0.00	0.34	0.12	20
2	30		14.74	14.74	33.364	24.769	317.7	0.118	6.35	109.9	3.8	0.37	0.1	0.00	0.47	0.23	30
2	40		13.41	13.40	33.376	25.055	290.7	0.149	5.35	90.1	6.7	0.72	5.0	0.20	0.58	0.47	40
2	49		12.82	12.81	33.404	25.194	277.6	0.174	5.04	83.9	8.5	0.85	7.2	0.16	0.33	0.35	49
	50	ISL	12.77	12.76	33.407	25.206	276.5	0.177	4.99	83.0	8.7	0.87	7.5	0.15	0.31	0.35	50
2	60		12.18	12.17	33.430	25.338	264.2	0.204	4.63	76.0	10.9	1.02	10.3	0.06	0.20	0.33	60
2	69		11.38	11.37	33.454	25.505	248.4	0.227	4.60	74.3	12.3	1.10	11.9	0.02	0.09	0.15	69
	75	ISL	11.09	11.08	33.465	25.566	242.7	0.242	4.54	72.9	13.2	1.15	12.9	0.02	0.08	0.13	75
2	83		10.81	10.80	33.480	25.628	237.0	0.261	4.42	70.5	14.4	1.23	14.1	0.02	0.07	0.10	83
2	99		10.10	10.09	33.538	25.796	221.2	0.298	4.13	64.9	17.7	1.42	16.9	0.02	0.05	0.07	99
	100	ISL	10.08	10.07	33.545	25.805	220.4	0.300	4.11	64.5	17.9	1.43	17.1	0.02	0.05	0.07	100
2	118		9.87	9.86	33.660	25.930	208.9	0.339	3.68	57.6	21.1	1.60	19.4	0.02	0.02	0.06	119
	125	ISL	9.81	9.80	33.681	25.957	206.5	0.353	3.60	56.2	21.9	1.64	19.9	0.02	0.02	0.06	126
2	139		9.74	9.72	33.719	25.998	202.8	0.382	3.43	53.5	23.3	1.72	20.7	0.02	0.02	0.05	140
	150	ISL	9.74	9.72	33.775	26.042	198.9	0.404	3.12	48.7	25.0	1.82	21.8	0.02	0.02	0.05	151
2	169		9.74	9.72	33.891	26.133	190.7	0.441	2.57	40.1	28.3	2.00	24.0	0.02	0.01	0.04	170
2	197		9.37	9.35	34.030	26.303	175.0	0.492	2.19	34.0	32.7	2.17	26.5	0.02	0.00	0.04	198
	200	ISL	9.34	9.32	34.043	26.318	173.7	0.497	2.15	33.3	33.2	2.19	26.7	0.02			201
2	228		9.11	9.09	34.140	26.431	163.4	0.545	1.86	28.7	37.3	2.31	28.1	0.04			229
	250	ISL	8.97	8.94	34.177	26.483	158.9	0.580	1.69	26.0	39.5	2.38	28.8	0.04			251
2	268		8.86	8.83	34.193	26.513	156.4	0.608	1.58	24.2	41.1	2.43	29.3	0.04			270
	300	ISL	8.64	8.61	34.219	26.568	151.6	0.658	1.41	21.5	44.0	2.53	30.3	0.04			302
2	317		8.50	8.47	34.228	26.597	149.2	0.683	1.32	20.1	45.7	2.58	30.8	0.04			319
2	375		7.87	7.83	34.255	26.714	138.7	0.767	0.97	14.6	53.9	2.77	33.0	0.03			377
	400	ISL	7.53	7.49	34.262	26.769	133.7	0.801	0.83	12.4	58.2	2.85	34.2	0.03			403
2	436		7.06	7.02	34.272	26.843	126.9	0.848	0.65	9.6	64.2	2.96	35.8	0.03			439
	500	ISL	6.57	6.52	34.290	26.924	119.7	0.927	0.47	6.8	71.5	3.08	37.5	0.03			503
2	514		6.46	6.41	34.295	26.943	118.0	0.943	0.43	6.2	73.1	3.11	37.9	0.03			517

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 30

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AWIT	TYPE
32 50.7 N	117 31.1 W	01/10/94	0055 UTC	809 m	230 04 kn	230 01 05	1	1007.5 mb	20.6 C	18.9 C	16m 03	6/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	m		DEG C	DEG C		THETA			ml/l	PCT	uM/I	uM/I	uM/I	uM/l	ug/L	ug/I	db
	0	ISL	21.03	21.03	33.487	23.336	453.4	0.000	5.61	109.7	3.5	0.27	0.0	0.00	0.43	0.09	0
2	2		21.03	21.03	33.487	23.336	453.5	0.009	5.61	109.7	3.5	0.27	0.0	0.00	0.43	0.09	2
2	10		20.38	20.38	33.455	23.486	439.5	0.045	5.70	110.1	3.5	0.28	0.0	0.00	0.46	0.11	10
2	20		17.83	17.83	33.366	24.064	384.6	0.086	6.17	113.5	3.6	0.36	0.1	0.00	0.47	0.16	20
	30	ISL	15.23	15.23	33.355	24.656	328.5	0.122	6.31	110.3	4.3	0.39	0.1	0.00	0.42	0.16	30
2	31		15.01	15.01	33.358	24.706	323.7	0.125	6.32	110.0	4.4	0.39	0.1	0.00	0.41	0.16	31
2	40		13.94	13.93	33.382	24.951	300.6	0.153	6.06	103.2	4.1	0.57	0.5	0.05	0.92	0.50	40
	50	ISL	12.57	12.56	33.405	25.244	272.9	0.182	5.04	83.4	8.4	0.92	7.0	0.29	0.50	0.42	50
2	51		12.45	12.44	33.408	25.269	270.5	0.184	4.93	81.4	8.9	0.95	7.7	0.31	0.44	0.41	51
2	61		12.07	12.06	33.434	25.362	261.9	0.211	4.56	74.7	11.3	1.09	10.8	0.22	0.26	0.37	61
2	70		11.48	11.47	33.459	25.491	249.8	0.234	4.44	71.8	12.6	1.21	12.4	0.15	0.18	0.26	70
	75	ISL	11.23	11.22	33.477	25.551	244.2	0.246	4.36	70.2	13.5	1.26	13.3	0.11	0.14	0.23	75
2	85		10.85	10.84	33.518	25.650	234.9	0.270	4.15	66.3	15.5	1.37	15.1	0.05	0.08	0.19	85
2	99		10.44	10.43	33.574	25.766	224.2	0.302	3.66	57.9	19.2	1.56	18.2	0.01	0.05	0.12	99
	100	ISL	10.39	10.38	33.576	25.776	223.2	0.305	3.66	57.9	19.3	1.56	18.3	0.01	0.05	0.12	100
2	119		9.64	9.63	33.637	25.950	206.9	0.346	3.73	58.0	21.0	1.60	19.9	0.01	0.03	0.08	120
	125	ISL	9.62	9.61	33.686	25.992	203.1	0.358	3.58	55.7	22.2	1.66	20.7	0.01	0.02	0.07	126
2	138		9.57	9.55	33.776	26.071	195.9	0.384	3.17	49.3	25.0	1.81	22.4	0.00	0.01	0.05	139
	150	ISL	9.60	9.58	33.862	26.133	190.2	0.407	2.84	44.2	27.0	1.93	23.6	0.00	0.01	0.05	151
2	168		9.62	9.60	33.968	26.213	183.0	0.441	2.46	38.3	29.4	2.08	25.0	0.01	0.01	0.04	169
2	200		9.32	9.30	34.049	26.326	172.9	0.498	2.28	35.3	32.5	2.22	26.4	0.01	0.00	0.03	201
2	228		9.37	9.34	34.157	26.403	166.2	0.545	1.84	28.5	35.4	2.30	27.8	0.00			229
	250	ISL	9.19	9.16	34.193	26.461	161.2	0.581	1.67	25.8	37.7	2.40	28.6	0.00			251
2	268		8.96	8.93	34.201	26.504	157.3	0.610	1.61	24.8	39.7	2.48	29.2	0.01			270
	300	ISL	8.42	8.39	34.188	26.578	150.6	0.659	1.60	24.3	43.6	2.53	30.4	0.00			302
2	317		8.14	8.11	34.181	26.615	147.2	0.684	1.59	24.0	45.8	2.55	31.1	0.00			319
2	380		7.72	7.68	34.261 D	26.740	136.2	0.774	0.92	13.8	54.5	2.74	33.6	0.02			382
	400	ISL	7.50	7.46	34.269	26.779	132.7	0.800	0.80	11.9	57.5	2.83	34.4	0.01			403
2	440		7.03	6.99	34.276	26.850	126.2	0.852	0.62	9.1	63.6	3.00	36.1	0.00			443
	500	ISL	6.46	6.41	34.296	26.943	117.8	0.925	0.43	6.2	72.1	3.15	38.2	0.00			503
2	518		6.29	6.24	34.303	26.971	115.2	0.946	0.37	5.4	74.7	3.19	38.8	0.00			522

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 40.8 N	117 52.4 W	01/10/94	0443 UTC	615 *m*	140 03 kn			1009.0 mb	19.1 C	17.6 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	20.41	20.41	33.529	23.533	434 .6	0.000	5 .36	103.6	2.6	0.24	0.2	0.00	0.30	0.06	0
2	1		20.41	20.41	33.529	23.534	434.6	0.004	5.36	103.6	2.6	0.24	0.2	0.00	0.30	0.06	1
2	10		18.93	18.93	33.498	23.893	400.6	0.042	5 .48	103. 1	2 .6	0.31	0.1	0.00	0.20	0.07	10
2	20		18.03	18.03	33.463	24.090	382.2	0.081	5.66	104.6	2.2	0.34	0.1	0.00	0.25	0.12	20
2	30		15.91	15.91	33.330	24.485	344.7	0.117	5.80	102.8	2.5	0.39	0.2	0.02	0.41	0.38	30
2	40		14.58	14.57	33.226	24.697	324.8	0.151	5.73	98.8	3.4	0.52	1.1	0.30	0.36	0.37	40
2	50		14.03	14.02	33.282	24.856	309.9	0.183	5.59	95.3	4.0	0.57	2 .2	1 .09	0.28	0.32	50
2	60		13.73	13.72	33.274	24.911	304.9	0.213	5.48	92.9	4.4	0.65	3.9	0.44	0.24	0.25	60
2	69		13.00	12 .99	33.290	25.071	289.9	0.240	5.25	87.6	6.3	0.80	6.5	0.02	0.15	0.15	69
	75	ISL	12.56	12.55	33.296	25.161	281 .4	0.257	5.12	84.7	7.4	0.86	7.7	0.02	0.12	0.14	75
2	85		11 .92	11.91	33.327	25.307	267.6	0.285	4.92	80.3	9. 1	0.95	9.3	0.02	0.09	0.12	85
2	100		11.13	11.12	33.473	25.566	243.3	0.323	4.56	73.2	11.6	1 .10	12.1	0.02	0.09	0.11	100
2	119		10.17	10.16	33.536	25.783	222.9	0.367	4.21	66.2	15.9	1 .36	16.2	0.01	0.04	0.08	120
	125	ISL	9.97	9.96	33.553	25.830	218.5	0.381	4.11	64.4	17.1	1 .43	17.2	0.01	0.03	0.07	126
2	140		9.59	9.57	33.600	25.930	209.3	0.413	3.87	60.1	20.0	1 .57	19.3	0.01	0.02	0.05	141
	150	ISL	9.37	9.35	33.650	26.005	202 .3	0.433	3.71	57.4	22 .0	1 .66	20.7	0.01	0.02	0.04	151
2	170		9.00	8.98	33.761	26.151	188.7	0.472	3.38	51 .9	26.0	1 .81	23.1	0.00	0.01	0.03	171
2	199		8.58	8.56	33.911	26.335	171 .7	0.525	2.90	44 .1	31 .7	1 .97	25.8	0.00	0.00	0.03	200
	200	ISL	8.57	8.55	33.914	26.338	171.4	0.526	2 .89	44.0	31 .8	1 .97	25.9	0.00			201
2	229		8.31	8.29	33.986	26.435	162.7	0.575	2 .70	40.9	35.4	2 .08	27.4	0.00			230
	250	ISL	8.12	8.09	34.020	26.490	157.7	0.608	2.51	37.8	38.2	2.16	28.5	0.00			251
2	269		7.94	7.91	34.043	26.535	153.7	0.638	2.33	35.0	40.9	2 .23	29.5	0.00			271
	300	ISL	7.56	7.53	34.077	26.618	146.3	0.684	2 .04	30.4	46.3	2.37	31 .2	0.00			302
2	318		7.34	7.31	34.093	26.661	142 .2	0.710	1 .87	27.7	49.5	2 .45	32 .2	0.00			320
2	378		6.93	6.89	34. 129	26.747	134.8	0.794	1 .41	20.7	57.3	2.67	34.6	0.00			380
	400	ISL	6.92	6.88	34.178	26.788	131.4	0.823	1.11	16.3	60.2	2 .77	35.3	0.00			403
2	437		6.90	6.86	34.263	26.858	125.3	0.870	0.64	9.4	64.9	2 .94	36.4	0.00			440
	500	ISL	6.44	6.39	34.298	26.947	117.3	0.947	0.42	6.1	72.6	3.07	38.1	0.00			503
2	521		6.29	6.24	34.310	26.977	114.7	0.971	0.35	5 .1	75.1	3.11	38.7	0.00			525

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 40

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 30.7 N	118 13.1 W	01/10/94	0831 UTC	1617 m	020 03 kn			1009.9 mb	18.8 C	17.3 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/l	N02 uM/l	CHL-A ug/l	PHAEO ug/l	PRESS db
	0	ISL	18.87	18.87	33.439	23.862	403.2	0.000	5.47	102.7	3.7	0.34	0.1	0.00	0.20	0.05	0
2	1		18.87	18.87	33.439	23.862	403.2	0.004	5.47	102.7	3.7	0.34	0.1	0.00	0.20	0.05	1
	10	ISL	18.81	18.81	33.446	23.883	401 .5	0.040	5.50	103.2	3.6	0.34	0. 1	0.00	0.22	0.06	10
2	15		18.74	18.74	33.436	23.893	400.8	0.060	5.52	103.4	3.6	0.34	0.1	0.00	0.23	0.06	15
	20	ISL	18.61	18.61	33.449	23.936	396.9	0.080	5.53	103.3	3.6	0.34	0.1	0.00	0.28	0.09	20
2	30		18.35	18.34	33.531	24 .064	385.0	0.119	5.55	103.3	3.6	0.34	0.1	0.00	0.39	0. 17	30
2	45		16.55	16.54	33.333	24.343	358.8	0.175	5.82	104.4	3.5	0.37	0.1	0.00	0.52	0.34	45
	50	ISL	15.91	15.90	33.285	24.452	348.6	0.193	5.80	102.7	3.9	0.42	0.3	0.03	0.55	0.40	50
2	55		15.22	15.21	33.259	24.585	336.0	0.210	5.77	100.8	4. 5	0.48	0. 5	0.06	0.59	0.42	55
2	65		13.56	13.55	33.312	24.976	298.9	0.242	5.53	93.4	6.3	0.66	3.9	0.38	0.29	0.27	65
	75	ISL	12.65	12 .64	33.261	25.117	285.6	0.271	5 .31	88.0	7.8	0.80	6.4	0.07	0.13	0.18	75
2	76		12 .59	12.58	33.257	25.126	284.8	0.274	5 .29	87.5	8.0	0.81	6.6	0.03	0.12	0.17	76
2	85		12.12	12.11	33.348	25.286	269.7	0.299	4 .99	81 .8	9.8	0.92	9.0	0.02	0.09	0.11	85
2	94		11 .40	11 .39	33.381	25.446	254.7	0.322	4.65	75.1	12.3	1.11	12.0	0.01	0.06	0.09	94
	100	ISL	11.13	11.12	33.388	25.500	249.6	0.337	4.52	72.6	13.5	1 .21	13.3	0.01	0.05	0.08	100
2	110		10.77	10.76	33.409	25.580	242.1	0.362	4.34	69.1	15.5	1 .34	15.2	0.01	0.03	0.06	110
2	125		10.00	9.99	33.533	25.809	220.5	0.397	3.91	61 .3	19.9	1 .54	18.8	0.01	0.02	0.05	126
2	145		9.26	9.24	33.643	26.017	201 .0	0.439	3.73	57.6	23.4	1 .70	21.3	0.01	0.01	0.04	146
	150	ISL	9.14	9.12	33.684	26.068	196.2	0.449	3.63	55.9	24.7	1 .74	22.0	0.01	0.01	0.04	151
2	169		8.82	8.80	33.833	26.236	180.6	0.485	3.20	48.9	29.4	1 .90	24 .4	0.01	0.00	0.03	170
2	200		8.54	8.52	33.937	26.361	169.2	0.539	2 .82	42.9	34. 1	2.06	26.7	0.01	0.00	0.03	201
2	229		8.21	8.19	34.018	26.475	158.8	0.586	2 .46	37.2	38.7	2.19	28.4	0.01			230
	250	ISL	7.96	7.93	34 .047	26.535	153.4	0.619	2 .33	35 .0	41.9	2 .28	29.5	0.01			251
2	267		7.76	7.73	34.064	26.578	149.5	0.645	2 .22	33.2	44 .6	2 .35	30.3	0.01			268
	300	ISL	7.46	7.43	34.110	26.658	142.4	0.693	1 .79	26.6	50.6	2.54	32 .3	0.00			302
2	318		7.32	7.29	34.134	26.697	138.9	0.718	1 .53	22.7	53.8	2.64	33.3	0.00			320
2	378		6.95	6.91	34.198	26.799	130.0	0.799	1 .00	14.7	62.2	2.82	35 .7	0.00			380
	400	ISL	6.83	6.79	34.222	26.834	126.9	0.827	0.84	12.3	64.9	2 .89	36.4	0.00			402
2	439		6.60	6.56	34.259	26.895	121.5	0.876	0.62	9.0	69.5	3.01	37.4	0.01			442
	500	ISL	6.16	6.12	34.283	26.972	114.7	0.948	0.44	6.3	77.0	3.12	38.9	0.01			503
2	518		6.03	5 .98	34.290	26.994	112.7	0.968	0.39	5.6	79.2	3.15	39.4	0.01			521

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 20.9 N	118 33.2 W	01/10/94	1204 UTC	1326 m	340 07 kn			1009 .9 mb	18.2 C	16.7 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ l	P04 uN/l	N03 uM/ l	N02 uM/ L	CHL-A ug/ l	PHAEO ug/ l	PRESS db
	0	ISL	19.32	19.32	33.611	23.880	401 .5	0.000	5.42	102.8	4 .6	0.28	0.3	0.00	0.34	0.09	0
2	1		19.32	19.32	33.611	23.880	401 .6	0.004	5.42	102 .8	4.6	0.28	0.3	0.00	0.34	0.09	1
2	10		19.33	19.33	33.610	23.877	402.2	0.040	5 .42	102 .8	4 .1	0.28	0.3	0.00	0.34	0.08	10
2	20		19.31	19.31	33.609	23.882	402 . 1	0.080	5.42	102.7	4 .1	0.30	0.3	0.00	0.35	0.10	20
2	30		17.58	17.57	33.540	24.258	366.5	0.119	5.87	107.6	4.9	0.37	0.6	0.02	0.83	0.32	30
2	40		13.96	13.95	33.464	25.010	294.9	0.152	5.52	94.1	8.3	0.73	5.6	0.18	0.73	0.47	40
2	50		12 .38	12.37	33.470	25.330	264.6	0.180	4.98	82.2	11.7	1 .02	10.0	0.32	0.64	0.51	50
2	60		11 .63	11 .62	33.484	25.483	250.3	0.206	4.49	72.9	14.7	1 .21	13.6	0.35	0.45	0.49	60
2	69		10.89	10.88	33.510	25.637	235.8	0.227	4.10	65 .5	17.5	1 .37	16.7	0.15	0.32	0.46	69
	75	ISL	10.41	10.40	33.546	25.749	225.2	0.241	3.87	61 .2	19.7	1 .49	18.6	0.08	0.23	0.36	75
2	84		9.84	9.83	33.604	25.891	211.9	0.261	3.62	56.6	22.6	1 .64	20.8	0.03	0.12	0.20	84
2	99		9.51	9.50	33.651	25 .982	203.5	0.292	3.49	54.2	24.4	1 .70	22.0	0.02	0.08	0.15	99
	100	ISL	9.49	9.48	33.655	25.989	202.9	0.294	3.48	54.0	24.5	1 .71	22 . 1	0.02	0.08	0.15	100
2	120		9.10	9.09	33.741	26.119	190.8	0.334	3.24	49.8	27.6	1 .83	23.8	0.02	0.03	0.06	121
	125	ISL	9.01	9.00	33.762	26. 150	188.0	0.343	3.19	49.0	28.3	1 .86	24.2	0.01	0.02	0.06	126
2	138		8.81	8.80	33.813	26.221	181.4	0.367	3.06	46.8	30. 1	1 .92	25 .2	0.00	0.01	0.05	139
	150	ISL	8.67	8.65	33.855	26.276	176.4	0.388	2.97	45.3	31 .5	1 .96	25 .8	0.00	0.01	0.04	151
2	168		8.50	8.48	33.915	26.349	169.7	0.420	2.83	43.0	33.7	2 .01	26.7	0.00	0.01	0.04	169
2	198		8.25	8.23	34.021	26.471	158.7	0.469	2.43	36.7	39.2	2.17	28.8	0.00	0.01	0.04	199
	200	ISL	8.23	8.21	34.027	26.479	158.0	0.472	2 .40	36.3	39.6	2.18	28.9	0.00			201
2	228		7.92	7.90	34.088	26.573	149.4	0.515	2.00	30.0	45 .0	2 .35	30.8	0.00			229
	250	ISL	7.67	7.65	34. 114	26.630	144.3	0.547	1 .81	27.0	48.7	2.47	32 .0	0.00			251
2	267		7.50	7.47	34. 126	26.664	141.2	0.572	1 .70	25.3	51 .3	2 .54	32 .8	0.00			269
	300	ISL	7.24	7.21	34. 139	26.712	137.2	0.618	1 . 50	22 .2	55.2	2 .61	33.9	0.00			302
2	316		7.15	7.12	34.148	26.731	135.5	0.639	1 .39	20.5	56.9	2 .64	34.3	0.00			318
2	377		7.05	7.01	34.255	26.830	127.1	0.719	0.74	10.9	63.4	2.89	35 .9	0.00			379
	400	ISL	6.83	6.79	34.260	26.864	124.0	0.748	0.65	9.5	66.6	2 .94	36.8	0.00			403
2	438		6.43	6.39	34.257	26.916	119.4	0.795	0.57	8.3	71 .8	3.01	38.2	0.00			441
	500	ISL	6.07	6.03	34.292	26.990	112.9	0.867	0.39	5.6	78.2	3.10	39.6	0.00			503
2	520		5.95	5.90	34.303	27.014	110.8	0.889	0.33	4.7	80.2	3.13	40.0	0.00			524

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 11.3 N	118 54.2 W	01 /10/94	1804 UTC	1493 m	290 05 kn	310 02 07 1		1012 .4 mb	18.7 C	16.4 C	21m	7/8	SC

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/ I	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ L	PRESS db
	0	ISL	18.75	18.75	33.533	23.964	393.5	0.000	5 .47	102 .5	4.5	0.32	0.8	0.00	0.30	0.10	0
2	1	A	18.75	18.75	33.533	23.964	393.5	0.004	5.47	102 .5	4 .5	0.32	0 .8	0.00	0.30	0.10	1
	10	ISL	18.71	18.71	33.531	23.973	393.0	0.039	5.48	102 .7	4 .3	0.32	0 .8	0.00	0.31	0.10	10
2	12	A	18.70	18.70	33.531	23.976	392.8	0.047	5.48	102 .6	4.3	0.32	0.8	0.00	0.31	0.10	12
	20	ISL	18.68	18.68	33.531	23.981	392.6	0.079	5.47	102.4	4.2	0.32	0.8	0.00	0.32	0.10	20
2	27	A	18.67	18.67	33.531	23.984	392 .5	0. 106	5 .47	102 .4	4 .1	0.32	0 .8	0.00	0.33	0.10	27
	30	ISL	18.42	18.41	33.523	24.040	387.3	0.118	5.52	102 .8	4.2	0.33	0.8	0.01	0.45	0.19	30
2	42	A	16.66	16.65	33.454	24.410	352.4	0.162	5.66	101.9	4.5	0.38	1 .0	0.07	0.79	0.50	42
	50	ISL	14.69	14.68	33.375	24.788	316.4	0. 189	5 .53	95.6	6.3	0.59	3.4	0.52	0.54	0. 42	50
2	55	A	13.48	13.47	33.350	25.021	294.3	0.204	5.35	90.2	8.0	0.76	5 .7	0 .69	0.34	0 . 33	55
2	65		12.14	12.13	33.375	25.303	267.6	0.232	4.74	77.8	12.2	1 .08	11.8	0 .08	0.18	0.23	65
2	73		10.98	10.97	33.409	25.542	244.9	0.253	4.31	69.0	15.9	1 .32	15.7	0.02	0 .09	0.14	73
	75	ISL	10.69	10.68	33.440	25.618	237.8	0.258	4.19	66.6	16.9	1 .38	16.7	0.01	0.08	0.13	75
2	78	A	10.30	10.29	33.490	25.724	227.6	0.265	4.01	63.3	18.3	1 .46	18.1	0.01	0.07	0.12	78
2	94		9.75	9.74	33.577	25 .885	212.6	0.300	3.72	58.0	22. 1	1 .63	20.8	0.01	0 .03	0.07	94
	100	ISL	9.55	9.54	33.603	25.938	207.7	0.312	3.64	56.5	23.2	1 .68	21 .5	0.01	0 . 02	0.05	100
2	108		9.31	9.30	33.636	26.003	201 .6	0.329	3.54	54 .7	24.5	1 .73	22 .3	0.01	0.01	0.04	108
2	124		8.91	8.90	33.704	26.120	190.7	0.360	3.38	51.8	26.5	1 .82	23.8	0.01	0.00	0.04	125
	125	ISL	8. 88	8.87	33.712	26.131	189.7	0.362	3.37	51 .6	26.7	1 . 82	23.9	0. 01	0.00	0.04	126
2	144		8.47	8.46	33.887	26.332	170.9	0.396	3.15	47.8	32 .0	1 .93	26.2	0 . 01	0 . 00	0.03	145
	150	ISL	8.38	8.36	33.929	26.378	166.6	0.406	2 .99	45.3	33.9	1 .99	27.0	0.01	0.00	0.03	151
2	168		8.19	8.17	34.024	26.482	157.1	0.436	2.50	37.7	39 . 1	2.17	29.0	0.01	0.00	0.04	169
2	199		8.03	8.01	34.087	26.556	150.6	0.483	2.14	32.2	43.2	2 .31	30. 5	0.01	0.00	0.03	200
	200	ISL	8.03	8.01	34 .088	26.556	150.5	0.485	2.13	32.1	43.3	2 .31	30.5	0.01			201
2	227		7.92	7.90	34.117	26.596	147.2	0.525	1 .95	29.3	45.6	2 .40	31 .4	0.01			228
	250	ISL	7.78	7.76	34. 148	26.641	143.3	0.558	1 .69	25.3	48.5	2 .51	32 .4	0.01			251
2	268		7.67	7.64	34.171	26.675	140.3	0. 584	1 .49	22 .2	50.8	2 .59	33. 1	0.01			270
	300	ISL	7.51	7.48	34 . 192	26.715	137.0	0.628	1 .27	18.9	54. 1	2 .70	34 . 0	0.01			302
2	316		7.43	7.40	34.201	26.734	135 .5	0.650	1.18	17.5	55 .7	2 .74	34 . 4	0.01			318
2	377		7.07	7.03	34 .260	26.831	127.0	0.730	0.76	11.2	62 .9	2 .90	36.3	0.00			379
	400	ISL	6 .91	6.87	34 .273	26.864	124.2	0.759	0.64	9.4	65 . 7	2 . 95	37.0	0.00			403
2	435		6.69	6.65	34.286	26.904	120.7	0.802	0.51	7.4	69.4	3.02	37 .9	0.00			438
	500	ISL	6.49	6.44	34.297	26.940	118.1	0.879	0.45	6.5	72 .4	3.07	38.6	0.00			503
2	516		6.44	6.39	34.300	26.949	117.4	0.898	0.43	6.2	73.2	3.08	38.8	0.00			520

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
32 1.0 NI	119 14.0 W	01/10/94	2139 UTC	1582 in	300 10 kn	320 02 05	2	1011.1 mb	19.0 C	16.1 C	17m 02	8/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	ID		DEG C	DEG C		THETA			ml/l	PCT	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db
	0	ISL	18.70	18.70	33.512	23.961	393.8	0.000	5.53	103.6	3.4	0.32	0.2	0.00	0.32	0.09	0
2	1		18.70	18.70	33.512	23.961	393.8	0.004	5.53	103.6	3.4	0.32	0.2	0.00	0.32	0.09	1
2	10		18.42	18.42	33.458	23.990	391.4	0.039	5.57	103.7	3.1	0.33	0.1	0.00	0.35	0.10	10
2	20		17.45	17.45	33.432	24.206	371.1	0.077	5.63	102.9	3.0	0.32	0.1	0.00	0.45	0.18	20
2	30		16.62	16.62	33.362	24.348	357.8	0.114	5.81	104.4	2.8	0.35	0.1	0.00	0.68	0.43	30
2	40		16.35	16.34	33.425 D	24.459	347.6	0.149									40
2	50		15.32	15.31	33.388	24.662	328.5	0.183	5.39	94.4	5.1	0.65	3.5	0.46	0.35	0.34	50
2	60		13.26	13.25	33.341	25.058	290.9	0.214	5.10	85.6	7.5	0.83	7.1	0.28	0.22	0.25	60
2	70		12.53	12.52	33.335	25.197	277.8	0.242	4.94	81.7	9.2	0.95	9.3	0.03	0.15	0.22	70
	75	ISL	12.25	12.24	33.363	25.273	270.7	0.256	4.78	78.6	10.3	1.04	10.8	0.03	0.13	0.21	75
2	84		11.71	11.70	33.415	25.415	257.4	0.280	4.49	73.0	12.4	1.21	13.4	0.02	0.10	0.18	84
2	98		10.47	10.46	33.406	25.630	237.1	0.314	4.31	68.2	15.5	1.36	16.3	0.01	0.04	0.07	98
	100	ISL	10.36	10.35	33.415	25.656	234.6	0.319	4.27	67.4	15.9	1.38	16.7	0.01	0.03	0.07	100
2	119		9.68	9.67	33.541	25.869	214.7	0.362	3.81	59.3	20.1	1.61	20.4	0.00	0.01	0.05	120
	125	ISL	9.51	9.50	33.580	25.927	209.2	0.375	3.69	57.2	21.4	1.67	21.4	0.00	0.01	0.05	126
2	138		9.20	9.19	33.661	26.041	198.6	0.401	3.45	53.2	24.0	1.77	23.2	0.00	0.01	0.04	139
	150	ISL	9.02	9.00	33.729	26.123	191.0	0.424	3.26	50.1	26.1	1.85	24.3	0.00	0.01	0.04	151
2	169		8.78	8.76	33.826	26.237	180.5	0.460	3.04	46.5	29.2	1.96	25.6	0.00	0.00	0.03	170
2	199		8.20	8.18	33.958	26.429	162.6	0.511	2.96	44.7	34.3	2.05	27.5	0.00	0.00	0.02	200
	200	ISL	8.18	8.16	33.962	26.435	162.1	0.513	2.94	44.4	34.5	2.06	27.6	0.00			201
2	227		7.82	7.80	34.044	26.553	151.2	0.555	2.45	36.7	41.2	2.23	30.2	0.00			228
	250	ISL	7.54	7.52	34.067	26.612	145.9	0.589	2.23	33.2	45.2	2.34	31.5	0.00			251
2	268		7.34	7.31	34.072	26.644	143.0	0.615	2.10	31.1	47.8	2.42	32.3	0.00			270
	300	ISL	7.01	6.98	34.088	26.703	137.8	0.660	1.81	26.6	52.7	2.54	34.1	0.00			302
2	316		6.86	6.83	34.095	26.729	135.5	0.682	1.66	24.3	55.2	2.60	35.0	0.00			318
2	377		6.31	6.28	34.129	26.829	126.5	0.762	1.12	16.2	65.4	2.84	38.0	0.00			379
	400	ISL	6.32	6.28	34.171	26.861	123.8	0.791	0.92	13.3	67.7	2.92	38.6	0.00			403
2	437		6.34	6.30	34.230	26.906	120.2	0.836	0.64	9.3	70.5	3.02	39.1	0.00			440
	500	ISL	6.25	6.21	34.292	26.967	115.3	0.910	0.42	6.1	74.5	3.10	39.7	0.00			503
2	513		6.23	6.18	34.305	26.980	114.2	0.925	0.38	5.5	75.3	3.12	39.8	0.00			516

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 50.8 HI	119 34.1 W	02/10/94	0201 UTC	1811 m	300 09 kn	320 02 05	1	1010.4 mb	18.4 C	15.8 C		7/8	SC

CAST	DEPTH		TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	m		DEG C	DEG C		THETA			ml/l	PCT	uM/l	uM/l	uM/l	uM/l	ug/l	ug/l	db
	0	ISL	18.54	18.54	33.534	24.017	388.4	0.000	5.53	103.3	3.4	0.31	0.1	0.00	0.28	0.07	0
2	2		18.54	18.54	33.534	24.018	388.4	0.008	5.53	103.3	3.4	0.31	0.1	0.00	0.28	0.07	2
2	10		18.43	18.43	33.528	24.041	386.5	0.039	5.54	103.2	3.2	0.31	0.1	0.00	0.29	0.07	10
2	20		18.21	18.21	33.503	24.076	383.5	0.077	5.58	103.5	3.0	0.33	0.1	0.00	0.34	0.10	20
2	30		15.97	15.97	33.305	24.453	347.8	0.114	5.88	104.3	3.5	0.35	0.2	0.01	0.73	0.47	30
2	40		15.53	15.52	33.299	24.547	339.2	0.148	5.79	101.8	3.7	0.40	0.3	0.04	0.64	0.47	40
2	50		15.06	15.05	33.339	24.681	326.7	0.181	5.58	97.2	4.4	0.50	1.1	0.39	0.31	0.23	50
2	60		13.60	13.59	33.282	24.944	301.7	0.213	5.29	89.4	6.8	0.68	4.7	0.55	0.17	0.18	60
2	70		12.36	12.35	33.341	25.235	274.2	0.242	4.81	79.2	10.1	0.97	10.0	0.03	0.12	0.17	70
	75	ISL	11.90	11.89	33.380	25.352	263.1	0.255	4.59	74.9	11.8	1.10	12.1	0.03	0.11	0.18	75
2	85		11.23	11.22	33.450	25.530	246.4	0.281	4.23	68.1	14.7	1.30	15.1	0.03	0.09	0.19	85
2	100		10.79	10.78	33.489	25.639	236.3	0.317	3.99	63.6	16.7	1.42	16.8	0.03	0.07	0.14	100
2	120		9.59	9.58	33.578	25.912	210.5	0.361	3.68	57.2	21.4	1.63	20.6	0.01	0.02	0.06	121
	125	ISL	9.41	9.40	33.608	25.965	205.6	0.372	3.63	56.2	22.3	1.67	21.3	0.01	0.02	0.05	126
2	140		9.03	9.01	33.705	26.102	192.8	0.402	3.47	53.3	25.1	1.77	22.9	0.01	0.01	0.03	141
	150	ISL	8.85	8.83	33.776	26.186	184.9	0.421	3.29	50.3	27.3	1.85	24.0	0.01	0.01	0.03	151
2	169		8.62	8.60	33.897	26.317	172.8	0.455	2.94	44.8	31.5	1.99	25.8	0.01	0.00	0.03	170
2	199		8.38	8.36	33.998	26.433	162.3	0.505	2.55	38.7	36.2	2.11	27.8	0.00	0.00	0.03	200
	200	ISL	8.37	8.35	34.001	26.437	162.0	0.507	2.54	38.5	36.4	2.11	27.9	0.00			201
2	229		7.99	7.97	34.058	26.539	152.7	0.552	2.27	34.1	41.4	2.25	29.8	0.00			230
	250	ISL	7.70	7.68	34.069	26.590	148.0	0.584	2.17	32.4	44.6	2.32	30.8	0.00			251
2	268		7.47	7.44	34.072	26.626	144.8	0.610	2.09	31.0	47.3	2.37	31.5	0.00			270
	300	ISL	7.17	7.14	34.096	26.687	139.4	0.656	1.77	26.1	52.3	2.51	33.1	0.00			302
2	319		7.00	6.97	34.112	26.724	136.2	0.682	1.55	22.8	55.5	2.60	34.2	0.00			321
2	378		6.28	6.25	34.146	26.847	124.9	0.759	0.98	14.2	67.6	2.86	37.8	0.00			380
	400	ISL	6.19	6.15	34.160	26.869	122.9	0.786	0.87	12.5	69.6	2.91	38.3	0.00			403
2	438		6.10	6.06	34.186	26.902	120.3	0.832	0.74	10.6	72.1	2.96	38.8	0.00			441
	500	ISL	5.77	5.73	34.236	26.983	113.2	0.905	0.49	7.0	79.6	3.07	40.2	0.00			503
2	520		5.66	5.62	34.253	27.010	110.7	0.927	0.41	5.8	82.0	3.10	40.6	0.00			524

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 30.8 N	120 14.8 W	02/10/94	0736 UTC	3932 *m*	320 07 kn			1011 .4 mb	18.1 C	16.8 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ I	OXY PCT	SI03 uM/ L	P04 uM/l	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ L	PRESS db
	0	ISL	18.02	18.02	33.254	23.931	396.6	0.000	5.66	104.5	3.4	0.34	0.4	0.00	0.19	0.05	0
2	1		18.02	18.02	33.254	23.932	396.6	0.004	5.66	104.5	3.4	0.34	0.4	0.00	0.19	0.05	1
	10	ISL	17.97	17.97	33.280	23.964	393.8	0.040	5.65	104.2	3.2	0.34	0.3	0.00	0.23	0.06	10
2	15		17.94	17.94	33.311	23.995	391 .0	0.059	5 .64	104.0	3.0	0.34	0.3	0.00	0.26	0.07	15
	20	ISL	17.80	17.80	33.292	24.015	389.3	0.079	5.66	104.0	3.0	0.33	0.3	0.00	0.28	0.08	20
2	29		17.54	17.54	33.310	24.092	382.3	0.113	5.69	104.1	3.1	0.32	0.3	0.00	0.31	0.11	29
	30	ISL	17.41	17.41	33.298	24.113	380.3	0.117	5.72	104.4	3.2	0.32	0.3	0.00	0.31	0.12	30
2	45		15.34	15.33	33.147	24.472	346.4	0.172	6.06	106.0	4.0	0.34	0.3	0.00	0.36	0.28	45
	50	ISL	14.93	14.92	33.156	24.568	337.4	0.189	6.02	104.5	4.0	0.37	0.3	0.01	0.37	0.31	50
2	55		14 .60	14.59	33.177	24.655	329.2	0.205	5.96	102.8	3.9	0.39	0.4	0.03	0.37	0.32	55
2	65		14.00	13.99	33.205	24.803	315.4	0.238	5.89	100.3	4.2	0.40	0.5	0.08	0.24	0.26	65
2	75		13.64	13.63	33.235	24.900	306.4	0.269	5.84	98.8	4.7	0.42	0.8	0.19	0.17	0.22	75
2	85		12.99	12.98	33.289	25.073	290.1	0.299	5 .60	93.5	5 .7	0.53	2.9	0.23	0.13	0.16	85
2	95		11.53	11.52	33.331	25.383	260.6	0.326	5.01	81 .1	9.8	0.92	9.3	0.01	0.06	0.10	95
	100	ISL	11.16	11.15	33.343	25.459	253.4	0.339	4 .84	77.7	11.2	1 .04	11.2	0.01	0.05	0.09	100
2	110		10.71	10.70	33.361	25.553	244.6	0.364	4.60	73.2	13.6	1 .22	13.9	0.01	0.04	0.08	110
2	125		9.91	9.90	33.428	25.742	226.8	0.399	4.16	65.0	18.3	1 .51	18.4	0.00	0.02	0.05	126
2	144		9.22	9.20	33.628	26.012	201 .5	0.440	3.54	54.6	24.7	1 .79	22.8	0.00	0.01	0.03	145
	150	ISL	9.06	9.04	33.681	26.079	195.2	0.452	3.41	52 .4	26.2	1 .84	23.7	0.00	0.01	0.03	151
2	169		8.64	8.62	33.812	26.247	179.5	0.487	3.13	47.7	29.9	1 .95	25.5	0.00	0.00	0.03	170
2	199		8.19	8.17	33.908	26.391	166.2	0.539	3.06	46.2	33.6	2.05	26.7	0.00	0.00	0.03	200
	200	ISL	8.18	8.16	33.913	26.397	165 .7	0.541	3.04	45.9	33.8	2 .06	26.8	0.00			201
2	229		8.07	8.05	34.037	26.511	155.4	0.588	2 .47	37.2	39.9	2.23	29.2	0.00			230
	250	ISL	7.85	7.83	34.076	26.574	149.6	0.62 0	2.22	33.3	43.3	2 .33	30.5	0.00			251
2	269		7.61	7.58	34.091	26.621	145.4	0.648	2.06	30.7	46.1	2 .41	31 .4	0.00			270
	300	ISL	7.26	7.23	34.100	26.678	140.3	0.692	1 .83	27.1	51 .0	2.52	32.9	0.00			302
2	318		7.10	7.07	34.106	26.705	138.0	0.717	1 .70	25.0	53.8	2.59	33.7	0.00			320
2	378		6.95	6.91	34.201	26.801	129.7	0.797	0.99	14.5	62 .0	2.87	36.0	0.00			380
	400	ISL	6.81	6.77	34.226	26.840	126.3	0.825	0.82	12.0	65.1	2 .94	36.8	0.00			402
2	437		6.52	6.48	34.255	26.902	120.7	0.871	0.61	8.9	70.4	3.04	38.1	0.00			440
	500	ISL	5.91	5.87	34.260	26.985	113.2	0.945	0.46	6.6	79.5	3.17	40 .1	0.00			503
2	524		5.68	5.64	34.263	27.016	110.3	0.972	0.40	5.7	83.0	3.22	40.8	0.00			527

RV NEW HORIZON CALCOFI CRUISE 9410 STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
31 11.0 N	120 55.2 W	02/10/94	1302 UTC	3824 m	330 10 kn			1011 .3 mb	19.0 C	16.0 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/ L	OXY PCT	SI03 uM/ L	P04 uM/ L	N03 uM/l	N02 uM/ I	CHL-A ug/ I	PHAEO ug/L	PRESS db
	0	ISL	19.34	19.34	33.180	23.546	433.4	0.000	5.44	102 .9	2.9	0.35	0.2	0.00	0.14	0.04	0
2	1		19.34	19.34	33.180	23.546	433.4	0.004	5.44	102 .9	2.9	0.35	0.2	0.00	0.14	0.04	1
	10	ISL	19.20	19.20	33.187	23.587	429.8	0.043	5.52	104.2	2.8	0.36	0.3	0.00	0.15	0.05	10
2	15		19.12	19.12	33.191	23.611	427.7	0.065	5.59	105.3	2.8	0.36	0.3	0.00	0.17	0.05	15
	20	ISL	18.59	18.59	33.214	23.761	413.5	0.086	5.65	105.4	2 .6	0.36	0.3	0.00	0.19	0.06	20
2	29		17.54	17.54	33.260	24.053	386.0	0.122	5.76	105.3	2 .4	0.36	0.3	0.00	0.24	0.10	29
	30	ISL	17.47	17.46	33.261	24.071	384.3	0.125	5.77	105.4	2 .4	0.36	0.3	0.00	0.24	0.11	30
2	45		16.58	16.57	33.250	24.272	365.6	0.182	5.91	106.1	2 .6	0.36	0.3	0.00	0.32	0.22	45
	50	ISL	16.19	16.18	33.244	24.357	357.6	0.200	5.90	105.1	2 .7	0.37	0.3	0.00	0.37	0.28	50
2	55		15.77	15.76	33.231	24.442	349 .7	0.217	5.90	104 .2	2 .7	0.38	0.3	0.00	0.41	0.32	55
2	64		14.91	14.90	33.175	24.588	336.0	0.248	6.01	104.3	3.4	0.34	0.3	0.00	0.33	0.32	64
2	74		14.66	14.65	33.329	24.760	319.8	0.281	5.92	102 .3	3.7	0.32	0.3	0.02	0.25	0.24	74
	75	ISL	14.60	14.59	33.336	24.778	318.1	0.284	5.90	101.8	3.8	0.33	0. 4	0.03	0.25	0.24	75
2	84		14.06	14.05	33.375	24.922	304.6	0.312	5 .70	97.3	4.4	0.40	1 .5	0.12	0.21	0.24	84
2	95		13.75	13.74	33.428	25.027	294.8	0.345	5 .67	96.2	4.6	0.40	1 .5	0.19	0.17	0.22	95
	100	ISL	13.16	13.15	33.385	25.114	286.7	0.360	5.58	93.5	5.2	0.48	2.6	0.15	0.14	0.20	100
2	110		11.85	11 .84	33.306	25.305	268.5	0.388	5.31	86. 5	7.2	0.71	6 .0	0.03	0.09	0.15	110
2	124		10.98	10.96	33.376	25.518	248.4	0.424	4.78	76.5	11.5	1 .05	11.8	0.01	0.05	0.11	125
	125	ISL	10.92	10.90	33.383	25 .534	246.9	0.426	4.75	75 .9	11.8	1 .07	12.1	0.01	0.05	0.11	126
2	144		9.99	9.97	33.516	25.798	222 .0	0.471	4.30	67.4	16.5	1 .37	16.9	0.01	0.02	0.05	145
	150	ISL	9.74	9.72	33.552	25 .868	215.4	0.484	4.24	66. 1	17.8	1 .43	17.9	0.01	0.02	0.04	151
2	169		9.08	9.06	33.662	26.061	197.3	0.523	4.01	61 .6	22.2	1 .61	20.8	0.01	0.01	0.03	170
2	198		8.31	8.29	33.856	26.333	171.8	0.577	3.07	46.4	31 .9	1 .98	26.7	0.00	0.00	0.03	199
	200	ISL	8.27	8.25	33.866	26.346	170.5	0.580	3.03	45.8	32.4	1 .99	26.9	0.00			201
2	229		7.83	7.81	33.970	26.494	156.9	0.628	2 .72	40.7	37.5	2.13	28.9	0.00			230
	250	ISL	7.61	7.59	33.998	26.547	152.0	0.660	2.67	39.8	40.4	2 .20	29.7	0.00			251
2	268		7.44	7.41	34.009	26.581	149.1	0.687	2 .62	38.9	43.0	2.26	30.3	0.00			269
	300	ISL	7.10	7.07	34.045	26.657	142.2	0.734	2 .20	32 .4	49.5	2 .42	32.5	0.00			302
2	317		6.92	6.89	34.065	26.697	138.5	0.758	1 .94	28.4	53.1	2.51	33.7	0.00			319
2	377		6.43	6.40	34.128	26.813	128.1	0.838	1 .25	18.1	63. 1	2 .80	37.0	0.00			379
	400	ISL	6.21	6.17	34.138	26.849	124.8	0.867	1 .08	15.6	67. 1	2 .87	38.0	0.00			402
2	437		5.86	5.82	34.151	26.904	119.8	0.912	0.86	12.3	73.2	2 .97	39.4	0.00			440
	500	ISL	5 .49	5 .45	34.206	26.993	111.9	0.985	0.55	7.8	81 .8	3.11	41.1	0.00			503
2	523		5 .36	5.32	34.226	27.025	109.0	1.010	0.44	6.2	85 .0	3.16	41 .7	0.00			526

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 93 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
30 10.8 N	122 55.4 W	03/10/94	0639 UTC	4386 m	290 09 kn			1011 .4 mb	19.5 C	17.4 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 uM/l	P04 uM/ I	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	20.12	20.12	33.212	23.368	450.3	0.000	5.36	102.9	2 .7	0.32	0.0	0.00	0.09	0.02	0
2	1		20.12	20.12	33.212	23.368	450.3	0.005	5.36	102.9	2 .7	0.32	0.0	0.00	0.09	0.02	1
	10	ISL	20.13	20.13	33.211	23.365	451 .0	0.045	5.35	102.7	2 .8	0.33	0.0	0.00	0.10	0.02	10
2	15		20.13	20.13	33.211	23.366	451 .2	0.068	5.34	102.5	2 .9	0.33	0.0	0.00	0.10	0.02	15
	20	ISL	19.86	19.86	33.198	23.426	445 .5	0.090	5 .39	103.0	2 .9	0.33	0.0	0.00	0.10	0.02	20
	30	ISL	19.22	19.21	33.189	23.584	430.8	0.134	5 . 50	103.8	3.0	0.31	0.0	0.00	0.10	0.03	30
2	31		19.15	19.14	33.190	23.603	429.0	0.138	5.51	103.9	3.0	0.31	0.0	0.00	0.10	0.03	31
2	45		18.58	18.57	33.279	23.815	409.3	0.197	5.59	104.3	2 .7	0.30	0.0	0.00	0.12	0.04	45
	50	ISL	18.07	18.06	33.272	23.935	398.0	0.217	5.69	105.1	2 .6	0.31	0.0	0.00	0.14	0.05	50
2	60		16.91	16.90	33.232	24.182	374.7	0.256	5.88	106.2	2 .5	0.33	0.0	0.00	0.17	0.09	60
2	75		15.53	15.52	33.152	24.435	350.9	0.310	5.96	104.7	2.4	0.34	0.1	0.00	0.21	0.15	75
2	85		15.66	15.65	33.398	24.596	335.9	0.344	5.86	103.3	2.8	0.29	0. 1	0.00	0.28	0.23	85
2	95		15.45	15.44	33.459	24.689	327.3	0.378	5.79	101 .7	3 .1	0.30	0.2	0.05	0.31	0.26	95
	100	ISL	15.41	15.39	33.528	24.752	321 .5	0.394	5.73	100.6	3.1	0.30	0.3	0.06	0.29	0.26	100
2	104		15.35	15.33	33.584	24.808	316.3	0.407	5.67	99.5	3 .1	0.30	0.4	0.07	0.27	0.26	104
2	115		14.82	14.80	33.659	24.982	300.0	0.440	5.46	94.8	3.7	0.38	1 . 1	0.18	0.22	0.27	115
2	125		13.73	13.71	33.610	25.173	281 .9	0.470	5 .25	89.1	4.9	0.52	3.4	0.08	0.16	0.19	125
2	140		12.46	12 .44	33.501	25.341	265.9	0.511	4.95	81 .8	7.8	0.80	7.9	0.01	0.11	0.16	141
	150	ISL	11 .86	11 .84	33.530	25.478	253.1	0.537	4.87	79.5	8.9	0.88	9.3	0.01	0.09	0.13	151
2	164		11.12	11.10	33.609	25.675	234.5	0.571	4.77	76.6	10.6	0.96	10.9	0.01	0.06	0.09	165
2	194		9.23	9.21	33.656	26.033	200.5	0.636	4.25	65.5	19.3	1 .46	18.6	0.00	0.02	0.03	195
	200	ISL	9.02	9.00	33.688	26.091	195.0	0.648	4.14	63.5	20.9	1 .53	19.8	0.00			201
2	229		8.42	8.40	33.849	26.311	174.5	0.701	3.63	55.0	28.0	1 .80	24.2	0.00			230
	250	ISL	8.16	8.13	33.922	26.407	165.6	0.737	3.27	49.3	32.1	1 .95	26.2	0.00			251
2	269		7.97	7.94	33.967	26.471	159.8	0.768	2.96	44.4	35.8	2 .06	27.7	0.00			270
	300	ISL	7.46	7.43	34.015	26.583	149.4	0.816	2.52	37.4	43.2	2.25	30.6	0.00			302
2	318		7.17	7.14	34.033	26.638	144.3	0.842	2 .28	33.6	47.4	2 .36	32 .1	0.00			320
2	380		6.61	6.58	34.084	26.755	133.8	0.929	1 .52	22.1	58.5	2 .68	35.8	0.00			382
	400	ISL	6.42	6.38	34.107	26.798	129.9	0.955	1 .27	18.4	62.7	2 .78	37.1	0.00			402
2	438		6.08	6.04	34.150	26.876	122.7	1 .003	0.87	12.5	70.4	2 .94	39.2	0.00			441
	500	ISL	5.68	5.64	34.194	26.961	115.1	1 .077	0.58	8.3	78.8	3.08	41 .0	0.00			503
2	515		5.58	5.54	34.205	26.982	113.2	1 .094	0.51	7.2	80.8	3.12	41 .4	0.00			518

RV NEW HORIZON | CALCOFI CRUISE 9410 | STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI/FOREL	CLD AMT	TYPE
29 50.7 N	123 35.1 W	03/10/94	1209 UTC	4072 m	290 08 kn			1010 .7 mb	20.4 C	17.1 C			

CAST	DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SI03 UN/ I	P04 uM/l	N03 uM/ I	N02 uM/ I	CHL-A ug/ I	PHAEO ug/ I	PRESS db
	0	ISL	20.59	20.59	33.437	23.416	445.8	0.000	5.27	102.2	2 .9	0.29	0.0	0.00	0.09	0.02	0
2	1		20.59	20.59	33.437	23.416	445 .8	0.004	5.27	102.2	2 .9	0.29	0.0	0.00	0.09	0.02	1
	10	ISL	20.60	20.60	33.445	23.420	445.8	0.045	5.27	102.2	2.9	0.29	0.1	0.00	0.09	0.02	10
2	14		20.60	20.60	33.448	23.422	445.7	0.062	5.27	102.2	2 .9	0.29	0. 1	0.00	0.09	0.02	14
	20	ISL	20.56	20.56	33.466	23.447	443.6	0.089	5.30	102.7	2 .9	0.28	0. 1	0.00	0.09	0.02	20
2	29		20.50	20.49	33.556	23.532	435 .9	0.129	5.37	104.0	2.8	0.27	0. 1	0.00	0.09	0.03	29
	30	ISL	20.48	20.47	33.569	23.547	434.4	0. 133	5 .38	104.2	2 .8	0.27	0. 1	0.00	0.09	0.03	30
2	45		19.69	19.68	33.724	23.873	403.9	0.196	5.59	106.8	2 .4	0.23	0. 1	0.00	0.10	0.03	45
	50	ISL	19.14	19.13	33.708	24.002	391 .7	0.216	5.71	107.9	2.4	0.23	0. 1	0.00	0.11	0.03	50
2	60		17.95	17.94	33.671	24.270	366.4	0.254	5.90	109.0	2.5	0.23	0.1	0.00	0.13	0.04	60
2	74		16.72	16.71	33.739	24.616	333.8	0.303	5.90	106.5	2.6	0.21	0.0	0.00	0.17	0.07	74
	75	ISL	16.69	16.68	33.753	24.634	332.2	0.306	5.89	106.2	2 .6	0.21	0.0	0.00	0.17	0.07	75
2	84		16.54	16.53	33.876	24.763	320.1	0.335	5.81	104.6	2.5	0.19	0. 1	0.00	0.19	0.10	84
2	94		16.22	16.21	33.938	24.885	308.8	0.367	5.76	103.1	2.6	0.19	0. 1	0.00	0.21	0.17	94
	100	ISL	16.18	16.16	33.964	24.914	306.2	0.385	5.74	102.6	2.6	0.19	0. 1	0.00	0.21	0.20	100
2	105		16.11	16.09	33.966	24.932	304.7	0.401	5 .71	102 .0	2 .6	0.19	0.1	0.00	0.21	0.23	105
2	114		15.61	15.59	33.899	24.993	299.0	0.428	5.56	98.2	2 .8	0.24	0.2	0.04	0.19	0.30	114
2	124		15.41	15.39	34.045	25.151	284.4	0.457	5 .39	94 .9	2 .9	0.27	0.7	0.15	0.16	0.28	124
	125	ISL	15.36	15 .34	34.043	25. 160	283.5	0.460	5.37	94.5	3.0	0.28	0.8	0.15	0.16	0.28	125
2	139		14.44	14.42	33.920	25.265	273.7	0.499	5.18	89.4	4 .1	0.43	3 . 1	0.03	0.10	0.24	140
	150	ISL	13.51	13.49	33.831	25.390	262.0	0.528	5 .08	86.0	5 .4	0.57	5 . 1	0.02	0.08	0.19	151
2	163		12 .38	12.36	33.746	25.547	247.0	0.561	4.97	82 .1	7.4	0.75	7.7	0.01	0.06	0.12	164
2	194		10.19	10.17	33.652	25.871	216.2	0.633	4.65	73.2	14.1	1.18	14.5	0.00	0.02	0.03	195
	200	ISL	9.89	9.87	33.662	25.930	210.6	0.646	4.55	71 .2	15.6	1 .26	15.7	0.00			201
2	228		8.82	8.80	33.753	26.174	187.6	0.702	4.10	62.7	22.5	1 .59	20.6	0.00			229
	250	ISL	8.29	8.26	33.834	26.319	174.0	0.741	3.86	58.3	27.1	1 .74	23.0	0.00			251
2	267		8.00	7.97	33.892	26.408	165.8	0.770	3.69	55.4	30.5	1 .83	24 .4	0.00			268
	300	ISL	7.62	7.59	33.965	26.521	155.4	0.823	3.19	47.5	37.0	2.04	27.5	0.00			302
2	318		7.47	7.44	33.991	26.563	151.6	0.851	2.91	43.2	40.5	2.15	29.0	0.00			320
2	379		6.82	6.78	34.029	26.683	140.7	0.940	2.19	32.0	52 .5	2 .45	33.2	0.00			381
	400	ISL	6.69	6.65	34.068	26.732	136.4	0.969	1 .82	26.5	56.6	2 .58	34.6	0.00			402
2	436		6.49	6.45	34.135	26.811	129.2	1.017	1 .22	17.7	63.5	2 .80	36.8	0.00			439
	500	ISL	5 .89	5.85	34.174	26.919	119.3	1 .097	0.78	11.2	74.7	2 .99	39.7	0.00			503
2	522		5 .68	5.64	34. 188	26.956	115.9	1 .122	0.63	9.0	78.5	3.05	40.7	0.00			525

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 77 49

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
35 5.6 N	120 46.7 W	14/10/94	1823 UTC	11 m	05	1151 - 1754 PST	1149 PST	1753 PST	588.8 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/l	N03 uM/l	N02 uM/l	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
0	13.63	33.441	25.059	5.69	96.3	7.2	0.70	5.3	0.19	5.36	1.04	100. A	63.9	75.5	69.7	0.32
7	13.01	33.452	25.193	5.18	86.6	10.8	0.91	8.6	0.23	2.85	0.52	38.	42.5	36.8	39.6	0.21
14	11.99	33.471	25.404	4.59	75.1	13.8	1.13	12.2	0.20	0.62	0.21	14.	6.6	6.1	6.4	0.10
22	11.81	33.479	25.445	4.45	72.5	14.2	1.19	13.0	0.16	0.70	0.30	4.6	1.8	1.9	1.8	0.07
30	11.63	33.494	25.490	4.32	70.2	14.5	1.23	13.7	0.14	0.72	0.38	1.5	0.50	0.48	0.49	0.07
43	10.97	33.541	25.646	3.90	62.5	17.6	1.41	16.4	0.12	0.17	0.29	0.25	0.01	0.01	0.01	0.06

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 9.4 N	121 9.6 W	11/10/94	1855 UTC	15 m	03	1153 - 1758 PST	1152 PST	1804 PST	258.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/l	N03 uM/l	N02 uM/I	CHL <ug/l	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.42	33.397	24.186	5.71	104.3	3.0	0.30	0.2	0.00	0.34	0.12	81. A	3.6		3.6	0.19
9	17.42	33.397	24.186	5.71	104.3	2.8	0.30	0.1	0.00	0.33	0.12	40.	8.1	8.1	8.1	0.21
19	17.39	33.395	24.192	5.71	104.2	2.8	0.30	0.1	0.00	0.34	0.11	14.	6.1	6.3	6.2	0.19
29	16.49	33.296	24.327	5.89	105.6	2.9	0.33	0.1	0.00	0.50	0.22	5.1	5.4	5.7	5.6	0.15
40	14.10	33.066	24.674	6.13	104.6	4.1	0.43	0.8	0.10	0.85	0.46	1.7	3.5	3.7	3.6	0.09
49	13.39	33.125	24.865	5.86	98.5	5.1	0.53	2.2	0.34	0.70	0.49					
55	12.64	33.100	24.994	5.67	93.8	6.2	0.63	3.8	0.40	0.44	0.38	0.36	0.32	0.29	0.30	0.07

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 49.2 N	123 54.5 W	12/10/94	1852 UTC	28 m	01	1202 - 1814 PST	1203 PST	1814 PST	64.2 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/l	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	19.52	33.502	23.745	5.37	102.1	4.0	0.28	0.2	0.00	0.08	0.02	90. A	0.73	0.60	0.67	0.09
17	19.52	33.507	23.750	5.36	101.9	3.9	0.28	0.2	0.00	0.09	0.02	39.	1.6	1.9	1.7	0.10
36	19.52	33.506	23.750	5.36	101.9	3.9	0.28	0.2	0.00	0.09	0.03	14.	0.86	0.82	0.84	0.09
46	19.52	33.512	23.755	5.37	102.1	3.7	0.29	0.2	0.00	0.09	0.02					
55	19.23	33.513	23.830	5.37	101.6	3.6	0.28	0.3	0.00	0.09	0.02	4.9	0.45	0.40	0.42	0.08
64	18.76	33.579	24.000	5.56	104.3	3.4	0.26	0.2	0.00	0.15	0.06					
74	17.84	33.581	24.229	5.69	104.8	3.3	0.25	0.1	0.00	0.17	0.06	1.7	0.15	0.20	0.17	0.08
85	16.86	33.586	24.466	5.78	104.5	3.3	0.25	0.1	0.00	0.23	0.10					
96	16.38	33.649	24.626	5.78	103.6	3.3	0.24	0.1	0.00	0.25	0.13					
106	16.20	33.729	24.729	5.74	102.5	3.2	0.23	0.1	0.00	0.23	0.20	0.30	0.04	0.04	0.04	0.04

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 52.8 N	120 8.4 W	10/10/94	1822 UTC	14 m	04	1150 - 1758 PST	1148 PST	1754 PST	622.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL ug/l	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.67	33.442	24.160	5.85	107.4	3.3	0.28	0.0	0.00	0.61	0.29	90. A	13.4	21.6	17.5	0.27
8	17.65	33.442	24.165	5.84	107.1	3.1	0.28	0.0	0.00	0.63	0.29	42.	23.4	25.5	24.4	0.31
17	17.25	33.437	24.257	5.90	107.4	3.2	0.30	0.1	0.01	1.25	0.41	16.	24.9	24.7	24.8	0.33
27	13.79	33.432	25.020	5.27	89.5	8.1	0.72	5.6	0.16	1.22	0.54	5.2	9.9	9.5	9.7	0.10
37	12.06	33.426	25.357	4.68	76.7	11.6	1.03	10.6	0.15	0.45	0.46	1.7	1.1	1.1	1.1	0.05
45	11.42	33.493	25.528	4.27	69.0	14.9	1.25	13.8	0.11	0.27	0.32					
54	11.37	33.507	25.548	4.20	67.8	15.4	1.28	14.2	0.11	0.25	0.27	0.27	0.11	0.10	0.10	0.04

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 83 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 54.7 N	122 7.9 W	9/10/94	1830 UTC	29 m	01	1 1 58 - 1805 PST	1156 PST	1806 PST	171.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL ug/l	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	19.00	32.926	23.438	5.46	102.5	5.0	0.30	0.0	0.00	0.10	0.03	95. A	1.4	1.4	1.4	0.09
17	18.88	32.943	23.482	5.48	102.6	4.9	0.30	0.0	0.00	0.11	0.03	41.	2.6	2.7	2.7	0.06
27	18.70	33.006	23.575	5.54	103.4	4.7	0.30	0.0	0.00	0.13	0.04					
38	18.28	33.171	23.806	5.71	105.9	4.6	0.29	0.0	0.00	0.14	0.05	13.	2.3	2.2	2.3	0.08
48	17.81	33.166	23.917	5.80	106.6	4.6	0.29	0.0	0.00	0.14	0.05					
57	15.78	32.943	24.218	6.04	106.5	4.7	0.31	0.0	0.00	0.18	0.10	4.9	1.6	1.6	1.6	0.10
68	14.68	32.979	24.486	6.12	105.6	4.6	0.32	0.0	0.00	0.22	0.17					
77	14.08	32.981	24.614	6.10	103.9	4.7	0.34	0.0	0.00	0.26	0.20	1.7	1.1	1.1	1.1	0.04
88	13.62	33.106	24.805	6.00	101.3	4.8	0.35	0.2	0.05	0.24	0.23					
98	13.55	33.223	24.910	5.96	100.6	4.8	0.33	0.2	0.05	0.23	0.21					
110	12.73	33.184	25.043	5.73	95.0	6.0	0.49	2.0	0.17	0.18	0.20	0.30	0.17	0.18	0.17	0.03

A) INCUBATION LIGHT INTENSITIES WERE 99, 40, 13, 4.8, 1.6, 0.28 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 87 40

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 39.2 N	118 58.9 W	6/10/94	1859 UTC	25 m	03	1153 - 1803 PST	1143 PST	1801 PST	406.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uH/l	P04 uM/l	N03 uM/I	N02 uM/l	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	19.05	33.456	23.830	5.68	107.0	2.9	0.22	0.0	0.00	0.31	0.09	94. A	5.6	6.7	6.1	0.20
8	18.78	33.454	23.897	5.68	106.5	2.9	0.22	0.0	0.00	0.38	0.11					
15	18.73	33.449	23.906	5.71	106.9	2.8	0.22	0.0	0.00	0.45	0.14	40.	9.8	9.9	9.8	0.20
24	15.11	33.319	24.654	6.19	107.9	3.1	0.35	0.0	0.00	0.42	0.22					
32	13.51	33.339	25.006	5.53	93.3	5.7	0.63	3.9	0.23	0.63	0.41	14.	8.3	8.0	8.1	0.09
42	13.00	33.370	25.132	5.23	87.4	7.3	0.77	6.2	0.29	0.56	0.43					
49	12.50	33.413	25.263	4.88	80.7	9.1	0.90	8.6	0.08	0.32	0.33	4.9	2.7	2.5	2.6	0.08
59	12.22	33.422	25.324	4.75	78.1	9.8	0.97	9.6	0.06	0.28	0.28					
67	11.79	33.440	25.419	4.54	73.9	11.7	1.09	11.7	0.04	0.21	0.25	1.6	0.97	0.92	0.95	0.04
81	10.98	33.496	25.610	4.14	66.3	15.0	1.31	15.2	0.02	0.11	0.18					
95	10.35	33.562	25.772	3.82	60.4	18.2	1.49	17.8	0.01	0.05	0.11	0.29	0.05	0.06	0.05	0.02

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 87 70

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 40.0 N	121 2.2 W	7/10/94	1851 UTC	31 m	01	1152 - 1812 PST	1152 PST	1808 PST	275.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/I	N03 uH/I	N02 uM/I	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.81	33.196	23.692	5.47	102.5	3.8	0.33	0.0	0.00	0.12	0.03	95 . A	0.54	0.72	0.63	0.07
17	18.74	33.196	23.710	5.47	102.3	3.6	0.32	0.0	0.00	0.13	0.04	43.	2.5	2.5	2.5	0.08
29	17.88	33.218	23.939	5.72	105.3	3.1	0.33	0.0	0.00	0.19	0.07					
40	16.66	33.282	24.278	5.92	106.4	3.0	0.34	0.0	0.00	0.30	0.19	14.	3.7	3.8	3.7	0.12
51	15.62	33.213	24.461	5.96	104.9	3.3	0.36	0.0	0.01	0.56	0.44					
60	14.65	33.171	24.640	5.90	101.8	4.2	0.42	0.3	0.05	0.54	0.43	5.1	4.7	4.8	4.8	0.07
71	14.64	33.256	24.708	5.86	101.2	4.2	0.39	0.3	0.04	0.43	0.37					
82	14.30	33.355	24.857	5.79	99.3	4.5	0.34	0.2	0.08	0.28	0.34	1.7	1.3	1.3	1.3	0.03
95	13.14	33.340	25.083	5.46	91.4	6.3	0.53	2.9	0.07	0.16	0.18					
107	12.05	33.371	25.318	5.14	84.1	8.6	0.75	6.7	0.02	0.09	0.12					
119	11.72	33.446	25.438	4.99	81.1	9.5	0.83	8.2	0.02	0.09	0.11	0.28	0.10	0.11	0.10	0.01

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 87 110

LATITUDE	LONGITUDE	DAY/HO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 19.9 N	123 44.9 W	8/10/94	1839 UTC	36 m	01	1210 - 1815 PST	1202 PST	1818 PST	196.8 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/L	OXY PCT	SI03 uH/l	P04 uM/I	N03 uM/I	N02 uM/l	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	19.64	33.209	23.491	5.40	102.7	3.5	0.33	0.1	0.00	0.13	0.03	96. A	2.2	2.1	2.1	0.07
10	19.52	33.206	23.520	5.41	102.7	3.5	0.32	0.1	0.00	0.13	0.03					
20	19.49	33.205	23.527	5.41	102.6	3.2	0.31	0.1	0.00	0.13	0.04	43.	3.0	2.9	2.9	0.07
34	17.97	33.191	23.897	5.75	106.0	2.9	0.32	0.1	0.00	0.17	0.06					
47	16.41	33.176	24.254	5.97	106.7	3.0	0.32	0.0	0.00	0.20	0.11	13.	2.1	2.0	2.0	0.06
55	15.55	33.181	24.452	6.02	105.8	3.3	0.32	0.0	0.00	0.20	0.12					
62	15.03	33.247	24.617	5.96	103.7	3.4	0.34	0.1	0.00	0.26	0.26					
70	14.74	33.266	24.694	5.88	101.7	3.3	0.38	0.4	0.08	0.27	0.23	5.1	1.9	1.9	1.9	0.03
83	13.89	33.278	24.882	5.56	94.5	4.2	0.57	2.9	0.62	0.21	0.24					
96	13.45	33.353	25.031	5.46	92.0	5.1	0.55	3.3	0.09	0.18	0.18	1.7	0.35	0.34	0.35	0.04
109	12.72	33.323	25.152	5.32	88.3	6.0	0.63	4.9	0.03	0.15	0.17					
123	11.39	33.336	25.413	4.79	77.3	10.6	1.01	11.0	0.00	0.07	0.14					
137	10.66	33.431	25.617	4.35	69.1	14.3	1.28	15.3	0.00	0.03	0.07	0.29	-0.01	-0.01	-0.01	0.04

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 90 37

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 10.2 N	118 25.3 W	5/10/94	1915 UTC	29 m	02	1200 - 1759 PST	1142 PST	1757 PST	453.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/L	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/l	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.88	33.483	23.893	5.52	103.7	3.2	0.24	0.1	0.00	0.28	0.08	95 . A	6.7	7.0	6.8	0.09
8	18.84	33.484	23.905	5.53	103.8	3.1	0.24	0.1	0.00	0.31	0.08					
16	18.71	33.485	23.938	5.54	103.7	2.9	0.26	0.1	0.00	0.32	0.09	43.	8.3	8.5	8.4	0.15
27	17.04	33.406	24.284	5.75	104.2	2.9	0.33	0.1	0.00	0.42	0.22					
37	16.12	33.329	24.438	5.82	103.6	3.4	0.37	0.2	0.03	0.55	0.32	14.	8.8	7.3	8.1	0.09
47	15.05	33.281	24.638	5.84	101.7	3.7	0.43	0.9	0.13	0.49	0.31					
57	14.05	33.340	24.896	5.59	95.4	4.9	0.54	2.6	0.40	0.43	0.40	4.9	3.3	3.3	3.3	0.05
67	12.70	33.374	25.195	5.09	84.5	7.9	0.81	7.5	0.06	0.24	0.30					
76	11.84	33.432	25.404	4.80	78.3	10.0	0.93	9.7	0.03	0.15	0.18	1.8	0.49	0.51	0.50	0.03
93	10.57	33.510	25.693	4.22	67.0	15.8	1.30	15.6	0.01	0.06	0.12					
IIO	10.01	33.608	25.866	3.78	59.3	19.9	1.52	18.9	0.01	0.04	0.09	0.30	0.02	0.02	0.02	0.02

RV NEW HORIZON1 — CALCOFI CRUISE 9410 — STATION 90 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 45.2 N	121 19.3 W	4/10/94	1817 UTC	21 m	03	1156 - 1809 PST	1154 PST	1807 PST	377.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	19.09	33.397	23.775	5.51	103.9	3.1	0.29	0.0	0.00	0.25	0.07	93. A	4.8	4.9	4.8	0.11
12	18.96	33.405	23.814	5.52	103.8	3.0	0.28	0.0	0.00	0.28	0.09	42.	6.9	6.7	6.8	0.15
20	18.71	33.463	23.922	5.63	105.4	2.8	0.27	0.1	0.00	0.36	0.13					
26	17.54	33.476	24.219	5.88	107.7	2.9	0.30	0.0	0.00	0.47	0.24	15.	7.4	7.1	7.3	0.16
35	16.96	33.500	24.375	5.66	102.5	3.3	0.36	0.1	0.01	0.77	0.64					
42	16.39	33.439	24.461	5.59	100.1	3.6	0.45	0.5	0.07	0.65	0.52	4.6	7.5	7.4	7.4	0.07
50	15.35	33.350	24.626	5.66	99.2	3.9	0.46	0.7	0.19	0.56	0.48					
58	14.60	33.320	24.766	5.50	94.9	5.0	0.57	2.1	0.81	0.45	0.36	1.4	1.8	1.9	1.8	0.05
68	13.35	33.353	25.050	5.04	84.8	8.1	0.78	6.8	0.02	0.21	0.20					
79	10.59	33.475	25.662	4.15	65.9	16.9	1.39	16.7	0.01	0.05	0.10	0.31	0.03	0.04	0.03	0.02

A) INCUBATION LIGHT INTENSITIES WERE 99, 40, 13, 4.8, 1.6, 0.28 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 90 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	[NCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 25.3 N	124 0.7 W	3/10/94	1831 UTC	32 m	01	I207 - 1820 PST	1205 PST	1822 PST	218.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/l	P04 uM/I	N03 uN/I	N02 uM/l	CHL ug/l	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	20.18	33.219	23.358	5.35	102.8	2.2	0.33	0.2	0.00	0.17	0.04	95. A	2.7	2.8	2.8	0.06
18	18.85	33.124	23.628	5.54	103.8	2.4	0.32	0.2	0.00	0.12	0.04	42.	2.3	2.5	2.4	0.09
30	18.57	33.127	23.700	5.58	104.0	2.3	0.32	0.2	0.00	0.14	0.05					
42	18.24	33. 155	23.804	5.65	104.7	2.0	0.32	0.2	0.00	0.19	0.07	13.	2.9	2.6	2.7	0.05
55	16.88	33.203	24.167	5.81	104.8	2.1	0.32	0.2	0.00	0.21	0.12					
63	16.67	33.332	24.315	5.84	105.0	2.5	0.29	0.2	0.00	0.20	0.12	4.9	2.1	2.1	2.1	0.03
75	15.20	33.218	24.558	5.89	102 .8	2.6	0.36	0.2	0.00	0.28	0.26					
85	14.58	33.187	24.668	5.88	101.3	3.0	0.38	0.4	0.03	0.24	0.23	1.7	1.2	1.2	1.2	0.03
93	14.25	33.247	24.784	5.76	98.6	3.1	0.46	1.0	0.30	0.21	0.24					
109	13.55	33.361	25.017	5.57	94.1	4.1	0.47	2.2	0.26	0.12	0.22					
121	12.51	33.357	25.220	5.20	85.9	6.6	0.71	6.2	0.01	0.08	0.16	0.30	0.11	0.12	0.12	0.01

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	[NCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 57.6 N	117 18.5 W	30/ 9/94	1805 UTC	18 m	03	1151 - 1818 PST	1139 PST	1803 PST	734.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/I	P04 uM/l	N03 UM/l	N02 uM/I	CHL ug/l	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	20.86	33.471	23.369	5.68	110.7	3.3	0.26	0.0	0.00	0.41	0.10	92 . A	12.1	13.7	12.9	0.13
10	18.49	33.409	23.935	6.10	113.7	3.5	0.29	0.1	0.00	0.48	0.14	43.	13.8	19.0	16.4	0.13
24	14.93	33.372	24.734	6.20	107.8	5.1	0.43	0.1	0.00	1.35	0.65	13.	30.8	30.8	30.8	0.13
30	13.98	33.377	24.939	5.92	100.9	5.5	0.48	0.7	0.09	1.07	0.57					
36	13.36	33.397	25.081	5.33	89.7	7.1	0.72	4.2	0.37	0.61	0.57	4.6	5.4	5.1	5.2	0.03
49	12.75	33.422	25.222	4.75	79.0	10.0	0.94	8.7	0.23	0.28	0.38	1.5	1.4	1.4	1.4	0.05

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	[NCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 11.3 N	118 54.2 W	1/10/94	1804 UTC	21 m	02	1149 - 1809 PST	1146 PST	1807 PST	316.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/l	OXY PCT	SI03 uM/l	P04 uM/l	N03 uM/I	N02 uM/l	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.75	33.533	23.964	5.47	102.5	4.5	0.32	0.8	0.00	0.30	0.10	93. A	6.4	6.6	6.5	0.09
12	18.70	33.531	23.976	5.48	102.6	4.3	0.32	0.8	0.00	0.31	0.10	42.	7.5	7.4	7.4	0.10
27	18.67	33.531	23.984	5.47	102.4	4.1	0.32	0.8	0.00	0.33	0.10	14.	4.7	4.8	4.8	0.08
42	16.66	33.454	24.410	5.66	101.9	4.5	0.38	1.0	0.07	0.79	0.50	4.6	6.5	6.5	6.5	0.08
55	13.48	33.350	25.021	5.35	90.2	8.0	0.76	5.7	0.69	0.34	0.33	1.8	0.83	0.83	0.83	0.02
65	12.14	33.375	25.303	4.74	77.8	12.2	1.08	11.8	0.08	0.18	0.23					
73	10.98	33.409	25.542	4.31	69.0	15.9	1.32	15.7	0.02	0.09	0.14					
78	10.30	33.490	25.724	4.01	63.3	18.3	1.46	18.1	0.01	0.07	0.12	0.33	0.03	0.03	0.03	0.01

RV NEW HORIZON — CALCOFI CRUISE 9410 — STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	FOREL	[NCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 50.9 N	121 35.4 W	2/10/94	1850 UTC	22 m	02	1154 - 1823 PST	1 1 52 PST	1818 PST	340.3 mg C/m2

DEPTH m	TEHP DEG C	SALINITY	SIGMA THETA	DISS 02 ml/I	OXY PCT	SI03 uN/I	P04 uM/I	N03 uM/I	N02 uM/I	CHL ug/I	PHAEO ug/I	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
0	18.95	33.283	23.723	5.52	103.7	2.6	0.32	0.1	0.00	0.26	0.07	100. A	5.9	5.9	5.9	0.13
12	18.87	33.284	23.745	5.51	103.4	2.4	0.31	0.1	0.00	0.25	0.07	43.	6.2	6.4	6.3	0.13
28	17.19	33.330	24.190	5.91	107.4	2.4	0.32	0.1	0.00	0.40	0.16	14.	5.3	5.6	5.5	0.14
43	15.72	33.291	24.499	5.96	105.2	2.9	0.37	0.2	0.01	0.66	0.53	5.0	6.9	6.8	6.9	0.08
58	13.92	33.236	24.843	5.68	96.6	4.6	0.54	1.8	0.48	0.44	0.41	1.7	1.4	1.4	1.4	0.03
66	13.18	33.301	25.044	5.36	89.8	6.8	0.76	5.2	0.46	0.17	0.25					
74	12.94	33.362	25.139	5.08	84.7	8.6	0.89	7.9	0.51	0.10	0.20					
82	11.56	33.313	25.363	4.92	79.7	10.4	1.00	10.4	0.10	0.09	0.18	0.33	0.05	0.06	0.05	0.02

A) INCUBATION LIGHT INTENSITIES WERE 99, 40, 13, 4.8, 1.6, 0.28 PERCENT RESPECTIVELY.

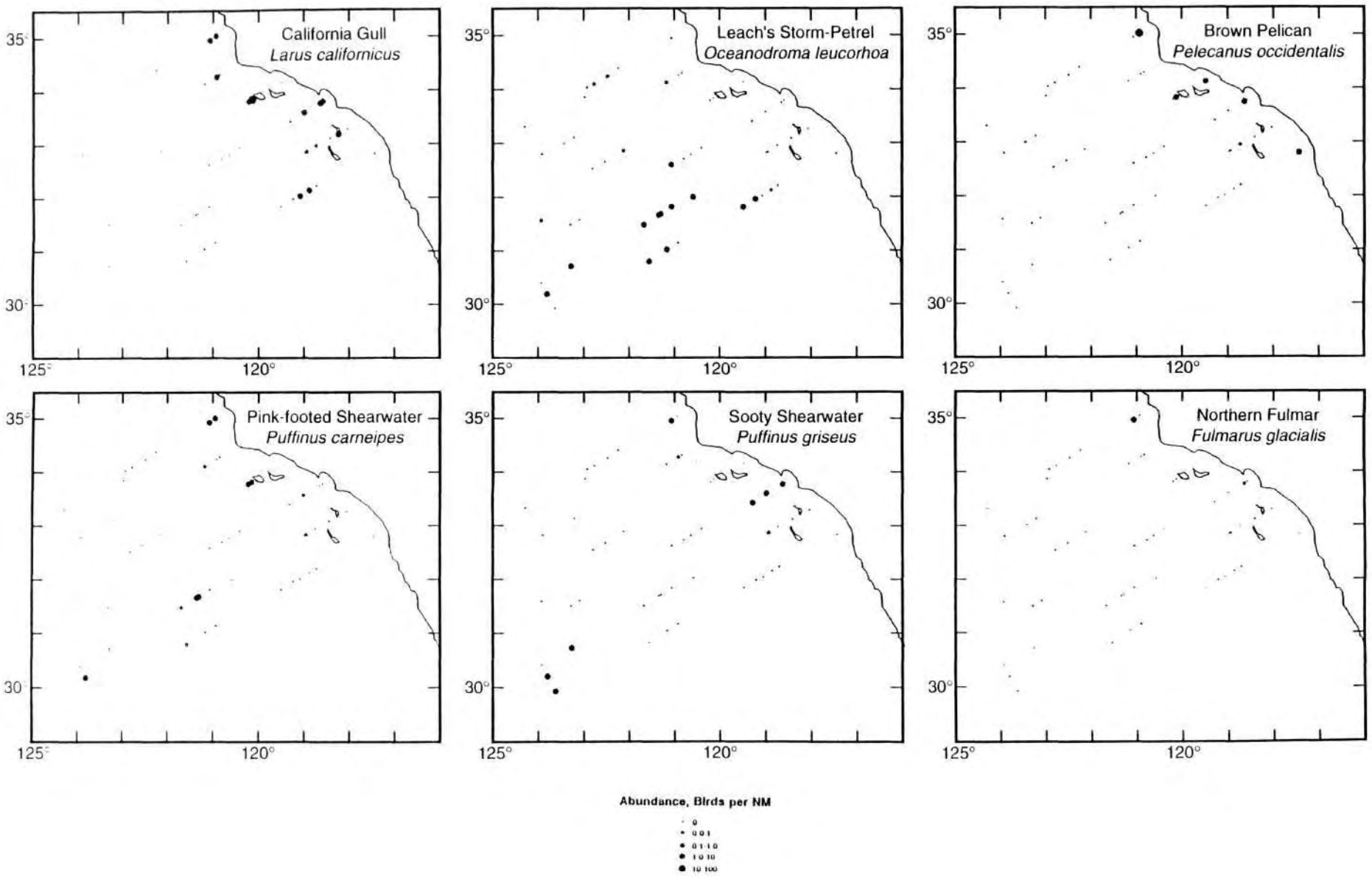
MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505mm

Line	Sta.	Latitude N	Longitude W	Date Mo/Day	Time (PST) Start	Time (PST) End	Water Volume Strained (m^3)	Max. Tow Depth (m)	Volume per 1000 m^3 Strained Total (cm^3)	Volume per 1000 m^3 Strained Small (cm^3)
77	49	35 05.8	120 47.4	10/14	1134	1143	164	63	73	73
77	51	35 02.5	120 55.8	10/14	0843	0905	420	211	1015	38
77	55	34 54.6	121 13.2	10/14	0440	0502	456	207	110	110
77	80	34 03.7	122 56.9	10/13	0823	0846	509	216	49	49
77	90	33 43.8	123 38.4	10/13	0110	0131	481	205	56	56
77	100	33 24.1	124 19.1	10/12	1918	1940	450	217	18	18
80	51	34 27.6	120 32.2	10/11	0311	0318	118	58	153	153
80	55	34 20.0	120 50.1	10/11	0635	0658	433	209	37	37
80	60	34 09.3	121 09.7	10/11	0949	1012	435	216	53	53
80	70	33 49.7	121 51.7	10/11	1827	1849	453	216	71	71
80	80	33 28.8	122 33.6	10/12	0030	0052	444	206	50	50
80	90	33 09.7	123 13.6	10/12	0600	0622	463	209	15	15
80	100	32 50.5	123 55.0	10/12	1258	1320	468	213	11	11
82	47	34 16.1	120 02.7	10/10	2337	2359	409	204	222	61
83	40.6	34 13.3	11925.1	10/10	1827	1831	62	30	113	113
83	42	34 10.4	11931.0	10/10	1637	1655	331	169	39	39
83	51	33 52.8	120 08.9	10/10	0900	0910	183	92	27	27
83	55	33 45.2	120 24.8	10/10	0413	0435	399	210	38	38
83	60	33 34.9	120 47.1	10/10	0009	0030	421	207	116	116
83	70	33 14.9	121 26.2	10/09	1830	1852	402	215	90	90
83	80	32 54.9	122 08.5	10/09	1225	1247	409	217	29	29
83	90	32 35.0	122 49.5	10/09	0547	0609	426	209	45	45
83	100	32 15.3	123 30.7	10/09	0031	0053	417	217	26	26
83	110	31 55.6	124 11.4	10/08	1826	1848	430	211	42	42
87	33	33 53.2	118 30.1	10/06	0615	0620	90	42	190	190
87	35	33 48.9	118 38.4	10/06	0827	0849	399	203	73	73
87	40	33 39.0	119 00.2	10/06	1233	1254	407	216	83	83
87	45	33 28.7	119 18.1	10/06	1716	1738	402	220	32	32
87	50	33 19.4	11941.0	10/06	2047	2055	141	71	14	14
87	55	33 10.9	120 02.8	10/07	0107	0129	410	214	54	54
87	60	33 00.1	120 20.9	10/07	0452	0514	399	215	68	68
87	70	32 40.2	121 02.4	10/07	0942	1004	423	214	21	21
87	80	32 20.0	121 43.6	10/07	1758	1820	430	213	49	49
87	90	31 59.0	122 24.8	10/07	2337	2359	413	217	44	44
87	100	3139.7	123 04.3	10/08	0608	0630	427	212	21	21
87	110	3121.9	123 46.4	10/08	1242	1303	402	220	47	47
90	28	33 27.8	117 46.5	10/05	2205	2227	411	206	129	129
90	30	33 24.8	117 54.5	10/05	1943	2005	401	212	60	60
90	35	33 14.6	118 14.8	10/05	1558	1620	406	211	52	52
90	37	33 10.0	118 25.7	10/05	1245	1307	425	209	63	63
90	45	32 54.8	118 56.8	10/05	0732	0754	416	216	19	19
90	53	32 38.9	119 28.7	10/05	0251	0313	426	218	26	26
90	60	32 23.7	119 58.8	10/04	2225	2247	420	208	43	43
90	70	32 03.8	120 37.6	10/04	1643	1704	441	213	82	82
90	80	3145.3	121 19.9	10/04	0850	0912	412	215	39	39
90	90	31 24.2	121 59.8	10/04	0355	0417	439	209	61	61
90	100	3104.4	122 41.2	10/03	2228	2250	404	215	50	50
90	110	30 45.2	123 20.7	10/03	1645	1708	445	211	38	38
90	120	30 25.2	124 00.2	10/03	0934	0956	410	210	37	37
93	26.7	32 57.4	117 18.3	09/30	1205	1211	113	44	97	97
93	28	32 54.2	117 24.3	09/30	1443	1504	379	211	42	42
93	30	32 49.8	11731.6	09/30	1810	1832	400	208	105	105
93	35	32 40.5	117 53.3	09/30	2159	2221	381	209	73	73
93	40	32 30.2	118 14.2	10/01	0127	0149	418	203	65	65
93	45	32 20.8	11833.8	10/01	0508	0531	412	214	102	102
93	50	32 11.1	118 54.1	10/01	0902	0924	383	213	39	39
93	55	32 01.5	119 14.1	10/01	1521	1543	393	215	79	79
93	60	31 50.8	119 34.8	10/01	1915	1937	401	212	82	82
93	70	31 31.0	120 15.0	10/02	0040	0102	400	210	100	100
93	80	31 12.3	120 55.5	10/02	0600	0621	400	210	60	60
93	90	30 51.0	121 35.7	10/02	1217	1239	389	208	54	54
93	100	30 30.7	122 16.2	10/02	1812	1834	398	213	80	80
93	110	30 10.7	122 56.1	10/02	2349	0011	400	218	37	37
93	120	29 50.6	123 35.6	10/03	0501	0522	399	212	20	20

FIGURES

Avifauna Observations

CalCOFI Cruise 9410


California Gull
Larus californicus
Leach's Storm-Petrel
Oceanodroma leucorhoa
Brown Pelican
Pelecanus occidentalis
Pink-footed Shearwater
Puffinus carneipes
Sooty Shearwater
Puffinus griseus
Northern Fulmar
Fulmarus glacialis
35°
30°
125°
120°
Abundance, Birds per NM
0
0.01
0.1-1.0
1.0-10
10-100