UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

CalCOFI Cruise 0507
1 – 17 July 2005

CC Reference 07-05
26 July 2007

UNIVERSITY OF CALIFORNIA, SAN DIEGO

SCRIPPS INSTITUTION OF OCEANOGRAPHY

LA JOLLA, CALIFORNIA 92093-0227

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 0507
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INTRODUCTION

The data presented in this report were collected during cruise 0507* of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *New Horizon* of 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 Integrative Oceanography Division (IOD) at Scripps Institution of Oceanography (SIO). IOD contributes to this program by investigations of the physical, chemical and biological structure of the California Current. Data from the cruises were collected and processed by personnel of the Integrative Oceanography Division and the Southwest Fisheries Science Center. SIO staff members from the Ocean Data Facility participate in the chemical analysis of nutrient samples at sea. CalCOFI data presented in this report and collected on previous cruises can be accessed at http://www.calcofi.org.

STANDARD PROCEDURES

CTD/Rosette Cast Data

A Sea-Bird Electronics, Inc., Conductivity-Temperature-Depth (CTD) instrument (Seabird 911, Serial number 1049) with a rosette was deployed at each station on these cruises. The rosette was equipped with 24 ten-liter plastic (PVC) bottles equipped with epoxy-coated springs and Viton O-rings. Each CTD/rosette cast usually sampled 20 depths to a maximum sampling depth of 525 meters, bottom depth permitting. Occasional stations have multiple bottles tripped at the same depth to provide more water for ancillary programs. The sample spacing was designed to sample depth intervals as close as 10 meters around the sharp upper thermocline features such as the chlorophyll, oxygen, nitrite maxima and the shallow salinity minimum. Salinity, oxygen and nutrients were determined at sea for all depths sampled. Chlorophyll-*a* and phaeopigments were determined at sea on samples from the top 200 meters, bottom depth permitting.

Pressures and temperatures assigned to the water sample data were derived from the CTD signals recorded just prior to the bottle trip. Pressures have been converted to depths 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 samples were collected from all rosette bottles and analyzed at sea using a Guildline model 8410 Portasal salinometer. Salinity samples were drawn into 200 ml Kimax high-alumina borosilicate bottles that were rinsed three times with sample prior to filling. The results were compared with the CTD salinity to verify that the rosette bottle did not mis-trip or leak. The salinometer was standardized before and after each group of samples with standardized seawater. Periodic checks on the conductivity of the standardized seawater were made by comparison with IAPSO Standard Seawater batch P144. Salinity values were calculated using the algorithms for the Practical Salinity Scale, 1978 (UNESCO, 1981a) and are reported to three decimal places, provided that accepted standards were met.

Dissolved oxygen analyses were performed with an Ocean Data Facility of Scripps Institution of Oceanography designed automated oxygen titrator using photometric end-point detection based on the absorption of 365nm wavelength ultra-violet light. A computer using PC software controlled the titration of the samples and the data logging. The method used a modified-Winkler titration following the technique of Carpenter (1965) with modifications by Culberson (1991), but with higher concentrations of thiosulfate solution (50 g/l). Standard KIO3

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

solutions prepared ashore were run at the beginning of each run. Reagent and sea water blanks were determined to account for presence of oxidizing or reducing materials.

Nutrient samples were analyzed at sea for dissolved silicate, phosphate, nitrate, nitrite, and ammonium using procedures similar to those described in Gordon et al. (1993) and Koroleff (1969, 1970). Samples were collected in 45 ml high-density polypropylene screw-capped tubes, which were rinsed three times prior to filling. Standardizations were done at the beginning and end of each group of samples with a set of mid-concentration range standards prepared fresh for each run. Samples not analyzed immediately after collection were refrigerated and run the following day. Sets of six different concentration standards were analyzed periodically to determine the deviation from linearity as a function of concentration, for the silicate, nitrate and phosphate analyses. Final sample concentrations were corrected for deviations from linearity using a second order polynomial.

Samples for chlorophyll-*a* and phaeopigments were collected in calibrated 138 ml polyethylene bottles and filtered onto Whatman GF/F filters. The pigments were extracted in cold 90% acetone (Venrick and Hayward, 1984) for a minimum of 24 hours. Chlorophyll a and phaeopigment concentrations were determined from fluorescence readings before and after acidification with a Turner Designs Fluorometer Model 10-AU-005-CE (Yentsch and Menzel, 1963; Holm-Hansen *et al*., 1965).

Evaluation of the water sample data involved comparisons with the CTD data, 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). Precision estimates for routine analyses were made on CalCOFI cruise 9003 and are reported in SIO Ref. 91-4.

Primary Productivity Sampling

Primary productivity samples were taken each day shortly before local apparent noon (LAN). 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 rosette up-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. 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 64.74 µCi of ^{14}C as $NaHCO_3$ (200 µl of 335.90 µCi/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% HCl 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 cocktail 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 0.505mm plankton mesh. Bottom depth permitting, the nets were towed obliquely from 210 meters 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). An Optical Plankton Counter (OPC, Dave Checkley, SIO) was routinely used in one side of the paired bongo net frame. The purpose of the OPC is to obtain information on the vertical distributions of size categories of zooplankton, using data from the counter, without affecting the ongoing time series of data obtained from the catches of the integrative bongo net.

Avifauna Observations (Point Reys Bird Observatory)

Sea birds 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 (nm) 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).

Ancillary Programs

Several ancillary programs produced data on these cruises that are not presented in this report. These programs include:

1) *Underway Data*. Continuous near surface measurements of temperature, salinity and *in vivo* chlorophyll fluorescence were recorded from seawater pumped through the ship's uncontaminated seawater system. Water was drawn from a depth of approximately 3 meters. The data were logged in one-minute averages using a Sea-Bird Electronics, Inc., SBE 45 MicroTSG Thermosalinograph and a Wetlabs Wetstar fluorometer.

2) *ADCP*. Continuous profiles of ocean currents and acoustic backscatter between 20 and 500 meters deep were measured along the shiptrack from a hull-mounted 150 kHz Acoustic Doppler Current Profiler (ADCP). The ADCP data were averaged over 3-minute intervals. Sixty 8-meter depth bins were recorded. (T. Chereskin, SIO)

3) *Underway Sea Surface xCO2*. Continuous measurements of the partial pressure of CO2 were made from the ship's uncontaminated seawater system. The seawater was equilibrated in a membrane contactor with a gas loop that was analyzed with a Licor 6262 infrared CO2/H2O analyzer. One-minute averages were recorded and the mole fraction of CO2 (xCO2) at sea surface temperature was calculated. The system was calibrated with standard gases traceable to CMDL every two hours; at that time absolute zero and atmospheric samples were also collected. (G. Friederich, MBARI)

4) *Trace metals*. Seawater samples from the surface and at depth were obtained for iron analysis (dissolved and total iron) at 33 stations using a trace metal-clean pole sampler and trace metal-clean GO-flo bottles. Iron addition incubations were also performed at 15 stations to assay for iron limitation in the phytoplankton community. (K. Barbeau, SIO).

5) *California Current Ecosystem Long Term Ecological Research Program*: The CCE-LTER program augments standard CalCOFI measurements to further characterize the lower trophic levels as well as the carbon system. These additional samples, taken at all CalCOFI stations, are for measurements of particulate organic carbon and nitrogen, dissolved organic carbon and nitrogen, taxon-specific phytoplankton pigments, flow-cytometric counts of bacteria and picoautotrophs, microscopic counts of nano- microplankton, determination of mesozooplankton size structure using a Laser Optical Plankton Counter, and mesozooplankton community structure.

6) *SCCOOS Nearshore and Bio-optical Observations*: The objective of these observations is to extend CalCOFI time series to the nearshore and make bio-optical observations for the development of empirical proxies for particle size load and structure and phytoplankton biomass and rates of primary production. The nearshore observations consist of 9 stations at the ends and interspersed with current CalCOFI lines on the 20 m isobath with a standard set of CalCOFI observations. Bio-optical measurements at all CalCOFI and SCCOOS stations consist of irradiance at 9 wavelengths, light transmission at three wavelengths, fluorescence of Chl a, CDOM and phycoerythrin and light scattering at three wavelengths.

7) Marine mammal observations. During daylight transits, visual line-transect surveys were conducted by marine mammal observers focusing on cetaceans. Acoustic line-transect surveys were performed using a towed

hydrophone array which consists of multiple hydrophone elements that sample sounds up to 100 kHz allowing for localization of calling animals. Acoustic monitoring also takes place on individual stations using sonobuoys.

TABULATED DATA

CTD/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 profile. The sample number reported is the cast number followed by a two-digit rosette bottle number. 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 are reported for most daylight stations.

Data values from discreet sampled CTD rosette were interpolated and are reported for standard depths. Interpolated or extrapolated standard level data are noted by the footnote "ISL" printed after the depth. Multiple bottles tripped at the same depth to provide water for ancillary programs are not used in the calculation of standard depth data. Density-related parameters have been calculated from the International Equation of State of Seawater 1980 (UNESCO, 1981b). 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 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.

Primary Productivity Data

In addition to the normal hydrographic data that are 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 are reported to two significant digits (values <1.00) or one decimal (values >1.00). 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 ($cm^3/1000m^3$ 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 shipboard 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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FIGURES

Cruise 0507

1. CalCOFI Cruise 0507 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.

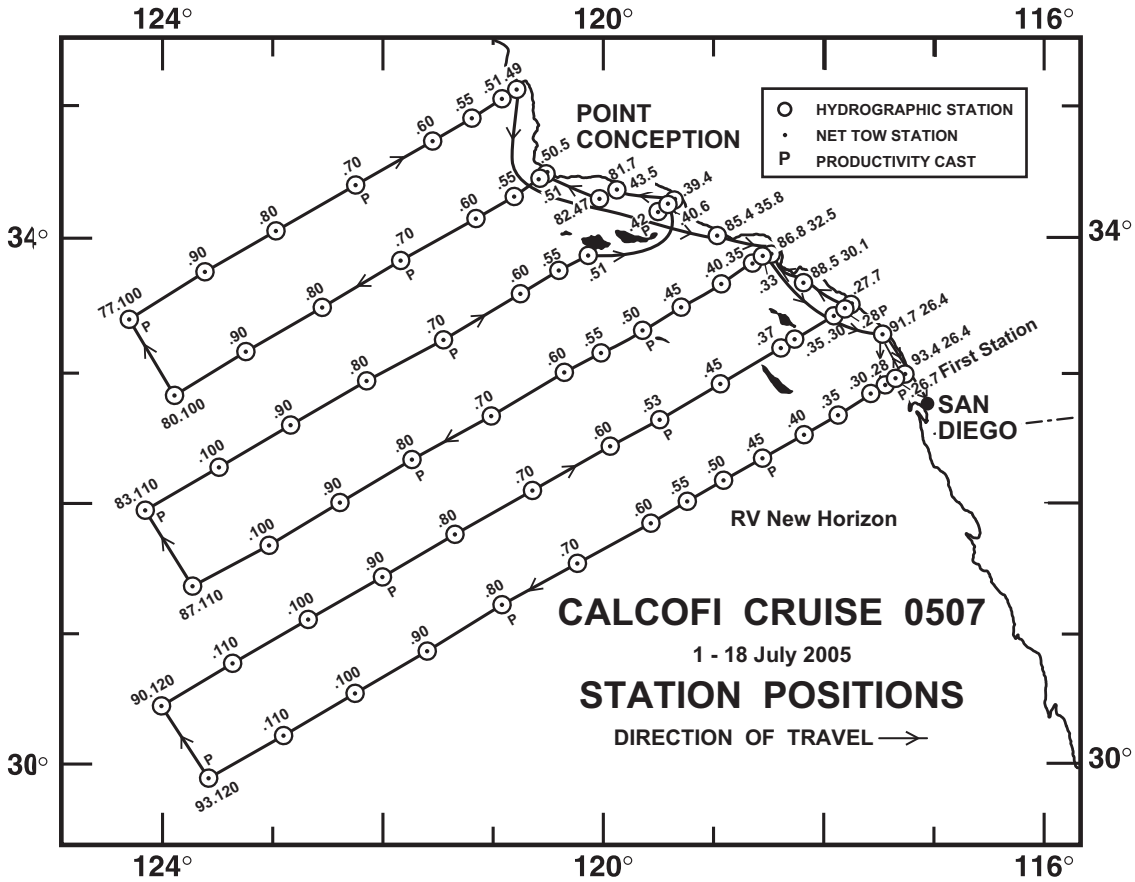

FIGURE 1

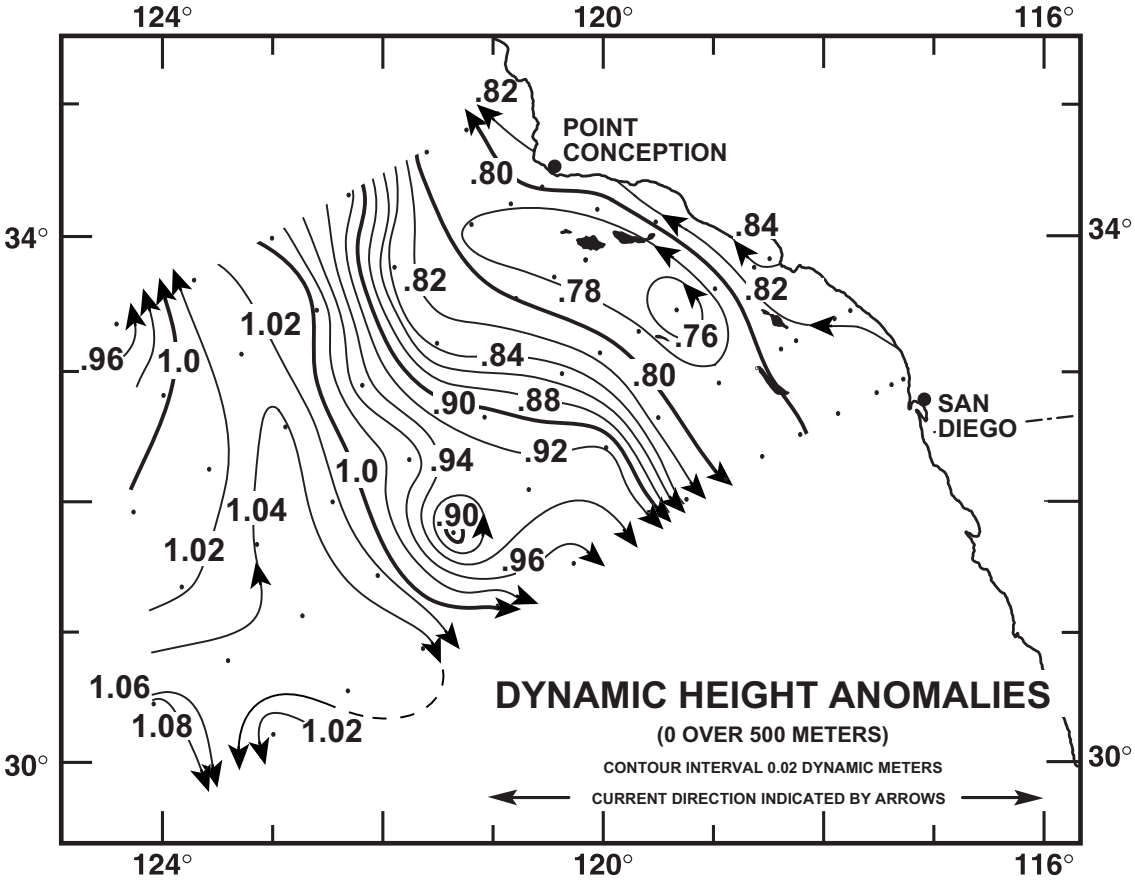

FIGURE 2

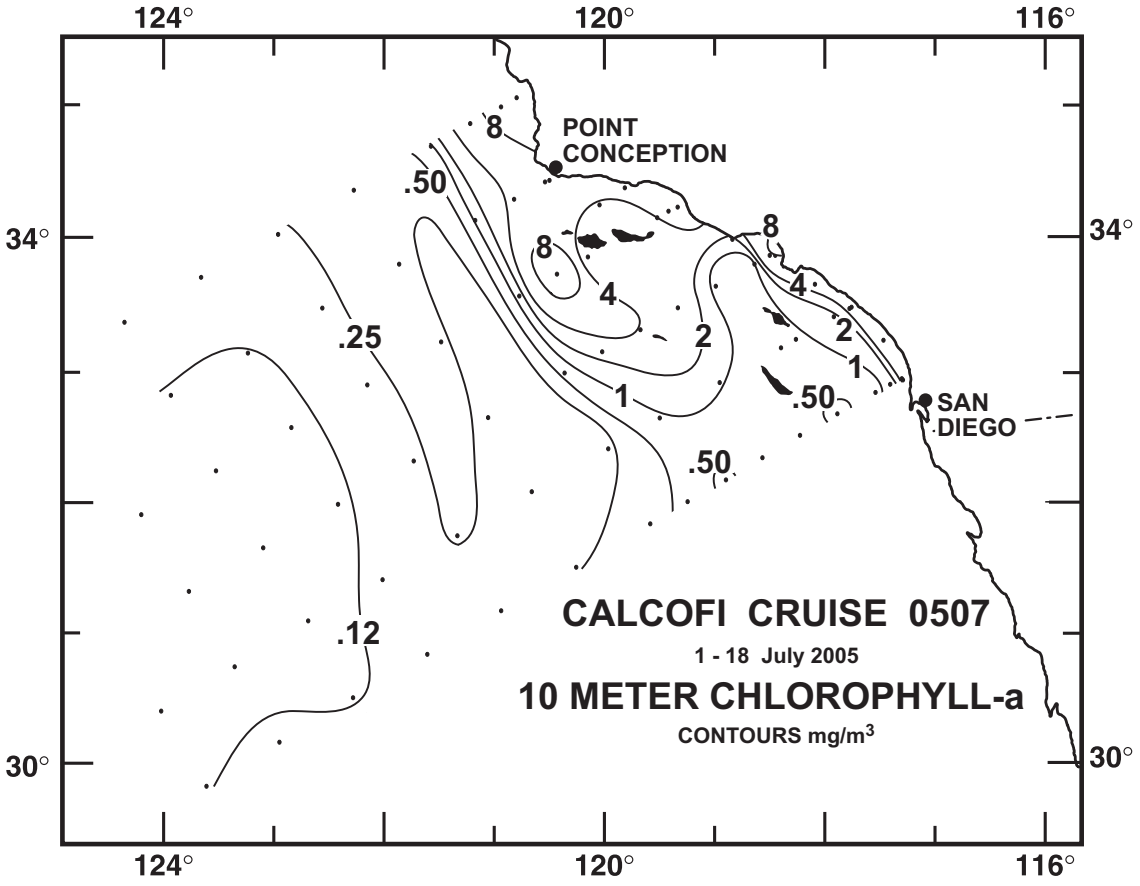

FIGURE 3A

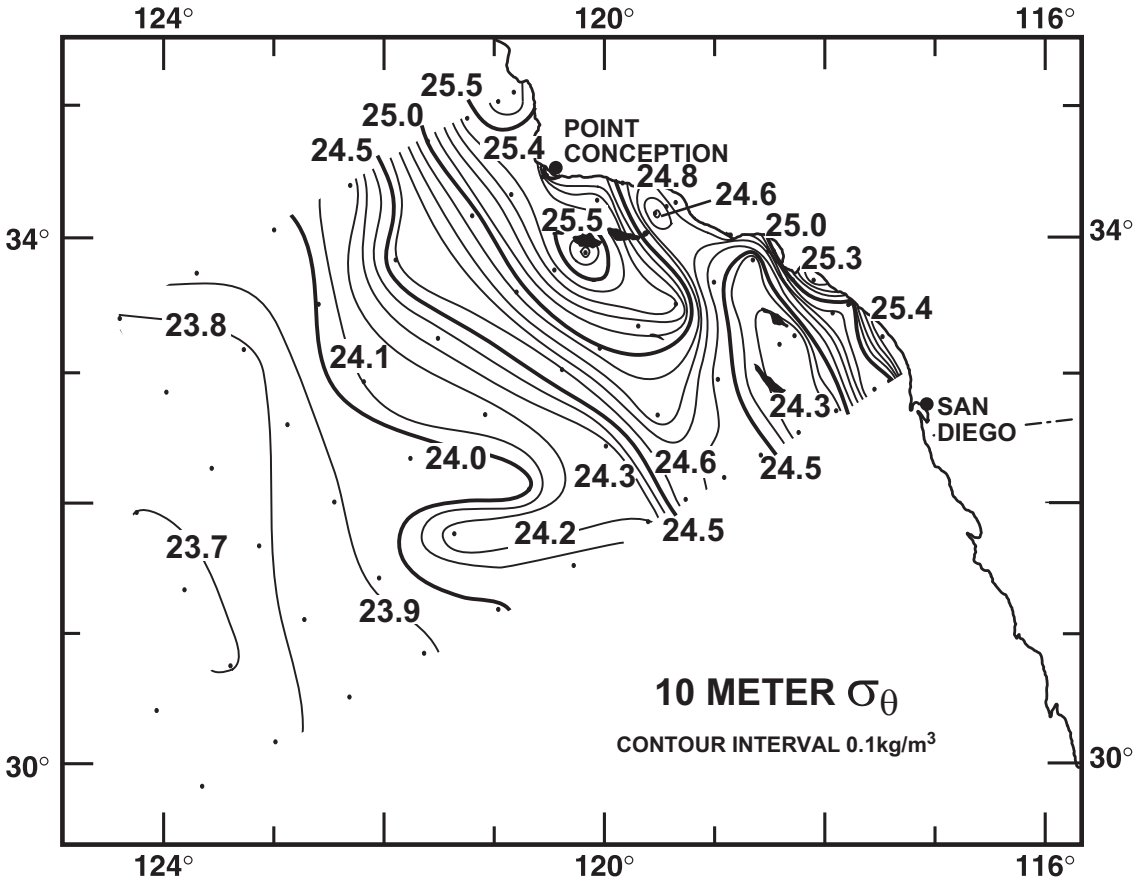

FIGURE 3B

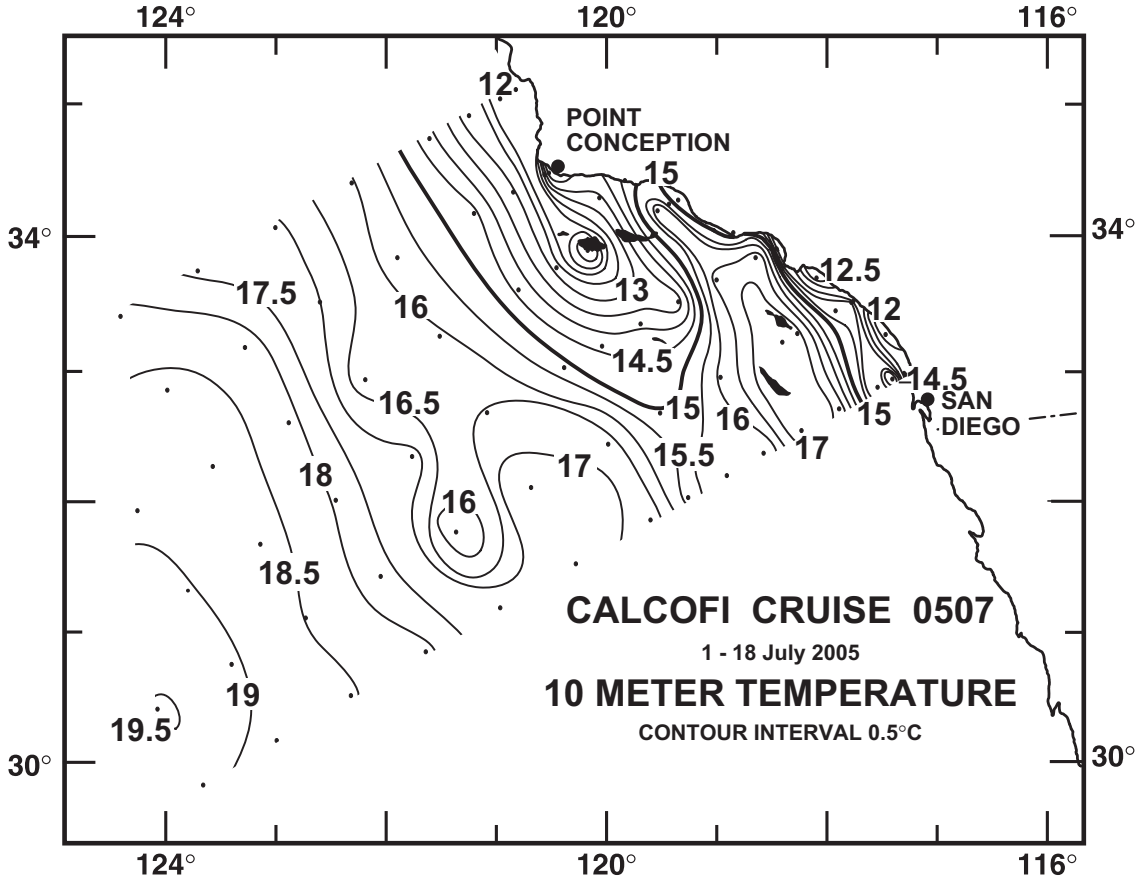

FIGURE 3C

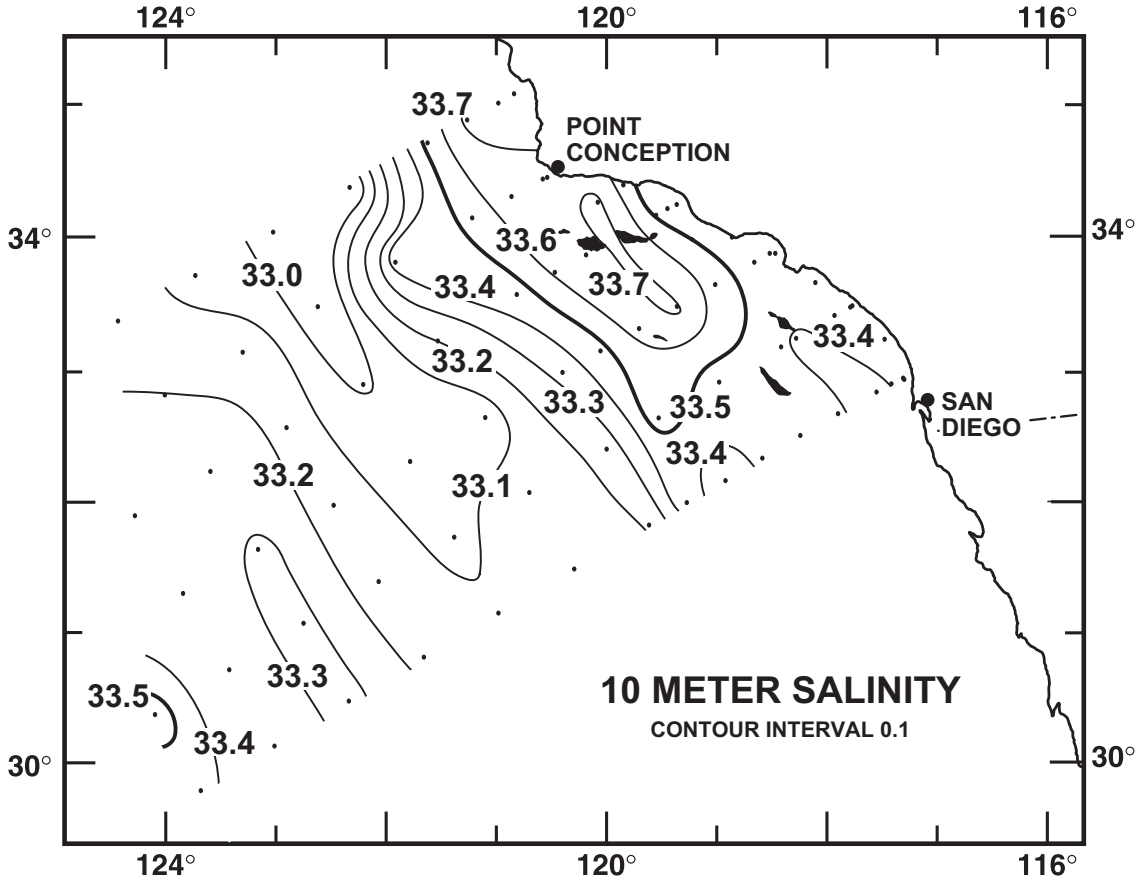

FIGURE 3D

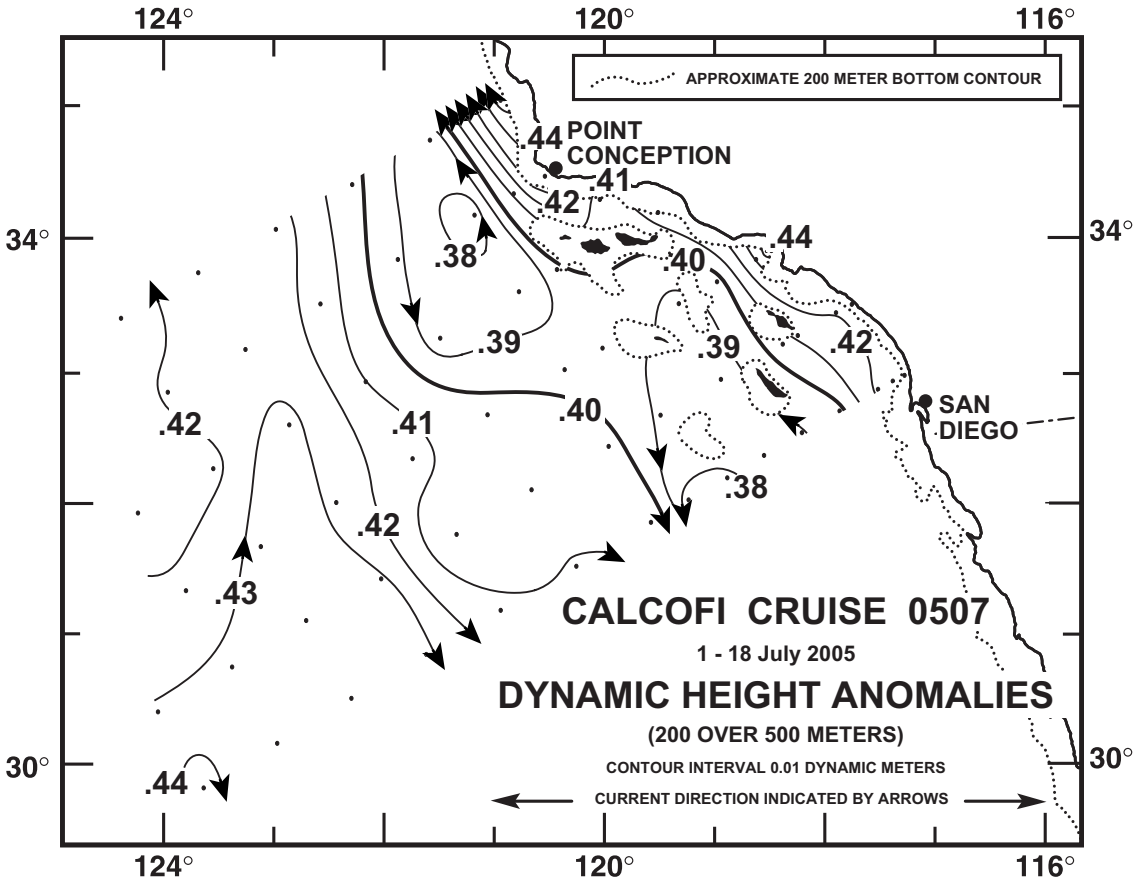

FIGURE 4A

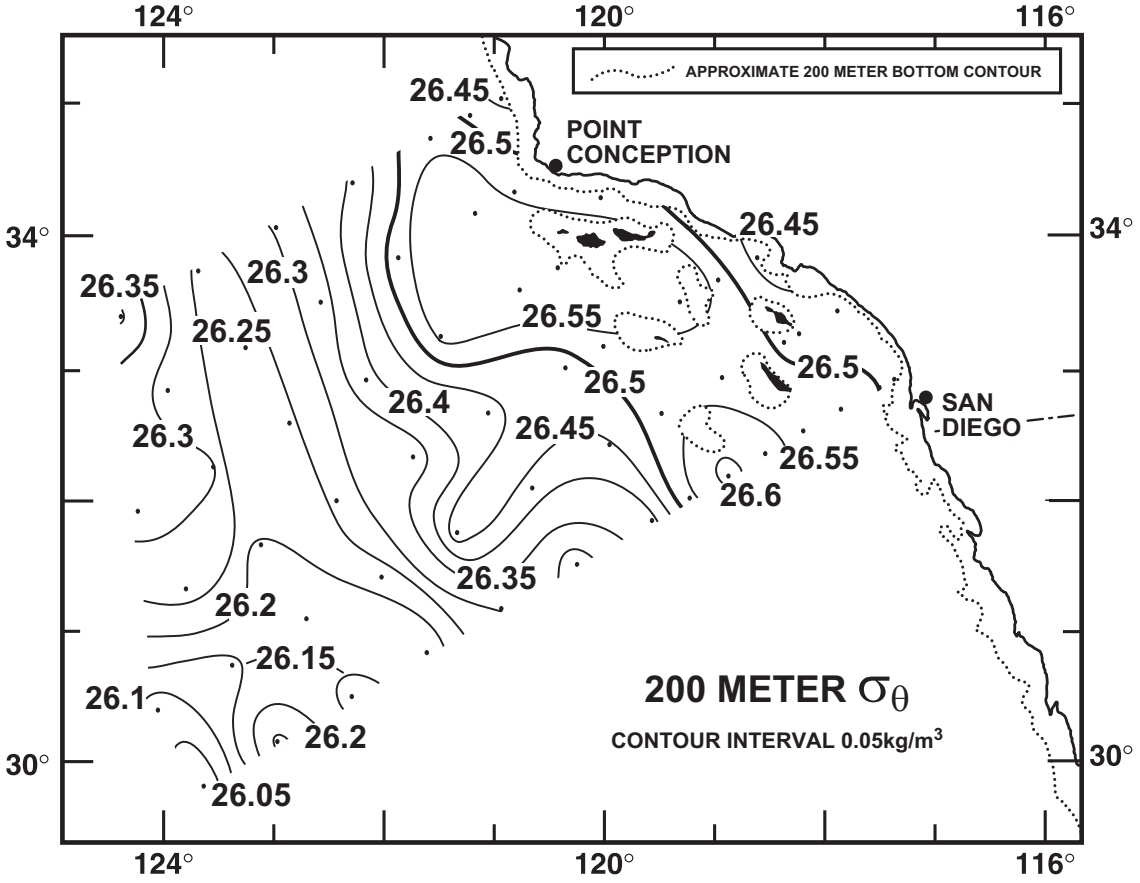

FIGURE 4B

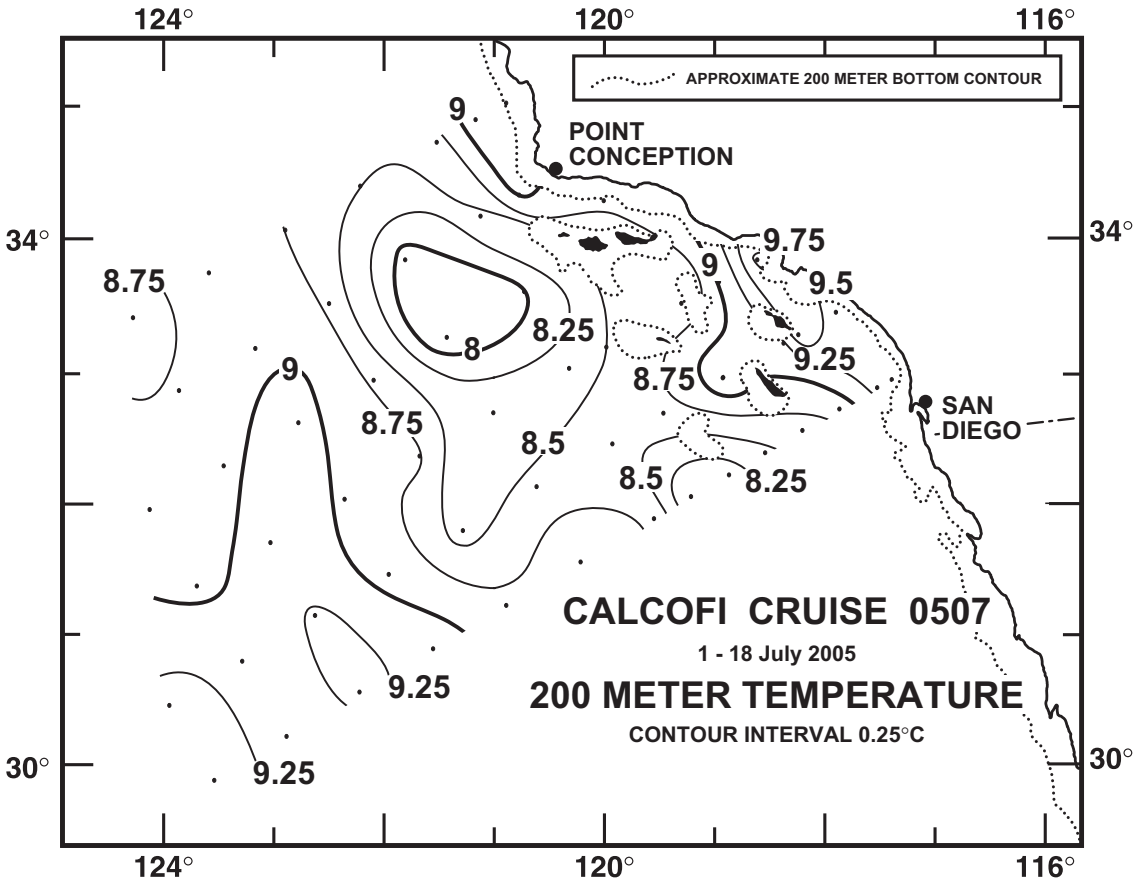

FIGURE 4C

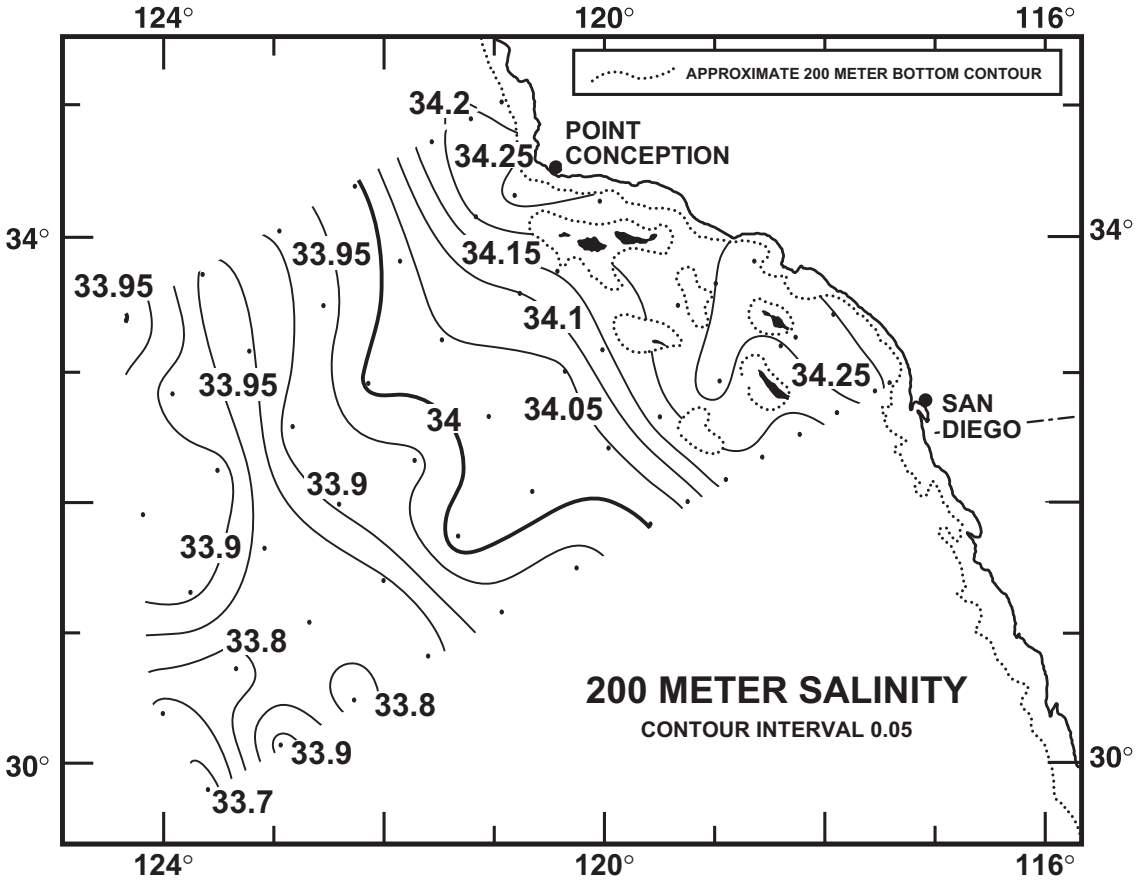

FIGURE 4D

CALCOFI CRUISE 0507

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POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

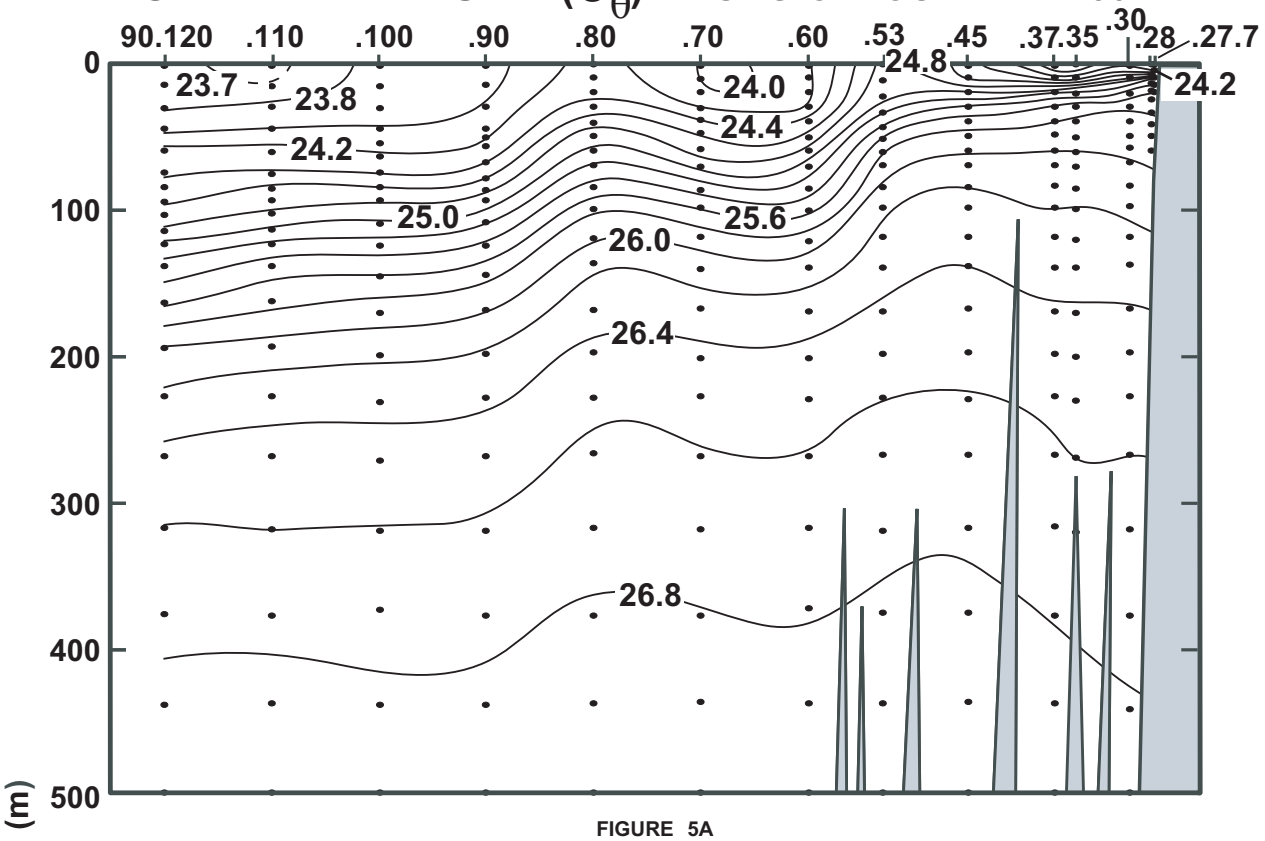

FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

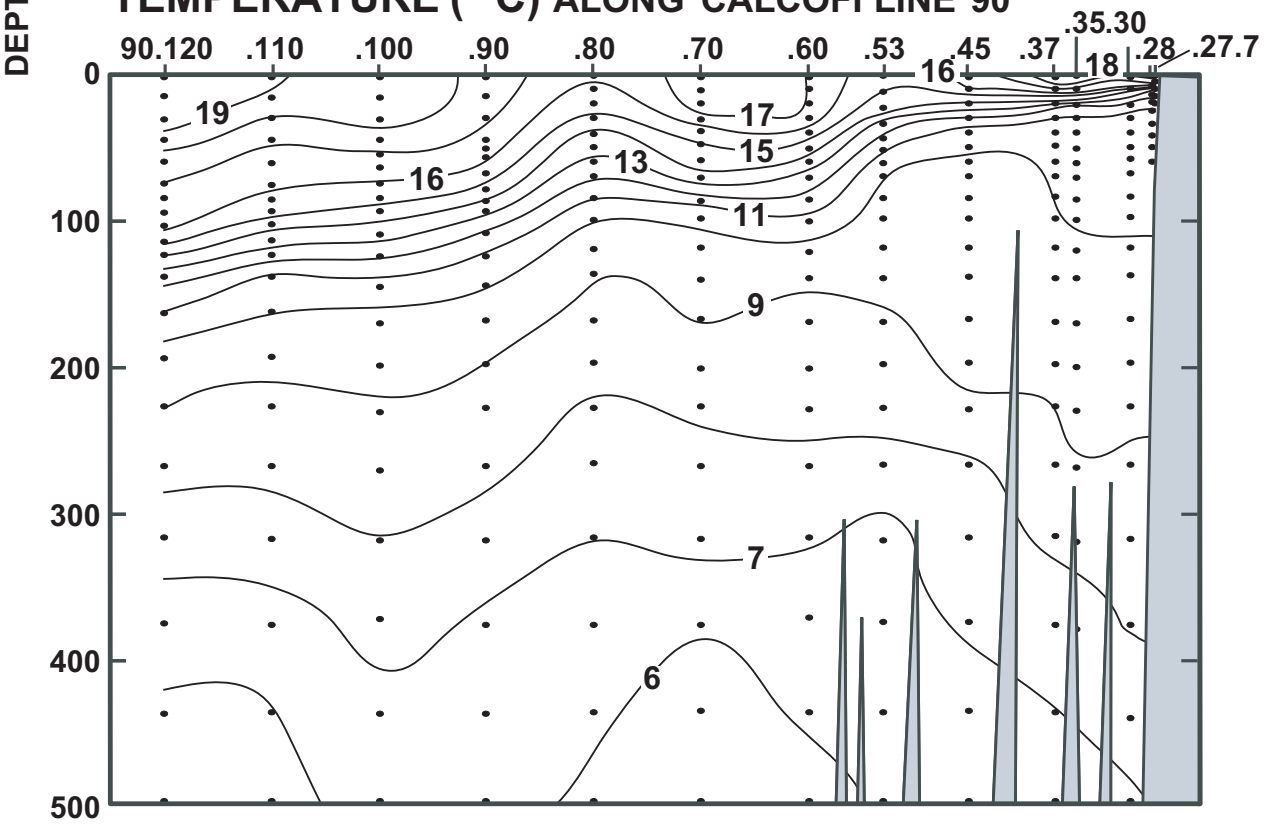

FIGURE 5B

CALCOFI CRUISE 0507

4 - 7 July 2005

SALINITY ALONG CALCOFI LINE 90

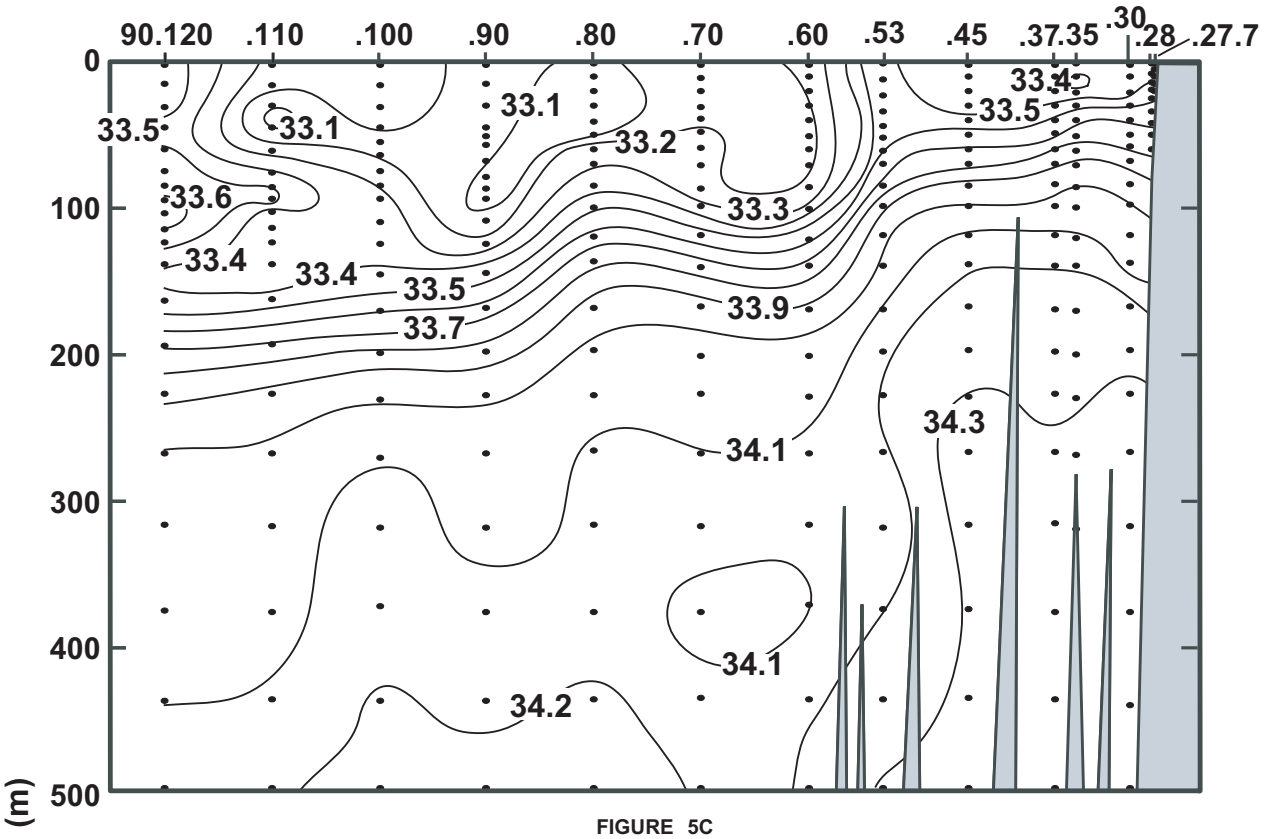

FIGURE 5C

SILICATE (μM/L) ALONG CALCOFI LINE 90

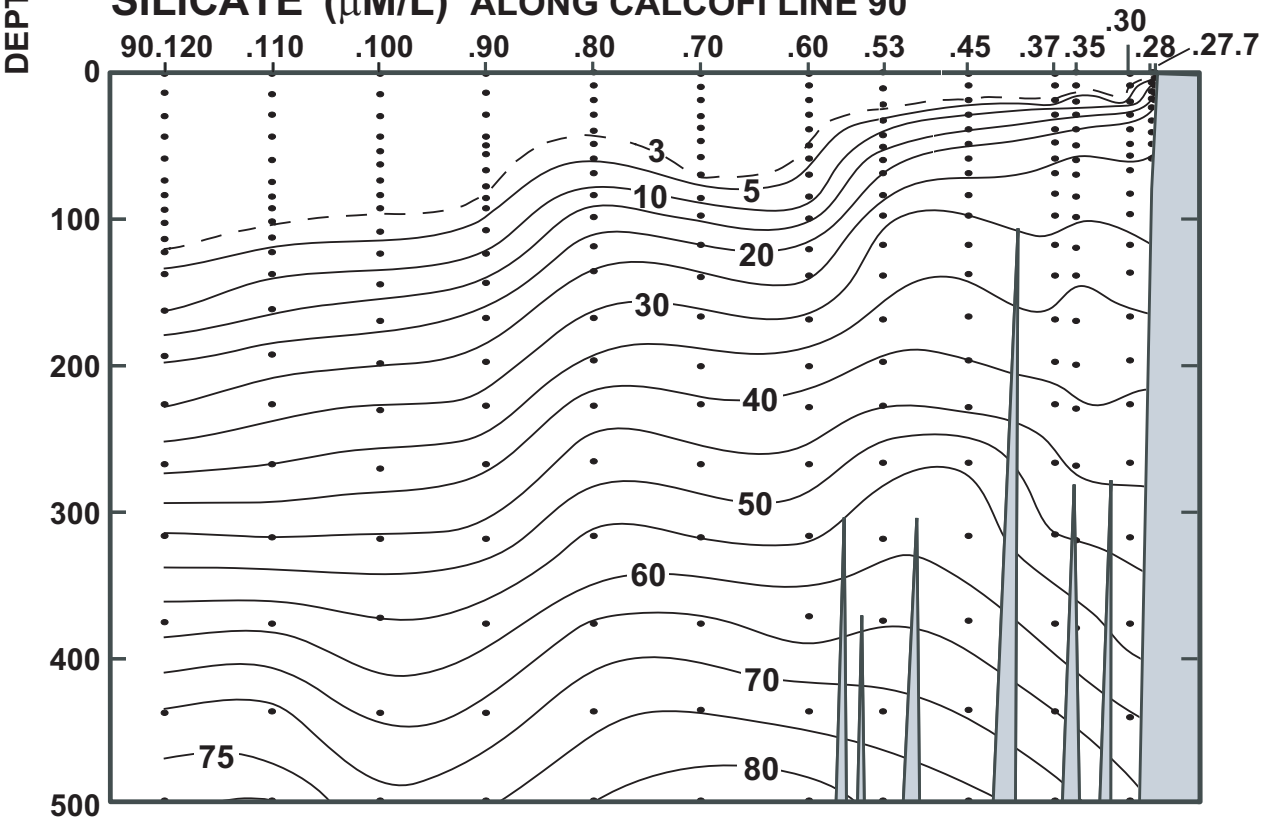

FIGURE 5D

CALCOFI CRUISE 0507

4 - 7 July 2005

NITRATE (μM/L) ALONG CALCOFI LINE 90

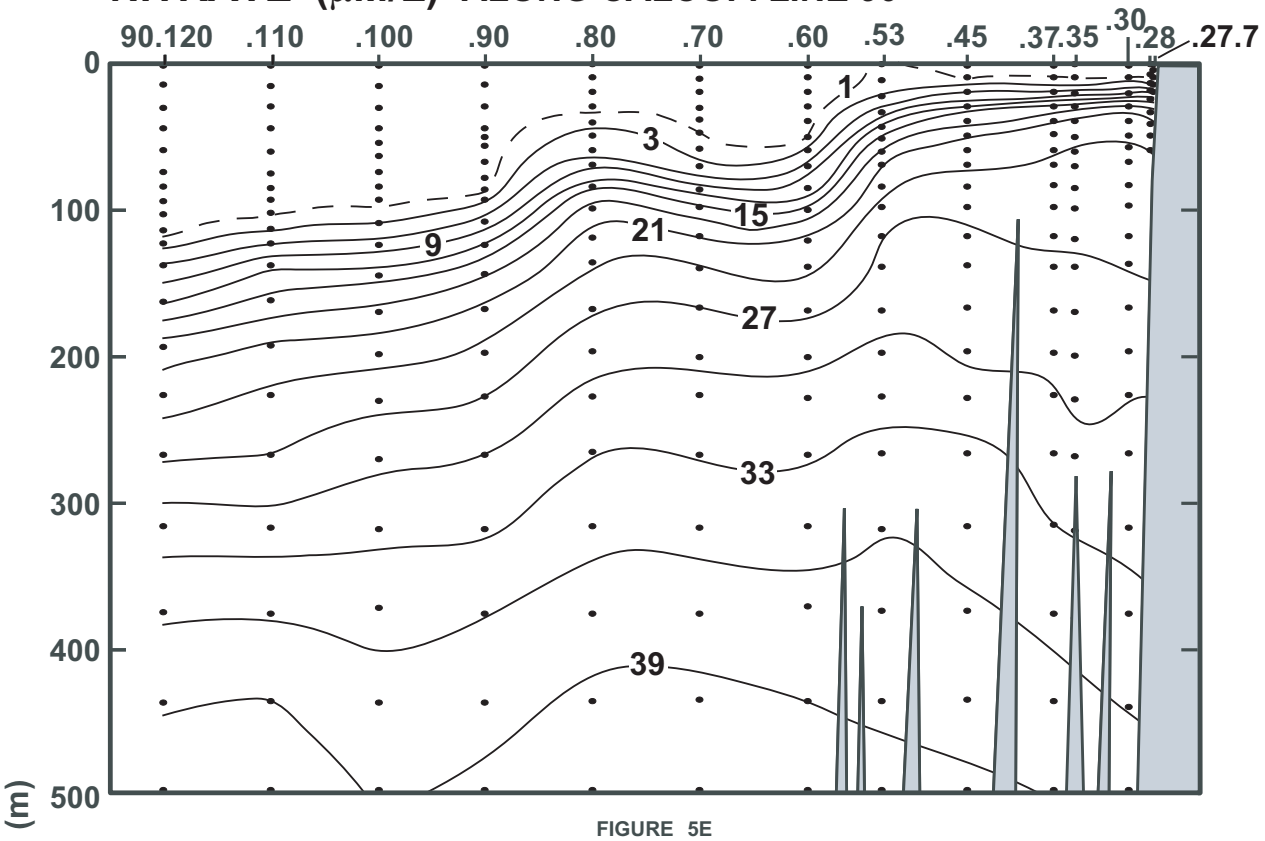

FIGURE 5E

PHOSPHATE (μM/L) ALONG CALCOFI LINE 90

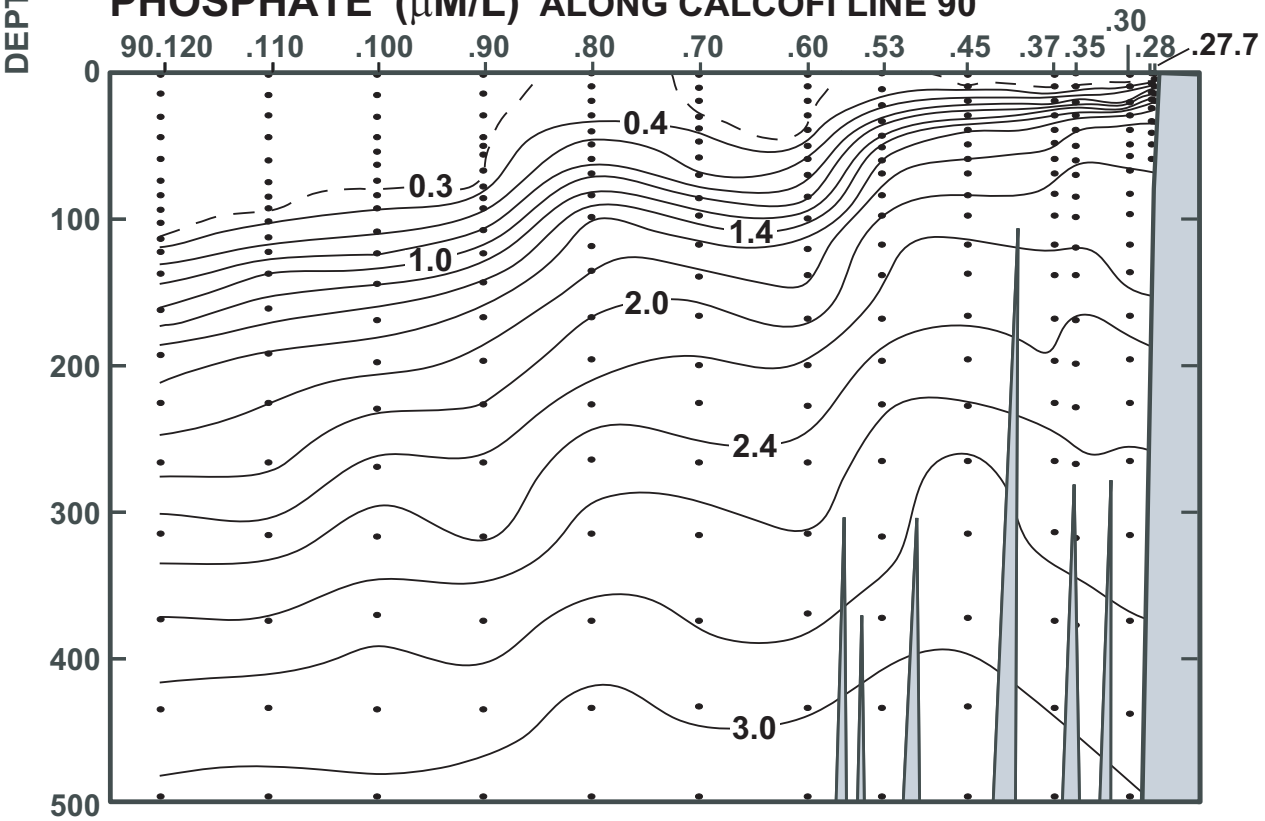

FIGURE 5F

CALCOFI CRUISE 0507

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CHLOROPHYLL-a (μg/L) ALONG CALCOFI LINE 90

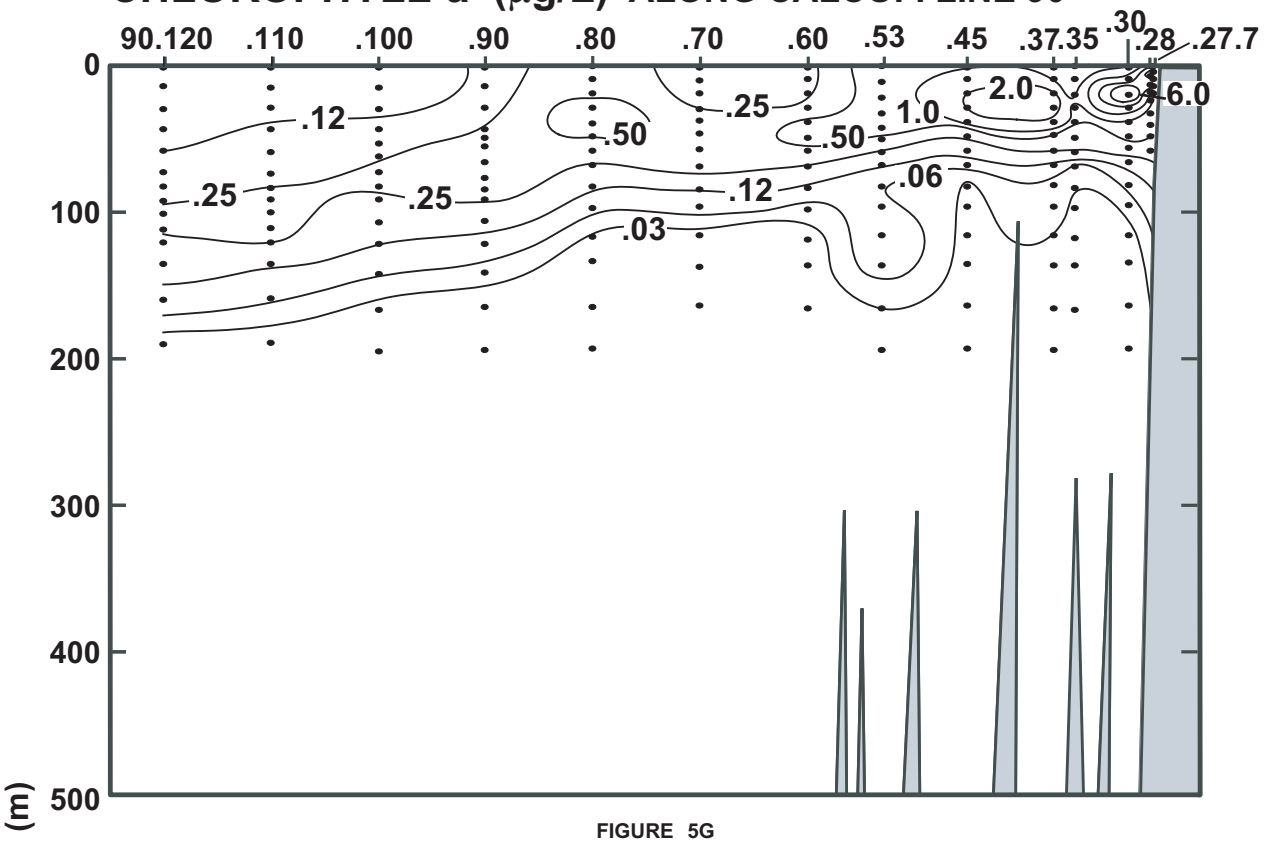


FIGURE 5G

OXYGEN SATURATION (%) ALONG CALCOFI LINE 90

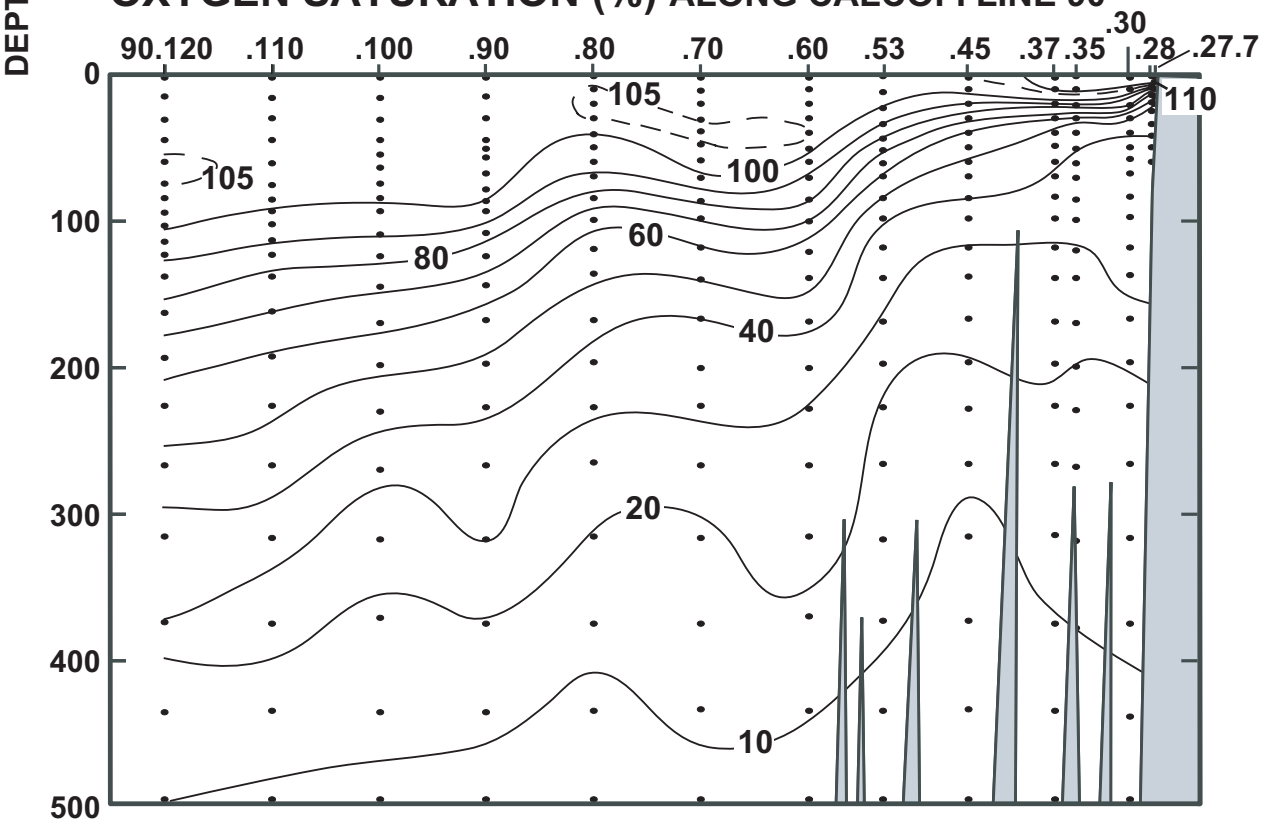


FIGURE 5H

CALCOFI CRUISE 0507

4 - 7 July 2005

OXYGEN (mL/L) ALONG CALCOFI LINE 90

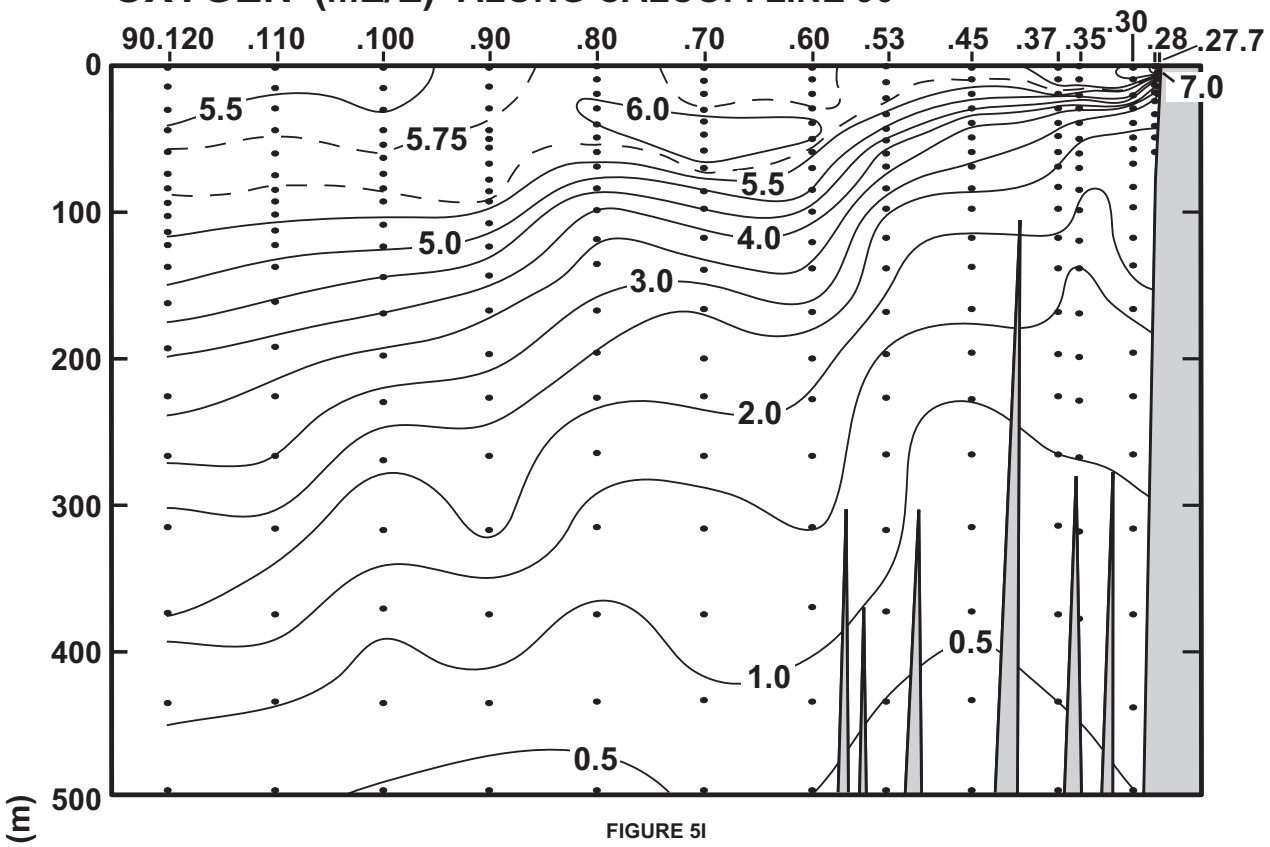


FIGURE 5I

NITRITE (μM/L) ALONG CALCOFI LINE 90

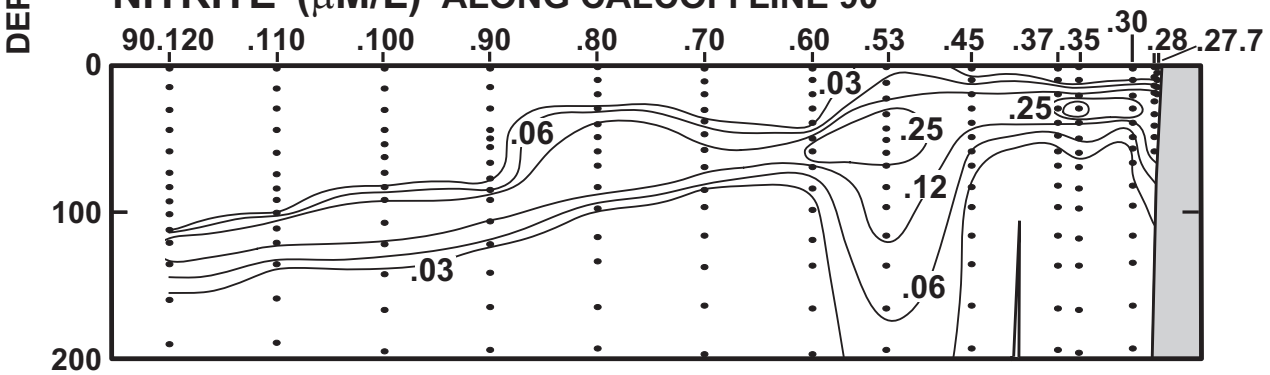


FIGURE 5J

PHAEOPIGMENTS (μg/L) ALONG CALCOFI LINE 90

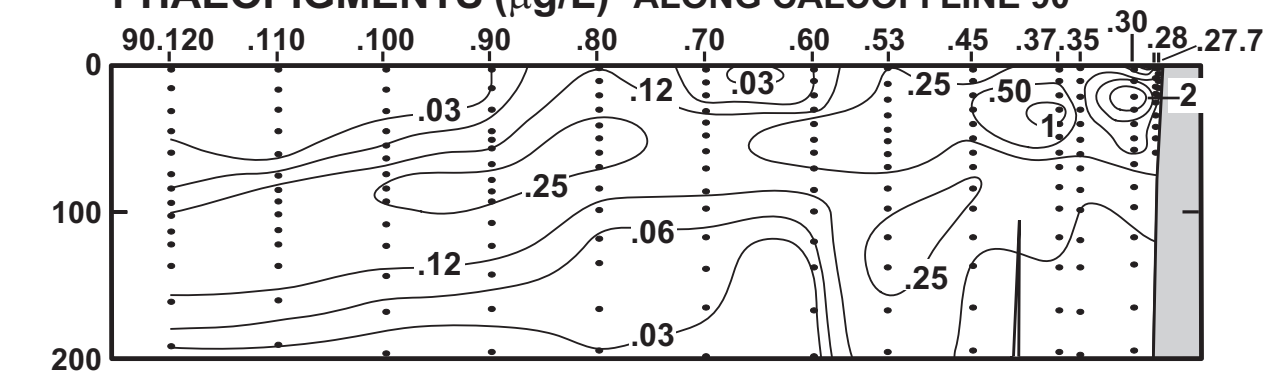


FIGURE 5K

PERSONNEL

CalCOFI Cruise 0507

SHIP'S CAPTAIN

Murray A. Stein, RV *New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

		Participating (Legs)
Wilkinson, James R. (Chief Scientist)	Programmer Analyst, SIO	1,2
Abramenkoff, Dimitry N.	Fisheries Biologist, NMFS	2
Allen, Ann	Volunteer	1,2
Bjorhstedt, Eric P.	Fisheries Biologist, NMFS	1
Camacho, Dominique	Biologist, Cascadia Research	1,2
Clermont, Jason	Staff Research Associate, SIO	1,2
Douglas, Annie	Biologist, Cascadia Research	1,2
Dovel, Shonna	Staff Research Associate, SIO	1,2
Gire, Ben M.	Volunteer	1,2
Hays, Amy E.	Fisheries Biologist, NMFS	1,2
Manion, Sue	Fisheries Biologist, NMFS	1,2
Miller, Aileen K.	Seabird Biologist, Pt. Reyes Bird Observatory	1,2
Oriarte, Veronica	Volunteer, Cascadia Research	1,2
Ramirez, Fernando	Staff Research Associate, SIO	1,2
Reynolds, Susan M.	Staff Research Associate, SIO	1,2
Schuller, Daniel	Staff Research Associate, SIO	1,2
Sheldon, Jennifer	Staff Research Associate, SIO	1,2
Soldevilla, Melissa	Graduate Student, SIO	1,2
Wolgast, David M.	Staff Research Associate, SIO	1,2

Leg 1: San Diego to Dana Point, California, 1-7 July, 2002
Leg 2: Dana Point to San Diego, California, 7-16 July, 2002

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 49

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
35 5.5 N	120 46.9 W	16/07/05	0907	UTC	72 m	270 02 kn			1009.9 mb	12.8 C	12.1 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	13.00	13.00	33.785	25.452	251.7	0.000	6.98	116.9	18.1	0.75	5.5	0.23	15.92	3.32	0	
1	13.00	13.00	33.785	25.452	251.8	0.003	6.98	116.9	18.1	0.75	5.5	0.23	15.92	3.32	1	208
5	12.74	12.74	33.785	25.504	247.0	0.012	6.61	110.1	18.4	0.83	7.0	0.25	15.21	3.14	5	207
10	11.66	11.66	33.789	25.713	227.2	0.024	5.23	85.1	19.0	1.25	13.3	0.28	11.04	2.68	10	206
20	11.58	11.58	33.793	25.731	225.7	0.047	5.06	82.2	19.0	1.33	14.2	0.29	9.72	2.44	20	205
30	11.23	11.23	33.797	25.798	219.5	0.069	4.56	73.6	19.6	1.50	16.3	0.32	7.28	1.98	30	204
40	10.82	10.82	33.816	25.887	211.4	0.091	3.80	60.8	23.8	1.77	19.3	0.39	5.11	2.02	40	203
50	10.38	10.37	33.868	26.005	200.4	0.111	2.70	42.8	29.0	2.09	22.8	0.37	1.45	1.55	50	202
65	10.21	10.20	33.894	26.054	196.0	0.141	2.46	38.8	31.8	2.22	23.7	0.37	0.86	1.30	65	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 51

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
35 1.3 N	120 55.4 W	16/07/05	0615	UTC	251 m	340 09 kn			1010.6 mb	13.5 C	12.6 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	12.32	12.32	33.760	25.566	241.0	0.000	6.17	101.9	11.6	0.91	8.8	0.26	11.33	2.80	0	
2	12.32	12.32	33.760	25.566	241.0	0.005	6.17	101.9	11.6	0.91	8.8	0.26	11.33	2.80	2	215
10	11.87	11.87	33.778	25.665	231.7	0.024	5.48	89.6	15.9	1.17	11.7	0.27	10.26	2.11	10	214
20	11.41	11.41	33.788	25.758	223.1	0.046	4.29	69.5	18.7	1.52	16.0	0.31	2.57	0.94	20	213
30	10.76	10.76	33.824	25.904	209.6	0.068	3.38	54.0	22.2	1.77	20.0	0.31	1.81	1.12	30	212
40	10.10	10.10	33.859	26.045	196.3	0.088	2.50	39.4	25.7	1.98	24.3	0.25	0.86	1.30	40	211
50	10.08	10.07	33.910	26.089	192.4	0.108	2.33	36.7	27.1	2.02	24.8	0.14	0.31	0.72	50	210
59	10.04	10.03	33.931	26.112	190.4	0.125	2.25	35.4	27.8	2.05	25.1	0.11	0.18	0.53	59	209
69	10.03	10.02	33.948	26.127	189.1	0.144	2.14	33.7	28.7	2.11	25.6	0.07	0.14	0.40	69	208
75 ISL	10.00	9.99	33.968	26.148	187.3	0.155	2.10	33.0	29.1	2.12	25.9	0.07	0.15	0.40	75	
84	9.95	9.94	33.999	26.181	184.4	0.172	2.04	32.0	29.6	2.13	26.3	0.07	0.16	0.41	84	207
100	9.90	9.89	34.020	26.206	182.3	0.201	1.90	29.8	30.5	2.19	26.9	0.05	0.10	0.35	101	206
119	9.83	9.82	34.046	26.238	179.7	0.236	1.82	28.5	31.7	2.24	27.4	0.04	0.14	0.46	120	205
125 ISL	9.82	9.81	34.045	26.239	179.7	0.247	1.83	28.7	31.6	2.23	27.4	0.04	0.13	0.47	126	
140	9.77	9.75	34.038	26.242	179.7	0.274	1.85	28.9	31.5	2.22	27.5	0.05	0.11	0.48	141	204
150 ISL	9.70	9.68	34.066	26.276	176.7	0.291	1.75	27.3	32.6	2.26	28.0	0.04	0.10	0.45	151	
169	9.52	9.50	34.131	26.357	169.4	0.324	1.52	23.7	35.3	2.35	29.0	0.02	0.09	0.39	170	203
199	9.23	9.21	34.171	26.436	162.5	0.374	1.41	21.8	38.1	2.38	29.9	0.05	0.06	0.37	200	202
200 ISL	9.23	9.21	34.171	26.436	162.5	0.376	1.41	21.8	38.2	2.38	29.9	0.05			201	
229	9.12	9.09	34.178	26.460	160.8	0.422	1.34	20.7	40.0	2.45	30.1	0.09			230	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 53.7 N	121 12.1 W	16/07/05	0231	UTC	571 m	340 12 kn	320 04 08	2	1009.7 mb	14.5 C	13.4 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	13.39	13.39	33.700	25.308	265.4	0.000	6.28	106.0	2.0	0.43	3.5	0.11	15.72	1.65	0	
1	13.39	13.39	33.700	25.308	265.4	0.003	6.28	106.0	2.0	0.43	3.5	0.11	15.72	1.65	1	220
10	12.65	12.65	33.726	25.476	249.8	0.026	4.96	82.4	6.6	0.91	9.3	0.17	6.43	1.37	10	219
20	10.57	10.57	33.757	25.884	211.1	0.049	3.18	50.6	20.7	1.78	21.0	0.22	0.85	0.85	20	218
30	9.97	9.97	33.942	26.132	187.8	0.069	1.95	30.6	29.9	2.24	26.5	0.31	0.22	0.65	30	217
40	9.91	9.91	33.968	26.162	185.1	0.087	1.88	29.5	31.0	2.26	26.9	0.25	0.14	0.75	40	216
50	9.86	9.85	33.996	26.193	182.4	0.106	1.85	29.0	30.7	2.22	27.2	0.23	0.10	0.66	50	215
60	9.82	9.81	34.006	26.208	181.3	0.124	1.81	28.3	30.9	2.23	27.5	0.20	0.09	0.53	60	214
70	9.79	9.78	34.027	26.229	179.4	0.142	1.77	27.7	31.5	2.26	27.6	0.19	0.08	0.47	70	213
75 ISL	9.76	9.75	34.033	26.239	178.6	0.151	1.75	27.4	31.7	2.27	27.7	0.16	0.08	0.45	75	
85	9.70	9.69	34.047	26.260	176.8	0.169	1.71	26.7	32.3	2.28	28.1	0.10	0.08	0.41	85	212
100 ISL	9.60	9.59	34.096	26.315	171.9	0.195	1.63	25.4	33.7	2.32	28.7	0.04	0.05	0.36	101	
101	9.59	9.58	34.100	26.320	171.5	0.197	1.62	25.3	33.8	2.32	28.7	0.04	0.05	0.36	102	211
120	9.55	9.54	34.138	26.357	168.4	0.229	1.54	24.0	34.7	2.33	29.0	0.03	0.05	0.32	121	210
125 ISL	9.53	9.52	34.145	26.365	167.7	0.237	1.51	23.5	35.1	2.34	29.1	0.03	0.05	0.30	126	
139	9.46	9.44	34.161	26.390	165.6	0.261	1.44	22.4	36.3	2.39	29.4	0.02	0.05	0.25	140	209
150 ISL	9.39	9.37	34.165	26.405	164.5	0.279	1.39	21.6	36.9	2.41	29.7	0.02	0.04	0.27	151	
169	9.27	9.25	34.171	26.429	162.5	0.310	1.33	20.6	37.9	2.43	30.1	0.03	0.03	0.30	170	208
199	9.08	9.06	34.206	26.487	157.5	0.358	1.30	20.0	39.7	2.46	30.5	0.04	0.03	0.21	200	207
200 ISL	9.07	9.05	34.207	26.490	157.3	0.359	1.30	20.0	39.8	2.46	30.5	0.04			201	
230	8.83	8.81	34.225	26.542	152.8	0.406	1.19	18.2	42.6	2.53	31.3	0.02			231	206
250 ISL	8.76	8.73	34.236	26.562	151.3	0.436	1.19	18.2	43.4	2.54	31.5	0.02			252	
268	8.70	8.67	34.243	26.577	150.2	0.464	1.19	18.2	44.0	2.55	31.6	0.02			270	205
300 ISL	8.46	8.43	34.245	26.616	147.0	0.511	1.12	17.0	46.3	2.60	32.3	0.03			302	
319	8.29	8.26	34.244	26.642	144.8	0.539	1.07	16.2	48.0	2.63	32.9	0.03			321	204
378	7.73	7.69	34.244	26.726	137.6	0.622	0.92	13.8	53.9	2.73	34.6	0.02			381	203
400 ISL	7.53	7.49	34.246	26.756	134.9	0.652	0.85	12.7	56.5	2.78	35.3	0.02			403	
439	7.16	7.12	34.247	26.810	130.1	0.704	0.74	10.9	61.6	2.86	36.6	0.02			442	202
500 ISL	6.45	6.40	34.228	26.891	122.7	0.781	0.64	9.3	70.4	2.95	38.7	0.02			504	
517	6.25	6.20	34.224	26.914	120.5	0.802	0.61	8.8	72.9	2.97	39.3	0.02			521	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 43.3 N	121 33.4 W	15/07/05	2215 UTC	960 m	340 09 kn	320 05 08	2	1011.6 mb	15.6 C	14.5 C	12m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	14.25	14.25	33.517	24.990	295.8	0.000	5.97	102.4	3.3	0.66	5.5	0.16	0.70	0.47	0	
2	14.25	14.25	33.517	24.990	295.8	0.006	5.97	102.4	3.3	0.66	5.5	0.16	0.70	0.47	2	221
10 ISL	14.16	14.16	33.528	25.017	293.4	0.029	5.98	102.4	3.0	0.66	5.4	0.16	0.72	0.55	10	
11	14.14	14.14	33.531	25.024	292.8	0.032	5.98	102.4	3.0	0.66	5.4	0.16	0.73	0.57	11	220
20	13.98	13.98	33.566	25.084	287.3	0.059	5.95	101.6	3.0	0.73	5.5	0.16	0.80	0.81	20	218
30 ISL	13.67	13.67	33.601	25.176	278.9	0.087	5.82	98.7	3.3	0.80	5.6	0.16	0.59	0.59	30	
31	13.64	13.64	33.613	25.191	277.5	0.090	5.81	98.5	3.3	0.81	5.6	0.16	0.57	0.55	31	217
40	11.56	11.55	33.452	25.470	251.0	0.113	5.06	82.0	9.8	1.23	12.3	0.32	0.50	0.32	40	216
50	10.61	10.60	33.448	25.637	235.3	0.138	4.46	70.8	14.6	1.45	16.5	0.40	0.37	0.21	50	215
60	10.21	10.20	33.585	25.813	218.8	0.160	3.88	61.1	18.7	1.70	21.3	0.17	0.15	0.18	60	214
70	9.85	9.84	33.722	25.981	203.0	0.181	3.04	47.6	23.1	1.88	23.7	0.21	0.08	0.18	70	213
75 ISL	9.81	9.80	33.782	26.035	198.0	0.192	2.80	43.8	24.5	1.94	24.5	0.21	0.09	0.19	75	
85	9.74	9.73	33.857	26.105	191.5	0.211	2.52	39.4	26.5	2.03	25.5	0.20	0.12	0.22	85	212
100 ISL	9.64	9.63	33.915	26.167	186.0	0.239	2.34	36.5	28.1	2.08	26.4	0.14	0.09	0.26	101	
101	9.63	9.62	33.918	26.171	185.6	0.241	2.34	36.5	28.2	2.08	26.4	0.13	0.09	0.26	102	211
120	9.09	9.08	33.988	26.314	172.3	0.275	2.32	35.7	31.7	2.13	27.9	0.05	0.03	0.19	121	210
125 ISL	9.11	9.10	34.018	26.334	170.5	0.284	2.23	34.4	32.3	2.16	28.1	0.04	0.03	0.19	126	
139	9.27	9.25	34.101	26.374	167.1	0.307	1.92	29.7	33.9	2.24	28.5	0.03	0.03	0.21	140	209
150 ISL	9.23	9.21	34.138	26.409	164.0	0.326	1.77	27.4	35.3	2.29	29.0	0.03	0.03	0.21	151	
170	9.02	9.00	34.174	26.471	158.4	0.358	1.59	24.5	37.9	2.37	29.9	0.03	0.03	0.19	171	208
199	8.60	8.58	34.191	26.551	151.3	0.403	1.40	21.4	42.1	2.49	31.3	0.03	0.02	0.17	200	207
200 ISL	8.58	8.56	34.192	26.555	150.9	0.404	1.39	21.2	42.3	2.49	31.4	0.03			201	
228	8.12	8.10	34.205	26.635	143.6	0.445	1.25	18.9	46.9	2.59	32.8	0.04			229	206
250 ISL	7.70	7.68	34.184	26.681	139.5	0.477	1.24	18.5	50.7	2.65	34.0	0.03			252	
268	7.41	7.38	34.171	26.712	136.7	0.501	1.22	18.1	53.6	2.69	34.9	0.02			270	205
300 ISL	7.25	7.22	34.219	26.773	131.4	0.544	0.93	13.8	57.9	2.81	35.9	0.02			302	
318	7.20	7.17	34.251	26.805	128.6	0.568	0.75	11.1	60.2	2.87	36.3	0.02			320	204
377	6.61	6.58	34.245	26.882	121.8	0.642	0.62	9.0	68.1	2.99	38.1	0.01			380	203
400 ISL	6.44	6.40	34.249	26.907	119.6	0.669	0.56	8.1	70.7	3.03	38.7	0.01			403	
437	6.23	6.19	34.262	26.945	116.4	0.713	0.47	6.8	74.4	3.08	39.6	0.01			440	202
500 ISL	5.99	5.95	34.298	27.005	111.4	0.785	0.35	5.0	79.0	3.14	40.4	0.00			504	
513	5.94	5.90	34.305	27.017	110.4	0.799	0.33	4.7	80.0	3.15	40.6	0.00			517	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 23.2 N	122 15.3 W	15/07/05	1719 UTC	4025 m	320 15 kn	330 04 07	2	1012.5 mb	16.0 C	14.9 C	17m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.06	16.06	32.859	24.089	381.6	0.000	5.83	103.3	2.6	0.31	0.0	0.01	0.38	0.11	0	
2 A	16.06	16.06	32.859	24.089	381.7	0.008	5.83	103.3	2.6	0.31	0.0	0.01	0.38	0.11	2	223
10 ISL	16.06	16.06	32.859	24.089	381.9	0.038	5.83	103.3	2.5	0.30	0.0	0.01	0.39	0.11	10	
12 A	16.06	16.06	32.859	24.089	381.9	0.046	5.83	103.3	2.5	0.30	0.0	0.01	0.39	0.11	12	221
20 ISL	16.05	16.05	32.889	24.115	379.7	0.076	5.85	103.7	2.4	0.31	0.0	0.01	0.47	0.15	20	
24 A	16.05	16.05	32.912	24.132	378.2	0.091	5.86	103.9	2.4	0.31	0.0	0.01	0.51	0.17	24	219
30 ISL	15.92	15.92	32.919	24.167	375.0	0.114	5.89	104.1	2.4	0.31	0.0	0.01	0.51	0.16	30	
36 A	15.61	15.60	32.875	24.203	371.8	0.136	5.91	103.8	2.4	0.31	0.0	0.01	0.52	0.16	36	218
47 A	14.35	14.34	32.935	24.521	341.7	0.176	6.16	105.5	2.1	0.31	0.0	0.01	0.51	0.23	47	217
50 ISL	14.15	14.14	32.934	24.562	337.9	0.186	6.14	104.7	2.2	0.32	0.2	0.04	0.55	0.25	50	
56	13.77	13.76	32.926	24.634	331.1	0.206	6.09	103.1	2.4	0.39	0.5	0.10	0.60	0.29	56	216
65 A	12.82	12.81	32.953	24.845	311.2	0.235	5.75	95.4	4.2	0.62	3.1	0.55	0.41	0.29	65	215
74	12.20	12.19	32.990	24.993	297.3	0.262	5.49	89.9	5.9	0.72	5.4	0.15	0.31	0.29	74	214
75 ISL	12.14	12.13	32.998	25.011	295.6	0.265	5.47	89.5	6.0	0.73	5.6	0.15	0.30	0.28	75	
85	11.54	11.53	33.088	25.192	278.5	0.294	5.20	84.1	7.3	0.88	8.1	0.19	0.23	0.22	85	213
95	10.90	10.89	33.150	25.355	263.1	0.321	4.82	76.9	11.1	1.14	12.6	0.15	0.14	0.17	95	212
100 ISL	10.63	10.62	33.231	25.466	252.7	0.334	4.66	73.9	13.6	1.30	15.2	0.12	0.11	0.16	100	
110	10.14	10.13	33.401	25.682	232.2	0.358	4.36	68.5	17.9	1.56	19.5	0.05	0.07	0.13	110	211
125	9.44	9.43	33.511	25.884	213.2	0.392	3.82	59.1	19.8	1.62	20.8	0.02	0.02	0.05	126	210
144	9.30	9.28	33.750	26.094	193.7	0.430	3.06	47.3	25.6	1.88	24.5	0.01	0.01	0.04	145	209
150 ISL	9.15	9.13	33.783	26.144	189.0	0.442	3.10	47.8	26.5	1.88	24.7	0.01	0.01	0.03	151	
169	8.67	8.65	33.844	26.268	177.5	0.477	3.24	49.4	28.6	1.86	25.3	0.01	0.00	0.02	170	208
199	8.53	8.51	33.982	26.398	165.7	0.528	2.69	40.9	33.2	2.04	27.8	0.01	0.01	0.06	200	207
200 ISL	8.52	8.50	33.985	26.402	165.4	0.530	2.68	40.8	33.3	2.04	27.9	0.01			201	
230	8.15	8.13	34.026	26.490	157.4	0.578	2.42	36.5	37.9	2.14	29.7	0.01			231	206
250 ISL	7.81	7.79	34.033	26.546	152.3	0.609	2.31	34.6	41.8	2.22	30.9	0.01			251	
269	7.50	7.47	34.039	26.596	147.7	0.638	2.18	32.4	45.5	2.31	32.0	0.01			271	205
300 ISL	7.26	7.23	34.079	26.661	141.9	0.682	1.73	25.6	50.3	2.51	33.9	0.01			302	
318	7.15	7.12	34.104	26.697	138.8	0.708	1.45	21.4	53.1	2.62	35.0	0.01			320	204
378	6.40	6.37	34.136	26.823	127.2	0.787	0.94	13.6	65.2	2.85	38.2	0.01			380	203
400 ISL	6.28	6.24	34.158	26.856	124.3	0.815	0.85	12.3	68.0	2.91	38.7	0.01			403	
436	6.16	6.12	34.198	26.904	120.2	0.859	0.27 U	3.9U	71.8	2.98	39.3	0.02			439	202
500 ISL	5.87	5.83	34.254	26.985	113.1	0.934	0.44	6.3	78.9	3.09	40.5	0.01			503	
520	5.78	5.74	34.272	27.011	110.9	0.956	0.36	5.1	81.1	3.13	40.9	0.01			524	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 3.0 N	122 56.4 W	15/07/05	0802 UTC	4234 m	330 19 kn			1012.0 mb	16.9 C	15.0 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.10	17.10	32.933	23.906	399.0	0.000	5.66	102.4	2.5	0.29	0.1	0.00	0.14	0.03	0	
3	17.10	17.10	32.933	23.906	399.1	0.012	5.66	102.4	2.5	0.29	0.1	0.00	0.14	0.03	3	220
10 ISL	17.10	17.10	32.932	23.906	399.4	0.040	5.67	102.6	2.4	0.29	0.1	0.00	0.14	0.03	10	
15	17.10	17.10	32.931	23.905	399.6	0.060	5.68	102.8	2.3	0.29	0.1	0.00	0.14	0.03	15	219
20 ISL	17.10	17.10	32.931	23.905	399.8	0.080	5.68	102.8	2.3	0.29	0.1	0.00	0.14	0.03	20	
30 ISL	17.10	17.10	32.931	23.905	400.0	0.120	5.67	102.6	2.3	0.29	0.1	0.00	0.15	0.02	30	
31	17.10	17.09	32.931	23.906	400.1	0.124	5.67	102.6	2.3	0.29	0.1	0.00	0.15	0.02	31	218
46	15.94	15.93	32.975	24.206	371.8	0.182	5.90	104.4	2.4	0.28	0.0	0.00	0.28	0.06	46	217
50 ISL	15.63	15.62	33.013	24.305	362.5	0.196	5.91	103.9	2.4	0.28	0.0	0.00	0.33	0.13	50	
60	14.89	14.88	33.103	24.536	340.7	0.232	5.94	103.0	2.3	0.29	0.0	0.00	0.44	0.32	60	216
75	13.96	13.95	33.124	24.749	320.8	0.281	5.91	100.5	2.5	0.35	0.1	0.08	0.56	0.56	75	215
85	12.93	12.92	33.072	24.916	305.0	0.313	5.59	93.1	3.9	0.56	2.9	0.05	0.38	0.37	85	214
96	12.12	12.11	33.142	25.127	285.1	0.345	5.24	85.8	6.3	0.81	7.4	0.02	0.15	0.17	96	213
100 ISL	11.69	11.68	33.166	25.225	275.8	0.356	5.05	81.9	7.6	0.93	9.4	0.02	0.12	0.16	100	
105	11.18	11.17	33.198	25.343	264.6	0.370	4.82	77.4	9.2	1.06	11.6	0.02	0.11	0.14	105	212
115	10.60	10.59	33.260	25.494	250.4	0.395	4.58	72.6	11.6	1.20	14.0	0.01	0.09	0.11	115	211
125	10.26	10.25	33.310	25.591	241.2	0.420	4.42	69.6	13.2	1.30	15.8	0.01	0.06	0.07	126	210
139	9.62	9.60	33.448	25.806	221.0	0.452	4.05	62.9	17.5	1.51	19.3	0.01	0.03	0.04	140	209
150 ISL	9.30	9.28	33.564	25.949	207.6	0.476	3.83	59.1	20.5	1.62	21.2	0.01	0.02	0.04	151	
165	9.03	9.01	33.707	26.104	193.1	0.506	3.56	54.7	24.0	1.74	23.3	0.01			166	208
196	8.79	8.77	33.884	26.281	176.9	0.563	2.88	44.0	29.8	1.97	26.8	0.01	0.00	0.02	197	207
200 ISL	8.75	8.73	33.903	26.302	174.9	0.570	2.79	42.6	30.6	2.00	27.2	0.01			201	
230	8.47	8.45	34.015	26.433	162.9	0.621	2.26	34.3	36.1	2.19	29.8	0.01			231	206
250 ISL	8.26	8.23	34.049	26.492	157.6	0.653	2.10	31.8	38.9	2.26	30.9	0.01			251	
271	8.06	8.03	34.072	26.540	153.4	0.686	1.97	29.7	41.6	2.32	31.7	0.01			273	205
300 ISL	7.96	7.93	34.125	26.597	148.4	0.730	1.61	24.2	45.4	2.46	32.8	0.01			302	
320	7.87	7.84	34.154	26.634	145.3	0.759	1.38	20.7	48.0	2.55	33.6	0.01			322	204
378	7.02	6.98	34.134	26.739	135.7	0.840	1.23	18.1	56.3	2.69	36.2	0.01			380	203
400 ISL	6.81	6.77	34.137	26.770	132.9	0.870	1.13	16.5	59.5	2.75	37.0	0.01			403	
436	6.53	6.49	34.153	26.820	128.4	0.917	0.93	13.5	64.9	2.85	38.2	0.01			439	202
500 ISL	6.05	6.01	34.211	26.929	118.6	0.996	0.55	7.9	74.3	3.03	40.3	0.01			503	
511	5.97	5.93	34.221	26.947	117.0	1.009	0.49	7.0	75.9	3.06	40.7	0.01			514	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 43.4 N	123 38.2 W	15/07/05	0150 UTC	4251 m	330 19 kn	330 08 08	2	1012.7 mb	18.1 C	16.4 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.34	17.34	33.030	23.924	397.3	0.000	5.66	103.0	2.3	0.29	0.0	0.00	0.20	-0.01	0	
2	17.34	17.34	33.030	23.924	397.4	0.008	5.66	103.0	2.3	0.29	0.0	0.00	0.20	-0.01	2	222
10 ISL	17.35	17.35	33.031	23.922	397.8	0.040	5.65	102.8	2.2	0.29	0.1	0.00	0.20	0.01	10	
16	17.35	17.35	33.031	23.923	398.0	0.064	5.64	102.6	2.2	0.29	0.1	0.00	0.20	0.02	16	220
20 ISL	17.34	17.34	33.029	23.924	398.0	0.080	5.64	102.6	2.2	0.29	0.1	0.00	0.20	0.02	20	
30 ISL	17.30	17.30	33.033	23.936	397.1	0.119	5.66	102.9	2.2	0.28	0.1	0.00	0.21	0.01	30	
31	17.30	17.29	33.034	23.937	397.1	0.123	5.66	102.9	2.2	0.28	0.1	0.00	0.21	0.01	31	219
45	17.11	17.10	33.031	23.980	393.4	0.179	5.67	102.7	2.0	0.28	0.1	0.00	0.27	0.04	45	218
50 ISL	16.77	16.76	33.026	24.056	386.3	0.198	5.73	103.1	2.1	0.28	0.1	0.00	0.29	0.04	50	
60	16.04	16.03	33.009	24.211	371.9	0.236	5.86	103.9	2.2	0.29	0.0	0.00	0.34	0.04	60	217
75	15.49	15.48	32.943	24.283	365.4	0.291	5.91	103.6	2.2	0.29	0.0	0.00	0.47	0.12	75	216
85	14.59	14.58	33.085	24.587	336.6	0.326	6.01	103.5	2.0	0.30	0.0	0.01	0.55	0.31	85	215
95	13.61	13.60	33.082	24.789	317.5	0.359	5.86	98.9	2.5	0.39	0.5	0.16	0.46	0.49	95	214
100 ISL	13.32	13.31	33.101	24.862	310.6	0.375	5.81	97.5	2.8	0.43	0.9	0.12	0.37	0.36	100	
105	13.00	12.99	33.121	24.941	303.2	0.390	5.73	95.5	3.3	0.49	1.3	0.07	0.28	0.20	105	212
115	11.74	11.73	33.149	25.203	278.2	0.419	5.35	86.9	5.7	0.75	5.9	0.18	0.17	0.14	115	211
124	11.11	11.09	33.172	25.336	265.7	0.444	5.00	80.1	8.1	0.96	9.9	0.07	0.15	0.14	125	210
125 ISL	11.04	11.02	33.178	25.353	264.1	0.446	4.95	79.2	8.5	0.99	10.4	0.06	0.14	0.14	126	
138	10.23	10.21	33.275	25.569	243.6	0.479	4.37	68.7	13.4	1.32	16.0	0.01	0.07	0.10	139	209
150 ISL	9.85	9.83	33.370	25.708	230.6	0.508	4.03	62.9	16.5	1.51	19.1	0.01	0.05	0.09	151	
170	9.50	9.48	33.547	25.904	212.3	0.552	3.58	55.5	21.0	1.71	22.3	0.01	0.03	0.07	171	208
193	8.99	8.97	33.796	26.181	186.4	0.598	2.96	45.4	27.5	1.93	25.9	0.02	0.01	0.07	194	207
200 ISL	8.89	8.87	33.847	26.236	181.2	0.611	2.87	44.0	28.9	1.96	26.5	0.02			201	
228	8.58	8.56	33.986	26.394	166.7	0.660	2.62	39.9	33.7	2.05	28.2	0.02			229	206
250 ISL	8.39	8.36	34.049	26.473	159.6	0.695	2.22	33.7	37.8	2.20	30.0	0.01			251	
269	8.19	8.16	34.074	26.523	155.1	0.725	1.93	29.1	41.1	2.32	31.4	0.01			270	205
300 ISL	7.61	7.58	34.052	26.591	148.8	0.772	2.08	31.0	45.3	2.32	32.2	0.01			302	
318	7.27	7.24	34.033	26.624	145.7	0.799	2.21	32.7	47.6	2.32	32.5	0.01			320	204
377	6.80	6.77	34.079	26.725	136.7	0.882	1.50	21.9	56.6	2.62	35.9	0.01			379	203
400 ISL	6.53	6.49	34.079	26.761	133.4	0.913									402	
437	6.11	6.07	34.080 D	26.817	128.3	0.962									440	202
500 ISL	5.73	5.69	34.147	26.918	119.3	1.040									503	
519	5.61	5.57	34.168 D	26.949	116.4	1.062									522	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 77 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 22.8 N	124 19.8 W	14/07/05	1941	UTC	4550 m	340	18 kn	350 08 07	2	1015.7 mb	18.9 C	16.8 C	19m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.17	18.17	33.111	23.785	410.5	0.000	5.54	102.5	2.4	0.27	0.0	0.00	0.15	0.03	0	
2 A	18.17	18.17	33.111	23.785	410.6	0.008	5.54	102.5	2.4	0.27	0.0	0.00	0.15	0.03	2	224
10 ISL	18.17	18.17	33.112	23.787	410.7	0.041	5.54	102.5	2.5	0.27	0.0	0.00	0.14	0.03	10	
14 A	18.17	18.17	33.112	23.787	410.9	0.057	5.54	102.5	2.5	0.27	0.0	0.00	0.14	0.03	14	221
20 ISL	18.11	18.11	33.108	23.799	409.9	0.082	5.55	102.5	2.4	0.27	0.0	0.00	0.15	0.03	20	
27 A	18.05	18.05	33.104	23.810	409.1	0.111	5.56	102.6	2.3	0.27	0.0	0.00	0.18	0.04	27	220
30 ISL	17.45	17.45	33.081	23.938	397.0	0.123	5.71	104.1	2.3	0.27	0.0	0.00	0.20	0.05	30	
40 A	15.33	15.32	33.043	24.394	353.7	0.160	6.14	107.4	2.2	0.28	0.0	0.00	0.31	0.11	40	219
46	14.73	14.72	33.059	24.536	340.3	0.181	6.12	105.7	2.5	0.31	0.1	0.00	0.39	0.20	46	218
50 ISL	14.54	14.53	33.066	24.582	336.0	0.195	6.11	105.2	2.6	0.32	0.0	0.00	0.42	0.23	50	
53 A	14.39	14.38	33.073	24.619	332.6	0.205	6.11	104.8	2.7	0.32	0.0	0.00	0.44	0.28	53	217
62	13.40	13.39	33.126	24.864	309.4	0.234	5.53	93.0	4.3	0.56	3.0	0.25	0.65	0.68	62	216
72 A	12.39	12.38	33.161	25.089	288.1	0.264	5.24	86.3	6.3	0.78	6.9	0.09	0.37	0.41	72	215
75 ISL	11.96	11.95	33.186	25.190	278.5	0.272	5.03	82.1	7.8	0.91	9.1	0.06	0.28	0.34	75	
79	11.40	11.39	33.221	25.321	266.1	0.283	4.76	76.8	9.9	1.08	12.0	0.03	0.19	0.25	79	214
85	10.78	10.77	33.257	25.459	253.0	0.299	4.59	73.1	11.7	1.22	14.1	0.02	0.13	0.16	85	213
93	10.26	10.25	33.337	25.612	238.6	0.318	4.24	66.8	14.8	1.39	17.2	0.02	0.09	0.11	93	212
100 ISL	9.98	9.97	33.396	25.705	229.8	0.335	3.98	62.3	16.9	1.51	19.2	0.02	0.07	0.09	100	
110	9.70	9.69	33.470	25.810	220.1	0.357	3.68	57.3	19.4	1.65	21.4	0.02	0.05	0.08	110	211
125	9.29	9.28	33.576	25.959	206.1	0.389	3.39	52.3	22.7	1.78	23.5	0.01	0.02	0.06	126	210
144	8.99	8.97	33.717	26.118	191.4	0.427	3.43	52.6	24.8	1.78	23.8	0.02	0.01	0.03	145	209
150 ISL	8.95	8.93	33.756	26.155	188.0	0.438	3.33	51.1	25.7	1.81	24.3	0.02	0.01	0.03	151	
171	8.85	8.83	33.876	26.265	177.9	0.477	2.86	43.8	29.3	1.96	26.5	0.01	0.00	0.03	172	208
198	8.59	8.57	34.001	26.404	165.2	0.523	2.41	36.7	34.1	2.11	28.9	0.01	0.00	0.03	199	207
200 ISL	8.57	8.55	34.006	26.411	164.6	0.526	2.39	36.4	34.4	2.12	29.0	0.01			201	
226	8.34	8.32	34.050	26.481	158.3	0.568	2.13	32.3	38.0	2.25	30.5	0.01			227	206
250 ISL	8.11	8.08	34.082	26.541	153.0	0.606	1.83	27.6	41.6	2.36	32.0	0.01			251	
270	7.92	7.89	34.103	26.585	149.0	0.636	1.60	24.0	44.6	2.45	33.2	0.01			272	205
300 ISL	7.64	7.61	34.124	26.643	143.9	0.680	1.39	20.7	48.8	2.56	34.3	0.01			302	
318	7.47	7.44	34.134	26.675	141.0	0.705	1.29	19.2	51.3	2.62	34.9	0.01			320	204
377	6.88	6.84	34.164	26.782	131.5	0.786	0.93	13.6	60.7	2.81	37.1	0.01			379	203
400 ISL	6.68	6.64	34.181	26.822	127.9	0.816									403	
435	6.40	6.36	34.208 D	26.881	122.6	0.859									438	202
500 ISL	5.98	5.94	34.247	26.966	115.0	0.937									503	
513	5.90	5.86	34.255 D	26.982	113.6	0.951									516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80.0 50.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 27.7 N	120 29.1 W	13/07/05	0411	UTC	23 m	290	13 kn			1013.2 mb	14.5 C	13.6 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	15.08	15.08	33.680	24.938	300.7	0.000	6.51	113.7	6.1	0.39	2.5	0.10	7.24	0.72	0	
2	15.08	15.08	33.680	24.938	300.8	0.006	6.51	113.7	6.1	0.39	2.5	0.10	7.24	0.72	2	204
6	15.04	15.04	33.678	24.945	300.2	0.018	6.49	113.3	6.1	0.41	2.5	0.10	7.28	1.31	6	203
10	14.86	14.86	33.679	24.985	296.5	0.030	6.32	109.9	6.5	0.45	3.1	0.11	8.66	0.59	10	202
16	14.32	14.32	33.683	25.104	285.4	0.047	5.85	100.6	8.0	0.60	5.0	0.14	8.17 A	0.75 A	16	201

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

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80 51

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 27.0 N	120 31.5 W	13/07/05	0459	UTC	76 m	300	19 kn			1013.4 mb	14.0 C	13.2 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	15.79	15.79	33.648	24.756	318.0	0.000	7.41	131.3	2.8	0.09	0.2	0.02	8.82	1.17	0	
1	15.79	15.79	33.648	24.756	318.0	0.003	7.41	131.3	2.8	0.09	0.2	0.02	8.82	1.17	1	209
10 ISL	12.35	12.35	33.633	25.462	251.1	0.029	4.75	78.4	10.3	0.99	10.7	0.17	4.34	1.04	10	
11	11.86	11.86	33.642 D	25.562	241.6	0.031	4.36	71.2	11.5	1.12	12.3	0.19	3.68	1.01	11	207
20 ISL	10.74	10.74	33.652	25.773	221.7	0.052	3.19	50.9	18.9	1.63	19.3	0.25	1.38	0.64	20	
21	10.70	10.70	33.654	25.781	220.9	0.054	3.12	49.7	19.6	1.67	19.9	0.26	1.23	0.60	21	206
30 ISL	10.25	10.25	33.766	25.947	205.4	0.074	2.68	42.3	24.2	1.88	23.0	0.15	0.41	0.45	30	
31	10.23	10.23	33.780	25.961	204.1	0.076	2.66	42.0	24.5	1.89	23.2	0.13	0.38	0.44	31	205
41	10.11	10.11	33.858	26.043	196.5	0.096	2.44	38.4	26.2	1.98	24.4	0.09	0.22	0.42	41	204
50	10.08	10.07	33.877	26.063	194.8	0.113	2.35	37.0	26.9	2.02	24.8	0.08	0.16	0.35	50	203
59	10.09	10.08	33.876	26.061	195.2	0.131	2.35	37.0	26.9	2.03	24.9	0.08	0.18	0.27	59	202
65	10.09	10.08	33.879	26.063	195.1	0.142			27.0	2.03	25.0	0.09	0.14	0.37	65	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
34 19.1 N	120 48.3 W	13/07/05	0754 UTC	791 m	320 16 kn			1014.2 mb	14.3 C	13.4 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	13.13	13.13	33.635	25.310	265.3	0.000	6.27	105.2	0.3	0.50	5.5	0.16	4.08	0.47	0	
2	13.13	13.13	33.635	25.310	265.3	0.005	6.27	105.2	0.3	0.50	5.5	0.16	4.08	0.47	2	220
10	13.11	13.11	33.633	25.313	265.3	0.027	6.29	105.5	0.2	0.50	5.5	0.16	4.28	0.56	10	219
20	12.78	12.78	33.652	25.393	257.9	0.053	5.81	96.8	0.9	1.05 U	7.3	0.19	5.16	1.20	20	218
30 ISL	12.42	12.42	33.666	25.474	250.4	0.078	5.29	87.5	3.5	0.96	9.5	0.23	5.01	0.94	30	
31	12.38	12.38	33.668	25.484	249.6	0.081	5.23	86.4	3.9	0.99	9.8	0.23	5.00	0.90	31	217
40	11.94	11.93	33.706	25.597	239.0	0.103	4.69	76.8	9.0	1.27	12.8	0.23	3.61	0.97	40	216
50	10.90	10.89	33.760	25.829	217.1	0.125	3.47	55.6	17.8	1.64	18.8	0.17	6.03	1.52	50	215
61	10.30	10.29	33.818	25.979	203.0	0.149	2.79	44.1	23.0	1.85	22.6	0.14	2.94	1.66	61	214
68	10.20	10.19	33.848	26.020	199.3	0.163	2.66	42.0	24.3	1.90	23.4	0.13	1.37	0.81	68	213
75 ISL	10.07	10.06	33.906	26.088	193.0	0.176	2.47	38.9	26.0	1.97	24.4	0.11	1.03	0.72	75	
87	9.88	9.87	34.024	26.212	181.4	0.199	2.13	33.4	29.2	2.10	26.1	0.07	0.46	0.57	87	212
100	9.78	9.77	34.129	26.311	172.3	0.222	1.82	28.5	32.1	2.22	27.3	0.04	0.22	0.42	101	211
119	9.64	9.63	34.180	26.375	166.7	0.254	1.62	25.3	34.3	2.30	28.2	0.03	0.09	0.29	120	210
125 ISL	9.54	9.53	34.176	26.388	165.5	0.264	1.62	25.2	35.0	2.31	28.5	0.03	0.07	0.28	126	
140	9.30	9.28	34.165	26.419	162.9	0.289	1.63	25.3	36.4	2.32	29.1	0.02	0.05	0.27	141	209
150 ISL	9.32	9.30	34.191	26.436	161.4	0.305	1.56	24.2	36.9	2.34	29.2	0.02	0.04	0.25	151	
169	9.36	9.34	34.241	26.469	158.7	0.335	1.39	21.6	37.7	2.40	29.3	0.02	0.03	0.21	170	208
200	9.06	9.04	34.263	26.535	153.0	0.384	1.22	18.8	40.7	2.49	30.4	0.02	0.03	0.16	201	207
228	8.90	8.88	34.276	26.571	150.1	0.426	1.13	17.4	42.3	2.54	30.9	0.02			229	206
250 ISL	8.76	8.73	34.290	26.605	147.3	0.459	1.03	15.8	44.1	2.60	31.4	0.01			252	
266	8.64	8.61	34.296	26.628	145.3	0.482	0.96	14.7	45.6	2.64	31.9	0.01			268	205
300 ISL	8.25	8.22	34.270	26.668	142.0	0.531	0.95	14.4	48.7	2.68	33.0	0.01			302	
319	8.03	8.00	34.252	26.687	140.4	0.558	0.95	14.3	50.5	2.69	33.6	0.01			321	204
380	7.58	7.54	34.259	26.759	134.3	0.642	0.81	12.1	56.3	2.78	35.0	0.01			383	203
400 ISL	7.42	7.38	34.252	26.777	132.9	0.668	0.79	11.7	57.8	2.80	35.4	0.01			403	
436	7.12	7.08	34.240	26.810	130.1	0.716	0.75	11.1	61.0	2.84	36.3	0.01			439	202
500 ISL	6.46	6.41	34.260	26.915	120.4	0.796	0.54	7.8	71.9	2.99	38.5	0.01			504	
513	6.33	6.28	34.265	26.936	118.5	0.811	0.50	7.2	74.1	3.02	39.0	0.01			517	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
34 9.4 N	121 9.4 W	13/07/05	1230 UTC	2240 m	330 17 kn			1014.3 mb	14.9 C	14.1 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	14.70	14.70	33.563	24.930	301.5	0.000	5.90	102.2	1.9	0.51	4.0	0.12	0.58	0.45	0	
2	14.70	14.70	33.563	24.930	301.5	0.006	5.90	102.2	1.9	0.51	4.0	0.12	0.58	0.45	2	220
10 ISL	14.64	14.64	33.559	24.940	300.8	0.030	5.91	102.2	1.8	0.51	4.1	0.12	0.64	0.46	10	
11	14.63	14.63	33.559	24.942	300.6	0.033	5.91	102.2	1.8	0.51	4.1	0.12	0.65	0.46	11	219
20 ISL	13.92	13.92	33.543	25.079	287.8	0.060	5.87	100.0	1.1	0.56	5.5	0.16	1.51	0.60	20	
21	13.82	13.82	33.543	25.100	285.9	0.062	5.86	99.7	1.1	0.57	5.7	0.17	1.68	0.62	21	218
30	13.15	13.15	33.575	25.261	270.8	0.088	5.57	93.5	2.5	0.77	7.2	0.21	4.23	0.97	30	217
40	11.57	11.56	33.590	25.576	241.0	0.113	4.29	69.6	11.2	1.41	13.6	0.34	0.51	0.28	40	216
50	10.95	10.94	33.642	25.729	226.7	0.137	3.62	58.0	15.6	1.65	17.3	0.33	0.24	0.20	50	215
60	10.18	10.17	33.638	25.860	214.4	0.159	3.54	55.8	20.1	1.73	21.6	0.13	0.11	0.22	60	214
70	10.01	10.00	33.722	25.954	205.6	0.180	3.15	49.5	22.6	1.82	23.0	0.08	0.07	0.18	70	213
75 ISL	9.92	9.91	33.734	25.979	203.3	0.190	3.10	48.6	23.2	1.84	23.4	0.08	0.06	0.18	75	
86	9.74	9.73	33.760	26.029	198.8	0.212	3.02	47.1	24.5	1.88	24.0	0.07	0.05	0.19	86	212
100	9.63	9.62	33.891	26.150	187.6	0.239	2.56	39.9	27.7	2.01	25.5	0.05	0.04	0.16	101	211
119	9.57	9.56	33.997	26.243	179.1	0.274	2.21	34.4	30.3	2.10	26.7	0.05	0.03	0.17	120	210
125 ISL	9.38	9.37	34.009	26.284	175.4	0.284	2.22	34.4	31.4	2.12	27.2	0.04	0.03	0.16	126	
141	8.78	8.77	34.026	26.393	165.2	0.312	2.24	34.3	34.8	2.16	28.7	0.03	0.02	0.14	142	209
150 ISL	8.53	8.51	34.042	26.444	160.4	0.326	2.18	33.2	37.0	2.20	29.5	0.03	0.02	0.12	151	
170	8.20	8.18	34.091	26.533	152.3	0.358	1.93	29.2	41.5	2.32	31.1	0.03	0.02	0.09	171	208
200 ISL	8.34	8.32	34.204	26.601	146.5	0.402	1.27	19.3	45.6	2.54	32.2	0.03	0.02	0.09	201	
201	8.35	8.33	34.207	26.602	146.4	0.404	1.25	19.0	45.7	2.55	32.2	0.03	0.02	0.09	202	207
228	8.07	8.05	34.234	26.666	140.7	0.443	1.02	15.4	50.4	2.69	33.3	0.02			229	206
250 ISL	7.86	7.83	34.238	26.700	137.8	0.473	0.94	14.1	52.9	2.74	34.0	0.02			252	
268	7.69	7.66	34.237	26.724	135.7	0.498	0.91	13.6	54.6	2.76	34.6	0.02			270	205
300 ISL	7.36	7.33	34.240	26.774	131.3	0.541	0.81	12.0	58.8	2.81	35.7	0.01			302	
318	7.17	7.14	34.243	26.803	128.7	0.564	0.75	11.1	61.3	2.84	36.3	0.01			320	204
378	6.63	6.60	34.273	26.901	120.0	0.639	0.54	7.9	69.8	2.99	38.2	0.01			381	203
400 ISL	6.38	6.34	34.273	26.934	117.0	0.665	0.49	7.1	73.2	3.04	39.1	0.01			403	
438	5.99	5.95	34.273	26.984	112.4	0.708	0.42	6.0	78.7	3.10	40.4	0.01			441	202
500 ISL	5.78	5.74	34.300	27.033	108.5	0.777	0.33	4.7	83.8	3.15	41.0	0.00			504	
517	5.72	5.68	34.308	27.046	107.4	0.795	0.30	4.3	85.2	3.17	41.2	0.00			521	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 49.4 N	121 50.7 W	13/07/05	1830	UTC	3634 m	320	15 kn	330 07 06	2	1015.9 mb	16.6 C	15.5 C	16m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	15.68	15.68	33.436	24.618	331.2	0.000	5.88	103.8	2.0	0.61	5.1	0.12	0.41	0.20	0	
2 A	15.68	15.68	33.436	24.618	331.3	0.007	5.88	103.8	2.0	0.61	5.1	0.12	0.41	0.20	2	224
10 ISL	15.67	15.67	33.434	24.619	331.4	0.033	5.89	103.9	2.0	0.60	5.1	0.12	0.40	0.21	10	
12 A	15.67	15.67	33.433	24.618	331.5	0.040	5.89	103.9	2.0	0.60	5.1	0.12	0.40	0.22	12	222
20 ISL	15.47	15.47	33.440	24.668	327.0	0.066	5.90	103.7	2.0	0.61	5.0	0.13	0.42	0.24	20	
23 A	15.40	15.40	33.442	24.685	325.5	0.076	5.90	103.6	2.0	0.61	4.9	0.13	0.44	0.25	23	221
30 ISL	14.54	14.54	33.532	24.941	301.3	0.098	5.89	101.7	2.4	0.68	4.4	0.13	0.50	0.32	30	
34 A	14.04	14.04	33.583	25.086	287.6	0.110	5.87	100.3	2.7	0.72	4.2	0.13	0.52	0.36	34	219
44 A	13.73	13.72	33.563	25.134	283.2	0.138	5.78	98.1	3.5	0.78	5.1	0.15	0.45	0.35	44	217
50 ISL	13.55	13.54	33.552	25.163	280.7	0.155	5.73	96.9	4.1	0.82	5.8	0.16	0.44	0.38	50	
52	13.49	13.48	33.548	25.172	279.9	0.161	5.71	96.5	4.3	0.83	6.0	0.17	0.43	0.38	52	216
61 A	11.68	11.67	33.562	25.534	245.5	0.184	5.19	84.4	9.6	1.22	11.5	0.27	0.36	0.25	61	214
70	10.40	10.39	33.682	25.856	214.9	0.205	4.40	69.7	17.7	1.64	17.5	0.26	0.23	0.18	70	213
75 ISL	10.04	10.03	33.699	25.931	207.9	0.216	4.06	63.8	20.2	1.76	19.7	0.27	0.18	0.16	75	
85	9.69	9.68	33.702	25.992	202.2	0.236	3.56	55.5	23.2	1.87	22.6	0.30	0.10	0.14	85	212
100 ISL	9.38	9.37	33.792	26.113	191.0	0.266	3.26	50.5	26.7	1.99	24.8	0.28	0.04	0.14	101	
101	9.37	9.36	33.798	26.120	190.4	0.267	3.25	50.3	26.9	2.00	24.9	0.28	0.04	0.14	102	211
120	8.94	8.93	33.865	26.241	179.2	0.303	2.84	43.6	29.9	2.05	26.8	0.21	0.03	0.15	121	210
125 ISL	8.89	8.88	33.881	26.262	177.3	0.312	2.79	42.8	30.3	2.05	27.0	0.17	0.03	0.15	126	
140	8.79	8.78	33.926	26.313	172.7	0.338	2.69	41.1	31.4	2.04	27.3	0.05	0.02	0.14	141	209
150 ISL	8.66	8.64	33.952	26.354	169.0	0.355	2.64	40.3	32.5	2.05	27.7	0.05	0.02	0.13	151	
170	8.35	8.33	33.993	26.433	161.7	0.388	2.55	38.6	35.4	2.10	28.7	0.05	0.01	0.10	171	208
199	7.87	7.85	34.031	26.535	152.4	0.433	2.33	34.9	41.1	2.22	30.6	0.04	0.01	0.06	200	207
200 ISL	7.86	7.84	34.031	26.537	152.3	0.435	2.33	34.9	41.2	2.22	30.6	0.04			201	
229	7.50	7.48	34.021	26.581	148.4	0.479	2.38	35.4	44.3	2.25	31.4	0.02			230	206
250 ISL	7.17	7.15	34.016	26.624	144.6	0.509	2.21	32.6	48.1	2.34	32.8	0.02			252	
269	6.90	6.88	34.020	26.664	140.9	0.537	1.97	28.9	51.9	2.45	34.2	0.02			271	205
300 ISL	6.69	6.66	34.059	26.723	135.6	0.579	1.54	22.5	57.0	2.63	36.0	0.01			302	
319	6.61	6.58	34.088	26.757	132.7	0.605	1.29	18.8	59.8	2.73	36.9	0.01			321	204
378	6.36	6.33	34.148	26.838	125.7	0.681	0.89	12.9	66.9	2.89	38.4	0.01			380	203
400 ISL	6.12	6.08	34.147	26.868	123.0	0.708	0.83	11.9	70.4	2.93	39.1	0.01			403	
437	5.72	5.68	34.146	26.917	118.4	0.753	0.76	10.8	76.3	3.00	40.2	0.01			440	202
500 ISL	5.55	5.51	34.221	26.998	111.5	0.826	0.47	6.7	83.1	3.11	41.3	0.01			503	
515	5.51	5.47	34.239	27.017	109.8	0.842	0.40	5.7	84.7	3.14	41.5	0.01			519	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 29.3 N	122 32.4 W	14/07/05	0047	UTC	3983 m	330	17 kn	330 12 09	2	1015.1 mb	17.5 C	15.8 C	18m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.10	17.10	33.045	23.992	390.8	0.000	5.63	102.0	2.2	0.28	0.0	0.00	0.18	0.00	0	
2	17.10	17.10	33.045	23.992	390.9	0.008	5.63	102.0	2.2	0.28	0.0	0.00	0.18	0.00	2	224
10 ISL	17.10	17.10	33.045	23.992	391.1	0.039	5.63	102.0	2.2	0.28	0.0	0.00	0.18	0.01	10	
16	17.10	17.10	33.045	23.992	391.3	0.063	5.64	102.1	2.2	0.28	0.0	0.00	0.18 A	0.02 A	16	223
20 ISL	17.10	17.10	33.045	23.992	391.4	0.078	5.64	102.1	2.2	0.28	0.0	0.00	0.17	0.02	20	
30	17.11	17.11	33.046	23.991	391.9	0.117	5.65	102.3	2.2	0.28	0.0	0.00	0.14	0.02	30	222
45	17.07	17.06	33.050	24.004	391.1	0.176	5.66	102.4	2.2	0.28	0.0	0.00	0.17	0.02	45	221
50 ISL	16.97	16.96	33.055	24.032	388.7	0.196	5.68	102.6	2.2	0.29	0.0	0.00	0.18	0.04	50	
55	16.67	16.66	33.001	24.060	386.1	0.215	5.73	102.9	2.2	0.29	0.0	0.00	0.22	0.05	55	219
65	15.02	15.01	32.948	24.389	354.9	0.252	6.01	104.4	1.8	0.29	0.0	0.00	0.43	0.32	65	218
75	14.37	14.36	33.019	24.582	336.7	0.287	6.03	103.4	1.8	0.33	0.1	0.01	0.75	0.23	75	216
84	13.93	13.92	33.124	24.755	320.4	0.316	5.93	100.8	2.4	0.35	0.2	0.01	0.50	0.19	84	214
95	13.01	13.00	33.077	24.905	306.4	0.351	5.73	95.5	3.7	0.53	1.6	0.08	0.35	0.14	95	213
100 ISL	12.75	12.74	33.095	24.970	300.3	0.366	5.65	93.7	3.9	0.56	2.1	0.11	0.31	0.15	100	
110	12.12	12.11	33.155	25.137	284.5	0.395	5.44	89.1	5.1	0.65	4.1	0.14	0.25	0.18	110	211
125	10.22	10.21	33.251	25.552	244.9	0.435	4.84	76.1	11.0	1.10	12.8	0.05	0.14	0.11	126	210
144	9.39	9.37	33.456	25.850	216.9	0.479	4.21	65.1	17.7	1.47	18.8	0.01	0.04	0.06	145	209
150 ISL	9.29	9.27	33.519	25.915	210.8	0.491	3.97	61.2	19.6	1.57	20.3	0.01	0.03	0.05	151	
170	9.13	9.11	33.710	26.091	194.5	0.532	3.23	49.7	25.2	1.83	24.2	0.01	0.01	0.03	171	208
198	8.73	8.71	33.911	26.311	174.0	0.584	2.75	42.0	31.1	2.01	27.0	0.01	0.01	0.04	199	207
200 ISL	8.72	8.70	33.922	26.322	173.1	0.587	2.71	41.4	31.5	2.02	27.2	0.01			201	
226	8.55	8.53	34.036	26.438	162.5	0.631	2.21	33.6	36.6	2.18	29.2	0.01			227	206
250 ISL	8.26	8.23	34.080	26.517	155.3	0.669	1.96	29.6	40.8	2.30	30.7	0.01			251	
270	7.98	7.95	34.094	26.570	150.5	0.699	1.82	27.4	44.1	2.39	31.8	0.01			271	205
300 ISL	7.58	7.55	34.109	26.640	144.2	0.744	1.59	23.7	49.3	2.51	33.4	0.01			302	
318	7.36	7.33	34.113	26.674	141.0	0.769	1.47	21.8	52.2	2.57	34.2	0.01			320	204
378	6.78	6.74	34.133	26.771	132.5	0.851	1.16	17.0	60.3	2.73	36.3	0.01			380	203
400 ISL	6.54	6.50	34.137	26.806	129.2	0.880	1.04	15.1	63.9	2.80	37.2	0.01			402	
438	6.15	6.11	34.149	26.866	123.7	0.928	0.84	12.1	70.2	2.92	38.8	0.01			441	202
500 ISL	5.76	5.72	34.196	26.953	116.0	1.002	0.55	7.9	79.3	3.04	40.4	0.01			503	
515	5.66	5.62	34.208	26.975	114.0	1.020	0.48	6.8	81.5	3.07	40.8	0.01			518	201

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

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 8.7 N	123 12.8 W	14/07/05	0710	UTC	4223 m	330	22 kn			1015.6 mb	17.5 C	15.7 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.46	18.46	33.177	23.764	412.5	0.000	5.47	101.8	2.2	0.29	0.0	0.00	0.09	0.02	0	
2	18.46	18.46	33.177	23.765	412.6	0.008	5.47	101.8	2.2	0.29	0.0	0.00	0.09	0.02	2	221
10 ISL	18.47	18.47	33.177	23.762	413.1	0.041	5.47	101.8	2.2	0.29	0.1	0.00	0.10	0.01	10	
15	18.47	18.47	33.177	23.763	413.2	0.062	5.47	101.8	2.2	0.29	0.1	0.00	0.11	0.01	15	219
20 ISL	18.47	18.47	33.177	23.763	413.4	0.083	5.47	101.8	2.2	0.29	0.1	0.00	0.10	0.01	20	
30	18.46	18.45	33.177	23.766	413.4	0.124	5.48	101.9	2.1	0.29	0.1	0.00	0.09	0.02	30	218
45	17.58	17.57	33.150	23.960	395.4	0.185	5.64	103.1	2.1	0.29	0.1	0.00	0.09	0.02	45	217
50 ISL	17.39	17.38	33.141	23.999	391.9	0.204	5.67	103.3	2.0	0.29	0.1	0.00	0.11	0.03	50	
59	16.88	16.87	33.112	24.097	382.7	0.239	5.74	103.5	2.0	0.30	0.1	0.00	0.14	0.04	59	216
75	14.70	14.69	33.022	24.515	343.2	0.297	6.09	105.1	2.4	0.32	0.1	0.00	0.18	0.07	75	215
85	13.99	13.98	33.043	24.680	327.6	0.331	6.06	103.1	2.7	0.35	0.1	0.00	0.24	0.16	85	214
94	12.63	12.62	33.062	24.967	300.3	0.359	5.64	93.3	4.6	0.59	3.1	0.08	0.40	0.29	94	213
100 ISL	11.91	11.90	33.092	25.127	285.1	0.377	5.30	86.4	6.2	0.78	6.4	0.12	0.37	0.28	100	
104	11.52	11.51	33.116	25.218	276.5	0.388	5.09	82.3	7.4	0.90	8.7	0.13	0.32	0.27	104	212
114	10.94	10.93	33.181	25.373	261.9	0.415	4.72	75.4	10.0	1.10	12.2	0.07	0.27	0.19	114	211
123	10.62	10.61	33.226	25.464	253.4	0.438	4.56	72.3	11.5	1.20	13.9	0.04	0.22	0.18	124	210
125 ISL	10.54	10.53	33.241	25.490	251.0	0.443	4.53	71.7	11.9	1.22	14.3	0.03	0.21	0.18	126	
138	10.03	10.01	33.350	25.662	234.8	0.475	4.31	67.5	14.6	1.36	16.8	0.01	0.14	0.16	139	209
150 ISL	9.78	9.76	33.455	25.786	223.2	0.502	3.95	61.6	17.4	1.51	19.3	0.01	0.09	0.11	151	
164	9.58	9.56	33.576	25.913	211.4	0.532	3.55	55.1	20.6	1.67	21.8	0.00	0.05	0.05	165	208
194	8.98	8.96	33.810	26.193	185.2	0.592	3.36	51.6	25.9	1.79	24.2	0.00	0.01	0.03	195	207
200 ISL	8.91	8.89	33.844	26.231	181.7	0.603	3.32	50.9	26.7	1.81	24.6	0.00			201	
229	8.62	8.60	33.964	26.370	168.9	0.654	3.05	46.5	30.9	1.91	26.3	0.00			230	206
250 ISL	8.34	8.31	34.011	26.450	161.6	0.688	2.76	41.8	34.8	2.03	28.1	0.00			251	
268	8.08	8.05	34.033	26.507	156.5	0.717	2.50	37.6	38.4	2.14	29.7	0.00			269	205
300 ISL	7.58	7.55	34.051	26.594	148.5	0.766	2.12	31.6	45.2	2.33	32.2	0.00			302	
318	7.30	7.27	34.054	26.636	144.6	0.792	1.94	28.7	48.9	2.42	33.5	0.00			320	204
378	6.61	6.58	34.070	26.744	134.9	0.876	1.50	21.8	58.4	2.63	36.4	0.00			380	203
400 ISL	6.37	6.33	34.076	26.780	131.5	0.905	1.35	19.5	62.1	2.71	37.4	0.00			402	
438	5.99	5.95	34.092	26.841	125.9	0.954	1.11	15.9	68.7	2.84	39.0	0.00			441	202
500 ISL	5.54	5.50	34.145	26.939	117.0	1.030	0.74	10.5	79.7	3.01	41.0	0.00			503	
516	5.42	5.38	34.159	26.965	114.7	1.048	0.64	9.1	82.6	3.06	41.5	0.00			519	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 80 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 49.4 N	123 54.6 W	14/07/05	1333	UTC	4353 m	330	24 kn	320 10 07	2	1014.7 mb	17.5 C	16.1 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.74	18.74	33.203	23.715	417.3	0.000	5.43	101.6	2.2	0.31	0.1	0.00	0.10	0.02	0	
3	18.74	18.74	33.203	23.715	417.4	0.013	5.43	101.6	2.2	0.31	0.1	0.00	0.10	0.02	3	220
10 ISL	18.74	18.74	33.204	23.716	417.5	0.042	5.43	101.6	2.2	0.31	0.1	0.00	0.09	0.02	10	
16	18.74	18.74	33.204	23.716	417.7	0.067	5.43	101.6	2.2	0.31	0.1	0.00	0.09	0.02	16	219
20 ISL	18.42	18.42	33.178	23.776	412.1	0.083	5.50	102.2	2.2	0.31	0.1	0.00	0.10	0.02	20	
30	17.47	17.47	33.116	23.960	394.9	0.124	5.68	103.6	2.3	0.30	0.1	0.00	0.12	0.03	30	218
45	16.62	16.61	33.113	24.157	376.5	0.182	5.79	103.9	2.1	0.28	0.1	0.00	0.12	0.04	45	217
50 ISL	16.16	16.15	33.134	24.279	365.0	0.200	5.86	104.2	2.0	0.28	0.1	0.00	0.14	0.05	50	
60	15.27	15.26	33.192	24.522	342.1	0.235	5.98	104.5	2.0	0.28	0.1	0.00	0.20	0.08	60	216
75 ISL	14.65	14.64	33.256	24.706	325.0	0.286	5.91	102.0	2.2	0.29	0.1	0.00	0.33	0.19	75	
76	14.61	14.60	33.261	24.718	323.8	0.289	5.90	101.8	2.2	0.29	0.1	0.00	0.34	0.20	76	215
85	13.98	13.97	33.323	24.899	306.8	0.317	5.77	98.3	2.6	0.33	0.2	0.01	0.35	0.26	85	214
94	12.85	12.84	33.245	25.066	291.0	0.344	5.54	92.2	4.1	0.52	2.6	0.08	0.32	0.20	94	213
100 ISL	12.47	12.46	33.272	25.161	282.1	0.361	5.41	89.3	4.7	0.60	4.1	0.14	0.27	0.20	100	
106	12.15	12.14	33.312	25.253	273.4	0.378	5.30	86.9	5.4	0.67	5.6	0.17	0.21	0.21	106	212
116	11.23	11.22	33.316	25.426	257.0	0.404	5.14	82.6	7.4	0.84	8.6	0.03	0.12	0.17	116	211
124	10.64	10.63	33.318	25.532	246.9	0.425	4.96	78.7	9.4	1.01	11.2	0.01	0.12	0.16	125	210
125 ISL	10.58	10.57	33.320	25.544	245.8	0.427	4.95	78.5	9.6	1.02	11.4	0.01	0.12	0.16	126	
140	9.85	9.83	33.381	25.716	229.6	0.463	4.77	74.4	13.0	1.18	14.5	0.00	0.07	0.11	141	209
150 ISL	9.47	9.45	33.470	25.848	217.2	0.485	4.55	70.5	15.9	1.32	16.9	0.00	0.04	0.08	151	
166	9.05	9.03	33.631	26.042	199.0	0.518	4.12	63.3	20.7	1.54	20.5	0.00	0.01	0.04	167	208
196	8.83	8.81	33.848	26.246	180.1	0.575	3.27	50.0	27.4	1.84	24.9	0.00	0.00	0.04	197	207
200 ISL	8.79	8.77	33.870	26.270	178.0	0.582	3.22	49.2	28.0	1.85	25.2	0.00			201	
229	8.47	8.45	33.986	26.411	165.1	0.632	3.01	45.7	32.5	1.92	26.8	0.00			230	206
250 ISL	8.19	8.16	34.023	26.482	158.5	0.666	2.73	41.2	36.5	2.04	28.6	0.00			251	
269	7.92	7.89	34.037	26.534	153.9	0.696	2.46	36.9	40.3	2.16	30.2	0.00			270	205
300 ISL	7.48	7.45	34.046	26.605	147.4	0.742	2.14	31.8	46.1	2.31	32.3	0.00			302	
319	7.22	7.19	34.048	26.643	143.9	0.770	1.97	29.1	49.5	2.40	33.4	0.00			321	204
381	6.53	6.50	34.082	26.764	132.9	0.856	1.44	20.9	60.2	2.71	36.9	0.00			383	203
400 ISL	6.39	6.35	34.096	26.793	130.3	0.881	1.26	18.2	63.1	2.80	37.6	0.00			402	
437	6.14	6.10	34.125	26.849	125.4	0.928	0.93	13.4	68.9	2.96	38.9	0.00			440	202
500 ISL	5.63	5.59	34.174	26.951	116.0	1.004	0.61	8.7	80.2	3.06	40.9	0.00			503	
511	5.54	5.50	34.183	26.969	114.3	1.017	0.55	7.8	82.2	3.08	41.3	0.00			514	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 81.7 43.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 24.3 N	119 48.2 W	12/07/05	2105 UTC	18 m	160 04 kn	230 01 07	4	1014.5 mb	19.3 C	17.4 C		8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.81	16.81	33.561	24.456	346.6	0.000	7.65	138.2	3.1	0.07	0.0	0.01	3.58	0.75	0	
1	16.81	16.81	33.561	24.456	346.6	0.003	7.65	138.2	3.1	0.07	0.0	0.01	3.58	0.75	1	204
5	16.07	16.07	33.569	24.632	329.9	0.017	7.46	132.8	5.3	0.13	0.1	0.02	7.31	1.46	5	203
10 ISL	14.61	14.61	33.553	24.942	300.6	0.033	5.95	102.9	7.9	0.25	0.4	0.05	5.44	1.42	10	
11	14.29	14.29	33.549	25.006	294.5	0.036	5.65	97.0	8.3	0.27	0.5	0.06	4.77	1.41	11	202
15	13.15	13.15	33.540	25.233	273.0	0.047	5.52	92.6	8.9	0.33	1.0	0.11	4.60	1.38	15	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 82 47

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 16.5 N	120 1.9 W	12/07/05	2314 UTC	584 m	250 06 kn	260 05 06	4	1014.3 mb	17.4 C	16.3 C	13m	8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.53	16.53	33.694	24.623	330.7	0.000	6.29	113.1	0.3	0.26	0.6	0.07	1.19	0.33	0	
1 A	16.53	16.53	33.694	24.623	330.7	0.003	6.29	113.1	0.3	0.26	0.6	0.07	1.19	0.33	1	224
10	13.31	13.31	33.735	25.352	261.6	0.030	6.62	111.6	0.1	0.33	2.8	0.11	3.21	0.37	10	223
20	12.24	12.24	33.725	25.554	242.6	0.055	4.21	69.4	7.8	1.22	10.8	0.19	12.28	1.94	20	222
30	11.52	11.52	33.735	25.697	229.2	0.079	3.39	55.0	15.4	1.65	15.8	0.27	1.75	1.12	30	220
41	10.95	10.95	33.728	25.795	220.1	0.103	3.03	48.6	18.9	1.77	19.5	0.28	0.79	0.69	41	219
50 ISL	10.54	10.53	33.747	25.882	212.0	0.123	2.74	43.5	21.6	1.86	22.2	0.36	0.53	0.91	50	
51	10.50	10.49	33.751	25.893	211.1	0.125	2.71	43.0	21.9	1.87	22.5	0.37	0.52	0.93	51	218
60	10.28	10.27	33.832	25.994	201.6	0.144	2.49	39.4	24.4	1.97	23.7	0.27	0.47	0.52	60	217
71	10.18	10.17	33.883	26.051	196.4	0.165	2.36	37.2	25.8	2.01	24.6	0.22	0.22	0.41	71	216
75 ISL	10.14	10.13	33.907	26.077	194.1	0.173	2.30	36.3	26.3	2.03	24.9	0.20	0.20	0.42	75	
85	10.03	10.02	33.976	26.149	187.4	0.192	2.13	33.5	28.0	2.09	25.7	0.15	0.14	0.45	85	215
100	9.78	9.77	34.100	26.288	174.5	0.220	1.84	28.8	31.8	2.22	27.1	0.12	0.12	0.35	101	214
119	9.42	9.41	34.239	26.457	158.8	0.251	1.34	20.8	37.6	2.43	29.3	0.08	0.05	0.25	120	213
125 ISL	9.37	9.36	34.240	26.466	158.1	0.261	1.31	20.3	38.4	2.45	29.4	0.08	0.06	0.30	126	
140	9.28	9.26	34.252	26.490	156.1	0.284	1.25	19.4	39.4	2.48	29.8	0.09	0.08	0.43	141	212
150 ISL	9.22	9.20	34.257	26.504	155.0	0.300	1.22	18.9	40.2	2.50	30.0	0.10	0.07	0.38	151	
170	9.08	9.06	34.260	26.529	153.0	0.331	1.16	17.9	41.7	2.54	30.3	0.11	0.03	0.21	171	211
199	8.79	8.77	34.243	26.562	150.3	0.375	1.08	16.6	44.5	2.59	31.2	0.08	0.03	0.21	200	210
200 ISL	8.78	8.76	34.242	26.563	150.2	0.376	1.08	16.5	44.7	2.59	31.2	0.08			201	
228	8.45	8.43	34.220	26.597	147.4	0.418	0.94	14.3	49.2	2.69	32.1	0.04			229	209
250 ISL	8.16	8.13	34.207	26.631	144.4	0.450	0.89	13.4	52.3	2.74	32.8	0.03			252	
269	7.93	7.90	34.201	26.661	141.8	0.477	0.87	13.1	54.6	2.77	33.4	0.02			271	208
300 ISL	7.76	7.73	34.201	26.686	139.9	0.521	0.81	12.1	56.7	2.81	33.9	0.01			302	
319	7.68	7.65	34.205	26.701	138.8	0.547	0.77	11.5	57.9	2.83	34.1	0.01			321	207
376	7.22	7.18	34.227	26.785	131.5	0.624	0.61	9.0	65.5	2.97	34.7	0.01			379	206
400 ISL	7.06	7.02	34.232	26.811	129.3	0.656	0.50	7.4	70.1	3.06	34.4	0.01			403	
438	6.84	6.80	34.238	26.846	126.4	0.704	0.32	4.7	78.8	3.26	32.5	0.01			441	205
477	6.67	6.63	34.248	26.877	123.8	0.753	0.15	2.2	89.6	3.54	28.3	0.01			480	204
500 ISL	6.60	6.55	34.252	26.890	122.9	0.781	0.08	1.2	97.8	3.84	23.8	0.01			504	
511	6.57	6.52	34.254	26.896	122.5	0.795	0.05	0.7	101.3	3.97	22.0	0.01			515	203
541	6.52	6.47	34.258	26.906	122.0	0.831	0.03	0.4	104.9	4.10	21.6	0.01			545	202
572	6.50	6.45	34.261	26.911	121.9	0.869	0.01	0.1	113.1	4.61	19.5	0.55			576	201

A) SANTA BARBARA BASIN STATION.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83.3 39.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 15.5 N	119 19.5 W	12/07/05	1559 UTC	21 m	180 02 kn	00	4	1014.0 mb	18.1 C	16.9 C		8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.43	17.43	33.450	24.224	368.7	0.000	8.99	164.3	4.9	0.13	0.0	0.03	20.70	2.36	0	
2	17.43	17.43	33.450	24.224	368.8	0.007	8.99	164.3	4.9	0.13	0.0	0.03	20.70	2.36	2	204
5	16.70	16.70	33.454	24.399	352.2	0.018	7.73	139.2	5.1	0.11	0.0	0.03	8.54	1.74	5	203
10	14.53	14.53	33.490	24.910	303.6	0.035	5.52	95.2	7.0	0.20	0.0	0.03	5.81	1.83	10	202
15	13.69	13.69	33.500	25.093	286.3	0.049	4.26	72.2	11.2	0.44	0.2	0.08	5.91	2.09	15	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 13.6 N	119 24.5 W	12/07/05	1435 UTC	34 m	180 03 kn	00	4	1013.0 mb	16.2 C	15.9 C		8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.33	17.33	33.495	24.282	363.1	0.000	7.05	128.6	0.8	0.11	0.0	0.01	8.12	1.20	0	
1	17.33	17.33	33.495	24.282	363.2	0.004	7.05	128.6	0.8	0.11	0.0	0.01	8.12	1.20	1	208
5	16.88	16.88	33.501	24.393	352.7	0.018	6.97	126.0	1.4	0.11	0.0	0.01	6.09	1.03	5	207
10	15.40	15.40	33.497	24.727	321.1	0.035	6.38	112.0	2.1	0.22	0.1	0.02	6.10	1.23	10	205
20	12.06	12.06	33.542	25.447	252.8	0.063	3.98	65.2	11.5	1.26	12.6	0.32	2.93	0.94	20	202
29	11.32	11.32	33.574	25.609	237.6	0.086	3.46	55.8	16.8	1.60	15.6	0.36	1.97	1.04	29	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 10.6 N	119 30.6 W	12/07/05	1834 UTC	164 m	180 05 kn	00	2	1014.6 mb	18.5 C	16.5 C	7m	8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.22	17.22	33.500	24.312	360.3	0.000	6.85	124.7	0.7	0.17	0.0	0.01	2.18	1.05	0	
1 A	17.22	17.22	33.500	24.312	360.3	0.004	6.85	124.7	0.7	0.17	0.0	0.01	2.18	1.05	1	219
5 A	17.16	17.16	33.500	24.327	359.1	0.018	6.84	124.4	0.7	0.17	0.0	0.01	2.26	1.01	5	218
10 A	16.23	16.23	33.500	24.543	338.6	0.035	6.79	121.2	0.9	0.18	0.1	0.01	3.34	1.35	10	216
15 A	14.61	14.61	33.485	24.889	305.8	0.052	6.17	106.6	3.9	0.42	1.4	0.06	6.11	1.96	15	213
19 A	12.81	12.81	33.464	25.242	272.3	0.063	5.17	86.1	8.0	0.85	6.7	0.16	1.86	1.03	19	212
20 ISL	12.56	12.56	33.469	25.294	267.3	0.066	4.99	82.6	8.8	0.92	7.7	0.18	1.76	1.01	20	
27 A	11.64	11.64	33.522	25.510	247.0	0.084	4.15	67.4	13.1	1.25	13.0	0.27	1.10	0.86	27	211
30 ISL	11.38	11.38	33.538	25.570	241.3	0.091	3.93	63.5	14.3	1.34	14.5	0.29	0.98	0.76	30	
34	11.12	11.12	33.558	25.632	235.4	0.101	3.70	59.5	15.5	1.43	16.1	0.30	0.88	0.63	34	210
40	10.84	10.84	33.593	25.710	228.2	0.115	3.32	53.0	17.4	1.58	18.6	0.33	0.72	0.57	40	209
50	10.51	10.50	33.714	25.862	213.9	0.137	2.83	44.9	20.7	1.78	21.7	0.19	0.53	0.46	50	208
60	10.47	10.46	33.792	25.930	207.7	0.158	2.53	40.1	22.6	1.88	22.9	0.14	0.42	0.38	60	207
70	10.28	10.27	33.992	26.119	190.0	0.178	1.97	31.2	27.6	2.10	25.6	0.03	0.10	0.22	70	205
75 ISL	10.27	10.26	34.004	26.130	189.0	0.187	1.94	30.7	27.9	2.11	25.7	0.03	0.09	0.23	75	
85	10.25	10.24	34.027	26.152	187.2	0.206	1.89	29.9	28.4	2.14	25.9	0.03	0.07	0.26	85	204
100	10.15	10.14	34.092	26.220	181.1	0.234	1.77	27.9	30.0	2.20	26.5	0.03	0.03	0.15	101	203
120	10.11	10.10	34.177	26.293	174.5	0.269	1.57	24.8	32.0	2.28	27.1	0.04	0.03	0.13	121	202
125 ISL	10.07	10.06	34.187	26.308	173.3	0.278	1.55	24.4	32.4	2.30	27.2	0.04	0.03	0.14	126	
140	9.97	9.95	34.217	26.349	169.7	0.304	1.47	23.1	33.6	2.35	27.6	0.05	0.03	0.16	141	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 51

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 52.7 N	120 8.2 W	12/07/05	0734 UTC	106 m	100 08 kn			1012.5 mb	15.7 C	14.9 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	14.21	14.21	33.670	25.116	283.7	0.000	5.75	98.7	4.8	0.64	4.6	0.09	8.61	1.18	0	
1	14.21	14.21	33.670	25.116	283.7	0.003	5.75	98.7	4.8	0.64	4.6	0.09	8.61	1.18	1	212
10	10.97	10.97	33.681	25.755	223.2	0.026	3.42	54.8	17.0	1.58	18.2	0.25	1.97	0.81	10	209
20	10.52	10.52	33.738	25.878	211.7	0.047	3.04	48.3	20.2	1.73	20.7	0.22	1.14	0.71	20	208
30	10.02	10.02	33.924	26.109	190.0	0.067	2.36	37.1	26.6	2.01	24.8	0.09	0.21	0.36	30	207
40	9.99	9.99	33.941	26.128	188.4	0.086	2.32	36.5	27.0	2.01	25.0	0.07	0.16	0.25	40	206
50	10.05	10.04	33.961	26.134	188.1	0.105	2.24	35.3	27.5	2.03	25.0	0.12	0.20	0.43	50	205
59	9.99	9.98	33.964	26.146	187.1	0.122	2.26	35.5	27.4	2.04	25.3	0.08	0.17	0.32	59	204
69	9.88	9.87	34.057	26.238	178.6	0.140	1.93	30.3	30.7	2.16	26.4	0.17	0.12	0.38	69	203
75 ISL	9.87	9.86	34.060	26.242	178.4	0.151	1.91	30.0	30.9	2.17	26.4	0.19	0.12	0.40	75	
85	9.85	9.84	34.065	26.249	177.9	0.169	1.87	29.3	31.3	2.18	26.5	0.21	0.12	0.42	85	202
95	9.81	9.80	34.084	26.271	176.1	0.187	1.82	28.5	31.8	2.20	26.8	0.22	0.11	0.46	96	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 44.8 N	120 25.0 W	12/07/05	0332 UTC	1079 m	310 08 kn	320 06 06	4	1012.3 mb	14.9 C	13.7 C		4/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	13.96	13.96	33.624	25.133	282.1	0.000	6.99	119.3	2.3	0.29	0.3	0.06	14.23	-0.08	0	
2	13.96	13.96	33.624	25.133	282.2	0.006	6.99	119.3	2.3	0.29	0.3	0.06	14.23	-0.08	2	223
10	12.81	12.81	33.631	25.371	259.8	0.027	5.41	90.2	7.5	0.69	8.0	0.13	13.64	-0.54	10	219
20	12.43	12.43	33.646	25.457	251.9	0.053	4.85	80.2	10.8	0.96	10.4	0.15	7.72	-0.16	20	218
30	12.22	12.22	33.654	25.503	247.7	0.078	4.55	74.9	12.4	1.15	11.9	0.15	4.21	0.18	30	217
40	10.82	10.82	33.734	25.823	217.4	0.101	3.31	52.9	20.4	1.67	19.4	0.18	1.04	0.72	40	216
50	10.07	10.06	33.835	26.032	197.8	0.122	2.60	40.9	25.6	1.92	23.8	0.07	0.28	0.32	50	215
61	9.76	9.75	33.872	26.113	190.3	0.143	2.55	39.9	27.5	1.98	24.9	0.06	0.18	0.45	61	214
70	9.44	9.43	33.925	26.207	181.5	0.160	2.40	37.3	30.2	2.07	26.4	0.04	0.07	0.27	70	213
75 ISL	9.34	9.33	33.940	26.235	178.9	0.169	2.37	36.7	30.9	2.08	26.8	0.03	0.06	0.21	75	
85	9.23	9.22	33.958	26.267	176.1	0.187	2.35	36.3	31.5	2.10	27.1	0.03	0.03	0.17	85	212
100	9.20	9.19	33.992	26.299	173.4	0.213	2.23	34.4	32.6	2.14	27.6	0.03	0.03	0.22	101	211
120	9.03	9.02	34.057	26.377	166.3	0.247	1.94	29.9	35.6	2.24	29.0	0.04	0.05	0.27	121	210
125 ISL	8.98	8.97	34.071	26.396	164.6	0.255	1.88	28.9	36.3	2.26	29.3	0.04	0.05	0.26	126	
141	8.83	8.81	34.106	26.448	160.0	0.281	1.75	26.8	38.2	2.33	29.9	0.04	0.05	0.22	142	209
150 ISL	8.77	8.75	34.117	26.466	158.5	0.295	1.72	26.3	38.8	2.35	30.1	0.04	0.04	0.22	151	
169	8.62	8.60	34.129	26.499	155.6	0.325	1.68	25.6	40.1	2.39	30.5	0.03	0.03	0.21	170	208
199	8.25	8.23	34.145	26.568	149.5	0.371	1.60	24.2	43.7	2.44	31.6	0.03	0.02	0.18	200	207
200 ISL	8.24	8.22	34.146	26.571	149.3	0.373	1.60	24.2	43.8	2.44	31.6	0.03			201	
229	8.12	8.10	34.163	26.602	146.8	0.416	1.49	22.5	45.5	2.49	32.4	0.03			230	206
250 ISL	8.00	7.97	34.184	26.637	143.8	0.446	1.34	20.2	47.5	2.56	33.1	0.03			252	
269	7.86	7.83	34.197	26.668	141.1	0.473	1.22	18.3	49.5	2.62	33.7	0.03			271	205
300 ISL	7.50	7.47	34.180	26.707	137.8	0.516	1.21	18.0	52.7	2.67	34.6	0.03			302	
317	7.29	7.26	34.169	26.728	135.9	0.540	1.20	17.8	54.6	2.69	35.1	0.03			319	204
377	6.79	6.75	34.200	26.822	127.6	0.619	0.87	12.7	62.5	2.84	37.2	0.01			380	203
400 ISL	6.65	6.61	34.214	26.852	125.0	0.648	0.76	11.1	65.3	2.89	37.8	0.01			403	
437	6.47	6.43	34.239	26.896	121.3	0.693	0.60	8.7	69.6	2.97	38.6	0.01			440	202
500 ISL	6.29	6.24	34.296	26.965	115.5	0.768	0.41	5.9	76.2	3.06	39.3	0.01			504	
512	6.25	6.20	34.307	26.979	114.3	0.782	0.37	5.3	77.4	3.08	39.4	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 34.8 N	120 45.5 W	11/07/05	2306 UTC	1421 m	340 21 kn	320 07 07	2	1012.8 mb	15.7 C	14.8 C	12m	8/8	AS

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	14.37	14.37	33.447	24.910	303.3	0.000	5.89	101.3	3.1	0.57	4.2	0.16	0.71	0.34	0	
1	14.37	14.37	33.447	24.910	303.3	0.003	5.89	101.3	3.1	0.57	4.2	0.16	0.71	0.34	1	221
10	14.35	14.35	33.447	24.915	303.2	0.030	5.89	101.2	2.9	0.57	4.2	0.15	0.69	0.34	10	219
20	14.11	14.11	33.448	24.966	298.6	0.060	5.90	100.9	2.7	0.56	4.4	0.17	0.85	0.40	20	218
30	13.86	13.86	33.498	25.057	290.2	0.090	5.85	99.6	2.1	0.57	4.5	0.17	2.63	0.60	30	217
40	11.31	11.31	33.323	25.416	256.2	0.117	4.95	79.7	11.0	1.19	12.4	0.38	0.47	0.27	40	216
50	10.74	10.73	33.413	25.587	240.1	0.142	4.66	74.2	14.2	1.36	15.4	0.43	0.26	0.17	50	215
60	10.54	10.53	33.446	25.648	234.5	0.166	4.38	69.4	14.9	1.44	17.0	0.29	0.21	0.17	60	214
70	10.44	10.43	33.619	25.800	220.2	0.188	3.85	61.0	17.8	1.67	19.6	0.32	0.08	0.12	70	213
75 ISL	10.17	10.16	33.636	25.860	214.6	0.199	3.70	58.3	19.2	1.71	20.7	0.26	0.07	0.12	75	
85	9.64	9.63	33.663	25.970	204.3	0.220	3.39	52.8	22.3	1.77	22.6	0.13	0.04	0.11	85	212
100	9.63	9.62	33.904	26.160	186.6	0.250	2.49	38.8	27.7	2.03	25.7	0.16	0.03	0.17	101	211
119	9.24	9.23	34.042	26.332	170.6	0.284	2.08	32.2	32.5	2.17	27.8	0.07	0.03	0.19	120	210
125 ISL	9.14	9.13	34.060	26.362	167.9	0.294	2.09	32.2	33.3	2.18	28.0	0.07	0.03	0.19	126	
140	8.90	8.89	34.080	26.416	163.0	0.318	2.11	32.4	35.0	2.19	28.4	0.06	0.03	0.19	141	209
150 ISL	8.69	8.67	34.088	26.456	159.4	0.335	2.10	32.1	36.6	2.21	28.9	0.05	0.02	0.17	151	
170	8.29	8.27	34.096	26.523	153.2	0.366	2.08	31.5	40.0	2.26	30.0	0.03	0.01	0.13	171	208
199	7.93	7.91	34.099	26.580	148.3	0.410	1.95	29.3	43.7	2.35	31.3	0.04	0.01	0.13	200	207
200 ISL	7.92	7.90	34.098	26.580	148.2	0.411	1.95	29.3	43.8	2.35	31.3	0.04			201	
229	7.50	7.48	34.079	26.627	144.1	0.453	1.90	28.2	47.3	2.40	32.7	0.04			230	206
250 ISL	7.23	7.21	34.079	26.665	140.7	0.483	1.75	25.9	50.5	2.48	33.9	0.03			252	
268	7.03	7.00	34.087	26.699	137.7	0.508	1.58	23.2	53.4	2.57	34.9	0.02			270	205
300 ISL	6.80	6.77	34.117	26.754	132.8	0.552	1.26	18.4	58.2	2.71	36.4	0.01			302	
317	6.71	6.68	34.135	26.781	130.5	0.574	1.10	16.1	60.5	2.77	37.0	0.01			319	204
377	6.38	6.35	34.177	26.858	123.8	0.650	0.85	12.3	67.3	2.89	38.2	0.01			379	203
400 ISL	6.22	6.18	34.189	26.889	121.2	0.679	0.72	10.4	70.6	2.95	38.9	0.01			403	
438	5.95	5.91	34.206	26.937	116.9	0.724	0.53	7.6	76.1	3.04	40.1	0.01			441	202
500 ISL	5.60	5.56	34.236	27.004	111.0	0.794	0.43	6.1	83.1	3.11	41.2	0.00			504	
513	5.53	5.49	34.243	27.018	109.8	0.809	0.41	5.8	84.6	3.13	41.4	0.00			517	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 13.8 N	121 27.9 W	11/07/05	1759 UTC	3561 m	350 25 kn	350 08 05	2	1013.8 mb	17.0 C	16.0 C	14m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.15	16.15	33.200	24.330	358.6	0.000	5.78	102.8	1.9	0.45	2.3	0.08	0.37	0.15	0	
2 A	16.15	16.15	33.200	24.330	358.6	0.007	5.78	102.8	1.9	0.45	2.3	0.08	0.37	0.15	2	224
10 A	16.15	16.15	33.200	24.331	358.8	0.036	5.79	103.0	1.8	0.44	2.3	0.08	0.36	0.14	10	222
20 A	16.13	16.13	33.202	24.337	358.5	0.072	5.81	103.3	1.7	0.51	3.0	0.11	0.36	0.13	20	220
30 ISL	15.65	15.65	33.252	24.484	344.9	0.107	5.93	104.5	1.7	0.51	3.0	0.10	0.39	0.18	30	
31 A	15.60	15.60	33.257	24.499	343.5	0.110	5.94	104.6	1.7	0.51	3.0	0.10	0.39	0.18	31	219
38 A	13.12	13.11	33.310	25.062	289.9	0.133	5.84	97.8	4.0	0.80	6.4	0.22	0.74	0.42	38	218
46	11.91	11.90	33.295	25.284	268.9	0.155	5.30	86.5	8.2	1.02	9.7	0.33	0.50	0.29	46	216
50 ISL	11.47	11.46	33.327	25.390	258.9	0.165	5.03	81.3	10.3	1.16	11.8	0.38	0.38	0.22	50	
54 A	11.11	11.10	33.369	25.488	249.7	0.176	4.78	76.7	12.2	1.29	14.0	0.41	0.27	0.16	54	215
63	10.51	10.50	33.457	25.662	233.2	0.197	4.35	68.9	15.6	1.49	17.8	0.37	0.12	0.10	63	214
70	10.03	10.02	33.511	25.786	221.5	0.213	4.00	62.7	18.8	1.63	20.6	0.04	0.07	0.14	70	213
75 ISL	9.74	9.73	33.568	25.879	212.8	0.224	3.74	58.3	20.9	1.71	22.0	0.03	0.05	0.13	75	
85	9.31	9.30	33.682	26.038	197.8	0.245	3.36	51.9	23.9	1.80	23.6	0.02	0.02	0.07	85	212
100	9.07	9.06	33.766	26.143	188.1	0.274	3.48	53.5	24.5	1.76	23.4	0.01	0.01	0.05	100	211
120	8.89	8.88	33.885	26.265	176.9	0.310	3.18	48.7	27.6	1.85	25.1	0.01	0.00	0.05	121	210
125 ISL	8.83	8.82	33.910	26.294	174.3	0.319	3.12	47.8	28.5	1.87	25.5	0.01	0.00	0.05	126	
140	8.64	8.63	33.971	26.371	167.1	0.344	2.94	44.8	31.1	1.93	26.6	0.01	0.00	0.03	141	209
150 ISL	8.54	8.52	33.996	26.406	164.0	0.361	2.81	42.8	32.6	1.98	27.3	0.01	0.00	0.02	151	
169	8.33	8.31	34.024	26.461	159.1	0.392	2.57	38.9	35.7	2.09	28.7	0.01	0.00	0.02	170	208
198	7.82	7.80	34.051	26.558	150.2	0.437	2.20	32.9	42.1	2.25	31.2	0.01	0.00	0.02	199	207
200 ISL	7.79	7.77	34.051	26.563	149.8	0.440	2.19	32.8	42.4	2.26	31.3	0.01			201	
229	7.43	7.41	34.056	26.619	144.9	0.482	2.03	30.1	46.8	2.38	32.6	0.01			230	206
250 ISL	7.21	7.19	34.074	26.664	140.8	0.512	1.79	26.4	50.5	2.49	33.7	0.01			251	
269	7.03	7.00	34.091	26.702	137.4	0.539	1.57	23.1	53.8	2.59	34.6	0.01			271	205
300 ISL	6.72	6.69	34.096	26.749	133.3	0.581	1.40	20.4	57.9	2.68	35.8	0.01			302	
319	6.56	6.53	34.101	26.774	131.1	0.606	1.31	19.1	60.2	2.73	36.4	0.01			321	204
378	6.34	6.31	34.179	26.865	123.2	0.681	0.75	10.9	68.5	2.95	38.5	0.01			380	203
400 ISL	6.23	6.19	34.194	26.891	120.9	0.708	0.65	9.4	71.0	3.00	39.0	0.01			403	
438	6.04	6.00	34.213	26.931	117.5	0.753	0.54	7.8	75.1	3.06	39.8	0.01			441	202
500 ISL	5.74	5.70	34.253	27.000	111.5	0.824	0.38	5.4	81.6	3.15	40.9	0.00			503	
517	5.66	5.62	34.264	27.019	109.9	0.843	0.34	4.8	83.4	3.17	41.2	0.00			521	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
32 54.1 N	122 8.0 W	11/07/05	1029 UTC	4186 m	320 23 kn			1013.5 mb	17.0 C	16.4 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.05	16.05	32.916	24.135	377.2	0.000	5.78	102.5	2.5	0.30	0.0	0.01	0.16	0.05	0	
2	16.05	16.05	32.916	24.135	377.3	0.008	5.78	102.5	2.5	0.30	0.0	0.01	0.16	0.05	2	222
10 ISL	16.04	16.04	32.916	24.137	377.3	0.038	5.79	102.6	2.5	0.30	0.0	0.01	0.16	0.06	10	
15	16.03	16.03	32.916	24.140	377.2	0.057	5.79	102.6	2.5	0.30	0.0	0.01	0.16	0.06	15	220
20 ISL	16.01	16.01	32.917	24.145	376.8	0.075	5.79	102.5	2.4	0.30	0.0	0.01	0.16	0.06	20	
30	15.97	15.97	32.920	24.157	376.0	0.113	5.80	102.6	2.3	0.30	0.0	0.01	0.17	0.06	30	219
46	14.29	14.28	32.910	24.514	342.3	0.171	6.01	102.8	2.6	0.34	0.2	0.03	0.40	0.28	46	218
50 ISL	14.08	14.07	32.919	24.565	337.6	0.184	5.99	102.0	2.6	0.41	0.5	0.06	0.40	0.30	50	
55	13.87	13.86	32.935	24.621	332.4	0.201	5.97	101.3	2.7	0.50	0.9	0.10	0.41	0.33	55	216
65	13.33	13.32	32.982	24.767	318.7	0.233	5.85	98.1	3.4	0.52	1.8	0.24	0.28	0.21	65	215
75	12.70	12.69	33.038	24.934	303.0	0.265	5.53	91.6	5.2	0.69	4.5	0.45	0.22	0.18	75	214
86	11.90	11.89	33.102	25.136	283.9	0.297	5.40	88.0	5.9	0.74	5.5	0.17	0.18	0.18	86	213
96	10.96	10.95	33.150	25.345	264.2	0.324	5.08	81.1	8.5	0.95	9.6	0.20	0.17	0.17	96	212
100 ISL	10.66	10.65	33.188	25.427	256.4	0.335	4.91	77.9	9.9	1.04	11.4	0.18	0.15	0.16	100	
110	10.15	10.14	33.301	25.603	239.8	0.359	4.53	71.1	13.5	1.27	15.4	0.13	0.09	0.13	110	211
124	10.03	10.02	33.460	25.747	226.4	0.392	4.29	67.3	17.1	1.51	18.0	0.27	0.05	0.10	125	210
125 ISL	9.99	9.98	33.467	25.760	225.2	0.394	4.26	66.7	17.4	1.52	18.3	0.26	0.05	0.10	126	
146	9.18	9.16	33.630	26.020	200.7	0.439	3.44	53.0	23.7	1.78	23.5	0.02	0.03	0.08	147	209
150 ISL	9.19	9.17	33.690	26.065	196.5	0.447	3.24	49.9	25.0	1.84	24.3	0.02	0.03	0.08	151	
169	9.23	9.21	33.934	26.250	179.4	0.483	2.40	37.1	30.5	2.10	27.2	0.01	0.01	0.09	170	208
200	8.70	8.68	34.011	26.394	166.1	0.536	2.21	33.7	34.9	2.18	29.2	0.01	0.00	0.06	201	207
230	8.25	8.23	34.043	26.489	157.6	0.585	2.27	34.3	38.7	2.21	30.1	0.02			231	206
250 ISL	8.12	8.09	34.090	26.545	152.5	0.616	1.88	28.3	42.4	2.35	31.5	0.02			251	
268	8.00	7.97	34.125	26.591	148.5	0.643	1.51	22.7	45.8	2.48	32.9	0.01			270	205
300 ISL	7.44	7.41	34.102	26.654	142.7	0.690	1.57	23.3	50.7	2.54	34.1	0.01			302	
317	7.12	7.09	34.082	26.683	140.0	0.714	1.60	23.6	53.1	2.55	34.6	0.01			319	204
377	6.55	6.52	34.118	26.789	130.5	0.795	1.18	17.2	62.3	2.76	37.1	0.00			379	203
400 ISL	6.25	6.21	34.116	26.827	127.0	0.824	1.07	15.4	66.6	2.82	38.2	0.00			403	
437	5.80	5.76	34.114	26.882	121.8	0.870	0.92	13.1	73.5	2.91	39.7	0.00			440	202
500 ISL	5.46	5.42	34.152	26.954	115.5	0.945	0.67	9.5	81.8	3.04	41.2	0.00			503	
512	5.39	5.35	34.159	26.968	114.3	0.959	0.62	8.8	83.4	3.06	41.5	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
32 34.6 N	122 49.2 W	11/07/05	0422 UTC	4261 m	320 18 kn			1015.7 mb	19.0 C	18.0 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.24	18.24	33.172	23.815	407.7	0.000	5.54	102.6	2.3	0.28	0.0	0.00	0.10	0.01	0	
1	18.24	18.24	33.172	23.815	407.7	0.004	5.54	102.6	2.3	0.28	0.0	0.00	0.10	0.01	1	221
10 ISL	18.24	18.24	33.172	23.815	408.0	0.041	5.54	102.6	2.2	0.28	0.0	0.00	0.10	0.01	10	
15	18.24	18.24	33.172	23.815	408.2	0.061	5.54	102.6	2.2	0.28	0.0	0.00	0.10	0.01	15	219
20 ISL	18.18	18.18	33.172	23.830	406.9	0.082	5.55	102.7	2.2	0.28	0.0	0.00	0.11	0.01	20	
29	18.07	18.07	33.171	23.857	404.7	0.118	5.58	103.0	2.3	0.28	0.0	0.00	0.13	0.01	29	218
30 ISL	17.99	17.98	33.166	23.873	403.2	0.122	5.59	103.1	2.3	0.28	0.0	0.00	0.13	0.01	30	
45	16.79	16.78	33.104	24.111	380.9	0.181	5.78	104.1	2.3	0.28	0.0	0.00	0.19	0.01	45	217
50 ISL	16.65	16.64	33.102	24.142	378.1	0.200	5.78	103.8	2.3	0.28	0.0	0.00	0.22	0.01	50	
55	16.56	16.55	33.104	24.165	376.1	0.219	5.78	103.6	2.3	0.28	0.0	0.00	0.25	0.01	55	216
65	16.37	16.36	33.114	24.216	371.5	0.256	5.79	103.4	2.2	0.28	0.1	0.00	0.37	0.02	65	215
75	15.65	15.64	33.100	24.368	357.3	0.293	5.91	104.0	2.3	0.29	0.0	0.00	0.59	0.20	75	214
85	14.67	14.66	33.079	24.566	338.6	0.327	5.94	102.5	2.5	0.33	0.0	0.00	0.84	0.41	85	213
95	13.54	13.53	33.072	24.795	316.9	0.360	5.74	96.8	3.2	0.46	1.4	0.18	0.51	0.35	95	212
100 ISL	13.03	13.02	33.075	24.899	307.0	0.376	5.59	93.2	3.9	0.57	3.1	0.14	0.36	0.35	100	
109	12.20	12.19	33.100	25.079	290.0	0.403	5.28	86.6	5.8	0.78	6.8	0.02	0.15	0.36	109	211
124	11.10	11.08	33.210	25.367	262.7	0.444	4.76	76.3	10.1	1.12	12.5	0.01	0.10	0.09	125	210
125 ISL	11.04	11.02	33.217	25.383	261.2	0.447	4.73	75.7	10.4	1.14	12.8	0.01	0.10	0.09	126	
144	10.22	10.20	33.372	25.647	236.4	0.494	4.17	65.6	15.3	1.43	17.6	0.01	0.05	0.05	145	209
150 ISL	10.02	10.00	33.440	25.734	228.2	0.508	3.93	61.6	17.2	1.53	19.1	0.01	0.04	0.04	151	
170	9.55	9.53	33.670	25.992	204.0	0.551	3.13	48.6	23.4	1.84	23.6	0.01	0.01	0.03	171	208
199	9.25	9.23	33.902 D	26.222	182.7	0.607	2.46	38.0	29.1	2.07	27.0	0.00	0.01	0.02	200	207
200 ISL	9.24	9.22	33.908	26.229	182.1	0.609	2.44	37.7	29.3	2.08	27.1	0.00			201	
229	9.00	8.98	34.040	26.371	169.1	0.660	2.04	31.4	33.8	2.22	29.1	0.00			230	206
250 ISL	8.78	8.75	34.082	26.438	163.0	0.695	1.91	29.2	36.4	2.28	30.0	0.00			251	
268	8.57	8.54	34.100	26.485	158.8	0.724	1.84	28.0	38.6	2.33	30.6	0.00			269	205
300 ISL	8.19	8.16	34.129	26.566	151.5	0.773	1.64	24.8	43.1	2.43	31.9	0.00			302	
319	7.99	7.96	34.143	26.607	147.9	0.802	1.51	22.7	45.8	2.49	32.6	0.00			321	204
377	7.59	7.55	34.197	26.709	139.0	0.885	1.05	15.6	53.0	2.70	34.5	0.00			379	203
400 ISL	7.36	7.32	34.207	26.750	135.4	0.917	0.92	13.6	56.5	2.77	35.4	0.00			402	
440	6.94	6.90	34.221	26.819	129.0	0.970	0.73	10.7	62.7	2.89	36.9	0.00			443	202
500 ISL	6.46	6.41	34.248	26.905	121.3	1.045	0.50	7.3	71.2	3.02	38.6	0.00			503	
516	6.33	6.28	34.256	26.929	119.2	1.064	0.44	6.4	73.5	3.06	39.1	0.00			519	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 14.8 N	123 30.1 W	10/07/05	2158	UTC	4131 m	350	15 kn	330 04 05	1	1017.4 mb	20.0 C	18.1 C	23m	7/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.85	18.85	33.236	23.712	417.5	0.000	5.47	102.6	2.4	0.29	0.0	0.00	0.06	0.02	0	
2	18.85	18.85	33.236	23.712	417.6	0.008	5.47	102.6	2.4	0.29	0.0	0.00	0.06	0.02	2	221
10 ISL	18.78	18.78	33.242	23.735	415.7	0.042	5.48	102.6	2.4	0.28	0.0	0.00	0.07	0.01	10	
15	18.67	18.67	33.242	23.763	413.2	0.062	5.48	102.4	2.4	0.28	0.0	0.00	0.08	0.01	15	219
20 ISL	18.46	18.46	33.225	23.802	409.6	0.083	5.51	102.5	2.4	0.28	0.0	0.00	0.08	0.02	20	
30	17.98	17.97	33.184	23.889	401.7	0.124	5.59	103.0	2.4	0.28	0.0	0.00	0.08	0.03	30	218
45	17.49	17.48	33.157	23.987	392.8	0.183	5.63	102.8	2.5	0.30	0.0	0.00	0.08	0.02	45	217
50 ISL	17.28	17.27	33.146	24.029	389.0	0.203	5.67	103.1	2.5	0.30	0.0	0.00	0.10	0.03	50	
60	16.60	16.59	33.111	24.161	376.6	0.241	5.80	104.0	2.5	0.30	0.0	0.00	0.14	0.05	60	216
75	14.57	14.56	33.034	24.552	339.6	0.295	6.10	105.0	2.8	0.32	0.0	0.00	0.11	0.06	75	215
85	13.86	13.85	33.040	24.705	325.3	0.328	6.09	103.3	3.3	0.36	0.0	0.00	0.16	0.14	85	214
95	12.59	12.58	33.056	24.970	300.1	0.359	5.66	93.5	4.8	0.58	3.0	0.07	0.27	0.22	95	213
100 ISL	11.96	11.95	33.086	25.113	286.5	0.374	5.34	87.1	6.2	0.75	6.0	0.11	0.26	0.27	100	
104	11.51	11.50	33.116	25.220	276.4	0.385	5.10	82.4	7.5	0.89	8.5	0.13	0.26	0.29	104	212
115	10.86	10.85	33.181	25.387	260.6	0.415	4.78	76.2	10.2	1.09	12.0	0.11	0.25	0.19	115	211
123	10.46	10.45	33.225	25.491	250.8	0.435	4.57	72.2	12.0	1.22	14.3	0.04	0.18	0.14	123	210
125 ISL	10.33	10.32	33.247	25.530	247.1	0.440	4.50	70.9	12.7	1.26	15.0	0.04	0.18	0.14	126	
139	9.53	9.51	33.420	25.799	221.6	0.473	4.03	62.5	18.0	1.54	19.6	0.01	0.17	0.16	140	209
150 ISL	9.26	9.24	33.516	25.918	210.5	0.497	3.81	58.7	20.5	1.65	21.4	0.01	0.11	0.11	151	
165	9.11	9.09	33.627	26.029	200.2	0.527	3.59	55.2	23.0	1.73	22.8	0.01	0.02	0.04	166	208
194	8.82	8.80	33.879	26.272	177.6	0.582	3.08	47.1	28.7	1.89	25.6	0.01	0.00	0.03	195	207
200 ISL	8.76	8.74	33.909	26.305	174.6	0.593	3.06	46.8	29.4	1.89	25.8	0.01			201	
229	8.45	8.43	33.995	26.421	164.1	0.642	3.01	45.7	33.0	1.92	26.7	0.01			230	206
250 ISL	8.17	8.14	34.028	26.489	157.9	0.676	2.70	40.7	37.2	2.06	28.5	0.01			251	
267	7.93	7.90	34.046	26.539	153.3	0.702	2.38	35.7	40.9	2.20	30.2	0.01			268	205
300 ISL	7.55	7.52	34.091	26.630	145.1	0.751	1.82	27.1	47.3	2.43	32.7	0.00			302	
319	7.35	7.32	34.112	26.675	141.0	0.779	1.54	22.8	50.8	2.54	34.0	0.00			321	204
375	6.71	6.68	34.135	26.781	131.3	0.855	1.13	16.5	60.5	2.75	36.7	0.00			377	203
400 ISL	6.52	6.48	34.148	26.817	128.2	0.887	0.99	14.4	64.0	2.82	37.5	0.00			402	
439	6.29	6.25	34.179	26.872	123.4	0.936	0.78	11.3	69.0	2.92	38.6	0.01			442	202
500 ISL	6.04	6.00	34.266	26.973	114.4	1.009	0.42	6.0	77.1	3.08	39.9	0.01			503	
511	6.00	5.96	34.282	26.991	112.9	1.021	0.36	5.2	78.6	3.11	40.1	0.01			514	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 83 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 54.8 N	124 10.7 W	10/07/05	1704	UTC	4199 m	350	14 kn	360 02 05	1	1018.3 mb	20.1 C	18.2 C	32m	1/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.85	18.85	33.196	23.682	420.4	0.000	5.43	101.8	2.6	0.30	0.1	0.00	0.08	0.01	0	
1 A	18.85	18.85	33.196	23.682	420.4	0.004	5.43	101.8	2.6	0.30	0.1	0.00	0.08	0.01	1	224
10 ISL	18.80	18.80	33.193	23.693	419.7	0.042	5.44	101.9	2.6	0.30	0.1	0.00	0.08	0.02	10	
12	18.79	18.79	33.193	23.695	419.6	0.050	5.44	101.9	2.6	0.30	0.1	0.00	0.08	0.02	12	222
20 ISL	18.53	18.53	33.173	23.745	415.1	0.084	5.48	102.1	2.5	0.29	0.1	0.00	0.09	0.03	20	
23 A	18.37	18.37	33.163	23.777	412.1	0.096	5.50	102.1	2.5	0.29	0.1	0.00	0.09	0.03	23	221
30 ISL	17.73	17.72	33.140	23.916	399.1	0.125	5.62	103.1	2.5	0.29	0.1	0.00	0.09	0.03	30	
34	17.38	17.37	33.132	23.994	391.8	0.140	5.68	103.5	2.5	0.29	0.1	0.00	0.09	0.03	34	220
46 A	17.07	17.06	33.144	24.076	384.3	0.187	5.71	103.4	2.5	0.29	0.1	0.00	0.11	0.03	46	219
50 ISL	16.97	16.96	33.136	24.094	382.7	0.202	5.72	103.4	2.5	0.29	0.1	0.00	0.11	0.03	50	
57	16.64	16.63	33.115	24.155	377.1	0.229	5.76	103.4	2.6	0.29	0.1	0.00	0.13	0.04	57	218
68 A	15.43	15.42	33.085	24.405	353.5	0.269	5.98	104.8	2.5	0.29	0.1	0.00	0.20	0.08	68	217
75 ISL	15.10	15.09	33.138	24.518	342.9	0.293	5.97	104.0	2.3	0.29	0.0	0.00	0.23	0.09	75	
78	14.99	14.98	33.167	24.565	338.6	0.304	5.97	103.7	2.3	0.29	0.0	0.00	0.24	0.10	78	216
88 A	14.30	14.29	33.237	24.766	319.6	0.337	5.89	101.0	2.4	0.30	0.0	0.00	0.31	0.19	88	215
97	12.54	12.53	33.072	24.992	298.0	0.364	5.61	92.6	4.9	0.60	3.4	0.10	0.29	0.19	97	214
100 ISL	12.29	12.28	33.066	25.036	293.9	0.373	5.52	90.6	5.4	0.66	4.3	0.12	0.28	0.19	100	
106	11.85	11.84	33.094	25.140	284.0	0.391	5.28	85.9	6.6	0.79	6.7	0.14	0.25	0.19	106	213
114	10.71	10.70	33.177	25.410	258.3	0.412	4.77	75.8	10.5	1.12	12.4	0.11	0.16	0.10	114	212
122 A	10.20	10.19	33.253	25.557	244.4	0.432	4.51	70.9	13.1	1.29	15.4	0.07	0.11	0.10	122	211
125 ISL	10.05	10.04	33.280	25.603	240.0	0.440	4.44	69.6	13.9	1.33	16.1	0.06	0.10	0.11	126	
131	9.81	9.80	33.335	25.687	232.2	0.454	4.31	67.2	15.4	1.41	17.3	0.04	0.09	0.12	132	210
140	9.51	9.49	33.429	25.809	220.7	0.474	4.06	62.9	18.0	1.53	19.5	0.02	0.09	0.13	141	209
150 ISL	9.28	9.26	33.562	25.951	207.4	0.496	3.76	58.0	21.1	1.65	21.5	0.02	0.07	0.10	151	
165	9.06	9.04	33.749	26.132	190.4	0.525	3.36	51.6	25.0	1.79	23.8	0.01	0.02	0.03	166	208
194	8.88	8.86	33.904	26.282	176.7	0.579	3.08	47.2	28.2	1.88	25.4	0.01	0.00	0.02	195	207
200 ISL	8.83	8.81	33.928	26.309	174.3	0.589	2.99	45.8	29.2	1.91	25.9	0.01			201	
229	8.51	8.49	34.013	26.426	163.7	0.638	2.60	39.5	34.4	2.06	28.1	0.01			230	206
250 ISL	8.24	8.21	34.036	26.485	158.3	0.672	2.54	38.4	37.4	2.12	29.1	0.01			251	
270	7.94	7.91	34.043	26.535	153.7	0.703	2.50	37.5	40.4	2.17	30.0	0.01			271	205
300 ISL	7.36	7.33	34.055	26.629	145.1	0.748	2.18	32.3	47.3	2.33	32.3	0.01			302	
316	7.05	7.02	34.061	26.677	140.6	0.771	1.98	29.1	51.1	2.42	33.6	0.01			318	204
378	6.33	6.30	34.076	26.785	130.7	0.855	1.40	20.2	62.3	2.70	36.9	0.01			380	203
400 ISL	6.17	6.13	34.093	26.819	127.7	0.883	1.20	17.3	65.9	2.78	37.8	0.01			402	
437	5.95	5.91	34.128	26.875	122.7	0.930	0.90	12.9	71.7	2.91	39.2	0.01			440	202
500 ISL	5.55	5.51	34.187	26.971	114.0	1.004	0.55	7.8	81.9	3.07	41.0	0.01			503	
518	5.43	5.39	34.205	27.000	111.4	1.025	0.45	6.4	84.8	3.12	41.5	0.01			521	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 85.4 35.8

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 0.7 N	118 49.8 W	17/07/05	0136	UTC	25 m	280	07 kn	230 01 08	4	1008.7 mb	18.5 C	17.5 C		8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	19.46	19.46	33.491	23.752	413.7	0.000	7.90	150.1	3.4	0.06	0.0	0.02	3.58	0.55	0	
1	19.46	19.46	33.491	23.752	413.7	0.004	7.90	150.1	3.4	0.06	0.0	0.02	3.58	0.55	1	204
5	18.04	18.04	33.484	24.103	380.4	0.020	7.08	130.9	4.6	0.10	0.0	0.02	5.41	0.71	5	203
10	14.50	14.50	33.491	24.917	302.9	0.037	3.51	60.5	11.5	0.57	2.0	0.13	1.70	0.41	10	202
17	11.66	11.66	33.524	25.507	246.9	0.056	2.68	43.6	17.8	1.47	13.9	0.42	0.29	0.30	17	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 86.8 32.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 53.4 N	118 26.5 W	08/07/05	0215	UTC	25 m	250	06 kn	250 01 06	1	1011.9 mb	18.6 C	17.0 C		3/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	20.28	20.28	33.505	23.550	433.0	0.000	9.93	191.5	6.7	0.13	0.0	0.08	23.54	0.00	0	
1	20.28	20.28	33.505	23.550	433.1	0.004	9.93	191.5	6.7	0.13	0.0	0.08	23.54	0.00	1	204
5	18.25	18.25	33.491	24.057	384.8	0.021	9.04	167.8	6.9	0.12	0.1	0.12	16.20	3.09	5	203
10 ISL	12.85	12.85	33.484	25.249	271.3	0.037	3.81	63.5	13.3	0.57	5.6	0.17	6.82	1.21	10	
11	11.84	11.84	33.516	25.467	250.6	0.040	2.77	45.2	14.8	0.69	7.1	0.19	5.36	0.55	11	202
17	11.17	11.17	33.537	25.607	237.5	0.054	2.50	40.2	17.5	1.20	14.7	0.36	4.18	-0.07	17	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 33

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 53.4 N	118 29.5 W	08/07/05	0319	UTC	60 m	230	07 kn	270 01 06	1	1012.1 mb	18.0 C	16.7 C		4/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.94	17.94	33.473	24.119	378.7	0.000	7.83	144.5	4.2	0.11	0.1	0.02	2.66	0.22	0	
1	17.94	17.94	33.473	24.119	378.8	0.004	7.83	144.5	4.2	0.11	0.1	0.02	2.66	0.22	1	208
10 ISL	15.50	15.50	33.469	24.683	325.2	0.035	5.88	103.4	7.3	0.08	0.0	0.03	14.00	0.23	10	
11	15.05	15.05	33.473	24.785	315.6	0.039	5.53	96.4	7.6	0.08	0.0	0.03	15.09	0.23	11	206
20	10.89	10.89	33.551	25.668	231.7	0.063	2.52	40.3	19.6	1.66	21.4	0.34	1.16	0.37	20	204
30	10.44	10.44	33.631	25.809	218.5	0.086	2.50	39.6	22.4	1.89	24.5	0.43	0.41	0.33	30	203
40	10.35	10.35	33.686	25.868	213.2	0.107	2.38	37.6	23.5	1.92	25.2	0.11	0.20	0.20	40	202
50	10.20	10.19	33.766	25.956	205.0	0.128	2.28	36.0	25.6	1.99	24.7	0.15	0.19	0.45	50	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 49.4 N	118 37.8 W	08/07/05	0530	UTC	675 m	230	04 kn			1012.9 mb	18.0 C	16.0 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.48	18.48	33.473	23.986	391.4	0.000	5.86	109.3	2.9	0.27	0.0	0.01	0.37	0.12	0	
1	18.48	18.48	33.473	23.986	391.4	0.004	5.86	109.3	2.9	0.27	0.0	0.01	0.37	0.12	1	222
10 ISL	17.13	17.13	33.448	24.294	362.3	0.038	6.07	110.3	3.3	0.33	0.3	0.01	0.94	0.20	10	
11	16.84	16.84	33.443	24.358	356.2	0.041	6.07	109.6	3.3	0.34	0.3	0.01	1.03	0.21	11	220
20	13.00	13.00	33.442	25.187	277.5	0.070	5.32	88.9	7.9	0.80	6.2	0.10	1.58	0.27	20	219
30	10.87	10.87	33.508	25.638	234.8	0.096	3.74	59.8	15.7	1.43	16.5	0.31	1.15	0.05	30	218
40	10.50	10.50	33.662	25.823	217.4	0.118	3.00	47.6	19.8	1.71	20.8	0.25	0.64	0.24	40	217
50	10.52	10.51	33.763	25.898	210.5	0.140	2.59	41.1	22.2	1.83	22.3	0.21	0.52	0.17	50	216
60	10.44	10.43	33.892	26.013	199.8	0.160	2.19	34.7	25.3	1.98	24.2	0.08	0.34	0.21	60	215
70	10.33	10.32	33.943	26.072	194.4	0.180	2.07	32.8	26.8	2.04	25.1	0.04	0.28	0.21	70	214
75 ISL	10.29	10.28	33.970	26.100	191.9	0.189	2.03	32.1	27.5	2.06	25.4	0.03	0.20	0.17	75	
85	10.22	10.21	34.016	26.148	187.5	0.208	1.98	31.3	28.7	2.10	25.7	0.02	0.05	0.09	85	213
99	10.18	10.17	34.045	26.178	185.0	0.234	1.94	30.6	29.2	2.12	26.0	0.01	0.05 A	0.12 A	100	212
100 ISL	10.18	10.17	34.050	26.182	184.7	0.236	1.93	30.5	29.3	2.12	26.0	0.01	0.05	0.12	101	
119	10.23	10.22	34.152	26.253	178.4	0.271	1.68	26.6	31.1	2.22	26.7	0.01	0.04	0.14	120	211
125 ISL	10.20	10.19	34.181	26.281	175.8	0.281	1.61	25.5	31.9	2.25	26.9	0.01	0.05	0.15	126	
139	10.12	10.10	34.234	26.337	170.9	0.306	1.48	23.4	33.5	2.31	27.4	0.01	0.06	0.17	140	210
150 ISL	10.07	10.05	34.250	26.358	169.1	0.324	1.43	22.6	34.1	2.33	27.6	0.01	0.05	0.16	151	
169	9.99	9.97	34.261	26.380	167.4	0.356	1.38	21.7	34.8	2.36	27.9	0.01	0.03	0.12	170	208
198	9.85	9.83	34.293	26.429	163.3	0.404	1.32	20.7	36.5	2.41	28.4	0.01	0.04	0.10	199	207
200 ISL	9.83	9.81	34.294	26.434	163.0	0.408	1.31	20.6	36.6	2.41	28.4	0.01			201	
228	9.58	9.55	34.308	26.487	158.5	0.453	1.16	18.1	38.6	2.47	29.2	0.01			229	206
250 ISL	9.34	9.31	34.312	26.529	154.7	0.487	1.08	16.8	40.0	2.50	29.7	0.01			252	
268	9.16	9.13	34.312	26.559	152.2	0.515	1.04	16.1	44.8 U	2.61 U	31.3 U	0.01 U			270	205
300 ISL	8.95	8.92	34.310	26.591	149.7	0.563	0.99	15.2	43.4	2.58	30.9	0.01			302	
318	8.83	8.80	34.306	26.607	148.5	0.590	0.96	14.7	44.8	2.60	31.3	0.01			320	204
377	8.17	8.13	34.291	26.698	140.5	0.675	0.82	12.4	50.7	2.71	33.1	0.01			379	203
400 ISL	7.92	7.88	34.284	26.730	137.8	0.707	0.77	11.6	53.2	2.76	33.8	0.01			403	
438	7.53	7.49	34.274	26.779	133.4	0.759	0.70	10.4	57.5	2.83	35.1	0.01			441	202
500 ISL	6.91	6.86	34.272	26.864	125.7	0.839	0.56	8.2	65.7	2.94	37.2	0.00			503	
520	6.71	6.66	34.272	26.891	123.2	0.864	0.51	7.4	68.4	2.97	37.9	0.00			524	201

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

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 40

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 39.3 N	118 58.8 W	08/07/05	0951 UTC	739 m	170 07 kn			1012.8 mb	15.9 C	14.9 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.82	16.82	33.563	24.455	346.7	0.000	5.98	108.0	0.0	0.22	0.2	0.02	0.54	0.24	0	
1	16.82	16.82	33.563	24.455	346.7	0.003	5.98	108.0	0.0	0.22	0.2	0.02	0.54	0.24	1	224
10	16.78	16.78	33.564	24.465	346.0	0.035	6.02	108.7	0.0	0.22	0.1	0.02	0.53	0.23	10	223
20	13.00	13.00	33.573	25.289	267.9	0.065	5.41	90.5	0.9	0.86	7.2	0.22	0.64	0.29	20	222
29	11.26	11.26	33.625	25.659	232.8	0.088	3.98	64.2	14.1	1.52	16.2	0.48	1.14	0.54	29	221
30 ISL	11.11	11.11	33.633	25.693	229.6	0.090	3.86	62.0	15.2	1.56	17.0	0.46	1.10	0.53	30	
40	10.03	10.03	33.715	25.945	205.8	0.112	3.03	47.6	22.9	1.81	22.6	0.20	0.48	0.35	40	220
50	9.61	9.60	33.798	26.080	193.2	0.132	2.92	45.5	25.2	1.85	23.9	0.08	0.25	0.26	50	219
60	9.79	9.78	33.910	26.138	187.9	0.151	2.45	38.3	27.4	1.99	25.1	0.11	0.15	0.28	60	218
70	9.68	9.67	33.941	26.180	184.1	0.170	2.44	38.1	28.2	2.00	25.4	0.06	0.10	0.22	70	217
75 ISL	9.73	9.72	33.979	26.202	182.2	0.179	2.30	35.9	28.9	2.04	25.7	0.06	0.09	0.20	75	
84	9.85	9.84	34.050	26.237	179.0	0.195	2.02	31.7	30.2	2.13	26.3	0.05	0.08	0.19	84	216
99	9.85	9.84	34.090	26.269	176.3	0.222	1.90	29.8	31.2	2.17	26.7	0.06	0.08	0.21	100	215
100 ISL	9.84	9.83	34.091	26.271	176.1	0.223	1.90	29.8	31.3	2.17	26.7	0.06	0.08	0.21	101	
119	9.69	9.68	34.114	26.315	172.4	0.256	1.81	28.3	32.6	2.22	27.3	0.08	0.08	0.21	120	214
125 ISL	9.63	9.62	34.132	26.339	170.2	0.267	1.77	27.6	33.2	2.24	27.6	0.07	0.07	0.19	126	
140	9.47	9.45	34.180	26.403	164.4	0.292	1.65	25.7	35.1	2.29	28.3	0.03	0.03	0.14	141	213
150 ISL	9.33	9.31	34.197	26.439	161.2	0.308	1.57	24.3	36.5	2.33	28.8	0.03	0.03	0.12	151	
171	9.05	9.03	34.220	26.503	155.5	0.341	1.40	21.6	39.2	2.40	29.9	0.03	0.03	0.10	172	212
199	8.87	8.85	34.248	26.554	151.2	0.384	1.20	18.4	41.6	2.50	30.7	0.03	0.02	0.13	200	211
200 ISL	8.86	8.84	34.249	26.556	150.9	0.386	1.20	18.4	41.7	2.50	30.7	0.03			201	
229	8.66	8.64	34.258	26.595	147.8	0.429	1.13	17.3	43.8	2.55	31.4	0.02			230	210
250 ISL	8.38	8.35	34.257	26.637	144.0	0.460	1.04	15.8	46.8	2.61	32.3	0.01			252	
268	8.12	8.09	34.256	26.676	140.5	0.485	0.96	14.5	49.6	2.66	33.1	0.01			270	209
300 ISL	7.77	7.74	34.258	26.730	135.8	0.530	0.84	12.6	53.6	2.74	34.1	0.01			302	
319	7.59	7.56	34.260	26.757	133.4	0.555	0.78	11.6	55.9	2.78	34.7	0.01			321	208
379	7.03	6.99	34.259	26.836	126.5	0.633	0.63	9.3	63.4	2.89	36.5	0.02			382	207
400 ISL	6.91	6.87	34.261	26.854	125.0	0.660	0.59	8.7	65.2	2.92	36.9	0.02			403	
439	6.73	6.69	34.270	26.886	122.5	0.708	0.52	7.6	68.5	2.96	37.6	0.02			442	206
500 ISL	6.38	6.33	34.300	26.957	116.4	0.781	0.37	5.4	76.4	3.06	38.5	0.01			504	
512	6.31	6.26	34.306	26.971	115.2	0.795	0.34	4.9	78.0	3.08	38.7	0.01			516	205
580	6.00	5.95	34.330	27.030	110.2	0.871	0.26	3.7	83.9	3.15	39.5	0.01			584	204
600 ISL	5.86	5.81	34.342	27.057	107.7	0.893	0.22	3.2	87.8	3.18	39.5	0.02			604	
652	5.54	5.48	34.371	27.120	102.1	0.948	0.15	2.1	97.4	3.25	39.4	0.04			657	203
698	5.42	5.36	34.386	27.146	99.9	0.994	0.15	2.1	100.4	3.27	39.1	0.04			703	201
700 ISL	5.41	5.35	34.384	27.146	100.0	0.996	0.14	2.0	101.2	3.27	38.9	0.04			705	
703	5.39	5.33	34.382	27.147	99.9	0.999	0.12	1.7	102.5	3.28	38.7	0.04			708	202

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 29.4 N	119 19.4 W	08/07/05	1413 UTC	1637 m	050 02 kn	270 02 05	2	1013.1 mb	14.9 C	14.0 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	13.54	13.54	33.701	25.279	268.3	0.000	5.63	95.3	0.8	0.67	6.5	0.17	2.45	0.72	0	
2	13.54	13.54	33.701	25.279	268.3	0.005	5.63	95.3	0.8	0.67	6.5	0.17	2.45	0.72	2	222
10	13.13	13.13	33.724	25.379	259.0	0.026	5.30	89.0	2.1	0.78	8.2	0.18	3.58	1.20	10	220
20	10.16	10.16	33.873	26.046	195.8	0.049	2.57	40.5	22.6	1.98	22.9	0.25	4.35	1.95	20	218
30	9.74	9.74	33.915	26.149	186.2	0.068	2.32	36.3	28.6	2.05	25.5	0.24	2.42	1.65	30	217
40	9.60	9.60	33.954	26.203	181.3	0.087	2.19	34.1	30.3	2.10	26.4	0.18	1.24	1.18	40	216
50 ISL	9.52	9.51	33.977	26.234	178.5	0.105	2.17	33.8	30.9	2.10	26.7	0.08	0.69	0.80	50	
51	9.52	9.51	33.979	26.236	178.3	0.106	2.17	33.8	30.9	2.10	26.7	0.07	0.67	0.77	51	215
60	9.49	9.48	34.013	26.268	175.5	0.122	2.10	32.7	31.7	2.12	27.0	0.05	0.71	0.74	60	214
70	9.43	9.42	34.098	26.344	168.5	0.140	1.86	28.9	33.8	2.21	27.9	0.04	0.41	0.52	70	213
75 ISL	9.36	9.35	34.110	26.365	166.6	0.148	1.81	28.1	34.5	2.23	28.2	0.04	0.30	0.42	75	
86	9.20	9.19	34.113	26.393	164.1	0.166	1.77	27.4	35.7	2.26	28.8	0.03	0.15	0.28	86	212
100	9.09	9.08	34.141	26.433	160.6	0.189	1.68	25.9	37.0	2.30	29.3	0.03	0.13	0.32	101	211
120	9.05	9.04	34.161	26.456	158.9	0.221	1.60	24.7	37.9	2.33	29.6	0.03	0.07	0.21	121	210
125 ISL	9.04	9.03	34.163	26.459	158.7	0.229	1.59	24.5	38.0	2.33	29.6	0.03	0.06	0.19	126	
140	9.00	8.98	34.170	26.471	157.8	0.252	1.56	24.0	38.6	2.35	29.8	0.03	0.05	0.16	141	209
150 ISL	8.92	8.90	34.180	26.492	156.1	0.268	1.49	22.9	39.8	2.39	30.1	0.03	0.04	0.14	151	
169	8.76	8.74	34.199	26.532	152.6	0.298	1.35	20.7	42.2	2.46	30.8	0.02	0.03	0.11	170	208
199	8.59	8.57	34.215	26.571	149.4	0.343	1.24	18.9	44.1	2.51	31.5	0.03	0.04	0.13	200	207
200 ISL	8.58	8.56	34.216	26.574	149.1	0.344	1.24	18.9	44.2	2.51	31.5	0.03			201	
229	8.29	8.27	34.226	26.626	144.6	0.387	1.14	17.3	47.4	2.58	32.4	0.02			230	206
250 ISL	8.10	8.07	34.234	26.661	141.6	0.417	1.06	16.0	49.9	2.64	33.0	0.02			252	
269	7.93	7.90	34.240	26.692	139.0	0.444	0.98	14.7	52.1	2.69	33.6	0.02			271	205
300 ISL	7.69	7.66	34.242	26.729	135.9	0.486	0.89	13.3	54.7	2.74	34.3	0.02			302	
319	7.53	7.50	34.243	26.753	133.8	0.512	0.84	12.5	56.5	2.77	34.8	0.02			321	204
378	6.92	6.88	34.274	26.863	123.9	0.588	0.61	9.0	65.9	2.94	36.9	0.01			381	203
400 ISL	6.74	6.70	34.285	26.896	120.9	0.615	0.51	7.5	69.4	2.99	37.5	0.01			403	
436	6.48	6.44	34.305	26.947	116.5	0.657	0.37	5.4	74.8	3.06	38.3	0.01			439	202
500 ISL	6.18	6.14	34.345	27.018	110.4	0.730	0.28	4.0	81.5	3.15	39.0	0.01			504	
520	6.09	6.04	34.357	27.039	108.6	0.752	0.25	3.6	83.6	3.18	39.2	0.01			524	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 19.4 N	119 39.7 W	08/07/05	1840 UTC	81 m	290 12 kn	300 03 05	2	1014.8 mb	16.4 C	14.5 C	8m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	14.22	14.22	33.620	25.075	287.6	0.000	5.68	97.5	3.8	0.61	5.4	0.13	3.93	1.48	0	
2 A	14.22	14.22	33.620	25.076	287.6	0.006	5.68	97.5	3.8	0.61	5.4	0.13	3.93	1.48	2	213
6 A	14.19	14.19	33.624	25.085	286.9	0.017	5.69	97.6	3.8	0.60	5.3	0.13	3.78	1.34	6	212
10 ISL	13.95	13.95	33.633	25.142	281.5	0.029	5.53	94.4	4.5	0.66	6.2	0.13	4.19	1.30	10	
11 A	13.89	13.89	33.635	25.156	280.2	0.031	5.49	93.6	4.7	0.68	6.4	0.13	4.27	1.29	11	210
16 A	11.89	11.89	33.702	25.603	237.9	0.044	4.17	68.2	13.8	1.27	14.7	0.20	3.60	1.42	16	208
20 ISL	11.70	11.70	33.710	25.644	234.0	0.054	4.02	65.5	14.9	1.34	15.6	0.20	3.25	1.37	20	
22 A	11.61	11.61	33.714	25.664	232.1	0.058	3.95	64.2	15.4	1.38	16.0	0.20	3.07	1.35	22	207
30 ISL	11.08	11.08	33.717	25.763	222.9	0.077	3.54	56.9	18.1	1.53	18.4	0.19	1.63	1.08	30	
31 A	11.01	11.01	33.719	25.777	221.6	0.079	3.48	55.8	18.5	1.55	18.7	0.19	1.45	1.04	31	206
40	10.47	10.47	33.803	25.938	206.5	0.098	3.04	48.2	23.2	1.76	21.2	0.24	0.93	0.86	40	205
50	9.83	9.82	33.902	26.125	188.9	0.118	2.47	38.7	28.6	2.00	24.6	0.27	0.37	0.77	50	203
60	9.42	9.41	34.035	26.296	172.8	0.136	1.98	30.7	33.9	2.18	27.2	0.26	0.14	0.54	60	202
70	9.40	9.39	34.038	26.302	172.5	0.153	1.94	30.1	34.6	2.20	27.4	0.26	0.12	0.48	70	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 9.3 N	120 0.5 W	08/07/05	2222 UTC	1205 m	320 22 kn	310 06 07	1	1014.0 mb	16.1 C	14.9 C	8m	1/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	14.39	14.39	33.465	24.920	302.4	0.000	5.96	102.5	1.2	0.44	3.0	0.13	1.96	0.69	0	
2	14.39	14.39	33.465	24.920	302.4	0.006	5.96	102.5	1.2	0.44	3.0	0.13	1.96	0.69	2	224
10	14.39	14.39	33.465	24.920	302.6	0.030	5.96	102.5	1.1	0.43	2.9	0.12	1.85	0.65	10	223
20	14.32	14.32	33.466	24.936	301.4	0.060	5.95	102.2	1.8	0.50	3.7	0.19	2.18	0.79	20	221
30	13.93	13.93	33.428	24.989	296.7	0.090	5.85	99.7	1.1 U	0.43 U	3.0 U	0.13 U	2.23	0.57	30	220
40	12.38	12.37	33.281	25.184	278.3	0.119	5.28	87.0	6.4	0.90	8.6	0.33	0.67	0.41	40	218
49	11.80	11.79	33.383	25.372	260.6	0.143	5.10	83.1	8.8	1.13	11.2	0.37	0.32	0.26	49	216
50 ISL	11.74	11.73	33.386	25.386	259.3	0.146	5.07	82.5	9.1	1.15	11.5	0.37	0.30	0.25	50	
60	11.17	11.16	33.396	25.498	248.8	0.171	4.69	75.4	11.7	1.27	14.4	0.31	0.21	0.21	60	215
70	10.74	10.73	33.416	25.590	240.2	0.196	4.40	70.1	13.7	1.37	16.4	0.19	0.16	0.17	70	214
75 ISL	10.29	10.28	33.472	25.712	228.7	0.208	4.09	64.5	16.5	1.49	18.6	0.12	0.11	0.13	75	
85	9.46	9.45	33.617	25.963	204.9	0.229	3.44	53.3	22.4	1.75	22.9	0.01	0.02	0.07	85	213
99	9.28	9.27	33.775	26.116	190.7	0.257	3.00	46.4	26.3	1.90	25.1	0.01	0.02	0.07	100	212
100 ISL	9.28	9.27	33.787	26.126	189.8	0.259	2.96	45.7	26.6	1.91	25.2	0.01	0.02	0.07	101	
119	9.23	9.22	33.991	26.294	174.3	0.293	2.25	34.8	32.2	2.10	27.3	0.02	0.01	0.11	120	211
125 ISL	9.20	9.19	34.024	26.324	171.5	0.304	2.14	33.1	33.2	2.14	27.7	0.02	0.01	0.11	126	
139	9.10	9.08	34.071	26.377	166.7	0.327	1.98	30.5	34.9	2.20	28.4	0.02	0.01	0.09	140	210
150 ISL	8.99	8.97	34.098	26.416	163.2	0.346	1.87	28.8	36.4	2.25	28.9	0.02	0.01	0.10	151	
169	8.77	8.75	34.128	26.475	158.0	0.376	1.72	26.3	39.0	2.33	29.8	0.03	0.01	0.12	170	208
199	8.45	8.43	34.147	26.540	152.3	0.423	1.61	24.5	42.4	2.39	30.9	0.03	0.01	0.12	200	207
200 ISL	8.44	8.42	34.147	26.541	152.2	0.424	1.61	24.5	42.5	2.39	30.9	0.03			201	
228	8.09	8.07	34.143	26.591	147.8	0.466	1.60	24.1	45.4	2.44	31.8	0.03			229	206
250 ISL	7.75	7.73	34.132	26.633	144.1	0.498	1.58	23.6	48.2	2.48	32.7	0.03			252	
268	7.47	7.44	34.122	26.665	141.1	0.524	1.55	23.0	50.7	2.51	33.5	0.02			270	205
300 ISL	7.00	6.97	34.107	26.719	136.2	0.568	1.46	21.5	55.5	2.59	35.0	0.01			302	
318	6.77	6.74	34.107	26.751	133.4	0.593	1.38	20.2	58.3	2.64	35.8	0.01			320	204
378	6.39	6.36	34.180	26.859	123.8	0.670	0.84	12.2	67.5	2.87	38.1	0.01			380	203
400 ISL	6.25	6.21	34.187	26.883	121.7	0.697	0.75	10.8	69.6	2.91	38.5	0.01			403	
437	6.06	6.02	34.200	26.918	118.8	0.741	0.65	9.3	67.5 U	2.88 U	38.1 U	0.01 U			440	202
500 ISL	5.98	5.94	34.285	26.996	112.2	0.814	0.37	5.3	79.2	3.10	40.1	0.00			503	
513	5.96	5.92	34.302	27.012	110.9	0.828	0.31	4.4	80.5	3.12	40.3	0.00			517	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 59.6 N	120 20.9 W	09/07/05	0252 UTC	718 m	310 18 kn	320 06 06	1	1013.8 mb	15.8 C	14.7 C		2/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	15.15	15.15	33.334	24.656	327.5	0.000	5.89	102.8	1.7	0.45	2.1	0.12	0.58	0.13	0	
2	15.15	15.15	33.334	24.656	327.6	0.007	5.89	102.8	1.7	0.45	2.1	0.12	0.58	0.13	2	222
10 ISL	15.15	15.15	33.334	24.656	327.8	0.033	5.89	102.8	1.8	0.45	2.1	0.12	0.55	0.18	10	
11	15.15	15.15	33.334	24.656	327.8	0.036	5.89	102.8	1.8	0.45	2.1	0.12	0.54	0.19	11	220
20	15.14	15.14	33.334	24.659	327.9	0.066	5.91	103.1	1.7	0.45	2.1	0.12	0.50	0.20	20	219
30	15.14	15.14	33.334	24.659	328.1	0.098	5.89	102.8	1.7	0.45	2.1	0.12	0.49	0.20	30	218
40	13.84	13.83	33.245	24.866	308.7	0.130	5.72	97.1	3.2	0.58	3.7	0.35	0.87	0.25	40	217
49	12.31	12.30	33.270	25.189	278.1	0.157	5.48	90.2	5.9	0.91	7.4	0.33	0.87	0.23	49	216
50 ISL	12.23	12.22	33.293	25.222	274.9	0.159	5.43	89.2	6.1	0.95	7.8	0.33	0.81	0.23	50	
60	11.63	11.62	33.496	25.492	249.4	0.186	4.87	79.1	9.0	1.28	12.2	0.34	0.23	0.23	60	215
70	10.52	10.51	33.441	25.648	234.7	0.210	4.20	66.6	14.9	1.46	17.5	0.07	0.16	0.14	70	214
75 ISL	10.19	10.18	33.474	25.730	227.0	0.221	3.96	62.3	17.1	1.54	19.2	0.07	0.11	0.11	75	
86	9.76	9.75	33.578	25.884	212.6	0.246	3.61	56.3	20.7	1.69	21.5	0.06	0.03	0.07	86	213
99	9.44	9.43	33.632	25.979	203.8	0.273	3.39	52.5	23.1	1.79	23.2	0.02	0.02	0.06	99	212
100 ISL	9.42	9.41	33.639	25.987	202.9	0.275	3.37	52.2	23.3	1.80	23.3	0.02	0.02	0.06	100	
119	9.14	9.13	33.788	26.149	187.9	0.312	2.97	45.7	27.1	1.93	25.4	0.01	0.01	0.05	120	211
125 ISL	9.07	9.06	33.825	26.189	184.2	0.323	2.86	44.0	28.2	1.96	25.9	0.01	0.01	0.05	126	
139	8.94	8.93	33.896	26.266	177.2	0.348	2.65	40.7	30.4	2.03	27.0	0.02	0.01	0.04	140	210
150 ISL	8.85	8.83	33.940	26.315	172.8	0.367	2.53	38.8	31.9	2.07	27.6	0.02	0.01	0.04	151	
169	8.70	8.68	33.996	26.382	166.7	0.400	2.39	36.5	34.3	2.13	28.5	0.01	0.00	0.04	170	208
199	8.38	8.36	34.042	26.468	159.0	0.449	2.23	33.8	37.8	2.20	29.7	0.01	0.00	0.04	200	207
200 ISL	8.37	8.35	34.043	26.470	158.8	0.450	2.22	33.7	37.9	2.20	29.7	0.01			201	
229	8.03	8.01	34.075	26.547	152.0	0.495	2.01	30.2	42.0	2.32	31.1	0.01			230	206
250 ISL	7.81	7.79	34.089	26.590	148.1	0.527	1.84	27.5	45.1	2.39	32.1	0.01			251	
268	7.62	7.59	34.098	26.625	145.0	0.553	1.70	25.3	47.8	2.45	33.0	0.01			270	205
300 ISL	7.27	7.24	34.110	26.684	139.7	0.599	1.49	22.0	52.5	2.56	34.3	0.01			302	
318	7.07	7.04	34.118	26.719	136.6	0.624	1.37	20.2	55.3	2.63	35.0	0.01			320	204
376	6.44	6.41	34.160	26.837	125.9	0.700	0.86	12.5	66.9	2.88	37.9	0.01			378	203
400 ISL	6.30	6.26	34.174	26.866	123.3	0.730	0.75	10.8	69.6	2.93	38.5	0.01			403	
436	6.12	6.08	34.193	26.905	120.0	0.773	0.64	9.2	73.3	2.99	39.1	0.01			439	202
500 ISL	5.52	5.48	34.235	27.013	110.1	0.847	0.43	6.1	85.2	3.12	41.1	0.00			503	
519	5.34	5.30	34.248	27.045	107.1	0.868	0.37	5.2	88.7	3.16	41.7	0.00			523	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 39.2 N	121 2.4 W	09/07/05	0919 UTC	3738 m	320 20 kn			1014.7 mb	17.1 C	16.2 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.55	16.55	33.022	24.102	380.3	0.000	5.76	103.2	2.2	0.29	0.0	0.01	0.22	0.06	0	
2	16.55	16.55	33.022	24.102	380.4	0.008	5.76	103.2	2.2	0.29	0.0	0.01	0.22	0.06	2	222
10	16.55	16.55	33.026	24.106	380.3	0.038	5.76	103.2	2.2	0.29	0.0	0.01	0.22	0.06	10	220
20	16.55	16.55	33.022	24.103	380.9	0.076	5.75	103.0	2.2	0.29	0.1	0.00	0.21	0.06	20	219
30	15.58	15.58	33.083	24.369	355.8	0.113	5.97	104.9	1.8	0.35	1.0	0.05	0.44	0.16	30	218
40	15.26	15.25	33.068	24.428	350.4	0.148	5.99	104.6	1.9	0.36	0.8	0.04	0.41	0.22	40	217
50	14.66	14.65	33.204	24.663	328.3	0.182	6.00	103.6	2.7	0.30	0.0	0.00	0.29	0.16	50	216
61	13.68	13.67	33.217	24.878	308.1	0.217	5.80	98.2	3.4	0.39	0.6	0.04	0.42	0.35	61	214
70	12.42	12.41	33.138	25.066	290.3	0.244	5.49	90.5	5.3	0.64	4.0	0.10	0.24	0.35	70	213
75 ISL	11.79	11.78	33.133	25.181	279.4	0.258	5.25	85.3	6.9	0.80	6.7	0.10	0.20	0.30	75	
86	10.69	10.68	33.205	25.435	255.3	0.288	4.69	74.5	11.1	1.16	13.0	0.09	0.16	0.16	86	212
100 ISL	10.06	10.05	33.433	25.721	228.4	0.322	4.11	64.5	17.5	1.52	19.0	0.02	0.05	0.08	100	
101	10.03	10.02	33.450	25.739	226.7	0.324	4.07	63.8	17.9	1.54	19.3	0.02	0.04	0.08	101	211
121	9.35	9.34	33.592	25.962	205.7	0.367	3.54	54.7	23.0	1.75	22.9	0.02	0.02	0.10	122	210
125 ISL	9.28	9.27	33.632	26.005	201.8	0.375	3.47	53.6	23.7	1.77	23.2	0.02	0.02	0.09	126	
141	9.11	9.09	33.784	26.151	188.2	0.406	3.21	49.4	26.0	1.84	24.2	0.01	0.01	0.05	142	209
150 ISL	9.03	9.01	33.834	26.203	183.4	0.423	3.05	46.9	27.3	1.90	25.1	0.01	0.01	0.04	151	
170	8.85	8.83	33.908	26.290	175.5	0.459	2.76	42.3	30.3	2.01	26.9	0.01	0.00	0.03	171	208
199	8.53	8.51	34.006	26.417	163.9	0.508	2.60	39.6	34.4	2.06	28.1	0.01	0.00	0.04	200	207
200 ISL	8.52	8.50	34.008	26.420	163.7	0.510	2.59	39.4	34.6	2.06	28.2	0.01			201	
231	8.14	8.12	34.052	26.512	155.3	0.559	2.31	34.8	39.6	2.21	29.9	0.01			232	206
250 ISL	7.93	7.90	34.061	26.551	151.9	0.589	2.26	33.9	42.2	2.28	30.9	0.01			251	
268	7.73	7.70	34.067	26.585	148.9	0.616	2.20	32.9	44.8	2.35	31.9	0.01			270	205
300 ISL	7.35	7.32	34.091	26.658	142.3	0.662	1.72	25.5	50.6	2.52	33.9	0.01			302	
321	7.13	7.10	34.113	26.707	137.9	0.692	1.36	20.0	54.5	2.63	35.1	0.01			323	204
378	6.87	6.83	34.194	26.807	129.2	0.768	0.91	13.3	62.6	2.83	36.5	0.01			380	203
400 ISL	6.71	6.67	34.209	26.840	126.2	0.796	0.78	11.4	65.6	2.89	37.2	0.01			403	
438	6.39	6.35	34.223	26.894	121.4	0.843	0.59	8.6	70.8	2.98	38.4	0.01			441	202
500 ISL	5.84	5.80	34.236	26.975	114.1	0.916	0.39	5.6	80.7	3.14	40.5	0.00			503	
513	5.72	5.68	34.239	26.992	112.4	0.931	0.35	5.0	82.8	3.17	40.9	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 19.3 N	121 42.8 W	09/07/05	1659	UTC	4048 m	330	13 kn	330 03 05	4	1016.6 mb	17.9 C	17.5 C	24m	8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.51	17.51	33.112	23.946	395.2	0.000	5.60	102.3	2.6	0.30	0.1	0.00	0.09	0.03	0	
1 A	17.51	17.51	33.112	23.946	395.2	0.004	5.60	102.3	2.6	0.30	0.1	0.00	0.09	0.03	1	224
10 ISL	17.18	17.18	33.077	23.998	390.6	0.039	5.67	102.9	2.5	0.30	0.1	0.00	0.13	0.04	10	
18 A	16.76	16.76	33.036	24.065	384.4	0.070	5.75	103.4	2.3	0.29	0.1	0.00	0.19	0.05	18	221
20 ISL	16.69	16.69	33.025	24.073	383.7	0.078	5.76	103.5	2.3	0.29	0.1	0.00	0.20	0.05	20	
30 ISL	16.43	16.43	33.002	24.115	380.0	0.116	5.80	103.6	2.1	0.29	0.1	0.00	0.23	0.07	30	
34 A	16.38	16.37	33.007	24.131	378.6	0.131	5.81	103.7	2.0	0.29	0.1	0.00	0.24	0.07	34	220
42	16.44	16.43	33.079	24.173	374.9	0.162	5.84	104.4	2.6	0.30	0.1	0.00	0.18	0.05	42	219
50 ISL	15.41	15.40	33.047	24.380	355.4	0.191	6.04	105.8	2.7	0.31	0.1	0.00	0.13	0.04	50	
51 A	15.27	15.26	33.045	24.409	352.6	0.194	6.06	105.8	2.7	0.31	0.1	0.00	0.13	0.04	51	218
59	15.14	15.13	33.151	24.519	342.4	0.222	6.00	104.6	2.4	0.30	0.1	0.00	0.13	0.04	59	217
66 A	14.57	14.56	33.137	24.631	331.8	0.246	5.99	103.2	2.7	0.31	0.1	0.00	0.17	0.08	66	216
75	13.93	13.92	33.237	24.842	311.9	0.275	5.80	98.7	3.3	0.37	0.2	0.01	0.36	0.29	75	215
83	13.45	13.44	33.246	24.947	302.1	0.299	5.66	95.3	3.8	0.45	1.4	0.03	0.38	0.34	83	214
92 A	12.63	12.62	33.248	25.111	286.6	0.326	5.42	89.8	5.3	0.63	4.5	0.15	0.34	0.34	92	213
100 ISL	12.16	12.15	33.270	25.219	276.5	0.348	5.27	86.4	6.4	0.74	6.5	0.18	0.33	0.26	100	
101	12.11	12.10	33.274	25.231	275.3	0.351	5.25	86.0	6.6	0.75	6.8	0.18	0.33	0.25	101	212
112	11.26	11.25	33.344	25.443	255.3	0.380	4.98	80.1	9.5	0.96	10.7	0.05	0.21	0.19	112	211
124	10.43	10.42	33.375	25.613	239.2	0.410	4.70	74.3	13.1	1.19	14.5	0.02	0.12	0.15	125	210
125 ISL	10.36	10.35	33.379	25.628	237.8	0.412	4.67	73.7	13.5	1.21	14.8	0.02	0.11	0.14	126	
144	9.35	9.33	33.503	25.893	212.8	0.455	4.16	64.3	20.4	1.58	20.6	0.01	0.05	0.05	145	209
150 ISL	9.29	9.27	33.572	25.957	206.8	0.468	4.02	62.0	22.0	1.64	21.7	0.01	0.04	0.04	151	
169	9.08	9.06	33.741	26.123	191.4	0.505	3.66	56.3	26.0	1.77	23.9	0.01	0.01	0.02	170	208
200	8.80	8.78	33.930	26.315	173.7	0.562	3.39	51.9	31.1	1.88	26.0	0.01	0.00	0.02	201	207
229	8.37	8.35	34.042	26.470	159.4	0.610	2.53	38.4	40.5	2.23	30.7	0.00			230	206
250 ISL	7.99	7.96	34.056	26.538	153.2	0.643	2.41	36.2	45.3	2.34	32.5	0.00			251	
269	7.68	7.65	34.050	26.579	149.5	0.672	2.31	34.5	48.7	2.39	33.5	0.00			270	205
300 ISL	7.40	7.37	34.058	26.625	145.4	0.718	2.07	30.7	53.1	2.53	35.3	0.00			302	
318	7.27	7.24	34.063	26.648	143.5	0.744	1.91	28.2	55.5	2.61	36.2	0.00			320	204
378	6.67	6.64	34.094	26.755	133.9	0.827	1.39	20.3	66.6	2.88	39.4	0.00			380	203
400 ISL	6.54	6.50	34.119	26.792	130.6	0.856	1.18	17.2	70.5	2.98	40.4	0.00			402	
437	6.34	6.30	34.162	26.852	125.3	0.903	0.85	12.3	77.1	3.13	42.0	0.00			440	202
500 ISL	5.78	5.74	34.204	26.957	115.7	0.979	0.56	8.0	89.9	3.30	44.4	0.00			503	
514	5.66	5.62	34.214	26.979	113.6	0.995	0.50	7.1	92.8	3.34	44.9	0.00			517	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 59.5 N	122 23.9 W	09/07/05	2148	UTC	4090 m	340	15 kn	320 04 06	1	1016.5 mb	19.7 C	18.4 C	29m	6/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.08	18.08	33.152	23.839	405.4	0.000	5.55	102.5	2.7	0.28	0.1	0.00	0.05	0.00	0	
2	18.08	18.08	33.152	23.839	405.5	0.008	5.55	102.5	2.7	0.28	0.1	0.00	0.05	0.00	2	224
10 ISL	17.97	17.97	33.144	23.860	403.8	0.040	5.56	102.5	2.5	0.28	0.1	0.00	0.06	0.00	10	
11	17.94	17.94	33.142	23.866	403.2	0.045	5.56	102.4	2.5	0.28	0.1	0.00	0.06	0.00	11	223
15	17.81	17.81	33.130	23.888	401.2	0.061	5.57	102.3	2.6	0.28	0.0	0.00	0.08	0.02	15	221
20 ISL	17.71	17.71	33.120	23.905	399.8	0.081	5.58	102.3	2.5	0.28	0.0	0.00	0.08	0.02	20	
30	17.52	17.51	33.106	23.940	396.8	0.120	5.61	102.5	2.4	0.28	0.0	0.00	0.08	0.02	30	220
45	17.00	16.99	33.087	24.049	386.8	0.179	5.72	103.4	2.2	0.28	0.0	0.00	0.11	0.03	45	219
50 ISL	16.67	16.66	33.069	24.112	381.0	0.198	5.80	104.2	2.2	0.29	0.0	0.00	0.15	0.05	50	
55	16.31	16.30	33.056	24.185	374.1	0.217	5.88	104.8	2.3	0.29	0.0	0.00	0.20	0.07	55	218
65	15.60	15.59	33.079	24.363	357.5	0.254	5.95	104.6	2.5	0.29	0.0	0.00	0.34	0.16	65	217
75	14.87	14.86	33.064	24.511	343.6	0.289	5.98	103.6	2.6	0.31	0.0	0.00	0.47	0.38	75	216
84	14.05	14.04	33.050	24.673	328.3	0.319	5.92	100.8	2.8	0.38	0.4	0.06	0.47	0.43	84	214
94	13.56	13.55	33.056	24.779	318.4	0.352	5.80	97.8	3.0	0.51	1.8	0.25	0.31	0.27	94	213
100 ISL	13.11	13.10	33.073	24.882	308.7	0.370	5.67	94.7	3.6	0.59	3.0	0.23	0.24	0.21	100	
110	12.20	12.19	33.117	25.092	288.7	0.400	5.37	88.0	5.6	0.76	5.9	0.21	0.15	0.15	110	212
125	10.61	10.60	33.213	25.456	254.2	0.441	4.76	75.5	10.6	1.12	12.8	0.06	0.12	0.14	126	211
145	9.68	9.66	33.403	25.761	225.4	0.489	4.18	65.0	16.6	1.45	18.3	0.01	0.08	0.09	146	210
150 ISL	9.54	9.52	33.455	25.825	219.4	0.500	4.06	63.0	17.9	1.51	19.3	0.01	0.07	0.08	151	
170	9.18	9.16	33.656	26.040	199.3	0.542	3.69	56.8	22.3	1.68	22.2	0.01	0.02	0.03	171	208
199	8.86	8.84	33.906	26.287	176.4	0.596	3.38	51.8	27.4	1.77	24.3	0.00	0.00	0.02	200	207
200 ISL	8.85	8.83	33.911	26.293	175.8	0.598	3.36	51.5	27.6	1.78	24.4	0.00			201	
230	8.45	8.43	34.003	26.427	163.5	0.649	2.82	42.8	33.5	1.99	27.4	0.00			231	206
250 ISL	8.13	8.10	34.026	26.494	157.4	0.681	2.71	40.9	37.1	2.06	28.6	0.00			251	
269	7.85	7.82	34.036	26.543	152.9	0.711	2.63	39.4	40.3	2.12	29.5	0.00			270	205
300 ISL	7.55	7.52	34.066	26.610	146.9	0.757	2.14	31.8	45.7	2.32	31.8	0.00			302	
320	7.41	7.38	34.086	26.646	143.8	0.786	1.78	26.4	49.0	2.46	33.3	0.00			322	204
378	7.00	6.96	34.146	26.751	134.5	0.867	1.14	16.8	57.3	2.72	35.8	0.00			380	203
400 ISL	6.85	6.81	34.164	26.786	131.4	0.896	0.98	14.4	60.2	2.79	36.6	0.00			402	
437	6.60	6.56	34.186	26.837	126.9	0.944	0.79	11.5	65.1	2.89	37.7	0.00			440	202
500 ISL	6.10	6.06	34.200	26.914	120.1	1.022	0.61	8.8	73.4	3.01	39.4	0.00			503	
512	6.01	5.97	34.203	26.927	118.9	1.036	0.58	8.3	75.0	3.03	39.7	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 39.6 N	123 4.5 W	10/07/05	0331	UTC	4148 m	340	16 kn	330 04 05	1	1016.5 mb	18.2 C	16.7 C		7/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.88	18.88	33.313	23.764	412.6	0.000	5.45	102.3	1.8	0.28	0.0	0.01	0.07	0.02	0	
2	18.88	18.88	33.313	23.764	412.7	0.008	5.45	102.3	1.8	0.28	0.0	0.01	0.07	0.02	2	223
10 ISL	18.87	18.87	33.312	23.766	412.7	0.041	5.44	102.1	1.7	0.28	0.0	0.00	0.07	0.01	10	
15	18.86	18.86	33.311	23.768	412.7	0.062	5.44	102.1	1.7	0.28	0.0	0.00	0.07	0.01	15	220
20 ISL	18.77	18.77	33.292	23.776	412.1	0.083	5.46	102.2	1.7	0.28	0.0	0.00	0.07	0.01	20	
30	18.58	18.57	33.301	23.831	407.3	0.123	5.49	102.4	1.9	0.28	0.0	0.00	0.08	0.01	30	219
45	17.10	17.09	33.106	24.040	387.7	0.183	5.69	103.1	2.2	0.28	0.0	0.00	0.12	0.01	45	218
50 ISL	16.68	16.67	33.128	24.155	376.9	0.202	5.79	104.0	2.1	0.28	0.0	0.00	0.13	0.01	50	
60	16.01	16.00	33.208	24.370	356.6	0.239	5.95	105.6	1.9	0.27	0.0	0.00	0.14	0.03	60	217
75	15.53	15.52	33.226	24.492	345.5	0.292	5.93	104.2	2.0	0.28	0.0	0.00	0.16	0.08	75	216
85	15.25	15.24	33.275	24.591	336.3	0.326	5.85	102.3	2.1	0.29	0.0	0.00	0.25	0.11	85	215
96	14.59	14.58	33.303	24.756	320.9	0.362	5.79	99.9	2.5	0.33	0.0	0.00	0.28	0.26	96	214
100 ISL	14.30	14.29	33.323	24.833	313.6	0.374	5.71	97.9	2.8	0.37	0.3	0.03	0.36	0.22	100	
105	13.88	13.87	33.343	24.935	303.9	0.390	5.58	94.9	3.3	0.43	1.2	0.08	0.42	0.17	105	213
115	12.81	12.79	33.332	25.142	284.3	0.419	5.30	88.1	5.0	0.63	4.8	0.23	0.21	0.26	115	212
124	11.95	11.93	33.331	25.306	268.8	0.444	5.08	83.0	7.0	0.80	8.0	0.05	0.18	0.16	124	211
125 ISL	11.86	11.84	33.332	25.323	267.1	0.447	5.06	82.5	7.2	0.82	8.3	0.05	0.17	0.16	125	
139	10.78	10.76	33.368	25.547	245.9	0.483	4.77	76.0	10.8	1.07	12.5	0.02	0.09	0.15	140	210
150 ISL	10.11	10.09	33.457	25.732	228.4	0.509	4.45	69.9	14.5	1.28	15.9	0.02	0.05	0.10	151	
165	9.47	9.45	33.597	25.948	208.1	0.542	4.04	62.6	19.4	1.52	19.8	0.01	0.02	0.03	166	208
195	9.09	9.07	33.770	26.144	189.9	0.601	3.67	56.5	23.9	1.68	22.5	0.01	0.01	0.02	196	207
200 ISL	9.03	9.01	33.801	26.178	186.8	0.611	3.63	55.8	24.6	1.69	22.8	0.01			201	
229	8.70	8.68	33.955	26.351	170.8	0.663	3.38	51.6	29.1	1.78	24.5	0.00			230	206
250 ISL	8.41	8.38	34.004	26.434	163.2	0.698	3.07	46.6	33.2	1.91	26.4	0.00			251	
269	8.15	8.12	34.027	26.492	158.0	0.728	2.76	41.6	37.0	2.04	28.2	0.00			270	205
300 ISL	7.81	7.78	34.063	26.571	150.9	0.776	2.28	34.1	42.6	2.24	30.6	0.00			302	
318	7.61	7.58	34.075	26.609	147.4	0.803	2.04	30.4	45.7	2.35	31.8	0.00			320	204
376	6.80	6.77	34.071	26.719	137.3	0.885	1.68	24.6	55.2	2.55	34.7	0.00			378	203
400 ISL	6.52	6.48	34.070	26.756	134.0	0.918	1.56	22.7	59.1	2.62	35.8	0.00			402	
437	6.15	6.11	34.079	26.811	128.9	0.967	1.35	19.4	65.1	2.74	37.3	0.00			440	202
500 ISL	5.78	5.74	34.161	26.923	118.9	1.045	0.75	10.7	76.0	2.98	39.7	0.00			503	
517	5.68	5.64	34.183	26.952	116.2	1.065	0.59	8.4	79.0	3.04	40.4	0.00			520	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 87 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 19.7 N	123 44.8 W	10/07/05	0920	UTC	3996 m	350	15 kn			1016.4 mb	18.2 C	16.9 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	19.02	19.02	33.208	23.648	423.6	0.000	5.43	102.1	2.6	0.29	0.0	0.01	0.08	0.02	0	
2	19.02	19.02	33.208	23.648	423.7	0.008	5.43	102.1	2.6	0.29	0.0	0.01	0.08	0.02	2	222
10 ISL	19.02	19.02	33.209	23.649	423.9	0.042	5.42	101.9	2.6	0.29	0.0	0.01	0.08	0.02	10	
15	19.02	19.02	33.209	23.650	424.0	0.064	5.42	101.9	2.6	0.29	0.0	0.01	0.08	0.02	15	220
20 ISL	18.79	18.79	33.185	23.689	420.4	0.085	5.47	102.4	2.6	0.29	0.0	0.01	0.08	0.02	20	
30 ISL	18.12	18.11	33.131	23.814	408.8	0.126	5.60	103.5	2.6	0.28	0.0	0.01	0.09	0.02	30	
31	18.04	18.03	33.125	23.829	407.4	0.130	5.61	103.5	2.6	0.28	0.0	0.01	0.09	0.02	31	219
45	16.97	16.96	33.092	24.060	385.8	0.186	5.76	104.1	2.7	0.28	0.0	0.01	0.11	0.03	45	218
50 ISL	16.30	16.29	33.066	24.195	373.1	0.205	5.88	104.8	2.7	0.28	0.0	0.01	0.13	0.04	50	
60	14.99	14.98	33.026	24.455	348.4	0.241	6.09	105.7	2.6	0.30	0.0	0.01	0.18	0.07	60	217
75 ISL	14.07	14.06	33.006	24.635	331.7	0.292	6.02	102.6	2.8	0.34	0.0	0.01	0.24	0.14	75	
76	14.03	14.02	33.006	24.643	330.9	0.295	6.02	102.5	2.8	0.34	0.0	0.01	0.25	0.15	76	216
84	13.58	13.57	33.031	24.755	320.4	0.321	5.92	99.9	3.1	0.38	0.0	0.01	0.32	0.28	84	215
95	13.00	12.99	33.190	24.994	297.9	0.355	5.52	92.1	4.3	0.52	2.4	0.13	0.28	0.40	95	213
100 ISL	12.35	12.34	33.164	25.100	287.8	0.370	5.36	88.2	5.5	0.66	4.9	0.09	0.26	0.34	100	
105	11.69	11.68	33.132	25.199	278.4	0.384	5.20	84.3	6.8	0.81	7.5	0.04	0.23	0.27	105	212
115	11.06	11.05	33.187	25.356	263.5	0.411	4.87	78.0	9.2	1.00	10.7	0.03	0.14	0.22	115	211
125	10.51	10.50	33.235	25.490	250.9	0.437	4.72	74.7	11.2	1.13	13.0	0.02	0.12	0.16	126	210
140	9.99	9.97	33.346	25.665	234.5	0.473	4.39	68.7	14.8	1.34	16.4	0.02	0.06	0.13	141	209
150 ISL	9.74	9.72	33.474	25.807	221.2	0.496	3.95	61.5	18.3	1.53	19.2	0.02	0.04	0.09	151	
164	9.46	9.44	33.661	25.999	203.2	0.526	3.30	51.1	23.2	1.77	22.9	0.01	0.02	0.03	165	208
195	8.98	8.96	33.903	26.266	178.3	0.585	2.69	41.3	29.9	2.01	26.6	0.01	0.00	0.02	196	207
200 ISL	8.93	8.91	33.925	26.291	176.0	0.594	2.65	40.7	30.6	2.03	26.9	0.01			201	
231	8.61	8.59	34.010	26.408	165.4	0.647	2.48	37.8	34.4	2.10	28.2	0.01			232	206
250 ISL	8.37	8.34	34.039	26.468	160.0	0.678	2.35	35.6	37.3	2.17	29.2	0.01			251	
269	8.11	8.08	34.057	26.521	155.2	0.707	2.22	33.5	40.3	2.24	30.3	0.01			270	205
300 ISL	7.70	7.67	34.075	26.596	148.4	0.755	1.98	29.6	45.4	2.37	32.0	0.01			302	
317	7.46	7.43	34.078	26.633	145.0	0.779	1.85	27.5	48.3	2.44	33.0	0.01			319	204
377	6.47	6.44	34.069	26.761	133.1	0.863	1.51	21.9	60.3	2.67	36.3	0.01			379	203
400 ISL	6.30	6.26	34.096	26.805	129.1	0.893	1.26	18.2	64.4	2.77	37.5	0.01			402	
438	6.08	6.04	34.143	26.870	123.3	0.941	0.87	12.5	70.4	2.90	38.9	0.01			441	202
500 ISL	5.45	5.41	34.162	26.963	114.6	1.015	0.65	9.2	76.9	2.87	38.3	0.01			503	
512	5.33	5.29	34.166	26.981	113.0	1.028	0.61	8.6	78.2	2.86	38.2	0.01			515	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 88.5 30.1

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 40.2 N	118 5.0 W	07/07/05	2230 UTC	21 m	250 10 kn	240 01 06	0	1012.2 mb	20.4 C	18.0 C		0/8	

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.66	17.66	33.435	24.157	375.1	0.000	8.07	148.1	1.4	0.08	0.1	0.02	5.75	0.86	0	
1	17.66	17.66	33.435	24.157	375.1	0.004	8.07	148.1	1.4	0.08	0.1	0.02	5.75	0.86	1	205
5	16.38	16.38	33.466	24.482	344.2	0.018	7.96	142.5	2.8	0.12	0.1	0.02	5.08	1.05	5	204
10	12.20	12.20	33.497	25.385	258.4	0.033	4.16	68.4	13.0	0.75	0.3	0.06	4.66	0.85	10	203
15	11.96	11.96	33.520	25.448	252.5	0.046	3.40	55.6	13.5	0.99	2.8	0.21	4.72	1.40	15	202
19	11.88	11.88	33.526	25.468	250.7	0.056	3.23	52.7	13.6	1.15	6.2	0.30	4.91	1.62	19	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90.0 27.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 29.7 N	117 45.1 W	07/07/05	2004 UTC	29 m	290 08 kn	270 02 07	1	1013.2 mb	20.0 C	17.9 C		2/8	CU

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.66	18.66	33.470	23.939	395.9	0.000	7.40	138.4	2.2	0.19	0.0	0.01	3.74	0.21	0	
1	18.66	18.66	33.470	23.939	395.9	0.004	7.40	138.4	2.2	0.19	0.0	0.01	3.74	0.21	1	205
5	17.79	17.79	33.462	24.147	376.2	0.019	7.36	135.4	4.6	0.18	0.0	0.01	8.25	0.66	5	204
10	12.83	12.83	33.479	25.249	271.3	0.036	4.59	76.5	12.5	0.72	0.0	0.02	5.05	0.84	10	203
15	12.51	12.51	33.505	25.332	263.6	0.049	4.09	67.7	14.3	0.87	0.5	0.03	4.34	0.66	15	202
20	11.39	11.39	33.546	25.574	240.7	0.062	3.06	49.5	18.4	1.35	6.8	0.16	1.38	0.58	20	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 28

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 29.1 N	117 46.2 W	07/07/05	1824 UTC	69 m	230 03 kn	230 01 06	1	1013.6 mb	18.9 C	17.1 C	9m	2/8	AC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.54	18.54	33.488	23.982	391.7	0.000	6.85	127.9	1.4	0.16	0.0	0.00	2.02	0.00	0	
1 A	18.54	18.54	33.488	23.982	391.8	0.004	6.85	127.9	1.4	0.16	0.0	0.00	2.02	0.00	1	211
8 A	16.50	16.50	33.453	24.445	347.9	0.030	6.60	118.4	4.7	0.29	0.0	0.01	7.53	0.23	8	210
10 ISL	14.77	14.77	33.444	24.823	311.9	0.036	5.51	95.5	8.9	0.57	0.9	0.03	6.96	0.46	10	
14 A	11.58	11.58	33.525	25.523	245.4	0.048	3.36	54.5	17.0	1.17	2.7	0.10	4.48	0.80	14	208
19 A	10.97	10.97	33.571	25.669	231.6	0.059	2.94	47.1	19.1	1.52	11.6	0.21	1.23	0.48	19	206
20 ISL	10.95	10.95	33.579	25.679	230.7	0.062	2.93	46.9	19.3	1.53	12.3	0.21	1.20	0.47	20	
25 A	10.84	10.84	33.586	25.704	228.4	0.073	2.86	45.7	19.8	1.59	13.9	0.22	1.05	0.45	25	205
30 ISL	10.69	10.69	33.621	25.758	223.4	0.085	2.74	43.6	21.0	1.70	17.3	0.23	0.86	0.37	30	
34 A	10.59	10.59	33.651	25.799	219.6	0.093	2.65	42.1	21.9	1.79	19.8	0.23	0.73	0.32	34	204
42	10.52	10.52	33.678	25.832	216.6	0.111	2.56	40.6	22.8	1.86	21.5	0.22	0.67	0.35	42	203
50	10.41	10.40	33.736	25.896	210.7	0.128	2.34	37.1	24.6	1.96	23.6	0.19	0.51	0.38	50	202
60	10.36	10.35	33.758	25.922	208.4	0.149	2.27	35.9	25.2	1.98	24.1	0.19	0.37	0.40	60	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 30

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 25.3 N	117 54.7 W	07/07/05	1517 UTC	612 m	130 05 kn	150 01 05	2	1013.0 mb	17.6 C	16.7 C	12m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.07	18.07	33.482	24.094	381.1	0.000	6.50	120.3	2.0	0.19	0.1	0.00	0.58	0.19	0	
2	18.07	18.07	33.482	24.094	381.2	0.008	6.50	120.3	2.0	0.19	0.1	0.00	0.58	0.19	2	220
10	14.45	14.45	33.456	24.901	304.5	0.035	6.62	114.0	2.1	0.33	0.1	0.01	1.90	0.63	10	219
20 ISL	11.89	11.89	33.456	25.412	256.1	0.063	5.45	89.0	2.1	0.69	5.6	0.17	11.13	4.18	20	
21	11.73	11.73	33.457	25.442	253.2	0.066	5.26	85.6	2.1	0.75	6.5	0.19	11.74	4.45	21	218
30	10.64	10.64	33.573	25.729	226.1	0.087	3.15	50.1	17.9	1.64	19.0	0.25	2.63	2.08	30	217
40	10.43	10.43	33.693	25.859	214.0	0.109	2.56	40.6	22.8	1.87	22.9	0.05	0.80	0.81	40	216
50	10.35	10.34	33.737	25.907	209.6	0.130	2.51	39.7	23.4	1.90	23.4	0.04	0.66	0.63	50	215
58	10.35	10.34	33.773	25.936	207.1	0.147	2.43	38.4	24.1	1.94	23.8	0.03	0.46	0.60	58	214
68	10.28	10.27	33.858	26.014	199.9	0.167	2.33	36.8	25.8	2.00	24.3	0.03	0.17	0.29	68	213
75 ISL	10.24	10.23	33.903	26.056	196.0	0.181	2.23	35.2	27.0	2.04	24.7	0.03	0.12	0.25	75	
84	10.20	10.19	33.947	26.098	192.3	0.199	2.11	33.3	28.1	2.09	25.1	0.02	0.06	0.20	84	212
98	10.16	10.15	33.990	26.138	188.8	0.225	2.08	32.8	28.6	2.11	25.4	0.02	0.04	0.16	99	211
100 ISL	10.15	10.14	33.999	26.147	187.9	0.229	2.08	32.8	28.8	2.12	25.5	0.02	0.04	0.15	101	
119	9.90	9.89	34.067	26.243	179.2	0.264	2.04	32.0	30.6	2.15	26.1	0.02	0.02	0.10	120	210
125 ISL	9.74	9.73	34.058	26.263	177.4	0.275	2.13	33.3	30.8	2.13	26.2	0.02	0.02	0.10	126	
138	9.43	9.41	34.041	26.301	174.0	0.298	2.29	35.6	31.3	2.11	26.6	0.02	0.02	0.10	139	209
150 ISL	9.49	9.47	34.112	26.347	170.0	0.318	2.06	32.0	32.9	2.19	27.3	0.02	0.02	0.11	151	
168	9.57	9.55	34.214	26.414	164.0	0.348	1.58	24.6	35.7	2.34	28.3	0.01	0.01	0.11	169	208
198	9.34	9.32	34.253	26.482	158.1	0.397	1.36	21.1	38.6	2.45	29.3	0.01	0.01	0.07	199	207
200 ISL	9.34	9.32	34.256	26.485	157.9	0.400	1.34	20.8	38.8	2.46	29.3	0.01			201	
228	9.26	9.23	34.297	26.530	154.2	0.443	1.14	17.7	41.0	2.54	30.0	0.01			229	206
250 ISL	9.00	8.97	34.298	26.573	150.4	0.477	1.08	16.6	42.6	2.59	30.7	0.01			252	
268	8.76	8.73	34.290	26.605	147.6	0.504	1.05	16.1	44.0	2.62	31.2	0.01			270	205
300 ISL	8.48	8.45	34.285	26.645	144.3	0.551	0.98	14.9	46.8	2.67	32.0	0.01			302	
319	8.35	8.32	34.284	26.664	142.8	0.578	0.93	14.1	48.5	2.70	32.4	0.01			321	204
378	8.08	8.04	34.308	26.724	138.0	0.661	0.74	11.2	52.5	2.81	33.4	0.00			380	203
400 ISL	7.84	7.80	34.303	26.756	135.2	0.691	0.69	10.3	55.1	2.85	34.2	0.00			403	
442	7.34	7.30	34.291	26.819	129.5	0.746	0.60	8.9	60.4	2.93	35.8	0.00			445	202
500 ISL	6.93	6.88	34.291	26.877	124.6	0.820	0.50	7.3	66.0	3.01	37.2	0.01			503	
519	6.80	6.75	34.291	26.894	123.0	0.843	0.47	6.9	67.8	3.03	37.6	0.01			523	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
33 15.0 N	118 15.3 W	07/07/05	1043 UTC	405 m	190 03 kn			1012.1 mb	16.0 C	14.9 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.97	18.97	33.432	23.832	406.1	0.000	6.01	113.1	0.3	0.19	0.0	0.00	0.62	0.35	0	
1	18.97	18.97	33.432	23.832	406.1	0.004	6.01	113.1	0.3	0.19	0.0	0.00	0.62	0.35	1	218
10	17.44	17.44	33.387	24.174	373.8	0.039	6.25	114.2	1.3	0.28	0.0	0.00	0.62	0.31	10	217
20 ISL	12.33	12.33	33.386	25.274	269.2	0.071	5.26	86.6	7.7	0.88	6.6	0.10	0.54	0.22	20	
21	11.84	11.84	33.407	25.383	258.9	0.074	5.10	83.2	8.5	0.96	7.6	0.12	0.53	0.21	21	216
30	10.88	10.88	33.612	25.717	227.3	0.096	3.35	53.6	16.4	1.60	17.6	0.34	0.60	0.22	30	215
40	10.50	10.50	33.705	25.856	214.2	0.118	2.72	43.2	21.6	1.83	22.1	0.14	0.24	0.18	40	214
50 ISL	10.48	10.47	33.800	25.934	207.1	0.139	2.45	38.9	23.7	1.92	23.2	0.09	0.32	0.23	50	
51	10.48	10.47	33.807	25.940	206.6	0.141	2.44	38.7	23.8	1.92	23.2	0.09	0.33	0.24	51	213
61	10.29	10.28	33.860	26.014	199.7	0.161	2.36	37.3	25.5	1.97	24.1	0.05	0.25	0.25	61	212
71	10.21	10.20	33.954	26.101	191.7	0.181	2.12	33.5	27.6	2.07	25.2	0.02	0.04	0.14	71	211
75 ISL	10.20	10.19	33.980	26.123	189.7	0.189	2.07	32.7	28.2	2.09	25.4	0.02	0.04	0.14	75	
86	10.16	10.15	34.029	26.169	185.6	0.209	1.99	31.4	29.2	2.13	25.6	0.02	0.03	0.14	86	210
100	10.06	10.05	34.064	26.213	181.7	0.235	1.93	30.4	30.0	2.16	26.0	0.01	0.02	0.10	101	209
121	9.91	9.90	34.120	26.283	175.5	0.272	1.88	29.5	31.6	2.20	26.7	0.02	0.01	0.08	122	208
125 ISL	9.93	9.92	34.147	26.301	173.9	0.279	1.79	28.1	32.2	2.23	26.9	0.02	0.01	0.09	126	
140	10.04	10.02	34.249	26.362	168.5	0.305	1.42	22.4	34.7	2.36	27.6	0.02	0.01	0.11	141	207
150 ISL	10.02	10.00	34.276	26.387	166.4	0.322	1.37	21.6	35.6	2.40	27.9	0.02	0.01	0.11	151	
171	9.89	9.87	34.292	26.421	163.5	0.356	1.26	19.8	36.8	2.44	28.3	0.02	0.01	0.10	172	206
200 ISL	9.71	9.69	34.296	26.455	160.9	0.403	1.22	19.1	38.1	2.46	28.7	0.01	0.01	0.09	201	
201	9.70	9.68	34.296	26.457	160.7	0.405	1.22	19.1	38.1	2.46	28.7	0.01	0.01	0.09	202	205
231	9.49	9.46	34.305	26.499	157.3	0.453	1.14	17.8	39.7	2.56	29.3	0.02			232	204
250 ISL	9.27	9.24	34.309	26.538	153.9	0.482	1.07	16.6	41.4	2.58	29.9	0.02			252	
270	9.00	8.97	34.311	26.584	149.8	0.513	0.99	15.2	43.6	2.60	30.6	0.01			272	203
300 ISL	8.54	8.51	34.301	26.648	144.1	0.557	0.91	13.9	47.5	2.67	31.9	0.01			302	
321	8.23	8.20	34.293	26.689	140.3	0.587	0.85	12.9	50.4	2.73	32.8	0.01			323	202
381	7.57	7.53	34.293	26.787	131.7	0.668	0.64	9.5	58.1	2.86	35.0	0.01			384	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 37

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
33 11.1 N	118 23.4 W	07/07/05	0658 UTC	1183 m	220 03 kn			1012.5 mb	15.8 C	14.9 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.89	18.89	33.437	23.856	403.8	0.000	6.02	113.1	0.0	0.18	0.0	0.01	0.71	0.34	0	
2	18.89	18.89	33.437	23.856	403.9	0.008	6.02	113.1	0.0	0.18	0.0	0.01	0.71	0.34	2	223
10	17.37	17.37	33.434	24.226	368.8	0.039	6.11	111.5	0.0	0.20	0.0	0.01	0.98	0.53	10	221
20	12.66	12.66	33.417	25.234	273.0	0.071	5.86	97.2	0.2	0.60	3.6	0.15	2.55	0.44	20	220
30	10.95	10.95	33.505	25.621	236.4	0.097	3.61	57.8	14.3	1.50	16.6	0.25	3.46	1.53	30	218
40	10.32	10.32	33.606	25.810	218.6	0.119	3.23	51.0	19.8	1.68	20.6	0.13	1.58	1.03	40	216
49	10.25	10.24	33.657	25.862	213.9	0.139	2.99	47.2	21.3	1.76	22.1	0.04	0.66	0.68	49	215
50 ISL	10.23	10.22	33.671	25.877	212.5	0.141	2.95	46.5	21.6	1.77	22.3	0.04	0.59	0.64	50	
60	10.10	10.09	33.808	26.006	200.5	0.162	2.63	41.4	24.5	1.91	23.7	0.02	0.20	0.36	60	214
70	10.09	10.08	33.851	26.041	197.3	0.181	2.51	39.5	25.4	1.95	24.2	0.02	0.13	0.23	70	213
75 ISL	10.06	10.05	33.885	26.073	194.4	0.191	2.44	38.4	26.1	1.98	24.5	0.02	0.10	0.21	75	
84	10.01	10.00	33.947	26.130	189.2	0.208	2.32	36.5	27.4	2.04	25.1	0.01	0.06	0.17	84	212
99	9.97	9.96	34.008	26.185	184.3	0.236	2.17	34.1	28.7	2.09	25.7	0.01	0.05	0.22	100	211
100 ISL	9.97	9.96	34.011	26.187	184.1	0.238	2.16	33.9	28.8	2.09	25.7	0.01	0.05	0.22	101	
119	9.91	9.90	34.077	26.249	178.7	0.273	1.99	31.2	30.2	2.17	26.4	0.01	0.04	0.14	120	210
125 ISL	9.91	9.90	34.109	26.274	176.4	0.283	1.88	29.5	31.0	2.21	26.7	0.01	0.03	0.13	126	
140	9.90	9.88	34.187	26.337	170.8	0.309	1.63	25.6	32.9	2.29	27.4	0.01	0.02	0.12	141	209
150 ISL	9.83	9.81	34.202	26.361	168.7	0.326	1.62	25.4	33.7	2.31	27.7	0.01	0.02	0.11	151	
170	9.60	9.58	34.205	26.402	165.2	0.360	1.59	24.8	35.1	2.33	28.2	0.02	0.02	0.10	171	208
199	9.17	9.15	34.219	26.483	158.0	0.407	1.54	23.8	38.0	2.39	29.3	0.01	0.01	0.09	200	207
200 ISL	9.16	9.14	34.220	26.486	157.7	0.408	1.53	23.6	38.1	2.39	29.3	0.01			201	
228	8.93	8.91	34.263	26.556	151.5	0.452	1.22	18.8	41.7	2.52	30.5	0.01			229	206
250 ISL	8.70	8.67	34.274	26.601	147.6	0.485	1.09	16.7	44.3	2.60	31.3	0.01			252	
268	8.51	8.48	34.277	26.633	144.8	0.511	1.03	15.7	46.2	2.66	31.9	0.01			270	205
300 ISL	8.31	8.28	34.285	26.671	141.8	0.557	0.92	13.9	48.5	2.70	32.6	0.01			302	
317	8.21	8.18	34.287	26.688	140.4	0.581	0.87	13.2	49.8	2.72	33.0	0.01			319	204
378	7.51	7.47	34.289	26.793	131.1	0.663	0.68	10.1	57.5	2.87	35.2	0.00			380	203
400 ISL	7.30	7.26	34.291	26.824	128.3	0.692	0.61	9.0	60.3	2.92	35.9	0.00			403	
438	6.97	6.93	34.294	26.873	124.0	0.740	0.49	7.2	65.1	2.99	37.1	0.00			441	202
500 ISL	6.47	6.42	34.296	26.942	117.9	0.815	0.40	5.8	72.3	3.07	38.8	0.00			503	
520	6.31	6.26	34.298	26.964	115.9	0.838	0.37	5.4	74.6	3.10	39.3	0.00			524	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 55.2 N	118 56.7 W	07/07/05	0125	UTC	1695 m	300	15 kn	290 03 06	2	1011.9 mb	16.1 C	15.0 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.25	16.25	33.435	24.488	343.5	0.000	5.83	104.1	0.1	0.27	0.3	0.02	0.92	0.13	0	
2	16.25	16.25	33.435	24.488	343.6	0.007	5.83	104.1	0.1	0.27	0.3	0.02	0.92	0.13	2	222
10	16.21	16.21	33.434	24.497	343.0	0.034	5.83	104.0	0.2	0.27	0.3	0.03	0.98	0.17	10	221
20	13.84	13.84	33.411	24.994	295.9	0.066	5.35	91.0	2.3	0.64	4.8	0.12	1.89	0.52	20	220
30	11.70	11.70	33.429	25.426	254.9	0.094	4.42	71.9	8.4	1.16	11.7	0.23	2.49	0.48	30	218
40	10.41	10.41	33.555	25.755	223.9	0.118	3.44	54.4	17.9	1.62	19.3	0.16	0.51	0.39	40	217
50	10.15	10.14	33.612	25.844	215.6	0.140	3.30	51.9	19.9	1.71	20.7	0.07	0.27	0.25	50	216
60	9.90	9.89	33.716	25.968	204.1	0.161	3.09	48.4	22.4	1.79	22.3	0.05	0.14	0.20	60	215
70	9.73	9.72	33.782	26.048	196.6	0.181	2.98	46.5	24.0	1.85	23.2	0.04	0.07	0.17	70	214
75 ISL	9.65	9.64	33.844	26.109	190.9	0.190	2.84	44.3	25.4	1.90	23.9	0.04	0.05	0.15	75	
85	9.52	9.51	33.962	26.223	180.3	0.209	2.55	39.7	28.2	2.01	25.3	0.03	0.03	0.11	85	213
99	9.45	9.44	34.006	26.269	176.2	0.234	2.40	37.3	29.7	2.07	26.0	0.02	0.03	0.12	100	212
100 ISL	9.45	9.44	34.011	26.273	175.8	0.236	2.38	37.0	29.8	2.08	26.1	0.02	0.03	0.12	101	
119	9.54	9.53	34.121	26.345	169.5	0.269	1.96	30.5	32.3	2.22	27.2	0.02	0.03	0.14	120	211
125 ISL	9.55	9.54	34.147	26.364	167.8	0.279	1.84	28.7	33.0	2.26	27.4	0.02	0.03	0.13	126	
139	9.58	9.56	34.202	26.402	164.5	0.302	1.63	25.4	34.6	2.32	27.9	0.02	0.02	0.11	140	210
150 ISL	9.44	9.42	34.207	26.429	162.2	0.320	1.63	25.3	35.5	2.34	28.3	0.02	0.02	0.10	151	
168	9.20	9.18	34.205	26.467	158.9	0.349	1.63	25.2	36.9	2.36	28.8	0.02	0.01	0.09	169	208
198	9.28	9.26	34.285	26.517	154.8	0.396	1.19	18.4	39.9	2.51	29.6	0.02	0.01	0.09	199	207
200 ISL	9.27	9.25	34.288	26.521	154.4	0.399	1.18	18.3	40.1	2.52	29.6	0.02			201	
230	8.86	8.84	34.309	26.604	147.1	0.444	1.01	15.5	44.0	2.61	30.8	0.01			231	206
250 ISL	8.33	8.30	34.309	26.686	139.4	0.473	0.83	12.6	49.5	2.73	32.5	0.01			252	
268	7.87	7.84	34.308	26.754	133.0	0.497	0.68	10.2	54.4	2.83	34.0	0.01			270	205
300 ISL	7.62	7.59	34.311	26.793	129.7	0.539	0.62	9.3	57.3	2.90	34.9	0.01			302	
318	7.57	7.54	34.311	26.800	129.3	0.563	0.58	8.6	58.0	2.91	35.1	0.01			320	204
376	7.13	7.09	34.297	26.852	125.1	0.636	0.52	7.7	63.0	2.96	36.5	0.00			378	203
400 ISL	6.93	6.89	34.293	26.877	122.9	0.666	0.49	7.2	65.4	3.00	37.1	0.00			403	
437	6.64	6.60	34.293	26.916	119.5	0.711	0.43	6.3	69.4	3.06	38.1	0.00			440	202
500 ISL	6.24	6.20	34.315	26.987	113.4	0.784	0.33	4.8	76.4	3.15	39.5	0.00			504	
518	6.12	6.07	34.322	27.008	111.5	0.805	0.30	4.3	78.4	3.17	39.9	0.00			522	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 53

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 39.0 N	119 29.2 W	06/07/05	1954	UTC	1318 m	320	16 kn	310 04 05	2	1014.3 mb	16.5 C	14.9 C	16m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	14.99	14.99	33.554	24.860	308.1	0.000	5.88	102.4	0.8	0.37	1.4	0.06	0.75	0.25	0	
1 A	14.99	14.99	33.554	24.860	308.1	0.003	5.88	102.4	0.8	0.37	1.4	0.06	0.75	0.25	1	221
10 ISL	14.97	14.97	33.552	24.863	308.1	0.031	5.87	102.2	0.7	0.37	1.4	0.06	0.75	0.27	10	
12 A	14.96	14.96	33.552	24.866	307.9	0.037	5.87	102.2	0.7	0.37	1.4	0.06	0.75	0.27	12	219
20 ISL	14.88	14.88	33.550	24.882	306.6	0.062	5.85	101.7	0.8	0.39	1.6	0.07	0.67	0.26	20	
23 A	14.85	14.85	33.549	24.887	306.2	0.071	5.84	101.4	0.8	0.40	1.7	0.07	0.65	0.25	23	218
30 ISL	13.38	13.38	33.458	25.124	283.8	0.091	5.65	95.2	3.6	0.73	5.8	0.23	0.75	0.49	30	
34 A	12.47	12.47	33.421	25.275	269.5	0.102	5.49	90.7	5.7	0.94	8.6	0.32	0.79	0.60	34	217
44 A	11.56	11.55	33.454	25.472	251.0	0.128	4.93	79.9	10.2	1.23	12.8	0.40	0.58	0.37	44	216
50 ISL	11.17	11.16	33.537	25.607	238.2	0.143	4.55	73.2	12.6	1.42	15.0	0.39	0.52	0.55	50	
52	11.05	11.04	33.567	25.652	233.9	0.148	4.42	70.9	13.5	1.48	15.7	0.39	0.50	0.61	52	215
61 A	10.47	10.46	33.638	25.810	219.1	0.168	3.82	60.5	18.8	1.63	19.4	0.34	0.20	0.36	61	214
70	10.02	10.01	33.644	25.892	211.5	0.188	3.63	57.0	20.8	1.71	21.2	0.22	0.13	0.30	70	213
75 ISL	9.90	9.89	33.665	25.928	208.1	0.198	3.51	55.0	21.8	1.75	21.9	0.19	0.10	0.25	75	
85	9.77	9.76	33.736	26.005	201.0	0.219	3.20	50.0	24.1	1.84	23.1	0.16	0.06	0.19	85	212
99	9.52	9.51	33.886	26.164	186.2	0.246	2.52	39.2	29.3	2.04	25.5	0.16	0.08	0.25	100	211
100 ISL	9.51	9.50	33.893	26.171	185.5	0.248	2.49	38.7	29.5	2.05	25.6	0.16	0.08	0.25	101	
119	9.36	9.35	33.988	26.270	176.5	0.282	2.19	33.9	32.3	2.16	27.0	0.13	0.09	0.31	120	210
125 ISL	9.33	9.32	34.000	26.285	175.3	0.292	2.18	33.8	32.5	2.16	27.1	0.12	0.09	0.31	126	
140	9.23	9.21	34.021	26.318	172.4	0.319	2.17	33.5	33.0	2.17	27.4	0.09	0.08	0.32	141	209
150 ISL	9.12	9.10	34.046	26.355	169.1	0.336	2.07	31.9	34.3	2.21	28.0	0.08	0.06	0.30	151	
170	8.90	8.88	34.104	26.436	161.8	0.369	1.81	27.8	37.4	2.32	29.5	0.07	0.03	0.24	171	208
199	8.75	8.73	34.182	26.521	154.2	0.415	1.44	22.0	41.1	2.46	30.8	0.06	0.03	0.22	200	207
200 ISL	8.74	8.72	34.184	26.524	153.9	0.416	1.43	21.9	41.2	2.46	30.8	0.06			201	
229	8.46	8.44	34.223	26.598	147.3	0.460	1.21	18.4	44.9	2.58	31.8	0.06			230	206
250 ISL	7.99	7.96	34.209	26.658	141.8	0.490	1.18	17.8	49.4	2.65	33.1	0.05			252	
268	7.55	7.52	34.185	26.703	137.6	0.515	1.16	17.3	53.4	2.69	34.2	0.03			270	205
300 ISL	6.99	6.96	34.138	26.745	133.8	0.559	1.25	18.4	57.4	2.72	35.4	0.02			302	
320	6.76	6.73	34.119	26.762	132.4	0.585	1.27	18.6	59.3	2.73	36.0	0.01			322	204
376	6.68	6.65	34.197	26.834	126.3	0.658	0.82	12.0	64.8	2.90	37.1	0.00			378	203
400 ISL	6.63	6.59	34.236	26.872	123.1	0.688	0.65	9.5	67.7	2.98	37.6	0.00			403	
438	6.51	6.47	34.288	26.929	118.2	0.734	0.43	6.3	72.3	3.08	38.3	0.00			441	202
500 ISL	6.13	6.09	34.304	26.992	112.8	0.805	0.34	4.9	78.2	3.15	39.6	0.00			503	
514	6.05	6.00	34.308	27.005	111.6	0.821	0.32	4.6	79.5	3.16	39.9	0.00			518	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 24.9 N	119 57.2 W	06/07/05	1442 UTC	928 m	340 23 kn	330 08 06	2	1013.6 mb	16.3 C	15.0 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.94	16.94	33.233	24.173	373.5	0.000	5.65	102.1	2.5	0.28	0.0	0.00	0.19	0.06	0	
2	16.94	16.94	33.233	24.174	373.6	0.007	5.65	102.1	2.5	0.28	0.0	0.00	0.19	0.06	2	221
10	16.94	16.94	33.231	24.172	373.9	0.037	5.65	102.1	2.5	0.28	0.0	0.00	0.19	0.06	10	220
20	16.94	16.94	33.231	24.173	374.3	0.075	5.66	102.3	2.5	0.28	0.0	0.00	0.19	0.06	20	219
30	16.92	16.92	33.230	24.177	374.2	0.112	5.67	102.4	2.4	0.28	0.0	0.00	0.20	0.07	30	218
40	15.35	15.34	33.169	24.486	344.9	0.148	6.06	106.1	2.5	0.30	0.0	0.01	0.60	0.35	40	217
50 ISL	14.59	14.58	33.165	24.648	329.8	0.182	5.95	102.6	2.8	0.39	0.7	0.09	0.67	0.49	50	
51	14.53	14.52	33.166	24.661	328.5	0.185	5.94	102.3	2.8	0.40	0.8	0.10	0.68	0.49	51	215
60	13.64	13.63	33.163	24.844	311.3	0.214	5.66	95.7	3.8	0.57	3.0	0.33	0.43	0.40	60	214
71	12.43	12.42	33.146	25.070	289.9	0.247	5.29	87.2	6.0	0.78	6.8	0.07	0.17	0.18	71	213
75 ISL	12.22	12.21	33.166	25.126	284.7	0.259	5.23	85.8	6.4	0.82	7.5	0.06	0.15	0.17	75	
86	11.76	11.75	33.238	25.268	271.4	0.289	5.04	81.9	8.1	0.93	9.5	0.02	0.11	0.14	86	212
100 ISL	10.70	10.69	33.308	25.514	248.2	0.325	4.45	70.7	13.2	1.29	15.3	0.02	0.05	0.08	100	
101	10.62	10.61	33.315	25.533	246.3	0.328	4.40	69.8	13.6	1.32	15.7	0.02	0.05	0.08	101	211
122	9.73	9.72	33.574	25.886	213.1	0.376	3.63	56.6	21.0	1.74	21.6	0.01	0.01	0.05	123	210
125 ISL	9.61	9.60	33.602	25.928	209.1	0.383	3.59	55.8	21.7	1.75	22.0	0.01	0.01	0.05	126	
140	9.13	9.11	33.720	26.098	193.2	0.413	3.47	53.4	24.5	1.77	23.2	0.01	0.01	0.03	141	209
150 ISL	8.98	8.96	33.786	26.174	186.2	0.432	3.31	50.8	26.3	1.82	24.2	0.01	0.01	0.02	151	
170	8.82	8.80	33.899	26.287	175.7	0.468	2.91	44.5	30.0	1.96	26.2	0.01	0.00	0.02	171	208
200 ISL	8.57	8.55	34.041	26.438	162.0	0.519	2.22	33.8	36.9	2.21	29.1	0.00	0.00	0.02	201	
202	8.55	8.53	34.048	26.447	161.2	0.522	2.18	33.2	37.3	2.22	29.3	0.00	0.00	0.02	203	207
230	8.16	8.14	34.074	26.526	154.0	0.566	2.01	30.3	41.7	2.32	30.9	0.00			231	206
250 ISL	8.02	7.99	34.098	26.567	150.5	0.596	1.82	27.4	44.2	2.40	31.8	0.00			251	
269	7.88	7.85	34.115	26.601	147.5	0.625	1.65	24.7	46.6	2.48	32.5	0.00			271	205
300 ISL	7.41	7.38	34.108	26.663	141.8	0.669	1.56	23.1	51.2	2.56	33.8	0.00			302	
318	7.12	7.09	34.099	26.697	138.8	0.695	1.53	22.5	54.0	2.60	34.5	0.00			320	204
373	6.50	6.47	34.093	26.776	131.6	0.769	1.33	19.3	61.8	2.74	36.6	0.00			375	203
400 ISL	6.33	6.29	34.122	26.821	127.6	0.804	1.09	15.8	66.0	2.84	37.6	0.00			403	
438	6.12	6.08	34.171	26.887	121.7	0.851	0.75	10.8	72.2	2.98	39.0	0.00			441	202
500 ISL	5.59	5.55	34.207	26.982	113.0	0.924	0.51	7.3	82.8	3.11	40.8	0.00			503	
517	5.45	5.41	34.218	27.008	110.7	0.943	0.45	6.4	85.7	3.15	41.3	0.00			520	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 5.3 N	120 38.7 W	06/07/05	0746 UTC	3844 m	330 20 kn			1015.2 mb	16.7 C	15.0 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.47	17.47	33.160	23.992	390.8	0.000	5.61	102.4	2.3	0.30	0.0	0.01	0.14	0.04	0	
2	17.47	17.47	33.160	23.992	390.9	0.008	5.61	102.4	2.3	0.30	0.0	0.01	0.14	0.04	2	221
10 ISL	17.48	17.48	33.162	23.992	391.2	0.039	5.61	102.4	2.3	0.29	0.0	0.00	0.13	0.04	10	
11	17.48	17.48	33.162	23.992	391.2	0.043	5.61	102.4	2.3	0.29	0.0	0.00	0.13	0.04	11	219
20	17.48	17.48	33.164	23.994	391.3	0.078	5.61	102.4	2.4	0.29	0.1	0.00	0.14	0.04	20	218
30 ISL	16.91	16.91	33.130	24.103	381.3	0.117	5.74	103.6	2.0	0.30	0.1	0.00	0.22	0.07	30	
31	16.80	16.79	33.109	24.112	380.4	0.121	5.76	103.7	1.9	0.30	0.1	0.00	0.24	0.07	31	217
39	15.19	15.18	33.141	24.500	343.6	0.150	6.04	105.4	1.8	0.38	0.6	0.04	0.47	0.23	39	216
48	15.04	15.03	33.238	24.607	333.6	0.180	6.01	104.6	1.6	0.46	1.5	0.08	0.43	0.22	48	215
50 ISL	14.96	14.95	33.242	24.628	331.7	0.187	6.00	104.3	1.6	0.47	1.6	0.09	0.42	0.22	50	
59	14.49	14.48	33.236	24.724	322.8	0.216	5.97	102.7	1.9	0.53	1.9	0.12	0.36	0.21	59	214
71	13.85	13.84	33.259	24.876	308.6	0.254	5.94	100.9	2.2	0.58	2.7	0.16	0.33	0.20	71	213
75 ISL	13.21	13.20	33.232	24.984	298.3	0.266	5.72	95.9	3.6	0.67	4.4	0.13	0.28	0.18	75	
87	11.20	11.19	33.202	25.342	264.3	0.300	4.92	79.0	9.0	1.01	10.8	0.02	0.11	0.13	87	212
99	10.31	10.30	33.325	25.594	240.4	0.330	4.44	70.0	13.7	1.32	15.7	0.01	0.08	0.09	99	211
100 ISL	10.26	10.25	33.336	25.611	238.8	0.333	4.41	69.4	14.1	1.34	16.0	0.01	0.08	0.09	100	
119	9.56	9.55	33.545	25.891	212.5	0.376	3.85	59.8	20.1	1.64	20.9	0.00	0.02	0.05	120	210
125 ISL	9.42	9.41	33.606	25.962	205.9	0.388	3.70	57.3	21.7	1.70	21.9	0.00	0.02	0.05	126	
141	9.18	9.16	33.752	26.115	191.6	0.420	3.30	50.9	25.5	1.84	24.1	0.00	0.01	0.05	142	209
150 ISL	9.14	9.12	33.820	26.175	186.1	0.437	3.01	46.4	27.4	1.93	25.2	0.00	0.01	0.05	151	
168	9.07	9.05	33.929	26.272	177.3	0.470	2.50	38.5	31.0	2.08	27.2	0.00	0.00	0.04	169	208
200 ISL	8.59	8.57	34.041	26.435	162.3	0.524	2.20	33.5	36.7	2.22	29.4	0.00	0.00	0.02	201	
202	8.55	8.53	34.045	26.444	161.4	0.527	2.20	33.5	37.0	2.23	29.5	0.00	0.00	0.02	203	207
228	8.18	8.16	34.075	26.524	154.2	0.568	2.08	31.4	40.6	2.30	30.7	0.00			229	206
250 ISL	7.92	7.89	34.090	26.575	149.6	0.602	1.93	29.0	43.9	2.38	31.8	0.00			251	
269	7.73	7.70	34.101	26.612	146.4	0.630	1.76	26.3	46.8	2.46	32.7	0.00			271	205
300 ISL	7.51	7.48	34.139	26.673	140.9	0.674	1.40	20.8	51.6	2.62	34.1	0.00			302	
319	7.33	7.30	34.152	26.709	137.7	0.701	1.22	18.1	54.8	2.70	35.0	0.00			321	204
378	6.05	6.02	34.063	26.810	128.0	0.779	1.37	19.7	66.2	2.78	37.6	0.00			380	203
400 ISL	5.88	5.85	34.076	26.842	125.2	0.807	1.23	17.6	69.5	2.84	38.4	0.00			402	
437	5.76	5.72	34.120	26.892	120.9	0.853	0.93	13.3	74.7	2.95	39.6	0.00			440	202
500 ISL	5.48	5.44	34.188	26.980	113.1	0.926	0.58	8.2	83.6	3.11	41.2	0.00			503	
511	5.43	5.39	34.200	26.996	111.7	0.939	0.52	7.4	85.1	3.14	41.5	0.00			514	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 45.1 N	121 19.1 W	06/07/05	0125	UTC	3692 m	330	17 kn	340 05 08	2	1015.4 mb	16.9 C	15.4 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	15.96	15.96	33.086	24.286	362.8	0.000	5.93	105.0	1.4	0.33	0.2	0.02	0.38	0.12	0	
1	15.96	15.96	33.086	24.286	362.8	0.004	5.93	105.0	1.4	0.33	0.2	0.02	0.38	0.12	1	221
10	15.94	15.94	33.080	24.286	363.1	0.036	5.93	105.0	1.4	0.32	0.2	0.01	0.37	0.13	10	220
20	15.87	15.87	33.070	24.294	362.6	0.073	5.96	105.4	1.5	0.32	0.2	0.02	0.39	0.13	20	219
30	14.58	14.58	32.993	24.517	341.7	0.108	6.14	105.7	2.1	0.31	0.0	0.01	0.72	0.17	30	218
41	13.66	13.65	33.067	24.765	318.3	0.144	5.92	100.1	2.7	0.50	2.0	0.18	0.77	0.40	41	217
50	12.94	12.93	33.082	24.921	303.6	0.172	5.65	94.1	4.1	0.67	4.2	0.25	0.49	0.25	50	216
60	12.95	12.94	33.282	25.074	289.3	0.202	5.83	97.2	3.4	0.70	4.3	0.21	0.40	0.34	60	214
70	12.18	12.17	33.295	25.233	274.3	0.230	5.36	88.0	6.8	0.95	7.9	0.27	0.22	0.22	70	213
75 ISL	11.75	11.74	33.307	25.323	265.8	0.243	5.09	82.8	8.6	1.07	10.2	0.24	0.17	0.19	75	
85	10.94	10.93	33.357	25.509	248.3	0.269	4.56	72.9	12.3	1.29	14.8	0.15	0.12	0.16	85	212
100	10.02	10.01	33.514	25.791	221.7	0.304	3.88	60.8	18.0	1.60	20.0	0.02	0.07	0.09	100	211
120	9.40	9.39	33.648	25.998	202.3	0.347	3.49	54.0	22.5	1.75	22.4	0.02	0.02	0.05	121	210
125 ISL	9.28	9.27	33.688	26.049	197.6	0.357	3.46	53.4	23.4	1.76	22.7	0.02	0.02	0.05	126	
137	9.05	9.04	33.784	26.161	187.2	0.380	3.41	52.4	25.3	1.78	23.5	0.02	0.01	0.04	138	209
150 ISL	8.94	8.92	33.867	26.243	179.6	0.404	3.14	48.2	27.7	1.87	24.8	0.02	0.00	0.04	151	
169	8.81	8.79	33.957	26.334	171.3	0.437	2.71	41.5	31.3	2.01	26.8	0.02	0.00	0.04	170	208
198	8.35	8.33	34.031	26.464	159.4	0.485	2.49	37.7	36.1	2.12	28.6	0.01	0.00	0.03	199	207
200 ISL	8.31	8.29	34.034	26.472	158.6	0.488	2.46	37.2	36.5	2.13	28.8	0.01			201	
229	7.83	7.81	34.071	26.573	149.4	0.533	2.07	31.0	42.8	2.32	31.1	0.01			230	206
250 ISL	7.71	7.69	34.094	26.609	146.3	0.564	1.82	27.2	45.8	2.43	32.2	0.01			251	
267	7.64	7.61	34.108	26.630	144.6	0.589	1.64	24.5	48.0	2.50	32.9	0.01			269	205
300 ISL	7.23	7.20	34.117	26.696	138.7	0.635	1.41	20.8	53.3	2.62	34.6	0.01			302	
318	6.98	6.95	34.121	26.733	135.2	0.660	1.30	19.1	56.3	2.68	35.5	0.01			320	204
378	6.51	6.48	34.174	26.839	125.8	0.738	0.82	11.9	65.7	2.90	37.8	0.00			380	203
400 ISL	6.36	6.32	34.195	26.875	122.6	0.766	0.68	9.8	68.9	2.97	38.5	0.00			403	
438	6.14	6.10	34.231	26.932	117.5	0.811	0.50	7.2	74.0	3.06	39.5	0.01			441	202
500 ISL	5.92	5.88	34.279	26.999	111.9	0.882	0.35	5.0	80.0	3.15	40.3	0.01			503	
519	5.85	5.80	34.294	27.019	110.1	0.903	0.30	4.3	81.9	3.18	40.6	0.01			523	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 25.0 N	121 59.7 W	05/07/05	1908	UTC	3857 m	350	18 kn	010 05 06	2	1017.3 mb	18.5 C	16.3 C	21m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.67	17.67	33.136	23.926	397.1	0.000	5.58	102.2	2.5	0.29	0.1	0.00	0.14	0.03	0	
2 A	17.67	17.67	33.136 D	23.926	397.2	0.008	5.58	102.2	2.5	0.29	0.1	0.00	0.14	0.03	2	224
10 ISL	17.68	17.68	33.136	23.924	397.6	0.040	5.59	102.4	2.5	0.28	0.0	0.00	0.14	0.03	10	
15 A	17.68	17.68	33.136	23.924	397.8	0.060	5.59	102.4	2.5	0.28	0.0	0.00	0.15	0.03	15	222
20 ISL	17.57	17.57	33.136	23.951	395.4	0.079	5.63	102.9	2.5	0.28	0.0	0.00	0.16	0.03	20	
30 A	17.25	17.25	33.134	24.026	388.6	0.119	5.71	103.8	2.5	0.28	0.0	0.00	0.18	0.05	30	221
45 A	16.67	16.66	33.117	24.149	377.3	0.176	5.78	103.8	2.4	0.28	0.0	0.00	0.25	0.08	45	220
50 ISL	16.53	16.52	33.122	24.185	374.0	0.195	5.81	104.1	2.4	0.28	0.0	0.01	0.27	0.10	50	
51	16.51	16.50	33.123	24.191	373.5	0.199	5.81	104.0	2.4	0.28	0.0	0.01	0.27	0.10	51	219
57 A	16.36	16.35	33.116	24.220	370.9	0.221	5.83	104.1	2.4	0.29	0.0	0.00	0.31	0.09	57	217
68	15.55	15.54	33.097	24.388	355.2	0.261	5.92	104.0	2.4	0.29	0.0	0.00	0.47	0.25	68	216
75 ISL	15.07	15.06	33.097	24.493	345.3	0.285	5.92	103.0	2.5	0.30	0.0	0.00	0.47	0.37	75	
79 A	14.77	14.76	33.097	24.558	339.2	0.299	5.92	102.4	2.5	0.32	0.0	0.00	0.47	0.41	79	214
87	13.97	13.96	33.085	24.717	324.2	0.326	5.93	100.9	2.9	0.39	0.5	0.05	0.40	0.35	87	213
94	13.23	13.22	33.081	24.864	310.2	0.348	5.71	95.6	4.1	0.56	2.5	0.30	0.26	0.25	94	212
100 ISL	12.65	12.64	33.088	24.984	298.9	0.366	5.52	91.4	4.9	0.66	4.2	0.22	0.21	0.24	100	
109	11.87	11.86	33.119	25.156	282.6	0.392	5.23	85.2	6.3	0.80	7.0	0.11	0.17	0.22	109	211
125	10.80	10.79	33.233	25.438	255.9	0.435	4.76	75.8	10.2	1.10	12.4	0.03	0.09	0.16	126	210
145	10.06	10.04	33.422	25.713	230.1	0.484	4.22	66.2	15.7	1.42	17.5	0.01	0.05	0.08	146	209
150 ISL	9.91	9.89	33.468	25.774	224.4	0.495	4.07	63.6	17.0	1.49	18.6	0.01	0.04	0.07	151	
169	9.44	9.42	33.629	25.978	205.3	0.536	3.58	55.5	21.6	1.69	21.9	0.01	0.01	0.04	170	208
199	9.00	8.98	33.833	26.208	183.9	0.595	3.23	49.6	26.6	1.84	24.5	0.01	0.00	0.02	200	207
200 ISL	8.99	8.97	33.839	26.214	183.3	0.596	3.21	49.3	26.7	1.85	24.6	0.01			201	
229	8.79	8.77	33.970	26.349	171.1	0.648	2.77	42.4	31.2	2.00	26.8	0.01			230	206
250 ISL	8.53	8.50	34.028	26.435	163.2	0.683	2.48	37.7	35.2	2.12	28.4	0.00			251	
269	8.25	8.22	34.059	26.502	157.1	0.713	2.27	34.3	38.8	2.22	29.8	0.00			270	205
300 ISL	7.75	7.72	34.059	26.576	150.3	0.761	2.16	32.3	43.6	2.31	31.4	0.00			302	
320	7.43	7.40	34.051	26.616	146.6	0.791	2.10	31.2	46.6	2.36	32.4	0.00			322	204
378	6.80	6.76	34.097	26.740	135.4	0.872	1.40	20.5	57.1	2.68	35.8	0.00			380	203
400 ISL	6.62	6.58	34.115	26.778	132.0	0.902	1.20	17.5	60.6	2.76	36.8	0.00			402	
439	6.38	6.34	34.152	26.839	126.5	0.952	0.89	12.9	66.4	2.88	38.1	0.00			442	202
500 ISL	6.15	6.11	34.233	26.933	118.3	1.027	0.52	7.5	74.3	3.06	39.5	0.00			503	
517	6.09	6.04	34.256	26.959	116.0	1.047	0.42	6.0	76.5	3.11	39.9	0.00			520	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
31 6.2 N	122 40.1 W	05/07/05	1256 UTC	3991 m	350 16 kn			1016.5 mb	17.5 C	15.8 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.48	18.48	33.289	23.845	404.8	0.000	5.46	101.7	1.9	0.30	0.0	0.01	0.09	0.02	0	
2	18.48	18.48	33.289	23.845	404.9	0.008	5.46	101.7	1.9	0.30	0.0	0.01	0.09	0.02	2	221
10 ISL	18.48	18.48	33.290	23.846	405.1	0.040	5.46	101.7	1.9	0.29	0.0	0.01	0.09	0.02	10	
16	18.48	18.48	33.291	23.847	405.2	0.065	5.46	101.7	1.9	0.28	0.0	0.01	0.09	0.02	16	220
20 ISL	18.48	18.48	33.290	23.847	405.4	0.081	5.46	101.7	1.9	0.28	0.0	0.01	0.09	0.02	20	
30 ISL	18.49	18.48	33.289	23.844	406.0	0.122	5.47	101.9	1.9	0.28	0.0	0.01	0.09	0.02	30	
31	18.49	18.48	33.289	23.844	406.0	0.126	5.47	101.9	1.9	0.28	0.0	0.01	0.09	0.02	31	219
45	17.35	17.34	33.208	24.059	385.9	0.181	5.67	103.3	2.0	0.28	0.0	0.01	0.16	0.05	45	218
50 ISL	17.08	17.07	33.184	24.105	381.7	0.200	5.70	103.3	2.1	0.28	0.0	0.01	0.16	0.05	50	
55	16.86	16.85	33.167	24.144	378.2	0.219	5.72	103.2	2.1	0.28	0.0	0.01	0.17	0.06	55	217
64	16.56	16.55	33.164	24.211	372.0	0.253	5.76	103.3	2.1	0.32	0.0	0.01	0.23	0.08	64	216
75	16.14	16.13	33.281	24.397	354.5	0.293	5.86	104.3	1.8	0.28	0.0	0.01	0.32	0.16	75	215
85	15.33	15.32	33.284	24.581	337.3	0.328	5.77	101.0	1.9	0.32	0.0	0.02	0.35	0.31	85	213
94	14.47	14.46	33.330	24.802	316.4	0.357	5.67	97.6	2.7	0.39	0.4	0.11	0.17	0.23	94	212
100 ISL	14.05	14.04	33.352	24.907	306.5	0.376	5.57	95.1	3.2	0.45	1.1	0.19	0.16	0.23	100	
110	13.41	13.39	33.370	25.052	292.9	0.406	5.37	90.4	4.1	0.57	2.9	0.26	0.13	0.22	110	211
125	12.18	12.16	33.356	25.282	271.1	0.448	5.06	83.0	6.6	0.78	7.3	0.08	0.12	0.18	125	210
146	10.48	10.46	33.430	25.648	236.4	0.501	4.48	70.9	13.0	1.22	14.5	0.02	0.06	0.10	147	209
150 ISL	10.31	10.29	33.453	25.695	232.0	0.511	4.40	69.4	13.9	1.27	15.3	0.02	0.05	0.09	151	
171	9.76	9.74	33.599	25.902	212.6	0.557	4.02	62.7	18.2	1.48	18.7	0.02	0.02	0.04	172	208
200	9.29	9.27	33.846	26.172	187.5	0.615	3.35	51.8	24.8	1.74	22.9	0.01	0.00	0.02	201	207
232	8.89	8.87	34.006	26.361	170.0	0.672	2.79	42.8	31.0	1.98	26.2	0.01			233	206
250 ISL	8.75	8.72	34.058	26.424	164.3	0.703	2.45	37.5	34.0	2.11	27.8	0.01			251	
272	8.59	8.56	34.099	26.482	159.3	0.738	2.07	31.5	37.5	2.26	29.5	0.01			273	205
300 ISL	8.25	8.22	34.135	26.562	152.0	0.782	1.73	26.2	42.3	2.42	31.3	0.01			302	
320	7.98	7.95	34.153	26.617	147.0	0.812	1.53	23.0	45.7	2.52	32.4	0.01			322	204
374	7.36	7.32	34.188	26.734	136.3	0.888	1.08	16.0	54.9	2.75	35.0	0.01			376	203
400 ISL	7.15	7.11	34.200	26.773	132.9	0.923	0.94	13.9	58.0	2.82	35.8	0.01			402	
439	6.89	6.85	34.217	26.823	128.6	0.974	0.78	11.4	62.3	2.90	36.9	0.01			442	202
500 ISL	6.46	6.41	34.251	26.908	121.1	1.050	0.55	8.0	70.3	3.03	38.7	0.01			503	
536	6.20	6.15	34.272	26.958	116.6	1.093	0.41	5.9	75.1	3.11	39.7	0.01			539	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
30 45.2 N	123 20.0 W	05/07/05	0451 UTC	4037 m	350 17 kn			1017.5 mb	18.3 C	16.3 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	19.09	19.09	33.270	23.678	420.8	0.000	5.42	102.1	1.8	0.28	0.1	0.00	0.09	0.01	0	
2	19.09	19.09	33.270	23.678	420.9	0.008	5.42	102.1	1.8	0.28	0.1	0.00	0.09	0.01	2	223
10 ISL	19.02	19.02	33.267	23.694	419.6	0.042	5.42	102.0	1.8	0.28	0.1	0.00	0.08	0.02	10	
16	18.97	18.97	33.264	23.704	418.8	0.067	5.42	101.9	1.8	0.28	0.1	0.00	0.08	0.02	16	221
20 ISL	18.68	18.68	33.216	23.740	415.5	0.084	5.48	102.4	1.9	0.28	0.1	0.00	0.08	0.02	20	
30	17.85	17.84	33.094	23.852	405.2	0.125	5.63	103.5	2.1	0.29	0.1	0.00	0.10	0.01	30	220
45	17.20	17.19	33.065	23.985	393.0	0.185	5.69	103.2	2.1	0.29	0.1	0.00	0.13	0.01	45	219
50 ISL	16.89	16.88	33.128	24.106	381.5	0.204	5.76	103.9	2.0	0.28	0.1	0.00	0.14	0.01	50	
61	16.30	16.29	33.293	24.370	356.8	0.245	5.88	105.0	1.7	0.27	0.1	0.00	0.16	0.02	61	218
75 ISL	16.14	16.13	33.389	24.480	346.7	0.294	5.81	103.4	1.6	0.26	0.0	0.00	0.19	0.06	75	
76	16.13	16.12	33.395	24.487	346.0	0.297	5.81	103.4	1.6	0.26	0.0	0.00	0.19	0.07	76	217
86	15.81	15.80	33.503	24.643	331.5	0.331	5.72	101.2	2.0	0.27	0.0	0.00	0.26	0.15	86	216
94	15.71	15.70	33.563	24.712	325.2	0.358	5.66	100.0	2.1	0.27	0.0	0.00	0.25	0.22	94	215
100 ISL	14.71	14.70	33.412	24.814	315.4	0.377	5.65	97.8	2.5	0.34	0.2	0.01	0.31	0.24	100	
103	14.15	14.14	33.335	24.873	309.8	0.386	5.65	96.6	2.8	0.38	0.3	0.02	0.34	0.25	103	213
114	13.45	13.43	33.390	25.060	292.3	0.419	5.40	91.0	3.9	0.51	2.5	0.17	0.32	0.17	114	212
124	12.55	12.53	33.387	25.235	275.6	0.448	5.17	85.5	5.7	0.69	5.8	0.14	0.24	0.15	124	211
125 ISL	12.42	12.40	33.382	25.256	273.6	0.450	5.15	85.0	6.0	0.71	6.2	0.13	0.23	0.15	125	
139	10.77	10.75	33.328	25.518	248.7	0.487	4.85	77.2	9.7	1.02	11.3	0.03	0.12	0.17	140	210
150 ISL	10.27	10.25	33.353	25.624	238.7	0.514	4.68	73.7	11.8	1.16	13.7	0.02	0.09	0.14	151	
163	10.05	10.03	33.423	25.716	230.2	0.544	4.49	70.4	14.2	1.29	15.8	0.01	0.07	0.09	164	208
194	9.26	9.24	33.716	26.075	196.5	0.610	3.80	58.7	22.1	1.63	21.4	0.00	0.01	0.03	195	207
200 ISL	9.16	9.14	33.760	26.125	191.8	0.622	3.70	57.0	23.3	1.67	22.1	0.00			201	
228	8.78	8.76	33.915	26.307	175.0	0.673	3.36	51.4	28.1	1.80	24.5	0.00			229	206
250 ISL	8.46	8.43	33.982	26.409	165.6	0.711	3.20	48.6	31.8	1.88	25.9	0.00			251	
269	8.19	8.16	34.013	26.475	159.6	0.742	3.06	46.2	35.0	1.95	27.0	0.00			270	205
300 ISL	7.77	7.74	34.036	26.555	152.3	0.790	2.64	39.5	41.0	2.14	29.6	0.00			302	
319	7.49	7.46	34.038	26.597	148.5	0.819	2.36	35.1	45.0	2.26	31.3	0.00			321	204
378	6.43	6.40	34.048	26.750	134.1	0.902	1.74	25.2	58.8	2.60	35.7	0.00			380	203
400 ISL	6.19	6.15	34.067	26.796	129.8	0.931	1.47	21.2	63.7	2.72	37.1	0.00			402	
438	5.89	5.85	34.109	26.867	123.4	0.979	1.04	14.9	71.4	2.90	39.1	0.00			441	202
500 ISL	5.63	5.59	34.181	26.957	115.5	1.053	0.65	9.2	80.3	3.05	40.8	0.00			503	
518	5.55	5.51	34.202	26.983	113.1	1.074	0.54	7.7	82.9	3.10	41.3	0.00			521	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 90 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 24.9 N	123 59.9 W	04/07/05	2234 UTC	4309 m	020 13 kn	350 04 07	1	1017.9 mb	19.0 C	17.0 C	28m	6/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	19.74	19.74	33.564	23.736	415.3	0.000	5.36	102.4	1.5	0.26	0.0	0.01	0.09	0.03	0	
2	19.74	19.74	33.564 D	23.736	415.3	0.008	5.36	102.4	1.5	0.26	0.0	0.01	0.09	0.03	2	223
10 ISL	19.72	19.72	33.568	23.744	414.8	0.042	5.36	102.4	1.5	0.26	0.0	0.01	0.10	0.02	10	
15	19.70	19.70	33.572	23.753	414.2	0.062	5.36	102.3	1.5	0.26	0.0	0.01	0.10	0.02	15	221
20 ISL	19.67	19.67	33.575	23.763	413.4	0.083	5.36	102.3	1.4	0.26	0.0	0.01	0.11	0.02	20	
30 ISL	19.62	19.61	33.582	23.782	412.0	0.124	5.36	102.2	1.3	0.26	0.0	0.01	0.11	0.01	30	
31	19.61	19.60	33.583	23.785	411.7	0.128	5.36	102.1	1.3	0.26	0.0	0.01	0.11	0.01	31	220
45	18.55	18.54	33.419	23.929	398.4	0.185	5.54	103.4	1.4	0.27	0.0	0.01	0.09	0.02	45	219
50 ISL	18.16	18.15	33.443	24.044	387.6	0.205	5.63	104.3	1.4	0.26	0.0	0.01	0.10	0.03	50	
60	17.48	17.47	33.519	24.267	366.6	0.242	5.78	105.7	1.4	0.24	0.0	0.00	0.12	0.04	60	218
75	16.99	16.98	33.495	24.366	357.7	0.297	5.80	105.1	1.4	0.25	0.0	0.00	0.13	0.04	75	217
85	16.50	16.49	33.480	24.468	348.2	0.332	5.79	103.9	1.4	0.26	0.0	0.00	0.18	0.06	85	216
95	16.58	16.56	33.650	24.581	337.8	0.366	5.69	102.3	1.5	0.24	0.0	0.00	0.24	0.09	95	215
100 ISL	16.49	16.47	33.688	24.631	333.2	0.383	5.65	101.5	1.5	0.25	0.0	0.00	0.26	0.11	100	
104	16.32	16.30	33.693	24.674	329.2	0.396	5.63	100.8	1.6	0.25	0.0	0.00	0.27	0.13	104	214
115	15.22	15.20	33.594	24.845	313.1	0.432	5.57	97.5	2.1	0.31	0.1	0.01	0.26	0.22	115	212
124	14.04	14.02	33.541	25.056	293.0	0.459	5.38	91.9	3.3	0.45	2.0	0.20	0.23	0.25	124	211
125 ISL	13.92	13.90	33.531	25.073	291.4	0.462	5.36	91.3	3.4	0.47	2.3	0.19	0.23	0.25	125	
139	12.45	12.43	33.406	25.270	272.7	0.501	5.15	85.0	5.6	0.71	6.4	0.10	0.16	0.17	140	209
150 ISL	11.68	11.66	33.387	25.400	260.4	0.531	5.02	81.5	7.2	0.85	8.8	0.05	0.13	0.14	151	
164	10.95	10.93	33.425	25.562	245.1	0.566	4.82	77.1	9.8	1.02	11.6	0.02	0.09	0.11	165	208
195	9.49	9.47	33.687	26.015	202.3	0.635	4.08	63.3	19.2	1.50	19.4	0.01	0.01	0.03	196	207
200 ISL	9.38	9.36	33.721	26.060	198.1	0.645	4.01	62.1	20.1	1.53	20.0	0.01			201	
228	9.02	9.00	33.871	26.235	181.9	0.699	3.69	56.7	24.6	1.66	22.4	0.01			229	206
250 ISL	8.67	8.64	33.957	26.358	170.6	0.737	3.37	51.4	29.2	1.80	24.6	0.01			251	
269	8.35	8.32	34.007	26.446	162.4	0.769	3.07	46.5	33.5	1.93	26.5	0.01			270	205
300 ISL	7.76	7.73	34.036	26.557	152.1	0.818	2.57	38.4	41.1	2.17	29.8	0.01			302	
318	7.43	7.40	34.039	26.606	147.5	0.845	2.29	34.0	45.5	2.30	31.6	0.01			320	204
377	6.58	6.55	34.052	26.733	135.8	0.928	2.06 U	30.0U	57.3	2.61	35.5	0.01			379	203
400 ISL	6.27	6.23	34.065	26.784	131.0	0.959	1.40	20.2	62.4	2.72	36.8	0.01			402	
439	5.85	5.81	34.097	26.863	123.8	1.009	1.10	15.7	70.5	2.87	38.7	0.01			442	202
500 ISL	5.64	5.60	34.165	26.943	116.8	1.082	0.71	10.1	78.4	3.04	40.3	0.01			503	
516	5.59	5.55	34.183	26.963	115.0	1.101	0.61	8.7	80.5	3.08	40.7	0.01			519	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 91.7 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 14.6 N	117 27.8 W	01/07/05	2255 UTC	23 m	250 08 kn	260 01 06	2	1011.8 mb	18.9 C	17.2 C		8/8	AS

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.57	16.57	33.444	24.422	349.9	0.000	8.01	143.9	10.5	0.19	0.0	0.03	5.78	1.00	0	
1	16.57	16.57	33.444	24.422	349.9	0.003	8.01	143.9	10.5	0.19	0.0	0.03	5.78	1.00	1	205
6	12.72	12.72	33.471	25.264	269.8	0.019	5.10	84.8	12.4	0.70	0.8	0.07	5.24	1.50	6	204
10 ISL	11.59	11.59	33.499	25.500	247.4	0.029	3.70	60.0	14.6	0.95	0.6	0.07	4.38	1.08	10	
11	11.47	11.47	33.503	25.526	245.0	0.032	3.46	56.0	15.2	1.02	0.5	0.07	4.04	0.94	11	203
16	10.87	10.87	33.574	25.689	229.6	0.044	2.72	43.5	19.2	1.60	12.2	0.25	0.89	0.66	16	202
19	10.76	10.76	33.577	25.711	227.6	0.051	2.71	43.2	19.5	1.64	13.1	0.26	0.77	0.62	19	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93.4 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 56.4 N	117 17.2 W	01/07/05	2021 UTC	42 m	310 07 kn	350 01 06	2	1012.3 mb	18.1 C	17.0 C		8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.42	18.42	33.454	23.986	391.4	0.000	6.87	127.9	7.3	0.19	0.0	0.02	2.89	0.73	0	
1	18.42	18.42	33.454	23.986	391.4	0.004	6.87	127.9	7.3	0.19	0.0	0.02	2.89	0.73	1	205
5	17.59	17.59	33.442	24.180	373.1	0.019	7.08	129.7	7.7	0.22	0.0	0.02	3.44	1.05	5	204
10	11.49	11.49	33.484	25.507	246.8	0.035	4.70	76.1	13.0	0.93	3.6	0.08	4.07	1.36	10	203
15	11.28	11.28	33.517	25.571	240.8	0.047	3.96	63.8	15.0	1.15	7.5	0.14	3.82	1.58	15	202
19	10.67	10.67	33.598	25.743	224.5	0.056	2.92	46.5	19.2	1.67	19.1	0.20	0.75	0.57	19	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 57.0 N	117 17.8 W	01/07/05	1831 UTC	49 m	350 04 kn	350 01 07	2	1013.1 mb	16.9 C	16.3 C	4m	8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.91	17.91	33.457	24.114	379.2	0.000	7.03	129.6	7.6	0.19	0.0	0.01	2.97	0.79	0	
1 A	17.91	17.91	33.457	24.114	379.2	0.004	7.03	129.6	7.6	0.19	0.0	0.01	2.97	0.79	1	211
2 A	17.90	17.90	33.453	24.113	379.3	0.008	7.03	129.6	7.6	0.19	0.0	0.01	3.13	0.75	2	210
7 A	14.56	14.56	33.430	24.857	308.6	0.025	6.35	109.6	8.1	0.40	0.0	0.01	2.53	0.97	7	209
9 A	12.76	12.76	33.460	25.248	271.4	0.031	5.44	90.5	10.9	0.65	0.0	0.01	2.23	0.79	9	208
10 A	12.02	12.02	33.487	25.411	255.9	0.033	4.67	76.5	13.1	0.92	3.4	0.06	1.24	0.90	10	206
15 A	10.79	10.79	33.562	25.694	229.1	0.045	3.16	50.4	17.7	1.54	16.4	0.19	0.98	0.79	15	204
20 ISL	10.59	10.59	33.600	25.759	223.1	0.057	3.07	48.8	19.1	1.65	19.1	0.13	0.75	0.55	20	
23	10.47	10.47	33.623	25.797	219.4	0.063	3.02	47.9	19.5	1.72	20.8	0.07	0.64	0.41	23	203
30	10.45	10.45	33.678	25.844	215.2	0.079	2.55	40.4	22.3	1.86	22.7	0.12	0.47	0.36	30	202
40	10.30	10.30	33.788	25.956	204.8	0.100	2.09	33.0	26.7	2.04	25.1	0.27	0.06	0.27	40	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 28

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 54.4 N	117 24.1 W	02/07/05	0159 UTC	574 m	230 04 kn	300 01 06	2	1011.6 mb	17.9 C	16.1 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.23	18.23	33.459	24.037	386.5	0.000	6.34	117.6	7.6	0.29	0.0	0.00	0.85	0.20	0	
1	18.23	18.23	33.459	24.037	386.6	0.004	6.34	117.6	7.6	0.29	0.0	0.00	0.85	0.20	1	222
10	14.91	14.91	33.403	24.761	317.8	0.036	6.33	110.0	5.5	0.42	0.0	0.00	1.38	0.44	10	221
20	11.16	11.16	33.489	25.571	240.9	0.063	4.03	64.8	12.2	1.27	12.7	0.15	2.06	0.91	20	220
30	10.43	10.43	33.508	25.715	227.4	0.087	3.66	57.9	16.6	1.52	18.3	0.12	0.57	0.38	30	218
40	10.09	10.09	33.623	25.863	213.6	0.109	3.36	52.8	19.7	1.67	20.6	0.05	0.24	0.26	40	217
50	9.83	9.82	33.709	25.974	203.3	0.130	3.18	49.7	22.0	1.77	22.1	0.03	0.12	0.17	50	215
61	9.66	9.65	33.797	26.071	194.3	0.152	3.03	47.2	24.0	1.83	23.2	0.02	0.05	0.13	61	214
70	9.99	9.98	33.949	26.135	188.4	0.169	2.31	36.3	27.2	2.04	24.9	0.01	0.03	0.14	70	213
75 ISL	9.98	9.97	33.995	26.172	185.0	0.178	2.21	34.7	28.3	2.10	25.4	0.01	0.03	0.12	75	
85	9.96	9.95	34.070	26.234	179.3	0.196	2.01	31.6	29.6	2.16	26.0	0.01	0.04 A	0.08 A	85	212
99	9.99	9.98	34.118	26.267	176.5	0.221	1.80	28.3	30.9	2.22	26.6	0.00	0.08	0.12	100	211
100 ISL	9.98	9.97	34.119	26.270	176.3	0.223	1.80	28.3	30.9	2.22	26.6	0.00	0.08	0.12	101	
119	9.84	9.83	34.137	26.308	173.1	0.256	1.90	29.8	31.2	2.23	26.6	0.01	0.07	0.13	120	210
125 ISL	9.83	9.82	34.159	26.327	171.4	0.267	1.84	28.8	31.7	2.25	26.8	0.01	0.07	0.13	126	
139	9.82	9.80	34.209	26.368	167.9	0.290	1.68	26.3	32.9	2.29	27.4	0.00	0.06	0.11	140	209
150 ISL	9.76	9.74	34.219	26.386	166.4	0.309	1.62	25.4	33.6	2.31	27.7	0.00	0.05	0.10	151	
169	9.61	9.59	34.220	26.412	164.3	0.340	1.56	24.3	34.9	2.34	28.1	0.01	0.02	0.09	170	208
198	9.36	9.34	34.234	26.464	159.8	0.387	1.41	21.9	37.4	2.42	29.0	0.03	0.01	0.06	199	207
200 ISL	9.34	9.32	34.236	26.469	159.4	0.390	1.39	21.6	37.6	2.43	29.1	0.03			201	
229	9.08	9.05	34.270	26.538	153.3	0.436	1.16	17.9	41.0	2.54	30.2	0.02			230	206
250 ISL	8.93	8.90	34.291	26.579	149.9	0.468	1.05	16.1	42.8	2.59	30.7	0.01			252	
268	8.82	8.79	34.304	26.606	147.5	0.494	0.98	15.0	44.2	2.63	31.1	0.01			270	205
300 ISL	8.59	8.56	34.311	26.648	144.1	0.541	0.87	13.3	46.7	2.69	31.9	0.01			302	
318	8.46	8.43	34.311	26.669	142.4	0.567	0.83	12.6	48.0	2.72	32.3	0.01			320	204
378	8.06	8.02	34.309	26.728	137.6	0.651	0.75	11.3	52.0	2.80	33.5	0.00			380	203
400 ISL	7.86	7.82	34.309	26.758	135.0	0.681	0.68	10.2	54.4	2.84	34.2	0.00			403	
440	7.45	7.41	34.306	26.815	129.9	0.734	0.56	8.3	59.5	2.92	35.6	0.00			443	202
500 ISL	6.84	6.79	34.281	26.881	124.1	0.810	0.48	7.0	67.2	3.02	37.5	0.00			503	
518	6.66	6.61	34.274	26.900	122.4	0.832	0.45	6.6	69.5	3.05	38.1	0.00			522	201

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

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 30

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 50.7 N	117 32.1 W	02/07/05	0449 UTC	863 m	120 04 kn			1012.8 mb	17.3 C	15.9 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.94	18.94	33.442	23.847	404.6	0.000	5.95	111.9	2.2	0.51	0.7	0.09	0.58	0.13	0	
1	18.94	18.94	33.442	23.847	404.7	0.004	5.95	111.9	2.2	0.51	0.7	0.09	0.58	0.13	1	221
10	12.98	12.98	33.326	25.101	285.4	0.035	6.28	104.8	2.2	0.51	0.7	0.10	0.76	0.19	10	220
19	11.00	11.00	33.395	25.527	245.1	0.059	4.40	70.4	10.1	1.29	13.7	0.22	1.75	0.68	19	219
20 ISL	10.95	10.95	33.414	25.550	242.9	0.061	4.31	68.9	10.8	1.31	14.4	0.21	1.72	0.67	20	
30	10.43	10.43	33.480	25.693	229.5	0.085	3.86	61.1	16.3	1.49	17.7	0.16	0.98	0.43	30	217
40	10.30	10.30	33.589	25.801	219.5	0.107	3.38	53.4	19.2	1.66	20.1	0.08	0.58	0.31	40	216
50	10.30	10.29	33.750	25.926	207.8	0.129	2.63	41.6	23.7	1.89	22.8	0.03	0.22	0.26	50	215
60	10.20	10.19	33.836	26.011	200.0	0.149	2.27	35.8	26.5	2.01	24.4	0.06	0.05	0.19	60	214
70	10.00	9.99	33.894	26.090	192.7	0.169	2.43	38.2	27.2	2.00	24.2	0.02	0.02	0.17	70	213
75 ISL	9.98	9.97	33.927	26.119	190.0	0.178	2.35	36.9	27.9	2.03	24.5	0.02	0.02	0.16	75	
85	9.94	9.93	33.986	26.172	185.2	0.197	2.17	34.1	29.2	2.10	25.2	0.03	0.02	0.13	85	212
100	9.59	9.58	34.035	26.269	176.3	0.224	2.31	36.0	29.7	2.08	25.7	0.02	0.02	0.07	101	211
120	9.65	9.64	34.169	26.364	167.7	0.259	1.90	29.7	32.5	2.22	26.8	0.02	0.01	0.07	121	210
125 ISL	9.64	9.63	34.189	26.382	166.2	0.267	1.80	28.1	33.4	2.26	27.1	0.02	0.01	0.07	126	
138	9.59	9.57	34.224	26.418	163.0	0.288	1.56	24.3	35.4	2.35	27.7	0.03	0.01	0.07	139	209
150 ISL	9.54	9.52	34.241	26.439	161.2	0.308	1.45	22.6	36.4	2.39	28.1	0.04	0.01	0.08	151	
168	9.47	9.45	34.253	26.461	159.6	0.337	1.38	21.5	37.2	2.42	28.5	0.04	0.01	0.10	169	208
197	9.37	9.35	34.273	26.493	157.1	0.383	1.28	19.9	38.9	2.47	29.0	0.03	0.01	0.07	198	207
200 ISL	9.34	9.32	34.276	26.500	156.4	0.387	1.27	19.7	39.2	2.48	29.1	0.03			201	
228	9.09	9.07	34.295	26.556	151.6	0.431	1.13	17.4	41.6	2.54	29.9	0.02			229	206
250 ISL	8.99	8.96	34.301	26.577	150.0	0.464	1.07	16.5	42.8	2.58	30.2	0.02			252	
267	8.93	8.90	34.302	26.588	149.4	0.489	1.03	15.8	43.6	2.60	30.4	0.02			269	205
300 ISL	8.74	8.71	34.304	26.620	146.9	0.538	0.96	14.7	45.4	2.64	31.0	0.02			302	
318	8.62	8.59	34.305	26.639	145.3	0.564	0.92	14.0	46.4	2.66	31.3	0.02			320	204
375	8.27	8.23	34.307	26.695	140.8	0.646	0.81	12.3	50.0	2.74	32.4	0.01			377	203
400 ISL	7.99	7.95	34.309	26.739	136.9	0.681	0.72	10.8	53.1	2.81	33.4	0.01			403	
437	7.53	7.49	34.309	26.806	130.8	0.730	0.58	8.6	58.5	2.91	35.0	0.01			440	202
500 ISL	6.79	6.74	34.289	26.894	122.8	0.810	0.48	7.0	67.6	3.01	37.3	0.01			503	
520	6.55	6.50	34.284	26.922	120.2	0.834	0.45	6.5	70.5	3.04	38.0	0.01			524	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 35

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
32 40.9 N	117 52.8 W	02/07/05	0851	UTC	609 m	320 02 kn			1012.3 mb	17.0 C	15.7 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	19.48	19.48	33.493	23.749	414.0	0.000	5.54	105.3	1.2	0.13	0.1	0.00	0.28	0.11	0	
1	19.48	19.48	33.493	23.749	414.1	0.004	5.54	105.3	1.2	0.13	0.1	0.00	0.28	0.11	1	220
10	16.86	16.86	33.421	24.337	358.3	0.039	6.27	113.3	0.6	0.17	0.1	0.00	0.47	0.17	10	219
20	14.27	14.27	33.358	24.863	308.4	0.072	6.53	112.0	0.0	0.27	0.0	0.01	0.69	0.26	20	218
30	11.87	11.87	33.311	25.303	266.7	0.101	4.94	80.5	6.9	0.99	10.0	0.25	2.49	0.94	30	217
40	10.74	10.74	33.328	25.521	246.1	0.127	4.37	69.5	12.7	1.28	14.9	0.05	0.61	0.44	40	216
50	10.32	10.31	33.404	25.653	233.8	0.151	4.12	65.0	15.0	1.41	16.9	0.03	0.36	0.33	50	215
60	9.97	9.96	33.504	25.791	220.9	0.173	3.92	61.4	17.3	1.51	18.6	0.04	0.21	0.20	60	214
70	9.79	9.78	33.603	25.898	210.9	0.195	3.88	60.6	18.5	1.53	19.2	0.03	0.11	0.12	70	213
75 ISL	9.70	9.69	33.650	25.950	206.1	0.205	3.82	59.5	19.4	1.56	19.7	0.03	0.08	0.10	75	
85	9.54	9.53	33.725	26.035	198.2	0.226	3.68	57.2	21.0	1.62	20.8	0.03	0.05	0.08	85	212
99	9.45	9.44	33.761	26.078	194.4	0.253	3.57	55.4	22.2	1.67	21.6	0.03	0.05	0.08	100	211
100 ISL	9.46	9.45	33.772	26.085	193.7	0.255	3.52	54.6	22.5	1.69	21.8	0.03	0.05	0.08	101	
119	9.61	9.60	33.987	26.229	180.5	0.291	2.44	38.0	28.2	2.03	25.6	0.00	0.02	0.06	120	210
125 ISL	9.53	9.52	34.022	26.269	176.8	0.301	2.37	36.9	29.4	2.07	26.2	0.00	0.02	0.06	126	
140	9.25	9.23	34.075	26.357	168.7	0.327	2.21	34.2	32.1	2.13	27.3	0.01	0.01	0.05	141	209
150 ISL	9.09	9.07	34.103	26.404	164.4	0.344	2.08	32.1	34.0	2.19	28.1	0.01	0.01	0.04	151	
169	8.85	8.83	34.147	26.477	157.8	0.374	1.82	27.9	37.3	2.32	29.4	0.00	0.00	0.03	170	208
199	8.80	8.78	34.229	26.550	151.5	0.421	1.39	21.3	40.8	2.48	30.4	0.00	0.01	0.04	200	207
200 ISL	8.79	8.77	34.230	26.552	151.3	0.422	1.38	21.1	40.9	2.48	30.4	0.00			201	
231	8.56	8.54	34.255	26.608	146.5	0.468	1.18	18.0	43.8	2.57	31.4	0.00			232	206
250 ISL	8.34	8.31	34.262	26.647	143.0	0.496	1.09	16.5	46.2	2.63	32.1	0.00			251	
270	8.11	8.08	34.270	26.688	139.4	0.524	0.99	14.9	48.9	2.69	32.8	0.00			272	205
300 ISL	7.96	7.93	34.296	26.732	135.8	0.566	0.78	11.7	52.1	2.79	33.6	0.00			302	
319	7.90	7.87	34.311	26.753	134.1	0.591	0.66	9.9	53.9	2.84	34.0	0.00			321	204
378	7.53	7.49	34.310	26.806	129.8	0.669	0.58	8.6	58.2	2.91	35.2	0.00			380	203
400 ISL	7.31	7.27	34.301	26.831	127.7	0.697	0.55	8.1	60.6	2.94	35.9	0.00			403	
436	6.91	6.87	34.288	26.876	123.6	0.743	0.50	7.3	65.2	2.99	37.2	0.00			439	202
500 ISL	6.31	6.26	34.308	26.972	114.9	0.819	0.37	5.4	75.4	3.11	39.2	0.00			503	
512	6.20	6.15	34.312	26.990	113.3	0.833	0.34	4.9	77.3	3.13	39.6	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 40

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
32 31.1 N	118 13.1 W	02/07/05	1253	UTC	1641 m	320 05 kn			1012.0 mb	17.0 C	15.9 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.30	18.30	33.494	24.046	385.6	0.000	5.72	106.3	1.2	0.12	0.0	0.01	0.42	0.17	0	
1	18.30	18.30	33.494	24.047	385.7	0.004	5.72	106.3	1.2	0.12	0.0	0.01	0.42	0.17	1	220
10	17.51	17.51	33.480	24.228	368.6	0.038	5.84	106.9	0.8	0.16	0.1	0.02	0.57	0.22	10	219
20 ISL	12.13	12.13	33.386	25.312	265.6	0.070	4.88	80.0	5.6	0.97	9.9	0.25	3.38	1.08	20	
21	11.59	11.59	33.395	25.420	255.3	0.072	4.76	77.2	6.3	1.06	11.0	0.27	3.60	1.15	21	218
30 ISL	10.82	10.82	33.414	25.574	240.9	0.094	4.17	66.5	13.3	1.37	15.8	0.10	1.58	0.58	30	
31	10.74	10.74	33.417	25.590	239.3	0.097	4.11	65.4	14.1	1.39	16.2	0.08	1.27	0.50	31	217
41	10.35	10.35	33.544	25.757	223.7	0.120	3.52	55.6	18.3	1.62	19.3	0.06	0.35	0.39	41	216
50 ISL	10.17	10.16	33.607	25.837	216.3	0.140	3.34	52.6	19.7	1.69	20.3	0.05	0.34	0.42	50	
51	10.16	10.15	33.612	25.843	215.8	0.142	3.33	52.4	19.8	1.69	20.4	0.05	0.34	0.43	51	215
61	10.08	10.07	33.641	25.879	212.5	0.163	3.28	51.5	20.6	1.71	20.9	0.05	0.31	0.39	61	214
69	9.97	9.96	33.712	25.953	205.7	0.180	3.11	48.8	22.0	1.79	22.2	0.04	0.22	0.30	69	213
75 ISL	9.93	9.92	33.755	25.993	202.0	0.192	2.99	46.9	22.9	1.83	22.8	0.04	0.18	0.27	75	
85	9.82	9.81	33.818	26.061	195.7	0.212	2.86	44.7	24.5	1.88	23.5	0.03	0.13	0.24	85	212
100	9.31	9.30	33.917	26.223	180.6	0.240	2.92	45.2	27.3	1.90	24.6	0.02	0.04	0.15	101	211
120	9.36	9.35	34.066	26.331	170.7	0.276	2.24	34.7	31.5	2.13	26.8	0.02	0.04	0.14	121	210
125 ISL	9.38	9.37	34.093	26.349	169.2	0.284	2.12	32.9	32.3	2.17	27.1	0.02	0.04	0.14	126	
139	9.42	9.40	34.153	26.390	165.6	0.308	1.88	29.2	34.0	2.26	27.8	0.02	0.04	0.14	140	209
150 ISL	9.35	9.33	34.175	26.419	163.1	0.326	1.74	27.0	35.1	2.31	28.2	0.02	0.03	0.12	151	
169	9.23	9.21	34.206	26.463	159.3	0.356	1.61	24.9	36.9	2.37	28.9	0.01	0.02	0.09	170	208
198	8.63	8.61	34.168	26.528	153.4	0.402	1.69	25.8	40.1	2.39	30.2	0.01	0.01	0.07	199	207
200 ISL	8.63	8.61	34.174	26.533	153.0	0.405	1.66	25.3	40.4	2.40	30.3	0.01			201	
228	8.58	8.56	34.260	26.609	146.4	0.447	1.16	17.7	44.2	2.58	31.6	0.01			229	206
250 ISL	8.44	8.41	34.289	26.653	142.5	0.478	0.92	14.0	47.3	2.69	32.3	0.01			252	
268	8.27	8.24	34.297	26.686	139.7	0.504	0.80	12.1	49.8	2.76	32.8	0.01			270	205
300 ISL	7.87	7.84	34.296	26.745	134.5	0.548	0.70	10.5	54.1	2.84	34.1	0.01			302	
318	7.65	7.62	34.292	26.774	131.9	0.572	0.67	10.0	56.3	2.87	34.8	0.01			320	204
379	7.25	7.21	34.316	26.850	125.4	0.650	0.47	7.0	62.3	2.99	36.3	0.00			381	203
400 ISL	7.06	7.02	34.315	26.876	123.1	0.676	0.44	6.5	64.8	3.02	37.0	0.00			403	
439	6.70	6.66	34.313	26.924	118.9	0.723	0.39	5.7	69.4	3.07	38.2	0.00			442	202
500 ISL	6.32	6.27	34.329	26.987	113.4	0.794	0.30	4.3	75.7	3.15	39.5	0.00			503	
517	6.22	6.17	34.334	27.004	112.0	0.813	0.28	4.0	77.4	3.17	39.8	0.00			521	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 20.8 N	118 33.5 W	02/07/05	1807	UTC	1363 m	260	02 kn	100 01 05	2	1013.6 mb	15.9 C	15.0 C	13m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.04	16.04	33.477	24.568	335.9	0.000	5.87	104.4	0.4	0.33	0.8	0.06	0.69	0.22	0	
2 A	16.04	16.04	33.477	24.568	336.0	0.007	5.87	104.4	0.4	0.33	0.8	0.06	0.69	0.22	2	224
10 A	15.50	15.50	33.440	24.661	327.4	0.033	6.00	105.5	0.4	0.33	0.9	0.08	0.69	0.25	10	222
19 A	14.04	14.04	33.374	24.924	302.6	0.062	5.72	97.6	1.6	0.59	3.4	0.24	0.72	0.36	19	220
20 ISL	13.91	13.91	33.372	24.949	300.2	0.065	5.67	96.5	1.9	0.62	3.7	0.26	0.71	0.36	20	
28 A	13.00	13.00	33.395	25.151	281.2	0.088	5.22	87.2	4.6	0.91	6.9	0.36	0.61	0.39	28	219
30 ISL	12.79	12.79	33.420	25.212	275.4	0.093	5.08	84.5	5.3	0.99	7.9	0.34	0.57	0.39	30	
36 A	12.19	12.19	33.480	25.374	260.1	0.109	4.72	77.6	7.6	1.18	10.7	0.28	0.47	0.38	36	218
43	11.53	11.52	33.434	25.462	251.9	0.127	4.52	73.2	10.4	1.27	13.0	0.30	0.42	0.40	43	217
49 A	11.71	11.70	33.626	25.578	241.0	0.142	3.97	64.6	12.5	1.51	14.3	0.25	0.25	0.50	49	215
50 ISL	11.70	11.69	33.640	25.591	239.8	0.145	3.92	63.8	12.8	1.53	14.5	0.25	0.25	0.50	50	
60	11.19	11.18	33.700	25.731	226.7	0.168	3.53	56.9	16.4	1.66	17.0	0.25	0.27	0.48	60	214
69	10.20	10.19	33.762	25.953	205.7	0.187	3.00	47.3	22.3	1.88	21.6	0.28	0.14	0.54	69	213
75 ISL	9.86	9.85	33.787	26.030	198.5	0.200	2.89	45.2	24.4	1.91	23.0	0.28	0.14	0.52	75	
85	9.58	9.57	33.824	26.106	191.5	0.219	2.82	43.9	26.6	1.95	24.2	0.28	0.14	0.45	85	212
100	9.34	9.33	33.923	26.222	180.6	0.247	2.39	37.0	30.4	2.10	26.3	0.10	0.07	0.32	101	211
120	9.12	9.11	33.999	26.318	172.0	0.282	2.15	33.1	33.3	2.19	27.8	0.05	0.06	0.29	121	210
125 ISL	9.08	9.07	34.029	26.348	169.2	0.291	2.06	31.7	34.0	2.22	28.2	0.04	0.06	0.32	126	
140	8.97	8.95	34.110	26.429	161.8	0.316	1.79	27.5	36.2	2.32	29.2	0.03	0.05	0.39	141	209
150 ISL	8.84	8.82	34.129	26.464	158.6	0.332	1.70	26.1	37.7	2.39	29.7	0.03	0.05	0.36	151	
169	8.60	8.58	34.143	26.513	154.3	0.361	1.58	24.1	40.4	2.49	30.6	0.04	0.05	0.24	170	208
199	8.40	8.38	34.186	26.578	148.7	0.407	1.31	19.9	43.6	2.54	31.6	0.04	0.04	0.13	200	207
200 ISL	8.39	8.37	34.187	26.580	148.5	0.408	1.31	19.9	43.7	2.54	31.6	0.04			201	
229	8.19	8.17	34.192	26.615	145.6	0.451	1.27	19.2	45.8	2.58	32.3	0.04			230	206
250 ISL	8.05	8.02	34.196	26.639	143.6	0.481	1.19	17.9	47.8	2.63	32.8	0.04			252	
271	7.89	7.86	34.204	26.669	141.1	0.511	1.08	16.2	50.1	2.68	33.4	0.03			273	205
300 ISL	7.63	7.60	34.228	26.726	136.0	0.551	0.91	13.6	53.6	2.76	34.3	0.02			302	
320	7.44	7.41	34.244	26.766	132.5	0.578	0.81	12.0	56.2	2.82	35.0	0.02			322	204
378	6.97	6.93	34.250	26.837	126.4	0.653	0.67	9.8	63.5	2.95	36.6	0.02			380	203
400 ISL	6.81	6.77	34.263	26.869	123.5	0.681	0.57	8.3	66.1	3.00	37.2	0.02			403	
437	6.57	6.53	34.288	26.922	119.0	0.726	0.41	6.0	70.2	3.07	38.2	0.01			440	202
500 ISL	6.23	6.19	34.310	26.984	113.6	0.799	0.32	4.6	76.1	3.14	39.4	0.01			503	
505	6.20	6.15	34.312	26.989	113.2	0.805	0.31	4.5	76.6	3.15	39.5	0.01			509	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 10.7 N	118 53.3 W	02/07/05	2111	UTC	1458 m	320	09 kn	280 03 08	2	1013.8 mb	16.4 C	15.1 C	17m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.18	16.18	33.290	24.393	352.6	0.000	5.83	103.8	1.7	0.45	1.9	0.08	0.40	0.08	0	
1	16.18	16.18	33.290	24.393	352.6	0.004	5.83	103.8	1.7	0.45	1.9	0.08	0.40	0.08	1	223
10	15.89	15.89	33.297	24.464	346.1	0.035	5.87	104.0	1.6	0.46	2.1	0.09	0.48	0.06	10	221
20	14.76	14.76	33.211	24.646	329.1	0.069	5.96	103.1	2.1	0.46	2.0	0.16	0.61	0.16	20	220
30 ISL	13.39	13.39	33.164	24.895	305.6	0.100	5.61	94.4	3.7	0.62	3.8	0.55	0.71	0.37	30	
31	13.26	13.26	33.164	24.921	303.2	0.104	5.56	93.3	3.9	0.64	4.1	0.58	0.71	0.38	31	218
41	12.41	12.40	33.226	25.135	282.9	0.133	5.16	85.1	6.6	0.92	8.8	0.32	0.55	0.26	41	217
50	11.67	11.66	33.393	25.404	257.5	0.157	5.12	83.2	8.0	1.12	11.3	0.42	0.60	0.24	50	216
60	10.41	10.40	33.488	25.703	229.2	0.181	4.02	63.6	16.0	1.51	18.2	0.13	0.23	0.16	60	215
70	10.24	10.23	33.628	25.842	216.3	0.204	3.52	55.5	19.6	1.69	20.5	0.23	0.15	0.17	70	213
75 ISL	10.03	10.02	33.664	25.906	210.3	0.214	3.38	53.1	21.2	1.75	21.5	0.21	0.11	0.19	75	
84	9.62	9.61	33.719	26.017	199.8	0.233	3.18	49.5	24.0	1.83	23.1	0.17	0.06	0.23	84	212
99	9.30	9.29	33.883	26.198	183.0	0.262	2.71	41.9	28.2	1.99	25.4	0.06	0.04	0.17	99	211
100 ISL	9.28	9.27	33.892	26.208	182.0	0.263	2.68	41.4	28.5	2.00	25.6	0.06	0.04	0.17	100	
119	8.99	8.98	34.030	26.363	167.7	0.297	2.17	33.4	33.9	2.19	28.0	0.04	0.03	0.14	120	210
125 ISL	8.85	8.84	34.050	26.400	164.2	0.307	2.16	33.1	35.0	2.21	28.4	0.04	0.03	0.14	126	
139	8.57	8.56	34.084	26.471	157.7	0.329	2.14	32.6	37.2	2.24	29.2	0.03	0.03	0.13	140	209
150 ISL	8.54	8.52	34.133	26.514	153.8	0.346	1.89	28.8	39.1	2.33	30.0	0.03	0.02	0.11	151	
169	8.50	8.48	34.193	26.567	149.1	0.375	1.45	22.1	42.1	2.49	31.2	0.02	0.01	0.08	170	208
199	8.08	8.06	34.178	26.620	144.6	0.419	1.44	21.7	45.6	2.54	32.3	0.02	0.01	0.09	200	207
200 ISL	8.07	8.05	34.178	26.621	144.4	0.421	1.43	21.6	45.7	2.54	32.3	0.02			201	
229	7.78	7.76	34.183	26.668	140.4	0.462	1.23	18.4	49.6	2.64	33.6	0.03			230	206
250 ISL	7.68	7.66	34.208	26.703	137.4	0.491	1.05	15.7	52.0	2.72	34.2	0.04			251	
268	7.61	7.58	34.230	26.730	135.1	0.515	0.92	13.7	53.9	2.78	34.6	0.04			270	205
300 ISL	7.43	7.40	34.239	26.764	132.4	0.558	0.82	12.2	56.5	2.83	35.2	0.03			302	
318	7.31	7.28	34.241	26.782	130.8	0.582	0.78	11.6	58.0	2.85	35.6	0.03			320	204
378	6.80	6.76	34.275	26.880	122.2	0.658	0.56	8.2	65.3	3.00	37.5	0.02			380	203
400 ISL	6.65	6.61	34.280	26.904	120.1	0.685	0.50	7.3	67.9	3.04	38.1	0.02			403	
439	6.42	6.38	34.288	26.941	117.0	0.731	0.40	5.8	72.3	3.09	38.9	0.01			442	202
500 ISL	6.10	6.06	34.316	27.005	111.5	0.800	0.30	4.3	78.4	3.17	39.9	0.01			503	
519	6.00	5.95	34.325	27.025	109.8	0.821	0.27	3.9	80.3	3.20	40.2	0.01			523	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 55

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 0.7 N	119 14.1 W	03/07/05	0136 UTC	1595 m	320 15 kn	300 03 09	2	1012.5 mb	16.4 C	15.0 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	15.43	15.43	33.482	24.708	322.5	0.000	6.20	108.9	0.0	0.32	0.8	0.07	0.59	0.14	0	
1	15.43	15.43	33.482	24.708	322.6	0.003	6.20	108.9	0.0	0.32	0.8	0.07	0.59	0.14	1	221
10 ISL	15.32	15.32	33.471	24.725	321.3	0.032	6.22	109.0	0.0	0.34	0.9	0.08	0.62	0.20	10	
11	15.30	15.30	33.470	24.728	321.0	0.035	6.22	109.0	0.0	0.34	0.9	0.08	0.62	0.21	11	220
20 ISL	15.12	15.12	33.489	24.782	316.1	0.064	6.32	110.3	0.0	0.28	0.5	0.06	0.93	0.53	20	
21	15.09	15.09	33.491	24.791	315.4	0.067	6.33	110.5	0.0	0.28	0.5	0.06	0.96	0.57	21	219
30	14.76	14.76	33.483	24.856	309.4	0.095	6.26	108.5	0.0	0.37	1.3	0.08	0.89	0.74	30	217
40	14.25	14.24	33.453	24.942	301.5	0.126	6.03	103.4	0.6	0.54	3.3	0.16	2.02	0.86	40	216
50	13.21	13.20	33.312	25.046	291.8	0.156	5.63	94.4	4.3	0.79	6.3	0.39	0.74	0.52	50	215
60	12.16	12.15	33.342	25.273	270.3	0.184	5.37	88.1	6.0	1.01	9.3	0.33	0.34	0.28	60	214
70	10.75	10.74	33.366	25.549	244.1	0.209	4.38	69.7	13.3	1.36	16.1	0.02	0.07	0.10	70	213
75 ISL	10.37	10.36	33.384	25.629	236.6	0.221	4.26	67.3	15.0	1.45	17.6	0.02	0.07	0.11	75	
85	9.91	9.90	33.441	25.752	225.1	0.244	4.02	62.9	16.9	1.54	18.9	0.01	0.06	0.12	85	212
100	9.36	9.35	33.614	25.977	203.9	0.277	3.91	60.5	20.1	1.60	20.5	0.02	0.03	0.04	100	211
120	9.13	9.12	33.817	26.174	185.6	0.316	2.87	44.2	27.2	1.96	25.4	0.01	0.01	0.04	121	210
125 ISL	9.08	9.07	33.853	26.210	182.3	0.325	2.83	43.6	28.1	1.98	25.8	0.01	0.01	0.04	126	
139	8.92	8.91	33.931	26.296	174.3	0.350	2.71	41.6	30.1	2.02	26.4	0.01	0.00	0.04	140	209
150 ISL	8.71	8.69	33.975	26.364	168.1	0.369	2.70	41.2	32.0	2.03	26.9	0.01	0.00	0.04	151	
168	8.36	8.34	34.024	26.456	159.5	0.398	2.69	40.8	35.3	2.06	27.8	0.01	0.01	0.04	169	208
198	7.99	7.97	34.062	26.542	151.8	0.445	2.15	32.3	41.0	2.29	30.4	0.01	0.01	0.05	199	207
200 ISL	7.96	7.94	34.063	26.547	151.4	0.448	2.12	31.8	41.4	2.30	30.6	0.01			201	
228	7.61	7.59	34.082	26.613	145.4	0.489	1.83	27.3	46.5	2.45	32.6	0.00			229	206
250 ISL	7.40	7.38	34.099	26.657	141.6	0.521	1.67	24.8	49.7	2.53	33.5	0.00			251	
268	7.28	7.25	34.120	26.691	138.6	0.546	1.52	22.5	52.1	2.60	34.0	0.00			270	205
300 ISL	7.22	7.19	34.201	26.763	132.3	0.590	1.02	15.1	57.1	2.78	35.2	0.00			302	
319	7.18	7.15	34.248	26.806	128.5	0.614	0.73	10.8	60.2	2.89	35.9	0.00			321	204
376	6.63	6.60	34.281	26.907	119.4	0.685	0.50	7.3	69.7	3.05	37.8	0.00			378	203
400 ISL	6.49	6.45	34.291	26.934	117.1	0.713	0.43	6.2	72.3	3.09	38.2	0.00			403	
436	6.34	6.30	34.304	26.964	114.7	0.755	0.36	5.2	75.4	3.13	38.7	0.00			439	202
500 ISL	6.12	6.08	34.322	27.007	111.3	0.827	0.30	4.3	79.9	3.18	39.3	0.00			503	
519	6.05	6.00	34.328	27.021	110.2	0.848	0.28	4.0	81.2	3.20	39.5	0.00			523	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 60

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 50.6 N	119 34.4 W	03/07/05	0526 UTC	1808 m	340 12 kn			1013.5 mb	16.5 C	15.0 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	16.83	16.83	33.191	24.167	374.1	0.000	5.69	102.6	1.8	0.28	0.0	0.01	0.21	0.06	0	
2	16.83	16.83	33.191	24.167	374.2	0.007	5.69	102.6	1.8	0.28	0.0	0.01	0.21	0.06	2	221
10	16.81	16.81	33.192	24.173	373.9	0.037	5.73	103.3	1.8	0.28	0.0	0.00	0.31	0.04	10	219
20	16.34	16.34	33.205	24.292	362.9	0.074	5.82	103.9	1.8	0.28	0.0	0.00	0.42	0.14	20	218
30	16.24	16.24	33.217	24.324	360.1	0.110	5.85	104.3	1.9	0.28	0.0	0.00	0.50	0.17	30	217
41	15.96	15.95	33.202	24.376	355.5	0.150	5.87	104.0	1.9	0.29	0.0	0.01	0.54	0.22	41	216
50	15.80	15.79	33.207	24.416	351.9	0.182	5.85	103.4	1.9	0.32	0.0	0.02	0.49	0.31	50	215
60	14.64	14.63	33.181	24.650	329.9	0.216	5.66	97.7	2.0	0.35	0.1	0.04	0.54	0.44	60	214
71	12.18	12.17	33.227	25.181	279.4	0.249	5.02	82.3	2.5	0.41	0.7	0.18	0.19	0.21	71	213
75 ISL	11.69	11.68	33.242	25.284	269.6	0.260	4.88	79.2	2.7	0.48	1.7	0.19	0.17	0.20	75	
86	10.94	10.93	33.282	25.451	253.9	0.289	4.61	73.7	4.2	0.72	5.5	0.22	0.12	0.17	86	212
100	10.44	10.43	33.373	25.609	239.1	0.323	4.28	67.7	8.5	1.04	10.9	0.02	0.05	0.09	100	211
120	9.67	9.66	33.509	25.845	216.9	0.369	3.80	59.1	12.8	1.31	15.6	0.02	0.02	0.05	121	210
125 ISL	9.57	9.56	33.537	25.884	213.3	0.380	3.74	58.1	13.9	1.36	16.5	0.02	0.02	0.05	126	
140	9.36	9.34	33.629	25.990	203.5	0.411	3.59	55.5	17.0	1.48	18.6	0.02	0.01	0.04	141	209
150 ISL	9.24	9.22	33.726	26.085	194.6	0.431	3.46	53.4	18.8	1.55	19.7	0.02	0.01	0.03	151	
170	9.03	9.01	33.910	26.263	178.1	0.468	3.20	49.2	22.1	1.67	21.7	0.02	0.00	0.02	171	208
200 ISL	8.71	8.69	34.002	26.386	167.0	0.520	2.95	45.1	27.4	1.87	24.5	0.02	0.00	0.03	201	
201	8.70	8.68	34.003	26.388	166.8	0.522	2.94	44.9	27.6	1.88	24.6	0.02	0.00 A	0.03 A	202	207
226	8.23	8.21	34.028	26.480	158.4	0.562	2.82	42.6	35.3	2.15	28.4	0.02			227	206
250 ISL	7.87	7.85	34.044	26.546	152.3	0.600	2.51	37.6	39.9	2.29	30.2	0.01			251	
267	7.70	7.67	34.062	26.585	148.8	0.625	2.20	32.8	42.4	2.36	31.0	0.01			268	205
300 ISL	7.67	7.64	34.162	26.669	141.5	0.673	1.43	21.3	48.3	2.55	33.0	0.01			302	
317	7.66	7.63	34.208	26.707	138.2	0.697	1.07	16.0	51.3	2.64	33.9	0.01			319	204
376	7.21	7.17	34.246	26.801	130.0	0.776	0.73	10.8	61.3	2.92	36.5	0.01			378	203
400 ISL	6.99	6.95	34.259	26.842	126.3	0.807	0.63	9.3	64.6	2.97	37.3	0.01			402	
436	6.68	6.64	34.276	26.897	121.3	0.851	0.50	7.3	68.9	3.02	38.3	0.01			439	202
500 ISL	6.31	6.26	34.302	26.967	115.3	0.927	0.37	5.4	75.3	3.11	39.6	0.00			503	
519	6.20	6.15	34.310	26.988	113.5	0.949	0.33	4.8	77.2	3.14	40.0	0.00			522	201

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

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 30.7 N	120 14.6 W	03/07/05	1117	UTC	3935 m	350 09 kn			1012.9 mb	16.1 C	14.9 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.13	17.13	33.176	24.085	381.9	0.000	5.63	102.1	1.9	0.28	0.0	0.00	0.21	0.06	0	
1	17.13	17.13	33.176	24.085	382.0	0.004	5.63	102.1	1.9	0.28	0.0	0.00	0.21	0.06	1	220
10	17.14	17.14	33.176	24.083	382.5	0.038	5.63	102.1	1.8	0.28	0.0	0.00	0.21	0.06	10	219
20	17.12	17.12	33.178	24.090	382.2	0.076	5.66	102.6	1.4	0.29	0.0	0.01	0.23	0.07	20	218
30 ISL	16.98	16.98	33.179	24.124	379.2	0.115	5.67	102.5	1.3	0.31	0.1	0.02	0.30	0.11	30	
31	16.97	16.96	33.178	24.125	379.1	0.118	5.67	102.5	1.3	0.31	0.1	0.02	0.31	0.11	31	217
40	16.50	16.49	33.148	24.212	371.1	0.152	5.74	102.8	1.6	0.33	0.2	0.03	0.53	0.24	40	216
50 ISL	15.75	15.74	33.149	24.383	355.1	0.188	5.81	102.5	1.6	0.34	0.4	0.04	0.55	0.35	50	
51	15.68	15.67	33.150	24.399	353.6	0.192	5.82	102.5	1.6	0.34	0.4	0.04	0.55	0.36	51	215
60	15.22	15.21	33.137	24.491	345.1	0.223	5.84	101.9	2.7	0.47	1.7	0.35	0.51	0.40	60	214
69	14.28	14.27	33.132	24.688	326.4	0.254	5.79	99.2	7.6	0.98	10.4	0.02	0.44	0.42	69	213
75 ISL	13.71	13.70	33.142	24.814	314.6	0.273	5.68	96.1	9.3	1.12	11.8	0.02	0.37	0.36	75	
85	12.81	12.80	33.166	25.013	295.8	0.303	5.42	90.0	11.1	1.22	14.1	0.02	0.25	0.24	85	212
100 ISL	11.45	11.44	33.191	25.289	269.7	0.346	4.91	79.3	14.1	1.39	16.7	0.01	0.13	0.18	100	
101	11.37	11.36	33.194	25.306	268.1	0.348	4.88	78.6	14.3	1.40	16.9	0.01	0.12	0.18	101	211
121	10.48	10.47	33.328	25.568	243.5	0.400	4.49	71.0	19.0	1.64	20.7	0.01	0.05	0.09	122	210
125 ISL	10.33	10.32	33.368	25.625	238.1	0.409	4.40	69.4	19.6	1.66	21.1	0.01	0.04	0.08	126	
141	9.83	9.81	33.533	25.838	218.1	0.446	4.05	63.2	21.6	1.71	22.0	0.01	0.03	0.06	142	209
150 ISL	9.64	9.62	33.604	25.925	210.0	0.465	3.92	61.0	23.2	1.74	22.7	0.01	0.02	0.05	151	
171	9.33	9.31	33.741	26.083	195.3	0.508	3.64	56.3	27.1	1.83	24.3	0.01	0.01	0.03	172	208
200	8.98	8.96	33.903	26.266	178.4	0.562	3.15	48.4	31.1	1.95	26.1	0.01	0.00	0.05	201	207
230	8.59	8.57	34.054	26.446	161.8	0.613	2.36	36.0	35.8	2.03	27.8	0.01			231	206
250 ISL	8.32	8.29	34.091	26.516	155.4	0.644	2.11	32.0	39.6	2.15	29.5	0.01			251	
270	8.06	8.03	34.106	26.567	150.8	0.675	1.94	29.2	43.6	2.31	31.2	0.01			271	205
300 ISL	7.74	7.71	34.146	26.646	143.7	0.719	1.54	23.0	49.1	2.57	33.0	0.01			302	
320	7.55	7.52	34.170	26.692	139.5	0.748	1.29	19.2	52.4	2.72	34.0	0.01			322	204
381	6.96	6.92	34.222	26.817	128.4	0.829	0.80	11.8	60.1	2.88	35.9	0.01			383	203
400 ISL	6.82	6.78	34.236	26.847	125.7	0.853	0.69	10.1	62.8	2.93	36.5	0.01			402	
441	6.54	6.50	34.262	26.905	120.6	0.904	0.52	7.6	68.6	3.03	37.8	0.01			444	202
500 ISL	6.13	6.09	34.288	26.979	114.0	0.973	0.37	5.3	76.4	3.14	39.3	0.01			503	
508	6.08	6.04	34.291	26.988	113.2	0.982	0.35	5.0	77.5	3.15	39.5	0.01			511	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 10.8 N	120 55.3 W	03/07/05	1740	UTC	3828 m	290 10 kn	290 02 06	2	1015.6 mb	16.9 C	15.0 C	26m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	17.38	17.38	33.102	23.969	393.0	0.000	5.69	103.6	2.0	0.30	0.1	0.00	0.14	0.04	0	
2 A	17.38	17.38	33.102	23.969	393.1	0.008	5.69	103.6	2.0	0.30	0.1	0.00	0.14	0.04	2	224
10 ISL	17.35	17.35	33.101	23.976	392.7	0.039	5.65	102.9	1.9	0.30	0.0	0.00	0.14	0.05	10	
11	17.35	17.35	33.100	23.975	392.8	0.043	5.64	102.7	1.9	0.30	0.0	0.00	0.14	0.05	11	223
19 A	17.33	17.33	33.090	23.973	393.3	0.075	5.64	102.6	1.9	0.30	0.0	0.00	0.15	0.04	19	221
20 ISL	17.32	17.32	33.087	23.973	393.3	0.079	5.65	102.8	1.9	0.30	0.0	0.00	0.15	0.04	20	
27	17.19	17.19	33.068	23.989	392.0	0.106	5.69	103.2	1.7	0.30	0.0	0.00	0.18	0.06	27	220
30 ISL	17.13	17.13	33.064	24.000	391.0	0.118	5.70	103.3	1.7	0.30	0.0	0.00	0.19	0.06	30	
37 A	16.88	16.87	33.054	24.052	386.3	0.145	5.74	103.5	1.7	0.29	0.1	0.00	0.24	0.08	37	219
45	16.34	16.33	33.029	24.157	376.5	0.176	5.83	104.0	1.6	0.29	0.0	0.00	0.32	0.13	45	218
50 ISL	15.97	15.96	33.013	24.229	369.8	0.194	5.88	104.1	1.6	0.30	0.0	0.00	0.39	0.18	50	
55 A	15.65	15.64	33.007	24.296	363.5	0.213	5.91	104.0	1.6	0.30	0.0	0.00	0.46	0.23	55	217
62	15.37	15.36	33.033	24.378	355.9	0.238	5.93	103.8	2.0	0.30	0.0	0.00	0.56	0.26	62	216
71 A	14.99	14.98	33.077	24.495	345.0	0.269	5.99	104.0	1.8	0.32	0.0	0.01	0.41	0.33	71	215
75 ISL	14.73	14.72	33.086	24.558	339.1	0.283	5.97	103.1	1.9	0.32	0.0	0.01	0.41	0.36	75	
81	14.28	14.27	33.092	24.658	329.7	0.303	5.93	101.5	2.2	0.35	0.1	0.02	0.40	0.38	81	214
91	13.42	13.41	33.087	24.831	313.4	0.335	5.87	98.7	3.2	0.49	1.5	0.11	0.29	0.29	91	213
100 A	12.56	12.55	33.163	25.059	291.7	0.362	5.53	91.4	5.6	0.77	5.5	0.29	0.14	0.13	100	212
112	11.69	11.68	33.212	25.261	272.6	0.396	5.06	82.1	8.5	0.99	9.9	0.27	0.10	0.13	112	211
125	11.32	11.30	33.242	25.353	264.2	0.431	4.85	78.1	9.4	1.10	12.1	0.14	0.12	0.14	126	210
145	9.95	9.93	33.446	25.750	226.5	0.480	4.05	63.4	16.5	1.50	18.7	0.01	0.04	0.08	146	209
150 ISL	9.75	9.73	33.491	25.819	220.1	0.491	4.02	62.6	17.6	1.54	19.4	0.01	0.04	0.07	151	
168	9.26	9.24	33.644	26.018	201.4	0.529	3.91	60.3	20.6	1.60	20.8	0.01	0.02	0.04	169	208
198	8.87	8.85	33.905	26.285	176.6	0.586	3.58	54.8	26.4	1.71	23.2	0.01	0.00	0.02	199	207
200 ISL	8.85	8.83	33.916	26.297	175.5	0.590	3.54	54.2	26.8	1.73	23.4	0.01			201	
229	8.52	8.50	34.009	26.421	164.1	0.639	2.94	44.7	32.4	1.96	26.6	0.01			230	206
250 ISL	8.16	8.13	34.028	26.491	157.7	0.673	2.84	42.8	36.0	2.03	27.9	0.01			251	
269	7.80	7.77	34.029	26.545	152.7	0.702	2.80	41.9	39.4	2.09	28.9	0.01			270	205
300 ISL	7.30	7.27	34.036	26.622	145.6	0.748	2.40	35.5	46.1	2.29	31.3	0.01			302	
318	7.03	7.00	34.039	26.662	142.0	0.774	2.12	31.2	50.2	2.41	32.7	0.01			320	204
377	6.22	6.19	34.070	26.794	129.7	0.854	1.42	20.5	62.9	2.73	37.0	0.00			379	203
400 ISL	6.04	6.01	34.090	26.833	126.2	0.884	1.21	17.4	67.0	2.82	38.1	0.00			402	
438	5.82	5.78	34.126	26.889	121.2	0.931	0.92	13.1	73.2	2.95	39.5	0.00			441	202
500 ISL	5.51	5.47	34.181	26.971	114.0	1.004	0.59	8.4	81.9	3.09	41.0	0.01			503	
519	5.42	5.38	34.198	26.995	111.8	1.025	0.49	6.9	84.6	3.13	41.5	0.01			522	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 50.9 N	121 35.4 W	03/07/05	2334 UTC	4098 m	340 13 kn	320 03 09	2	1014.9 mb	18.0 C	16.0 C	20m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.24	18.24	33.163	23.808	408.4	0.000	5.60	103.7	1.6	0.27	0.0	0.00	0.15	0.00	0	
2	18.24	18.24	33.163	23.808	408.4	0.008	5.60	103.7	1.6	0.27	0.0	0.00	0.15	0.00	2	220
10 ISL	18.16	18.16	33.162	23.827	406.9	0.041	5.57	103.0	1.6	0.27	0.0	0.00	0.14	0.02	10	
15	18.08	18.08	33.160	23.846	405.3	0.061	5.55	102.5	1.6	0.27	0.0	0.00	0.14	0.03	15	219
20 ISL	18.05	18.05	33.159	23.852	404.8	0.081	5.57	102.8	1.6	0.27	0.0	0.00	0.15	0.05	20	
30 ISL	17.88	17.87	33.149	23.886	401.9	0.122	5.60	103.0	1.6	0.27	0.0	0.00	0.17	0.07	30	
31	17.85	17.84	33.147	23.892	401.4	0.126	5.60	103.0	1.6	0.27	0.0	0.00	0.17	0.07	31	218
45	17.02	17.01	33.109	24.061	385.7	0.181	5.71	103.3	1.6	0.27	0.0	0.00	0.32	0.05	45	217
50 ISL	16.80	16.79	33.107	24.111	381.1	0.200	5.73	103.2	1.6	0.27	0.0	0.00	0.36	0.05	50	
55	16.58	16.57	33.106	24.162	376.4	0.219	5.75	103.1	1.6	0.28	0.0	0.00	0.41	0.06	55	216
65	16.09	16.08	33.096	24.266	366.7	0.256	5.83	103.5	1.4	0.58 U	0.0	0.00	0.52	0.16	65	215
75	15.54	15.53	33.084	24.380	356.1	0.292	5.88	103.3	1.5	0.29	0.0	0.00	0.57	0.17	75	214
84	14.62	14.61	33.059	24.561	339.1	0.323	5.93	102.2	1.7	0.32	0.0	0.00	0.39	0.38	84	213
94	14.03	14.02	33.066	24.690	326.9	0.357	5.97	101.7	2.0	0.34	0.0	0.00	0.31	0.26	94	212
100 ISL	13.61	13.60	33.091	24.796	317.0	0.376	5.87	99.1	2.5	0.45	1.3	0.12	0.25	0.21	100	
109	12.89	12.88	33.135	24.974	300.2	0.404	5.59	93.0	3.9	0.68	4.3	0.27	0.17	0.17	109	211
124	11.42	11.40	33.179	25.285	270.6	0.447	4.90	79.0	7.7	1.00	10.6	0.01	0.13	0.14	124	210
125 ISL	11.35	11.33	33.185	25.303	268.9	0.449	4.87	78.4	7.9	1.02	10.9	0.01	0.13	0.14	125	
144	10.28	10.26	33.331	25.605	240.4	0.498	4.49	70.7	12.3	1.27	15.2	0.01	0.09	0.10	145	209
150 ISL	10.07	10.05	33.370	25.671	234.2	0.512	4.42	69.3	13.4	1.32	16.1	0.01	0.08	0.08	151	
169	9.61	9.59	33.503	25.851	217.3	0.555	4.21	65.4	16.6	1.46	18.4	0.00	0.04	0.04	170	208
199	9.25	9.23	33.812	26.152	189.3	0.616	3.57	55.1	22.8	1.68	22.1	0.00	0.00	0.02	200	207
200 ISL	9.24	9.22	33.820	26.160	188.6	0.618	3.55	54.8	23.0	1.69	22.2	0.00			201	
229	8.89	8.87	33.982	26.343	171.7	0.670	2.99	45.8	28.9	1.90	25.2	0.00			230	206
250 ISL	8.65	8.62	34.034	26.421	164.6	0.705	2.72	41.5	32.5	2.02	26.9	0.00			251	
268	8.45	8.42	34.057	26.470	160.2	0.735	2.51	38.1	35.5	2.11	28.2	0.00			269	205
300 ISL	8.09	8.06	34.097	26.556	152.4	0.785	2.07	31.2	40.9	2.30	30.4	0.00			302	
318	7.88	7.85	34.113	26.600	148.5	0.812	1.83	27.4	44.0	2.41	31.6	0.00			320	204
378	7.12	7.08	34.152	26.739	135.7	0.897	1.24	18.3	55.4	2.70	35.0	0.00			380	203
400 ISL	6.73	6.69	34.135	26.779	131.9	0.926	1.17	17.1	59.8	2.76	36.2	0.00			402	
436	6.18	6.14	34.118	26.838	126.4	0.973	1.07	15.4	66.4	2.85	38.0	0.00			439	202
500 ISL	6.13	6.09	34.233	26.936	118.1	1.051	0.55	7.9	73.2	3.05	39.2	0.00			503	
518	6.12	6.07	34.266	26.963	115.7	1.072	0.41	5.9	75.1	3.11	39.5	0.00			521	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 31.0 N	122 15.7 W	04/07/05	0516 UTC	4164 m	350 12 kn			1015.6 mb	17.5 C	15.6 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.60	18.60	33.325	23.843	405.0	0.000	5.47	102.1	1.6	0.29	0.0	0.00	0.12	0.01	0	
2	18.60	18.60	33.325	23.843	405.1	0.008	5.47	102.1	1.6	0.29	0.0	0.00	0.12	0.01	2	222
10 ISL	18.60	18.60	33.326	23.844	405.3	0.041	5.47	102.1	1.5	0.28	0.0	0.00	0.10	0.02	10	
15	18.60	18.60	33.326	23.844	405.4	0.061	5.47	102.1	1.5	0.28	0.0	0.00	0.09	0.02	15	220
20 ISL	18.50	18.50	33.325	23.869	403.3	0.081	5.49	102.3	1.5	0.28	0.0	0.00	0.09	0.02	20	
30	18.20	18.19	33.312	23.933	397.5	0.121	5.55	102.8	1.5	0.28	0.0	0.00	0.09	0.02	30	219
45	17.70	17.69	33.247	24.005	391.1	0.180	5.62	103.1	1.5	0.28	0.0	0.00	0.14	0.04	45	218
50 ISL	17.52	17.51	33.239	24.043	387.7	0.200	5.65	103.3	1.6	0.28	0.0	0.00	0.19	0.02	50	
55	17.36	17.35	33.259	24.096	382.7	0.219	5.69	103.7	1.6	0.28	0.0	0.00	0.23	0.00	55	217
65	17.12	17.11	33.445	24.296	364.0	0.256	5.75	104.4	1.4	0.26	0.0	0.00	0.20	0.08	65	215
75	16.52	16.51	33.389	24.394	355.0	0.292	5.80	104.0	1.5	0.27	0.0	0.00	0.31	0.13	75	214
85	15.50	15.49	33.187 D	24.469	348.0	0.327	5.90	103.6	1.7	0.30	0.0	0.00	0.29	0.14	85	213
95	15.61	15.60	33.413	24.619	334.0	0.361	5.74	101.1	1.7	0.29	0.0	0.00	0.25	0.20	95	212
100 ISL	15.01	14.99	33.363	24.712	325.2	0.378	5.72	99.5	1.9	0.32	0.3	0.01	0.24	0.20	100	
110	13.56	13.54	33.232	24.915	305.9	0.409	5.65	95.4	2.8	0.43	0.8	0.05	0.22	0.19	110	211
125	12.70	12.68	33.399	25.216	277.6	0.453	5.20	86.3	5.0	0.66	5.5	0.17	0.12	0.21	125	210
144	10.73	10.71	33.379	25.565	244.3	0.503	4.54	72.2	11.6	1.17	13.7	0.01	0.09	0.12	145	209
150 ISL	10.43	10.41	33.410	25.641	237.1	0.517	4.45	70.4	12.8	1.24	14.9	0.01	0.07	0.10	151	
168	9.94	9.92	33.535	25.822	220.2	0.558	4.31	67.5	15.5	1.36	16.9	0.01	0.03	0.05	169	208
198	9.34	9.32	33.744	26.084	195.8	0.621	4.08	63.1	20.4	1.50	19.7	0.00	0.01	0.02	199	207
200 ISL	9.31	9.29	33.760	26.102	194.1	0.625	4.01	62.0	20.9	1.52	20.0	0.00			201	
229	9.02	9.00	33.966	26.310	174.9	0.678	2.93	45.1	28.7	1.91	25.1	0.00			230	206
250 ISL	8.80	8.77	34.043	26.405	166.2	0.714	2.50	38.3	32.9	2.08	27.3	0.00			251	
268	8.60	8.57	34.082	26.467	160.6	0.743	2.24	34.1	36.1	2.19	28.6	0.00			269	205
300 ISL	8.25	8.22	34.132	26.560	152.2	0.794	1.80	27.2	41.7	2.38	30.7	0.00			302	
317	8.05	8.02	34.147	26.602	148.4	0.819	1.62	24.4	44.6	2.46	31.6	0.00			319	204
379	7.17	7.13	34.158	26.737	136.0	0.907	1.22	18.0	55.1	2.69	34.7	0.00			381	203
400 ISL	7.01	6.97	34.178	26.775	132.6	0.935	1.05	15.4	58.3	2.77	35.5	0.00			402	
438	6.78	6.74	34.216	26.837	127.2	0.985	0.76	11.1	63.7	2.91	36.8	0.00			441	202
500 ISL	6.30	6.25	34.245	26.924	119.4	1.061	0.53	7.7	72.0	3.04	38.6	0.00			503	
519	6.15	6.10	34.255	26.951	116.9	1.084	0.46	6.6	74.6	3.08	39.1	0.00			522	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 10.7 N	122 55.7 W	04/07/05	1100 UTC	3718 m	360 13 kn			1015.7 mb	17.9 C	16.2 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	18.94	18.94	33.255	23.704	418.3	0.000	5.43	102.0	1.7	0.30	0.0	0.00	0.13	0.03	0	
2	18.94	18.94	33.255	23.704	418.3	0.008	5.43	102.0	1.7	0.30	0.0	0.00	0.13	0.03	2	220
10 ISL	18.95	18.95	33.254	23.701	418.9	0.042	5.44	102.2	1.7	0.29	0.1	0.00	0.13	0.03	10	
16	18.95	18.95	33.254	23.702	419.1	0.067	5.45	102.4	1.7	0.29	0.1	0.00	0.13	0.03	16	219
20 ISL	18.65	18.65	33.239	23.766	413.1	0.084	5.50	102.7	1.7	0.29	0.1	0.00	0.14	0.03	20	
30	17.75	17.74	33.200	23.957	395.2	0.124	5.64	103.5	1.6	0.29	0.1	0.00	0.16	0.05	30	218
44	16.99	16.98	33.158	24.106	381.4	0.178	5.73	103.6	1.6	0.29	0.1	0.00	0.19	0.07	44	217
50 ISL	16.53	16.52	33.153	24.209	371.7	0.201	5.83	104.5	1.5	0.29	0.0	0.00	0.24	0.09	50	
56	16.05	16.04	33.156	24.321	361.2	0.223	5.91	104.9	1.5	0.30	0.0	0.00	0.28	0.12	56	216
64	15.51	15.50	33.169	24.452	348.9	0.251	5.93	104.1	1.5	0.31	0.0	0.00	0.30	0.18	64	215
75	14.71	14.70	33.137	24.601	334.9	0.289	5.92	102.3	1.7	0.35	0.0	0.00	0.26	0.16	75	214
85	14.40	14.39	33.320	24.809	315.5	0.322	5.67	97.4	2.4	0.38	0.2	0.02	0.27	0.25	85	213
94	13.13	13.12	33.245	25.011	296.3	0.349	5.36	89.7	4.3	0.61	3.6	0.26	0.27	0.25	94	212
100 ISL	12.33	12.32	33.245	25.167	281.5	0.366	4.99	82.1	6.6	0.83	7.3	0.22	0.24	0.22	100	
111	11.24	11.23	33.292	25.406	258.8	0.396	4.37	70.3	10.7	1.20	13.4	0.03	0.17	0.17	111	211
124	10.87	10.86	33.342	25.511	249.0	0.429	4.18	66.7	12.4	1.32	15.3	0.02	0.11	0.15	124	210
125 ISL	10.83	10.81	33.348	25.522	247.9	0.432	4.18	66.6	12.5	1.33	15.4	0.02	0.11	0.15	125	
144	10.13	10.11	33.495	25.758	225.8	0.477	4.11	64.6	15.4	1.42	17.4	0.01	0.05	0.08	145	209
150 ISL	9.96	9.94	33.544	25.825	219.5	0.490	4.02	63.0	16.6	1.47	18.3	0.01	0.04	0.07	151	
169	9.55	9.53	33.698	26.014	201.9	0.530	3.65	56.7	20.7	1.64	21.2	0.01	0.01	0.04	170	208
200	9.10	9.08	33.927	26.266	178.5	0.589	3.07	47.3	27.1	1.87	24.6	0.00	0.00	0.05	201	207
230	8.80	8.78	34.019	26.386	167.6	0.641	2.68	41.0	31.6	2.03	26.9	0.00			231	206
250 ISL	8.51	8.48	34.071	26.472	159.7	0.674	2.32	35.3	36.2	2.18	28.8	0.00			251	
271	8.20	8.17	34.116	26.554	152.1	0.706	1.95	29.5	41.0	2.34	30.6	0.00			272	205
300 ISL	7.96	7.93	34.158	26.623	146.0	0.750	1.56	23.4	45.4	2.50	32.2	0.00			302	
317	7.82	7.79	34.172	26.655	143.2	0.774	1.39	20.8	47.7	2.58	32.9	0.00			319	204
378	6.83	6.79	34.168	26.792	130.5	0.858	1.12	16.4	58.6	2.77	36.1	0.00			380	203
400 ISL	6.55	6.51	34.166	26.828	127.2	0.886	0.99	14.4	63.0	2.85	37.2	0.00			402	
435	6.20	6.16	34.171	26.877	122.7	0.930	0.78	11.3	69.5	2.96	38.6	0.00			438	202
500 ISL	5.92	5.88	34.234	26.963	115.2	1.007	0.47	6.7	77.1	3.10	40.0	0.00			503	
509	5.88	5.84	34.243	26.975	114.2	1.017	0.43	6.2	78.1	3.12	40.2	0.00			512	201

RV NEW HORIZON CALCOFI CRUISE 0507 STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
29 50.5 N	123 35.3 W	04/07/05	1733 UTC	4075 m	360 13 kn	350 03 07	1	1017.6 mb	19.9 C	17.3 C	28m	7/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA 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	PRES db	SAMP
0 ISL	19.30	19.30	33.431	23.747	414.1	0.000	5.39	102.0	1.7	0.28	0.0	0.00	0.09	0.02	0	
2 A	19.30	19.30	33.431	23.747	414.2	0.008	5.39	102.0	1.7	0.28	0.0	0.00	0.09	0.02	2	224
10 ISL	19.28	19.28	33.429	23.751	414.1	0.041	5.38	101.8	1.6	0.28	0.0	0.00	0.09	0.02	10	
12	19.27	19.27	33.428	23.753	414.0	0.050	5.38	101.8	1.6	0.28	0.0	0.00	0.09	0.02	12	223
20 ISL	19.26	19.26	33.427	23.755	414.1	0.083	5.39	102.0	1.5	0.28	0.0	0.00	0.10	0.03	20	
22 A	19.26	19.26	33.427	23.755	414.2	0.091	5.39	102.0	1.5	0.28	0.0	0.00	0.10	0.03	22	222
30 ISL	18.78	18.77	33.443	23.889	401.7	0.124	5.49	102.9	1.5	0.27	0.0	0.00	0.08	0.02	30	
32	18.67	18.66	33.453	23.925	398.4	0.132	5.51	103.1	1.5	0.27	0.0	0.00	0.08	0.02	32	221
41 A	18.81	18.80	33.542	23.958	395.5	0.167	5.49	103.0	1.3	0.26	0.0	0.00	0.09	0.03	41	220
50	18.54	18.53	33.517	24.007	391.2	0.203	5.52	103.0	1.4	0.26	0.0	0.00	0.11	0.03	50	219
60 A	17.74	17.73	33.528	24.212	371.9	0.241	5.67	104.2	1.4	0.26	0.0	0.00	0.13	0.04	60	217
68	17.66	17.65	33.602	24.288	364.9	0.271	5.69	104.5	1.4	0.25	0.0	0.00	0.14	0.04	68	216
75 ISL	17.62	17.61	33.638	24.325	361.6	0.296	5.67	104.1	1.4	0.25	0.0	0.00	0.15	0.05	75	
77 A	17.61	17.60	33.645	24.333	360.9	0.303	5.66	103.9	1.4	0.25	0.0	0.00	0.16	0.05	77	215
87	17.50	17.49	33.670	24.379	356.9	0.339	5.63	103.1	1.4	0.25	0.0	0.00	0.19	0.08	87	214
97	15.72	15.70	33.418	24.598	336.1	0.374	5.69	100.5	1.8	0.30	0.0	0.00	0.22	0.17	97	213
100 ISL	15.72	15.70	33.490	24.654	330.9	0.384	5.65	99.8	1.9	0.30	0.0	0.00	0.24	0.19	100	
107 A	15.73	15.71	33.635	24.763	320.7	0.407	5.54	98.0	2.2	0.29	0.0	0.00	0.28	0.22	107	212
115	15.07	15.05	33.569	24.858	311.8	0.432	5.46	95.3	2.6	0.35	0.3	0.03	0.28	0.23	115	211
124	13.95	13.93	33.434	24.992	299.1	0.459	5.40	92.0	3.5	0.47	1.7	0.14	0.22	0.28	124	210
125 ISL	13.84	13.82	33.426	25.008	297.5	0.462	5.39	91.6	3.6	0.49	2.0	0.14	0.22	0.28	125	
139	12.50	12.48	33.381	25.241	275.5	0.502	5.14	84.9	5.6	0.71	6.3	0.08	0.17	0.18	140	209
150 ISL	11.73	11.71	33.380	25.385	261.8	0.532	4.98	81.0	7.3	0.86	8.8	0.05	0.13	0.14	151	
163	11.00	10.98	33.411	25.542	247.0	0.565	4.79	76.7	9.7	1.02	11.5	0.02	0.08	0.11	164	208
194	9.62	9.60	33.616	25.938	209.6	0.636	4.15	64.5	17.8	1.47	18.7	0.01	0.02	0.03	195	207
200 ISL	9.50	9.48	33.659	25.992	204.6	0.648	4.08	63.3	18.8	1.51	19.4	0.01			201	
228	9.11	9.09	33.840	26.197	185.6	0.703	3.77	58.0	23.4	1.66	21.6	0.01			229	206
250 ISL	8.71	8.68	33.944	26.341	172.2	0.742	3.42	52.2	28.5	1.81	24.1	0.01			251	
270	8.34	8.31	34.011	26.451	162.0	0.776	3.07	46.5	33.5	1.95	26.4	0.01			271	205
300 ISL	7.91	7.88	34.049	26.545	153.3	0.823	2.53	38.0	40.0	2.18	29.4	0.00			302	
321	7.63	7.60	34.053	26.589	149.4	0.855	2.20	32.8	44.2	2.33	31.2	0.00			323	204
376	6.88	6.84	34.067	26.705	138.7	0.934	1.77	25.9	53.5	2.55	34.2	0.00			378	203
400 ISL	6.58	6.54	34.083	26.758	133.8	0.967	1.51	22.0	58.5	2.67	35.6	0.00			402	
436	6.19	6.15	34.114	26.833	126.8	1.014	1.12	16.1	66.2	2.85	37.6	0.00			439	202
500 ISL	5.74	5.70	34.180	26.943	116.9	1.092	0.68	9.7	77.4	3.04	39.8	0.00			503	
515	5.63	5.59	34.196	26.969	114.5	1.109	0.58	8.3	80.0	3.08	40.3	0.00			518	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 77 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 23.2 N	122 15.3 W	15/07/05	1719 UTC	17 m	1214 - 1948 PST	1215 PST	1948 PST	211.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	16.06	32.859	24.089	5.83	103.3	2.6	0.31	0.0	0.01	0.38	0.11	83. A	4.8	5.4	5.1	0.16
12	16.06	32.859	24.089	5.83	103.3	2.5	0.30	0.0	0.01	0.39	0.11	34.	7.2	7.0	7.1	0.15
24	16.05	32.912	24.132	5.86	103.9	2.4	0.31	0.0	0.01	0.51	0.17	11.	5.0	5.0	5.0	0.13
36	15.61	32.875	24.203	5.91	103.8	2.4	0.31	0.0	0.01	0.52	0.16	3.9	2.3	2.2	2.2	0.11
47	14.35	32.935	24.521	6.16	105.5	2.1	0.31	0.0	0.01	0.51	0.23	1.4	0.82	0.76	0.79	0.08
56	13.77	32.926	24.634	6.09	103.1	2.4	0.39	0.5	0.10	0.60	0.29					
65	12.82	32.953	24.845	5.75	95.4	4.2	0.62	3.1	0.55	0.41	0.29	0.28	0.08	0.12	0.10	0.07

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 77 100

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 22.8 N	124 19.8 W	14/07/05	1941 UTC	19 m	1238 - 1955 PST	1223 PST	1954 PST	111.4 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	18.17	33.111	23.785	5.54	102.5	2.4	0.27	0.0	0.00	0.15	0.03	85. A	2.3	2.6	2.4	0.17
14	18.17	33.112	23.787	5.54	102.5	2.5	0.27	0.0	0.00	0.14	0.03	32.	2.8	2.6	2.7	0.16
27	18.05	33.104	23.810	5.56	102.6	2.3	0.27	0.0	0.00	0.18	0.04	11.	1.8	1.8	1.8	0.16
40	15.33	33.043	24.394	6.14	107.4	2.2	0.28	0.0	0.00	0.31	0.11	3.9	1.5	1.4	1.5	0.19
46	14.73	33.059	24.536	6.12	105.7	2.5	0.31	0.1	0.00	0.39	0.20					
53	14.39	33.073	24.619	6.11	104.8	2.7	0.32	0.0	0.00	0.44	0.28	1.4	0.87	0.90	0.89	0.16
62	13.40	33.126	24.864	5.53	93.0	4.3	0.56	3.0	0.25	0.65	0.68					
72	12.39	33.161	25.089	5.24	86.3	6.3	0.78	6.9	0.09	0.37	0.41	0.30	0.12	0.15	0.14	0.07

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 80 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 49.4 N	121 50.7 W	13/07/05	1830 UTC	16 m	1210 - 1952 PST	1213 PST	1952 PST	372.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	15.68	33.436	24.618	5.88	103.8	2.0	0.61	5.1	0.12	0.41	0.20	83. A	11.9	12.3	12.1	0.26
12	15.67	33.433	24.618	5.89	103.9	2.0	0.60	5.1	0.12	0.40	0.22	32.	13.7	13.4	13.5	0.24
23	15.40	33.442	24.685	5.90	103.6	2.0	0.61	4.9	0.13	0.44	0.25	11.	7.8	8.0	7.9	0.24
34	14.04	33.583	25.086	5.87	100.3	2.7	0.72	4.2	0.13	0.52	0.36	3.8	4.2	4.0	4.1	0.19
44	13.73	33.563	25.134	5.78	98.1	3.5	0.78	5.1	0.15	0.45	0.35	1.5	1.3	1.1	1.2	0.18
52	13.49	33.548	25.172	5.71	96.5	4.3	0.83	6.0	0.17	0.43	0.38					
61	11.68	33.562	25.534	5.19	84.4	9.6	1.22	11.5	0.27	0.36	0.25	0.29	0.04	0.04	0.04	0.20

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 83 42

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 10.6 N	119 30.6 W	12/07/05	1834 UTC	7 m	1202 - 1946 PST	1204 PST	1945 PST	1045.2 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.22	33.500	24.312	6.85	124.7	0.7	0.17	0.0	0.01	2.18	1.05	80. A	78.4	73.7	76.1	1.1
5	17.16	33.500	24.327	6.84	124.4	0.7	0.17	0.0	0.01	2.26	1.01	33.	80.8	85.3	83.1	0.99
10	16.23	33.500	24.543	6.79	121.2	0.9	0.18	0.1	0.01	3.34	1.35	11.	53.7	56.7	55.2	0.79
15	14.61	33.485	24.889	6.17	106.6	3.9	0.42	1.4	0.06	6.11	1.96	3.7	33.7	31.3	32.5	0.56
19	12.81	33.464	25.242	5.17	86.1	8.0	0.85	6.7	0.16	1.86	1.03	1.6	3.4	3.2	3.3	0.34
27	11.64	33.522	25.510	4.15	67.4	13.1	1.25	13.0	0.27	1.10	0.86	0.27	0.18	0.26	0.22	0.23

A) INCUBATION LIGHT INTENSITIES WERE 98, 39, 11, 4.3, 1.9, 0.25 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 83 70

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 13.8 N	121 27.9 W	11/07/05	1759 UTC	14 m	1209 - 1945 PST	1211 PST	1943 PST	228.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	16.15	33.200	24.330	5.78	102.8	1.9	0.45	2.3	0.08	0.37	0.15	80. A	5.7	6.0	5.8	0.17
10	16.15	33.200	24.331	5.79	103.0	1.8	0.44	2.3	0.08	0.36	0.14	33.	9.4	9.5	9.5	0.17
20	16.13	33.202	24.337	5.81	103.3	1.7	0.51	3.0	0.11	0.36	0.13	11.	5.9	6.0	5.9	0.18
31	15.60	33.257	24.499	5.94	104.6	1.7	0.51	3.0	0.10	0.39	0.18	3.3	3.1	2.9	3.0	0.19
38	13.12	33.310	25.062	5.84	97.8	4.0	0.80	6.4	0.22	0.74	0.42	1.6	1.7	1.6	1.6	0.20
46	11.91	33.295	25.284	5.30	86.5	8.2	1.02	9.7	0.33	0.50	0.29					
54	11.11	33.369	25.488	4.78	76.7	12.2	1.29	14.0	0.41	0.27	0.16	0.27	0.05	0.07	0.06	0.09

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 83 110

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 54.8 N	124 10.7 W	10/07/05	1704 UTC	32 m	1222 - 1950 PST	1222 PST	1949 PST	154.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.85	33.196	23.682	5.43	101.8	2.6	0.30	0.1	0.00	0.08	0.01	95. A	1.8	1.7	1.7	0.10
12	18.79	33.193	23.695	5.44	101.9	2.6	0.30	0.1	0.00	0.08	0.02					
23	18.37	33.163	23.777	5.50	102.1	2.5	0.29	0.1	0.00	0.09	0.03	33.	2.3	2.2	2.3	0.14
34	17.38	33.132	23.994	5.68	103.5	2.5	0.29	0.1	0.00	0.09	0.03					
46	17.07	33.144	24.076	5.71	103.4	2.5	0.29	0.1	0.00	0.11	0.03	11.	1.4	1.6	1.5	0.10
57	16.64	33.115	24.155	5.76	103.4	2.6	0.29	0.1	0.00	0.13	0.04					
68	15.43	33.085	24.405	5.98	104.8	2.5	0.29	0.1	0.00	0.20	0.08	3.8	1.3	1.3	1.3	0.09
78	14.99	33.167	24.565	5.97	103.7	2.3	0.29	0.0	0.00	0.24	0.10					
88	14.30	33.237	24.766	5.89	101.0	2.4	0.30	0.0	0.00	0.31	0.19	1.5	0.84	0.75	0.79	0.04
97	12.54	33.072	24.992	5.61	92.6	4.9	0.60	3.4	0.10	0.29	0.19					
106	11.85	33.094	25.140	5.28	85.9	6.6	0.79	6.7	0.14	0.25	0.19					
114	10.71	33.177	25.410	4.77	75.8	10.5	1.12	12.4	0.11	0.16	0.10					
122	10.20	33.253	25.557	4.51	70.9	13.1	1.29	15.4	0.07	0.11	0.10	0.29	0.01	0.01	0.01	0.07

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 87 50

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 19.4 N	119 39.7 W	08/07/05	1840 UTC	8 m	1204 - 1944 PST	1204 PST	1941 PST	1344.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.22	33.620	25.076	5.68	97.5	3.8	0.61	5.4	0.13	3.93	1.48	68. A	67.1	50.2	58.6	0.58
6	14.19	33.624	25.085	5.69	97.6	3.8	0.60	5.3	0.13	3.78	1.34	32.	140.5	87.1	113.8	0.48
11	13.89	33.635	25.156	5.49	93.6	4.7	0.68	6.4	0.13	4.27	1.29	12.	68.7	93.4	81.0	0.40
16	11.89	33.702	25.603	4.17	68.2	13.8	1.27	14.7	0.20	3.60	1.42	4.6	25.7	23.8	24.8	0.27
22	11.61	33.714	25.664	3.95	64.2	15.4	1.38	16.0	0.20	3.07	1.35	1.5	7.8	6.6	7.2	0.24
31	11.01	33.719	25.777	3.48	55.8	18.5	1.55	18.7	0.19	1.45	1.04	0.26	0.52	0.63	0.57	0.17

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 87 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 19.3 N	121 42.8 W	09/07/05	1659 UTC	24 m	1208 - 1946 PST	1209 PST	1946 PST	214.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.51	33.112	23.946	5.60	102.3	2.6	0.30	0.1	0.00	0.09	0.03	94. A	1.9	1.7	1.8	0.09
18	16.76	33.036	24.065	5.75	103.4	2.3	0.29	0.1	0.00	0.19	0.05	32.	6.6	5.3	5.9	0.30
34	16.38	33.007	24.131	5.81	103.7	2.0	0.29	0.1	0.00	0.24	0.07	11.	4.5	4.8	4.7	0.27
42	16.44	33.079	24.173	5.84	104.4	2.6	0.30	0.1	0.00	0.18	0.05					
51	15.27	33.045	24.409	6.06	105.8	2.7	0.31	0.1	0.00	0.13	0.04	3.8	0.90	0.75	0.83	0.10
59	15.14	33.151	24.519	6.00	104.6	2.4	0.30	0.1	0.00	0.13	0.04					
66	14.57	33.137	24.631	5.99	103.2	2.7	0.31	0.1	0.00	0.17	0.08	1.5	0.36	0.31	0.34	0.11
75	13.93	33.237	24.842	5.80	98.7	3.3	0.37	0.2	0.01	0.36	0.29					
83	13.45	33.246	24.947	5.66	95.3	3.8	0.45	1.4	0.03	0.38	0.34					
92	12.63	33.248	25.111	5.42	89.8	5.3	0.63	4.5	0.15	0.34	0.34	0.28	0.14	0.20	0.17	0.03

A) INCUBATION LIGHT INTENSITIES WERE 98, 39, 11, 4.3, 1.9, 0.25 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 90 28

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 29.1 N	117 46.2 W	07/07/05	1824 UTC	9 m	1155 - 1939 PST	1156 PST	1937 PST	1684.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.54	33.488	23.982	6.85	127.9	1.4	0.16	0.0	0.00	2.02	0.00	84. A	20.4	17.5	19.0	0.58
8	16.50	33.453	24.445	6.60	118.4	4.7	0.29	0.0	0.01	7.53	0.23	26.	161.8	170.4	166.1	1.1
14	11.58	33.525	25.523	3.36	54.5	17.0	1.17	2.7	0.10	4.48	0.80	9.2	72.7	83.2	77.9	2.0
19	10.97	33.571	25.669	2.94	47.1	19.1	1.52	11.6	0.21	1.23	0.48	3.9	11.4	10.9	11.2	0.51
25	10.84	33.586	25.704	2.86	45.7	19.8	1.59	13.9	0.22	1.05	0.45	1.4	3.8	3.5	3.6	0.35
34	10.59	33.651	25.799	2.65	42.1	21.9	1.79	19.8	0.23	0.73	0.32	0.30	0.36	0.45	0.40	0.28

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 90 53

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 39.0 N	119 29.2 W	06/07/05	1954 UTC	16 m	1243 - 1936 PST	1203 PST	1936 PST	390.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	14.99	33.554	24.860	5.88	102.4	0.8	0.37	1.4	0.06	0.75	0.25	91. A	15.5	14.9	15.2	0.28
12	14.96	33.552	24.866	5.87	102.2	0.7	0.37	1.4	0.06	0.75	0.27	32.	14.6	14.8	14.7	0.29
23	14.85	33.549	24.887	5.84	101.4	0.8	0.40	1.7	0.07	0.65	0.25	11.	6.7	7.1	6.9	0.24
34	12.47	33.421	25.275	5.49	90.7	5.7	0.94	8.6	0.32	0.79	0.60	3.8	4.1	4.0	4.0	0.15
44	11.56	33.454	25.472	4.93	79.9	10.2	1.23	12.8	0.40	0.58	0.37	1.5	0.92	0.82	0.87	0.12
52	11.05	33.567	25.652	4.42	70.9	13.5	1.48	15.7	0.39	0.50	0.61					
61	10.47	33.638	25.810	3.82	60.5	18.8	1.63	19.4	0.34	0.20	0.36	0.29	-0.01	0.02	0.00	0.14

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 90 90

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 25.0 N	121 59.7 W	05/07/05	1908 UTC	21 m	1213 - 1942 PST	1213 PST	1940 PST	113.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.67	33.136D	23.926	5.58	102.2	2.5	0.29	0.1	0.00	0.14	0.03	86. A	2.7	2.6	2.6	0.17
15	17.68	33.136	23.924	5.59	102.4	2.5	0.28	0.0	0.00	0.15	0.03	33.	2.9	2.8	2.8	0.15
30	17.25	33.134	24.026	5.71	103.8	2.5	0.28	0.0	0.00	0.18	0.05	11.	2.0	1.9	1.9	0.16
45	16.67	33.117	24.149	5.78	103.8	2.4	0.28	0.0	0.00	0.25	0.08	3.7	1.1	1.1	1.1	0.17
51	16.51	33.123	24.191	5.81	104.0	2.4	0.28	0.0	0.01	0.27	0.10					
57	16.36	33.116	24.220	5.83	104.1	2.4	0.29	0.0	0.00	0.31	0.09	1.6	0.47	0.43	0.45	0.13
68	15.55	33.097	24.388	5.92	104.0	2.4	0.29	0.0	0.00	0.47	0.25					
79	14.77	33.097	24.558	5.92	102.4	2.5	0.32	0.0	0.00	0.47	0.41	0.31	0.10	0.12	0.11	0.07

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 57.0 N	117 17.8 W	01/07/05	1831 UTC	4 m	1150 - 1930 PST	1153 PST	1930 PST	530.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.91	33.457	24.114	7.03	129.6	7.6	0.19	0.0	0.01	2.97	0.79	68. A	66.2	74.8	70.5	1.2
2	17.90	33.453	24.113	7.03	129.6	7.6	0.19	0.0	0.01	3.13	0.75	46.	76.7	71.4	74.1	1.1
7	14.56	33.430	24.857	6.35	109.6	8.1	0.40	0.0	0.01	2.53	0.97	6.8	39.7	46.9	43.3	0.96
9	12.76	33.460	25.248	5.44	90.5	10.9	0.65	0.0	0.01	2.23	0.79	3.2	16.3	16.5	16.4	0.25
10	12.02	33.487	25.411	4.67	76.5	13.1	0.92	3.4	0.06	1.24	0.90	2.2	9.0	8.3	8.6	0.41
15	10.79	33.562	25.694	3.16	50.4	17.7	1.54	16.4	0.19	0.98	0.79	0.32	0.34	0.41	0.37	0.24

A) INCUBATION LIGHT INTENSITIES WERE 98, 39, 11, 4.3, 1.9, 0.25 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 93 45

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 20.8 N	118 33.5 W	02/07/05	1807 UTC	13 m	1157 - 1935 PST	1158 PST	1935 PST	426.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	16.04	33.477	24.568	5.87	104.4	0.4	0.33	0.8	0.06	0.69	0.22	79. A	19.9	21.7	20.8	0.34
10	15.50	33.440	24.661	6.00	105.5	0.4	0.33	0.9	0.08	0.69	0.25	31.	18.8	18.5	18.7	0.27
19	14.04	33.374	24.924	5.72	97.6	1.6	0.59	3.4	0.24	0.72	0.36	11.	10.9	11.3	11.1	0.21
28	13.00	33.395	25.151	5.22	87.2	4.6	0.91	6.9	0.36	0.61	0.39	3.7	3.6	3.9	3.8	0.17
36	12.19	33.480	25.374	4.72	77.6	7.6	1.18	10.7	0.28	0.47	0.38	1.4	0.91	0.93	0.92	0.39
43	11.53	33.434	25.462	4.52	73.2	10.4	1.27	13.0	0.30	0.42	0.40					
49	11.71	33.626	25.578	3.97	64.6	12.5	1.51	14.3	0.25	0.25	0.50	0.31	0.14	0.09	0.11	0.18

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 10.8 N	120 55.3 W	03/07/05	1740 UTC	26 m	1208 - 1945 PST	1208 PST	1943 PST	215.6 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.38	33.102	23.969	5.69	103.6	2.0	0.30	0.1	0.00	0.14	0.04	89. A	3.3	3.1	3.2	0.18
11	17.35	33.100	23.975	5.64	102.7	1.9	0.30	0.0	0.00	0.14	0.05					
19	17.33	33.090	23.973	5.64	102.6	1.9	0.30	0.0	0.00	0.15	0.04	33.	3.5	3.3	3.4	0.14
27	17.19	33.068	23.989	5.69	103.2	1.7	0.30	0.0	0.00	0.18	0.06					
37	16.88	33.054	24.052	5.74	103.5	1.7	0.29	0.1	0.00	0.24	0.08	11.	2.9	3.1	3.0	0.17
45	16.34	33.029	24.157	5.83	104.0	1.6	0.29	0.0	0.00	0.32	0.13					
55	15.65	33.007	24.296	5.91	104.0	1.6	0.30	0.0	0.00	0.46	0.23	3.9	2.7	2.7	2.7	0.17
62	15.37	33.033	24.378	5.93	103.8	2.0	0.30	0.0	0.00	0.56	0.26					
71	14.99	33.077	24.495	5.99	104.0	1.8	0.32	0.0	0.01	0.41	0.33	1.5	1.1	0.99	1.0	0.11
81	14.28	33.092	24.658	5.93	101.5	2.2	0.35	0.1	0.02	0.40	0.38					
91	13.42	33.087	24.831	5.87	98.7	3.2	0.49	1.5	0.11	0.29	0.29					
100	12.56	33.163	25.059	5.53	91.4	5.6	0.77	5.5	0.29	0.14	0.13	0.27	0.01	0.02	0.01	0.09

RV NEW HORIZON — CALCOFI CRUISE 0507 — STATION 93 120

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
29 50.5 N	123 35.3 W	04/07/05	1733 UTC	28 m	1220 - 1948 PST	1219 PST	1948 PST	104.2 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	19.30	33.431	23.747	5.39	102.0	1.7	0.28	0.0	0.00	0.09	0.02	90. A	1.1	1.3	1.2	0.11
12	19.27	33.428	23.753	5.38	101.8	1.6	0.28	0.0	0.00	0.09	0.02					
22	19.26	33.427	23.755	5.39	102.0	1.5	0.28	0.0	0.00	0.10	0.03	30.	2.2	2.1	2.2	0.12
32	18.67	33.453	23.925	5.51	103.1	1.5	0.27	0.0	0.00	0.08	0.02					
41	18.81	33.542	23.958	5.49	103.0	1.3	0.26	0.0	0.00	0.09	0.03	11.	1.3	1.3	1.3	0.10
50	18.54	33.517	24.007	5.52	103.0	1.4	0.26	0.0	0.00	0.11	0.03					
60	17.74	33.528	24.212	5.67	104.2	1.4	0.26	0.0	0.00	0.13	0.04	3.7	0.68	0.72	0.70	0.12
68	17.66	33.602	24.288	5.69	104.5	1.4	0.25	0.0	0.00	0.14	0.04					
77	17.61	33.645	24.333	5.66	103.9	1.4	0.25	0.0	0.00	0.16	0.05	1.5	0.31	0.34	0.32	0.05
87	17.50	33.670	24.379	5.63	103.1	1.4	0.25	0.0	0.00	0.19	0.08					
97	15.72	33.418	24.598	5.69	100.5	1.8	0.30	0.0	0.00	0.22	0.17					
107	15.73	33.635	24.763	5.54	98.0	2.2	0.29	0.0	0.00	0.28	0.22	0.28	0.13	0.14	0.14	0.02

A) INCUBATION LIGHT INTENSITIES WERE 98, 39, 11, 4.3, 1.9, 0.25 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)
76.7	49.0	35 05.4	120 46.9	07/16	0151	0156	105	40	105	105
76.7	51.0	35 01.3	120 55.2	07/15	2314	2335	419	209	207	207
76.7	55.0	34 53.3	121 11.8	07/15	1944	2006	457	203	282	282
76.7	60.0	34 43.2	121 33.1	07/15	1528	1549	417	209	341	341
76.7	70.0	34 23.2	122 15.3	07/15	0827	0849	441	214	48	48
76.7	80.0	34 03.1	122 56.0	07/15	0113	0134	452	214	31	31
76.7	90.0	33 43.2	123 38.0	07/14	1859	1921	453	213	40	40
76.7	100.0	33 22.5	124 19.3	07/14	1241	1303	476	214	23	23
80.0	50.5	34 27.7	120 29.1	07/12	2022	2024	59	13	102	102
80.0	51.0	34 27.1	120 31.3	07/12	2151	2158	157	44	286	286
80.0	55.0	34 19.0	120 48.0	07/13	0118	0139	426	210	197	181
80.0	60.0	34 09.0	121 09.0	07/13	0543	0604	453	211	157	157
80.0	70.0	33 49.2	121 50.7	07/13	1151	1212	459	211	115	115
80.0	80.0	33 28.9	122 31.9	07/13	1811	1833	463	213	26	26
80.0	90.0	33 08.6	123 12.8	07/14	0016	0038	454	212	31	31
80.0	100.0	32 49.1	123 54.4	07/14	0641	0703	479	214	21	21
81.7	43.5	34 24.3	119 48.0	07/12	1319	1321	46	14	44	44
81.8	46.9	34 16.6	120 01.4	07/12	1659	1720	450	201	162	162
83.3	39.4	34 15.5	119 19.5	07/12	0814	0816	51	14	39	39
83.3	40.6	34 13.5	119 24.6	07/12	0717	0720	60	21	150	150
83.3	42.0	34 10.6	119 30.6	07/12	0959	1008	205	78	210	112
83.3	51.0	33 52.7	120 08.2	07/12	0031	0039	161	77	230	230
83.3	55.0	33 44.6	120 24.6	07/11	2057	2119	451	204	233	233
83.3	60.0	33 34.7	120 45.4	07/11	1642	1704	444	209	79	79
83.3	70.0	33 13.8	121 27.7	07/11	0905	0927	484	208	29	29
83.3	80.0	32 54.3	122 07.9	07/11	0344	0406	427	218	47	47
83.3	90.0	32 34.7	122 48.8	07/10	2127	2149	488	213	39	39
83.3	100.0	32 14.6	123 29.7	07/10	1517	1538	435	213	30	30
83.3	110.0	31 54.7	124 10.7	07/10	0804	0826	452	212	33	33
85.4	35.8	34 00.7	118 49.8	07/16	1752	1754	44	13	113	113
86.7	33.0	33 53.4	118 29.4	07/07	2020	2025	104	39	106	106
86.7	35.0	33 49.4	118 37.7	07/07	2306	2328	415	214	123	123
86.7	40.0	33 39.4	118 58.5	07/08	0329	0350	432	201	243	125
86.7	45.0	33 29.4	119 19.2	07/08	0751	0813	392	207	452	452
86.7	50.0	33 19.4	119 39.8	07/08	1128	1135	118	50	490	490
86.7	55.0	33 09.4	120 00.2	07/08	1538	1559	413	214	90	90
86.7	60.0	32 59.4	120 20.9	07/08	2012	2034	458	214	120	120
86.7	70.0	32 39.3	121 02.2	07/09	0229	0250	425	215	106	106
86.7	80.0	32 18.5	121 42.2	07/09	0754	0816	419	218	43	43
86.7	90.0	31 59.4	122 23.4	07/09	1508	1529	446	210	29	29
86.7	100.0	31 39.4	123 04.2	07/09	2049	2111	447	214	54	54
86.7	110.0	31 19.5	123 44.6	07/10	0227	0248	437	209	53	53
86.8	32.5	33 53.4	118 26.4	07/07	1840	1842	39	14	128	128
88.5	30.1	33 40.3	118 05.0	07/07	1446	1448	41	12	73	73
90.0	27.7	33 29.4	117 45.2	07/07	1216	1218	42	14	143	143
90.0	28.0	33 29.2	117 46.2	07/07	1109	1116	142	59	177	177
90.0	30.0	33 25.1	117 54.3	07/07	0833	0854	314	224	325	325
90.0	35.0	33 15.1	118 15.0	07/07	0348	0410	401	205	165	165
90.0	37.0	33 11.1	118 23.2	07/07	0035	0055	356	203	432	432
90.0	45.0	32 55.0	118 56.3	07/06	1855	1916	408	215	61	61
90.0	53.0	32 39.0	119 29.0	07/06	1315	1335	407	211	93	93
90.0	60.0	32 24.8	119 57.3	07/06	0752	0814	480	213	29	29
90.0	70.0	32 05.1	120 38.4	07/06	0129	0149	489	193	49	49
90.0	80.0	31 45.1	121 19.0	07/05	1850	1912	342	225	53	53
90.0	90.0	31 25.0	121 59.5	07/05	1227	1247	424	214	28	28
90.0	100.0	31 05.4	122 39.7	07/05	0609	0630	488	217	12	12
90.0	110.0	30 45.0	123 20.0	07/04	2315	2337	476	212	25	25
90.0	120.0	30 24.9	123 59.7	07/04	1609	1630	440	209	14	14
91.7	26.4	33 14.7	117 27.7	07/01	1513	1515	38	13	182	182
93.3	26.7	32 57.3	117 17.8	07/01	1120	1124	88	34	204	204
93.3	28.0	32 54.6	117 23.6	07/01	1920	1941	403	212	164	164
93.3	30.0	32 50.8	117 31.9	07/01	2208	2227	383	205	159	159
93.3	35.0	32 40.9	117 52.6	07/02	0209	0230	408	207	203	203
93.3	40.0	32 30.9	118 12.6	07/02	0616	0637	383	213	272	272
93.3	45.0	32 20.8	118 33.3	07/02	0912	0934	428	210	154	154
93.3	50.0	32 10.8	118 53.2	07/02	1450	1510	402	216	129	129
93.3	55.0	32 00.8	119 13.9	07/02	1848	1909	381	217	179	179
93.3	60.0	31 50.8	119 34.2	07/02	2249	2309	425	218	78	78
93.3	70.0	31 30.9	120 14.4	07/03	0435	0455	456	215	48	48
93.3	80.0	31 10.8	120 55.2	07/03	1054	1114	403	215	35	35
93.3	90.0	30 50.9	121 35.4	07/03	1643	1707	477	217	38	38
93.3	100.0	30 30.8	122 15.4	07/03	2230	2252	469	213	23	23
93.3	110.0	30 10.8	122 55.5	07/04	0414	0435	437	211	27	27
93.3	120.0	29 49.5	123 34.3	07/04	0834	0856	430	216	23	23
93.4	26.4	32 56.8	117 16.9	07/01	1158	1200	45	13	66	66

FIGURES

Avifauna Observations

CalCOFI Cruise 0507

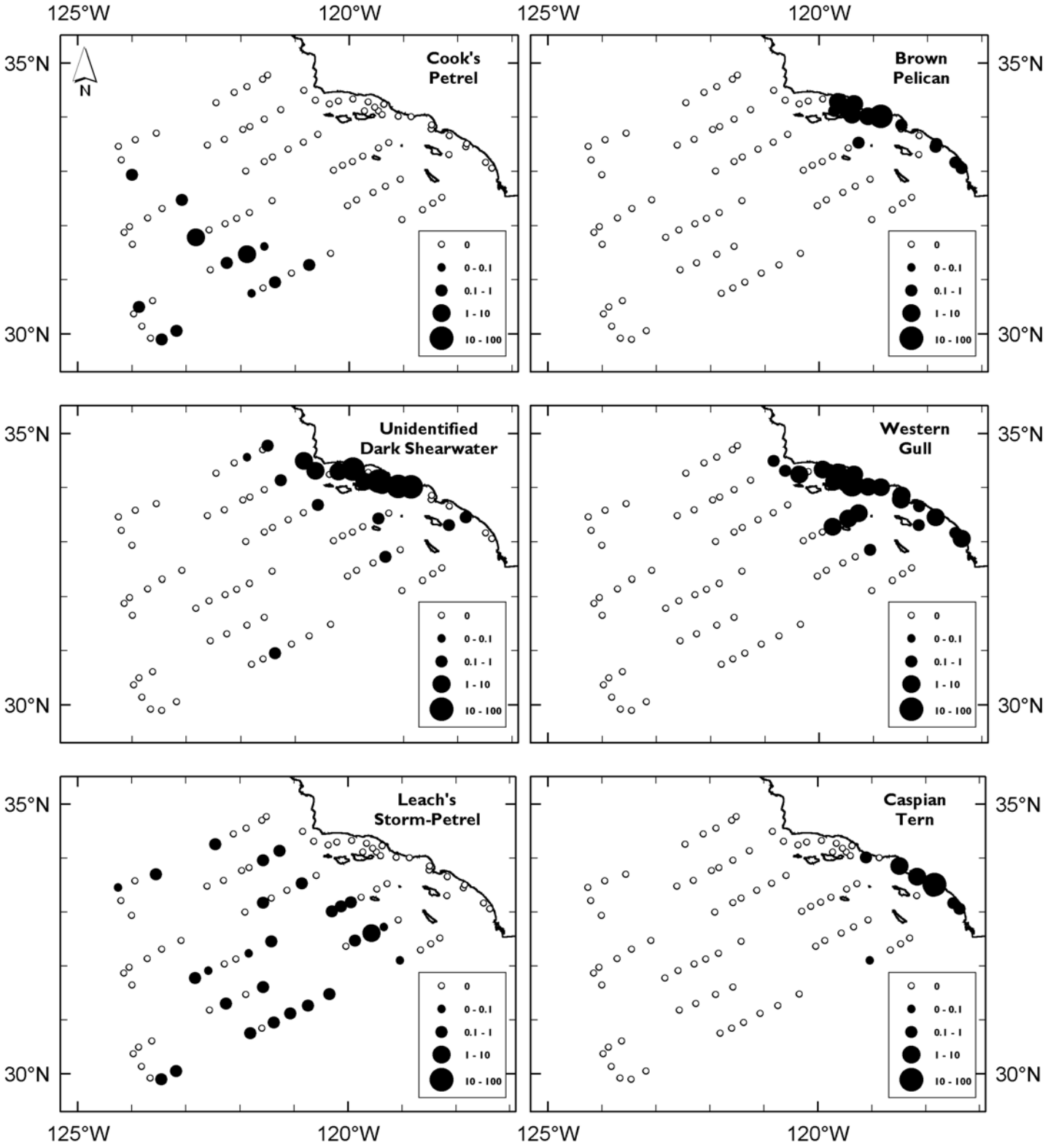
1a. Cook’s Petrel distribution.

1b. Brown Pelican distribution.

1c. Unidentified Dark Shearwater distribution.

1d. Western Gull distribution.

1e. Leach’s Storm-Petrel distribution.

1f. Caspian Tern distribution.

CalCOFI Cruise 0507