UNIVERSITY OF CALIFORNIA, SAN DIEGO

SCRIPPS INSTITUTION OF OCEANOGRAPHY

LA JOLLA, CALIFORNIA 92093-0227

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 0707
28 June – 14 July 2007

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3 October 2008

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INTRODUCTION

The data presented in this report were collected during cruise 0707* 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 by the Scripps Ocean Data Facility 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 52.29 µCi of ^{14}C as $NaHCO_3$ (200 µl of 271 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) *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. (M. Ohman, SIO)

5) *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.

6) 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. (J. Hildebrand, SIO)

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 0707

1. CalCOFI Cruise 0707 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.

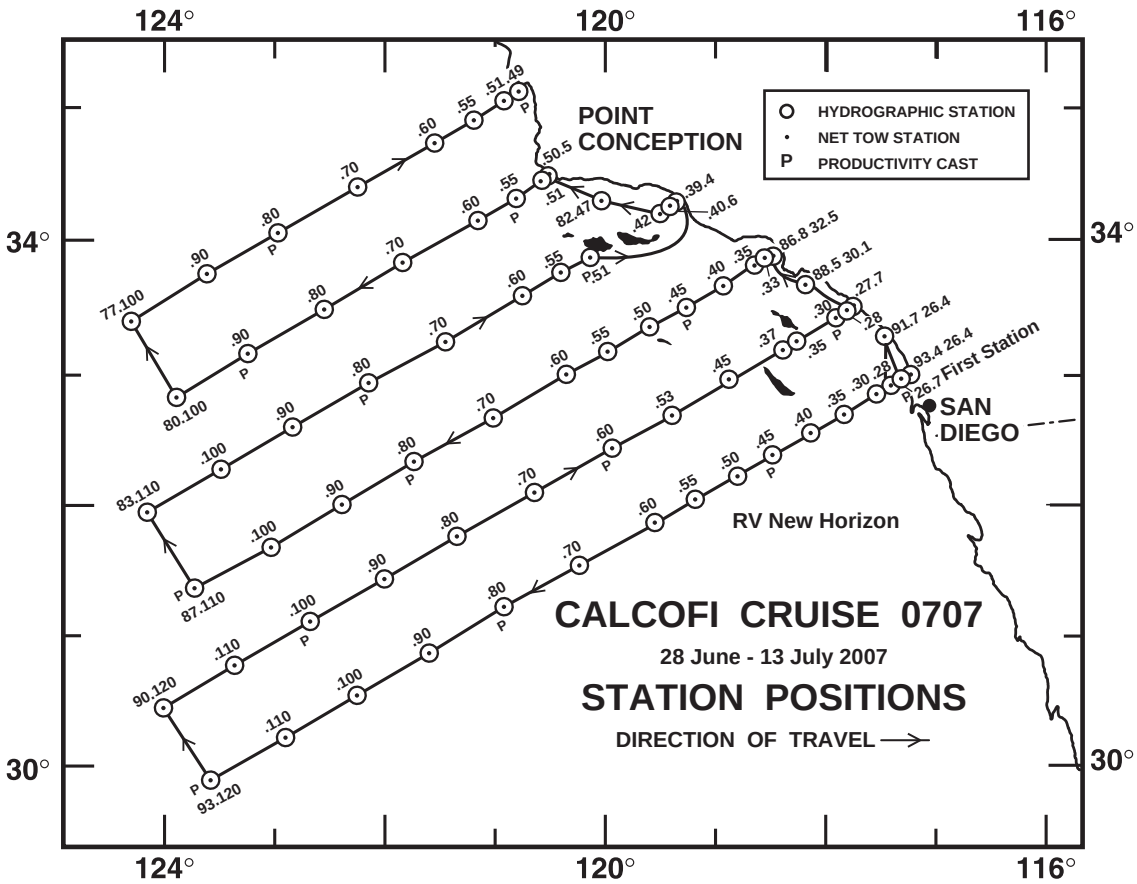

FIGURE 1

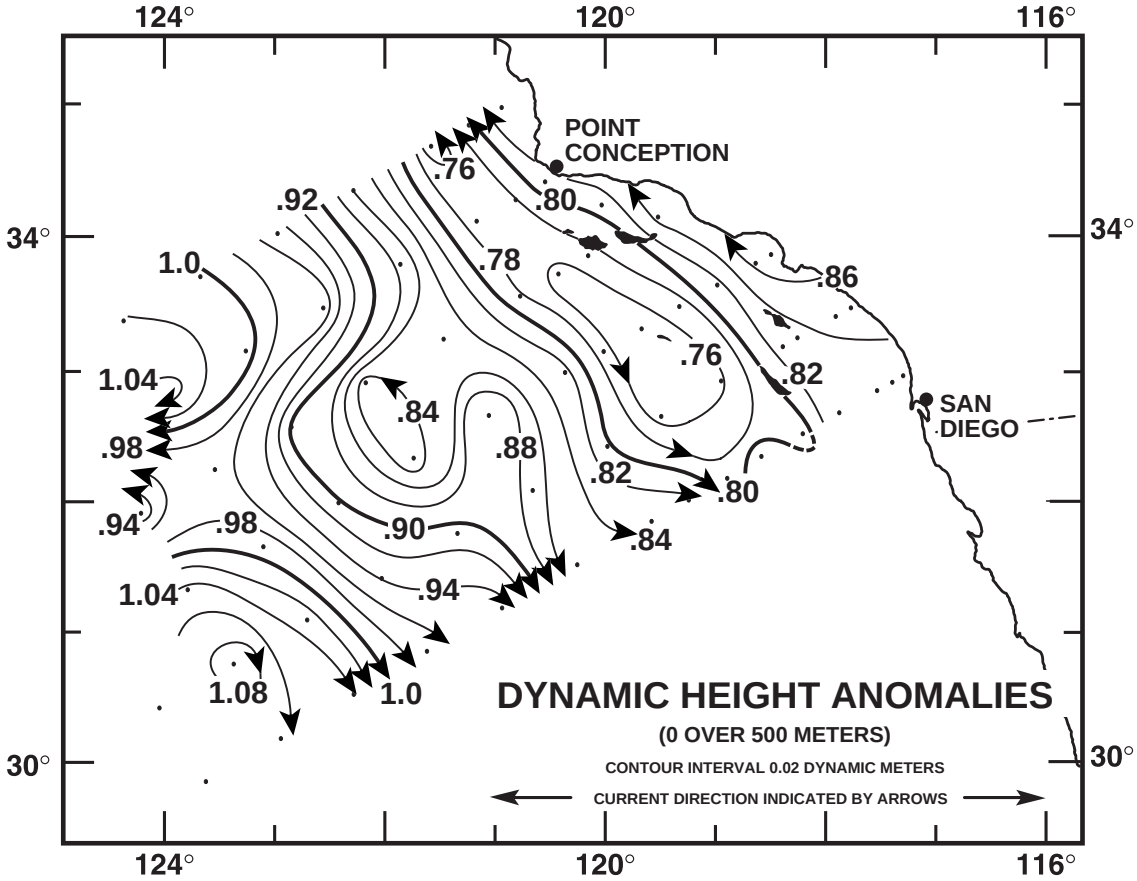

FIGURE 2

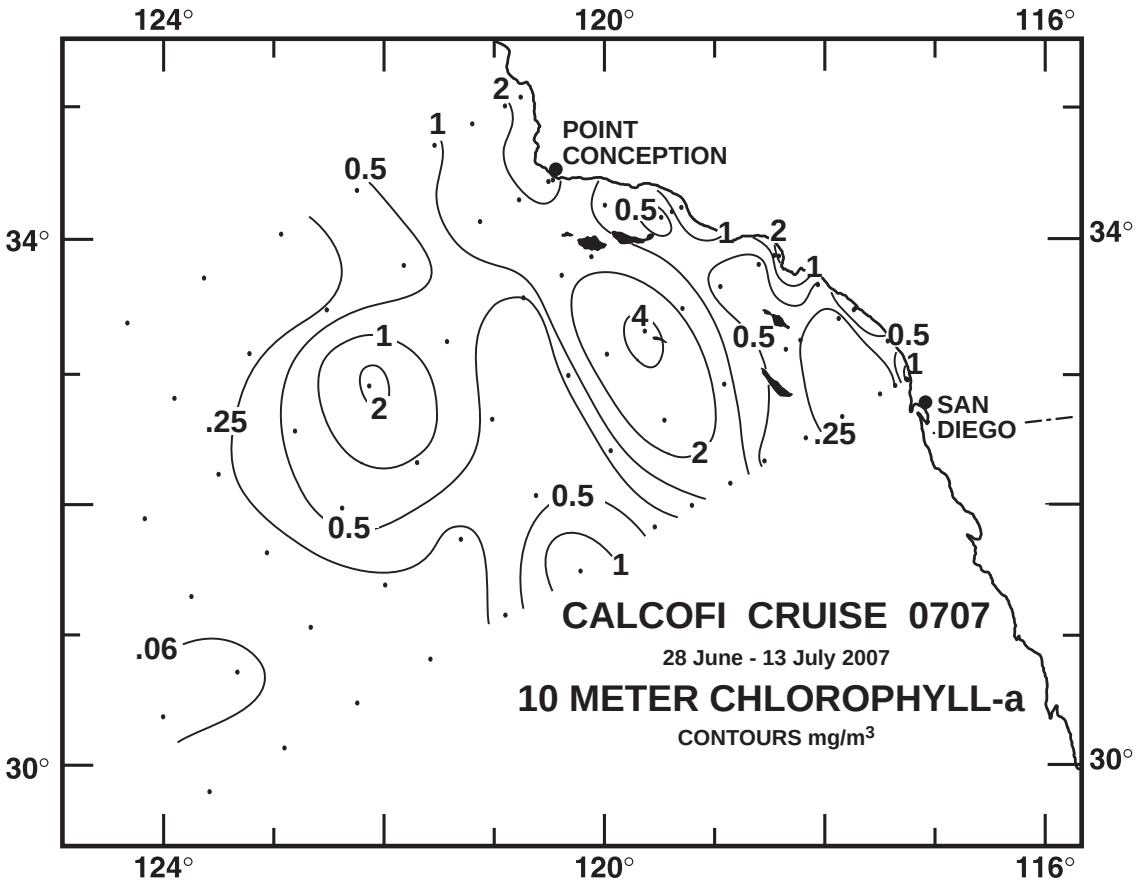

FIGURE 3A

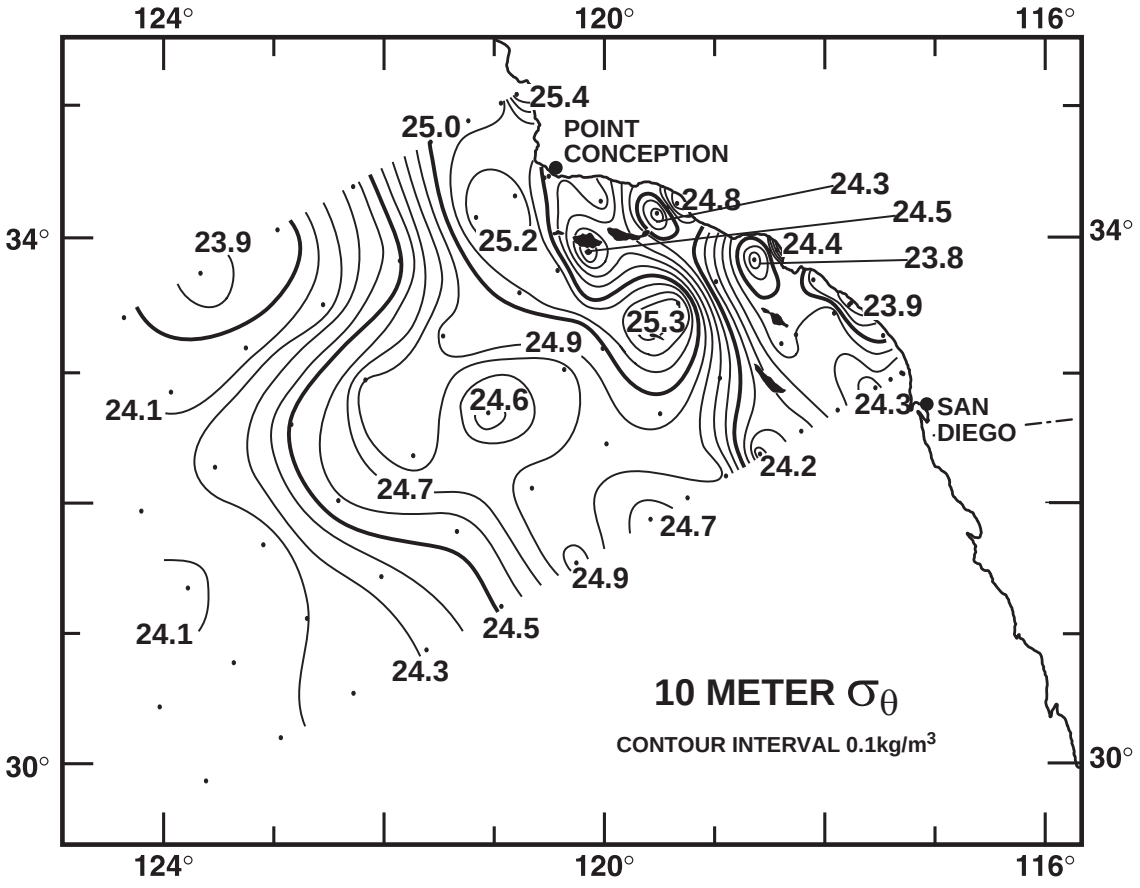

FIGURE 3B

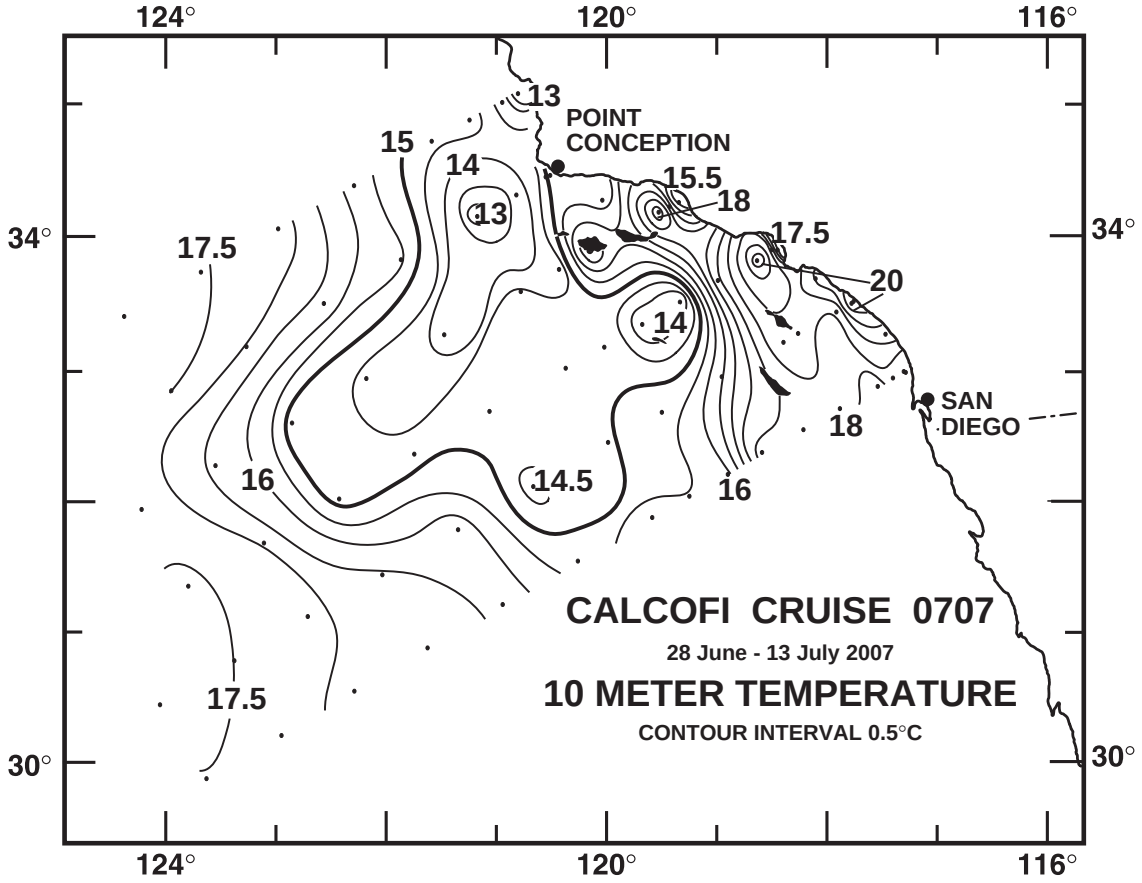

FIGURE 3C

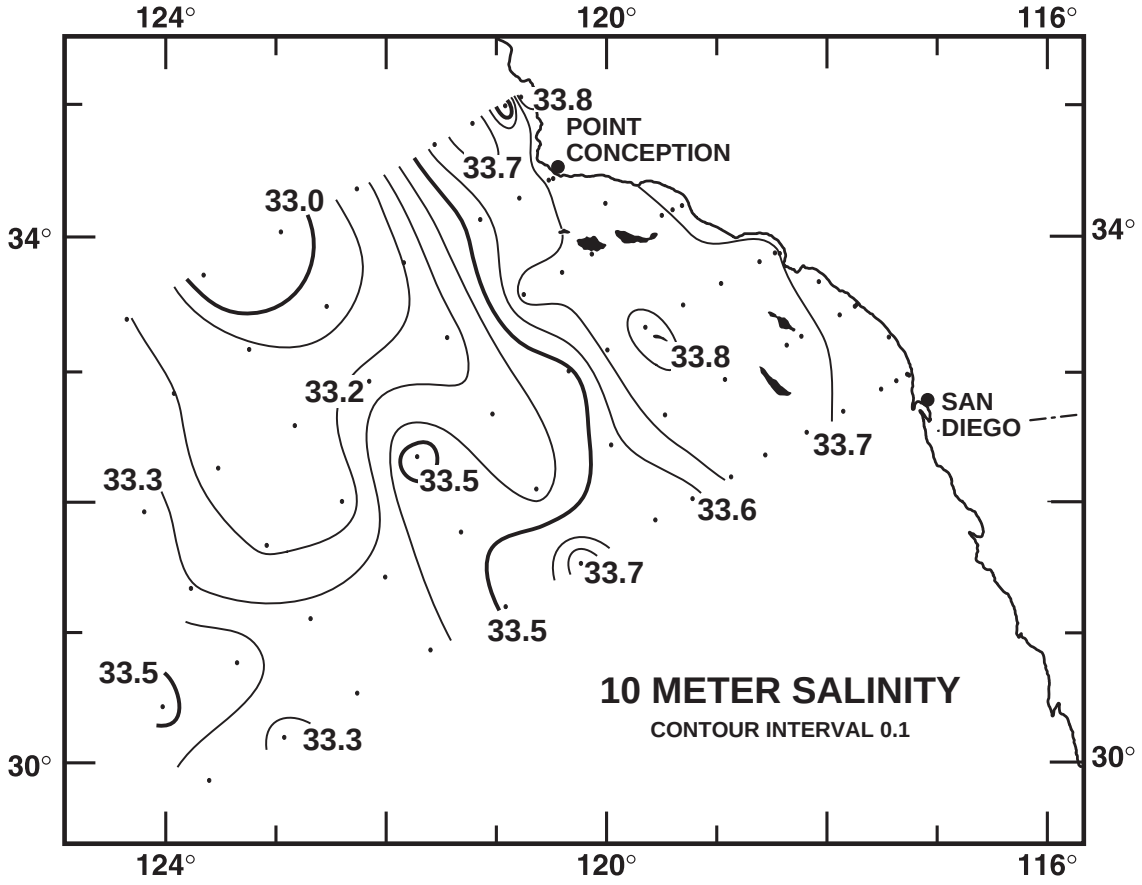

FIGURE 3D

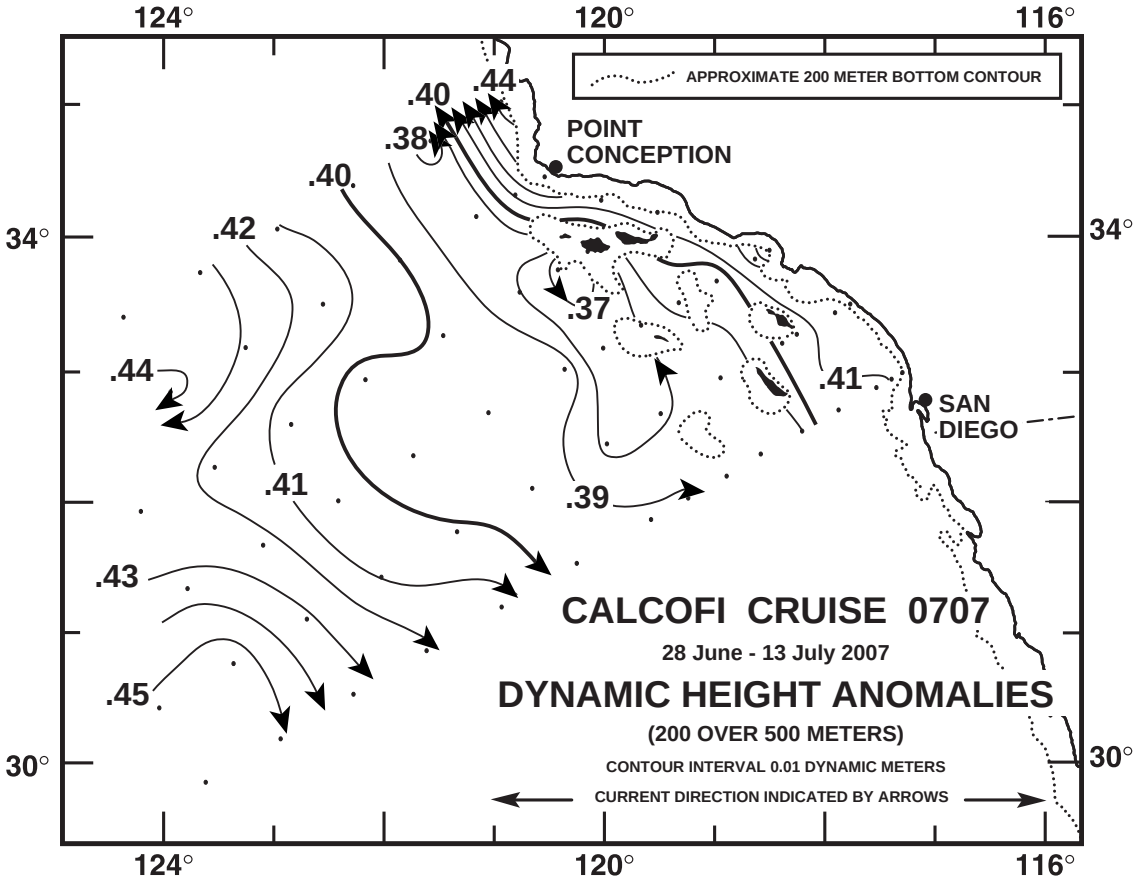

FIGURE 4A

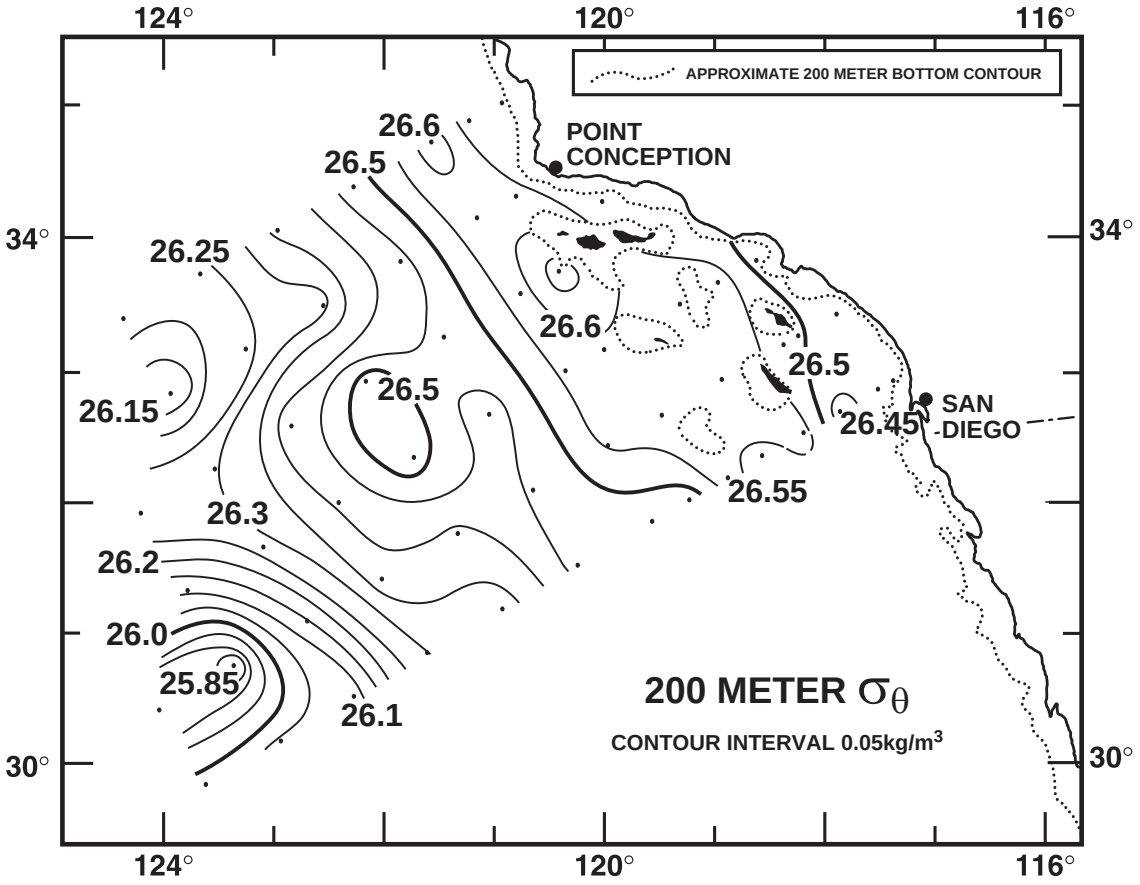

FIGURE 4B

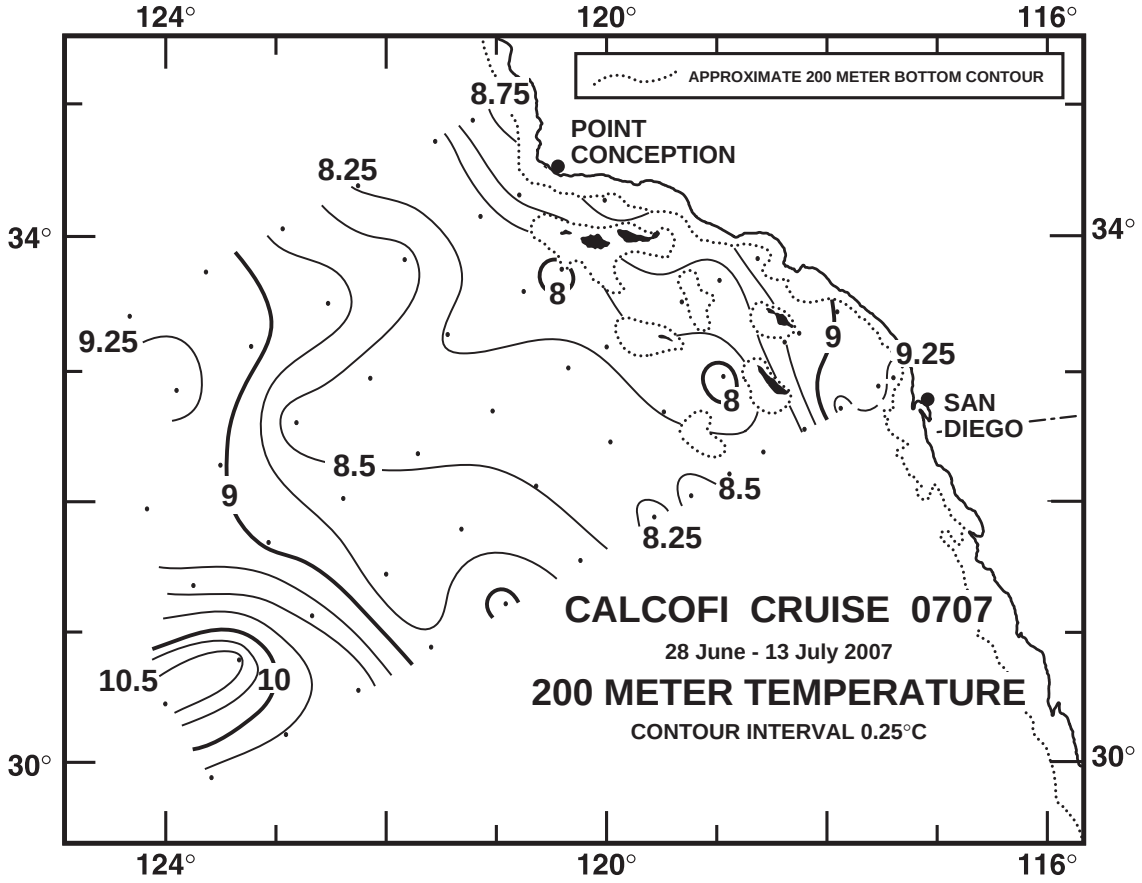

FIGURE 4C

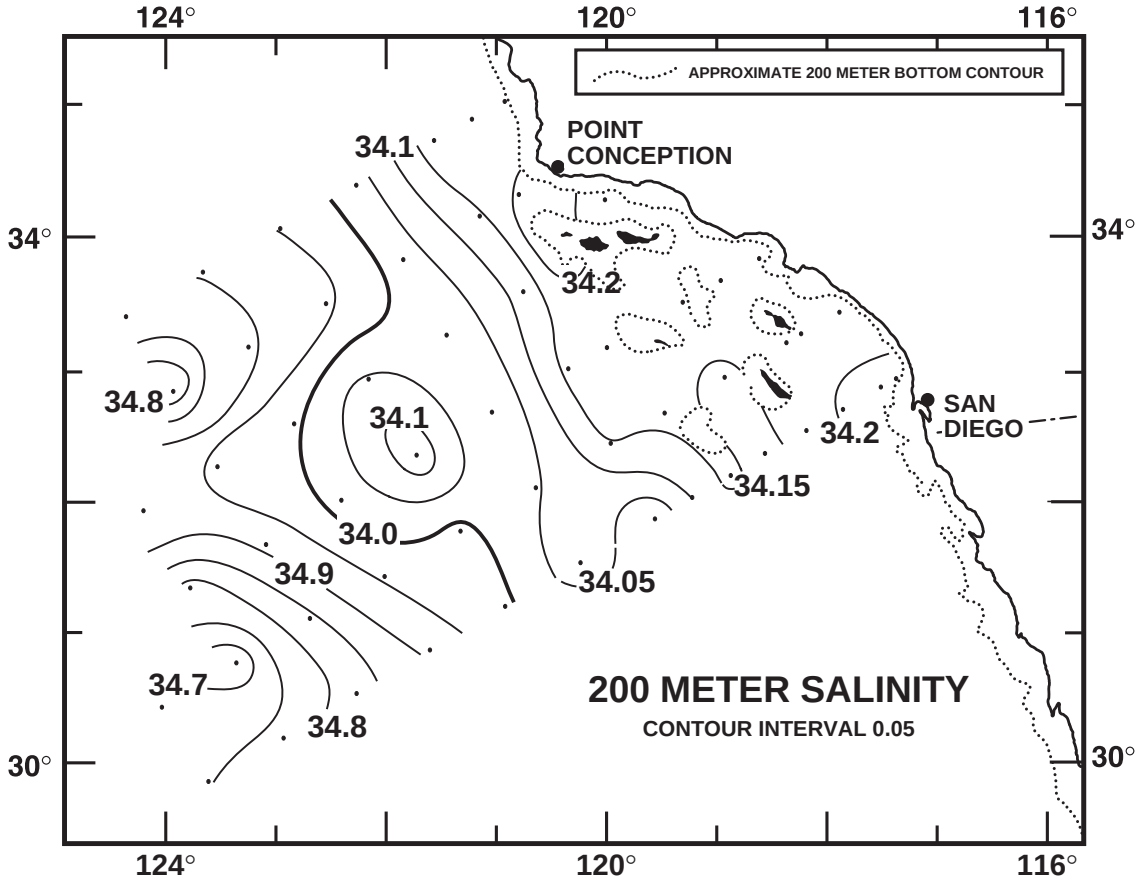

FIGURE 4D

CALCOFI CRUISE 0707

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POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

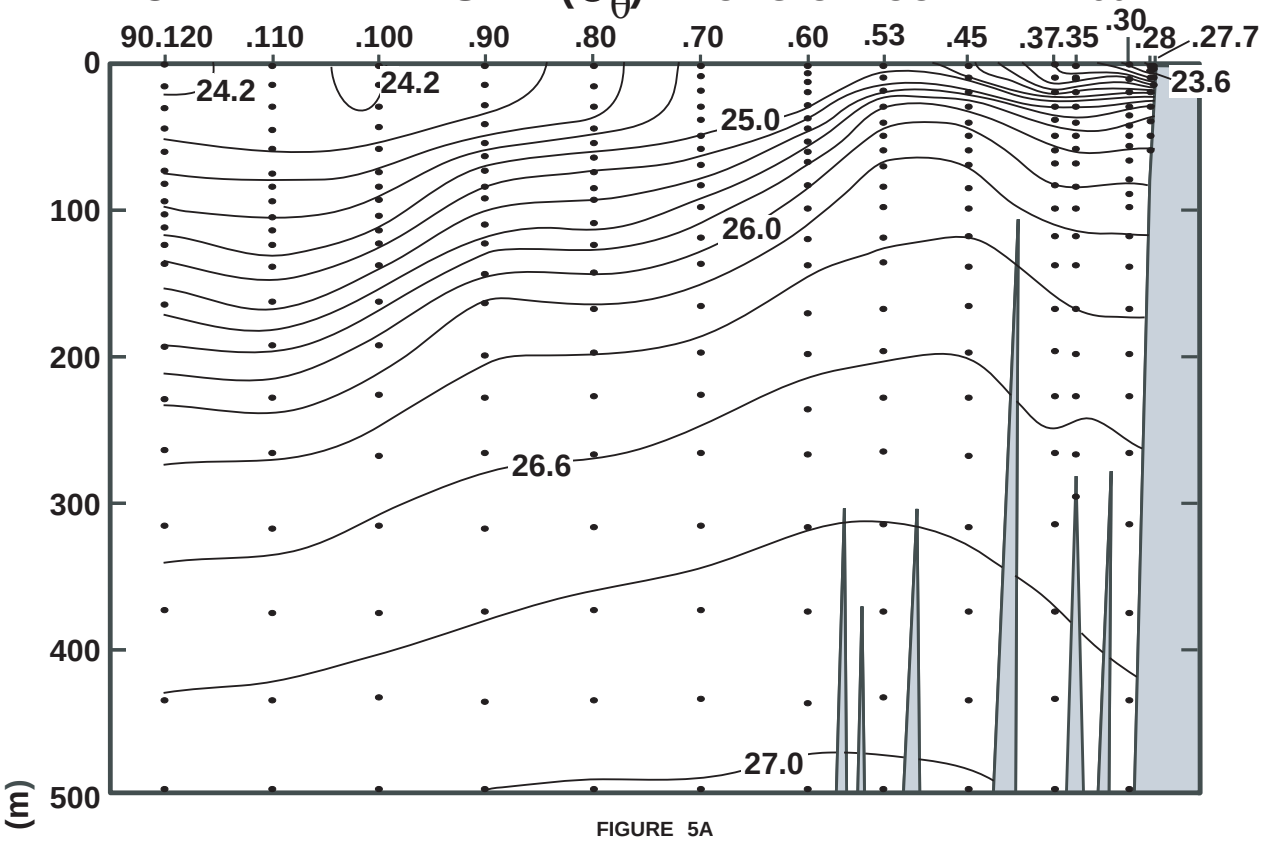

FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

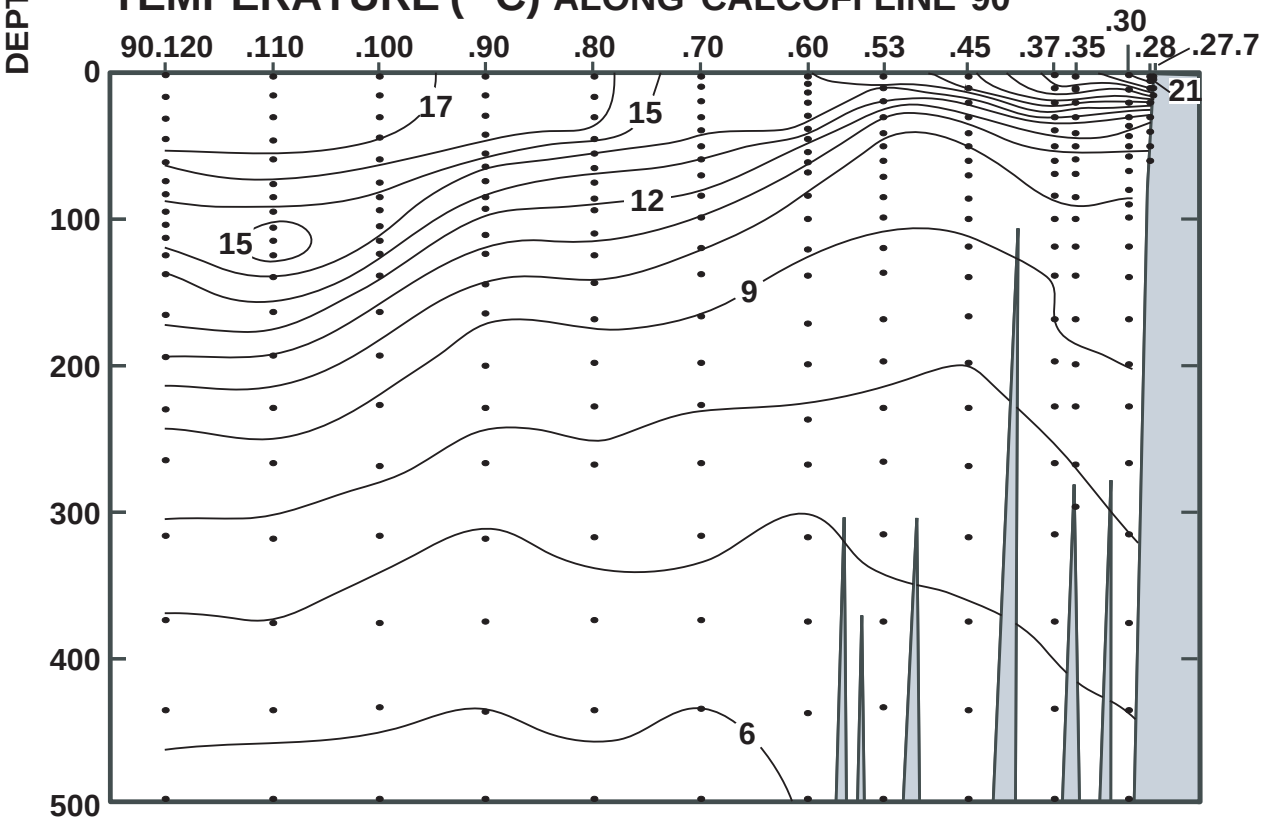

FIGURE 5B

CALCOFI CRUISE 0707

2- 5 July 2007

SALINITY ALONG CALCOFI LINE 90

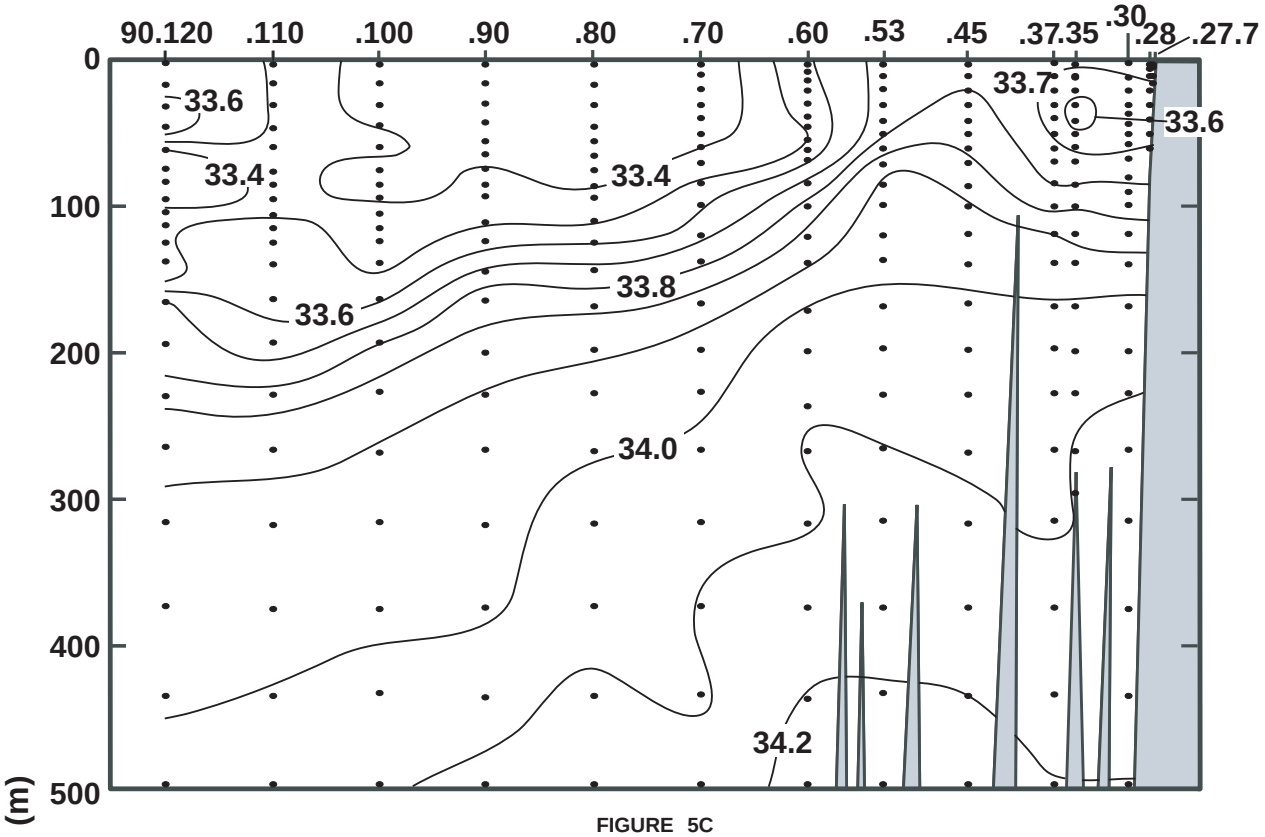

FIGURE 5C

SILICATE (μM/L) ALONG CALCOFI LINE 90

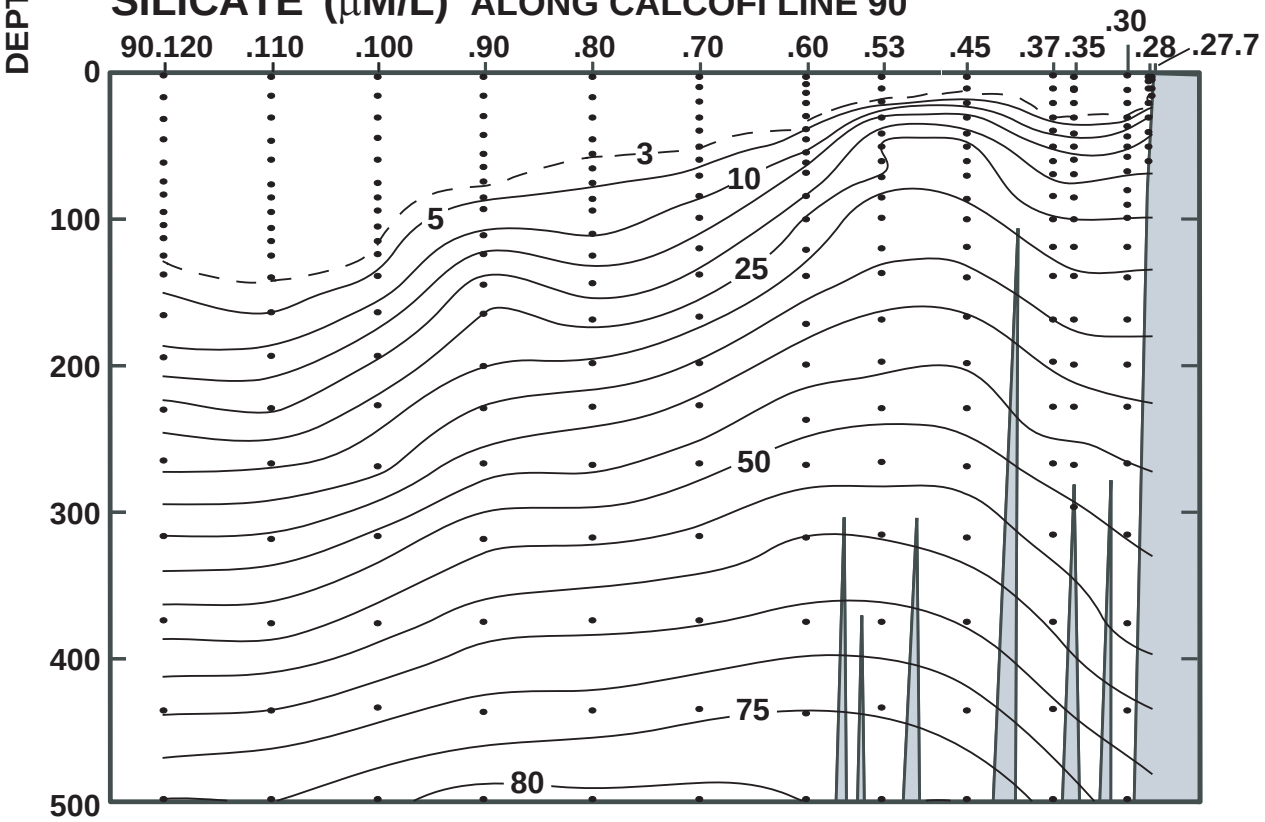

FIGURE 5D

CALCOFI CRUISE 0707

2 - 5 July 2007

NITRATE (μM/L) ALONG CALCOFI LINE 90

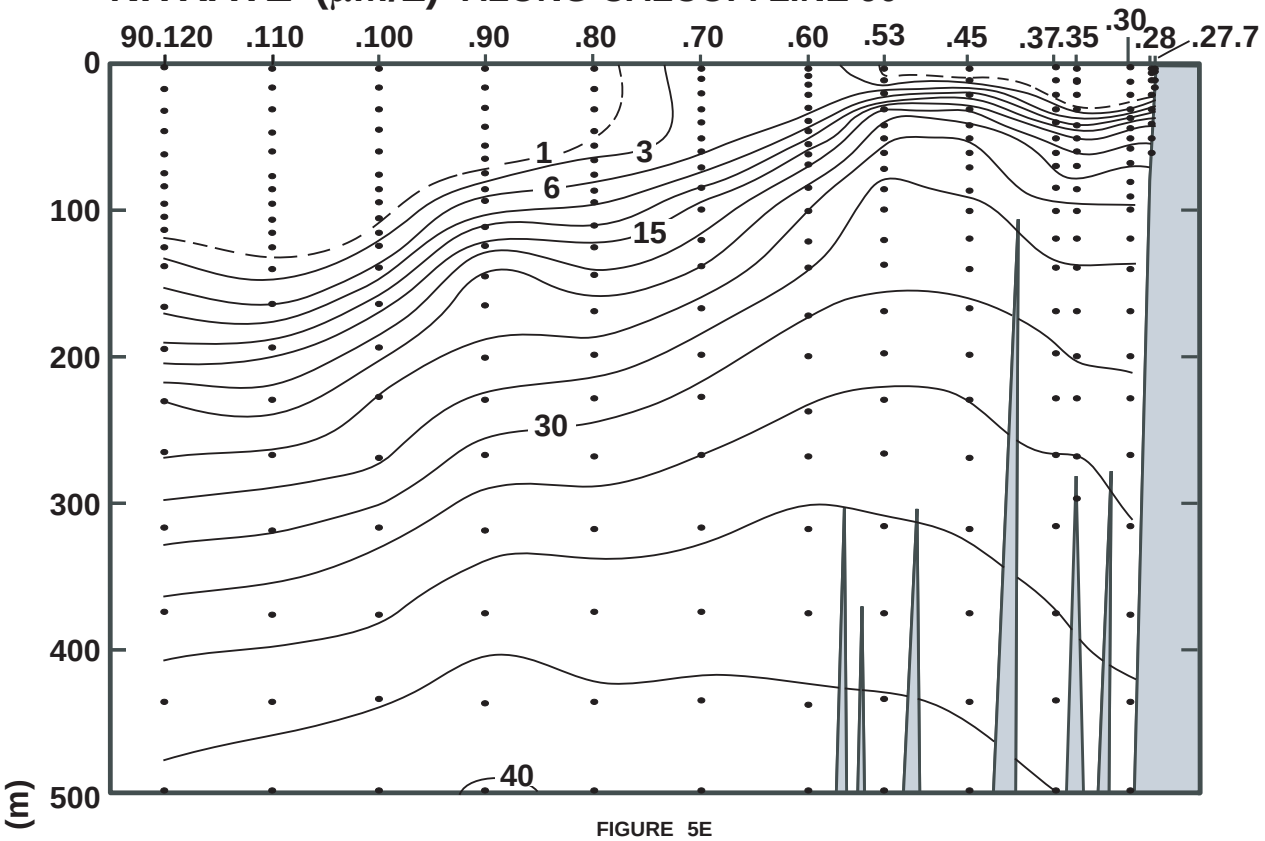

FIGURE 5E

PHOSPHATE (μM/L) ALONG CALCOFI LINE 90

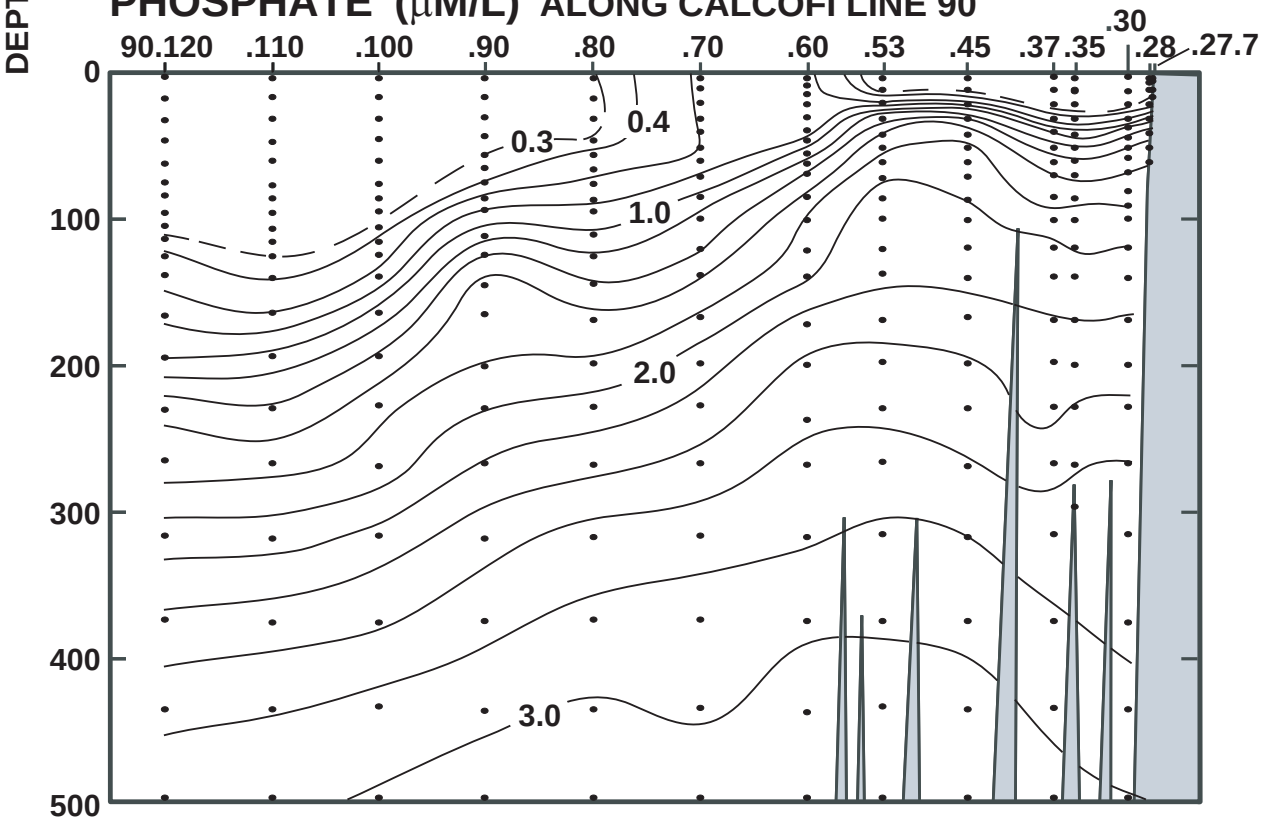

FIGURE 5F

CALCOFI CRUISE 0707

2 - 5 July 2007

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

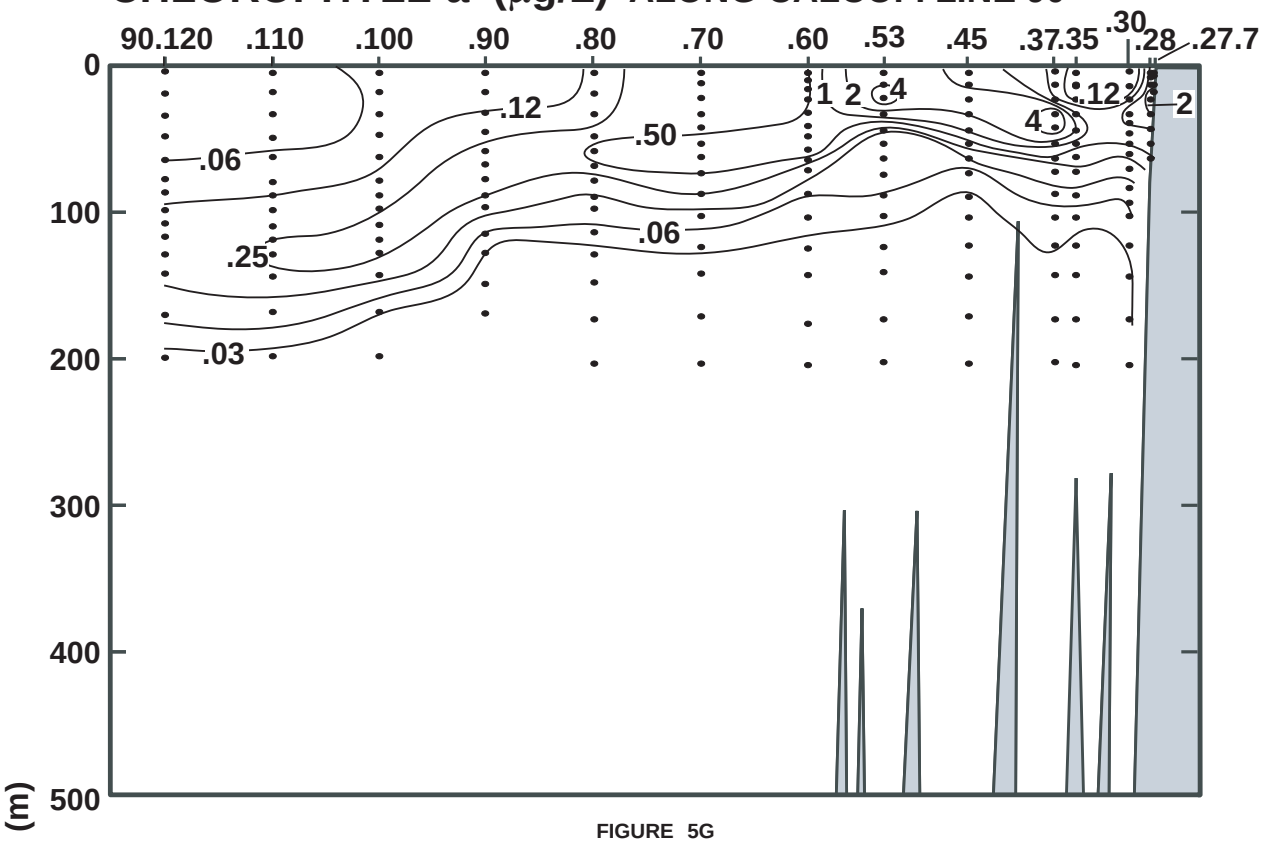

FIGURE 5G

OXYGEN SATURATION (%) ALONG CALCOFI LINE 90

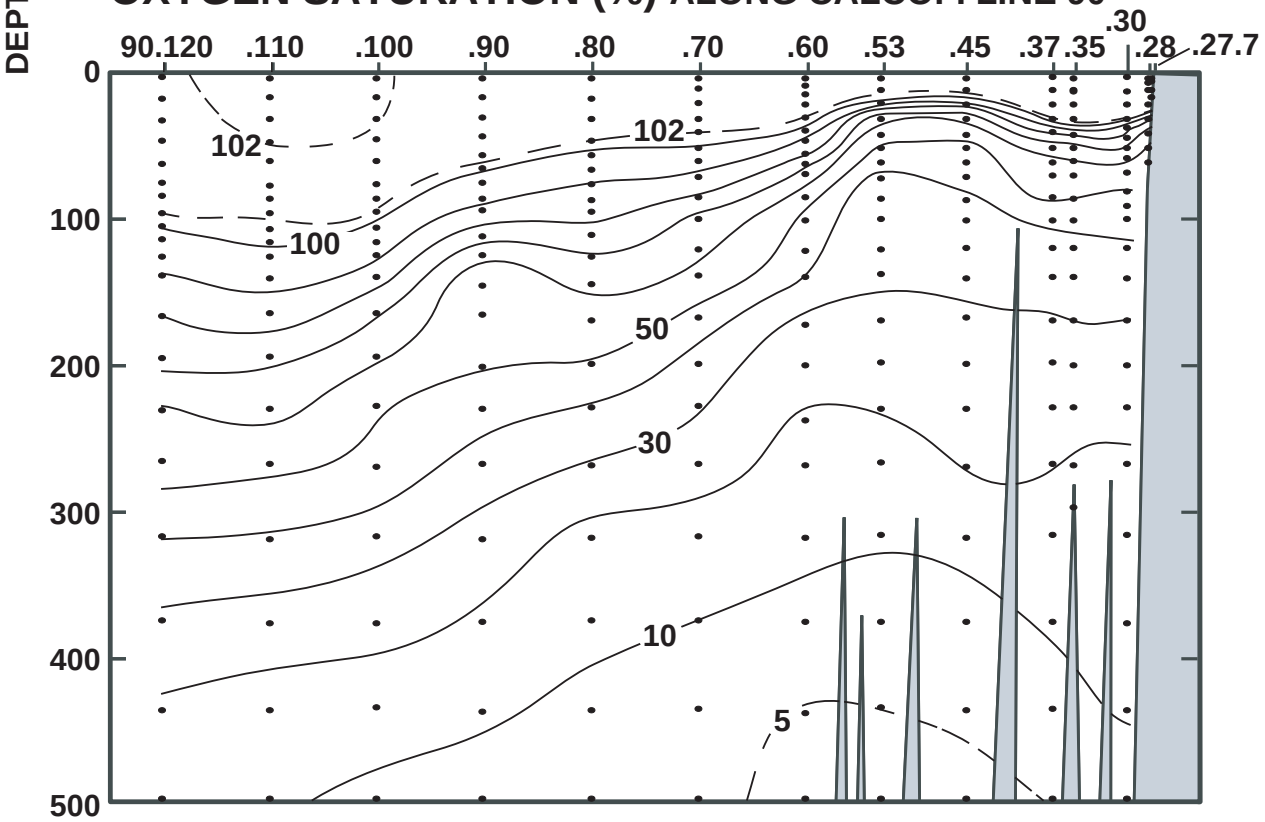

FIGURE 5H

CALCOFI CRUISE 0707

2 - 5 July 2007

OXYGEN (mL/L) ALONG CALCOFI LINE 90

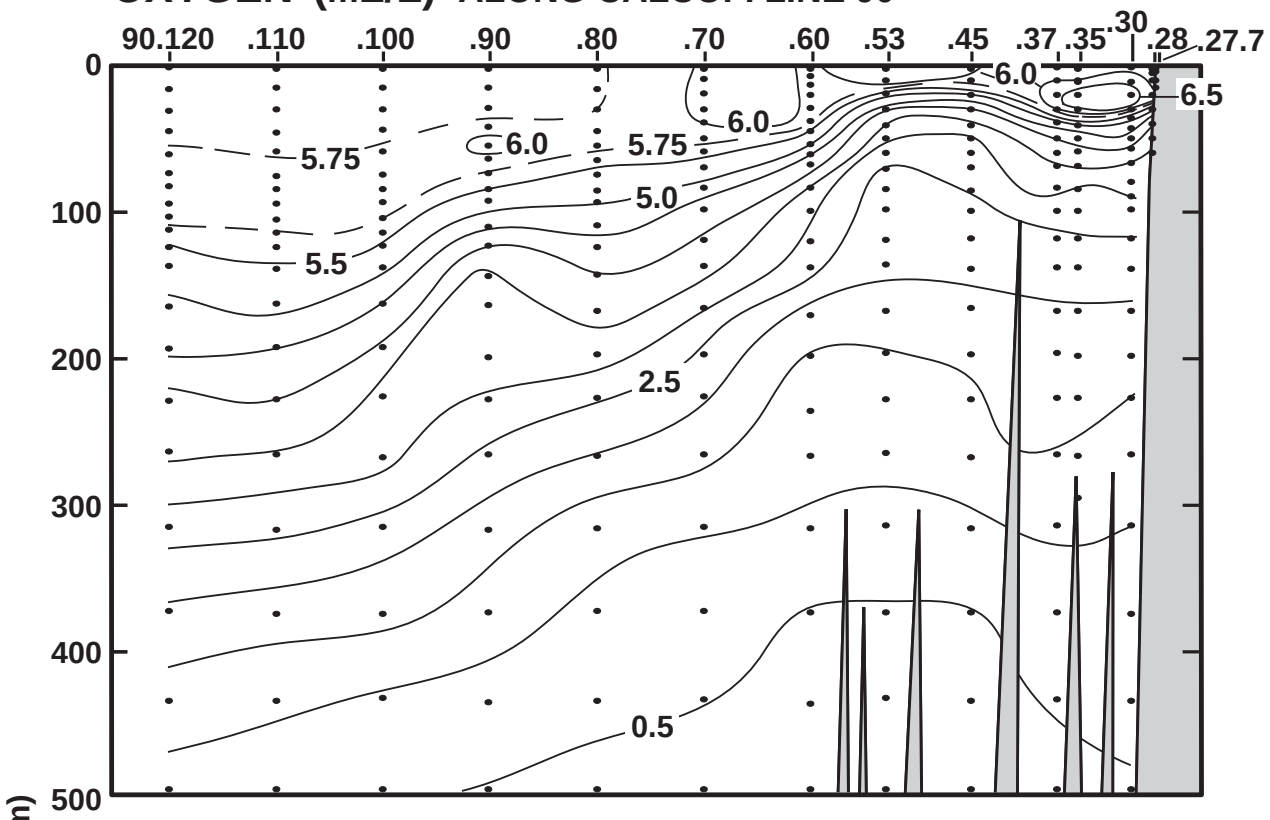

FIGURE 5I

NITRITE (μM/L) ALONG CALCOFI LINE 90

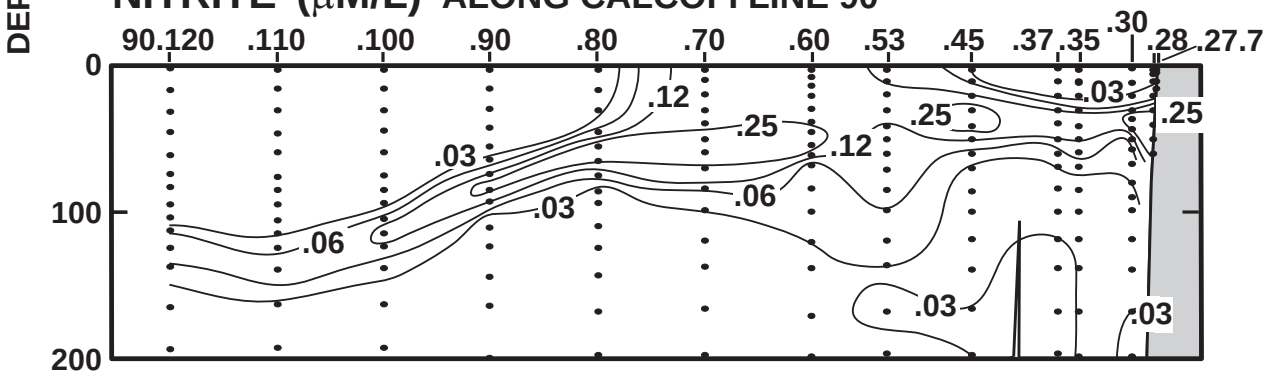

FIGURE 5J

PHAEOPIGMENTS (μg/L) ALONG CALCOFI LINE 90

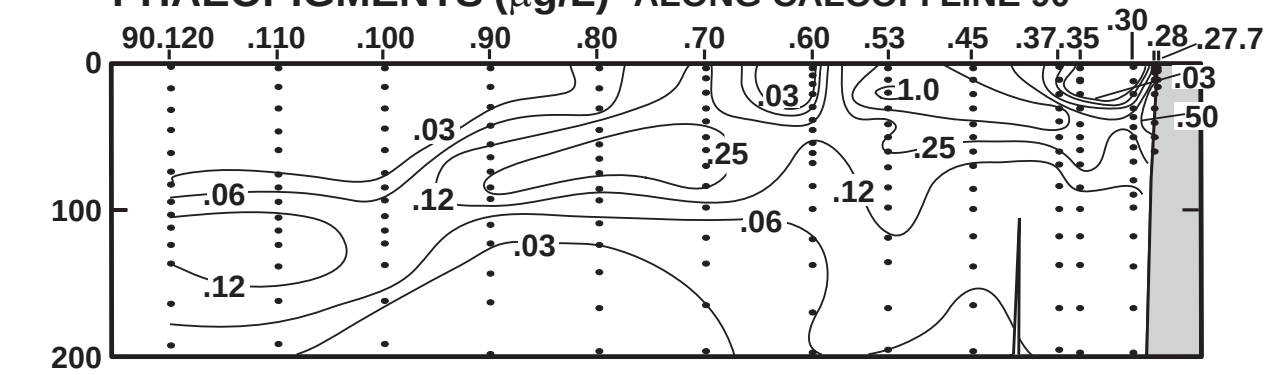

FIGURE 5K

PERSONNEL
CalCOFI Cruise 0707

SHIP'S CAPTAIN

Wes Hill, RV *New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

		Participating (Legs)
Wolgast, David M. (Chief Scientist)	Staff Research Associate, SIO	1,2
Camacho, Dominique	Marine Mammal Observer, Cascadia Research	1,2
Campbell, Gregory S.	Staff Research Associate, SIO	1,2
Dovel, Shonna L.	Staff Research Associate, SIO	1,2
Havron, Andrea M.	Marine Mammal Observer, Cascadia Research	1,2
Hays, Amy E.	Fishery Biologist, NMFS	1,2
Manion, Sue M.	Fishery Biologist, NMFS	1,2
Overcash, Bryan J.	Staff Research Associate, SIO	1,2
Roadman, Megan J.	Staff Research Associate, SIO	1,2
Rodgers-Wolgast, Jennifer L.	Staff Research Associate, SIO	1,2
Schperberg, Daniel M.	Volunteer, SIO	1,2
Schuller, Daniel	Staff Research Associate, SIO	1,2
Stanaway, Kathryn E.	Staff Research Associate, SIO	1,2
Thombley, Robert L.	Staff Research Associate, SIO	2
Wilkinson, James R.	Programmer Analyst, SIO	1,2
Yakich, Jason D.	Seabird Biologist, Pt. Reyes Bird Observatory	1,2
Yin, Suzanne	Marine Mammal Observer, Cascadia Research	1,2
Ziegler, Lisa Ann	Volunteer, J. Craig Vetner	2

San Diego-Dana Point, 28 June - 4 July, 2007
Dana Point –San Diego, 4 July - 14 July, 2007

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 49.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
35 5.2 N	120 46.5 W	13/07/07	1714	UTC	71 m	330	08 kn	270 01 06	0	1017.0 mb	17.0 C	14.4 C	10m	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	13.71	13.71	33.806	25.325	263.8	0.000	6.40	108.8	8.9	0.65	5.9	0.18	2.49	0.75	0	
2 A	13.71	13.71	33.806	25.325	263.9	0.005	6.40	108.8	8.9	0.65	5.9	0.18	2.49	0.75	2	210
5 A	13.63	13.63	33.805	25.341	262.5	0.013	6.41	108.8	8.8	0.64	5.6	0.18	2.75	0.75	5	209
10	12.97	12.97	33.809	25.477	249.7	0.026	5.94	99.4	10.0	0.75	7.5	0.20	3.05	1.46	10	208
14 A	12.45	12.45	33.819	25.587	239.3	0.036	5.46	90.4	12.1	0.97	9.8	0.22	2.72	1.26	14	207
20 A	11.96	11.96	33.829	25.688	229.8	0.050	4.93	80.8	14.5	1.18	12.5	0.25	2.36	1.55	20	206
27 A	11.68	11.68	33.829	25.741	225.0	0.066	4.60	74.9	15.9	1.30	13.9	0.26	1.93	1.26	27	205
30 ISL	11.51 D	11.51	33.823 D	25.768	222.5	0.072	4.44	72.1	16.4	1.33	14.5	0.26	1.63	1.21	30	
38 A	11.44	11.44	33.822	25.780	221.6	0.090	4.12	66.8	17.5	1.41	15.7	0.27	1.08	1.09	38	204
44	11.33	11.32	33.829	25.806	219.2	0.103	4.05	65.5	18.4	1.48	16.2	0.27	1.27	1.39	44	203
50	11.07	11.06	33.837	25.859	214.3	0.116	3.55	57.1	21.4	1.71	18.1	0.29	1.23	1.81	50	202
65	10.68	10.67	33.859	25.946	206.4	0.148	3.21	51.2	24.8	1.91	19.5	0.28	0.99	1.48	65	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
35 1.2 N	120 55.0 W	13/07/07	1349	UTC	239 m	320	09 kn	010 01 08	0	1016.3 mb	15.2 C	14.5 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	14.31	14.31	33.470	24.941	300.4	0.000	6.74	115.8	0.1	0.57	5.6	0.17	1.40	0.30	0	
2	14.31	14.31	33.470	24.941	300.5	0.006	6.74	115.8	0.1	0.57	5.6	0.17	1.40	0.30	2	216
10	13.73	13.73	33.462	25.055	289.8	0.030	6.67	113.2	0.1	0.64	6.7	0.18	1.64	0.35	10	214
10	13.77	13.77	33.462	25.047	290.6	0.030									10	215
20	12.91	12.91	33.488	25.241	272.4	0.058	6.60	110.1	0.0	0.71	7.9	0.21	1.92	0.37	20	213
29	11.82	11.82	33.490	25.451	252.6	0.081	5.99	97.7	2.2	0.97	11.5	0.23	2.99	0.69	29	212
30 ISL	11.80 D	11.80	33.504 D	25.466	251.2	0.084	5.99	97.6	2.2	0.97	11.5	0.23	3.77	0.88	30	
40	11.73	11.72	33.682	25.618	237.0	0.108	5.98	97.4	1.7	1.07	11.1	0.21	9.44	2.41	40	211
50	10.75	10.74	33.632	25.756	224.0	0.131	4.67	74.5	15.6	1.55	18.6	0.32	2.36	1.29	50	210
59	10.13	10.12	33.732	25.941	206.6	0.151	3.83	60.3	21.7	1.78	22.6	0.28	0.41	0.56	59	209
69	10.04	10.03	33.859	26.056	195.9	0.171	2.90	45.6	25.6	1.96	24.8	0.18	0.25	0.53	69	208
75 ISL	9.97 D	9.96	33.861 D	26.069	194.7	0.183	2.81	44.1	26.5	2.01	25.4	0.16	0.21	0.49	75	
85	9.85	9.84	33.889	26.112	190.9	0.202	2.67	41.8	27.2	2.04	25.9	0.13	0.18	0.44	85	207
99	9.49	9.48	33.942	26.213	181.6	0.228	2.41	37.5	29.2	2.08	26.6	0.16	0.14	0.46	100	206
100 ISL	9.40 D	9.39	33.940 D	26.226	180.3	0.230	2.41	37.4	29.3	2.08	26.6	0.16	0.14	0.45	101	
119	9.16	9.15	33.982	26.298	173.8	0.263	2.35	36.3	31.0	2.06	27.1	0.18	0.05	0.30	120	205
125 ISL	9.07 D	9.06	34.014 D	26.337	170.2	0.274	2.28	35.1	31.8	2.09	27.4	0.17	0.05	0.27	126	
139	9.04	9.02	34.040	26.363	168.1	0.297	2.09	32.2	33.8	2.20	28.2	0.12	0.04	0.23	140	204
150 ISL	8.97 D	8.95	34.096 D	26.418	163.0	0.316	1.92	29.5	35.4	2.26	28.9	0.08	0.03	0.22	151	
169	8.87	8.85	34.124	26.456	159.8	0.346	1.63	25.0	38.1	2.37	30.0	0.04	0.03	0.21	170	203
200	8.77	8.75	34.169	26.507	155.5	0.395	1.31	20.1	42.0	2.56	30.9	0.09	0.04	0.37	201	202
230	8.71	8.69	34.180	26.526	154.3	0.442	1.20	18.3	44.7	2.68	31.2	0.11			231	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 53.1 N	121 12.7 W	13/07/07	1022	UTC	564 m	300	10 kn			1016.1 mb	16.5 C	15.5 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	16.39	16.39	33.760	24.706	322.8	0.000	6.37	114.3	5.1	0.34	0.4	0.02	1.91	0.46	0	
2	16.39	16.39	33.760	24.706	322.9	0.006	6.37	114.3	5.1	0.34	0.4	0.02	1.91	0.46	2	221
2	16.39	16.39				0.006									2	222
10	14.84	14.84	33.810	25.090	286.5	0.031	6.17	107.3	9.5	0.65	4.3	0.07	1.95	0.70	10	
10	14.53	14.53	33.810	25.157	280.1	0.031									10	220
20	11.70	11.70	33.794	25.710	227.8	0.056	4.02	65.5	17.1	1.42	16.2	0.28	0.63	0.35	20	218
30	10.52	10.52	33.783	25.914	208.6	0.078	3.09	49.1	21.7	1.72	21.4	0.25	0.26	0.28	30	217
40	10.19	10.19	33.821	26.000	200.5	0.098	2.81	44.3	24.1	1.85	23.2	0.20	0.14	0.23	40	216
50	10.12	10.11	33.833	26.022	198.7	0.118	2.74	43.2	24.7	1.87	23.6	0.16	0.12	0.23	50	215
60	9.97	9.96	33.862	26.070	194.4	0.138	2.62	41.1	25.9	1.93	24.2	0.19	0.10	0.22	60	214
69	9.86	9.85	33.891	26.111	190.6	0.155	2.53	39.6	27.1	1.98	24.8	0.17	0.09	0.21	69	213
75 ISL	9.80 D	9.79	33.906 D	26.133	188.7	0.167	2.48	38.8	27.6	2.00	25.1	0.20	0.09	0.23	75	
85	9.64	9.63	33.932	26.180	184.4	0.185	2.40	37.4	28.5	2.04	25.7	0.25	0.09	0.26	85	212
99	9.43	9.42	33.981	26.253	177.7	0.211	2.21	34.3	30.8	2.12	26.7	0.18	0.06	0.24	100	211
100 ISL	9.43 D	9.42	33.984 D	26.255	177.5	0.213	2.20	34.2	30.9	2.12	26.7	0.17	0.06	0.24	101	
120	9.29	9.28	34.030	26.315	172.3	0.248	2.08	32.2	32.5	2.16	27.4	0.07	0.04	0.18	121	210
125 ISL	9.30 D	9.29	34.026 D	26.310	172.9	0.256	2.04	31.6	33.0	2.17	27.6	0.06	0.04	0.17	126	
139	9.16	9.14	34.066	26.364	168.0	0.280	1.93	29.8	34.4	2.22	28.2	0.05	0.03	0.16	140	209
150 ISL	8.98 D	8.96	34.095 D	26.416	163.3	0.298	1.94	29.8	35.5	2.26	28.7	0.05	0.03	0.16	151	
170	8.93	8.91	34.115	26.439	161.4	0.331	1.97	30.3	37.5	2.33	29.6	0.06	0.02	0.17	171	208
198	8.76	8.74	34.155	26.498	156.4	0.375	1.51	23.1	40.1	2.42	30.5	0.03	0.02	0.17	199	207
200 ISL	8.71 D	8.69	34.167 D	26.515	154.7	0.378	1.49	22.8	40.4	2.43	30.6	0.03			201	
229	8.51	8.49	34.207	26.578	149.3	0.422	1.23	18.7	43.9	2.54	31.8	0.02			230	206
250 ISL	8.42 D	8.39	34.223 D	26.604	147.1	0.454	1.20	18.2	45.2	2.57	32.1	0.02			252	
268	8.39	8.36	34.229	26.614	146.5	0.480	1.18	17.9	45.9	2.59	32.3	0.02			270	205
300 ISL	8.26 D	8.23	34.244 D	26.646	144.1	0.526	1.03	15.6	47.7	2.66	32.8	0.02			302	
318	8.19	8.16	34.248	26.660	143.0	0.552	0.94	14.2	48.9	2.70	33.1	0.02			320	204
377	7.66	7.62	34.255	26.744	135.7	0.635	0.76	11.3	55.5	2.81	34.8	0.01			380	203
400 ISL	7.40 D	7.36	34.257 D	26.783	132.2	0.665	0.70	10.4	57.9	2.85	35.2	0.01			403	
438	7.20	7.16	34.255	26.810	130.1	0.715	0.63	9.3	62.0	2.91	35.8	0.01			441	202
500 ISL	6.48 D	6.43	34.231 D	26.889	122.9	0.794	0.59	8.6	69.8	2.98	37.8	0.01			504	
514	6.39	6.34	34.227	26.898	122.1	0.811	0.58	8.4	71.5	3.00	38.2	0.01			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
34 43.4 N	121 33.2 W	13/07/07	0623 UTC	922 m	310 06 kn			1017.3 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	15.59	15.59	33.730	24.864	307.7	0.000	6.98	123.2	3.6	0.49	1.6	0.09	0.82	0.21	0	
2	15.59	15.59	33.730	24.864	307.8	0.006	6.98	123.2	3.6	0.49	1.6	0.09	0.82	0.21	2	220
10	14.64	14.64	33.649	25.009	294.2	0.030	6.88	119.1	2.0	0.59	3.6	0.13	0.77	0.17	10	219
20	12.42	12.42	33.546	25.381	259.0	0.058	6.39	105.6	0.2	0.90	8.9	0.23	2.33	0.50	20	218
30	12.56	12.56	33.669	25.450	252.8	0.083	6.15	102.0	1.8	0.99	8.8	0.20	5.14	1.18	30	217
40	11.94	11.93	33.772	25.648	234.1	0.108	5.22	85.5	10.6	1.39	12.3	0.22	2.93	1.41	40	216
50	10.96	10.95	33.806	25.854	214.7	0.130	4.18	67.0	18.0	1.78	18.5	0.24	0.93	0.94	50	215
60	10.11	10.10	33.826	26.018	199.3	0.151	3.03	47.7	23.5	1.98	24.6	0.27	0.46	0.85	60	214
70	9.62	9.61	34.014	26.247	177.7	0.170	1.92	29.9	30.8	2.26	28.3	0.13	0.14	0.37	70	213
75 ISL	9.48 D	9.47	34.080 D	26.322	170.7	0.179	1.62	25.2	33.0	2.38	29.5	0.09	0.12	0.38	75	
85	9.32	9.31	34.115	26.376	165.8	0.195	1.33	20.6	35.9	2.54	30.8	0.05	0.07	0.39	85	212
100	9.04	9.03	34.158	26.454	158.6	0.220	1.24	19.1	38.6	2.57	31.2	0.05	0.05	0.37	101	211
119	8.94	8.93	34.158	26.471	157.4	0.250	1.34	20.6	39.3	2.53	31.0	0.04	0.04	0.23	120	210
125 ISL	8.89 D	8.88	34.168 D	26.486	156.0	0.259	1.28	19.7	40.6	2.55	31.3	0.04	0.04	0.23	126	
139	8.62	8.61	34.195	26.550	150.2	0.281	1.12	17.1	43.7	2.61	32.0	0.03	0.03	0.23	140	209
150 ISL	8.59 D	8.57	34.197 D	26.556	149.8	0.297	1.13	17.2	44.0	2.64	32.2	0.04	0.03	0.22	151	
169	8.56	8.54	34.199	26.563	149.6	0.325	1.15	17.5	44.5	2.67	32.3	0.05	0.03	0.20	170	208
199	8.14	8.12	34.188	26.619	144.7	0.370	1.22	18.4	46.7	2.65	32.9	0.06	0.02	0.14	200	207
200 ISL	8.05 D	8.03	34.199 D	26.641	142.6	0.371	1.21	18.2	46.9	2.65	33.0	0.06			201	
229	7.82	7.80	34.234	26.702	137.2	0.412	0.90	13.5	52.4	2.80	34.5	0.06			230	206
250 ISL	7.65 D	7.63	34.247 D	26.738	134.1	0.440	0.95	14.2	54.7	2.85	35.0	0.06			252	
269	7.56	7.53	34.252	26.755	132.8	0.465	1.03	15.3	56.2	2.88	35.3	0.05			271	205
300 ISL	7.36 D	7.33	34.271 D	26.799	129.0	0.506	0.79	11.7	59.0	2.93	35.9	0.04			302	
319	7.29	7.26	34.272	26.809	128.3	0.530	0.61	9.0	60.7	2.96	36.2	0.03			321	204
378	7.04	7.00	34.293	26.861	124.1	0.605	0.46	6.8	65.3	3.06	37.2	0.02			381	203
400 ISL	6.96 D	6.92	34.297 D	26.876	123.1	0.632	0.44	6.5	67.6	3.07	37.8	0.02			403	
437	6.54	6.50	34.289	26.926	118.5	0.677	0.42	6.1	71.9	3.07	38.8	0.02			440	202
500 ISL	5.95 D	5.91	34.300 D	27.011	110.7	0.749	0.34	4.9	80.0	3.15	40.6	0.01			504	
512	5.87	5.83	34.294	27.017	110.3	0.762	0.32	4.6	81.6	3.16	41.0	0.01			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
34 23.0 N	122 15.2 W	13/07/07	0042 UTC	4029 m	310 04 kn	350 01 09	1	1017.4 mb	20.1 C	17.2 C	16m	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	17.19	17.19	33.100	24.013	388.8	0.000	5.90	107.1	2.3	0.37	0.4	0.03	0.31	0.05	0	
1	17.19	17.19	33.100	24.013	388.9	0.004	5.90	107.1	2.3	0.37	0.4	0.03	0.31	0.05	1	220
1	17.07	17.07	33.095	24.037	386.5	0.004									1	221
10	15.78	15.78	33.111	24.346	357.4	0.037	5.99	105.7	2.4	0.38	0.8	0.04	0.44	0.02	10	219
20	15.08	15.08	33.174	24.549	338.4	0.072	6.05	105.3	3.3	0.46	2.1	0.08	0.45	0.13	20	218
30	14.56	14.56	33.173	24.660	328.0	0.105	6.00	103.4	3.2	0.53	2.8	0.12	0.60	0.17	30	217
40	12.68	12.67	33.156	25.029	293.1	0.137	5.86	97.1	5.7	0.84	6.9	0.45	0.64	0.23	40	216
50	11.77	11.76	33.205	25.240	273.2	0.165	5.52	89.7	10.1	1.01	10.6	0.41	0.40	0.24	50	215
60	11.37	11.36	33.311	25.396	258.5	0.191	5.19	83.7	10.8	1.09	12.2	0.06	0.17	0.12	60	214
69	11.26	11.25	33.455	25.528	246.2	0.214	4.80	77.3	12.1	1.21	14.1	0.05	0.09	0.06	69	213
75 ISL	10.56 D	10.55	33.448 D	25.646	235.0	0.229	4.52	71.7	14.4	1.34	16.2	0.04	0.06	0.06	75	
85	10.17	10.16	33.536	25.782	222.3	0.251	4.13	65.0	18.8	1.57	19.8	0.02	0.04	0.05	85	212
100	9.83	9.82	33.659	25.936	208.0	0.284	3.89	60.8	23.4	1.78	23.2	0.02	0.02	0.07	100	211
119	9.31	9.30	33.749	26.091	193.4	0.322	3.23	49.9	26.1	1.89	25.0	0.02	0.01	0.05	120	210
125 ISL	9.12 D	9.11	33.788 D	26.152	187.7	0.333	3.15	48.5	26.6	1.90	25.3	0.02	0.01	0.05	126	
139	8.97	8.96	33.837	26.215	182.1	0.359	3.05	46.8	27.9	1.92	25.8	0.02	0.01	0.05	140	209
150 ISL	8.78 D	8.76	33.883 D	26.281	175.9	0.379	2.92	44.6	29.7	1.96	26.6	0.02	0.01	0.05	151	
169	8.52	8.50	33.943	26.368	167.9	0.412	2.68	40.7	33.2	2.06	28.1	0.02	0.01	0.04	170	208
199	8.22	8.20	34.026	26.479	157.9	0.460	2.28	34.4	38.2	2.21	30.0	0.02	0.00	0.04	200	207
200 ISL	8.19 D	8.17	34.028 D	26.485	157.3	0.462	2.27	34.3	38.3	2.21	30.0	0.02			201	
228	7.93	7.91	34.046	26.539	152.7	0.505	2.17	32.6	41.6	2.29	30.9	0.05			229	206
250 ISL	7.76 D	7.74	34.080 D	26.590	148.1	0.538	2.06	30.8	44.8	2.36	31.8	0.04			251	
268	7.52	7.49	34.068	26.616	145.9	0.565	1.97	29.3	47.7	2.41	32.7	0.03			270	205
300 ISL	6.89 D	6.86	34.038 D	26.680	139.9	0.611	1.88	27.5	53.5	2.50	34.4	0.02			302	
317	6.59	6.56	34.027	26.712	136.9	0.634	1.81	26.3	56.8	2.56	35.4	0.02			319	204
377	5.96	5.93	34.071	26.828	126.3	0.713	1.24	17.8	68.2	2.82	38.6	0.01			379	203
400 ISL	5.75 D	5.72	34.081 D	26.862	123.2	0.742	1.10	15.7	72.5	2.89	39.5	0.01			403	
436	5.46	5.42	34.106	26.917	118.2	0.785	0.91	12.9	78.6	2.98	40.6	0.01			439	202
500 ISL	5.35 D	5.31	34.185 D	26.993	111.7	0.859	0.55	7.8	85.4	3.12	41.9	0.01			503	
512	5.25	5.21	34.187	27.007	110.4	0.872	0.48	6.8	86.7	3.15	42.2	0.01			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 3.2 N	122 56.2 W	12/07/07	1847 UTC	4235 m	220 03 kn	230 01 07	2	1017.9 mb	20.0 C	16.8 C	23m	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	17.58	17.58	32.895	23.763	412.7	0.000	5.69	103.9	2.0	0.33	0.4	0.00	0.11	0.02	0	
2 A	17.58	17.58	32.895	23.763	412.7	0.008	5.69	103.9	2.0	0.33	0.4	0.00	0.11	0.02	2	222
10 ISL	17.33 D	17.33	32.991 D	23.896	400.3	0.041	5.74	104.4	2.6	0.33	0.3	0.00	0.13	0.03	10	
12 A	17.26	17.26	33.002	23.922	397.9	0.049	5.75	104.4	2.8	0.33	0.3	0.00	0.14	0.03	12	221
20 ISL	17.15 D	17.15	33.026 D	23.966	393.9	0.080	5.77	104.6	2.8	0.33	0.3	0.00	0.16	0.04	20	
22	17.03	17.03	33.007	23.980	392.7	0.088	5.77	104.3	2.8	0.33	0.3	0.00	0.17	0.05	22	220
30 ISL	15.42 D	15.42	32.880 D	24.248	367.3	0.119	6.29	110.1	2.6	0.35	0.3	0.00	0.24	0.08	30	
33 A	14.38	14.38	32.789	24.402	352.7	0.129	6.47	110.8	2.5	0.36	0.3	0.00	0.27	0.09	33	219
40	13.63	13.62	32.813	24.575	336.3	0.154	6.41	108.1	2.7	0.43	0.9	0.05	0.83	0.38	40	218
47 A	13.10	13.09	32.827	24.692	325.3	0.177	6.18	103.1	4.2	0.54	2.0	0.14	0.73	0.34	47	217
50 ISL	12.83 D	12.82	32.830 D	24.747	320.1	0.186	6.07	100.7	5.0	0.60	2.5	0.23	0.56	0.30	50	
54	12.84	12.83	32.851	24.762	318.8	0.199	5.94	98.6	5.6	0.65	3.0	0.34	0.36	0.26	54	216
62 A	12.93	12.92	33.023	24.878	308.0	0.224	5.86	97.5	3.5	0.51	1.9	0.29	0.44	0.39	62	215
75	12.30	12.29	33.111	25.068	290.2	0.263	5.65	92.8	5.3	0.71	5.4	0.03	0.15	0.19	75	214
88 A	12.52	12.51	33.325	25.192	278.8	0.300	5.49	90.7	5.5	0.75	6.7	0.03	0.08	0.10	88	213
100 ISL	11.70 D	11.69	33.394 D	25.401	259.1	0.332	5.14	83.5	7.6	0.90	9.2	0.02	0.04	0.05	100	
103	11.57	11.56	33.387	25.419	257.4	0.340	5.04	81.7	8.5	0.96	10.1	0.02	0.03	0.04	103	212
119	10.25	10.24	33.375	25.644	236.1	0.380	4.66	73.4	17.2	1.45	17.9	0.03	0.03	0.04	120	211
125 ISL	10.05 D	10.04	33.443 D	25.731	228.0	0.394	4.51	70.7	19.2	1.56	19.6	0.03	0.02	0.04	126	
139	9.65	9.63	33.468	25.817	220.0	0.425	4.08	63.4	22.7	1.74	22.3	0.02	0.01	0.05	140	210
150 ISL	9.54 D	9.52	33.713 D	26.027	200.3	0.448	3.49	54.2	25.5	1.88	24.4	0.02	0.01	0.05	151	
169	9.12	9.10	33.869	26.217	182.5	0.484	2.68	41.3	29.0	2.02	26.7	0.01	0.01	0.05	170	209
199	8.66	8.64	33.944	26.348	170.5	0.537	3.19	48.7	29.6	1.87	25.5	0.01	0.00	0.03	200	208
200 ISL	8.60 D	8.58	33.952 D	26.364	169.0	0.539	3.18	48.4	29.8	1.88	25.6	0.01			201	
228	8.28	8.26	34.023	26.469	159.5	0.585	2.60	39.3	36.1	2.11	28.6	0.01			229	207
250 ISL	7.77 D	7.75	34.014 D	26.537	153.1	0.619	2.39	35.7	39.8	2.22	30.1	0.01			251	
268	7.67	7.64	34.042	26.574	149.9	0.647	2.27	33.9	42.7	2.29	31.1	0.01			270	206
300 ISL	7.38 D	7.35	34.078 D	26.644	143.6	0.694	1.90	28.2	48.7	2.49	33.3	0.01			302	
318	7.16	7.13	34.075	26.672	141.1	0.719	1.67	24.6	52.2	2.60	34.5	0.01			320	205
378	6.69	6.66	34.154	26.799	129.7	0.801	0.94	13.7	62.5	2.88	37.4	0.01			380	204
400 ISL	6.28 D	6.24	34.126 D	26.831	126.6	0.829	0.94	13.6	66.4	2.92	38.3	0.01			403	
439	5.80	5.76	34.119	26.886	121.5	0.877	0.93	13.3	73.2	2.98	39.6	0.00			442	203
500 ISL	5.44 D	5.40	34.184 D	26.982	112.9	0.949	0.60	8.5	83.5	3.13	41.5	0.00			503	
514	5.27	5.23	34.180	26.999	111.2	0.964	0.53	7.5	85.9	3.16	41.9	0.00			518	202

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 43.3 N	123 38.0 W	12/07/07	1317 UTC	4274 m	190 07 kn	200 01 08	2	1016.6 mb	18.6 C	16.8 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	17.55	17.55	32.913	23.784	410.7	0.000	5.62	102.6	3.1	0.35	0.1	0.00	0.09	0.02	0	
2	17.55	17.55	32.913	23.784	410.7	0.008	5.62	102.6	3.1	0.35	0.1	0.00	0.09	0.02	2	220
10 ISL	17.55 D	17.55	32.914 D	23.785	410.9	0.041	5.63	102.8	3.2	0.34	0.1	0.00	0.08	0.02	10	
15	17.39	17.39	32.973	23.869	403.1	0.061	5.63	102.5	3.3	0.34	0.1	0.00	0.08	0.02	15	219
20 ISL	17.34 D	17.34	33.007 D	23.907	399.6	0.081	5.73	104.2	3.4	0.34	0.1	0.00	0.09	0.03	20	
30	15.75	15.75	32.977	24.250	367.1	0.120	5.98	105.4	3.5	0.35	0.1	0.01	0.14	0.04	30	218
45	13.83	13.82	32.919	24.616	332.6	0.172	6.27	106.3	2.6	0.36	0.1	0.01	0.35	0.15	45	217
50 ISL	13.17 D	13.16	32.889 D	24.726	322.2	0.189	6.23	104.1	2.9	0.39	0.3	0.05	0.52	0.27	50	
55	13.11	13.10	32.927	24.768	318.4	0.205	6.15	102.7	3.2	0.42	0.5	0.11	0.65	0.38	55	216
65	12.88	12.87	32.948	24.829	312.7	0.236	5.99	99.5	3.3	0.49	1.2	0.36	0.57	0.44	65	215
74	12.50	12.49	32.936	24.894	306.8	0.264	5.83	96.1	3.9	0.55	2.6	0.26	0.40	0.26	74	214
75 ISL	12.20 D	12.19	32.912 D	24.932	303.1	0.267	5.82	95.3	4.2	0.57	2.9	0.23	0.38	0.24	75	
84	11.78	11.77	32.873	24.981	298.6	0.294	5.77	93.6	6.4	0.73	5.8	0.03	0.20	0.13	84	213
95	11.90	11.89	33.069	25.111	286.5	0.326	5.58	90.9	6.3	0.74	6.4	0.03	0.14	0.12	95	212
100 ISL	11.74 D	11.73	33.081 D	25.150	282.9	0.341	5.53	89.8	7.2	0.80	7.5	0.03	0.11	0.10	100	
109	11.41	11.40	33.145	25.260	272.6	0.366	5.44	87.7	9.2	0.95	9.8	0.02	0.06	0.06	109	211
124	11.08	11.06	33.292	25.435	256.3	0.405	5.21	83.5	11.5	1.14	12.6	0.02	0.02	0.04	125	210
125 ISL	10.83 D	10.81	33.316 D	25.498	250.3	0.408	5.17	82.4	11.7	1.16	12.8	0.02	0.02	0.04	126	
144	10.34	10.32	33.465	25.699	231.5	0.454	4.23	66.8	16.5	1.47	17.6	0.02	0.01	0.03	145	209
150 ISL	10.14 D	10.12	33.505 D	25.764	225.3	0.467	4.03	63.3	18.2	1.56	19.0	0.02	0.01	0.03	151	
169	9.67	9.65	33.670	25.972	205.9	0.508	3.48	54.2	23.2	1.79	22.9	0.01	0.01	0.04	170	208
199	9.29	9.27	33.897	26.212	183.7	0.567	2.59	40.0	28.3	2.02	26.2	0.01	0.01	0.02	200	207
200 ISL	9.22 D	9.20	33.904 D	26.229	182.1	0.569	2.59	40.0	28.4	2.02	26.2	0.01			201	
229	8.94	8.92	33.999	26.348	171.2	0.620	2.56	39.3	31.6	2.06	27.0	0.01			230	206
250 ISL	8.50 D	8.47	34.023 D	26.435	163.1	0.655	2.61	39.7	33.9	2.07	27.6	0.01			251	
268	8.25	8.22	34.024	26.474	159.7	0.684	2.63	39.8	36.2	2.10	28.3	0.01			269	205
300 ISL	7.70 D	7.67	34.034 D	26.564	151.4	0.734	2.36	35.2	42.8	2.26	30.7	0.01			302	
318	7.38	7.35	34.037	26.612	147.0	0.761	2.14	31.7	46.8	2.37	32.2	0.01			320	204
378	6.78	6.75	34.065	26.717	137.5	0.846	1.52	22.2	56.2	2.64	35.7	0.01			380	203
400 ISL	6.54 D	6.50	34.077 D	26.759	133.7	0.876	1.40	20.3	59.4	2.71	36.6	0.01			402	
438	6.18	6.14	34.081	26.809	129.2	0.926	1.24	17.9	65.3	2.82	37.9	0.01			441	202
500 ISL	5.53 D	5.49	34.109 D	26.912	119.6	1.003	0.90	12.8	77.1	2.99	40.2	0.01			503	
512	5.44	5.40	34.120	26.931	117.8	1.017	0.83	11.8	79.4	3.02	40.6	0.01			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 76.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 23.0 N	124 19.5 W	12/07/07	0731	UTC	4553 m	180 09 kn			1016.0 mb	18.3 C	17.0 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	17.73	17.73	33.202	23.962	393.7	0.000	5.56	102.0	1.6	0.35	0.0	0.00	0.06	0.01	0	
1	17.73	17.73	33.202	23.962	393.7	0.004	5.56	102.0	1.6	0.35	0.0	0.00	0.06	0.01	1	220
10 ISL	17.58 D	17.58	33.208 D	24.003	390.1	0.039	5.57	101.9	1.6	0.32	0.0	0.00	0.07	0.02	10	
14	17.56	17.56	33.204	24.005	390.0	0.055	5.58	102.1	1.6	0.31	0.0	0.00	0.07	0.02	14	219
20 ISL	17.31 D	17.31	33.198 D	24.060	385.0	0.078	5.65	102.8	1.6	0.31	0.0	0.00	0.08	0.02	20	
30	16.57	16.57	33.210	24.243	367.9	0.116	5.76	103.3	1.6	0.33	0.0	0.01	0.09	0.02	30	218
45	16.13	16.12	33.217	24.349	358.2	0.170	5.79	103.0	1.6	0.33	0.0	0.00	0.11	0.03	45	217
50 ISL	15.71 D	15.70	33.191 D	24.424	351.2	0.188	5.84	103.0	1.6	0.34	0.0	0.00	0.13	0.04	50	
60	15.14	15.13	33.163	24.528	341.5	0.223	5.96	103.9	1.6	0.36	0.0	0.00	0.18	0.08	60	216
75	14.05	14.04	33.152	24.752	320.5	0.272	6.03	102.8	2.0	0.38	0.0	0.01	0.34	0.29	75	215
84	13.44	13.43	33.163	24.885	308.0	0.300	5.88	99.0	2.4	0.47	0.6	0.17	0.39	0.47	84	214
94	13.20	13.19	33.191	24.955	301.6	0.331	5.78	96.8	2.9	0.55	1.8	0.30	0.31	0.41	94	213
100 ISL	13.01 D	13.00	33.226 D	25.020	295.5	0.349	5.74	95.8	3.3	0.59	2.7	0.19	0.23	0.36	100	
105	12.93	12.92	33.238	25.045	293.3	0.364	5.69	94.8	3.6	0.61	3.5	0.08	0.17	0.31	105	212
114	12.53	12.51	33.285	25.160	282.5	0.389	5.52	91.2	4.3	0.65	4.8	0.02	0.09	0.15	114	211
125	12.01	11.99	33.340	25.302	269.2	0.420	5.31	86.8	5.7	0.81	6.9	0.01	0.05	0.06	126	210
139	11.36	11.34	33.376	25.450	255.3	0.457	5.02	81.0	8.8	1.04	10.6	0.01	0.02	0.03	140	209
150 ISL	10.80 D	10.78	33.527 D	25.668	234.7	0.483	4.48	71.5	12.8	1.28	14.7	0.01	0.02	0.03	151	
164	9.95	9.93	33.622	25.888	213.9	0.515	3.75	58.7	18.2	1.58	19.6	0.01	0.01	0.02	165	208
194	9.28	9.26	33.834	26.164	188.1	0.575	3.12	48.2	25.3	1.89	24.2	0.00	0.00	0.03	195	207
200 ISL	9.17 D	9.15	33.877 D	26.216	183.3	0.586	3.04	46.9	26.3	1.92	24.7	0.00			201	
229	8.88	8.86	33.970	26.335	172.5	0.638	2.80	42.9	30.3	2.02	26.4	0.00			230	206
250 ISL	8.54 D	8.51	34.022 D	26.429	163.8	0.673	2.70	41.1	33.6	2.07	27.7	0.00			251	
269	8.28	8.25	34.035	26.479	159.3	0.704	2.61	39.5	36.8	2.12	28.8	0.00			270	205
300 ISL	7.83 D	7.80	34.048 D	26.556	152.3	0.752	2.27	34.0	42.1	2.26	30.8	0.00			302	
318	7.65	7.62	34.072 D	26.601	148.2	0.779	2.03	30.3	45.1	2.36	31.9	0.00			320	204
378	7.30	7.26	34.149	26.712	138.5	0.865	1.21	17.9	53.7	2.77	34.9	0.01			380	203
400 ISL	6.93 D	6.89	34.142 D	26.758	134.2	0.895	1.08	15.8	56.9	2.85	35.8	0.01			402	
441	6.60	6.56	34.155	26.813	129.3	0.949	0.93	13.5	63.0	2.93	37.4	0.01			444	202
500 ISL	6.11 D	6.07	34.197 D	26.910	120.5	1.023	0.70	10.1	72.3	3.01	39.2	0.01			503	
512	5.97	5.93	34.186	26.919	119.6	1.037	0.65	9.3	74.2	3.03	39.6	0.01			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 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	10/07/07	1307	UTC	24 m	180 05 kn	200 01 05	2	1013.2 mb	16.9 C	15.0 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	15.74	15.74	33.708	24.813	312.5	0.000	5.77	102.1	6.2	0.43	1.8	0.07	2.07	0.64	0	
2	15.74	15.74	33.708	24.813	312.6	0.006	5.77	102.1	6.2	0.43	1.8	0.07	2.07	0.64	2	204
2	15.74	15.74	33.707	24.813	312.7	0.006									2	205
5	15.72	15.72	33.706	24.817	312.4	0.016	5.80	102.6	6.2	0.44	1.8	0.06	2.11	0.58	5	203
10	15.48	15.48	33.706	24.870	307.5	0.031	5.75	101.3	6.8	0.49	2.4	0.09	2.23	0.66	10	202
14	14.39	14.39	33.709	25.109	284.8	0.043	5.45	93.9	8.3	0.63	4.4	0.14	2.19	0.68	14	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 80.0 51.0

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	10/07/07	1448	UTC	76 m	160 09 kn	280 01 06	2	1014.0 mb	17.1 C	14.9 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	15.34	15.34	33.704	24.899	304.4	0.000	5.67	99.6	6.6	0.50	2.6	0.09	2.54	0.62	0	
1	15.34	15.34	33.704	24.899	304.4	0.003	5.67	99.6	6.6	0.50	2.6	0.09	2.54	0.62	1	209
4	15.21	15.21	33.706	24.929	301.6	0.012	5.65	99.0	6.8	0.52	2.7	0.10	2.52	0.65	4	208
10	14.71	14.71	33.699	25.033	292.0	0.030	5.52	95.7	7.7	0.60	3.9	0.13	2.40	0.66	10	207
20	13.51	13.51	33.677	25.267	269.9	0.058	5.07	85.8	9.5	0.87	8.1	0.23	1.48	0.59	20	206
30	12.59	12.59	33.679	25.452	252.6	0.084	4.80	79.6	10.7	1.00	10.1	0.28	1.28	0.51	30	205
39	12.50	12.49	33.679	25.469	251.2	0.107	4.71	78.0	11.2	1.04	10.7	0.30	1.29	0.58	39	204
50	11.41	11.40	33.746	25.727	226.9	0.133	3.64	58.9	18.0	1.47	16.6	0.37	1.34	0.56	50	203
60	10.84	10.83	33.776	25.853	215.1	0.155	3.24	51.8	21.1	1.65	19.2	0.34	0.66	0.55	60	202
65	10.44	10.43	33.790	25.934	207.5	0.166	2.96	46.9	22.7	1.75	21.6	0.29	0.14	0.22	65	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 80.0 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 18.7 N	120 47.4 W	10/07/07	1818 UTC	738 m	150 06 kn	280 01 08	1	1014.4 mb	16.8 C	15.0 C	7m	5/8	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	14.33	14.33	33.719	25.129	282.5	0.000	6.32	108.8	2.2	0.48	3.6	0.13	2.98	0.72	0	
1 A	14.33	14.33	33.719	25.129	282.5	0.003	6.32	108.8	2.2	0.48	3.6	0.13	2.98	0.72	1	224
4 A	14.14	14.14	33.724	25.173	278.4	0.011	6.40	109.7	1.6	0.46	3.3	0.13	3.22	0.98	4	223
10 A	13.53	13.53	33.688	25.271	269.3	0.028	5.60	94.8	7.9	0.75	7.0	0.13	1.88	0.79	10	221
10	13.59	13.59	33.699	25.267	269.6	0.028	5.86	99.3							10	222
14 A	13.40	13.40	33.690	25.299	266.7	0.038	5.29	89.3	8.9	0.82	8.1	0.13	1.48	0.67	14	220
19 A	12.97	12.97	33.714	25.404	256.9	0.051	4.87	81.5	10.8	0.97	10.1	0.17	1.13	0.54	19	219
20 ISL	12.54 D	12.54	33.730 D	25.500	247.7	0.054	4.76	78.9	11.5	1.02	10.9	0.17	1.08	0.54	20	
27 A	11.65	11.65	33.748	25.683	230.4	0.071	4.15	67.5	15.6	1.33	15.9	0.15	0.89	0.51	27	218
30 ISL	11.57 D	11.57	33.750 D	25.700	229.0	0.078	4.13	67.1	15.9	1.35	16.2	0.15	0.91	0.52	30	
34	11.50	11.50	33.754	25.716	227.5	0.087	4.10	66.5	16.3	1.38	16.5	0.15	0.93	0.54	34	217
40	10.73	10.73	33.786	25.879	212.1	0.100	3.39	54.1	19.9	1.61	20.2	0.13	0.52	0.34	40	216
49	9.63	9.62	33.931	26.180	183.6	0.118	2.54	39.6	27.6	1.95	25.4	0.06	0.06	0.12	49	215
50 ISL	9.57 D	9.56	33.939 D	26.196	182.1	0.120	2.53	39.4	27.7	1.95	25.4	0.06	0.06	0.12	50	
61	9.48	9.47	33.958	26.226	179.5	0.139	2.48	38.5	28.9	1.97	25.9	0.06	0.06	0.13	61	214
70	9.29	9.28	34.000	26.290	173.6	0.155	2.33	36.1	30.8	2.05	26.7	0.05	0.04	0.15	70	213
75 ISL	9.11 D	9.10	34.048 D	26.357	167.4	0.164	2.26	34.9	31.7	2.09	27.1	0.05	0.04	0.14	75	
85	9.10	9.09	34.051	26.361	167.2	0.181	2.13	32.8	33.3	2.14	27.8	0.04	0.03	0.12	85	212
100	8.98	8.97	34.075	26.399	163.8	0.205	1.99	30.6	35.0	2.18	28.5	0.04	0.02	0.14	101	211
120	8.92	8.91	34.123	26.446	159.7	0.238	1.82	28.0	36.8	2.25	29.1	0.03	0.01	0.12	121	210
125 ISL	8.92 D	8.91	34.128 D	26.450	159.4	0.246	1.79	27.5	37.2	2.27	29.2	0.03	0.01	0.13	126	
140	8.82	8.81	34.139	26.475	157.4	0.270	1.71	26.2	38.2	2.31	29.5	0.04	0.02	0.14	141	209
150 ISL	8.75 D	8.73	34.146 D	26.492	156.0	0.285	1.65	25.3	39.0	2.33	29.8	0.04	0.02	0.12	151	
169	8.68	8.66	34.164	26.517	153.9	0.315	1.50	22.9	40.6	2.38	30.5	0.04	0.01	0.09	170	208
199	8.68	8.66	34.207	26.551	151.3	0.360	1.09	16.7	43.8	2.54	31.5	0.03	0.02	0.15	200	207
200 ISL	8.61 D	8.59	34.204 D	26.560	150.5	0.362	1.09	16.6	43.8	2.54	31.5	0.03			201	
229	8.44	8.42	34.207	26.589	148.2	0.405	1.25	19.0	44.4	2.49	31.8	0.03			230	206
250 ISL	8.35 D	8.32	34.209 D	26.604	147.1	0.436	1.21	18.4	45.4	2.51	32.2	0.03			252	
268	8.27	8.24	34.217	26.623	145.6	0.463	1.14	17.3	46.6	2.54	32.6	0.03			270	205
300 ISL	8.05 D	8.02	34.228 D	26.665	142.1	0.509	1.05	15.8	49.2	2.62	33.3	0.03			302	
318	7.95	7.92	34.232	26.683	140.7	0.534	0.99	14.9	50.7	2.66	33.7	0.03			320	204
378	7.71	7.67	34.262	26.743	136.0	0.617	0.76	11.4	54.9	2.74	34.7	0.02			381	203
400 ISL	7.63 D	7.59	34.265 D	26.757	134.9	0.647	0.72	10.7	56.6	2.77	35.3	0.02			403	
436	7.31	7.27	34.265	26.803	130.9	0.695	0.65	9.6	60.4	2.83	36.1	0.03			439	202
500 ISL	6.67 D	6.62	34.273 D	26.897	122.3	0.776	0.41	6.0	73.2	3.07	36.3	0.02			504	
512	6.64	6.59	34.279	26.906	121.6	0.790	0.36	5.2	75.6	3.12	36.3	0.02			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 80.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 8.9 N	121 8.5 W	10/07/07	2137 UTC	2164 m	190 04 kn	280 03 06	1	1013.9 mb	16.7 C	15.2 C	12m	5/8	CS

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	14.08	14.08	33.418	24.949	299.6	0.000	6.38	109.0	2.0	0.75	6.8	0.17	0.49	0.07	0	
1	14.08	14.08	33.418	24.949	299.7	0.003	6.38	109.0	2.0	0.75	6.8	0.17	0.49	0.07	1	220
10 ISL	12.86 D	12.86	33.536 D	25.287	267.7	0.029	6.34	105.7	1.8	0.76	6.6	0.15	1.84	0.56	10	
11	12.85	12.85	33.535	25.289	267.6	0.031	6.34	105.7	1.8	0.76	6.5	0.15	2.07	0.64	11	219
20	13.14	13.14	33.647	25.318	265.1	0.055	6.34	106.4	1.9	0.74	5.7	0.14	3.78	1.03	20	218
30	12.90	12.90	33.650	25.368	260.5	0.081	6.01	100.4	3.1	0.86	6.8	0.16	3.42	1.21	30	217
39	12.28	12.27	33.695	25.524	246.0	0.104	5.55	91.5	7.3	1.18	10.3	0.23	2.71	1.45	39	216
50	11.40	11.39	33.720	25.708	228.7	0.130	4.64	75.1	14.2	1.53	15.4	0.30	1.15	0.98	50	215
60	10.37	10.36	33.807	25.959	205.0	0.152	3.17	50.2	22.5	1.80	22.3	0.32	0.60	0.72	60	214
69	9.99	9.98	33.889	26.088	192.9	0.170	2.73	42.9	25.7	1.90	24.1	0.23	0.43	0.77	69	213
75 ISL	9.36 D	9.35	33.947 D	26.238	178.7	0.181	2.52	39.1	27.8	1.96	25.3	0.17	0.29	0.65	75	
85	9.33	9.32	33.984	26.271	175.7	0.199	2.28	35.3	30.7	2.05	27.0	0.09	0.11	0.41	85	212
99	9.34	9.33	34.026	26.303	173.0	0.223	2.07	32.1	32.2	2.12	27.6	0.09	0.10	0.32	100	211
100 ISL	9.35 D	9.34	34.036 D	26.309	172.4	0.225	2.05	31.8	32.3	2.12	27.6	0.09	0.10	0.32	101	
119	9.26	9.25	34.075	26.355	168.5	0.257	1.83	28.3	33.9	2.20	28.4	0.12	0.07	0.32	120	210
125 ISL	9.17 D	9.16	34.077 D	26.371	167.1	0.267	1.85	28.6	34.8	2.22	28.7	0.11	0.07	0.33	126	
138	8.82	8.81	34.084	26.432	161.4	0.289	1.91	29.3	36.9	2.25	29.3	0.08	0.06	0.34	139	209
150 ISL	8.80 D	8.78	34.094 D	26.443	160.6	0.308	1.82	27.9	37.9	2.30	29.7	0.07	0.05	0.32	151	
169	8.71	8.69	34.120	26.478	157.7	0.338	1.64	25.1	39.4	2.37	30.4	0.06	0.03	0.27	170	208
199	8.06	8.04	34.119	26.576	148.6	0.384	1.64	24.7	44.5	2.44	32.2	0.05	0.03	0.20	200	207
200 ISL	8.11 D	8.09	34.141 D	26.586	147.7	0.386	1.63	24.6	44.6	2.44	32.2	0.05			201	
228	7.95	7.93	34.156	26.622	144.8	0.427	1.36	20.4	47.5	2.54	33.2	0.03			229	206
250 ISL	7.63 D	7.61	34.169 D	26.679	139.6	0.458	1.35	20.1	50.2	2.59	34.1	0.02			252	
269	7.43	7.40	34.149	26.692	138.6	0.484	1.35	20.0	52.7	2.63	34.8	0.02			271	205
300 ISL	7.28 D	7.25	34.197 D	26.751	133.4	0.527	1.02	15.1	57.5	2.76	36.0	0.02			302	
318	7.10	7.07	34.211	26.788	130.1	0.550	0.81	11.9	60.3	2.84	36.6	0.02			320	204
378	6.54	6.51	34.207	26.861	123.7	0.626	0.73	10.6	66.7	2.93	38.2	0.02			381	203
400 ISL	6.43 D	6.39	34.233 D	26.896	120.7	0.653	0.64	9.3	70.2	2.99	38.9	0.02			403	
437	6.06	6.02	34.258	26.964	114.5	0.697	0.47	6.8	76.1	3.08	40.0	0.02			440	202
500 ISL	5.86 D	5.82	34.309 D	27.030	108.9	0.767	0.33	4.7	81.7	3.15	40.8	0.02			504	
511	5.84	5.80	34.312	27.035	108.5	0.779	0.30	4.3	82.7	3.16	40.9	0.02			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 80.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
33 49.0 N	121 49.8 W	11/07/07	0519	UTC	3624 m	130 03 kn			1014.6 mb	17.2 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	16.30	16.30	33.212	24.305	360.9	0.000	5.80	103.5	1.5	0.47	2.0	0.05	0.12	0.03	0	
2	16.30	16.30	33.212	24.305	361.0	0.007	5.80	103.5	1.5	0.47	2.0	0.05	0.12	0.03	2	220
10	15.66	15.66	33.209	24.448	347.7	0.036	5.86	103.3	3.0	0.46	2.3	0.06	0.20	0.06	10	219
20	15.51	15.51	33.213	24.484	344.5	0.070	5.88	103.3					0.32	0.09	20	218
30	15.38	15.38	33.210	24.511	342.2	0.105	5.86	102.7	2.6	0.50	2.6	0.08	0.36	0.13	30	217
40	13.67	13.66	33.059	24.757	319.0	0.138	5.92	100.1	4.5	0.59	3.3	0.23	0.46	0.19	40	216
50	12.35	12.34	33.180	25.111	285.4	0.168	5.83	95.9	7.2	0.90	7.8	0.44	0.50	0.24	50	215
61	11.53	11.52	33.149	25.241	273.3	0.199	5.51	89.1	10.7	1.00	10.7	0.43	0.31	0.20	61	214
70	11.25	11.24	33.292	25.403	258.1	0.222	5.30	85.3	12.7	1.18	14.0	0.15	0.17	0.11	70	213
75 ISL	11.06 D	11.05	33.311 D	25.452	253.5	0.235	5.14	82.3	13.4	1.23	14.9	0.11	0.11	0.08	75	
85	10.72	10.71	33.418	25.595	240.1	0.260	4.78	76.1	14.7	1.31	16.2	0.03	0.04	0.05	85	212
99	10.40	10.39	33.567	25.767	224.0	0.292	4.34	68.6	18.2	1.53	19.7	0.02	0.02	0.05	99	211
100 ISL	10.33 D	10.32	33.584 D	25.793	221.6	0.295	4.29	67.8	18.4	1.54	19.9	0.02	0.02	0.05	100	
119	9.72	9.71	33.707	25.992	203.0	0.335	3.39	52.9	21.7	1.69	22.3	0.01	0.01	0.04	120	210
125 ISL	9.46 D	9.45	33.772 D	26.085	194.2	0.347	3.26	50.6	22.9	1.72	23.0	0.01	0.01	0.04	126	
138	9.30	9.28	33.834	26.160	187.3	0.372	3.05	47.2	25.6	1.80	24.5	0.01	0.00	0.03	139	209
150 ISL	9.16 D	9.14	33.892 D	26.228	181.1	0.394	2.66	41.0	28.7	1.94	26.3	0.01	0.00	0.04	151	
169	9.01	8.99	33.995	26.333	171.5	0.427	2.10	32.3	33.2	2.15	28.7	0.00	0.00	0.05	170	208
199	8.66	8.64	34.024	26.411	164.6	0.478	2.02	30.8	35.9	2.21	29.9	0.01	0.00	0.05	200	207
200 ISL	8.61 D	8.59	34.026 D	26.420	163.7	0.479	2.02	30.8	36.0	2.21	29.9	0.01			201	
229	8.29	8.27	34.056	26.493	157.2	0.526	1.93	29.2	39.4	2.25	30.9	0.01			230	206
250 ISL	7.77 D	7.75	34.050 D	26.565	150.4	0.558	2.05	30.7	43.0	2.30	31.8	0.01			251	
269	7.49	7.46	34.054	26.609	146.5	0.586	2.11	31.3	46.7	2.37	32.7	0.01			271	205
300 ISL	7.16 D	7.13	34.093 D	26.686	139.5	0.631	1.63	24.0	52.4	2.56	34.6	0.00			302	
319	7.05	7.02	34.115	26.719	136.6	0.657	1.27	18.7	55.8	2.67	35.7	0.00			321	204
377	6.45	6.42	34.137	26.818	127.7	0.734	0.92	13.3	65.1	2.83	38.1	0.00			379	203
400 ISL	5.92 D	5.89	34.121 D	26.873	122.4	0.762	0.89	12.7	69.4	2.87	39.0	0.00			403	
437	5.60	5.56	34.116	26.908	119.2	0.807	0.86	12.2	76.2	2.94	40.2	0.00			440	202
500 ISL	5.30 D	5.26	34.164 D	26.983	112.6	0.880	0.62	8.8	84.3	3.07	41.5	0.00			503	
512	5.23	5.19	34.170	26.996	111.5	0.894	0.57	8.0	85.9	3.09	41.7	0.00			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 80.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
33 28.9 N	122 31.5 W	11/07/07	1214	UTC	3985 m	190 05 kn			1014.2 mb	17.8 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	16.62	16.62	32.993	24.064	384.0	0.000	5.73	102.8	3.6	0.32	0.2	0.00	0.13	0.03	0	
2	16.62	16.62	32.993	24.064	384.0	0.008	5.73	102.8	3.6	0.32	0.2	0.00	0.13	0.03	2	220
10 ISL	16.42 D	16.42	32.993 D	24.110	379.9	0.038	5.75	102.7	3.7	0.31	0.2	0.00	0.14	0.04	10	
15	16.31	16.31	32.994	24.136	377.5	0.057	5.77	102.9	3.7	0.31	0.2	0.00	0.14	0.04	15	219
20 ISL	16.29 D	16.29	32.994 D	24.141	377.3	0.076	5.80	103.3	3.5	0.31	0.2	0.00	0.17	0.05	20	
30	15.93	15.93	33.009	24.234	368.7	0.113	5.87	103.9	2.9	0.31	0.2	0.00	0.24	0.08	30	218
45	13.81	13.80	32.924 D	24.624	331.8	0.166									45	217
50 ISL	13.48 D	13.47	32.926 D	24.693	325.4	0.182	6.14	103.3	2.7	0.36	0.3	0.03	0.44	0.28	50	
55	13.22	13.21	32.899	24.724	322.5	0.198	6.18	103.4	2.7	0.37	0.3	0.04	0.48	0.32	55	216
64	13.12	13.11	32.900	24.745	320.8	0.227	6.12	102.2	2.9	0.39	0.3	0.10	0.50	0.33	64	215
75	12.54	12.53	32.919	24.873	308.8	0.262	5.87	96.8	3.7	0.50	2.2	0.33	0.35	0.27	75	214
85	12.27	12.26	32.972	24.966	300.1	0.293	5.74	94.2	4.9	0.60	4.3	0.04	0.19	0.19	85	213
94	12.19	12.18	33.103	25.083	289.2	0.319	5.60	91.8	5.6	0.67	5.7	0.02	0.11	0.12	94	212
100 ISL	12.06 D	12.05	33.176 D	25.164	281.6	0.336	5.52	90.3	6.5	0.74	7.1	0.02	0.08	0.09	100	
109	11.75	11.74	33.263	25.290	269.9	0.361	5.36	87.1	8.0	0.86	9.3	0.02	0.05	0.07	109	211
125	11.17	11.15	33.468	25.555	244.9	0.402	4.73	76.0	10.7	1.07	12.8	0.00	0.02	0.03	126	210
144	10.18	10.16	33.592	25.825	219.5	0.446	3.82	60.1	17.4	1.45	18.9	0.00	0.01	0.02	145	209
150 ISL	9.91 D	9.89	33.642 D	25.910	211.5	0.459	3.60	56.4	19.2	1.55	20.5	0.00	0.01	0.02	151	
169	9.60	9.58	33.794	26.080	195.6	0.498	3.08	47.9	24.1	1.79	24.1	0.00	0.00	0.02	170	208
199	9.08	9.06	33.919	26.263	178.8	0.554	2.86	44.0	28.4	1.88	25.8	0.00	0.00	0.03	200	207
200 ISL	9.00 D	8.98	33.927 D	26.282	177.0	0.556	2.85	43.8	28.6	1.88	25.9	0.00			201	
229	8.59	8.57	33.993	26.398	166.4	0.606	2.57	39.1	33.3	2.03	28.0	0.00			230	206
250 ISL	8.40 D	8.37	34.049 D	26.471	159.7	0.640	2.28	34.6	37.1	2.15	29.6	0.00			251	
268	8.09	8.06	34.054	26.522	155.1	0.668	2.13	32.1	40.5	2.24	30.9	0.00			269	205
300 ISL	7.69 D	7.66	34.080 D	26.601	147.9	0.717	2.60	38.8	46.2	2.36	32.6	0.00			302	
318	7.24	7.21	34.048	26.640	144.2	0.743	2.82	41.7	49.4	2.42	33.4	0.00			320	204
377	6.71	6.68	34.107	26.760	133.4	0.825	1.18	17.2	60.0	2.70	36.8	0.00			379	203
400 ISL	6.22 D	6.18	34.095 D	26.814	128.2	0.855	0.90	13.0	63.5	2.79	37.6	0.00			402	
438	6.39	6.35	34.207	26.881	122.6	0.903	0.67	9.7	68.8	2.92	38.7	0.00			441	202
500 ISL	5.94 D	5.90	34.217 D	26.947	116.7	0.977	0.52	7.5	76.5	3.01	40.1	0.00			503	
514	5.82	5.78	34.216	26.961	115.5	0.993	0.49	7.0	78.2	3.03	40.4	0.00			517	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 80.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 9.1 N	123 13.4 W	11/07/07	1859	UTC	4234 m	150 09 kn	300 03 09	2	1016.7 mb	19.0 C	17.0 C	26m	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	17.40	17.40	33.095	23.959	394.0	0.000	5.61	102.2	2.2	0.31	0.0	0.01	0.09	0.01	0	
1 A	17.40	17.40	33.095	23.959	394.0	0.004	5.61	102.2	2.2	0.31	0.0	0.01	0.09	0.01	1	222
1	17.40	17.40				0.004									1	224
10 ISL	17.07 D	17.07	33.109 D	24.048	385.8	0.039	5.63	101.9	2.1	0.31	0.0	0.01	0.11	0.00	10	
14 A	16.86	16.86	33.110	24.098	381.1	0.054	5.64	101.7	2.1	0.31	0.0	0.01	0.12	0.00	14	221
20 ISL	16.80 D	16.80	33.114 D	24.116	379.7	0.077	5.66	101.9	2.1	0.31	0.1	0.01	0.12	0.01	20	
27	16.78	16.78	33.114	24.120	379.4	0.104	5.67	102.1	2.1	0.31	0.1	0.01	0.12	0.02	27	220
30 ISL	16.75 D	16.75	33.112 D	24.126	379.0	0.115	5.67	102.0	2.1	0.31	0.1	0.01	0.13	0.02	30	
37 A	16.70	16.69	33.108	24.135	378.4	0.142	5.67	101.9	2.1	0.30	0.0	0.01	0.16	0.03	37	219
45	16.61	16.60	33.097	24.148	377.4	0.172	5.68	101.9	2.2	0.31	0.0	0.01	0.24	0.01	45	218
50 ISL	16.28 D	16.27	33.137 D	24.254	367.4	0.190	5.72	102.0	2.0	0.30	0.0	0.01	0.26	0.03	50	
53 A	16.21	16.20	33.145	24.276	365.4	0.201	5.77	102.7	1.9	0.30	0.0	0.01	0.28	0.05	53	217
62	14.73	14.72	33.106	24.573	337.3	0.233	6.07	104.9	2.1	0.31	0.1	0.00	0.46	0.08	62	216
69 A	14.31	14.30	33.055	24.623	332.7	0.257	6.10	104.5	2.3	0.32	0.1	0.00	0.49	0.18	69	215
75 ISL	13.95 D	13.94	33.141 D	24.764	319.4	0.276	6.01	102.2	2.2	0.34	0.2	0.02	0.57	0.30	75	
79	13.95	13.94	33.150	24.771	318.8	0.289	5.93	100.9	2.2	0.36	0.2	0.03	0.60	0.36	79	214
90	13.41	13.40	33.169	24.896	307.1	0.323	5.80	97.6	2.7	0.42	0.8	0.26	0.38	0.25	90	213
100 A	13.00	12.99	33.162	24.973	300.0	0.354	5.72	95.4	3.3	0.51	2.3	0.22	0.30	0.23	100	212
112	12.64	12.63	33.276	25.132	285.2	0.389	5.51	91.3	4.2	0.60	4.4	0.02	0.11	0.14	112	211
125	12.09	12.07	33.304	25.259	273.3	0.425	5.35	87.6	5.5	0.71	6.2	0.02	0.09	0.09	126	210
143	11.35	11.33	33.468	25.523	248.4	0.472	4.76	76.8	10.2	1.05	12.1	0.01	0.02	0.03	144	209
150 ISL	10.75 D	10.73	33.523 D	25.673	234.2	0.489	4.33	69.0	13.3	1.23	15.1	0.01	0.02	0.03	151	
169	9.82	9.80	33.705	25.974	205.7	0.531	3.29	51.4	21.6	1.69	22.3	0.01	0.02	0.02	170	208
199	9.21	9.19	33.871	26.204	184.3	0.589	3.30	50.9	27.7	1.98	26.0	0.00	0.00	0.02	200	207
200 ISL	9.17 D	9.15	33.880 D	26.218	183.1	0.591	3.27	50.4	27.9	1.98	26.1	0.00			201	
228	8.78	8.76	33.981	26.359	170.1	0.641	2.44	37.3	32.4	2.08	28.1	0.01			229	206
250 ISL	8.38 D	8.35	34.007 D	26.441	162.5	0.677	2.45	37.1	36.4	2.19	29.6	0.01			251	
269	8.17	8.14	34.053	26.509	156.3	0.707	2.46	37.1	39.8	2.28	30.8	0.01			270	205
300 ISL	7.77 D	7.74	34.074 D	26.585	149.5	0.755	1.97	29.5	44.6	2.41	32.5	0.01			302	
318	7.64	7.61	34.085	26.613	147.1	0.781	1.65	24.6	47.2	2.47	33.3	0.01			320	204
378	6.86	6.82	34.099	26.733	136.1	0.866	1.42	20.8	56.3	2.63	35.7	0.01			380	203
400 ISL	6.59 D	6.55	34.112 D	26.780	131.8	0.896	1.24	18.0	59.7	2.71	36.6	0.01			402	
438	6.41	6.37	34.147	26.831	127.3	0.945	0.92	13.3	65.4	2.85	38.0	0.01			441	202
500 ISL	6.03 D	5.99	34.180 D	26.907	120.7	1.022	0.66	9.5	73.2	2.98	39.6	0.01			503	
512	5.95	5.91	34.189	26.924	119.1	1.036	0.61	8.7	74.7	3.00	39.9	0.01			515	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 80.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 48.9 N	123 54.0 W	12/07/07	0114	UTC	4407 m	180 05 kn	310 03 08	2	1015.3 mb	19.5 C	17.0 C	30m	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	18.00	18.00	33.214	23.906	399.0	0.000	5.57	102.7	1.9	0.36	0.0	0.01	0.06	0.01	0	
2	18.00	18.00	33.214	23.906	399.1	0.008	5.57	102.7	1.9	0.36	0.0	0.01	0.06	0.01	2	220
10 ISL	17.50 D	17.50	33.205 D	24.020	388.5	0.039	5.62	102.7	1.9	0.35	0.0	0.00	0.06	0.01	10	
15	17.18	17.18	33.210	24.100	381.0	0.059	5.65	102.6	1.9	0.35	0.0	0.00	0.07	0.01	15	219
20 ISL	17.11 D	17.11	33.210 D	24.117	379.6	0.078	5.65	102.4	1.9	0.35	0.0	0.00	0.08	0.01	20	
30	17.05	17.05	33.211	24.132	378.5	0.116	5.64	102.1	1.8	0.35	0.1	0.00	0.09	0.02	30	218
44	16.64	16.63	33.228	24.241	368.5	0.168	5.72	102.8	1.8	0.36	0.1	0.00	0.12	0.03	44	217
50 ISL	16.31 D	16.30	33.241 D	24.327	360.5	0.190	5.73	102.3	1.8	0.34	0.1	0.00	0.13	0.03	50	
59	16.19	16.18	33.243	24.356	358.0	0.222	5.78	102.9	1.8	0.32	0.1	0.00	0.14	0.04	59	216
75	14.35	14.34	33.098	24.648	330.5	0.277	6.08	104.2	2.2	0.38	0.1	0.01	0.35	0.21	75	215
84	14.00	13.99	33.130	24.745	321.4	0.307	6.03	102.7	2.2	0.39	0.1	0.04	0.46	0.49	84	214
94	13.58	13.57	33.139	24.839	312.7	0.338	5.91	99.8	2.6	0.49	0.8	0.24	0.31	0.43	94	213
100 ISL	13.37 D	13.36	33.167 D	24.903	306.8	0.357	5.82	97.8	2.9	0.51	1.3	0.36	0.24	0.36	100	
104	13.24	13.23	33.175	24.935	303.8	0.369	5.77	96.7	3.1	0.53	1.8	0.39	0.20	0.31	104	212
115	13.04	13.02	33.221	25.011	296.8	0.402	5.68	94.8	3.8	0.64	3.8	0.06	0.12	0.18	115	211
124	12.57	12.55	33.236	25.114	287.1	0.428	5.55	91.8	4.3	0.68	4.5	0.02	0.08	0.17	125	210
125 ISL	12.54 D	12.52	33.286 D	25.159	282.9	0.431	5.54	91.6	4.4	0.69	4.6	0.02	0.08	0.16	126	
139	11.86	11.84	33.294	25.294	270.2	0.470	5.33	86.8	6.4	0.84	7.2	0.02	0.04	0.06	140	209
150 ISL	11.55 D	11.53	33.380 D	25.419	258.6	0.499	4.86	78.7	10.0	1.06	11.3	0.02	0.02	0.05	151	
164	10.65	10.63	33.556	25.717	230.3	0.533	4.18	66.5	15.3	1.37	16.9	0.01	0.01	0.03	165	208
194	9.63	9.61	33.707	26.008	203.0	0.598	3.27	50.9	23.7	1.81	23.3	0.01	0.00	0.03	195	207
200 ISL	9.40 D	9.38	33.771 D	26.096	194.7	0.610	3.12	48.3	24.9	1.86	24.1	0.01			201	
229	9.03	9.01	33.912	26.266	179.1	0.664	2.60	40.0	29.8	2.03	26.7	0.01			230	206
250 ISL	8.73 D	8.70	33.962 D	26.352	171.1	0.701	2.56	39.1	32.8	2.10	28.0	0.01			251	
268	8.41	8.38	34.015	26.443	162.7	0.731	2.53	38.4	35.5	2.16	28.9	0.01			269	205
300 ISL	7.92 D	7.89	34.055 D	26.548	153.1	0.782	2.18	32.7	41.8	2.31	30.9	0.01			302	
318	7.65	7.62	34.076	26.604	147.9	0.809	1.94	28.9	45.5	2.40	32.1	0.01			320	204
378	6.86	6.82	34.086	26.723	137.0	0.894	1.41	20.6	56.1	2.63	35.5	0.01			380	203
400 ISL	6.51 D	6.47	34.097 D	26.778	131.8	0.924	1.20	17.4	59.9	2.73	36.5	0.01			402	
438	6.41	6.37	34.148	26.832	127.2	0.973	0.89	12.9	66.1	2.88	37.9	0.01			441	202
500 ISL	5.93 D	5.89	34.169 D	26.910	120.2	1.050	0.69	9.9	74.7	3.02	39.5	0.00			503	
511	5.83	5.79	34.167	26.921	119.2	1.063	0.66	9.4	76.2	3.05	39.8	0.00			514	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 81.8 46.9

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 16.3 N	120 0.9 W	10/07/07	0829	UTC	580 m	270 07 kn			1013.2 mb	15.7 C	14.5 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	17.00	17.00	33.742	24.550	337.6	0.000	6.06	110.0	3.0	0.29	0.1	0.00	0.75	0.32	0	
2 A	17.00	17.00	33.742	24.550	337.7	0.007	6.06	110.0	3.0	0.29	0.1	0.00	0.75	0.32	2	224
10	15.10	15.10	33.741	24.981	296.9	0.032	6.01	105.1	3.9	0.52	2.0	0.07	0.54	0.28	10	223
20	13.23	13.23	33.754	25.383	258.9	0.060	5.21	87.7	10.1	0.97	8.4	0.17	0.58	0.58	20	222
30	12.92	12.92	33.748	25.440	253.7	0.086	4.97	83.1	10.7	1.05	9.1	0.19	0.85	0.75	30	221
40	12.20	12.19	33.810	25.628	236.0	0.110	4.41	72.6	15.6	1.32	13.1	0.21	0.80	0.90	40	220
50	10.81	10.80	33.765	25.849	215.2	0.133	3.35	53.5	19.7	1.56	19.6	0.21	0.43	0.81	50	219
60	10.05	10.04	33.869	26.062	195.1	0.153	2.74	43.1	25.4	1.83	23.5	0.08	0.17	0.41	60	218
70	9.69	9.68	33.935	26.174	184.7	0.172	2.45	38.2	28.4	1.99	25.5	0.11	0.14	0.50	70	217
75 ISL	9.49 D	9.48	33.966 D	26.231	179.3	0.181	2.42	37.6	29.0	1.99	26.0	0.09	0.11	0.41	75	
85	9.41	9.40	33.978	26.254	177.4	0.199	2.37	36.8	29.7	2.00	26.5	0.05	0.05	0.20	85	216
99	9.30	9.29	34.000	26.289	174.3	0.224	2.26	35.0	31.3	2.04	27.0	0.10	0.03	0.15	100	215
100 ISL	9.29 D	9.28	34.005 D	26.295	173.8	0.225	2.25	34.8	31.4	2.05	27.0	0.10	0.03	0.15	101	
120	9.24	9.23	34.064	26.349	169.0	0.260	1.97	30.5	33.3	2.16	27.9	0.09	0.02	0.14	121	214
125 ISL	9.24 D	9.23	34.073 D	26.356	168.5	0.268	1.95	30.2	33.5	2.17	28.0	0.09	0.02	0.14	126	
139	9.20	9.18	34.090	26.376	166.8	0.292	1.89	29.2	34.2	2.19	28.2	0.07	0.02	0.14	140	213
150 ISL	9.03 D	9.01	34.112 D	26.421	162.8	0.310	1.72	26.5	35.7	2.25	28.9	0.06	0.02	0.13	151	
169	8.98	8.96	34.158	26.465	159.0	0.340	1.39	21.4	38.6	2.36	30.1	0.04	0.02	0.13	170	212
199	8.93	8.91	34.186	26.496	156.7	0.388	1.18	18.1	40.6	2.46	30.9	0.04	0.02	0.16	200	211
200 ISL	8.89 D	8.87	34.196 D	26.510	155.3	0.389	1.17	18.0	40.7	2.46	30.9	0.04			201	
229	8.71	8.69	34.218	26.556	151.5	0.434	0.97	14.8	44.5	2.59	31.9	0.03			230	210
250 ISL	8.48 D	8.45	34.224 D	26.596	147.9	0.465	0.86	13.1	47.5	2.67	32.5	0.02			252	
268	8.36	8.33	34.224	26.615	146.5	0.492	0.79	12.0	49.9	2.73	33.0	0.02			270	209
300 ISL	8.16 D	8.13	34.226 D	26.647	143.9	0.538	0.70	10.6	53.2	2.81	33.6	0.01			302	
318	8.03	8.00	34.229	26.669	142.1	0.564	0.66	9.9	54.9	2.84	33.8	0.01			320	208
377	7.63	7.59	34.236	26.734	136.7	0.646	0.54	8.1	61.0	2.92	34.5	0.01			380	207
400 ISL	7.38 D	7.34	34.242 D	26.774	133.0	0.677	0.45	6.7	66.0	2.99	34.2	0.00			403	
437	7.01	6.97	34.249	26.832	127.9	0.725	0.31	4.6	74.9	3.13	33.8	0.00			440	206
476	6.79	6.75	34.252	26.864	125.2	0.775	0.26	3.8	82.3	3.29	32.3	0.01			479	205
500 ISL	6.66 D	6.61	34.256 D	26.885	123.4	0.805	0.18	2.6	87.9	3.41	30.8	0.01			504	
512	6.59	6.54	34.258	26.896	122.5	0.819	0.14	2.0	90.3	3.47	30.2	0.01			516	204
544	6.52	6.47	34.267	26.913	121.3	0.858	0.12	1.7	92.6	3.60	30.7	0.01			548	203
566	6.47	6.42	34.266	26.919	121.0	0.885	0.05	0.7	98.5	3.96	29.5	0.03			570	202
571	6.47	6.42	34.267	26.920	121.0	0.891	0.06	0.9	98.9	4.01	29.5	0.04			575	201

A) SANTA BARBARA BASIN STATION.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 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 15.3 N	119 19.5 W	10/07/07	0118	UTC	23 m	280 10 kn	280 01 08	1	1011.0 mb	18.9 C	16.9 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	17.62	17.62	33.695	24.366	355.2	0.000	6.26	115.0	4.2	0.20	0.0	0.02	1.58	0.25	0	
1	17.62	17.62	33.695	24.366	355.2	0.004	6.26	115.0	4.2	0.20	0.0	0.02	1.58	0.25	1	205
5	17.19	17.19	33.687	24.463	346.1	0.018	6.31	114.9	4.4	0.24	0.1	0.02	1.38	0.42	5	204
10	15.03	15.03	33.664	24.937	301.1	0.034	6.32	110.3	5.2	0.30	0.2	0.02	2.15	0.71	10	202
10	15.07	15.07				0.034									10	203
15	14.49	14.49	33.661	25.051	290.4	0.049	5.45	94.0	8.0	0.60	1.8	0.14	2.65	1.07	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 13.4 N	119 24.6 W	10/07/07	0221	UTC	37 m	290 09 kn	290 01 07	1	1011.3 mb	19.0 C	16.8 C	10m	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	19.02	19.02	33.732	24.048	385.4	0.000	6.01	113.4	2.8	0.21	0.1	0.01	0.49	0.10	0	
1	19.02	19.02	33.732	24.048	385.5	0.004	6.01	113.4	2.8	0.21	0.1	0.01	0.49	0.10	1	206
4	18.46	18.46	33.727	24.185	372.5	0.015	6.06	113.1	2.6	0.27	0.1	0.01	0.41	0.10	4	205
10	16.88	16.88	33.688	24.537	339.2	0.037	6.40	115.9	2.1	0.28	0.2	0.02	0.63	0.22	10	203
10	17.09	17.09				0.037									10	204
20	13.94	13.94	33.657	25.163	279.8	0.068	6.03	102.9	4.1	0.53	3.3	0.15	1.04	0.54	20	202
30	13.39	13.39	33.660	25.278	269.1	0.095	5.44	91.8	7.5	0.79	5.7	0.25	0.96	0.61	30	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 42.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 10.8 N	119 30.4 W	10/07/07	0405	UTC	116 m	290 08 kn			1012.4 mb	17.2 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	18.76	18.76	33.717	24.102	380.3	0.000	5.95	111.7	1.3	0.24	0.0	0.02	0.25	0.07	0	
2	18.76	18.76	33.717	24.103	380.4	0.008	5.95	111.7	1.3	0.24	0.0	0.02	0.25	0.07	2	212
10	18.49	18.49	33.712	24.167	374.5	0.038	6.04	112.8	1.3	0.21	0.0	0.02	0.23	0.06	10	210
10	18.49	18.49				0.038									10	211
20	16.96	16.96	33.668	24.503	342.8	0.074	6.42	116.4	1.8	0.23	0.1	0.02	0.86	0.31	20	209
30	14.16	14.16	33.605	25.077	288.3	0.105	6.28	107.6	3.0	0.46	2.1	0.09	1.12	0.46	30	208
40	12.05	12.04	33.622	25.511	247.2	0.132	4.63	75.9	10.9	1.09	12.5	0.17	0.62	0.41	40	207
50	11.27	11.26	33.647	25.675	231.8	0.156	3.95	63.7	14.6	1.33	16.3	0.08	0.27	0.29	50	206
60	10.69	10.68	33.712	25.829	217.3	0.178	3.63	57.8	18.3	1.55	19.8	0.03	0.11	0.16	60	205
70	10.19	10.18	33.786	25.974	203.8	0.199	3.41	53.8	22.3	1.75	22.6	0.04	0.08	0.14	70	204
75 ISL	10.07 D	10.06	33.820 D	26.021	199.4	0.210	3.16	49.7	23.4	1.81	23.3	0.04	0.07	0.13	75	
85	9.98	9.97	33.851	26.060	195.8	0.229	2.70	42.4	24.7	1.87	24.1	0.03	0.05	0.11	85	203
100	9.88	9.87	33.871	26.093	193.1	0.258	2.61	40.9	25.6	1.93	24.5	0.03	0.04	0.10	101	202
108	9.87	9.86	33.872	26.095	193.0	0.274	2.62	41.0	25.7	1.90	24.6	0.04	0.05	0.16	109	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 53.0 N	120 8.2 W	09/07/07	1845	UTC	91 m	250 03 kn	300 02 08	2	1014.5 mb	16.0 C	14.9 C	12m	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	17.48	17.48	33.706	24.408	351.1	0.000	5.95	109.0	3.0	0.23	0.1	0.01	0.92	0.11	0	
2 A	17.48	17.48	33.706	24.408	351.2	0.007	5.95	109.0	3.0	0.23	0.1	0.01	0.92	0.11	2	212
6 A	17.35	17.35	33.703	24.437	348.6	0.021	5.96	108.9	3.0	0.23	0.1	0.01	0.93	0.25	6	211
10	17.20	17.20	33.701	24.471	345.4	0.035	5.95	108.4	3.2	0.24	0.1	0.01	1.35	0.19	10	210
17 A	16.95	16.95	33.699	24.529	340.2	0.059	5.96	108.0	3.5	0.26	0.4	0.01	1.76	0.30	17	209
20 ISL	16.91 D	16.91	33.697 D	24.537	339.5	0.069	5.96	108.0	3.6	0.27	0.4	0.01	1.90	0.22	20	
25 A	16.77	16.77	33.701	24.573	336.2	0.086	5.96	107.7	3.8	0.28	0.5	0.02	2.10	0.09	25	208
30 ISL	15.31 D	15.31	33.699 D	24.903	304.9	0.102	5.59	98.1	6.4	0.52	3.6	0.06	2.28	0.20	30	
31 A	15.16	15.16	33.700	24.937	301.8	0.105	5.51	96.4	7.0	0.57	4.3	0.07	2.30	0.23	31	207
40	13.79	13.78	33.688	25.219	275.1	0.131	5.20	88.5	9.0	0.74	7.1	0.12	2.11	0.38	40	206
46 A	12.22	12.21	33.727	25.560	242.7	0.147	4.30	70.8	14.3	1.17	13.4	0.14	1.88	0.49	46	205
50 ISL	12.13 D	12.12	33.747 D	25.593	239.6	0.156	4.14	68.1	15.4	1.23	14.3	0.13	1.66	0.42	50	
52	12.08	12.07	33.749	25.604	238.7	0.161	4.09	67.2	15.8	1.24	14.5	0.12	1.51	0.37	52	204
62	10.26	10.25	33.827	25.993	201.7	0.183	2.97	46.9	23.5	1.71	22.3	0.09	0.30	0.18	62	203
70	10.10	10.09	33.827 D	26.021	199.3	0.199	2.91	45.8	24.2	1.75	22.8	0.10	0.24	0.21	70	202
75 ISL	10.16 D	10.15	33.829 D	26.012	200.2	0.209	2.87	45.2	24.7	1.78	23.0	0.10	0.22	0.20	75	
89	9.94	9.93	33.871	26.083	193.8	0.237	2.76	43.3	26.0	1.85	23.7	0.09	0.18	0.19	89	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 44.6 N	120 24.3 W	09/07/07	1459	UTC	985 m	100 03 kn	290 02 07	2	1013.4 mb	14.0 C	13.0 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	14.10	14.10	33.706	25.167	278.9	0.000	5.20	89.1	9.1	0.77	7.2	0.10	2.34	0.14	0	
2	14.10	14.10	33.706	25.167	278.9	0.006	5.20	89.1	9.1	0.77	7.2	0.10	2.34	0.14	2	221
9	14.05	14.05	33.707	25.178	278.1	0.025	5.14	87.9	9.1	0.78	7.3	0.11	1.93	0.29	9	219
9	14.05	14.05	33.707	25.178	278.1	0.025									9	220
10 ISL	14.03 D	14.03	33.707 D	25.183	277.7	0.028	5.14	87.9	9.1	0.78	7.3	0.11	1.94	0.28	10	
20	13.97	13.97	33.706	25.195	276.8	0.056	5.14	87.8	9.4	0.80	7.4	0.11	2.17	0.10	20	218
29	13.96	13.96	33.707	25.198	276.8	0.080	5.11	87.3	9.4	0.81	7.5	0.12	1.91	0.13	29	217
30 ISL	13.93 D	13.93	33.711 D	25.207	275.9	0.083	5.11	87.2	9.5	0.81	7.6	0.12	1.98	0.12	30	
40	13.74	13.73	33.706	25.243	272.8	0.111	5.07	86.2	10.0	0.85	8.2	0.11	2.31	0.05	40	216
49	12.90	12.89	33.784	25.473	251.2	0.134	4.42	73.9	12.6	1.11	11.7	0.18	0.99	0.23	49	215
50 ISL	12.75 D	12.74	33.805 D	25.518	246.8	0.137	4.29	71.5	13.5	1.17	12.6	0.19	0.92	0.23	50	
60	10.63	10.62	33.921	26.003	200.8	0.159	2.95	47.0	23.8	1.73	21.4	0.23	0.55	0.27	60	214
69	9.69	9.68	33.977	26.207	181.5	0.176	2.29	35.8	29.7	2.02	25.7	0.21	0.29	0.17	69	213
75 ISL	9.54 D	9.53	34.008 D	26.256	177.0	0.187	2.23	34.7	30.7	2.05	26.2	0.20	0.30	0.17	75	
85	9.47	9.46	34.019	26.276	175.3	0.205	2.14	33.3	32.4	2.11	27.0	0.17	0.31	0.18	85	212
100	9.33	9.32	34.020	26.300	173.3	0.231	2.10	32.5	32.6	2.12	27.5	0.12	0.14	0.13	101	211
119	8.85	8.84	34.043	26.395	164.6	0.263	2.15	33.0	34.9	2.14	28.5	0.05	0.02	0.13	120	210
125 ISL	8.67 D	8.66	34.054 D	26.432	161.2	0.273	2.11	32.2	35.8	2.17	28.8	0.04	0.02	0.12	126	
139	8.58	8.57	34.087	26.472	157.6	0.295	1.94	29.6	38.2	2.26	29.7	0.03	0.01	0.10	140	209
150 ISL	8.50 D	8.48	34.130 D	26.518	153.4	0.312	1.72	26.2	40.6	2.34	30.6	0.03	0.01	0.09	151	
170	8.26	8.24	34.178	26.592	146.7	0.342	1.34	20.3	44.9	2.49	32.1	0.03	0.01	0.07	171	208
199	7.91	7.89	34.202	26.664	140.3	0.384	1.14	17.1	49.4	2.61	33.5	0.03	0.01	0.06	200	207
200 ISL	7.90 D	7.88	34.206 D	26.668	139.9	0.385	1.13	17.0	49.5	2.61	33.5	0.03			201	
228	7.84	7.82	34.233	26.699	137.5	0.424	0.92	13.8	51.8	2.71	33.9	0.03			229	206
250 ISL	7.69 D	7.67	34.248 D	26.733	134.6	0.454	0.87	13.0	53.9	2.74	34.5	0.02			252	
268	7.56	7.53	34.248	26.752	133.1	0.478	0.84	12.5	55.9	2.76	35.1	0.02			270	205
300 ISL	7.31 D	7.28	34.266 D	26.802	128.7	0.520	0.67	9.9	59.9	2.84	36.0	0.02			302	
318	7.18	7.15	34.277	26.829	126.4	0.543	0.57	8.4	62.2	2.89	36.4	0.02			320	204
377	6.74	6.71	34.292	26.901	120.1	0.616	0.41	6.0	68.6	3.00	37.8	0.02			380	203
400 ISL	6.64 D	6.60	34.306 D	26.926	118.0	0.643	0.37	5.4	70.9	3.02	38.1	0.02			403	
437	6.48	6.44	34.317	26.956	115.6	0.686	0.32	4.7	74.2	3.04	38.6	0.01			440	202
500 ISL	6.23 D	6.19	34.321 D	26.993	112.8	0.758	0.29	4.2	77.6	3.10	39.4	0.01			504	
512	6.21	6.16	34.324	26.998	112.5	0.772	0.28	4.0	78.3	3.11	39.5	0.01			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 34.4 N	120 45.0 W	09/07/07	1036 UTC	1306 m	320 06 kn			1012.3 mb	14.9 C	13.8 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	14.65	14.65	33.742	25.078	287.3	0.000	5.85	101.3	1.2	0.70	5.4	0.21	0.37	0.15	0	
1	14.65	14.65	33.742	25.078	287.3	0.003	5.85	101.3	1.2	0.70	5.4	0.21	0.37	0.15	1	221
10 ISL	14.64 D	14.64	33.743 D	25.082	287.3	0.029	5.85	101.3	1.2	0.69	5.4	0.21	0.39	0.15	10	
11	14.64	14.64	33.744	25.083	287.2	0.032	5.85	101.3	1.2	0.69	5.4	0.21	0.39	0.15	11	219
11	14.64	14.64	33.746	25.084	287.1	0.032									11	220
20	14.63	14.63	33.745	25.086	287.2	0.057	5.85	101.3	1.2	0.70	5.2	0.22	0.37	0.16	20	218
30	14.56	14.56	33.740	25.097	286.4	0.086	5.86	101.3	1.0	0.68	4.9	0.21	0.49	0.20	30	217
40	14.22	14.21	33.741	25.170	279.8	0.114	5.92	101.6	0.9	0.63	3.8	0.20	0.79	0.49	40	216
50	12.97	12.96	33.757	25.438	254.5	0.141	5.31	88.9	6.8	1.00	7.8	0.38	1.32	0.93	50	215
60	10.95	10.94	33.833	25.877	212.7	0.165			18.9	1.66	20.3	0.30	1.44	1.29	60	214
71	10.11	10.10	33.892	26.070	194.6	0.187			25.2	1.90	24.6	0.08	0.56	0.88	71	213
75 ISL	9.90 D	9.89	33.935 D	26.139	188.1	0.195	3.10	48.6	26.6	1.95	25.3	0.08	0.43	0.76	75	
84	9.75	9.74	33.954	26.179	184.5	0.211	2.40	37.5	29.0	2.04	26.3	0.07	0.31	0.56	84	212
99	9.40	9.39	34.025	26.292	174.0	0.238	2.00	31.0	32.8	2.18	27.9	0.05	0.16	0.43	100	211
100 ISL	9.39 D	9.38	34.028 D	26.296	173.6	0.240	2.01	31.2	32.8	2.18	27.9	0.05	0.15	0.42	101	
119	8.82	8.81	34.017	26.379	166.1	0.272	2.33	35.7	33.7	2.07	28.1	0.05	0.08	0.31	120	210
125 ISL	8.74 D	8.73	34.028 D	26.400	164.1	0.282	2.31	35.3	34.1	2.08	28.2	0.05	0.08	0.29	126	
139	8.67	8.66	34.038	26.419	162.6	0.305	2.26	34.5	35.3	2.13	28.7	0.05	0.08	0.26	140	209
150 ISL	8.60 D	8.58	34.063 D	26.450	159.9	0.323	2.14	32.6	36.7	2.18	29.3	0.04	0.07	0.23	151	
170	8.41	8.39	34.096	26.505	155.0	0.354	1.88	28.5	39.7	2.29	30.5	0.02	0.05	0.19	171	208
198	8.01	7.99	34.116	26.581	148.1	0.397	1.66	25.0	44.3	2.40	32.1	0.03	0.03	0.14	199	207
200 ISL	8.01 D	7.99	34.117 D	26.582	148.1	0.400	1.64	24.7	44.6	2.41	32.2	0.03			201	
229	7.76	7.74	34.151	26.646	142.5	0.442	1.36	20.3	48.6	2.52	33.5	0.03			230	206
250 ISL	7.54 D	7.52	34.152 D	26.679	139.6	0.471	1.21	18.0	50.9	2.61	34.1	0.03			252	
269	7.53	7.50	34.180	26.702	137.7	0.498	1.10	16.4	53.0	2.69	34.6	0.03			271	205
300 ISL	6.96 D	6.93	34.167 D	26.772	131.2	0.539	0.98	14.4	57.8	2.74	35.9	0.02			302	
318	6.89	6.86	34.180	26.792	129.6	0.563	0.91	13.3	60.7	2.76	36.6	0.02			320	204
377	6.62	6.59	34.239	26.876	122.4	0.637	0.59	8.6	67.4	2.96	38.0	0.02			380	203
400 ISL	6.45 D	6.41	34.254 D	26.910	119.4	0.665	0.50	7.3	70.0	3.01	38.5	0.02			403	
438	6.27	6.23	34.279	26.954	115.6	0.710	0.40	5.8	74.4	3.06	39.3	0.01			441	202
500 ISL	5.76 D	5.72	34.282 D	27.021	109.6	0.780	0.31	4.4	81.8	3.13	40.8	0.01			504	
512	5.71	5.67	34.296	27.038	108.1	0.793	0.29	4.1	83.2	3.14	41.1	0.01			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 14.6 N	121 26.4 W	09/07/07	0343 UTC	3801 m	300 09 kn	340 06 08	2	1012.8 mb	15.4 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	13.51	13.51	33.219	24.912	303.1	0.000	5.98	100.9	3.5	0.64	4.6	0.27	0.65	0.20	0	
2	13.51	13.51	33.219	24.912	303.2	0.006	5.98	100.9	3.5	0.64	4.6	0.27	0.65	0.20	2	221
10 ISL	13.46 D	13.46	33.238 D	24.937	301.0	0.030	6.01	101.3	3.4	0.64	4.9	0.26	0.81	0.23	10	
11	13.44	13.44	33.245	24.947	300.2	0.033	6.02	101.4	3.4	0.64	4.9	0.26	0.83	0.23	11	219
11	13.45	13.45	33.237	24.938	300.9	0.033									11	220
20	13.07	13.07	33.490	25.210	275.3	0.059	6.15	103.0	3.0	0.72	6.6	0.18	2.60	0.80	20	218
29	13.30	13.30	33.575	25.231	273.6	0.084	6.29	105.9	2.4	0.66	5.5	0.16	3.62	1.01	29	217
30 ISL	13.30 D	13.30	33.584 D	25.238	273.0	0.087	6.29	105.9	2.4	0.66	5.5	0.16	3.61	1.03	30	
40	13.30	13.29	33.597	25.248	272.3	0.114	6.24	105.0	2.7	0.65	5.5	0.15	3.51	1.17	40	216
50	12.99	12.98	33.547	25.271	270.3	0.141	6.10	102.0	3.1	0.77	6.9	0.17	2.42	1.04	50	215
60	12.67	12.66	33.525	25.317	266.2	0.168	5.91	98.1	2.3	0.92	9.2	0.20	2.15	1.01	60	214
70	12.87	12.86	33.635	25.364	262.1	0.194	5.94	99.1	3.8	0.86	7.6	0.18	2.49	0.88	70	213
75 ISL	11.95 D	11.94	33.582 D	25.500	249.1	0.207	5.71	93.4	6.5	0.99	9.5	0.18	2.25	0.87	75	
85	11.09	11.08	33.540	25.625	237.3	0.231	4.93	79.1	13.3	1.36	15.4	0.18	1.40	0.79	85	212
99	9.72	9.71	33.658	25.953	206.2	0.262	3.42	53.3	22.4	1.72	22.6	0.05	0.14	0.34	99	211
100 ISL	9.76 D	9.75	33.655 D	25.944	207.1	0.264	3.41	53.2	22.7	1.73	22.7	0.05	0.14	0.34	101	
119	9.30	9.29	33.750	26.094	193.2	0.302	3.24	50.1	25.8	1.84	24.7	0.04	0.08	0.30	120	210
125 ISL	9.26 D	9.25	33.815 D	26.151	187.9	0.314	3.04	47.0	26.9	1.88	25.4	0.03	0.07	0.25	126	
139	9.13	9.11	33.898	26.237	180.0	0.340	2.59	39.9	29.2	1.97	26.7	0.02	0.04	0.14	140	209
150 ISL	9.07 D	9.05	33.920 D	26.264	177.6	0.359	2.68	41.2	29.8	1.98	26.7	0.01	0.03	0.13	151	
169	8.73	8.71	33.938	26.332	171.5	0.393	2.83	43.2	30.7	1.99	26.8	0.01	0.02	0.12	170	208
199	8.20	8.18	33.995	26.458	159.9	0.442	2.86	43.2	34.9	1.98	27.9	0.01	0.01	0.06	200	207
200 ISL	8.17 D	8.15	33.999 D	26.466	159.2	0.444	2.85	43.0	35.1	1.98	28.0	0.01			201	
228	7.75	7.73	34.002	26.530	153.4	0.488	2.69	40.2	39.8	2.09	29.7	0.00			229	206
250 ISL	7.74 D	7.72	34.073 D	26.588	148.3	0.521	2.15	32.1	44.0	2.27	31.5	0.00			251	
268	7.72	7.69	34.116	26.625	145.1	0.547	1.64	24.5	47.3	2.43	32.9	0.00			270	205
300 ISL	8.00 D	7.97	34.243 D	26.684	140.3	0.593	1.07	16.1	51.8	2.64	34.3	0.00			302	
318	7.69	7.66	34.238	26.726	136.5	0.618	0.86	12.9	54.0	2.73	34.9	0.00			320	204
377	6.91	6.87	34.220	26.822	127.8	0.696	0.76	11.2	62.1	2.82	37.2	0.00			379	203
400 ISL	6.66 D	6.62	34.222 D	26.857	124.5	0.725	0.70	10.2	66.2	2.87	38.2	0.00			403	
437	6.14	6.10	34.210	26.916	119.1	0.770	0.60	8.6	72.6	2.96	39.6	0.00			440	202
500 ISL	5.97 D	5.93	34.281 D	26.994	112.4	0.843	0.39	5.6	78.9	3.06	40.5	0.00			503	
511	5.90	5.86	34.286	27.007	111.3	0.855	0.35	5.0	80.0	3.08	40.6	0.00			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 54.5 N	122 8.5 W	08/07/07	2020	UTC	4186 m	320	15 kn	330 06 06	2	1015.5 mb	17.1 C	15.0 C	10m	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	14.68	14.68	33.155	24.619	331.0	0.000	6.05	104.5	2.3	0.49	2.9	0.11	1.20	0.08	0	
2 A	14.68	14.68	33.155	24.619	331.1	0.007	6.05	104.5	2.3	0.49	2.9	0.11	1.20	0.08	2	223
5 A	14.61	14.61	33.165	24.642	329.0	0.017	6.06	104.5	2.3	0.50	3.1	0.11	1.24	0.12	5	222
10	14.06	14.06	33.253	24.826	311.6	0.033	6.18	105.5	2.0	0.55	3.8	0.13	2.32	0.04	10	221
14 A	13.71	13.71	33.339	24.964	298.5	0.045	6.24	105.8	1.8	0.59	4.7	0.15	3.09	0.14	14	220
20 A	13.62	13.62	33.370	25.007	294.7	0.063	6.23	105.4	1.7	0.60	5.0	0.15	2.99	0.38	20	219
28 A	13.37	13.37	33.418	25.095	286.5	0.086	6.21	104.6	1.5	0.65	5.8	0.16	3.48	0.06	28	218
30 ISL	13.22 D	13.22	33.430 D	25.134	282.8	0.091	6.20	104.1	1.5	0.67	6.0	0.16	3.45	0.07	30	
37 A	13.20	13.19	33.431	25.139	282.5	0.111	6.19	103.9	1.4	0.71	6.6	0.17	3.36	0.10	37	217
43	13.21	13.20	33.436	25.141	282.5	0.128	6.19	103.9	1.4	0.71	6.4	0.17	3.74	0.23	43	216
50	13.18	13.17	33.437	25.148	282.0	0.148	6.20	104.0	1.3	0.71	6.6	0.18	3.16	0.39	50	215
61	12.37	12.36	33.375	25.259	271.7	0.178	5.79	95.4	5.1	0.90	9.3	0.15	2.57	0.15	61	214
70	12.53	12.52	33.595	25.399	258.7	0.202	5.73	94.9	6.7	0.97	8.9	0.16	3.20	0.80	70	213
75 ISL	12.52 D	12.51	33.681 D	25.468	252.3	0.215	5.37	89.0	9.9	1.12	11.6	0.16	2.62	0.70	75	
84	10.49	10.48	33.455	25.664	233.5	0.237	4.55	72.1	16.3	1.44	17.7	0.16	1.17	0.31	84	212
99	10.07	10.06	33.695	25.923	209.1	0.270	3.53	55.5	21.8	1.73	22.7	0.08	0.25	0.27	99	211
100 ISL	10.15 D	10.14	33.740 D	25.945	207.1	0.272	3.49	55.0	22.1	1.74	22.9	0.08	0.25	0.27	100	
118	9.39	9.38	33.859	26.165	186.5	0.308	2.97	46.0	26.1	1.83	24.8	0.06	0.16	0.37	119	210
125 ISL	9.11 D	9.10	33.890 D	26.234	180.0	0.320	2.74	42.2	28.0	1.91	25.8	0.06	0.16	0.37	126	
139	9.12	9.10	33.991	26.312	172.9	0.345	2.35	36.2	31.5	2.06	27.7	0.05	0.17	0.36	140	209
150 ISL	9.06 D	9.04	34.045 D	26.364	168.2	0.364	2.18	33.6	33.5	2.13	28.6	0.04	0.14	0.35	151	
170	8.73	8.71	34.072	26.437	161.6	0.397	2.05	31.3	36.3	2.21	29.5	0.01	0.09	0.31	171	208
200	8.24	8.22	34.070	26.511	154.9	0.444	2.10	31.7	39.1	2.23	30.4	0.01	0.09	0.22	201	207
228	7.95	7.93	34.112	26.588	148.1	0.487	1.70	25.5	44.5	2.40	32.4	0.01			229	206
250 ISL	7.72 D	7.70	34.145 D	26.647	142.7	0.519	1.49	22.3	47.7	2.48	33.5	0.01			251	
270	7.62	7.59	34.147	26.664	141.4	0.547	1.35	20.1	50.0	2.53	34.2	0.01			272	205
300 ISL	7.33 D	7.30	34.156 D	26.712	137.2	0.589	1.21	17.9	52.8	2.61	35.0	0.01			302	
316	7.29	7.26	34.159	26.720	136.6	0.611	1.15	17.0	54.4	2.65	35.4	0.01			318	204
380	6.56	6.53	34.190	26.845	125.3	0.695	0.80	11.6	64.9	2.84	38.0	0.01			382	203
400 ISL	6.41 D	6.37	34.190 D	26.865	123.6	0.720	0.68	9.9	68.1	2.92	38.7	0.01			403	
434	6.22	6.18	34.239	26.928	117.9	0.761	0.51	7.4	72.9	3.04	39.6	0.00			437	202
500 ISL	5.77 D	5.73	34.242 D	26.988	112.7	0.837	0.39	5.6	78.6	3.09	40.6	0.00			503	
521	5.85	5.80	34.277	27.006	111.4	0.860	0.35	5.0	80.4	3.11	40.9	0.00			525	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 34.1 N	122 48.7 W	08/07/07	1349	UTC	4289 m	340	18 kn	350 07 08	2	1015.6 mb	16.0 C	14.0 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	14.88	14.88	33.094	24.530	339.6	0.000	5.92	102.6	2.9	0.45	2.0	0.11	0.56	0.17	0	
2	14.88	14.88	33.094	24.530	339.6	0.007	5.92	102.6	2.9	0.45	2.0	0.11	0.56	0.17	2	221
10	14.89	14.89	33.096	24.529	339.9	0.034	5.93	102.8	2.9	0.44	1.9	0.11	0.60	0.17	10	219
10	14.88	14.88	33.096	24.531	339.7	0.034									10	220
20	14.81	14.81	33.095	24.546	338.6	0.068	5.93	102.6	2.9	0.45	2.0	0.12	0.57	0.16	20	218
30	14.71	14.71	33.089	24.563	337.3	0.102	5.94	102.6	3.0	0.45	2.0	0.14	0.58	0.18	30	217
41	13.33	13.32	33.002	24.781	316.7	0.138	5.96	100.0	3.0	0.43	1.4	0.22	0.53	0.34	41	216
50	12.59	12.58	32.988	24.916	304.0	0.166	5.86	96.8	3.6	0.52	2.9	0.16	0.45	0.40	50	215
59	12.20	12.19	33.066	25.052	291.3	0.192	5.68	93.1	4.9	0.65	5.3	0.07	0.31	0.28	59	214
69	11.81	11.80	33.110	25.159	281.3	0.221	5.57	90.6	6.1	0.76	7.1	0.05	0.19	0.18	69	213
75 ISL	11.43 D	11.42	33.177 D	25.281	269.8	0.238	5.49	88.6	6.7	0.80	7.9	0.04	0.14	0.15	75	
84	11.36	11.35	33.223	25.330	265.4	0.262	5.31	85.6	7.9	0.87	9.3	0.03	0.09	0.12	84	212
100	10.71	10.70	33.344	25.540	245.7	0.303	4.79	76.2	12.7	1.17	14.3	0.02	0.04	0.05	100	211
119	9.83	9.82	33.688	25.959	206.2	0.345	3.36	52.5	21.7	1.70	22.4	0.01	0.03	0.08	120	210
125 ISL	9.76 D	9.75	33.735 D	26.007	201.7	0.358	3.23	50.4	23.3	1.79	23.7	0.01	0.03	0.08	126	
139	9.44	9.42	33.773	26.090	194.1	0.385	2.94	45.6	25.6	1.89	25.1	0.01	0.02	0.06	140	209
150 ISL	9.11 D	9.09	33.837 D	26.193	184.4	0.406	3.10	47.7	25.7	1.84	24.7	0.02	0.02	0.05	151	
170	8.92	8.90	33.881	26.258	178.6	0.442	3.48	53.4	25.8	1.71	23.7	0.03	0.02	0.05	171	208
199	8.36	8.34	33.978	26.421	163.5	0.492	3.13	47.4	32.3	1.87	26.3	0.02	0.02	0.05	200	207
200 ISL	8.25 D	8.23	33.994 D	26.450	160.7	0.494	3.10	46.9	32.6	1.88	26.5	0.02			201	
228	8.21	8.19	34.071	26.517	154.9	0.538	2.09	31.6	39.5	2.22	30.6	0.02			229	206
250 ISL	8.25 D	8.22	34.166 D	26.586	148.8	0.571	1.67	25.3	43.7	2.40	32.2	0.01			251	
268	7.89	7.86	34.137	26.617	146.0	0.598	1.50	22.5	46.6	2.49	32.9	0.01			270	205
300 ISL	7.61 D	7.58	34.146 D	26.665	141.8	0.644	1.49	22.2	50.6	2.53	34.1	0.01			302	
320	7.15	7.12	34.105	26.698	138.7	0.672	1.48	21.8	53.0	2.54	34.8	0.01			322	204
377	6.44	6.41	34.121	26.806	128.8	0.748	1.10	16.0	63.2	2.76	37.8	0.00			379	203
400 ISL	6.22 D	6.18	34.138 D	26.848	125.0	0.777	0.92	13.3	67.1	2.84	38.8	0.00			403	
437	6.01	5.97	34.182	26.910	119.5	0.823	0.65	9.3	72.7	2.95	40.0	0.00			440	202
500 ISL	5.81 D	5.77	34.270 D	27.005	111.2	0.895	0.36	5.1	79.9	3.08	41.0	0.00			503	
511	5.79	5.75	34.287	27.021	109.8	0.907	0.31	4.4	81.1	3.10	41.2	0.00			514	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 14.5 N	123 30.1 W	08/07/07	0629 UTC	4116 m	350 23 kn			1017.0 mb	16.5 C	14.7 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	16.23	16.23	33.129	24.258	365.5	0.000	5.81	103.5	2.3	0.32	0.2	0.01	0.22	0.07	0	
2	16.23	16.23	33.129	24.258	365.5	0.007	5.81	103.5	2.3	0.32	0.2	0.01	0.22	0.07	2	221
3	16.23	16.23				0.011									3	222
10	16.23	16.23	33.127	24.256	365.9	0.037	5.80	103.3	2.2	0.31	0.2	0.01	0.23	0.05	10	219
11	16.23	16.23	33.130	24.259	365.7	0.040									11	220
20	16.24	16.24	33.125	24.253	366.6	0.073	5.80	103.3	2.2	0.31	0.2	0.01	0.21	0.05	20	218
30	15.77	15.77	33.115	24.352	357.5	0.109	5.87	103.6	2.4	0.33	0.0	0.01	0.28	0.09	30	217
41	14.83	14.82	33.081	24.531	340.6	0.148	5.97	103.4	3.4	0.38	0.5	0.05	0.30	0.11	41	216
50 ISL	14.44 D	14.43	33.077 D	24.612	333.2	0.178	6.01	103.2	3.8	0.46	0.8	0.07	0.29	0.13	50	
51	14.57	14.56	33.086	24.591	335.2	0.181	6.01	103.5	3.8	0.47	0.9	0.07	0.29	0.13	51	215
61	13.59	13.58	33.093	24.800	315.5	0.214	5.91	99.8	3.5	0.49	1.9	0.33	0.34	0.25	61	214
70	13.23	13.22	33.262	25.004	296.3	0.242	5.86	98.3	5.0	0.67	4.8	0.31	0.24	0.15	70	213
75 ISL	12.88 D	12.87	33.236 D	25.053	291.7	0.256	5.79	96.4	5.0	0.68	5.5	0.32	0.21	0.14	75	
84	12.76	12.75	33.297	25.124	285.2	0.282	5.65	93.8	5.1	0.70	6.2	0.34	0.16	0.12	84	212
100 ISL	11.94 D	11.93	33.287 D	25.273	271.3	0.327	5.41	88.3	6.6	0.81	8.1	0.04	0.07	0.07	100	
101	11.95	11.94	33.285	25.270	271.6	0.329	5.40	88.2	6.7	0.82	8.3	0.02	0.07	0.07	101	211
119	10.62	10.61	33.226	25.464	253.3	0.377	5.19	82.3	13.8	1.17	14.1	0.02	0.03	0.04	120	210
125 ISL	10.88 D	10.86	33.402 D	25.556	244.8	0.392	4.95	79.0	14.1	1.22	15.1	0.02	0.02	0.04	126	
139	10.89	10.87	33.569	25.684	232.9	0.425	4.26	68.1	14.4	1.34	17.0	0.02	0.02	0.05	140	209
150 ISL	10.08 D	10.06	33.713 D	25.937	209.0	0.449	3.69	58.0	18.2	1.56	20.0	0.02	0.02	0.06	151	
170	9.68	9.66	33.893	26.145	189.6	0.489	2.87	44.8	26.0	1.93	25.2	0.02	0.01	0.07	171	208
200 ISL	9.03 D	9.01	33.961 D	26.304	174.9	0.544	2.69	41.4	29.9	1.95	26.6	0.02	0.00	0.03	201	
201	9.02	9.00	33.964	26.307	174.5	0.546	2.68	41.2	30.0	1.95	26.6	0.02	0.00	0.03	202	207
228	8.80	8.78	34.041	26.403	166.0	0.592	2.30	35.2	33.9	2.11	28.3	0.02			229	206
250 ISL	8.54 D	8.51	34.068 D	26.465	160.4	0.627	2.16	32.9	36.9	2.16	29.4	0.02			251	
269	8.21	8.18	34.074	26.520	155.4	0.657	2.07	31.3	39.7	2.20	30.4	0.02			270	205
300 ISL	7.70 D	7.67	34.102 D	26.617	146.4	0.704	1.78	26.6	46.1	2.36	32.7	0.01			302	
317	7.38	7.35	34.097	26.659	142.5	0.729	1.61	23.9	49.8	2.46	33.9	0.01			319	204
380	6.83	6.79	34.155	26.781	131.5	0.815	1.06	15.5	59.6	2.73	36.7	0.01			382	203
400 ISL	6.35 D	6.31	34.108 D	26.808	128.9	0.841	0.91	13.2	62.9	2.80	37.5	0.01			402	
438	6.31	6.27	34.194	26.881	122.5	0.889	0.68	9.8	69.0	2.92	38.9	0.01			441	202
500 ISL	5.85 D	5.81	34.228 D	26.967	114.8	0.962	0.47	6.7	77.2	3.04	40.3	0.01			503	
511	5.84	5.80	34.240	26.978	113.9	0.975	0.43	6.2	78.6	3.06	40.6	0.01			514	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 54.4 N	124 10.1 W	07/07/07	2340 UTC	4212 m	020 19 kn	340 07 07	2	1017.9 mb	17.8 C	15.3 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	17.25	17.25	33.362	24.199	371.0	0.000	5.67	103.2	2.1	0.33	0.3	0.01	0.13	0.03	0	
1	17.25	17.25	33.362	24.199	371.1	0.004	5.67	103.2	2.1	0.33	0.3	0.01	0.13	0.03	1	221
10	17.24	17.24	33.361	24.201	371.2	0.037	5.66	103.0	2.1	0.31	0.4	0.00	0.12	0.02	10	220
15	17.25	17.25	33.362	24.200	371.5	0.056	5.66	103.0	2.1	0.31	0.4	0.00	0.12	0.03	15	219
20 ISL	17.24 D	17.24	33.362 D	24.203	371.4	0.074	5.66	103.0	2.1	0.31	0.4	0.00	0.13	0.03	20	
30	17.17	17.17	33.370	24.226	369.5	0.111	5.67	103.0	2.1	0.31	0.4	0.00	0.15	0.03	30	218
45	14.07	14.06	33.287	24.851	310.2	0.162	6.33	108.0	3.9	0.47	2.7	0.10	0.55	0.20	45	217
50 ISL	13.50 D	13.49	33.369 D	25.031	293.2	0.177	6.17	104.1	4.2	0.54	3.7	0.18	0.53	0.24	50	
54	13.41	13.40	33.368	25.049	291.6	0.189	5.99	100.9	4.4	0.60	4.6	0.25	0.50	0.27	54	216
65	12.94	12.93	33.395	25.164	280.9	0.221	5.77	96.3	5.5	0.74	6.6	0.46	0.56	0.32	65	215
74	12.48	12.47	33.422	25.275	270.6	0.245	5.46	90.2	6.5	0.85	8.8	0.30	0.40	0.25	74	214
75 ISL	12.44 D	12.43	33.431 D	25.289	269.2	0.248	5.44	89.8	6.6	0.86	9.0	0.27	0.38	0.24	75	
85	12.19	12.18	33.478	25.374	261.4	0.275	5.29	86.9	7.8	0.98	11.1	0.06	0.25	0.14	85	213
95	11.87	11.86	33.507	25.457	253.7	0.300	5.09	83.1	9.6	1.08	12.9	0.04	0.15	0.10	95	212
100 ISL	11.80 D	11.79	33.511 D	25.473	252.3	0.313	4.90	79.9	10.4	1.13	13.7	0.03	0.13	0.09	100	
109	11.44	11.43	33.549	25.569	243.3	0.335	4.53	73.3	12.1	1.23	15.1	0.02	0.11	0.08	109	211
124	10.86	10.85	33.628	25.735	227.7	0.371	4.02	64.2	16.0	1.42	18.5	0.02	0.03	0.04	125	210
125 ISL	10.80 D	10.78	33.634 D	25.750	226.3	0.373	3.98	63.5	16.3	1.43	18.7	0.02	0.03	0.04	126	
145	9.94	9.92	33.714	25.961	206.5	0.416	3.34	52.3	21.1	1.66	22.2	0.01	0.01	0.03	146	209
150 ISL	9.66 D	9.64	33.775 D	26.055	197.6	0.426	3.26	50.8	22.2	1.69	22.8	0.01	0.01	0.03	151	
169	9.27	9.25	33.853	26.180	186.0	0.463	3.07	47.4	25.8	1.79	24.8	0.01	0.00	0.03	170	208
199	8.85	8.83	33.976	26.344	171.0	0.516	2.76	42.3	30.8	1.93	26.9	0.01	0.00	0.03	200	207
200 ISL	8.83 D	8.81	33.984 D	26.353	170.1	0.518	2.76	42.3	30.9	1.93	26.9	0.01			201	
227	8.47	8.45	34.001	26.422	163.9	0.563	2.75	41.8	33.6	1.95	27.8	0.01			228	206
250 ISL	8.05 D	8.02	34.030 D	26.509	156.0	0.600	2.53	38.1	37.8	2.07	29.4	0.01			251	
268	7.85	7.82	34.042	26.548	152.5	0.628	2.29	34.3	41.5	2.18	30.9	0.01			269	205
300 ISL	7.42 D	7.39	34.071 D	26.633	144.7	0.675	1.92	28.5	47.4	2.35	33.2	0.01			302	
317	7.26	7.23	34.075	26.659	142.4	0.700	1.73	25.6	50.5	2.44	34.3	0.01			319	204
380	6.36	6.33	34.097	26.798	129.6	0.785	1.22	17.7	62.8	2.70	37.6	0.01			382	203
400 ISL	6.07 D	6.04	34.092 D	26.831	126.4	0.811	1.17	16.8	66.9	2.75	38.5	0.01			402	
436	5.60	5.56	34.086	26.884	121.4	0.855	1.11	15.8	73.9	2.84	39.8	0.01			439	202
500 ISL	5.12 D	5.08	34.132 D	26.978	112.8	0.930	0.71	10.0	84.1	3.00	41.6	0.01			503	
511	5.13	5.09	34.145	26.987	112.1	0.943	0.64	9.0	85.9	3.03	41.9	0.01			514	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 33.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
33 53.5 N	118 29.3 W	05/07/07	0721	UTC	58 m	300	02 kn			1009.7 mb	19.9 C	17.7 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	21.46	21.46	33.748	23.417	445.7	0.000	5.90	116.4	1.2	0.09	0.0	0.02	0.41	0.13	0	
2	21.46	21.46	33.748	23.417	445.7	0.009	5.90	116.4	1.2	0.09	0.0	0.02	0.41	0.13	2	208
6	21.38	21.38	33.747	23.439	443.8	0.027	5.93	116.9	1.0	0.06	0.0	0.02	0.44	0.13	6	207
10	19.56	19.56	33.711	23.895	400.4	0.044	6.24	118.9	0.6	0.06	0.0	0.01	0.69	0.18	10	205
10	19.83	19.83	33.718	23.830	406.6	0.044									10	206
20	14.88	14.88	33.627	24.941	301.0	0.079	6.76	117.6	0.6	0.21	0.0	0.01	0.82	0.24	20	204
30	12.53	12.53	33.623	25.420	255.6	0.107	5.23	86.6	2.2	0.69	4.6	0.19	1.57	1.10	30	203
40	11.70	11.69	33.631	25.583	240.3	0.132	3.83	62.3	12.3	1.27	12.3	0.43	1.60	1.21	40	202
50	11.14	11.13	33.668	25.715	228.0	0.155	3.19	51.3	18.3	1.56	18.0	0.60	0.79	0.92	50	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
33 49.5 N	118 37.6 W	05/07/07	0951	UTC	634 m	220	02 kn			1009.0 mb	18.5 C	17.8 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	20.36	20.36	33.713	23.687	419.9	0.000	5.99	115.9	1.5	0.12	0.1	0.00	0.31	0.08	0	
2	20.36	20.36	33.713 D	23.687	420.0	0.008	5.99	115.8	1.5	0.12	0.1	0.00	0.31	0.08	2	221
10	20.11	20.11	33.711	23.752	414.1	0.042	6.01	115.7	1.6	0.14	0.2	0.00	0.38	0.09	10	219
10	20.14	20.14	33.710	23.743	414.9	0.042									10	220
20	17.14	17.14	33.678	24.469	346.1	0.080	6.51	118.4	1.9	0.22	0.2	0.00	0.21	0.03	20	218
29	14.95	14.95	33.681	24.968	298.7	0.109	6.74	117.4	0.9	0.28	0.1	0.01	0.62	0.21	29	217
30 ISL	14.05 D	14.05	33.663 D	25.145	281.8	0.112	6.69	114.4	1.3	0.30	0.4	0.01	0.70	0.25	30	
41	12.53	12.52	33.598	25.401	257.7	0.141	5.50	91.1	8.3	0.73	6.6	0.12	1.29	0.63	41	216
50	11.38	11.37	33.649	25.656	233.5	0.164	4.06	65.6	14.4	1.29	15.4	0.37	0.80	0.51	50	215
60	11.03	11.02	33.672	25.738	226.0	0.186	3.58	57.5	17.1	1.47	17.7	0.39	0.44	0.37	60	214
70	10.50	10.49	33.745	25.888	211.9	0.208	3.49	55.4	21.6	1.69	22.1	0.03	0.15	0.17	70	213
75 ISL	10.24 D	10.23	33.752 D	25.939	207.2	0.219	3.39	53.5	21.6	1.69	22.1	0.03	0.12	0.15	75	
84	10.12	10.11	33.773	25.976	203.9	0.237	3.19	50.2	21.5	1.69	22.1	0.03	0.07	0.11	84	212
100	9.84	9.83	33.839	26.075	194.8	0.269	2.88	45.1	24.3	1.80	23.6	0.03	0.04	0.10	101	211
119	9.50	9.49	33.899	26.178	185.3	0.305	2.72	42.3	26.8	1.88	25.0	0.03	0.02	0.11	120	210
125 ISL	9.45 D	9.44	33.928 D	26.209	182.5	0.316	2.64	41.0	27.7	1.92	25.4	0.03	0.02	0.11	126	
140	9.31	9.29	33.990	26.280	176.0	0.343	2.39	37.0	30.1	2.02	26.5	0.04	0.01	0.10	141	209
150 ISL	9.25 D	9.23	34.033 D	26.324	172.0	0.361	2.15	33.2	31.9	2.10	27.3	0.04	0.01	0.10	151	
169	9.18	9.16	34.139	26.418	163.5	0.393	1.73	26.7	35.1	2.24	28.7	0.04	0.01	0.09	170	208
199	8.94	8.92	34.172	26.483	157.9	0.441	1.59	24.4	37.8	2.32	29.4	0.06	0.01	0.07	200	207
200 ISL	8.92 D	8.90	34.178 D	26.491	157.1	0.442	1.59	24.4	37.9	2.32	29.4	0.06			201	
228	8.83	8.81	34.187	26.513	155.6	0.486	1.50	23.0	39.2	2.35	29.8	0.06			229	206
250 ISL	8.80 D	8.77	34.202 D	26.529	154.4	0.520	1.47	22.5	39.9	2.37	30.0	0.06			251	
268	8.73	8.70	34.203	26.541	153.6	0.548	1.44	22.0	40.6	2.39	30.2	0.05			270	205
300 ISL	8.55 D	8.52	34.221 D	26.584	150.1	0.597	1.32	20.1	43.3	2.47	31.2	0.04			302	
317	8.27	8.24	34.215	26.622	146.7	0.622	1.23	18.6	45.1	2.53	31.8	0.04			319	204
377	7.75	7.71	34.249	26.727	137.5	0.707	0.88	13.2	52.4	2.73	33.9	0.04			379	203
400 ISL	7.43 D	7.39	34.250 D	26.774	133.2	0.738	0.76	11.3	55.4	2.79	34.6	0.04			403	
437	7.29	7.25	34.285	26.821	129.2	0.787	0.59	8.7	59.9	2.87	35.7	0.05			440	202
500 ISL	6.82 D	6.77	34.297 D	26.896	122.6	0.866	0.45	6.6	65.9	2.97	37.3	0.03			503	
513	6.77	6.72	34.301	26.906	121.8	0.882	0.42	6.1	67.1	2.99	37.6	0.03			517	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
33 39.5 N	118 58.4 W	05/07/07	1415	UTC	777 m	300	07 kn	320 02 08	2	1009.8 mb	17.5 C	16.8 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	18.64	18.64	33.744	24.153	375.4	0.000	5.83	109.2	1.2	0.22	0.0	0.01	0.23	0.05	0	
1	18.64	18.64	33.744	24.153	375.5	0.004	5.83	109.2	1.2	0.22	0.0	0.01	0.23	0.05	1	224
10	17.91	17.91	33.732	24.325	359.5	0.037	5.98	110.5	1.2	0.25	0.0	0.01	0.24	0.05	10	223
20	16.89	16.89	33.748	24.581	335.3	0.072	6.19	112.1	0.9	0.24	0.0	0.01	0.36	0.08	20	222
30	13.00	13.00	33.706	25.392	258.3	0.101	5.81	97.3	1.6	0.66	5.1	0.18	2.18	0.66	30	221
40	12.18	12.17	33.718	25.561	242.5	0.126	4.70	77.3	7.8	1.05	10.7	0.24	2.64	0.93	40	220
50	11.53	11.52	33.731	25.693	230.1	0.150	3.90	63.3	14.2	1.37	15.9	0.23	1.80	0.86	50	219
59	11.04	11.03	33.750	25.797	220.4	0.170	3.39	54.4	17.8	1.55	19.1	0.12	0.80	0.61	59	218
70	10.56	10.55	33.779	25.904	210.4	0.194	3.08	49.0	20.6	1.72	21.3	0.06	0.36	0.31	70	217
75 ISL	10.28 D	10.27	33.803 D	25.972	204.1	0.204	3.00	47.4	21.6	1.77	22.0	0.05	0.26	0.24	75	
84	10.15	10.14	33.831	26.016	200.0	0.222	2.89	45.5	23.2	1.84	23.0	0.04	0.16	0.16	84	216
99	9.72	9.71	33.894	26.137	188.8	0.252	2.67	41.7	25.9	1.91	24.4	0.03	0.04	0.10	100	215
100 ISL	9.65 D	9.64	33.906 D	26.158	186.8	0.253	2.66	41.5	26.0	1.91	24.5	0.03	0.04	0.10	101	
119	9.38	9.37	33.986	26.266	177.0	0.288	2.47	38.3	28.8	2.01	26.0	0.03	0.02	0.08	120	214
125 ISL	9.15 D	9.14	34.010 D	26.321	171.7	0.298	2.42	37.3	29.8	2.04	26.4	0.03	0.02	0.08	126	
138	9.09	9.08	34.048	26.361	168.2	0.321	2.31	35.6	32.0	2.11	27.2	0.03	0.01	0.07	139	213
150 ISL	9.09 D	9.07	34.087 D	26.392	165.6	0.341	2.21	34.1	33.3	2.16	27.7	0.03	0.01	0.07	151	
169	8.86	8.84	34.108	26.445	160.8	0.372	2.01	30.8	35.4	2.24	28.6	0.04	0.01	0.07	170	212
199	8.54	8.52	34.186	26.556	150.8	0.418	1.51	23.0	41.2	2.43	30.7	0.04	0.01	0.07	200	211
200 ISL	8.33 D	8.31	34.172 D	26.577	148.7	0.420	1.50	22.7	41.4	2.43	30.8	0.04			201	
228	8.25	8.23	34.216	26.625	144.7	0.461	1.25	18.9	45.3	2.54	32.0	0.03			229	210
250 ISL	8.15 D	8.12	34.227 D	26.648	142.8	0.493	1.17	17.7	47.6	2.59	32.7	0.02			252	
268	7.86	7.83	34.227	26.692	138.9	0.518	1.11	16.7	49.2	2.63	33.2	0.02			270	209
300 ISL	7.77 D	7.74	34.274 D	26.742	134.7	0.562	0.83	12.4	52.5	2.75	34.1	0.01			302	
318	7.65	7.62	34.289	26.772	132.1	0.586	0.67	10.0	54.4	2.82	34.6	0.01			320	208
378	7.20	7.16	34.291	26.838	126.5	0.663	0.54	8.0	60.5	2.91	36.2	0.01			380	207
400 ISL	7.03 D	6.99	34.288 D	26.859	124.7	0.691	0.49	7.2	62.8	2.94	36.8	0.01			403	
437	6.78	6.74	34.302	26.905	120.8	0.736	0.42	6.1	66.6	3.00	37.7	0.01			440	206
500 ISL	6.40 D	6.35	34.315 D	26.966	115.5	0.811	0.39	5.7	72.9	3.08	38.9	0.01			504	
511	6.32	6.27	34.319	26.980	114.3	0.823	0.38	5.5	74.2	3.09	39.1	0.01			515	205
582	5.74	5.69	34.358	27.084	104.7	0.901	0.18	2.6	86.1	3.22	39.8	0.01			586	204
600 ISL	5.68 D	5.63	34.364 D	27.097	103.7	0.920	0.16	2.3	88.8	3.24	39.7	0.01			604	
654	5.48	5.42	34.377	27.132	100.9	0.975	0.12	1.7	95.8	3.27	38.9	0.01			659	203
700 ISL	5.35 D	5.29	34.387 D	27.155	99.0	1.021	0.10	1.4	100.3	3.31	37.8	0.01			705	
725	5.31	5.25	34.389	27.162	98.6	1.046	0.09	1.3	102.3	3.33	37.2	0.01			731	202
769	5.24	5.18	34.395	27.175	97.8	1.089	0.09	1.3	105.3	3.37	36.2	0.02			775	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 29.6 N	119 18.9 W	05/07/07	1842 UTC	1652 m	240 05 kn	270 03 06	2	1011.7 mb	17.8 C	16.2 C	11m	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	17.47	17.47	33.736	24.433	348.7	0.000	6.04	110.6	0.9	0.21	0.3	0.01	0.42	0.03	0	
2 A	17.47	17.47	33.736	24.434	348.8	0.007	6.04	110.6	0.9	0.21	0.3	0.01	0.42	0.03	2	222
6 A	17.41	17.41	33.736	24.448	347.5	0.021	6.07	111.0	0.7	0.21	0.3	0.01	0.45	0.03	6	221
10	13.30	13.30	33.735	25.354	261.4	0.033	6.09	102.6	2.2	0.50	4.5	0.14	1.77	0.37	10	220
16 A	11.97	11.97	33.725	25.605	237.6	0.048	4.75	77.8	7.0	0.96	10.7	0.22	3.45	0.45	16	219
20 ISL	11.16 D	11.16	33.739 D	25.766	222.4	0.057	3.82	61.5	12.7	1.32	15.8	0.21	3.01	0.52	20	
23 A	11.01	11.01	33.748	25.800	219.2	0.064	3.27	52.5	16.7	1.54	19.0	0.21	2.68	0.58	23	218
29 A	10.72	10.72	33.766	25.865	213.1	0.077	3.01	48.0	19.3	1.67	20.9	0.14	1.62	0.70	29	217
30 ISL	10.63 D	10.63	33.776 D	25.889	210.9	0.079	2.98	47.4	19.7	1.69	21.2	0.13	1.49	0.67	30	
42 A	10.23	10.23	33.819	25.992	201.4	0.104	2.74	43.3	22.6	1.83	23.3	0.06	0.49	0.22	42	216
50 ISL	10.13 D	10.12	33.831 D	26.019	199.0	0.120	2.68	42.2	23.2	1.85	23.7	0.05	0.21	0.18	50	
51	10.13	10.12	33.832	26.019	199.0	0.122	2.68	42.2	23.2	1.85	23.7	0.05	0.19	0.18	51	215
60	9.98	9.97	33.860	26.067	194.7	0.139	2.61	41.0	24.2	1.89	24.3	0.04	0.13	0.14	60	214
70	9.82	9.81	33.924	26.144	187.6	0.159	2.36	36.9	26.3	2.02	25.5	0.03	0.08	0.13	70	213
75 ISL	9.70 D	9.69	33.945 D	26.180	184.2	0.168	2.37	37.0	27.0	2.01	25.8	0.03	0.06	0.13	75	
84	9.51	9.50	33.976	26.236	179.1	0.184	2.40	37.3	28.0	2.00	26.2	0.02	0.03	0.13	84	212
99	9.32	9.31	34.005	26.290	174.2	0.211	2.39	37.0	29.1	2.03	26.6	0.03	0.02	0.08	100	211
100 ISL	9.22 D	9.21	34.004 D	26.305	172.8	0.212	2.39	36.9	29.2	2.03	26.6	0.03	0.02	0.08	101	
120	9.14	9.13	34.030	26.339	170.0	0.247	2.31	35.6	30.8	2.07	27.3	0.03	0.01	0.08	121	210
125 ISL	8.94 D	8.93	34.025 D	26.367	167.4	0.255	2.28	35.0	31.3	2.08	27.5	0.03	0.01	0.07	126	
140	8.96	8.94	34.084	26.410	163.6	0.280	2.15	33.0	33.1	2.14	28.2	0.04	0.01	0.06	141	209
150 ISL	8.95 D	8.93	34.121 D	26.441	160.9	0.296	1.96	30.1	34.6	2.21	28.9	0.05	0.01	0.07	151	
168	8.82	8.80	34.129	26.468	158.7	0.325	1.60	24.5	37.5	2.34	30.3	0.08	0.01	0.09	169	208
200 ISL	8.44 D	8.42	34.201 D	26.583	148.2	0.374	1.35	20.5	41.4	2.50	31.6	0.11	0.02	0.05	201	
201	8.46	8.44	34.190	26.572	149.3	0.376	1.35	20.5	41.5	2.50	31.6	0.11	0.02	0.05	202	207
231	8.24	8.22	34.229	26.636	143.7	0.419	1.09	16.5	46.6	2.58	32.7	0.05			232	206
250 ISL	8.17 D	8.14	34.240 D	26.656	142.1	0.447	1.00	15.1	48.7	2.64	33.3	0.04			252	
265	8.05	8.02	34.252	26.683	139.8	0.468	0.95	14.3	50.0	2.69	33.7	0.04			267	205
300 ISL	7.84 D	7.81	34.260 D	26.721	136.7	0.516	0.82	12.3	52.4	2.74	34.3	0.04			302	
319	7.70	7.67	34.261	26.742	134.9	0.542	0.76	11.4	53.8	2.76	34.6	0.04			321	204
377	7.28	7.24	34.284	26.821	128.1	0.618	0.57	8.4	60.4	2.88	36.2	0.02			380	203
400 ISL	7.08 D	7.04	34.282 D	26.848	125.9	0.647	0.48	7.1	63.7	2.93	36.8	0.02			403	
437	6.81	6.77	34.309	26.906	120.7	0.693	0.36	5.3	68.9	3.00	37.7	0.02			440	202
500 ISL	6.49 D	6.44	34.322 D	26.960	116.2	0.768	0.29	4.2	74.2	3.07	38.7	0.02			504	
512	6.39	6.34	34.318	26.970	115.4	0.782	0.28	4.1	75.2	3.08	38.9	0.02			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 50.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 19.3 N	119 39.3 W	05/07/07	2318 UTC	81 m	300 16 kn	280 04 08	2	1010.8 mb	16.0 C	14.9 C	5m	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	15.20	15.20	33.822	25.021	292.8	0.000	6.04	105.8	2.1	0.37	3.4	0.13	6.94	0.12	0	
2	15.20	15.20	33.822	25.021	292.8	0.006	6.04	105.8	2.1	0.37	3.4	0.13	6.94	0.12	2	210
5	15.20	15.20	33.822	25.021	292.9	0.015	6.04	105.8	2.0	0.35	3.4	0.12	6.45	0.10	5	209
10	13.51	13.51	33.842	25.394	257.6	0.028	5.01	84.8	9.1	0.82	9.6	0.14	5.06	0.51	10	207
11	13.21	13.21	33.845	25.457	251.6	0.031	4.89	82.3	9.9	0.86	10.2	0.15	4.65	0.65	11	208
20	11.36	11.36	33.877	25.837	215.7	0.052	3.62	58.6	17.9	1.42	17.9	0.18	3.52	0.36	20	206
30	10.58	10.58	33.902	25.996	200.8	0.073	3.08	49.0	22.4	1.62	21.2	0.17	1.04	0.51	30	205
40	9.97	9.97	33.965	26.150	186.3	0.092	2.55	40.1	28.0	1.84	24.5	0.15	1.08	0.66	40	204
50	9.94	9.93	33.971	26.160	185.6	0.111	2.52	39.6	28.6	1.89	24.7	0.15	0.97	0.59	50	203
60	9.80	9.79	33.989	26.198	182.2	0.129	2.42	37.9	29.8	1.94	25.3	0.13	0.84	0.53	60	202
72	9.20	9.19	34.041	26.337	169.2	0.150	2.05	31.7	33.9	2.09	27.9	0.08	0.12	0.23	72	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 8.9 N	119 59.8 W	06/07/07	0322 UTC	1244 m	320 27 kn	300 08 07	2	1009.9 mb	15.0 C	14.0 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	15.06	15.06	33.732	24.982	296.5	0.000	6.07	106.0	1.1	0.33	2.4	0.09	3.19	0.76	0	
2	15.06	15.06	33.732	24.982	296.5	0.006	6.07	106.0	1.1	0.33	2.4	0.09	3.19	0.76	2	221
10	15.07	15.07	33.733	24.981	296.9	0.030	6.08	106.2	1.2	0.32	2.4	0.09	3.13	0.76	10	219
10	15.07	15.07	33.733	24.981	296.9	0.030									10	220
20 ISL	13.90 D	13.90	33.740 D	25.235	272.9	0.058	5.73	97.7	3.7	0.58	5.9	0.15	3.22	0.97	20	
21	13.91	13.91	33.744	25.237	272.9	0.061	5.69	97.1	4.0	0.61	6.3	0.16	3.23	1.01	21	218
30	13.78	13.78	33.733	25.255	271.4	0.085	5.73	97.5	4.0	0.62	6.5	0.18	3.03	1.70	30	217
40	12.50	12.49	33.738	25.515	246.8	0.111	4.97	82.3	9.6	1.08	11.8	0.40	1.16	0.47	40	216
50	11.06	11.05	33.754	25.796	220.3	0.135	4.06	65.2	16.6	1.40	18.5	0.20	0.57	0.33	50	215
60	9.94	9.93	33.811	26.035	197.7	0.156	3.19	50.0	23.3	1.71	23.6	0.03	0.10	0.20	60	214
71	9.76	9.75	33.815	26.069	194.7	0.177	3.13	48.9	24.2	1.73	24.0	0.03	0.08	0.17	71	213
75 ISL	9.68 D	9.67	33.822 D	26.087	193.0	0.185	3.11	48.5	24.4	1.74	24.2	0.03	0.07	0.17	75	
84	9.63	9.62	33.828	26.100	191.9	0.202	3.05	47.5	25.0	1.76	24.6	0.02	0.06	0.16	84	212
99	9.37	9.36	33.864	26.171	185.5	0.230	2.97	46.0	26.2	1.76	24.8	0.03	0.03	0.13	100	211
100 ISL	9.33 D	9.32	33.873 D	26.185	184.2	0.232	2.94	45.5	26.5	1.77	24.9	0.03	0.03	0.13	101	
119	9.08	9.07	34.015	26.337	170.2	0.266	2.21	34.0	33.1	2.02	27.8	0.03	0.03	0.12	120	210
125 ISL	8.96 D	8.95	34.052 D	26.385	165.7	0.276	2.09	32.1	34.4	2.07	28.3	0.03	0.03	0.11	126	
142	8.80	8.78	34.095	26.444	160.4	0.304	1.87	28.6					0.02	0.10	143	209
150 ISL	8.68 D	8.66	34.119 D	26.481	156.9	0.316	1.80	27.5	38.7	2.21	30.0	0.03	0.02	0.10	151	
169	8.57	8.55	34.136	26.512	154.4	0.346	1.66	25.3	40.7	2.26	30.7	0.02	0.01	0.09	170	208
198	8.23	8.21	34.169	26.590	147.4	0.390	1.44	21.8	44.2	2.34	32.0	0.01	0.01	0.08	199	207
200 ISL	8.23 D	8.21	34.172 D	26.593	147.2	0.393	1.43	21.6	44.3	2.35	32.0	0.01			201	
229	8.20	8.18	34.201	26.620	145.1	0.435	1.21	18.3	46.6	2.44	32.6	0.01			230	206
250 ISL	7.97 D	7.94	34.227 D	26.675	140.2	0.465	1.05	15.8	49.8	2.54	33.5	0.01			252	
268	7.76	7.73	34.238	26.715	136.6	0.490	0.92	13.8	53.1	2.62	34.3	0.01			270	205
300 ISL	7.31 D	7.28	34.273 D	26.807	128.2	0.532	0.70	10.4	59.0	2.74	35.7	0.01			302	
320	7.15	7.12	34.275	26.831	126.1	0.558	0.58	8.6	62.3	2.80	36.4	0.01			322	204
378	6.83	6.79	34.291	26.889	121.4	0.630	0.44	6.4	67.6	2.94	37.7	0.01			381	203
400 ISL	6.63 D	6.59	34.295 D	26.919	118.7	0.656	0.39	5.7	69.9	2.96	38.1	0.01			403	
440	6.42	6.38	34.314	26.962	115.1	0.703	0.31	4.5	74.4	2.99	38.7	0.01			443	202
500 ISL	5.93 D	5.89	34.339 D	27.045	107.6	0.770	0.25	3.6	82.0	3.07	40.0	0.01			504	
512	5.90	5.86	34.341	27.050	107.2	0.782	0.24	3.4	83.5	3.08	40.3	0.01			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 59.2 N	120 20.7 W	06/07/07	0732	UTC	727 m	300 18 kn			1011.9 mb	15.0 C	14.4 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	15.19	15.19	33.465 D	24.748	318.8	0.000	5.94	103.8	1.4	0.43	3.3	0.12	0.49	0.13	0	
2	15.19	15.19	33.465 D	24.748	318.8	0.006	5.94	103.8	1.4	0.43	3.3	0.12	0.49	0.13	2	221
9	15.17	15.17	33.468	24.755	318.4	0.029									9	220
10	15.17	15.17	33.468	24.755	318.4	0.032	5.94	103.8	1.3	0.42	3.3	0.12	0.46	0.12	10	219
20	14.83	14.83	33.435	24.804	314.1	0.063	5.96	103.4	1.4	0.46	3.7	0.13	0.58	0.16	20	218
30	13.57	13.57	33.314	24.974	298.1	0.094	5.96	100.7	2.0	0.57	5.0	0.18	0.87	0.26	30	217
40	12.89	12.88	33.430	25.200	276.8	0.123	5.63	93.9	5.0	0.75	7.5	0.21	0.79	0.32	40	216
50	11.67	11.66	33.406	25.414	256.6	0.150	5.10	82.8	8.9	0.96	11.6	0.16	0.33	0.21	50	215
60	11.55	11.54	33.499	25.509	247.8	0.175	4.68	75.9	10.6	1.03	13.3	0.05	0.17	0.14	60	214
70	11.11	11.10	33.566	25.641	235.4	0.199	4.28	68.8	13.6	1.24	16.4	0.04	0.10	0.08	70	213
75 ISL	10.76 D	10.75	33.572 D	25.708	229.2	0.210	4.06	64.7	15.2	1.32	17.8	0.04	0.08	0.07	75	
85	10.30	10.29	33.634	25.837	217.1	0.233	3.64	57.5	18.1	1.46	20.2	0.04	0.05	0.06	85	212
100	9.82	9.81	33.734	25.996	202.2	0.264	3.25	50.8	21.6	1.60	22.5	0.03	0.03	0.05	100	211
119	9.15	9.14	33.875	26.216	181.6	0.301	3.24	49.9	25.5	1.68	24.0	0.02	0.01	0.04	120	210
125 ISL	9.09 D	9.08	33.892 D	26.239	179.5	0.312	3.22	49.6	25.9	1.69	24.1	0.02	0.01	0.04	126	
140	8.99	8.97	33.924	26.280	175.9	0.338	3.18	48.9	27.2	1.72	24.7	0.02	0.01	0.04	141	209
150 ISL	8.95 D	8.93	34.059 D	26.392	165.5	0.355	2.75	42.3	30.4	1.86	26.4	0.02	0.01	0.05	151	
170	8.78	8.76	34.104	26.454	159.9	0.388	1.79	27.4	37.5	2.19	30.0	0.01	0.01	0.07	171	208
198	8.44	8.42	34.170	26.559	150.4	0.431	1.37	20.8	43.1	2.38	32.0	0.02	0.01	0.05	199	207
200 ISL	8.42 D	8.40	34.173 D	26.564	149.9	0.434	1.35	20.5	43.3	2.39	32.1	0.02			201	
230	8.38	8.36	34.209	26.599	147.2	0.479	1.12	17.0	45.4	2.47	32.6	0.02			231	206
250 ISL	8.22 D	8.19	34.231 D	26.641	143.6	0.508	1.00	15.1	47.6	2.53	33.1	0.02			251	
269	8.07	8.04	34.236	26.668	141.3	0.535	0.92	13.9	50.0	2.58	33.7	0.02			271	205
300 ISL	7.68 D	7.65	34.225 D	26.717	137.0	0.578	0.87	13.0	54.1	2.64	34.8	0.02			302	
316	7.48	7.45	34.227	26.747	134.3	0.600			56.1	2.67	35.3	0.02			318	204
379	6.86	6.82	34.202	26.814	128.5	0.683	0.81	11.9	62.2	2.73	37.0	0.02			381	203
400 ISL	6.67 D	6.63	34.205 D	26.842	125.9	0.709	0.76	11.1	64.2	2.76	37.5	0.02			403	
438	6.50	6.46	34.218	26.876	123.2	0.757	0.64	9.3	68.3	2.83	38.5	0.01			441	202
500 ISL	6.01 D	5.97	34.266 D	26.977	114.0	0.830	0.40	5.7	77.4	2.98	40.2	0.01			503	
513	5.92	5.88	34.279	26.999	112.1	0.845	0.35	5.0	79.3	3.01	40.5	0.01			517	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 39.4 N	121 1.9 W	06/07/07	1355	UTC	3791 m	320 18 kn	320 07 07	2	1013.0 mb	15.7 C	14.6 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	15.51	15.51	33.320	24.566	336.1	0.000	5.85	102.8	1.7	0.29	1.0	0.06	0.33	0.10	0	
2	15.51	15.51	33.320	24.566	336.2	0.007	5.85	102.8	1.7	0.29	1.0	0.06	0.33	0.10	2	221
9	15.50	15.50	33.320	24.569	336.1	0.030	5.86	103.0	1.7	0.29	1.0	0.06	0.35	0.10	9	219
9	15.50	15.50	33.319	24.568	336.2	0.030									9	220
10 ISL	15.50 D	15.50	33.320 D	24.569	336.2	0.034	5.86	103.0	1.7	0.29	1.0	0.06	0.35	0.10	10	
19	15.50	15.50	33.322	24.570	336.3	0.064	5.85	102.8	1.7	0.29	0.9	0.06	0.34	0.11	19	218
20 ISL	15.46 D	15.46	33.316 D	24.575	335.9	0.067	5.85	102.7	1.7	0.29	0.9	0.06	0.34	0.11	20	
29	15.44	15.44	33.313	24.577	335.9	0.097	5.86	102.9	1.7	0.30	1.0	0.07	0.37	0.11	29	217
30 ISL	15.46 D	15.46	33.316 D	24.575	336.2	0.101	5.86	102.9	1.7	0.30	1.0	0.07	0.37	0.11	30	
40	15.35	15.34	33.311	24.596	334.5	0.134	5.89	103.2	1.7	0.31	1.1	0.07	0.41	0.12	40	216
49	13.78	13.77	33.242	24.876	307.9	0.163	6.11	103.6	1.7	0.50	3.5	0.19	0.65	0.19	49	215
50 ISL	13.80 D	13.79	33.269 D	24.893	306.4	0.166	6.10	103.5	1.8	0.50	3.6	0.19	0.65	0.20	50	
59	13.41	13.40	33.289	24.988	297.5	0.194	5.92	99.7	2.7	0.55	4.1	0.20	0.54	0.25	59	214
70	13.00	12.99	33.295	25.075	289.5	0.226	5.71	95.3	4.0	0.50	3.6	0.23	0.42	0.37	70	213
75 ISL	13.02 D	13.01	33.357 D	25.119	285.5	0.240	5.60	93.6	4.4	0.53	4.3	0.18	0.35	0.34	75	
85	12.60	12.59	33.394	25.230	275.1	0.268	5.38	89.1	5.0	0.61	6.1	0.06	0.21	0.23	85	212
100	11.98	11.97	33.391	25.346	264.3	0.309	5.18	84.7	6.5	0.71	7.9	0.04	0.11	0.17	100	211
119	10.19	10.18	33.565	25.802	221.1	0.355	4.09	64.4	16.0	1.28	17.7	0.01	0.02	0.03	120	210
125 ISL	9.78 D	9.77	33.682 D	25.962	205.9	0.368	3.95	61.7	17.8	1.36	19.2	0.01	0.02	0.03	126	
139	9.42	9.40	33.791	26.107	192.4	0.395	3.77	58.4	21.2	1.47	21.3	0.01	0.01	0.02	140	209
150 ISL	9.12 D	9.10	33.886 D	26.230	180.9	0.416	3.55	54.7	24.2	1.58	22.9	0.01	0.01	0.02	151	
171	8.80	8.78	33.960	26.338	170.9	0.453	3.20	49.0	29.0	1.73	25.1	0.02	0.00	0.03	172	208
199	8.49	8.47	33.991	26.411	164.5	0.500	3.11	47.3	31.9	1.77	26.2	0.02	0.00	0.03	200	207
200 ISL	8.42 D	8.40	33.996 D	26.426	163.1	0.502	3.09	46.9	32.1	1.78	26.3	0.02			201	
229	8.09	8.07	34.041	26.511	155.4	0.548	2.48	37.4	38.5	2.02	29.4	0.01			230	206
250 ISL	7.70 D	7.68	34.045 D	26.572	149.8	0.580	2.31	34.5	42.9	2.12	31.0	0.01			251	
268	7.37	7.34	34.039	26.614	145.9	0.606	2.20	32.6	46.5	2.20	32.1	0.01			270	205
300 ISL	7.11 D	7.08	34.083 D	26.685	139.5	0.652	1.67	24.6	52.2	2.41	34.4	0.01			302	
318	7.02	6.99	34.114	26.722	136.3	0.677	1.36	20.0	55.2	2.53	35.6	0.01			320	204
382	6.52	6.49	34.180	26.842	125.5	0.761	0.83	12.1	65.4	2.76	38.2	0.01			384	203
400 ISL	6.30 D	6.26	34.169 D	26.862	123.7	0.783	0.74	10.7	68.0	2.81	38.8	0.01			403	
438	6.15	6.11	34.215	26.918	118.8	0.829	0.58	8.4	72.8	2.90	39.7	0.01			441	202
500 ISL	6.02 D	5.98	34.297 D	27.000	111.9	0.901	0.35	5.0	78.4	3.01	40.5	0.01			503	
515	5.94	5.89	34.303	27.015	110.6	0.917	0.29	4.2	79.8	3.04	40.7	0.01			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 19.8 N	121 42.6 W	06/07/07	2032	UTC	3954 m	280 06 kn	330 06 08	2	1015.3 mb	17.2 C	16.1 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	14.71	14.71	33.511	24.887	305.5	0.000	6.17	106.9	0.4	0.42	2.7	0.16	0.89	0.01	0	
1 A	14.71	14.71	33.511	24.887	305.5	0.003	6.17	106.9	0.4	0.42	2.7	0.16	0.89	0.01	1	222
8 A	14.65	14.65	33.512	24.901	304.4	0.024	6.17	106.7	0.4	0.45	2.7	0.16	0.86	0.12	8	221
10	14.65	14.65	33.517	24.905	304.1	0.030	6.15	106.4	0.4	0.41	2.7	0.16	0.93	0.12	10	220
19 A	14.65	14.65	33.527	24.913	303.6	0.058	6.13	106.0	0.4	0.41	2.7	0.16	1.19	0.06	19	219
20 ISL	14.61 D	14.61	33.519 D	24.916	303.4	0.061	6.13	105.9	0.4	0.41	2.7	0.16	1.16	0.08	20	
26 A	14.57	14.57	33.510	24.917	303.4	0.079	6.14	106.0	0.4	0.45	2.7	0.16	0.95	0.20	26	218
30 ISL	14.61 D	14.61	33.570 D	24.955	299.9	0.091	6.05	104.6	0.9	0.49	2.7	0.18	0.89	0.19	30	
35 A	14.10	14.09	33.696	25.160	280.5	0.106	5.86	100.3	1.6	0.53	2.8	0.20	0.77	0.17	35	217
41	12.52	12.51	33.434	25.275	269.6	0.122	5.59	92.5	5.5	0.76	7.3	0.20	0.40	0.15	41	216
48 A	11.54	11.53	33.280	25.340	263.5	0.141	5.35	86.6	8.7	0.95	10.6	0.20	0.32	0.19	48	215
50 ISL	11.41 D	11.40	33.273 D	25.359	261.8	0.146	5.29	85.4	9.4	0.98	11.3	0.20	0.35	0.20	50	
60	11.09	11.08	33.306	25.442	254.1	0.172	5.02	80.5	11.7	1.06	13.2	0.21	0.45	0.23	60	214
70	12.23	12.22	33.734	25.564	242.9	0.197	4.88	80.4	12.2	1.11	12.2	0.43	0.21	0.22	70	213
75 ISL	11.90 D	11.89	33.751 D	25.640	235.8	0.209	4.47	73.1	14.5	1.25	14.9	0.41	0.21	0.22	75	
84	10.54	10.53	33.712	25.856	215.3	0.229	3.62	57.5	19.6	1.53	20.8	0.27	0.22	0.22	84	212
99	10.02	10.01	33.841	26.046	197.5	0.260	2.95	46.4	24.6	1.75	24.2	0.06	0.20	0.23	99	211
100 ISL	10.00 D	9.99	33.870 D	26.072	195.1	0.262	2.94	46.2	24.8	1.76	24.3	0.06	0.20	0.23	100	
119	9.35	9.34	33.908	26.209	182.3	0.298	2.80	43.4	27.8	1.83	25.7	0.05	0.10	0.14	120	210
125 ISL	9.35 D	9.34	33.928 D	26.225	180.9	0.309	2.66	41.2	29.0	1.88	26.4	0.05	0.08	0.14	126	
140	9.19	9.17	33.997	26.305	173.6	0.335	2.28	35.2	32.0	2.01	28.1	0.05	0.06	0.14	141	209
150 ISL	9.05 D	9.03	34.042 D	26.363	168.3	0.352	2.15	33.1	33.9	2.07	28.9	0.06	0.06	0.15	151	
169	8.72	8.70	34.078	26.443	160.9	0.384	1.95	29.8	37.4	2.16	30.3	0.06	0.05	0.15	170	208
198	8.48	8.46	34.140	26.529	153.3	0.429	1.54	23.4	42.0	2.33	32.2	0.03	0.04	0.12	199	207
200 ISL	8.48 D	8.46	34.143 D	26.532	153.1	0.432	1.54	23.4	42.2	2.33	32.3	0.03			201	
230	8.07	8.05	34.136	26.589	148.0	0.477	1.56	23.5	45.5	2.35	33.1	0.02			231	206
250 ISL	7.56 D	7.54	34.085 D	26.623	144.9	0.507	1.48	22.0	47.6	2.40	33.8	0.02			251	
270	7.67	7.64	34.151	26.660	141.8	0.535	1.35	20.2	50.0	2.46	34.6	0.02			272	205
300 ISL	7.34 D	7.31	34.167 D	26.719	136.5	0.577	1.13	16.7	54.6	2.58	36.0	0.01			302	
320	7.21	7.18	34.193	26.758	133.0	0.604	0.99	14.6	57.7	2.66	36.9	0.01			322	204
379	6.78	6.74	34.217	26.837	126.2	0.681	0.70	10.2	63.8	2.77	38.6	0.01			381	203
400 ISL	6.56 D	6.52	34.227 D	26.874	122.8	0.707	0.62	9.0	66.4	2.82	39.2	0.01			403	
436	6.34	6.30	34.238	26.912	119.6	0.750	0.52	7.5	71.2	2.90	40.2	0.01			439	202
500 ISL	5.64 D	5.60	34.239 D	27.001	111.3	0.824	0.43	6.1	81.3	3.00	42.2	0.01			503	
513	5.60	5.56	34.246	27.012	110.4	0.839	0.41	5.8	83.4	3.02	42.6	0.01			517	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 59.2 N	122 23.2 W	07/07/07	0312	UTC	4092 m	340 18 kn	310 06 07	2	1013.9 mb	16.3 C	14.9 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	14.74	14.74	33.132	24.589	333.9	0.000	6.13	106.0	1.3	0.47	2.2	0.13	0.60	0.11	0	
2	14.74	14.74	33.132	24.589	334.0	0.007	6.13	106.0	1.3	0.47	2.2	0.13	0.60	0.11	2	221
10	14.69	14.69	33.135	24.602	332.9	0.033	6.15	106.2	1.2	0.42	2.3	0.14	0.69	0.12	10	220
11	14.68	14.68	33.137	24.606	332.6	0.037	6.15	106.2	1.2	0.41	2.3	0.14	0.71	0.12	11	219
20	14.26	14.26	33.134	24.693	324.6	0.066	6.09	104.3	1.3	0.45	2.7	0.15	0.92	0.27	20	218
30	13.99	13.99	33.146	24.758	318.6	0.098	6.13	104.4	1.1	0.49	3.1	0.15	1.04	0.29	30	217
40	13.49	13.48	33.166	24.876	307.7	0.130	6.02	101.5	1.4	0.57	4.0	0.19	0.91	0.37	40	216
50	13.24	13.23	33.183	24.940	301.9	0.160	5.93	99.4	2.3	0.67	5.0	0.21	0.84	0.44	50	215
59	12.87	12.86	33.204	25.030	293.5	0.187	5.83	97.0	3.3	0.75	6.1	0.21	0.89	0.46	59	214
69	12.20	12.19	33.194	25.151	282.1	0.216	5.61	92.0	5.8	0.78	7.2	0.15	0.52	0.30	69	213
75 ISL	11.92 D	11.91	33.271 D	25.264	271.5	0.232	5.55	90.6	6.4	0.79	7.7	0.13	0.40	0.29	75	
85	11.79	11.78	33.287	25.301	268.3	0.259	5.39	87.7	7.5	0.86	9.2	0.10	0.28	0.27	85	212
99	11.16	11.15	33.464	25.554	244.5	0.295	4.73	76.0	11.9	1.14	14.3	0.02	0.16	0.19	99	211
100 ISL	11.17 D	11.16	33.527 D	25.601	240.0	0.298	4.70	75.6	12.1	1.15	14.5	0.02	0.16	0.19	100	
119	10.82	10.81	33.613	25.730	228.1	0.342	4.16	66.4	15.7	1.39	18.2	0.01	0.11	0.16	120	210
125 ISL	10.34 D	10.33	33.684 D	25.870	214.9	0.355	3.93	62.1	17.3	1.47	19.4	0.01	0.09	0.14	126	
139	10.02	10.00	33.723	25.955	207.0	0.385	3.42	53.7	21.0	1.63	22.1	0.01	0.04	0.10	140	209
150 ISL	9.84 D	9.82	33.744 D	26.001	202.8	0.408	3.18	49.7	23.4	1.73	23.6	0.01	0.04	0.08	151	
169	9.22	9.20	33.895	26.221	182.2	0.444	2.91	44.9	27.1	1.87	25.4	0.01	0.03	0.07	170	208
199	8.80	8.78	34.008	26.376	167.9	0.497	2.55	39.0	32.4	2.02	27.5	0.01	0.02	0.05	200	207
200 ISL	8.71 D	8.69	34.030 D	26.408	164.9	0.498	2.53	38.6	32.6	2.03	27.6	0.01			201	
228	8.51	8.49	34.086	26.483	158.2	0.544	2.04	31.0	37.7	2.23	29.9	0.01			229	206
250 ISL	8.24 D	8.21	34.094 D	26.531	154.0	0.578	1.87	28.3	41.0	2.31	31.1	0.02			251	
268	8.06	8.03	34.119	26.577	149.8	0.605	1.76	26.5	43.6	2.37	31.8	0.02			270	205
300 ISL	7.78 D	7.75	34.179 D	26.666	141.8	0.652	1.39	20.8	48.5	2.53	33.2	0.01			302	
317	7.60	7.57	34.166	26.682	140.5	0.676	1.20	17.9	51.2	2.61	34.0	0.01			319	204
377	6.64	6.61	34.160	26.811	128.6	0.757	0.94	13.7	62.5	2.80	37.3	0.01			379	203
400 ISL	6.31 D	6.27	34.170 D	26.862	123.8	0.786	0.81	11.7	66.6	2.89	38.3	0.01			403	
438	6.08	6.04	34.197	26.913	119.2	0.832	0.62	8.9	72.7	3.01	39.6	0.01			441	202
500 ISL	5.73 D	5.69	34.236 D	26.988	112.7	0.904	0.47	6.7	79.5	3.08	40.7	0.01			503	
514	5.70	5.66	34.244	26.998	111.8	0.919	0.43	6.1	81.0	3.09	40.9	0.01			517	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 39.0 N	123 3.9 W	07/07/07	0924 UTC	4159 m	360 18 kn			1015.8 mb	17.1 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	17.05	17.05	33.169	24.099	380.6	0.000	5.66	102.5	2.4	0.29	0.3	0.00	0.11	0.01	0	
2	17.05	17.05	33.169	24.099	380.7	0.008	5.66	102.5	2.4	0.29	0.3	0.00	0.11	0.01	2	221
10 ISL	17.05 D	17.05	33.168 D	24.098	381.0	0.038	5.65	102.3	2.4	0.29	0.3	0.00	0.10	0.03	10	
11	17.05	17.05	33.176	24.104	380.5	0.042	5.65	102.3	2.4	0.29	0.3	0.00	0.10	0.03	11	220
16	17.06	17.06	33.169	24.097	381.4	0.061	5.65	102.3	2.5	0.31	0.3	0.00	0.11	0.02	16	219
20 ISL	17.00 D	17.00	33.168 D	24.110	380.2	0.076	5.66	102.4	2.5	0.32	0.3	0.00	0.11	0.03	20	
30	16.65	16.65	33.172	24.195	372.4	0.114	5.73	102.9	2.4	0.33	0.2	0.00	0.11	0.04	30	218
45	15.43	15.42	33.116	24.428	350.6	0.168	5.95	104.3	2.6	0.35	0.3	0.00	0.20	0.08	45	217
50 ISL	15.10 D	15.09	33.143 D	24.521	341.9	0.185	6.01	104.7	2.4	0.33	0.3	0.00	0.19	0.07	50	
55	14.55	14.54	33.075	24.587	335.7	0.202	6.06	104.3	2.2	0.32	0.3	0.00	0.18	0.06	55	216
65	14.12	14.11	33.092	24.691	326.1	0.235	6.10	104.1	2.3	0.36	0.4	0.01	0.20	0.09	65	215
75	14.30	14.29	33.278	24.797	316.3	0.267	5.95	102.0	2.0	0.31	0.3	0.00	0.18	0.09	75	214
84	13.58	13.57	33.176	24.867	309.8	0.296	5.94	100.3	2.3	0.37	0.5	0.05	0.21	0.11	84	213
95	13.46	13.45	33.351	25.027	294.9	0.329	5.59	94.2	2.9	0.41	1.4	0.10	0.23	0.11	95	212
100 ISL	13.06 D	13.05	33.339 D	25.098	288.2	0.343	5.50	92.0	3.3	0.45	2.4	0.09	0.22	0.12	100	
110	12.70	12.69	33.390	25.208	277.9	0.372	5.37	89.1	4.2	0.54	4.5	0.08	0.20	0.13	110	211
123	12.09	12.07	33.492	25.405	259.4	0.407	5.18	84.9	5.4	0.64	6.6	0.02	0.13	0.13	124	210
125 ISL	11.91 D	11.89	33.494 D	25.440	256.1	0.412	5.11	83.5	6.1	0.69	7.4	0.02	0.12	0.12	126	
145	10.47	10.45	33.557	25.748	226.9	0.460	4.37	69.2	13.9	1.22	15.9	0.01	0.02	0.03	146	209
150 ISL	9.92 D	9.90	33.633 D	25.901	212.3	0.471	4.24	66.4	15.4	1.30	17.2	0.01	0.02	0.03	151	
168	9.58	9.56	33.748	26.048	198.7	0.508	3.90	60.6	19.7	1.50	20.5	0.00	0.01	0.03	169	208
199	8.94	8.92	33.914	26.281	177.0	0.566	3.77	57.8	25.0	1.60	22.8	0.00	0.00	0.02	200	207
200 ISL	8.94 D	8.92	33.915 D	26.282	176.9	0.568	3.76	57.7	25.2	1.61	22.9	0.00			201	
230	8.51	8.49	33.962	26.386	167.5	0.620	3.33	50.6	30.4	1.79	25.7	0.00			231	206
250 ISL	8.01 D	7.98	33.993 D	26.485	158.1	0.652	3.05	45.8	34.7	1.93	27.6	0.00			251	
268	7.84	7.81	34.005	26.520	155.1	0.681	2.80	41.9	38.7	2.07	29.2	0.00			269	205
300 ISL	7.55 D	7.52	34.028 D	26.580	149.7	0.729	2.36	35.1	44.8	2.32	32.0	0.01			302	
318	7.36	7.33	34.064	26.636	144.7	0.756	2.12	31.4	48.1	2.44	33.5	0.01			320	204
378	6.53	6.50	34.080	26.762	133.1	0.839	1.36	19.8	59.8	2.65	36.9	0.00			380	203
400 ISL	6.36 D	6.32	34.091 D	26.793	130.3	0.868	1.17	16.9	62.9	2.73	37.7	0.00			402	
436	6.19	6.15	34.135	26.850	125.3	0.914	0.93	13.4	67.7	2.85	38.8	0.00			439	202
500 ISL	5.61 D	5.57	34.166 D	26.947	116.3	0.991	0.68	9.7	78.1	2.98	40.8	0.00			503	
514	5.53	5.49	34.170	26.960	115.2	1.008	0.63	8.9	80.4	3.01	41.2	0.00			517	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 19.2 N	123 44.8 W	07/07/07	1726 UTC	3844 m	350 20 kn	350 08 07	2	1018.0 mb	18.0 C	16.1 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	17.67	17.67	33.288	24.042	386.0	0.000	5.56	102.0	1.7	0.31	0.1	0.01	0.08	0.01	0	
3 A	17.67	17.67	33.288	24.042	386.1	0.012	5.56	102.0	1.7	0.31	0.1	0.01	0.08	0.01	3	223
3	17.67	17.67				0.012									3	224
10	17.67	17.67	33.293	24.047	386.0	0.039	5.55	101.8	1.6	0.28	0.0	0.01	0.09	0.01	10	222
13 A	17.67	17.67	33.288	24.043	386.4	0.050	5.56	102.0	1.6	0.28	0.1	0.01	0.08	0.00	13	221
20 ISL	17.68 D	17.68	33.289 D	24.042	386.8	0.077	5.56	102.0	1.6	0.28	0.1	0.01	0.09	0.00	20	
25	17.67	17.67	33.291	24.046	386.6	0.097	5.55	101.8	1.6	0.28	0.1	0.01	0.09	0.00	25	220
30 ISL	17.67 D	17.66	33.294 D	24.048	386.5	0.116	5.56	102.0	1.6	0.28	0.1	0.01	0.10	0.01	30	
34 A	17.63	17.62	33.304	24.066	385.0	0.131	5.57	102.1	1.6	0.28	0.1	0.01	0.10	0.01	34	219
50 A	17.18	17.17	33.424	24.265	366.4	0.191	5.68	103.2	1.6	0.26	0.2	0.00	0.11	0.00	50	218
64 A	16.31	16.30	33.581	24.589	336.0	0.241	5.87	105.0	1.6	0.24	0.1	0.01	0.11	0.02	64	217
75	16.28	16.27	33.656	24.654	330.2	0.277	5.83	104.3	1.6	0.23	0.2	0.01	0.12	0.01	75	216
84	15.77	15.76	33.589	24.718	324.3	0.307	5.84	103.3	1.6	0.24	0.2	0.01	0.14	0.01	84	215
91 A	15.41	15.40	33.552	24.770	319.5	0.329	5.83	102.4	1.6	0.25	0.2	0.01	0.19	0.02	91	214
99	15.30	15.28	33.574	24.811	315.8	0.355	5.79	101.5	1.7	0.25	0.1	0.01	0.18	0.04	99	213
100 ISL	15.29 D	15.27	33.573 D	24.813	315.7	0.358	5.79	101.5	1.7	0.25	0.1	0.01	0.20	0.05	100	
105	14.84	14.82	33.519	24.869	310.4	0.373	5.77	100.2	1.9	0.28	0.2	0.01	0.28	0.12	105	212
116	14.09	14.07	33.414	24.947	303.1	0.407	5.73	97.9	2.1	0.31	0.3	0.04	0.28	0.12	116	211
123	13.92	13.90	33.451	25.011	297.2	0.428	5.62	95.7	2.4	0.35	0.9	0.10	0.32	0.06	123	210
125 ISL	14.01 D	13.99	33.492 D	25.024	296.1	0.434	5.59	95.4	2.4	0.35	1.0	0.11	0.31	0.07	126	
138	14.04	14.02	33.708	25.185	281.2	0.472	5.36	91.6	3.2	0.41	2.7	0.15	0.20	0.16	139	209
150 ISL	13.04 D	13.02	33.721 D	25.399	260.9	0.504	5.05	84.6	6.0	0.64	6.7	0.10	0.11	0.13	151	
164	11.08	11.06	33.507	25.603	241.3	0.539	4.67	74.9	10.3	0.97	12.0	0.02	0.03	0.05	165	208
196	9.58	9.56	33.715	26.022	201.7	0.610	4.02	62.5	19.1	1.44	19.7	0.02	0.00	0.02	197	207
200 ISL	9.35 D	9.33	33.778 D	26.109	193.4	0.618	3.99	61.7	19.9	1.46	20.2	0.02			201	
232	8.86	8.84	33.940	26.314	174.4	0.677	3.77	57.7	25.8	1.60	22.7	0.02			233	206
250 ISL	8.51 D	8.48	33.976 D	26.397	166.8	0.708	3.46	52.6	29.6	1.73	24.7	0.02			251	
268	8.27	8.24	33.988	26.443	162.6	0.737	3.10	46.9	33.6	1.88	26.8	0.02			269	205
300 ISL	7.71 D	7.68	34.015 D	26.547	153.0	0.788	2.49	37.2	41.1	2.13	30.3	0.01			302	
317	7.54	7.51	34.045	26.595	148.6	0.813	2.18	32.4	44.9	2.26	31.9	0.01			319	204
381	6.87	6.83	34.105	26.737	135.8	0.905	1.35	19.8	56.4	2.64	36.2	0.01			383	203
400 ISL	6.60 D	6.56	34.108 D	26.775	132.2	0.930	1.18	17.2	59.7	2.71	37.1	0.01			402	
433	6.36	6.32	34.142	26.834	126.9	0.973	0.93	13.5	65.4	2.82	38.4	0.01			436	202
500 ISL	5.72 D	5.68	34.180 D	26.945	116.7	1.054	0.59	8.4	77.1	3.00	40.7	0.01			503	
513	5.65	5.61	34.197	26.967	114.7	1.069	0.52	7.4	79.4	3.03	41.1	0.01			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 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 53.3 N	118 26.7 W	05/07/07	0638 UTC	28 m	150 01 kn			1010.2 mb	19.4 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	21.65	21.65	33.734	23.354	451.6	0.000	6.07	120.2	1.8	0.06	0.0	0.02	1.77	0.52	0	
2	21.65	21.65	33.734	23.355	451.7	0.009	6.07	120.2	1.8	0.06	0.0	0.02	1.77	0.52	2	204
5	20.88	20.88	33.710	23.546	433.6	0.022	6.08	118.7	1.1	0.10	0.0	0.02	1.93	0.59	5	203
10	17.03	17.03	33.666	24.485	344.2	0.042	6.20	112.5	0.7	0.14	0.0	0.02	3.22	0.17	10	202
20	13.24	13.24	33.603	25.264	270.2	0.072	5.49	92.3	8.0	0.72	5.1	0.23	2.06	0.70	20	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 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 40.3 N	118 5.6 W	05/07/07	0248 UTC	23 m	240 07 kn	250 01 07	1	1008.6 mb	20.0 C	18.8 C		7/8	CS

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	20.59	20.59	33.653	23.580	430.1	0.000	5.97	115.9	0.6	0.12	0.0	0.01	0.98	0.18	0	
2	20.59	20.59	33.653	23.580	430.2	0.009	5.97	115.9	0.6	0.12	0.0	0.01	0.98	0.18	2	204
4	19.92	19.92	33.681	23.778	411.3	0.017	5.88	112.8	1.4	0.18	0.0	0.01	0.51	0.10	4	203
10	19.72	19.72	33.689	23.837	406.0	0.042	5.86	112.0	1.6	0.17	0.0	0.00	0.34	0.08	10	202
15	14.79	14.79	33.632	24.964	298.6	0.059	5.88	102.1	2.9	0.45	0.7	0.08	7.85	2.19	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 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 29.9 N	117 45.0 W	05/07/07	0027 UTC	24 m	240 05 kn	230 01 07	1	1008.7 mb	21.2 C	19.0 C		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	21.94	21.94	33.758	23.293	457.6	0.000	5.83	116.1	2.4	0.21	0.0	0.02	1.23	0.25	0	
2	21.94	21.94	33.758	23.293	457.6	0.009	5.83	116.1	2.4	0.21	0.0	0.02	1.23	0.25	2	204
4	21.77	21.77	33.762	23.343	452.9	0.018	5.74	113.9	2.2	0.20	0.0	0.02	1.24	0.29	4	203
10	20.16	20.16	33.744	23.764	413.0	0.044	5.78	111.4	2.2	0.22	0.0	0.02	1.82	0.54	10	202
15	18.34	18.34	33.685	24.183	373.1	0.064	5.79	107.8	3.7	0.34	0.4	0.08	2.81	1.00	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 29.0 N	117 46.1 W	04/07/07	2245 UTC	68 m	220 06 kn	170 01 08	1	1009.8 mb	21.0 C	19.2 C		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	21.52	21.52	33.751	23.403	447.0	0.000	5.76	113.8	1.3	0.17	0.0	0.00	0.43	0.09	0	
2	21.52	21.52	33.751	23.403	447.1	0.009	5.76	113.8	1.3	0.17	0.0	0.00	0.43	0.09	2	208
5	20.96	20.96	33.740	23.547	433.4	0.022	5.86	114.6	1.3	0.18	0.0	0.00	0.44	0.10	5	207
10	20.61	20.61	33.734	23.637	425.1	0.044	5.92	115.0	1.4	0.18	0.1	0.01	0.57	0.14	10	206
20	15.66	15.66	33.645	24.783	316.0	0.081	6.76	119.4	1.4	0.27	0.1	0.01	2.64	0.46	20	205
30	12.13	12.13	33.646	25.514	246.6	0.109	4.82	79.2	11.9	0.94	7.7	0.24	1.97	0.94	30	204
40	11.43	11.43	33.667	25.661	232.9	0.133	3.92	63.5	14.5	1.32	14.6	0.43	0.92	0.60	40	203
50	11.08	11.07	33.686	25.740	225.6	0.156	3.61	58.0	16.3	1.49	17.4	0.36	0.65	0.48	50	202
60	10.76	10.75	33.704	25.811	219.1	0.178	3.38	53.9	17.8	1.59	18.8	0.33	0.47	0.44	60	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 25.0 N	117 54.3 W	04/07/07	1943 UTC	617 m	150 08 kn	110 01 07	1	1010.6 mb	21.5 C	18.9 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	21.06	21.06	33.755	23.532	434.7	0.000	5.70	111.7	1.6	0.19	0.0	0.00	0.16	0.00	0	
1 A	21.06	21.06	33.755	23.532	434.8	0.004	5.70	111.7	1.6	0.19	0.0	0.00	0.16	0.00	1	222
10 ISL	18.27 D	18.27	33.694 D	24.207	370.6	0.041	6.30	117.1	2.1	0.21	0.0	0.00	0.19	0.00	10	
11 A	17.91	17.91	33.690	24.292	362.5	0.044	6.39	118.0	2.2	0.21	0.0	0.00	0.19	0.00	11	221
20	15.82	15.82	33.660	24.759	318.3	0.075	6.73	119.3	1.9	0.25	0.0	0.00	0.24	0.01	20	220
30 A	13.50	13.50	33.690	25.279	269.0	0.104	6.41	108.4	0.6	0.44	1.0	0.06	1.54	0.15	30	219
36	12.40	12.40	33.695	25.501	248.1	0.120	4.98	82.3	9.9	1.09	11.8	0.51	1.09	0.56	36	218
43 A	11.80	11.79	33.682	25.605	238.3	0.137	4.77	77.8	11.6	1.24	15.2	0.05	0.61	0.30	43	217
50	11.26	11.25	33.691	25.711	228.4	0.153	4.29	69.2	14.5	1.39	17.5	0.05	0.45	0.17	50	216
57 A	10.89	10.88	33.687	25.774	222.5	0.169	3.98	63.7	16.2	1.46	18.5	0.04	0.28	0.19	57	215
67	10.38	10.37	33.731	25.898	210.9	0.191	3.52	55.7	19.4	1.61	20.8	0.03	0.13	0.16	67	214
75 ISL	10.13 D	10.12	33.775 D	25.975	203.7	0.207	3.29	51.8	21.3	1.69	22.2	0.02	0.11	0.15	75	
80 A	10.04	10.03	33.787	26.000	201.4	0.217	3.19	50.1	22.3	1.73	22.8	0.02	0.10	0.14	80	213
90	9.90	9.89	33.818	26.048	197.1	0.237	3.04	47.6	23.6	1.79	23.5	0.02	0.06	0.09	90	212
99	9.75	9.74	33.851	26.099	192.4	0.255	2.88	45.0	25.0	1.84	24.4	0.02	0.05	0.11	100	211
100 ISL	9.75 D	9.74	33.850 D	26.098	192.5	0.257	2.86	44.7	25.2	1.85	24.5	0.02	0.05	0.11	101	
119	9.52	9.51	33.955	26.219	181.5	0.292	2.45	38.1	28.5	2.02	26.2	0.01	0.03	0.07	120	210
125 ISL	9.50 D	9.49	33.981 D	26.242	179.3	0.303	2.37	36.8	29.1	2.05	26.5	0.01	0.03	0.07	126	
140	9.44	9.42	34.029	26.290	175.1	0.330	2.20	34.2	30.5	2.10	27.2	0.02	0.02	0.08	141	209
150 ISL	9.43 D	9.41	34.078 D	26.330	171.5	0.347	2.10	32.6	31.6	2.14	27.6	0.02	0.02	0.07	151	
169	9.24	9.22	34.120	26.394	165.8	0.379	1.92	29.7	33.9	2.22	28.4	0.03	0.02	0.06	170	208
200	9.01	8.99	34.176	26.475	158.7	0.429	1.55	23.9	37.5	2.35	29.7	0.04	0.01	0.08	201	207
229	8.69	8.67	34.195	26.541	152.9	0.474	1.47	22.5	40.7	2.42	30.6	0.05			230	206
250 ISL	8.60 D	8.57	34.229 D	26.582	149.4	0.506	1.35	20.6	43.1	2.52	31.1	0.07			252	
268	8.53	8.50	34.253	26.612	146.9	0.533	1.23	18.7	45.1	2.61	31.5	0.09			270	205
300 ISL	8.26 D	8.23	34.270 D	26.667	142.1	0.579	1.07	16.2	48.2	2.66	32.6	0.05			302	
317	8.00	7.97	34.258	26.696	139.5	0.603	0.99	14.9	49.7	2.67	33.1	0.02			319	204
378	7.83	7.79	34.278	26.738	136.5	0.687	0.79	11.8	53.3	2.76	34.1	0.03			380	203
400 ISL	7.44 D	7.40	34.252 D	26.774	133.1	0.717	0.78	11.6	56.0	2.79	35.0	0.03			403	
438	7.00	6.96	34.233	26.821	128.9	0.767	0.74	10.9	61.2	2.84	36.7	0.03			441	202
500 ISL	6.82 D	6.77	34.306 D	26.903	121.9	0.844	0.43	6.3	67.6	3.01	37.9	0.02			503	
513	6.72	6.67	34.309	26.919	120.5	0.860	0.36	5.3	68.9	3.04	38.1	0.02			517	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 15.2 N	118 15.0 W	04/07/07	1545 UTC	304 m	110 01 kn	120 02 06	4	1010.5 mb	18.0 C	17.2 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	19.51	19.51	33.714 D	23.910	398.7	0.000	5.69	108.3	1.8	0.21	0.0	0.00	0.22	0.02	0	
2	19.51	19.51	33.714 D	23.910	398.7	0.008	5.69	108.3	1.8	0.21	0.0	0.00	0.22	0.02	2	218
10	18.63	18.63	33.684 D	24.110	379.9	0.039	5.91	110.6	1.8	0.22	0.0	0.00	0.24	0.04	10	216
11	18.86	18.86	33.695	24.061	384.6	0.043	5.91	111.1							11	217
20	15.97	15.97	33.617	24.692	324.7	0.075	6.74	119.8	2.0	0.26	0.0	0.01	0.29	0.02	20	215
30	13.38	13.38	33.566	25.208	275.9	0.105	6.66	112.3	4.7	0.35	0.0	0.02	1.36	0.20	30	214
41	12.12	12.11	33.567	25.455	252.5	0.134	4.85	79.6	8.5	0.90	9.2	0.25	1.62	0.41	41	213
50	11.30	11.29	33.610	25.641	235.0	0.156	4.07	65.7	13.1	1.23	14.7	0.16	0.58	0.42	50	212
59	10.94	10.93	33.679	25.759	224.0	0.177	3.69	59.1	16.0	1.42	17.5	0.10	0.44	0.33	59	211
69	10.59	10.58	33.719	25.852	215.3	0.199	3.38	53.7	18.3	1.55	19.3	0.05	0.27	0.32	69	210
75 ISL	10.50 D	10.49	33.782 D	25.917	209.3	0.211	3.17	50.3	20.0	1.64	20.6	0.03	0.19	0.25	75	
85	10.19	10.18	33.822 D	26.002	201.4	0.232	2.86	45.1	22.7	1.78	22.5	0.02	0.10	0.13	85	209
100	9.84	9.83	33.896	26.119	190.6	0.261	2.62	41.0	25.0	1.90	24.3	0.02	0.05	0.11	101	208
119	9.63	9.62	33.968	26.211	182.2	0.297	2.50	39.0	27.5	1.97	25.2	0.01	0.02	0.09	120	207
125 ISL	9.56 D	9.55	33.993 D	26.242	179.4	0.307	2.41	37.5	28.4	2.00	25.8	0.01	0.02	0.09	126	
139	9.40	9.38	34.019	26.288	175.2	0.332	2.18	33.8	30.3	2.08	27.2	0.02	0.03	0.09	140	206
150 ISL	9.29 D	9.27	34.055 D	26.335	171.0	0.351	2.11	32.7	31.1	2.11	27.6	0.02	0.02	0.08	151	
169	9.28	9.26	34.105	26.376	167.5	0.383	2.03	31.4	32.7	2.17	28.0	0.02	0.01	0.07	170	205
200	8.81	8.79	34.176	26.507	155.6	0.434	1.75	26.8	38.1	2.33	29.7	0.01	0.02	0.06	201	204
229	8.26	8.24	34.173	26.589	148.1	0.478	1.62	24.5	42.4	2.43	31.3	0.01			230	203
250 ISL	8.21 D	8.18	34.202 D	26.620	145.6	0.508	1.38	20.9	44.9	2.52	32.4	0.04			251	
269	8.00	7.97	34.207	26.655	142.4	0.536	1.17	17.6	47.1	2.59	33.2	0.06			271	202
298	7.71	7.68	34.215	26.704	138.1	0.576	1.04	15.5	50.7	2.67	34.2	0.02			300	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 37.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 11.1 N	118 22.9 W	04/07/07	1257 UTC	1178 m	050 01 kn	340 01 05	4	1009.4 mb	17.3 C	16.6 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	19.21	19.21	33.726	23.995	390.5	0.000	5.88	111.3	1.2	0.18	0.0	0.00	0.40	0.07	0	
1	19.21	19.21	33.726	23.996	390.5	0.004	5.88	111.3	1.2	0.18	0.0	0.00	0.40	0.07	1	220
10	19.08	19.08	33.723	24.027	387.9	0.039	5.94	112.2	1.2	0.18	0.0	0.00	0.42	0.03	10	219
20	17.31	17.31	33.659	24.414	351.3	0.076	6.42	117.2	1.5	0.22	0.1	0.00	0.29	0.06	20	218
30	13.88	13.88	33.695	25.205	276.1	0.107	6.19	105.5	1.4	0.44	2.7	0.08	4.62	0.56	30	217
39	12.26	12.25	33.686	25.521	246.3	0.131	4.89	80.6	8.5	1.01	11.4	0.25	5.23	0.56	39	216
50	11.34	11.33	33.705	25.707	228.7	0.157	4.05	65.4	14.6	1.34	16.9	0.07	0.87	0.46	50	215
60	10.53	10.52	33.736	25.876	212.9	0.179	3.58	56.9	18.7	1.56	20.3	0.03	0.16	0.17	60	214
69	10.47	10.46	33.734	25.885	212.2	0.198	3.56	56.5	18.9	1.58	20.5	0.03	0.15	0.13	69	213
75 ISL	10.35 D	10.34	33.745 D	25.914	209.5	0.211	3.48	55.1	19.6	1.62	21.0	0.03	0.14	0.11	75	
84	10.13	10.12	33.781	25.980	203.4	0.229	3.29	51.8	21.3	1.69	22.1	0.03	0.11	0.10	84	212
100	9.71	9.70	33.864	26.116	190.8	0.261	2.79	43.5	25.2	1.86	24.4	0.03	0.04	0.08	101	211
119	9.49	9.48	34.007	26.264	177.1	0.296	2.20	34.2	29.4	2.07	26.8	0.03	0.04	0.10	120	210
125 ISL	9.43 D	9.42	34.028 D	26.290	174.7	0.306	2.26	35.1	30.0	2.06	26.8	0.04	0.03	0.10	126	
139	9.06	9.04	34.011	26.337	170.5	0.331	2.45	37.7	30.9	2.02	26.9	0.05	0.02	0.09	140	209
150 ISL	8.94 D	8.92	34.045 D	26.383	166.4	0.349	2.27	34.9	32.3	2.09	27.6	0.05	0.02	0.09	151	
169	9.04	9.02	34.122	26.427	162.5	0.380	1.82	28.0	35.1	2.25	29.1	0.05	0.02	0.08	170	208
198	8.72	8.70	34.165	26.512	155.0	0.426	1.52	23.2	39.3	2.36	30.4	0.06	0.01	0.08	199	207
200 ISL	8.75 D	8.73	34.181 D	26.520	154.3	0.429	1.54	23.6	39.5	2.36	30.4	0.06			201	
229	8.18	8.16	34.111	26.552	151.5	0.474	1.83	27.6	41.5	2.32	31.0	0.03			230	206
250 ISL	8.02 D	7.99	34.127 D	26.589	148.3	0.505	1.68	25.3	44.1	2.40	31.9	0.02			251	
268	7.92	7.89	34.165	26.634	144.4	0.532	1.47	22.1	46.6	2.49	32.7	0.02			270	205
300 ISL	7.80 D	7.77	34.212 D	26.689	139.7	0.577	1.26	18.9	50.8	2.60	34.1	0.01			302	
317	7.41	7.38	34.171	26.713	137.4	0.601	1.16	17.2	52.9	2.65	34.7	0.01			319	204
377	7.10	7.06	34.232	26.805	129.5	0.681	0.76	11.2	59.4	2.82	36.2	0.01			379	203
400 ISL	7.02 D	6.98	34.254 D	26.834	127.1	0.710	0.65	9.6	61.6	2.87	36.7	0.01			403	
437	6.83	6.79	34.274	26.876	123.5	0.757	0.51	7.5	65.2	2.95	37.4	0.01			440	202
500 ISL	6.36 D	6.31	34.299 D	26.958	116.2	0.832	0.36	5.2	73.1	3.05	39.0	0.00			503	
511	6.26	6.21	34.306	26.977	114.5	0.845	0.33	4.8	74.5	3.07	39.3	0.00			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 55.3 N	118 56.3 W	04/07/07	0658 UTC	1701 m	300 12 kn			1010.8 mb	16.2 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	16.66	16.66	33.791	24.667	326.5	0.000	5.82	105.0	0.0	0.15	0.1	0.03	1.26	0.40	0	
2	16.66	16.66	33.791	24.667	326.5	0.007	5.82	105.0	0.0	0.15	0.1	0.03	1.26	0.40	2	221
10	16.54	16.54	33.790	24.694	324.2	0.033	6.17	111.0	0.0	0.15	0.3	0.03	1.16	0.31	10	219
10	16.56	16.56	33.790	24.690	324.6	0.033									10	220
20	12.90	12.90	33.801	25.485	249.2	0.061	4.98	83.2	7.3	0.86	10.1	0.18	3.77	0.97	20	218
30	11.29	11.29	33.829	25.813	218.2	0.085	3.77	60.9	17.8	1.45	18.0	0.31	1.80	0.57	30	217
41	10.42	10.42	33.877	26.005	200.2	0.108	3.14	49.8	23.7	1.74	22.1	0.30	0.83	0.49	41	216
50	10.02	10.01	33.895	26.087	192.5	0.125	2.80	44.0	26.2	1.86	24.1	0.09	0.23	0.20	50	215
60	9.77	9.76	33.899	26.132	188.4	0.144	2.74	42.8	26.7	1.90	24.8	0.05	0.13	0.15	60	214
70	9.57	9.56	33.901	26.167	185.3	0.163	2.73	42.5	27.3	1.91	25.3	0.02	0.04	0.09	70	213
75 ISL	9.40 D	9.39	33.941 D	26.226	179.8	0.172	2.67	41.4	28.0	1.93	25.6	0.02	0.04	0.09	75	
86	9.31	9.30	33.961	26.257	177.1	0.192	2.49	38.5	29.9	2.00	26.4	0.01	0.03	0.08	86	212
100	9.11	9.10	34.020	26.335	169.9	0.216	2.33	35.9	32.1	2.07	27.4	0.01	0.01	0.07	101	211
119	8.88	8.87	34.051	26.396	164.4	0.248	2.29	35.1	33.8	2.08	27.9	0.02	0.01	0.08	120	210
125 ISL	8.85 D	8.84	34.066 D	26.413	163.0	0.258	2.26	34.6	34.3	2.10	28.1	0.02	0.01	0.08	126	
140	8.67	8.66	34.074	26.448	159.9	0.282	2.17	33.1	35.9	2.16	28.8	0.02	0.01	0.07	141	209
150 ISL	8.52 D	8.50	34.081 D	26.476	157.4	0.298	2.06	31.3	37.5	2.21	29.4	0.02	0.01	0.06	151	
167	8.35	8.33	34.114	26.528	152.7	0.324	1.87	28.4	40.5	2.30	30.5	0.03	0.01	0.05	168	208
199	7.99	7.97	34.128	26.594	147.0	0.372	1.64	24.7	44.8	2.41	32.0	0.03	0.01	0.04	200	207
200 ISL	7.96 D	7.94	34.133 D	26.602	146.2	0.374	1.63	24.5	44.9	2.41	32.0	0.03			201	
230	7.76	7.74	34.155	26.649	142.2	0.417	1.40	20.9	48.3	2.50	33.0	0.01			231	206
250 ISL	7.53 D	7.51	34.164 D	26.690	138.6	0.445	1.39	20.7	50.8	2.56	33.8	0.01			252	
270	7.41	7.38	34.174	26.715	136.5	0.472	1.39	20.6	53.2	2.63	34.6	0.01			272	205
300 ISL	7.28 D	7.25	34.206 D	26.759	132.7	0.513	1.06	15.7	56.6	2.74	35.4	0.01			302	
319	7.18	7.15	34.226	26.789	130.2	0.538	0.81	12.0	58.6	2.81	35.8	0.01			321	204
377	6.92	6.88	34.284	26.871	123.1	0.611	0.48	7.0	64.8	2.94	37.1	0.00			380	203
400 ISL	6.76 D	6.72	34.292 D	26.899	120.7	0.639	0.42	6.1	67.7	3.00	37.8	0.00			403	
438	6.40	6.36	34.302	26.955	115.7	0.684	0.36	5.2	72.5	3.08	38.9	0.00			441	202
500 ISL	6.03 D	5.99	34.331 D	27.026	109.5	0.754	0.25	3.6	79.8	3.14	39.9	0.00			504	
520	5.95	5.90	34.343	27.046	107.8	0.776	0.21	3.0	82.2	3.16	40.2	0.00			524	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 53.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 39.0 N	119 28.7 W	04/07/07	0102	UTC	1319 m	310	19 kn	330 07 07	0	1011.2 mb	16.8 C	14.2 C	5m	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	15.36	15.36	33.769	24.945	300.0	0.000	6.33	111.2	0.0	0.21	0.9	0.11	3.37	0.57	0	
2	15.36	15.36	33.769	24.945	300.1	0.006	6.33	111.2	0.0	0.21	0.9	0.11	3.37	0.57	2	220
10	15.37	15.37	33.769	24.943	300.5	0.030	6.32	111.1	0.0	0.21	0.9	0.11	3.43	0.55	10	219
19	13.40	13.40	33.755	25.349	262.1	0.055	5.53	93.4	1.5	0.57	5.9	0.16	5.02	1.42	19	218
20 ISL	12.45 D	12.45	33.750 D	25.533	244.5	0.058	5.36	88.7	2.9	0.66	7.1	0.17	4.66	1.35	20	
30	10.67	10.67	33.711	25.831	216.4	0.081	3.74	59.6	17.9	1.50	18.9	0.26	0.41	0.37	30	217
41	9.80	9.80	33.772	26.028	197.9	0.104	3.22	50.3	23.2	1.73	22.9	0.08	0.10	0.18	41	216
50	9.77	9.76	33.794	26.050	196.0	0.121	3.15	49.2	26.4	1.74	23.4	0.08	0.11	0.27	50	215
60	9.69	9.68	33.833	26.094	192.0	0.141	3.00	46.8	23.7	1.82	24.1	0.07	0.08	0.26	60	214
71	9.44	9.43	33.983	26.253	177.2	0.161	2.39	37.1	24.9	2.03	26.6	0.09	0.10	0.18	71	213
75 ISL	9.31 D	9.30	34.003 D	26.289	173.8	0.168	2.34	36.2	27.0	2.04	27.0	0.09	0.09	0.16	75	
85	9.25	9.24	34.010	26.305	172.5	0.185	2.23	34.5	32.3	2.08	27.5	0.08	0.05	0.14	85	212
99	9.11	9.10	34.031	26.344	169.1	0.209	2.15	33.1	33.7	2.14	28.1	0.06	0.04	0.15	100	211
100 ISL	9.10 D	9.09	34.034 D	26.348	168.7	0.211	2.15	33.1	33.7	2.14	28.1	0.06	0.04	0.15	101	
120	8.96	8.95	34.046	26.380	166.0	0.245	2.12	32.6	34.4	2.16	28.4	0.05	0.02	0.12	121	210
125 ISL	8.88 D	8.87	34.045 D	26.392	165.0	0.253	2.12	32.5	34.7	2.16	28.5	0.04	0.02	0.12	126	
137	8.77	8.76	34.064	26.424	162.1	0.272	2.12	32.4	35.7	2.16	29.0	0.03	0.01	0.11	138	209
150 ISL	8.57 D	8.55	34.092 D	26.477	157.3	0.293	1.96	29.9	37.5	2.22	29.8	0.03	0.01	0.10	151	
169	8.51	8.49	34.126	26.513	154.2	0.323	1.70	25.9	40.3	2.34	30.9	0.04	0.01	0.09	170	208
198	8.24	8.22	34.142	26.567	149.6	0.367	1.61	24.4	43.3	2.43	31.9	0.02	0.01	0.06	199	207
200 ISL	8.20 D	8.18	34.163 D	26.590	147.4	0.370	1.60	24.2	43.6	2.44	32.0	0.02			201	
230	7.82	7.80	34.160	26.644	142.7	0.413	1.38	20.7	48.3	2.55	33.4	0.02			231	206
250 ISL	7.75 D	7.73	34.197 D	26.684	139.2	0.442	1.29	19.3	50.6	2.62	34.0	0.03			252	
267	7.59	7.56	34.193	26.704	137.5	0.465	1.21	18.0	52.4	2.67	34.4	0.03			269	205
300 ISL	7.30 D	7.27	34.238 D	26.781	130.6	0.509	0.89	13.2	57.0	2.78	35.6	0.02			302	
317	7.22	7.19	34.248	26.800	129.0	0.531	0.72	10.6	59.4	2.84	36.2	0.02			319	204
377	6.85	6.81	34.284	26.880	122.2	0.607	0.51	7.5	66.6	2.97	37.7	0.01			380	203
400 ISL	6.56 D	6.52	34.274 D	26.911	119.3	0.635	0.44	6.4	69.6	3.01	38.3	0.01			403	
436	6.38	6.34	34.303	26.958	115.3	0.677	0.35	5.1	74.1	3.07	39.1	0.01			439	202
500 ISL	6.13 D	6.09	34.325 D	27.009	111.2	0.749	0.27	3.9	79.5	3.12	39.8	0.01			504	
511	6.08	6.03	34.330	27.019	110.3	0.761	0.26	3.7	80.4	3.13	39.9	0.01			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 25.2 N	119 57.8 W	03/07/07	1936	UTC	894 m	320	20 kn	320 07 06	0	1014.0 mb	17.9 C	15.7 C	14m	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	14.93	14.93	33.585	24.897	304.6	0.000	5.93	103.2	2.7	0.65	5.2	0.16	0.44	0.00	0	
2 A	14.93	14.93	33.585	24.897	304.6	0.006	5.93	103.2	2.7	0.65	5.2	0.16	0.44	0.00	2	222
7 A	14.93	14.93	33.583	24.896	304.9	0.021	5.92	103.0	2.7	0.64	5.2	0.16	0.48	0.03	7	221
10 ISL	14.91 D	14.91	33.584 D	24.901	304.5	0.030	5.92	103.0	2.7	0.64	5.2	0.16	0.46	0.02	10	
13	14.88	14.88	33.583	24.907	304.0	0.040	5.93	103.1	2.7	0.64	5.2	0.16	0.44	0.02	13	220
20 A	14.81	14.81	33.581	24.921	302.9	0.061	5.94	103.1	2.7	0.64	5.3	0.17	0.50	0.00	20	219
29 A	14.52	14.52	33.558	24.965	299.0	0.088	5.92	102.2	2.8	0.65	5.3	0.17	0.46	0.05	29	218
30 ISL	14.46 D	14.46	33.558 D	24.978	297.8	0.091	5.92	102.0	2.9	0.65	5.3	0.17	0.47	0.05	30	
38 A	13.99	13.98	33.566	25.083	288.0	0.114	5.90	100.7	3.3	0.70	6.1	0.19	0.54	0.09	38	217
45	12.36	12.35	33.483	25.344	263.2	0.134	5.60	92.4	5.9	0.83	8.3	0.29	0.90	0.22	45	216
50 ISL	11.53 D	11.52	33.489 D	25.505	248.0	0.146	5.32	86.2	8.3	1.02	11.3	0.32	0.84	0.16	50	
54 A	11.43	11.42	33.504	25.535	245.2	0.156	5.06	81.8	10.4	1.17	13.7	0.34	0.80	0.09	54	215
61	10.80	10.79	33.521	25.661	233.3	0.173	4.48	71.5	13.8	1.30	16.1	0.07	0.31	0.09	61	214
68	10.45	10.44	33.573	25.763	223.8	0.189	4.22	66.8	16.0	1.41	17.9	0.04	0.11	0.09	68	213
75 ISL	10.14 D	10.13	33.653 D	25.878	212.9	0.204	3.92	61.7	18.2	1.52	19.7	0.04	0.09	0.08	75	
84	9.91	9.90	33.704	25.957	205.6	0.223	3.54	55.4	20.9	1.66	21.9	0.04	0.06	0.07	84	212
100	9.39	9.38	33.836	26.146	187.9	0.255	3.01	46.6	25.7	1.83	24.6	0.03	0.05	0.07	101	211
121	9.10	9.09	33.916	26.256	177.8	0.293	3.01	46.4	27.9	1.88	25.4	0.03	0.02	0.06	122	210
125 ISL	9.01 D	9.00	33.934 D	26.284	175.2	0.300	2.96	45.5	28.7	1.90	25.7	0.03	0.02	0.06	126	
139	8.75	8.74	33.995	26.373	167.0	0.324	2.68	41.0	31.7	1.97	27.0	0.02	0.01	0.04	140	209
150 ISL	8.63 D	8.61	34.026 D	26.416	163.1	0.342	2.34	35.7	34.0	2.08	28.1	0.02	0.01	0.04	151	
172	8.77	8.75	34.118	26.467	158.8	0.378	1.70	26.0	38.4	2.31	30.0	0.02	0.01	0.06	173	208
200	8.36	8.34	34.156	26.560	150.3	0.421	1.46	22.1	43.2	2.44	31.7	0.02	0.01	0.06	201	207
238	7.89	7.87	34.192	26.659	141.4	0.476	1.23	18.5	48.7	2.56	33.2	0.02			239	206
250 ISL	7.76 D	7.74	34.198 D	26.683	139.3	0.493	1.20	18.0	50.2	2.60	33.6	0.02			251	
269	7.58	7.55	34.205	26.715	136.5	0.519	1.17	17.4	52.6	2.67	34.3	0.03			271	205
300 ISL	7.00 D	6.97	34.191 D	26.786	130.0	0.561	1.03	15.1	57.7	2.73	35.9	0.02			302	
319	6.86	6.83	34.186	26.801	128.8	0.585	0.91	13.3	60.7	2.77	36.8	0.01			321	204
377	6.83	6.79	34.291	26.889	121.4	0.658	0.46	6.7	66.7	2.97	37.6	0.01			379	203
400 ISL	6.65 D	6.61	34.283 D	26.907	119.9	0.686	0.38	5.5	70.0	3.02	38.2	0.01			403	
440	6.31	6.27	34.315	26.977	113.5	0.732	0.32	4.6	75.5	3.08	39.2	0.01			443	202
500 ISL	6.07 D	6.03	34.334 D	27.023	109.8	0.799	0.27	3.9	79.9	3.11	39.6	0.01			503	
512	6.01	5.96	34.331	27.029	109.4	0.812	0.26	3.7	80.8	3.12	39.7	0.01			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 4.9 N	120 38.2 W	03/07/07	1248 UTC	3821 m	320 18 kn	320 07 07	0	1014.9 mb	15.9 C	14.8 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	14.14	14.14	33.343	24.878	306.3	0.000	6.02	102.9	2.5	0.61	4.6	0.18	0.44	0.13	0	
2	14.14	14.14	33.343	24.878	306.4	0.006	6.02	102.9	2.5	0.61	4.6	0.18	0.44	0.13	2	220
9	14.14	14.14	33.351	24.885	306.0	0.028	6.02	103.0	2.5	0.60	4.6	0.18	0.43	0.13	9	219
10 ISL	14.14 D	14.14	33.345 D	24.880	306.5	0.031	6.02	102.9	2.5	0.60	4.6	0.18	0.43	0.13	10	
19	14.14	14.14	33.347	24.882	306.5	0.058	6.03	103.1	2.4	0.61	4.6	0.18	0.48	0.13	19	218
20 ISL	14.14 D	14.14	33.345 D	24.880	306.7	0.061	6.03	103.1	2.4	0.61	4.6	0.18	0.48	0.13	20	
30	14.14	14.14	33.346	24.882	306.9	0.092	6.03	103.1	2.4	0.62	4.6	0.18	0.50	0.13	30	217
39	14.11	14.10	33.350	24.891	306.3	0.120	6.01	102.7	2.4	0.62	4.6	0.18	0.47	0.14	39	216
50	13.64	13.63	33.367	25.001	296.0	0.153	5.90	99.9	2.7	0.58	3.3	0.33	0.60	0.29	50	215
59	13.06	13.05	33.409	25.151	282.0	0.179	5.57	93.2	4.4	0.67	5.1	0.48	0.61	0.47	59	214
70	12.57	12.56	33.430	25.263	271.6	0.209	5.39	89.2	5.7	0.79	7.4	0.26	0.55	0.40	70	213
75 ISL	12.37 D	12.36	33.453 D	25.320	266.3	0.223	5.20	85.8	6.9	0.88	9.0	0.17	0.43	0.33	75	
84	11.92	11.91	33.529	25.464	252.7	0.246	4.80	78.4	9.4	1.06	12.2	0.05	0.21	0.21	84	212
99	11.00	10.99	33.592	25.682	232.3	0.282	4.17	66.8	13.9	1.33	16.7	0.03	0.08	0.08	99	211
100 ISL	10.73 D	10.72	33.604 D	25.739	226.8	0.285	4.15	66.1	14.1	1.34	16.8	0.03	0.08	0.08	100	
120	10.13	10.12	33.619	25.854	216.2	0.329	3.96	62.3	16.7	1.39	18.2	0.02	0.04	0.05	121	210
125 ISL	9.77 D	9.76	33.705 D	25.982	204.1	0.339	3.90	60.9	17.7	1.43	18.9	0.02	0.03	0.05	126	
138	9.54	9.52	33.763	26.065	196.4	0.365	3.70	57.5	20.7	1.55	21.0	0.01	0.02	0.04	139	209
150 ISL	9.22 D	9.20	33.867 D	26.199	183.9	0.388	3.43	53.0	23.7	1.67	22.7	0.01	0.01	0.04	151	
167	8.99	8.97	33.941	26.294	175.2	0.419	3.01	46.2	28.0	1.83	25.0	0.01	0.01	0.03	168	208
199	8.51	8.49	34.043	26.449	160.9	0.473	2.35	35.7	35.5	2.12	28.7	0.01	0.00	0.02	200	207
200 ISL	8.48 D	8.46	34.046 D	26.456	160.3	0.474	2.34	35.6	35.7	2.13	28.8	0.01			201	
228	8.05	8.03	34.070	26.540	152.6	0.518	2.07	31.2	40.8	2.25	30.7	0.01			229	206
250 ISL	7.79 D	7.77	34.102 D	26.603	146.9	0.551	1.82	27.2	44.6	2.37	32.0	0.01			251	
268	7.61	7.58	34.115	26.640	143.6	0.577	1.62	24.1	47.7	2.47	33.0	0.01			270	205
300 ISL	7.25 D	7.22	34.156 D	26.724	136.0	0.622	1.28	18.9	53.2	2.62	34.7	0.01			302	
318	7.14	7.11	34.162	26.744	134.3	0.646			56.1	2.70	35.5	0.01			320	204
376	6.71	6.68	34.209	26.840	125.8	0.722	0.72	10.5	63.9	2.87	37.5	0.00			378	203
400 ISL	6.45 D	6.41	34.206 D	26.872	122.9	0.751	0.67	9.7	67.9	2.91	38.4	0.00			403	
437	5.96	5.92	34.188	26.921	118.4	0.796	0.63	9.0	74.0	2.96	39.7	0.00			440	202
500 ISL	5.62 D	5.58	34.241 D	27.005	110.9	0.868	0.42	6.0	81.8	3.07	41.1	0.00			503	
511	5.56	5.52	34.247	27.018	109.8	0.880	0.38	5.4	83.2	3.09	41.3	0.00			514	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 45.1 N	121 18.9 W	03/07/07	0601 UTC	3679 m	320 21 kn			1017.2 mb	15.7 C	14.8 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	16.37	16.37	33.488	24.501	342.3	0.000	5.72	102.4	2.2	0.29	0.1	0.00	0.13	0.04	0	
2	16.37	16.37	33.488	24.501	342.3	0.007	5.72	102.4	2.2	0.29	0.1	0.00	0.13	0.04	2	220
10 ISL	16.37 D	16.37	33.490 D	24.503	342.4	0.034	5.73	102.6	2.2	0.28	0.0	0.00	0.13	0.04	10	
16	16.37	16.37	33.490	24.503	342.6	0.055	5.73	102.6	2.2	0.28	0.0	0.00	0.13	0.04	16	219
20 ISL	16.37 D	16.37	33.490 D	24.504	342.7	0.068	5.73	102.6	2.2	0.28	0.0	0.00	0.14	0.04	20	
30	16.29	16.29	33.488	24.521	341.4	0.103	5.72	102.2	2.1	0.28	0.0	0.00	0.15	0.03	30	218
45	15.33	15.32	33.414	24.680	326.7	0.153	5.92	103.7	2.0	0.30	0.0	0.00	0.32	0.16	45	217
50 ISL	14.24 D	14.23	33.358 D	24.870	308.5	0.169	5.87	100.6	2.3	0.38	0.8	0.21	0.47	0.30	50	
55	13.59	13.58	33.333	24.985	297.7	0.184	5.79	97.9	2.8	0.46	1.8	0.38	0.56	0.41	55	216
65	13.03	13.02	33.347	25.109	286.2	0.213	5.57	93.1	3.8	0.56	3.7	0.21	0.26	0.32	65	215
75	12.55	12.54	33.358	25.212	276.6	0.241	5.42	89.7	4.7	0.65	5.4	0.03	0.16	0.23	75	214
86	12.13	12.12	33.399	25.324	266.1	0.271	5.24	85.9	5.8	0.74	7.2	0.01	0.10	0.11	86	213
94	11.85	11.84	33.405	25.381	260.8	0.292	5.10	83.2	6.9	0.83	8.4	0.01	0.08	0.07	94	212
100 ISL	11.67 D	11.66	33.439 D	25.441	255.3	0.308	4.97	80.7	7.8	0.91	9.6	0.01	0.07	0.06	100	
110	11.40	11.39	33.472	25.517	248.3	0.333	4.73	76.4	9.6	1.03	11.7	0.00	0.05	0.05	110	211
125	10.64	10.63	33.611	25.761	225.3	0.368	4.35	69.2	13.2	1.18	15.0	0.00	0.02	0.03	126	210
144	9.95	9.93	33.704	25.952	207.4	0.409	4.01	62.9	17.3	1.41	18.5	0.00	0.01	0.02	145	209
150 ISL	9.63 D	9.61	33.753 D	26.043	198.8	0.422	3.92	61.0	18.8	1.47	19.4	0.00	0.01	0.02	151	
169	9.18	9.16	33.875	26.212	183.0	0.458	3.68	56.8	23.5	1.62	21.9	0.00	0.00	0.01	170	208
199	8.61	8.59	33.976	26.381	167.4	0.510	3.29	50.1	30.1	1.82	24.9	0.00	0.00	0.01	200	207
200 ISL	8.59 D	8.57	33.980 D	26.387	166.8	0.512	3.27	49.8	30.4	1.83	25.0	0.00			201	
229	8.08	8.06	34.030	26.504	156.0	0.559	2.60	39.2	37.8	2.08	28.7	0.00			230	206
250 ISL	8.04 D	8.01	34.083 D	26.552	151.9	0.591	2.25	33.9	41.1	2.22	30.3	0.00			251	
269	7.84	7.81	34.083	26.581	149.3	0.620	1.97	29.5	43.7	2.34	31.4	0.00			271	205
300 ISL	7.45 D	7.42	34.152 D	26.692	139.1	0.665	1.43	21.2	50.0	2.56	33.6	0.00			302	
319	7.35	7.32	34.168	26.719	136.8	0.691	1.14	16.9	54.0	2.68	34.8	0.00			321	204
376	6.62	6.59	34.178	26.827	126.9	0.766	0.87	12.7	63.6	2.86	37.3	0.00			378	203
400 ISL	6.38 D	6.34	34.189 D	26.868	123.3	0.796	0.72	10.4	66.8	2.93	38.1	0.00			402	
438	6.29	6.25	34.237	26.918	119.0	0.842	0.50	7.2	71.6	3.03	39.2	0.00			441	202
500 ISL	5.71 D	5.67	34.262 D	27.011	110.5	0.913	0.36	5.1	80.5	3.13	40.7	0.00			503	
515	5.68	5.64	34.276	27.026	109.2	0.930	0.33	4.7	82.7	3.15	41.1	0.00			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 24.4 N	121 59.9 W	02/07/07	2311	UTC	3891 m	340	23 kn	320 07 07	0	1017.4 mb	17.5 C	16.6 C	22m	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	16.75	16.75	33.357	24.313	360.2	0.000	5.69	102.5	1.8	0.29	0.0	0.01	0.09	0.03	0	
2	16.75	16.75	33.357	24.313	360.3	0.007	5.69	102.5	1.8	0.29	0.0	0.01	0.09	0.03	2	220
10 ISL	16.73 D	16.73	33.359 D	24.320	359.9	0.036	5.69	102.5	1.8	0.29	0.0	0.01	0.09	0.02	10	
15	16.73	16.73	33.358	24.319	360.1	0.054	5.69	102.5	1.8	0.29	0.0	0.01	0.09	0.02	15	219
20 ISL	16.73 D	16.73	33.359 D	24.320	360.2	0.072	5.69	102.5	1.8	0.29	0.0	0.01	0.09	0.02	20	
29	16.64	16.64	33.360	24.342	358.4	0.104	5.69	102.3	1.7	0.30	0.0	0.01	0.10	0.03	29	218
30 ISL	16.63 D	16.63	33.361 D	24.345	358.1	0.108	5.69	102.3	1.7	0.30	0.0	0.01	0.10	0.03	30	
42	16.27	16.26	33.431	24.482	345.5	0.150	5.78	103.2	1.8	0.28	0.0	0.01	0.18	0.06	42	217
50 ISL	15.93 D	15.92	33.434 D	24.562	338.1	0.178	6.01	106.6	1.9	0.29	0.0	0.01	0.30	0.08	50	
55	15.30	15.29	33.411	24.684	326.5	0.194	6.11	107.0	2.0	0.29	0.0	0.01	0.37	0.11	55	216
64	14.03	14.02	33.376	24.929	303.4	0.222	5.89	100.5	2.0	0.33	0.0	0.02	0.40	0.21	64	215
74	13.41	13.40	33.386	25.063	290.8	0.252	5.74	96.7	2.3	0.37	0.1	0.15	0.26	0.18	74	214
75 ISL	13.33 D	13.32	33.437 D	25.119	285.5	0.255	5.72	96.2	2.5	0.40	0.4	0.18	0.26	0.20	75	
85	12.88	12.87	33.421	25.196	278.4	0.283	5.53	92.2	4.7	0.68	4.6	0.32	0.28	0.30	85	213
93	12.39	12.38	33.419	25.290	269.6	0.305	5.32	87.7	6.1	0.81	6.8	0.03	0.14	0.16	93	212
100 ISL	11.82 D	11.81	33.435 D	25.410	258.2	0.324	5.05	82.3	7.8	0.94	8.9	0.03	0.11	0.09	100	
111	11.32	11.31	33.485	25.541	245.9	0.351	4.56	73.5	11.1	1.15	12.6	0.02	0.05	0.05	111	211
124	10.68	10.67	33.578	25.728	228.4	0.382	3.95	62.9	15.8	1.43	17.3	0.02	0.02	0.03	125	210
125 ISL	10.66 D	10.65	33.584 D	25.736	227.6	0.384	3.90	62.0	16.2	1.45	17.6	0.02	0.02	0.03	126	
145	9.82	9.80	33.720	25.986	204.2	0.428	3.17	49.5	22.2	1.74	22.6	0.02	0.01	0.03	146	209
150 ISL	9.60 D	9.58	33.756 D	26.050	198.1	0.438	3.21	49.9	23.1	1.74	22.8	0.02	0.01	0.03	151	
165	9.05	9.03	33.874	26.232	181.0	0.466	3.46	53.2	25.3	1.73	23.2	0.01	0.00	0.02	166	208
200 ISL	8.53 D	8.51	33.961 D	26.381	167.3	0.527	3.31	50.3	30.1	1.82	25.0	0.02	0.00	0.02	201	
201	8.53	8.51	33.959	26.380	167.5	0.529	3.31	50.3	30.2	1.82	25.1	0.02	0.00	0.02	202	207
230	8.17	8.15	34.005	26.471	159.2	0.576	2.91	43.9	35.4	1.99	27.5	0.02			231	206
250 ISL	7.91 D	7.88	34.019 D	26.521	154.7	0.608	2.63	39.4	39.3	2.12	29.4	0.01			251	
268	7.66	7.63	34.034	26.569	150.3	0.635	2.39	35.6	43.0	2.24	31.2	0.01			269	205
300 ISL	7.16 D	7.13	34.043 D	26.647	143.2	0.682	1.99	29.3	49.8	2.42	33.9	0.01			302	
320	6.86	6.83	34.052	26.695	138.7	0.710	1.76	25.8	53.8	2.52	35.3	0.01			322	204
377	6.33	6.30	34.077	26.786	130.6	0.787	1.29	18.7	62.9	2.74	38.1	0.01			379	203
400 ISL	6.30 D	6.26	34.119 D	26.823	127.4	0.817	1.11	16.0	66.2	2.82	38.9	0.01			402	
439	5.96	5.92	34.141	26.884	121.9	0.865	0.83	11.9	71.9	2.95	40.2	0.01			442	202
500 ISL	5.58 D	5.54	34.229 D	27.001	111.3	0.936	0.48	6.8	82.5	3.10	42.1	0.01			503	
515	5.45	5.41	34.232	27.019	109.6	0.953	0.40	5.7	85.1	3.14	42.6	0.01			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 5.3 N	122 40.2 W	02/07/07	1735	UTC	3984 m	340	18 kn	340 07 07	0	1017.9 mb	18.9 C	16.8 C	29m	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	17.24	17.24	33.354	24.196	371.4	0.000	5.60	101.9	1.7	0.28	0.0	0.01	0.07	0.00	0	
2 A	17.24	17.24	33.354	24.196	371.5	0.007	5.60	101.9	1.7	0.28	0.0	0.01	0.07	0.00	2	220
10 ISL	17.24 D	17.24	33.355 D	24.197	371.6	0.037	5.60	101.9	1.6	0.28	0.0	0.01	0.06	0.01	10	
15 A	17.23	17.23	33.354	24.198	371.6	0.056	5.60	101.9	1.6	0.28	0.0	0.01	0.06	0.01	15	219
20 ISL	17.21 D	17.21	33.354 D	24.203	371.3	0.074	5.60	101.8	1.6	0.28	0.0	0.01	0.06	0.01	20	
30	17.20	17.20	33.351	24.204	371.6	0.111	5.61	102.0	1.5	0.28	0.0	0.01	0.07	0.01	30	218
44 A	17.14	17.13	33.347	24.216	371.0	0.163	5.62	102.0	1.6	0.28	0.0	0.01	0.07	0.01	44	217
50 ISL	16.83 D	16.82	33.413 D	24.339	359.4	0.185	5.67	102.4	1.6	0.27	0.0	0.01	0.08	0.02	50	
59 A	16.55	16.54	33.462	24.442	349.8	0.217	5.78	103.8	1.6	0.26	0.0	0.01	0.09	0.03	59	216
75 A	15.25	15.24	33.323	24.628	332.5	0.272	5.96	104.2	1.6	0.28	0.0	0.01	0.14	0.02	75	215
85	14.81	14.80	33.317	24.719	324.1	0.305	5.97	103.5	1.8	0.28	0.0	0.01	0.13	0.05	85	214
94	14.72	14.71	33.370	24.780	318.6	0.334	5.94	102.8	1.9	0.28	0.0	0.01	0.18	0.05	94	213
100 ISL	14.55 D	14.54	33.460 D	24.885	308.7	0.352	5.83	100.6	2.1	0.30	0.2	0.03	0.23	0.08	100	
105	14.28	14.26	33.441	24.928	304.7	0.368	5.73	98.3	2.3	0.33	0.3	0.06	0.28	0.11	105	212
115 A	13.67	13.65	33.380	25.007	297.3	0.398	5.65	95.7	2.8	0.43	1.6	0.15	0.33	0.08	115	211
124	13.25	13.23	33.405	25.112	287.5	0.424	5.50	92.3	3.4	0.49	3.0	0.10	0.30	0.07	125	210
125 ISL	12.88 D	12.86	33.455 D	25.224	276.8	0.427	5.48	91.3	3.5	0.50	3.2	0.10	0.29	0.07	126	
139	12.46	12.44	33.467	25.315	268.4	0.465	5.17	85.4	5.3	0.66	6.1	0.04	0.14	0.10	140	209
150 ISL	11.25 D	11.23	33.516 D	25.579	243.3	0.493	4.85	78.1	8.1	0.85	9.5	0.02	0.07	0.08	151	
164	10.74	10.72	33.576	25.717	230.4	0.526	4.46	71.1	12.1	1.10	13.9	0.01	0.03	0.03	165	208
194	9.61	9.59	33.793	26.078	196.3	0.590	3.97	61.8	19.4	1.44	19.6	0.01	0.00	0.01	195	207
200 ISL	9.43 D	9.41	33.836 D	26.142	190.4	0.602	3.84	59.5	20.9	1.50	20.6	0.01			201	
228	8.90	8.88	33.937	26.306	175.2	0.653	3.32	50.9	27.4	1.75	24.4	0.01			229	206
250 ISL	8.54 D	8.51	33.989 D	26.403	166.3	0.691	3.23	49.1	30.4	1.82	25.6	0.01			251	
270	8.30	8.27	34.007	26.454	161.7	0.724	3.16	47.8	33.3	1.87	26.4	0.01			271	205
300 ISL	7.54 D	7.51	34.023 D	26.578	150.0	0.770	2.65	39.4	41.2	2.11	29.7	0.01			302	
318	7.34	7.31	34.032	26.614	146.8	0.797	2.31	34.2	46.3	2.27	31.8	0.01			320	204
378	6.59	6.56	34.058	26.737	135.5	0.882	1.67	24.3	57.4	2.57	35.6	0.01			380	203
400 ISL	6.45 D	6.41	34.104 D	26.792	130.5	0.911	1.37	19.9	61.6	2.69	36.9	0.01			402	
436	6.16	6.12	34.133	26.852	125.0	0.957	0.93	13.4	68.2	2.86	38.7	0.01			439	202
500 ISL	5.71 D	5.67	34.188 D	26.953	116.0	1.034	0.59	8.4	78.3	3.02	40.6	0.01			503	
511	5.65	5.61	34.198 D	26.968	114.6	1.047	0.53	7.5	80.0	3.05	40.9	0.01			514	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 45.0 N	123 19.9 W	02/07/07	0932 UTC	4013 m	330 15 kn			1018.1 mb	17.4 C	15.5 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	17.50	17.50	33.492	24.239	367.2	0.000	5.55	101.6	1.7	0.28	0.2	0.00	0.05	0.01	0	
2	17.50	17.50	33.492	24.239	367.3	0.007	5.55	101.6	1.7	0.28	0.2	0.00	0.05	0.01	2	220
10 ISL	17.50 D	17.50	33.493 D	24.240	367.5	0.037	5.56	101.7	1.7	0.27	0.1	0.00	0.05	0.01	10	
15	17.50	17.50	33.492	24.240	367.7	0.055	5.56	101.7	1.7	0.27	0.1	0.00	0.05	0.01	15	219
20 ISL	17.50 D	17.50	33.493 D	24.241	367.8	0.073	5.56	101.7	1.7	0.27	0.1	0.00	0.05	0.01	20	
30	17.50	17.49	33.492	24.241	368.1	0.110	5.56	101.7	1.7	0.27	0.1	0.00	0.05	0.01	30	218
46	17.48	17.47	33.494	24.248	368.0	0.169	5.57	101.9	1.7	0.27	0.2	0.00	0.05	0.01	46	217
50 ISL	17.27 D	17.26	33.496 D	24.299	363.2	0.184	5.59	101.8	1.7	0.27	0.2	0.00	0.06	0.01	50	
59	16.93	16.92	33.491	24.376	356.2	0.216	5.67	102.6	1.7	0.26	0.1	0.00	0.07	0.02	59	216
75 ISL	15.82 D	15.81	33.426 D	24.581	337.0	0.272	5.83	103.2	1.7	0.27	0.1	0.00	0.09	0.03	75	
76	15.81	15.80	33.426	24.583	336.8	0.275	5.84	103.3	1.7	0.27	0.1	0.00	0.09	0.03	76	215
85	15.57	15.56	33.455	24.660	329.9	0.305	5.86	103.2	1.6	0.27	0.2	0.00	0.12	0.05	85	214
95	14.95	14.94	33.391	24.746	321.8	0.338	5.87	102.1	1.8	0.29	0.1	0.00	0.15	0.07	95	213
100 ISL	14.74 D	14.73	33.376 D	24.780	318.7	0.354	5.86	101.4	1.8	0.29	0.1	0.00	0.18	0.10	100	
106	14.74	14.72	33.387	24.789	318.1	0.373	5.84	101.1	1.8	0.30	0.2	0.00	0.21	0.14	106	212
115	15.71	15.69	33.708	24.824	315.2	0.401	5.71	101.0	1.7	0.24	0.2	0.00	0.22	0.18	115	211
125	15.40	15.38	33.712	24.896	308.5	0.432	5.64	99.1	1.9	0.27	0.2	0.06	0.27	0.21	126	210
140	14.14	14.12	33.617	25.094	289.9	0.477	5.45	93.3	2.9	0.39	2.1	0.09	0.17	0.16	141	209
150 ISL	13.24 D	13.22	33.526 D	25.208	279.1	0.506	5.36	90.0	3.4	0.45	3.2	0.07	0.13	0.13	151	
164	12.89	12.87	33.554	25.300	270.7	0.544	5.20	86.7	4.7	0.57	5.2	0.02	0.09	0.09	165	208
194	10.98	10.96	33.624	25.712	231.6	0.620	4.52	72.4	11.6	1.06	13.4	0.00	0.02	0.04	195	207
200 ISL	10.56 D	10.54	33.663 D	25.817	221.7	0.633	4.44	70.5	12.8	1.13	14.5	0.00			201	
230	9.64	9.61	33.813	26.090	196.0	0.696	4.07	63.4	19.2	1.40	19.2	0.00			231	206
250 ISL	9.03 D	9.00	33.919 D	26.272	178.9	0.733	3.74	57.5	24.5	1.58	22.2	0.00			251	
268	8.64	8.61	33.971	26.374	169.4	0.765	3.43	52.3	29.3	1.73	24.6	0.00			269	205
300 ISL	8.07 D	8.04	34.009 D	26.490	158.6	0.817	2.91	43.8	36.4	1.97	28.0	0.00			302	
320	7.78	7.75	34.022	26.543	153.8	0.848	2.60	38.9	40.5	2.11	29.8	0.00			322	204
378	7.01	6.97	34.063	26.684	140.8	0.934	1.75	25.7	52.4	2.49	34.5	0.00			380	203
400 ISL	6.59 D	6.55	34.071 D	26.747	134.8	0.964	1.48	21.5	57.2	2.61	36.0	0.00			402	
438	6.26	6.22	34.108	26.820	128.2	1.014	1.11	16.0	65.0	2.78	38.1	0.00			441	202
500 ISL	5.74 D	5.70	34.142 D	26.912	119.8	1.091	0.78	11.1	74.8	2.95	40.1	0.00			503	
513	5.70	5.66	34.156	26.929	118.4	1.106	0.71	10.1	76.8	2.98	40.5	0.00			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 24.8 N	124 0.1 W	02/07/07	0245 UTC	4208 m	360 22 kn	360 06 08	1	1018.8 mb	18.0 C	15.7 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	17.93	17.93	33.553	24.182	372.7	0.000	5.53	102.1	1.5	0.27	0.0	0.01	0.05	0.01	0	
1	17.93	17.93	33.553	24.182	372.7	0.004	5.53	102.1	1.5	0.27	0.0	0.01	0.05	0.01	1	220
10 ISL	17.94 D	17.94	33.554 D	24.181	373.1	0.037	5.54	102.3	1.5	0.27	0.0	0.01	0.04	0.02	10	
16	17.93	17.93	33.552	24.182	373.3	0.060	5.54	102.3	1.5	0.27	0.0	0.01	0.04	0.03	16	219
20 ISL	17.93 D	17.93	33.556 D	24.185	373.1	0.075	5.54	102.3	1.5	0.27	0.0	0.01	0.04	0.03	20	
30 ISL	17.89 D	17.88	33.660 D	24.275	364.9	0.112	5.54	102.2	1.5	0.26	0.0	0.01	0.05	0.01	30	
31	17.90	17.89	33.620	24.242	368.0	0.115	5.54	102.2	1.5	0.26	0.0	0.01	0.05	0.01	31	218
45	17.70	17.69	33.668	24.328	360.3	0.166	5.57	102.4	1.5	0.25	0.0	0.01	0.05	0.01	45	217
50 ISL	17.34 D	17.33	33.622 D	24.379	355.6	0.184	5.66	103.3	1.5	0.26	0.0	0.01	0.05	0.01	50	
61	16.09	16.08	33.375	24.481	346.2	0.223	5.86	104.2	1.5	0.28	0.0	0.01	0.06	0.02	61	216
74	15.57	15.56	33.352	24.580	337.1	0.267	5.93	104.4	1.5	0.28	0.0	0.00	0.07	0.03	74	215
75 ISL	15.44 D	15.43	33.347 D	24.605	334.7	0.270	5.93	104.1	1.5	0.28	0.0	0.00	0.07	0.03	75	
83	15.22	15.21	33.347	24.653	330.3	0.297	5.95	104.0	1.5	0.28	0.0	0.00	0.10	0.03	83	214
95	14.67	14.66	33.341	24.768	319.7	0.336	5.90	102.0	1.5	0.28	0.0	0.00	0.13	0.07	95	213
100 ISL	14.67 D	14.66	33.396 D	24.810	315.8	0.352	5.85	101.1	1.5	0.28	0.0	0.00	0.14	0.09	100	
104	14.65	14.63	33.413	24.828	314.2	0.365	5.80	100.2	1.6	0.28	0.0	0.00	0.15	0.11	104	212
113	14.58	14.56	33.497	24.908	306.9	0.392	5.72	98.8	1.8	0.31	0.0	0.05	0.23	0.16	113	211
125	13.54	13.52	33.491	25.120	286.9	0.428	5.46	92.3	2.8	0.44	2.2	0.11	0.18	0.14	126	210
138	12.97	12.95	33.468	25.216	277.9	0.465	5.37	89.7	3.5	0.51	3.6	0.05	0.14	0.12	139	209
150 ISL	12.34 D	12.32	33.469 D	25.340	266.3	0.497	5.15	84.9	4.9	0.61	5.5	0.03	0.11	0.10	151	
166	12.28	12.26	33.715	25.543	247.5	0.539	4.84	79.8	7.3	0.76	8.4	0.01	0.07	0.08	167	208
195	11.01	10.99	33.757	25.811	222.3	0.607	4.63	74.3	11.2	0.99	12.7	0.01	0.02	0.04	196	207
200 ISL	10.55 D	10.53	33.745 D	25.882	215.5	0.618	4.51	71.6	12.7	1.07	13.9	0.01			201	
231	9.39	9.36	33.856	26.164	188.9	0.680	3.79	58.7	22.1	1.55	21.0	0.00			232	206
250 ISL	8.83 D	8.80	33.952 D	26.329	173.4	0.715	3.67	56.2	25.6	1.64	22.7	0.00			251	
266	8.67	8.64	33.968	26.366	170.1	0.742	3.61	55.1	28.3	1.68	23.6	0.00			267	205
300 ISL	8.12 D	8.09	34.007 D	26.481	159.5	0.798	3.05	46.0	35.9	1.95	27.1	0.00			302	
318	7.78	7.75	34.022	26.543	153.8	0.826	2.70	40.4	40.1	2.11	29.0	0.00			320	204
376	6.92	6.88	34.046	26.683	140.8	0.912	1.92	28.1	52.5	2.44	33.9	0.00			378	203
400 ISL	6.59 D	6.55	34.062 D	26.740	135.5	0.945	1.65	24.0	57.3	2.56	35.5	0.00			402	
438	6.19	6.15	34.084	26.810	129.1	0.995	1.28	18.4	64.5	2.74	37.5	0.00			441	202
500 ISL	5.74 D	5.70	34.152 D	26.920	119.0	1.072	0.79	11.3	75.2	2.95	39.8	0.00			503	
510	5.70	5.66	34.159	26.931	118.1	1.084	0.71	10.1	76.9	2.98	40.2	0.00			513	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 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 14.8 N	117 27.7 W	28/06/07	2251 UTC	19 m	260 05 kn	300 02 07	0	1013.0 mb	21.2 C	17.8 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	20.80	20.80	33.750	23.598	428.4	0.000	5.91	115.3	0.7	0.15	0.1	0.00	0.28	0.05	0	
1	20.80	20.80	33.750	23.598	428.5	0.004	5.91	115.3	0.7	0.15	0.1	0.00	0.28	0.05	1	204
5	20.34	20.34	33.751	23.721	416.8	0.021	5.97	115.4	0.5	0.12	0.2	0.00	0.27	0.05	5	203
10	19.44	19.44	33.722	23.934	396.7	0.042	6.13	116.6	0.4	0.14	0.1	0.01	0.42	0.08	10	202
15	15.85	15.85	33.663	24.755	318.6	0.059	6.23	110.5	2.9	0.36	0.2	0.03	1.35	0.44	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 57.7 N	117 17.8 W	28/06/07	1818 UTC	48 m	230 04 kn	290 02 07	0	1013.8 mb	20.0 C	18.2 C	12m	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	20.72					0.000	5.88		0.5	0.11	0.4	0.00	0.39	0.05	0	
2 A	20.72	20.72	33.777 D	23.640	424.5	0.008	5.88	114.5	0.5	0.11	0.4	0.00	0.39	0.05	2	208
6 A	20.23	20.23	33.768	23.763	412.9	0.025	5.91	114.1	0.5	0.12	0.2	0.00	0.34	0.06	6	207
10	17.35	17.35	33.701	24.436	348.8	0.040	6.31	115.3	3.1	0.20	0.3	0.01	0.74	0.21	10	206
17 A	12.69	12.69	33.653	25.411	256.1	0.062	5.57	92.6	9.9	0.68	3.5	0.06	4.69	1.16	17	205
20 ISL	11.77 D	11.77	33.633 D	25.572	240.9	0.069	4.88	79.6	12.1	0.98	8.6	0.14	3.42	0.95	20	
25 A	11.17	11.17	33.663	25.705	228.3	0.081	3.81	61.3	15.0	1.41	16.8	0.26	0.55	0.39	25	204
30 ISL	10.96 D	10.96	33.677 D	25.754	223.8	0.092	3.63	58.2	16.7	1.50	18.2	0.25	0.51	0.24	30	
32 A	10.91	10.91	33.695	25.776	221.7	0.097	3.56	57.0	17.2	1.54	18.8	0.24	0.49	0.23	32	203
39	10.80	10.80	33.712	25.809	218.7	0.112	3.34	53.4	18.8	1.61	19.6	0.28	0.48	0.22	39	202
45 A	10.78	10.77	33.712	25.813	218.5	0.125	3.36	53.6	18.7	1.62	19.6	0.27	0.43	0.28	45	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 54.7 N	117 23.7 W	29/06/07	0134 UTC	620 m	230 04 kn	300 02 08	1	1011.9 mb	19.9 C	17.4 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	20.26	20.26	33.727	23.724	416.4	0.000	5.74	110.8	2.3	0.23	0.4	0.00	0.12	0.03	0	
2	20.26	20.26	33.727	23.724	416.5	0.008	5.74	110.8	2.3	0.23	0.4	0.00	0.12	0.03	2	220
10	18.92	18.92	33.687	24.040	386.6	0.040	6.15	115.8	1.7	0.20	0.4	0.00	0.18	0.04	10	219
19	15.59	15.59	33.619	24.779	316.4	0.072	7.20	127.0	2.0	0.24	0.2	0.00	0.40	0.12	19	218
20 ISL	15.22 D	15.22	33.613 D	24.856	309.1	0.075	7.18	125.7	2.1	0.25	0.3	0.00	0.61	0.17	20	
29	13.43	13.43	33.595	25.220	274.7	0.101	6.34	107.0	4.9	0.48	1.7	0.09	2.37	0.66	29	217
30 ISL	13.29 D	13.29	33.597 D	25.250	271.8	0.104	6.19	104.2	5.6	0.54	2.6	0.11	2.30	0.66	30	
40	11.77	11.76	33.653	25.588	239.9	0.130	4.59	74.8	12.7	1.14	12.6	0.36	1.57	0.68	40	216
50	11.19	11.18	33.699	25.730	226.6	0.153	3.51	56.5	16.9	1.43	16.5	0.44	0.75	0.47	50	215
60	10.75	10.74	33.736	25.837	216.5	0.175	3.10	49.5	19.7	1.63	20.0	0.32	0.42	0.37	60	214
70	10.23	10.22	33.749	25.938	207.1	0.196	3.37	53.2	20.2	1.68	21.1	0.03	0.10	0.09	70	213
75 ISL	10.00 D	9.99	33.779 D	26.000	201.3	0.207	3.20	50.2	21.6	1.75	22.0	0.03	0.08	0.08	75	
84	9.98	9.97	33.873	26.077	194.2	0.224	2.77	43.5	24.3	1.87	23.5	0.03	0.03	0.06	84	212
99	9.77	9.76	33.929	26.156	187.0	0.253	2.63	41.1	26.4	1.94	24.7	0.02	0.01	0.05	100	211
100 ISL	9.75 D	9.74	33.932 D	26.162	186.4	0.255	2.62	40.9	26.5	1.94	24.8	0.02	0.01	0.05	101	
120	9.55	9.54	34.005	26.253	178.3	0.291	2.48	38.6	28.9	2.02	25.7	0.02	0.00	0.05	121	210
125 ISL	9.56 D	9.55	34.034 D	26.274	176.4	0.300	2.41	37.5	29.5	2.04	25.9	0.02	0.00	0.05	126	
140	9.53	9.51	34.083	26.317	172.5	0.326	2.16	33.6	31.3	2.12	26.6	0.02	0.00	0.05	141	209
150 ISL	9.37 D	9.35	34.084 D	26.344	170.1	0.344	2.01	31.2	32.5	2.17	27.1	0.02	0.00	0.05	151	
169	9.44	9.42	34.179	26.408	164.6	0.375	1.77	27.5	34.8	2.27	27.9	0.02	0.00	0.04	170	208
198	9.25	9.23	34.224	26.474	158.8	0.422	1.52	23.5	37.6	2.37	29.0	0.02	0.00	0.05	199	207
200 ISL	9.29 D	9.27	34.235 D	26.476	158.7	0.425	1.49	23.1	37.8	2.38	29.1	0.02			201	
229	9.14	9.11	34.277	26.534	153.8	0.471	1.15	17.8	41.0	2.52	30.0	0.02			230	206
250 ISL	8.99 D	8.96	34.290 D	26.568	150.9	0.503	1.32	20.3	43.0	2.52	30.8	0.02			251	
269	8.28	8.25	34.200	26.608	147.1	0.531	1.53	23.2	45.0	2.52	31.7	0.03			271	205
300 ISL	8.02 D	7.99	34.216 D	26.660	142.6	0.576	1.40	21.1	49.3	2.58	33.3	0.04			302	
317	7.54	7.51	34.159	26.685	140.2	0.600	1.26	18.8	51.7	2.63	34.1	0.04			319	204
379	7.30	7.26	34.245	26.788	131.4	0.684	0.83	12.3	57.6	2.82	35.6	0.02			381	203
400 ISL	7.23 D	7.19	34.246 D	26.798	130.6	0.712	0.69	10.2	59.2	2.88	35.9	0.02			403	
437	7.23	7.19	34.314	26.853	126.1	0.759	0.49	7.2	62.3	2.96	36.5	0.02			440	202
500 ISL	6.62 D	6.57	34.315 D	26.937	118.5	0.836	0.37	5.4	69.6	3.06	38.1	0.03			503	
514	6.57	6.52	34.316	26.945	118.0	0.853	0.34	5.0	71.2	3.08	38.5	0.03			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
32 50.9 N	117 31.9 W	29/06/07	0436	UTC	850 m	360	02 kn			1012.0 mb	19.0 C	17.0 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	19.52	19.52	33.734	23.922	397.5	0.000	6.15	117.1	1.2	0.19	0.1	0.00	0.19	0.04	0	
2	19.52	19.52	33.734	23.922	397.5	0.008	6.15	117.1	1.2	0.19	0.1	0.00	0.19	0.04	2	220
10	17.43	17.43	33.695	24.412	351.1	0.038	6.45	118.0	1.2	0.20	0.0	0.00	0.18	0.04	10	219
20	14.51	14.51	33.600	24.999	295.4	0.070	6.95	119.9	2.5	0.27	0.0	0.00	0.47	0.12	20	218
30	12.85	12.85	33.600	25.339	263.3	0.098	5.83	97.2	2.8	0.51	1.8	0.05	7.88	2.75	30	217
40	11.91	11.90	33.611	25.529	245.5	0.124	4.37	71.4	11.4	1.05	10.6	0.39	2.01	0.96	40	216
50	11.43	11.42	33.610	25.617	237.3	0.148	4.01	64.9	13.6	1.27	14.5	0.22	0.88	0.55	50	215
59	11.01	11.00	33.680	25.748	225.1	0.169	3.86	61.9	15.7	1.41	16.9	0.05	0.34	0.31	59	214
70	10.36	10.35	33.731	25.902	210.6	0.193	3.53	55.8	19.6	1.63	20.4	0.02	0.14	0.18	70	213
75 ISL	10.19 D	10.18	33.751 D	25.946	206.5	0.203	3.36	53.0	21.2	1.71	21.4	0.02	0.10	0.14	75	
84	9.86	9.85	33.813	26.051	196.7	0.221	3.06	47.9	23.6	1.82	22.8	0.02	0.06	0.11	84	212
99	9.71	9.70	33.896	26.141	188.5	0.250	2.64	41.2	26.3	1.95	24.6	0.02	0.04	0.14	100	211
100 ISL	9.67 D	9.66	33.902 D	26.152	187.4	0.252	2.63	41.0	26.4	1.95	24.7	0.02	0.04	0.14	101	
119	9.48	9.47	33.963	26.231	180.2	0.287	2.49	38.7	28.6	2.02	25.5	0.02	0.02	0.09	120	210
125 ISL	9.38 D	9.37	33.989 D	26.268	176.9	0.297	2.45	38.0	29.2	2.04	25.8	0.02	0.02	0.09	126	
140	9.27	9.25	34.015	26.306	173.5	0.324	2.36	36.5	30.7	2.09	26.5	0.01	0.01	0.08	141	209
150 ISL	9.12 D	9.10	34.036 D	26.347	169.8	0.341	2.29	35.3	32.0	2.12	27.0	0.01	0.01	0.07	151	
169	8.98	8.96	34.084	26.407	164.5	0.373	2.11	32.4	34.7	2.20	28.0	0.02	0.01	0.06	170	208
199	8.97	8.95	34.167	26.474	158.7	0.421	1.67	25.7	38.1	2.36	29.9	0.01	0.01	0.08	200	207
200 ISL	8.96 D	8.94	34.170 D	26.478	158.3	0.423	1.66	25.5	38.2	2.36	29.9	0.01			201	
228	8.92	8.90	34.216	26.521	154.8	0.467	1.36	20.9	40.4	2.48	30.5	0.01			229	206
250 ISL	8.67 D	8.64	34.238 D	26.578	149.8	0.500	1.21	18.5	43.2	2.56	31.1	0.02			251	
268	8.52	8.49	34.255	26.615	146.6	0.527	1.11	16.9	45.8	2.62	31.6	0.03			270	205
300 ISL	8.09 D	8.06	34.261 D	26.685	140.3	0.573	0.90	13.6	49.7	2.74	32.9	0.02			302	
318	8.08	8.05	34.292	26.711	138.2	0.598	0.79	11.9	51.7	2.80	33.7	0.01			320	204
377	7.51	7.47	34.288	26.792	131.1	0.677	0.64	9.5	58.1	2.89	35.2	0.01			379	203
400 ISL	7.36 D	7.32	34.297 D	26.820	128.7	0.707	0.56	8.3	60.9	2.94	35.9	0.01			403	
438	6.97	6.93	34.303	26.880	123.3	0.755	0.43	6.3	65.5	3.03	37.2	0.01			441	202
500 ISL	6.50 D	6.45	34.313 D	26.951	117.0	0.829	0.35	5.1	72.3	3.11	38.9	0.00			503	
512	6.39	6.34	34.311	26.964	115.9	0.843	0.34	4.9	73.6	3.12	39.2	0.00			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE
32 40.7 N	117 52.4 W	29/06/07	0844	UTC	638 m	210	03 kn			1012.2 mb	17.9 C	16.1 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	18.92	18.92	33.702	24.051	385.2	0.000	5.65	106.4	1.8	0.25	0.0	0.01	0.15	0.03	0	
1	18.92	18.92	33.702	24.051	385.2	0.004	5.65	106.4	1.8	0.25	0.0	0.01	0.15	0.03	1	220
10	18.55	18.55	33.692	24.136	377.4	0.038	5.71	106.7	1.8	0.24	0.1	0.01	0.16	0.03	10	219
20	15.70	15.70	33.601	24.741	320.1	0.073	6.42	113.5	1.9	0.27	0.0	0.01	0.30	0.08	20	218
30	13.92	13.92	33.565	25.096	286.5	0.103	6.62	112.8	2.3	0.30	0.0	0.02	0.83	0.27	30	217
40	12.32	12.31	33.549	25.403	257.5	0.131	5.08	83.7	7.3	0.82	7.4	0.26	1.62	1.00	40	216
50	11.28	11.27	33.610	25.644	234.7	0.155	4.01	64.7	13.8	1.30	15.5	0.10	0.78	0.42	50	215
60	10.69	10.68	33.691	25.813	218.9	0.178	3.44	54.8	17.8	1.52	18.8	0.06	0.32	0.22	60	214
70	9.98	9.97	33.828	26.042	197.2	0.199	2.90	45.5	23.6	1.82	23.1	0.04	0.07	0.11	70	213
75 ISL	9.85 D	9.84	33.888 D	26.111	190.8	0.208	2.62	41.0	26.2	1.93	24.6	0.03	0.05	0.12	75	
85	9.64	9.63	33.984	26.221	180.5	0.227	2.15	33.5	30.0	2.07	26.6	0.03	0.02	0.13	85	212
100	9.56	9.55	34.033	26.272	175.9	0.254	1.95	30.4	30.4	2.16	27.4	0.03	0.01	0.13	101	211
120	9.49	9.48	34.097	26.334	170.5	0.288	1.68	26.1	34.2	2.27	28.3	0.02	0.02	0.18	121	210
125 ISL	9.49 D	9.48	34.099 D	26.336	170.4	0.297	1.65	25.7	34.6	2.29	28.4	0.02	0.02	0.17	126	
139	9.46	9.44	34.127	26.363	168.2	0.321	1.60	24.9	35.1	2.32	28.6	0.03	0.01	0.15	140	209
150 ISL	9.45 D	9.43	34.138 D	26.374	167.4	0.339	1.55	24.1	35.5	2.34	28.7	0.03	0.01	0.15	151	
170	9.45	9.43	34.167	26.397	165.7	0.372	1.46	22.7	36.3	2.37	28.8	0.02	0.01	0.15	171	208
199	9.37	9.35	34.199	26.435	162.6	0.420	1.41	21.9	37.4	2.40	29.3	0.03	0.01	0.12	200	207
200 ISL	9.37 D	9.35	34.203 D	26.438	162.3	0.422	1.41	21.9	37.4	2.40	29.3	0.03			201	
229	9.25	9.22	34.245	26.491	157.9	0.468	1.29	20.0	39.1	2.46	29.8	0.02			230	206
250 ISL	9.19 D	9.16	34.282 D	26.530	154.6	0.501	1.19	18.4	40.8	2.51	30.2	0.02			251	
269	8.97	8.94	34.277	26.562	151.9	0.530	1.11	17.1	42.4	2.56	30.5	0.02			271	205
300 ISL	8.71 D	8.68	34.286 D	26.610	147.8	0.576	1.05	16.1	44.4	2.61	31.1	0.02			302	
319	8.55	8.52	34.285	26.634	145.7	0.604	1.03	15.7	46.0	2.64	31.7	0.02			321	204
379	7.41	7.37	34.222	26.754	134.6	0.688	0.93	13.8	55.5	2.78	35.4	0.02			381	203
400 ISL	7.25 D	7.21	34.228 D	26.781	132.2	0.716	0.86	12.7	58.3	2.83	36.2	0.02			403	
438	6.89	6.85	34.240	26.841	126.9	0.766	0.69	10.1	63.1	2.92	37.3	0.01			441	202
500 ISL	6.59 D	6.54	34.317 D	26.943	118.0	0.841	0.37	5.4	70.7	3.08	38.7	0.01			503	
512	6.50	6.45	34.326	26.962	116.2	0.856	0.31	4.5	72.2	3.11	39.0	0.01			516	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 31.0 N	118 12.1 W	29/06/07	1244 UTC	1722 m	290 04 kn	270 04 05	2	1012.0 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	18.46	18.46	33.730	24.187	372.2	0.000	5.85	109.2	2.6	0.23	0.2	0.00	0.19	0.04	0	
2	18.46	18.46	33.730	24.187	372.3	0.007	5.85	109.2	2.6	0.23	0.2	0.00	0.19	0.04	2	221
10	17.73	17.73	33.729	24.366	355.5	0.037	6.31	116.1	3.8	0.16	0.3	0.00	0.29	0.05	10	219
10	17.77	17.77	33.729	24.356	356.4	0.037									10	220
20	13.87	13.87	33.682	25.197	276.6	0.068	6.54	111.4	7.8	0.27	0.3	0.00	0.54	0.17	20	218
30 ISL	12.39 D	12.39	33.679 D	25.490	248.9	0.094	5.84	96.5	5.1	0.40	0.4	0.01	7.54	2.56	30	
31	12.35	12.35	33.677	25.496	248.3	0.097	5.77	95.3	4.8	0.41	0.4	0.01	8.08	2.72	31	217
39	11.22	11.22	33.722	25.742	225.1	0.116	3.44	55.5	16.8	1.30	14.9	0.36	4.24	0.78	39	216
49	10.64	10.63	33.744	25.863	213.9	0.138	3.01	47.9	19.5	1.61	20.3	0.16	2.63	0.23	49	215
50 ISL	10.56 D	10.55	33.749 D	25.881	212.2	0.140	2.99	47.5	19.8	1.63	20.6	0.15	2.37	0.22	50	
60	10.33	10.32	33.797	25.958	205.0	0.161	2.81	44.4	22.0	1.75	22.2	0.05	0.18	0.17	60	214
70	9.85	9.84	33.806	26.047	196.8	0.181	3.19	49.9	22.5	1.75	22.4	0.03	0.05	0.06	70	213
75 ISL	9.78 D	9.77	33.830 D	26.077	194.0	0.191	3.12	48.8	23.2	1.78	22.9	0.02	0.04	0.06	75	
84	9.62	9.61	33.878	26.141	188.1	0.208	2.98	46.4	25.0	1.85	24.0	0.02	0.02	0.06	84	212
99	9.58	9.57	33.980	26.228	180.2	0.236	2.49	38.8	28.2	2.01	25.7	0.02	0.02	0.07	100	211
100 ISL	9.49 D	9.48	33.982 D	26.244	178.6	0.237	2.48	38.5	28.4	2.02	25.8	0.02	0.02	0.07	101	
119	9.30	9.29	34.043	26.323	171.5	0.271	2.33	36.1	31.0	2.09	26.8	0.02	0.01	0.09	120	210
125 ISL	9.21 D	9.20	34.082 D	26.368	167.3	0.281	2.26	34.9	31.7	2.12	27.1	0.02	0.01	0.09	126	
139	9.20	9.18	34.102	26.386	165.9	0.304	2.07	32.0	33.3	2.18	27.8	0.02	0.01	0.08	140	209
150 ISL	9.10 D	9.08	34.142 D	26.433	161.6	0.322	1.89	29.2	35.1	2.25	28.6	0.03	0.01	0.08	151	
168	8.87	8.85	34.186	26.505	155.2	0.351	1.64	25.2	38.2	2.36	29.8	0.06	0.01	0.07	169	208
199	8.52	8.50	34.200	26.570	149.4	0.398	1.52	23.1	41.6	2.45	30.9	0.08	0.01	0.05	200	207
200 ISL	8.51 D	8.49	34.197 D	26.570	149.5	0.399	1.51	23.0	41.7	2.45	30.9	0.08			201	
228	8.38	8.36	34.224	26.611	146.1	0.441	1.32	20.0	44.1	2.54	31.8	0.05			229	206
250 ISL	7.99 D	7.96	34.204 D	26.654	142.2	0.472	1.22	18.4	47.0	2.60	32.8	0.03			252	
268	7.86	7.83	34.224	26.689	139.1	0.498	1.14	17.1	49.6	2.66	33.6	0.01			270	205
300 ISL	7.71 D	7.68	34.261 D	26.741	134.7	0.542	0.88	13.2	53.7	2.78	34.8	0.01			302	
318	7.57	7.54	34.281	26.777	131.5	0.565	0.74	11.0	55.8	2.84	35.4	0.01			320	204
378	7.18	7.14	34.306	26.852	125.1	0.642	0.51	7.5	61.6	2.97	36.9	0.01			380	203
400 ISL	7.00 D	6.96	34.307 D	26.878	122.9	0.670	0.45	6.6	63.9	3.01	37.4	0.01			403	
435	6.80	6.76	34.328	26.922	119.1	0.712	0.36	5.3	67.6	3.07	38.1	0.01			438	202
500 ISL	6.48 D	6.43	34.349 D	26.982	114.1	0.788	0.26	3.8	73.4	3.16	39.1	0.01			503	
511	6.38	6.33	34.356	27.001	112.4	0.800	0.24	3.5	74.4	3.17	39.3	0.01			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 20.6 N	118 34.5 W	29/06/07	1827 UTC	1443 m	320 03 kn	280 03 06	2	1014.1 mb	19.0 C	17.1 C	16m	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	18.61	18.61	33.712	24.136	377.1	0.000	5.84	109.3	1.8	0.21	0.1	0.01	0.27	0.05	0	
1	18.61	18.61	33.712	24.136	377.1	0.004	5.84	109.3	1.8	0.21	0.1	0.01	0.27	0.05	1	221
9	18.46	18.46	33.710	24.172	373.9	0.034	5.87	109.6	1.7	0.21	0.1	0.01	0.30	0.03	9	220
10 ISL	18.48 D	18.48	33.714 D	24.171	374.1	0.038	5.91	110.3	1.7	0.21	0.1	0.01	0.31	0.03	10	
16	17.13	17.13	33.712	24.497	343.2	0.059	6.20	112.8	1.3	0.21	0.2	0.01	0.42	0.02	16	219
20 ISL	15.95 D	15.95	33.717 D	24.774	317.0	0.072	6.32	112.3	1.0	0.23	0.2	0.02	0.60	0.08	20	
23	15.80	15.80	33.718	24.808	313.7	0.082	6.35	112.5	0.7	0.24	0.2	0.02	0.83	0.15	23	218
30 ISL	14.55 D	14.55	33.730 D	25.092	287.0	0.103	6.11	105.6	3.3	0.46	3.0	0.09	2.11	0.39	30	
33	14.29	14.29	33.728	25.145	281.9	0.111	5.90	101.4	5.0	0.59	4.9	0.15	2.49	0.46	33	217
43	12.35	12.34	33.702	25.516	246.8	0.138	4.86	80.2	10.9	1.14	13.0	0.52	0.56	0.16	43	216
50 ISL	11.76 D	11.75	33.725 D	25.646	234.6	0.155	4.45	72.6	13.3	1.31	15.8	0.25	0.36	0.18	50	
52	11.78	11.77	33.725	25.642	235.0	0.159	4.36	71.1	13.8	1.34	16.3	0.15	0.30	0.20	52	215
61	10.84	10.83	33.686	25.783	221.8	0.180	3.93	62.8	16.3	1.47	18.6	0.02	0.10	0.09	61	214
70	10.09	10.08	33.800	26.001	201.1	0.199	3.10	48.8	22.4	1.77	22.7	0.02	0.03	0.05	70	213
75 ISL	9.91 D	9.90	33.847 D	26.069	194.8	0.209	2.87	45.0	24.0	1.85	23.8	0.02	0.03	0.05	75	
85	9.85	9.84	33.891	26.113	190.8	0.228	2.64	41.3	25.8	1.95	24.9	0.02	0.02	0.06	85	212
100	9.67	9.66	33.968	26.204	182.5	0.256	2.35	36.7	28.4	2.11	26.2	0.02	0.02	0.06	101	211
120	9.47	9.46	34.038	26.292	174.5	0.292	2.12	32.9	31.0	2.17	27.3	0.01	0.02	0.06	121	210
125 ISL	9.42 D	9.41	34.046 D	26.306	173.3	0.300	2.14	33.2	31.5	2.17	27.5	0.01	0.02	0.06	126	
140	9.03	9.01	34.059	26.379	166.5	0.326	2.25	34.6	33.2	2.16	27.9	0.01	0.01	0.05	141	209
150 ISL	8.88 D	8.86	34.075 D	26.416	163.2	0.342	2.23	34.2	34.6	2.17	28.4	0.01	0.01	0.05	151	
169	8.52	8.50	34.082	26.477	157.6	0.373	2.20	33.5	37.2	2.22	29.4	0.02	0.01	0.04	170	208
199	8.37	8.35	34.121	26.531	153.0	0.419	1.87	28.4	40.3	2.35	30.7	0.02	0.01	0.04	200	207
200 ISL	8.35 D	8.33	34.126 D	26.538	152.4	0.421	1.86	28.2	40.4	2.35	30.7	0.02			201	
229	8.00	7.98	34.135	26.598	147.1	0.464	1.67	25.1	44.7	2.46	32.2	0.02			230	206
250 ISL	7.75 D	7.73	34.152 D	26.648	142.6	0.495	1.48	22.1	48.0	2.55	33.3	0.01			251	
268	7.55	7.52	34.165	26.688	139.1	0.520	1.31	19.5	50.8	2.63	34.2	0.01			270	205
300 ISL	7.32 D	7.29	34.209 D	26.755	133.1	0.564	1.02	15.1	55.9	2.77	35.6	0.01			302	
318	7.13	7.10	34.207	26.781	130.9	0.588	0.88	13.0	58.5	2.84	36.2	0.01			320	204
378	6.75	6.71	34.251	26.868	123.3	0.664	0.63	9.2	65.1	2.98	37.7	0.01			380	203
400 ISL	6.64 D	6.60	34.265 D	26.894	121.1	0.691	0.55	8.0	67.6	3.02	38.3	0.01			403	
437	6.36	6.32	34.281	26.944	116.7	0.735	0.43	6.2	71.9	3.08	39.2	0.01			440	202
500 ISL	6.03 D	5.99	34.324 D	27.020	110.0	0.806	0.28	4.0	79.4	3.18	40.6	0.01			503	
512	5.93	5.89	34.336	27.043	107.9	0.819	0.25	3.6	80.8	3.20	40.9	0.01			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 50.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 10.5 N	118 53.0 W	29/06/07	2145 UTC	1457 m	310 22 kn	310 04 06	4	1013.5 mb	16.0 C	15.1 C	8m	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	15.84	15.84	33.724	24.803	313.5	0.000	6.26	111.0	0.9	0.27	0.1	0.02	1.33	0.09	0	
3	15.84	15.84	33.724	24.803	313.6	0.009	6.26	111.0	0.9	0.27	0.1	0.02	1.33	0.09	3	220
10	15.81	15.81	33.724	24.810	313.2	0.031	6.27	111.2	0.9	0.26	0.4	0.02	1.61	0.04	10	219
20 ISL	13.17 D	13.17	33.607 D	25.281	268.6	0.060	5.76	96.7	5.5	0.73	6.9	0.26	2.06	0.65	20	
21	13.16	13.16	33.609	25.285	268.2	0.063	5.69	95.5	6.1	0.79	7.7	0.29	2.11	0.70	21	218
30	12.02	12.02	33.616	25.512	246.9	0.086	5.06	82.9	9.8	1.10	12.7	0.36	0.80	0.22	30	217
41	11.77	11.76	33.632	25.571	241.4	0.113	4.86	79.2	11.3	1.22	14.3	0.26	0.65	0.28	41	216
50 ISL	11.29 D	11.28	33.756 D	25.756	224.1	0.134	3.94	63.6	16.4	1.45	17.8	0.16	0.27	0.14	50	
51 A	11.32	11.31	33.755	25.750	224.7	0.136	3.83	61.9	17.0	1.48	18.2	0.15	0.23	0.12	51	215
60	10.80	10.79	33.789	25.870	213.5	0.156	3.48	55.6	20.1	1.65	20.6	0.07	0.16	0.10	60	214
71	10.58	10.57	33.815	25.929	208.1	0.179	3.13	49.8	21.8	1.73	21.8	0.08	0.17	0.13	71	213
75 ISL	10.43 D	10.42	33.821 D	25.960	205.2	0.188	3.06	48.5	22.6	1.77	22.3	0.07	0.15	0.12	75	
85	10.07	10.06	33.851	26.045	197.3	0.208	2.93	46.1	24.9	1.87	23.7	0.03	0.08	0.08	85	212
99	9.41	9.40	33.927	26.214	181.4	0.234	2.62	40.6	28.6	1.99	25.8	0.02	0.02	0.06	100	211
100 ISL	9.42 D	9.41	33.943 D	26.225	180.4	0.236	2.58	40.0	28.8	2.00	25.9	0.02	0.02	0.06	101	
120	9.36	9.35	34.072	26.336	170.3	0.271	1.98	30.7	32.4	2.21	27.8	0.02	0.02	0.08	121	210
125 ISL	9.33 D	9.32	34.097 D	26.361	168.1	0.279	1.99	30.8	33.3	2.22	28.1	0.02	0.02	0.08	126	
140	8.84	8.83	34.098	26.440	160.7	0.304	2.02	31.0	35.7	2.24	28.8	0.02	0.02	0.06	141	209
150 ISL	8.76 D	8.74	34.111 D	26.463	158.7	0.320	1.99	30.5	37.0	2.27	29.3	0.02	0.02	0.06	151	
170	8.54	8.52	34.120	26.504	155.1	0.352	1.86	28.3	39.1	2.33	30.2	0.02	0.01	0.05	171	208
199	8.45	8.43	34.166	26.554	150.9	0.396	1.59	24.2	41.7	2.44	31.0	0.02	0.02	0.27	200	207
200 ISL	8.42 D	8.40	34.164 D	26.557	150.6	0.397	1.59	24.2	41.8	2.44	31.0	0.02			201	
230	8.13	8.11	34.171	26.607	146.3	0.442	1.45	21.9	45.1	2.51	32.1	0.02			231	206
250 ISL	8.09 D	8.06	34.224 D	26.655	142.2	0.471	1.23	18.5	47.2	2.60	32.7	0.02			252	
269	8.02	7.99	34.240	26.678	140.3	0.498	1.02	15.4	49.4	2.70	33.3	0.02			271	205
300 ISL	7.51 D	7.48	34.240 D	26.753	133.4	0.540	0.85	12.6	54.2	2.80	34.6	0.01			302	
318	7.39	7.36	34.245	26.774	131.7	0.564	0.79	11.7	57.0	2.84	35.4	0.01			320	204
380	6.91	6.87	34.272	26.863	123.9	0.643	0.55	8.1	64.3	2.98	37.1	0.01			382	203
400 ISL	6.85 D	6.81	34.293 D	26.888	121.8	0.668	0.47	6.9	66.5	3.02	37.5	0.01			403	
439	6.61	6.57	34.309	26.933	118.0	0.714	0.35	5.1	70.9	3.09	38.3	0.01			442	202
500 ISL	6.12 D	6.08	34.329 D	27.013	110.8	0.784	0.27	3.9	78.7	3.17	39.8	0.01			503	
511	6.04	5.99	34.333	27.026	109.6	0.796	0.25	3.6	80.1	3.19	40.1	0.01			515	201

A) SECOND FLUOROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPIGMENT
CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 0.5 N	119 13.8 W	30/06/07	0203 UTC	1595 m	320 22 kn	310 06 07	1	1013.0 mb	15.9 C	14.9 C		5/8	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	15.50	15.50	33.556	24.750	318.6	0.000	5.98	105.3	1.2	0.40	0.6	0.06	0.55	0.12	0	
1	15.50	15.50	33.556	24.750	318.6	0.003	5.98	105.3	1.2	0.40	0.6	0.06	0.55	0.12	1	221
10	15.49	15.49	33.559	24.755	318.4	0.032	5.99	105.4	1.3	0.40	0.7	0.06	0.54	0.13	10	219
10	15.49	15.49	33.560	24.756	318.4	0.032									10	220
20	15.47	15.47	33.582	24.777	316.6	0.064	5.99	105.4	1.3	0.41	0.8	0.06	0.56	0.13	20	218
30	14.08	14.08	33.490	25.005	295.1	0.094	5.97	102.1	2.4	0.67	3.4	0.18	0.49	0.17	30	217
40	12.62	12.61	33.478	25.290	268.2	0.122	5.67	94.0	4.8	0.78	7.2	0.40	0.51	0.23	40	216
50	12.47	12.46	33.542	25.369	261.0	0.149	5.50	90.9	6.4	0.89	9.2	0.49	0.62	0.28	50	215
60	12.28	12.27	33.634	25.477	250.9	0.174	5.22	86.0	8.4	1.04	12.4	0.10	0.36	0.21	60	214
70	11.58	11.57	33.638	25.612	238.3	0.199	4.67	75.8	12.4	1.23	15.1	0.03	0.12	0.09	70	213
75 ISL	11.06 D	11.05	33.651 D	25.716	228.4	0.211	4.36	70.0	14.4	1.32	16.6	0.03	0.09	0.08	75	
84	10.44	10.43	33.699	25.863	214.6	0.230	3.91	62.0	17.4	1.45	18.7	0.03	0.04	0.05	84	212
100	10.01	10.00	33.745	25.973	204.5	0.264	3.82	60.0	18.8	1.52	19.5	0.02	0.02	0.04	100	211
120	9.54	9.53	33.879	26.156	187.4	0.303	2.94	45.7	26.1	1.87	24.8	0.01	0.01	0.04	121	210
125 ISL	9.43 D	9.42	33.897 D	26.188	184.5	0.312	2.85	44.2	26.8	1.90	25.3	0.01	0.01	0.04	126	
138	9.40	9.38	33.920	26.211	182.5	0.336	2.71	42.0	28.2	1.96	26.0	0.01	0.01	0.05	139	209
150 ISL	9.06 D	9.04	33.975 D	26.309	173.4	0.358	2.50	38.5	30.5	2.04	27.1	0.01	0.01	0.05	151	
168	8.92	8.90	34.040	26.382	166.8	0.388	2.20	33.8	34.1	2.15	28.6	0.01	0.00	0.05	169	208
199	8.65	8.63	34.095	26.468	159.2	0.439	1.93	29.5	37.9	2.27	29.9	0.01	0.00	0.05	200	207
200 ISL	8.63 D	8.61	34.102 D	26.477	158.4	0.440	1.93	29.4	38.0	2.27	30.0	0.01			201	
229	8.11	8.09	34.112	26.564	150.4	0.485	1.86	28.0	42.6	2.37	31.5	0.02			230	206
250 ISL	8.04 D	8.01	34.164 D	26.615	145.9	0.516	1.51	22.7	45.9	2.50	32.5	0.02			251	
268	7.96	7.93	34.203	26.658	142.1	0.542	1.18	17.7	48.7	2.61	33.3	0.02			270	205
300 ISL	7.58 D	7.55	34.219 D	26.726	136.0	0.587	0.99	14.8	53.4	2.73	34.6	0.01			302	
319	7.37	7.34	34.219	26.756	133.3	0.612	0.93	13.8	56.1	2.78	35.3	0.01			321	204
379	7.03	6.99	34.286	26.857	124.5	0.690	0.52	7.7	63.5	2.98	37.0	0.01			381	203
400 ISL	6.83 D	6.79	34.286 D	26.885	122.1	0.716	0.43	6.3	66.7	3.03	37.7	0.01			403	
439	6.48	6.44	34.310	26.951	116.1	0.762	0.33	4.8	72.5	3.10	38.8	0.01			442	202
500 ISL	6.16 D	6.12	34.332 D	27.010	111.1	0.831	0.27	3.9	78.7	3.17	39.5	0.01			503	
508	6.14	6.09	34.332	27.013	110.9	0.840	0.26	3.7	79.5	3.18	39.6	0.01			511	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
31 50.7 N	119 33.9 W	30/06/07	0610 UTC	1841 m	330 17 kn			1014.5 mb	16.2 C	14.8 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	15.97	15.97	33.528	24.623	330.7	0.000	5.87	104.3	1.7	0.34	0.6	0.04	0.35	0.09	0	
3	15.97	15.97	33.528	24.623	330.7	0.010	5.87	104.3	1.7	0.34	0.6	0.04	0.35	0.09	3	220
10	15.98	15.98	33.528	24.621	331.1	0.033	5.87	104.3	1.7	0.35	0.6	0.04	0.38	0.09	10	219
20 ISL	15.97 D	15.97	33.528 D	24.624	331.2	0.066	5.86	104.1	1.7	0.34	0.6	0.04	0.37	0.09	20	
21	15.97	15.97	33.532	24.627	331.0	0.070	5.86	104.1	1.7	0.34	0.6	0.04	0.37	0.09	21	218
30 ISL	13.38 D	13.38	33.607 D	25.239	272.8	0.097	6.23	105.0	1.5	0.61	4.8	0.18	0.64	0.25	30	
31	13.39	13.39	33.596	25.229	273.9	0.099	6.25	105.4	1.5	0.65	5.3	0.20	0.70	0.28	31	217
40	12.91	12.90	33.610	25.336	263.9	0.124	5.67	94.7	4.5	0.89	8.5	0.39	1.82	0.60	40	216
50 ISL	12.18 D	12.17	33.567 D	25.444	253.8	0.150	5.19	85.3	8.1	1.06	11.4	0.25	0.72	0.31	50	
51	12.03	12.02	33.552	25.461	252.2	0.152	5.15	84.4	8.4	1.07	11.7	0.23	0.57	0.27	51	215
60	11.64	11.63	33.554	25.535	245.3	0.174	4.81	78.2	10.9	1.20	13.7	0.07	0.24	0.17	60	214
70	11.20	11.19	33.593	25.646	235.0	0.198	4.40	70.8	13.7	1.33	15.9	0.04	0.08	0.09	70	213
75 ISL	11.08 D	11.07	33.656 D	25.717	228.4	0.210	4.24	68.1	14.9	1.40	17.0	0.03	0.07	0.08	75	
85	10.78	10.77	33.697	25.802	220.5	0.232	3.93	62.7	17.4	1.55	19.2	0.02	0.05	0.07	85	212
98	10.16	10.15	33.741	25.944	207.2	0.260	3.36	52.9	21.1	1.71	21.7	0.01	0.02	0.07	98	211
100 ISL	10.12 D	10.11	33.746 D	25.955	206.2	0.264	3.35	52.7	21.5	1.72	21.8	0.01	0.02	0.07	100	
119	9.58	9.57	33.828	26.109	191.8	0.302	3.21	49.9	24.1	1.79	23.2	0.01	0.01	0.05	120	210
125 ISL	9.50 D	9.49	33.846 D	26.137	189.3	0.314	3.39	52.7	23.9	1.73	22.7	0.01	0.01	0.04	126	
141	9.15	9.13	33.891	26.229	180.8	0.343	3.85	59.4	23.6	1.59	21.4	0.01	0.01	0.03	142	209
150 ISL	8.96 D	8.94	33.921 D	26.282	175.9	0.359	3.79	58.2	25.2	1.63	22.1	0.01	0.01	0.03	151	
168	8.62	8.60	33.964	26.369	167.9	0.390	3.46	52.7	29.5	1.79	24.3	0.01	0.00	0.03	169	208
199	8.19	8.17	33.998	26.462	159.5	0.441	3.10	46.8	34.8	1.96	26.9	0.01	0.00	0.03	200	207
200 ISL	8.17 D	8.15	34.002 D	26.468	159.0	0.443	3.08	46.5	35.0	1.97	27.0	0.01			201	
230	7.88	7.86	34.060	26.557	150.9	0.489	2.37	35.5	41.4	2.23	30.2	0.01			231	206
250 ISL	7.70 D	7.68	34.101 D	26.616	145.7	0.519	1.95	29.1	45.7	2.39	32.1	0.01			251	
267	7.51	7.48	34.107	26.648	142.8	0.543	1.64	24.4	49.2	2.52	33.4	0.01			269	205
300 ISL	7.25 D	7.22	34.147 D	26.716	136.7	0.589	1.24	18.3	54.7	2.69	35.1	0.01			302	
320	7.03	7.00	34.163	26.760	132.8	0.616	1.07	15.7	57.8	2.77	35.8	0.01			322	204
376	6.49	6.46	34.198	26.860	123.7	0.688	0.76	11.0	66.6	2.93	37.9	0.01			378	203
400 ISL	6.42 D	6.38	34.226 D	26.892	121.0	0.718	0.66	9.6	68.8	2.98	38.4	0.01			403	
438	6.31	6.27	34.247	26.923	118.5	0.763	0.53	7.7	71.8	3.05	38.9	0.00			441	202
500 ISL	5.92 D	5.88	34.276 D	26.996	112.1	0.835	0.38	5.4	78.7	3.14	40.2	0.00			503	
513	5.87	5.83	34.277	27.003	111.6	0.849	0.35	5.0	80.1	3.16	40.5	0.00			517	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
31 30.7 N	120 14.1 W	30/06/07	1231 UTC	3927 m	320 20 kn			1015.1 mb	16.0 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	15.26	15.26	33.714	24.925	302.0	0.000	6.16	108.0	0.0	0.26	0.3	0.10	1.66	0.41	0	
2	15.26	15.26	33.714	24.925	302.0	0.006	6.16	108.0	0.0	0.26	0.3	0.10	1.66	0.41	2	220
10	15.26	15.26	33.716	24.926	302.1	0.030	6.17	108.2	0.0	0.24	0.2	0.09	1.68	0.36	10	219
20	15.21	15.21	33.747	24.962	299.1	0.060	6.25	109.5	0.0	0.23	0.0	0.09	2.23	0.63	20	218
30	15.13	15.13	33.741	24.975	298.1	0.090	6.23	109.0	0.0	0.25	0.1	0.11	2.65	0.79	30	217
40	12.92	12.91	33.523	25.266	270.5	0.119	5.52	92.1	4.7	0.80	6.3	0.33	1.14	0.60	40	216
50	12.39	12.38	33.497	25.349	262.8	0.145	5.46	90.1	6.4	0.97	9.1	0.39	0.71	0.48	50	215
60	12.09	12.08	33.535	25.436	254.8	0.171	5.44	89.2	7.2	1.08	10.6	0.55	0.51	0.32	60	214
69	11.64	11.63	33.555	25.536	245.5	0.194	4.93	80.1	9.8	1.20	12.9	0.43	0.51	0.29	69	213
75 ISL	11.18 D	11.17	33.567 D	25.630	236.7	0.208	4.59	73.8	11.6	1.27	14.3	0.28	0.49	0.26	75	
84	10.99	10.98	33.580	25.674	232.6	0.229	4.13	66.2	14.5	1.38	16.3	0.07	0.42	0.22	84	212
100	10.65	10.64	33.776	25.887	212.7	0.265	3.66	58.3	19.8	1.69	20.7	0.03	0.17	0.16	100	211
119	9.95	9.94	33.835	26.053	197.2	0.304	3.11	48.8	24.1	1.88	23.8	0.02	0.04	0.11	120	210
125 ISL	9.82 D	9.81	33.857 D	26.092	193.6	0.315	2.97	46.5	25.2	1.92	24.4	0.02	0.03	0.10	126	
139	9.50	9.48	33.907	26.185	185.1	0.342	2.69	41.8	27.6	1.99	25.4	0.02	0.02	0.09	140	209
150 ISL	9.24 D	9.22	33.963 D	26.271	177.1	0.362	2.52	38.9	29.5	2.05	26.2	0.02	0.01	0.08	151	
169	9.07	9.05	34.013	26.337	171.1	0.395	2.30	35.4	32.5	2.14	27.5	0.02	0.01	0.07	170	208
198	8.68	8.66	34.076	26.448	161.0	0.443	2.03	31.0	36.7	2.26	29.2	0.03	0.01	0.06	199	207
200 ISL	8.60 D	8.58	34.090 D	26.472	158.8	0.446	2.01	30.6	37.1	2.27	29.4	0.03			201	
229	8.14	8.12	34.121	26.566	150.2	0.491	1.69	25.5	43.2	2.44	31.5	0.04			230	206
250 ISL	7.83 D	7.81	34.135 D	26.623	145.0	0.522	1.50	22.5	46.5	2.53	32.6	0.04			251	
269	7.74	7.71	34.156	26.653	142.5	0.549	1.35	20.2	49.2	2.60	33.4	0.03			271	205
300 ISL	7.39 D	7.36	34.190 D	26.731	135.5	0.593	1.11	16.5	54.3	2.74	34.8	0.02			302	
318	7.19	7.16	34.188	26.757	133.1	0.617	0.98	14.5	57.2	2.82	35.5	0.02			320	204
378	6.84	6.80	34.259	26.862	123.9	0.694	0.57	8.4	65.0	2.99	37.2	0.02			380	203
400 ISL	6.72 D	6.68	34.272 D	26.889	121.6	0.721	0.51	7.5	67.9	3.04	37.8	0.02			403	
437	6.35	6.31	34.268	26.935	117.5	0.765	0.46	6.7	72.4	3.10	38.8	0.01			440	202
500 ISL	5.97 D	5.93	34.310 D	27.017	110.2	0.837	0.33	4.7	78.6	3.18	39.8	0.01			503	
512	5.94	5.90	34.311	27.022	109.9	0.850	0.31	4.4	79.8	3.19	40.0	0.01			515	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
31 10.8 N	120 54.8 W	30/06/07	1859 UTC	3833 m	330 19 kn	330 06 07	0	1018.2 mb	17.8 C	15.3 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	16.37	16.37	33.506	24.515	340.9	0.000	5.79	103.7	2.4	0.31	0.1	0.01	0.19	0.05	0	
2	16.37	16.37	33.506	24.515	341.0	0.007	5.79	103.7	2.4	0.31	0.1	0.01	0.19	0.05	2	223
8 A	16.35	16.35	33.503	24.518	341.0	0.027	5.76	103.1	2.4	0.30	0.1	0.01	0.25	0.03	8	222
10 ISL	16.35 D	16.35	33.502 D	24.517	341.1	0.034	5.76	103.1	2.4	0.30	0.1	0.01	0.25	0.03	10	
20 A	16.29	16.29	33.502	24.531	340.1	0.068	5.79	103.5	2.4	0.30	0.2	0.00	0.23	0.05	20	221
28 A	16.28	16.28	33.502	24.534	340.1	0.095	5.79	103.5	2.4	0.30	0.2	0.01	0.25	0.06	28	220
30 ISL	16.27 D	16.27	33.502 D	24.536	339.9	0.102	5.79	103.4	2.4	0.30	0.2	0.01	0.26	0.06	30	
34 A	16.27	16.26	33.501	24.536	340.1	0.116	5.79	103.4	2.3	0.30	0.2	0.00	0.27	0.06	34	219
41	16.26	16.25	33.505	24.541	339.8	0.140	5.78	103.2	2.4	0.30	0.2	0.01	0.29	0.09	41	218
50 A	16.11	16.10	33.493	24.566	337.7	0.170	5.81	103.5	2.4	0.30	0.1	0.01	0.44	0.06	50	217
59	14.55	14.54	33.442	24.870	308.9	0.199	5.82	100.4	2.9	0.37	0.3	0.03	1.85	0.62	59	216
66	14.01	14.00	33.389	24.943	302.1	0.221	6.10	104.0	3.3	0.48	1.8	0.19	0.91	0.64	66	215
73	13.74	13.73	33.407	25.013	295.6	0.241	5.74	97.4	3.5	0.55	2.7	0.51	0.55	0.28	73	214
75 ISL	13.65 D	13.64	33.410 D	25.033	293.7	0.247	5.73	97.0	3.6	0.57	2.9	0.54	0.50	0.26	75	
87	13.38	13.37	33.437	25.109	286.8	0.282	5.65	95.2	4.3	0.67	4.6	0.72	0.31	0.17	87	213
95	12.98	12.97	33.437	25.189	279.3	0.305	5.52	92.2	5.0	0.73	6.1	0.29	0.18	0.11	95	212
100 ISL	12.71 D	12.70	33.461 D	25.261	272.6	0.319	5.47	90.9	5.5	0.78	7.1	0.15	0.12	0.08	100	
109	12.47	12.46	33.479	25.322	267.0	0.343	5.35	88.4	6.5	0.89	9.0	0.03	0.06	0.05	109	211
125	11.76	11.74	33.517	25.486	251.7	0.384	4.89	79.6	9.3	1.04	11.8	0.02	0.04	0.04	126	210
144	10.86	10.84	33.622	25.731	228.6	0.430	4.07	65.0	15.5	1.43	17.6	0.02	0.02	0.03	145	209
150 ISL	10.45 D	10.43	33.696 D	25.860	216.4	0.443	3.77	59.7	17.6	1.55	19.2	0.02	0.02	0.03	151	
170	9.82	9.80	33.824	26.068	196.9	0.485	2.93	45.8	24.1	1.86	23.7	0.02	0.01	0.02	171	208
200	9.08	9.06	33.992	26.320	173.4	0.540	2.59	39.9	30.5	2.04	26.6	0.02	0.00	0.02	201	207
229	8.70	8.68	34.065	26.437	162.7	0.589	2.21	33.8	35.5	2.20	28.6	0.02			230	206
250 ISL	8.33 D	8.30	34.085 D	26.510	156.0	0.622	2.03	30.8	39.0	2.30	29.9	0.02			251	
270	8.13	8.10	34.120	26.568	150.8	0.653	1.86	28.1	42.3	2.39	31.0	0.02			271	205
300 ISL	7.84 D	7.81	34.171 D	26.651	143.3	0.697	1.45	21.7	47.3	2.57	32.7	0.02			302	
318	7.75	7.72	34.182	26.673	141.5	0.723	1.20	17.9	50.3	2.67	33.7	0.02			320	204
378	7.19	7.15	34.232	26.793	130.7	0.805	0.80	11.8	59.2	2.88	35.9	0.02			380	203
400 ISL	6.99 D	6.95	34.244 D	26.830	127.4	0.833	0.69	10.1	61.6	2.93	36.5	0.02			402	
438	6.84	6.80	34.269	26.871	124.0	0.881	0.54	7.9	65.6	3.01	37.3	0.02			441	202
500 ISL	6.35 D	6.30	34.303 D	26.963	115.8	0.955	0.37	5.4	73.3	3.12	38.7	0.02			503	
514	6.32	6.27	34.301	26.965	115.7	0.971	0.33	4.8	75.0	3.15	39.0	0.02			517	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 90.0

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	01/07/07	0118 UTC	4101 m	340 25 kn	340 08 08	0	1016.7 mb	17.2 C	14.8 C	17m	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	16.80	16.80	33.358	24.302	361.2	0.000	5.72	103.2	1.9	0.31	0.0	0.01	0.10	0.03	0	
1	16.80	16.80	33.358	24.302	361.3	0.004	5.72	103.2	1.9	0.31	0.0	0.01	0.10	0.03	1	220
10 ISL	16.80 D	16.80	33.359 D	24.303	361.5	0.036	5.70	102.8	1.8	0.30	0.0	0.01	0.11	0.03	10	
15	16.80	16.80	33.360	24.304	361.5	0.054	5.68	102.5	1.8	0.29	0.0	0.01	0.11	0.03	15	219
20 ISL	16.78 D	16.78	33.360 D	24.309	361.2	0.072	5.68	102.4	1.8	0.29	0.0	0.01	0.11	0.03	20	
30	16.76	16.76	33.360	24.314	361.1	0.108	5.69	102.5	1.7	0.29	0.0	0.01	0.12	0.03	30	218
45	16.61	16.60	33.371	24.358	357.4	0.162	5.71	102.6	1.8	0.29	0.0	0.01	0.15	0.05	45	217
50 ISL	16.00 D	15.99	33.350 D	24.481	345.8	0.180	5.99	106.3	2.0	0.30	0.0	0.01	0.31	0.11	50	
55	14.21	14.20	33.198	24.753	319.8	0.197	6.25	106.9	2.3	0.32	0.0	0.02	0.46	0.18	55	216
65	14.02	14.01	33.253	24.836	312.3	0.228	6.14	104.7	2.6	0.36	0.7	0.11	0.50	0.22	65	215
74	13.93	13.92	33.385	24.957	301.0	0.256	5.95	101.3	3.3	0.46	2.1	0.18	0.37	0.26	74	214
75 ISL	13.88 D	13.87	33.388 D	24.969	299.8	0.259	5.93	100.9	3.4	0.48	2.3	0.19	0.36	0.26	75	
84	13.16	13.15	33.321	25.063	291.0	0.285	5.73	96.0	4.4	0.60	4.0	0.33	0.30	0.20	84	213
94	12.98	12.97	33.411	25.169	281.2	0.314	5.54	92.5	4.5	0.66	5.2	0.57	0.20	0.19	94	212
100 ISL	12.64 D	12.63	33.406 D	25.232	275.3	0.331	5.49	91.0	4.7	0.69	5.9	0.40	0.16	0.16	100	
110	12.47	12.46	33.406	25.265	272.4	0.358	5.34	88.2	5.8	0.77	7.6	0.02	0.12	0.10	110	211
125	11.41	11.39	33.473	25.516	248.7	0.397	4.66	75.3	10.4	1.10	12.8	0.02	0.04	0.04	126	210
147	10.16	10.14	33.605	25.839	218.2	0.448	4.28	67.4	14.9	1.27	16.5	0.02	0.02	0.03	148	209
150 ISL	10.07 D	10.05	33.631 D	25.875	214.9	0.455	4.22	66.3	15.6	1.30	17.1	0.02	0.02	0.03	151	
170	9.41	9.39	33.762	26.086	195.0	0.496	3.85	59.6	20.5	1.52	20.6	0.02	0.00	0.02	171	208
197	8.82	8.80	33.892	26.282	176.7	0.546	3.70	56.6	25.6	1.66	22.8	0.01	0.00	0.02	198	207
200 ISL	8.77 D	8.75	33.903 D	26.299	175.2	0.551	3.67	56.1	26.0	1.67	23.0	0.01			201	
228	8.54	8.52	33.975 D	26.391	166.9	0.599	3.33	50.7	30.2	1.79	24.8	0.00			229	206
250 ISL	8.16 D	8.13	34.012 D	26.478	158.9	0.635	3.01	45.4	34.3	1.92	26.6	0.00			251	
274	7.89	7.86	34.021	26.526	154.7	0.673	2.64	39.6	39.1	2.08	28.8	0.00			275	205
300 ISL	7.59 D	7.56	34.050 D	26.592	148.7	0.712	2.25	33.5	44.6	2.25	31.1	0.00			302	
322	7.21	7.18	34.055	26.650	143.3	0.744	1.96	28.9	49.0	2.39	32.8	0.00			324	204
379	6.63	6.60	34.074	26.744	134.8	0.824	1.46	21.3	58.1	2.62	35.7	0.00			381	203
400 ISL	6.36 D	6.32	34.102 D	26.802	129.5	0.851	1.25	18.1	62.7	2.72	36.9	0.00			402	
436	5.97	5.93	34.124	26.869	123.2	0.897	0.92	13.2	70.5	2.87	38.7	0.00			439	202
500 ISL	5.52 D	5.48	34.176 D	26.966	114.5	0.973	0.57	8.1	79.9	3.02	40.5	0.00			503	
511	5.53	5.49	34.199	26.983	113.0	0.985	0.51	7.2	81.5	3.05	40.8	0.00			514	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 31.0 N	122 15.0 W	01/07/07	0726 UTC	4201 m	360 17 kn			1017.5 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	16.81	16.81	33.299	24.255	365.8	0.000	5.67	102.3	2.0	0.27	0.0	0.00	0.07	0.02	0	
2	16.81	16.81	33.299	24.255	365.8	0.007	5.67	102.3	2.0	0.27	0.0	0.00	0.07	0.02	2	220
10 ISL	16.80 D	16.80	33.300 D	24.258	365.8	0.037	5.66	102.1	2.0	0.26	0.0	0.00	0.06	0.02	10	
15	16.81	16.81	33.299	24.255	366.2	0.055	5.66	102.1	2.0	0.26	0.0	0.00	0.06	0.02	15	219
20 ISL	16.81 D	16.81	33.300 D	24.256	366.3	0.073	5.66	102.1	2.0	0.26	0.0	0.00	0.06	0.02	20	
30	16.81	16.81	33.298	24.255	366.7	0.110	5.67	102.2	1.9	0.25	0.0	0.01	0.07	0.01	30	218
46	16.82	16.81	33.305	24.259	366.9	0.169	5.67	102.3	1.8	0.27	0.0	0.01	0.07	0.02	46	217
50 ISL	16.82 D	16.81	33.302 D	24.256	367.3	0.183	5.66	102.1	1.8	0.27	0.0	0.01	0.07	0.02	50	
61	16.88	16.87	33.447	24.354	358.3	0.223	5.63	101.7	1.7	0.26	0.0	0.00	0.09	0.03	61	216
75	15.95	15.94	33.535	24.636	331.8	0.271	5.83	103.5	1.6	0.25	0.0	0.00	0.10	0.03	75	215
86	15.94	15.93	33.700	24.765	319.9	0.307	5.77	102.5	1.6	0.26	0.0	0.00	0.14	0.05	86	214
93	15.82	15.81	33.726	24.813	315.6	0.330	5.75	101.9	1.5	0.19	0.1	0.01	0.16	0.07	93	213
100 ISL	15.56 D	15.54	33.743 D	24.884	309.0	0.351	5.70	100.5	1.6	0.20	0.0	0.01	0.17	0.11	100	
104	15.48	15.46	33.751	24.908	306.8	0.364	5.66	99.7	1.6	0.21	0.0	0.01	0.18	0.14	104	212
115	14.75	14.73	33.743	25.061	292.4	0.397	5.48	95.1	2.1	0.33	1.0	0.12	0.28	0.22	115	211
122	14.47	14.45	33.747	25.125	286.6	0.417	5.40	93.2	2.5	0.41	1.9	0.13	0.28	0.22	122	210
125 ISL	14.30 D	14.28	33.739 D	25.154	283.8	0.425	5.37	92.3	2.7	0.43	2.3	0.12	0.26	0.21	126	
140	13.09	13.07	33.623	25.313	268.8	0.467	5.19	87.0	4.2	0.56	4.8	0.03	0.15	0.16	141	209
150 ISL	12.74 D	12.72	33.694 D	25.437	257.2	0.493	5.00	83.2	5.8	0.70	7.1	0.02	0.10	0.11	151	
166	11.46	11.44	33.613	25.617	240.2	0.533	4.68	75.8	9.1	0.95	11.0	0.01	0.04	0.04	167	208
196	9.95	9.93	33.746	25.985	205.3	0.600	4.18	65.5	16.5	1.35	17.7	0.01	0.01	0.02	197	207
200 ISL	9.74 D	9.72	33.807 D	26.068	197.5	0.608	4.09	63.8	17.7	1.40	18.5	0.01			201	
228	8.99	8.97	33.921	26.279	177.8	0.660	3.51	53.9	25.5	1.71	23.3	0.01			229	206
250 ISL	8.62 D	8.59	33.976 D	26.380	168.4	0.699	3.32	50.6	29.4	1.82	24.9	0.00			251	
269	8.30	8.27	33.997	26.446	162.4	0.730	3.19	48.3	32.6	1.89	26.0	0.00			270	205
300 ISL	7.62 D	7.59	34.026 D	26.569	150.9	0.779	2.68	39.9	40.5	2.12	29.5	0.01			302	
315	7.42	7.39	34.029	26.600	148.1	0.801	2.41	35.7	44.4	2.24	31.2	0.01			317	204
379	6.68	6.65	34.081	26.743	135.0	0.892	1.51	22.0	56.9	2.62	35.9	0.01			381	203
400 ISL	6.49 D	6.45	34.092 D	26.777	131.9	0.920	1.30	18.9	61.1	2.71	37.1	0.01			402	
434	6.07	6.03	34.108	26.844	125.7	0.963	1.03	14.8	67.5	2.84	38.8	0.00			437	202
500 ISL	5.73 D	5.69	34.186 D	26.948	116.4	1.043	0.62	8.8	76.8	2.99	40.5	0.00			503	
516	5.68	5.64	34.205	26.970	114.5	1.062	0.52	7.4	79.0	3.03	40.9	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 10.7 N	122 54.4 W	01/07/07	1404 UTC	4120 m	350 22 kn	350 07 06	1	1018.0 mb	17.1 C	15.6 C		1/8	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	17.24	17.24	33.243	24.110	379.5	0.000	5.61	102.0	2.1	0.29	0.0	0.00	0.09	0.01	0	
1	17.24	17.24	33.243	24.110	379.5	0.004	5.61	102.0	2.1	0.29	0.0	0.00	0.09	0.01	1	220
10 ISL	17.24 D	17.24	33.244 D	24.112	379.7	0.038	5.61	102.0	2.0	0.29	0.0	0.00	0.09	0.00	10	
15	17.24	17.24	33.243	24.111	380.0	0.057	5.61	102.0	1.9	0.29	0.0	0.00	0.09	0.00	15	219
20 ISL	17.24 D	17.24	33.244 D	24.112	380.0	0.076	5.61	102.0	1.9	0.29	0.0	0.00	0.09	0.00	20	
30	17.24	17.24	33.243	24.112	380.4	0.114	5.61	102.0	1.9	0.28	0.0	0.00	0.09	0.01	30	218
45	15.96	15.95	33.236	24.402	353.1	0.169	5.88	104.2	1.7	0.28	0.0	0.00	0.13	0.02	45	217
50 ISL	15.74 D	15.73	33.260 D	24.470	346.8	0.186	5.88	103.8	1.7	0.28	0.0	0.00	0.14	0.03	50	
59	15.65	15.64	33.294	24.517	342.6	0.218	5.87	103.4	1.8	0.27	0.1	0.00	0.15	0.04	59	216
74	15.36	15.35	33.336	24.614	333.8	0.268	5.89	103.2	1.8	0.28	0.0	0.01	0.28	0.06	74	215
75 ISL	15.25 D	15.24	33.345 D	24.645	330.9	0.272	5.89	103.0	1.8	0.28	0.0	0.01	0.28	0.06	75	
84	15.15	15.14	33.345	24.667	329.0	0.301	5.91	103.1	1.8	0.28	0.1	0.01	0.30	0.11	84	214
94	14.67	14.66	33.323	24.754	321.0	0.334	5.90	102.0	1.7	0.29	0.1	0.00	0.31	0.18	94	213
100 ISL	14.44 D	14.43	33.356 D	24.828	314.0	0.353	5.82	100.1	1.8	0.31	0.0	0.03	0.33	0.23	100	
104	14.39	14.37	33.359	24.841	312.9	0.365	5.76	99.0	1.9	0.33	0.0	0.06	0.33	0.26	104	212
114	14.15	14.13	33.385	24.912	306.4	0.396	5.69	97.3	2.0	0.36	0.5	0.22	0.28	0.24	114	211
124	13.60	13.58	33.434	25.064	292.2	0.426	5.52	93.4	2.7	0.44	2.2	0.11	0.18	0.19	124	210
125 ISL	13.11 D	13.09	33.397 D	25.133	285.5	0.429	5.51	92.2	2.8	0.45	2.4	0.10	0.17	0.18	126	
140	12.58	12.56	33.424	25.259	273.8	0.471	5.30	87.8	4.2	0.61	5.1	0.02	0.08	0.10	141	209
150 ISL	11.90 D	11.88	33.467 D	25.422	258.4	0.498	4.97	81.1	6.7	0.80	8.3	0.02	0.04	0.06	151	
164	11.13	11.11	33.526	25.609	240.8	0.533	4.46	71.6	11.0	1.08	13.0	0.01	0.01	0.02	165	208
194	9.72	9.70	33.739	26.018	202.1	0.599	3.85	60.0	18.8	1.48	19.7	0.01	0.00	0.02	195	207
200 ISL	9.62 D	9.60	33.769 D	26.058	198.4	0.611	3.85	59.9	19.5	1.50	20.2	0.01			201	
228	9.20	9.18	33.897	26.227	182.8	0.664	3.84	59.3	22.5	1.56	21.4	0.01			229	206
250 ISL	8.82 D	8.79	33.959 D	26.336	172.7	0.704	3.56	54.5	26.7	1.69	23.4	0.01			251	
268	8.48	8.45	33.985	26.409	166.0	0.734	3.30	50.1	30.6	1.81	25.2	0.01			269	205
300 ISL	8.02 D	7.99	34.015 D	26.502	157.5	0.786	3.17	47.7	37.2	2.02	28.1	0.01			302	
318	7.72	7.69	34.033	26.560	152.1	0.814	3.08	46.0	40.8	2.14	29.6	0.01			320	204
377	7.00	6.96	34.058	26.682	141.0	0.900	1.82	26.7	51.7	2.46	33.9	0.01			379	203
400 ISL	6.67 D	6.63	34.053 D	26.723	137.2	0.932	1.57	22.9	55.5	2.57	35.1	0.01			402	
436	6.40	6.36	34.090	26.788	131.4	0.980	1.30	18.8	61.6	2.73	36.8	0.01			439	202
500 ISL	5.65 D	5.61	34.129 D	26.913	119.6	1.061	0.89	12.7	74.0	2.92	39.5	0.01			503	
511	5.60	5.56	34.131	26.921	118.9	1.074	0.82	11.7	76.1	2.95	40.0	0.01			514	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
29 50.9 N	123 35.0 W	01/07/07	2017	UTC	4116 m	360 20 kn	350 07 07	1	1019.6 mb	18.8 C	16.2 C	25m	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	17.50	17.50	33.307	24.098	380.7	0.000	5.62	102.7	2.1	0.30	0.0	0.00	0.07	0.01	0	
2 A	17.50	17.50	33.307	24.098	380.8	0.008	5.62	102.7	2.1	0.30	0.0	0.00	0.07	0.01	2	221
10 ISL	17.47 D	17.47	33.301 D	24.101	380.8	0.038	5.63	102.8	2.0	0.29	0.0	0.00	0.07	0.01	10	
14 A	17.43	17.43	33.300	24.109	380.1	0.053	5.63	102.8	2.0	0.29	0.0	0.00	0.07	0.01	14	220
20 ISL	17.39 D	17.39	33.301 D	24.120	379.3	0.076	5.62	102.5	1.9	0.28	0.1	0.00	0.08	0.01	20	
23	17.36	17.36	33.300	24.127	378.8	0.087	5.62	102.4	1.9	0.28	0.1	0.00	0.08	0.01	23	219
30 ISL	17.25 D	17.25	33.317 D	24.166	375.2	0.114	5.64	102.6	1.8	0.28	0.1	0.00	0.09	0.01	30	
37 A	17.08	17.07	33.343	24.226	369.7	0.140	5.68	103.0	1.8	0.28	0.1	0.00	0.09	0.02	37	218
50 ISL	16.73 D	16.72	33.533 D	24.455	348.4	0.187	5.76	103.9	1.8	0.26	0.1	0.00	0.09	0.02	50	
51 A	16.66	16.65	33.519	24.460	347.9	0.190	5.77	103.9	1.8	0.26	0.1	0.00	0.09	0.02	51	217
67 A	16.12	16.11	33.553	24.611	334.0	0.245	5.85	104.2	1.7	0.26	0.1	0.00	0.11	0.04	67	216
75 ISL	15.62 D	15.61	33.495 D	24.679	327.7	0.271	5.89	103.9	1.8	0.28	0.0	0.00	0.14	0.05	75	
77	15.54	15.53	33.476	24.682	327.5	0.278	5.89	103.7	1.8	0.28	0.0	0.00	0.15	0.06	77	215
87	15.07	15.06	33.420	24.742	321.9	0.310	5.84	101.8	1.7	0.29	0.1	0.01	0.18	0.10	87	214
96 A	14.50	14.49	33.347	24.809	315.8	0.339	5.84	100.6	1.9	0.35	0.3	0.06	0.30	0.19	96	213
100 ISL	13.98 D	13.97	33.265 D	24.854	311.5	0.351	5.85	99.6	2.0	0.37	0.5	0.15	0.29	0.20	100	
107	13.84	13.82	33.258	24.878	309.4	0.373	5.88	99.9	2.2	0.41	0.8	0.34	0.26	0.21	107	212
114	13.49	13.47	33.309	24.989	299.0	0.394	5.74	96.8	2.8	0.51	2.2	0.46	0.15	0.15	114	211
125 ISL	13.96 D	13.94	33.591 D	25.111	287.8	0.427	5.46	93.1	2.7	0.42	1.9	0.21	0.14	0.15	125	
126	14.01	13.99	33.590	25.100	288.9	0.430	5.44	92.9	2.7	0.41	1.9	0.18	0.14	0.15	127	210
138	13.24	13.22	33.557	25.232	276.5	0.463	5.30	89.1	3.7	0.52	3.9	0.04	0.09	0.11	139	209
150 ISL	12.35 D	12.33	33.531 D	25.386	261.9	0.496	5.10	84.1	5.4	0.66	6.4	0.03	0.06	0.07	151	
164	11.72	11.70	33.563	25.530	248.4	0.531	4.82	78.4	8.0	0.84	9.6	0.01	0.03	0.04	165	208
196	9.97	9.95	33.697	25.944	209.3	0.605	4.17	65.4	16.5	1.34	17.8	0.01	0.00	0.02	197	207
200 ISL	9.71 D	9.69	33.744 D	26.024	201.7	0.613	4.11	64.1	17.4	1.38	18.4	0.01			201	
228	9.19	9.17	33.856	26.196	185.7	0.667	3.79	58.5	22.8	1.58	21.7	0.01			229	206
250 ISL	8.72 D	8.69	33.958 D	26.351	171.3	0.706	3.60	55.0	26.5	1.69	23.5	0.00			251	
270	8.54	8.51	33.976	26.393	167.6	0.740	3.42	52.0	29.9	1.78	24.9	0.00			271	205
300 ISL	8.05 D	8.02	34.017 D	26.499	157.8	0.789	2.99	45.0	35.7	1.97	27.5	0.01			302	
319	7.84	7.81	34.022	26.534	154.7	0.819	2.69	40.3	39.5	2.10	29.2	0.01			321	204
378	6.97	6.93	34.051	26.680	141.1	0.906	1.95	28.6	51.5	2.44	33.8	0.01			380	203
400 ISL	6.78 D	6.74	34.080 D	26.729	136.7	0.937	1.68	24.6	55.5	2.55	35.2	0.01			402	
436	6.44	6.40	34.098	26.789	131.3	0.985	1.26	18.3	61.6	2.72	37.0	0.00			439	202
500 ISL	6.26 D	6.22	34.227 D	26.915	120.2	1.065	0.67	9.7	71.2	2.93	39.0	0.01			503	
514	6.11	6.06	34.224	26.932	118.6	1.082	0.54	7.8	73.3	2.98	39.4	0.01			517	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 57.3 N	117 16.8 W	28/06/07	2002	UTC	21 m	200 06 kn	300 02 08	0	1013.6 mb	19.9 C	17.8 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	21.35	21.35	33.787	23.477	439.9	0.000	5.81	114.5	1.6	0.13	0.2	0.00	0.67	0.12	0	
1	21.35	21.35	33.787	23.477	440.0	0.004	5.81	114.5	1.6	0.13	0.2	0.00	0.67	0.12	1	204
5	20.91	20.91	33.791	23.600	428.4	0.022	5.86	114.5	1.6	0.13	0.3	0.00	0.66	0.15	5	203
10	18.19	18.19	33.718	24.245	367.0	0.042	5.99	111.2	3.4	0.26	0.1	0.01	1.28	0.53	10	202
15	14.19	14.19	33.687	25.134	282.5	0.058	5.84	100.2	6.7	0.44	0.9	0.05	4.63	0.83	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S;

RV NEW HORIZON — CALCOFI CRUISE 0707 — STATION 76.7 49.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
35 5.2 N	120 46.5 W	13/07/07	1714 UTC	10 m	1208 - 1942 PST	1209 PST	1940 PST	1445.0 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
2	13.71	33.806	25.325	6.40	108.8	8.9	0.65	5.9	0.18	2.49	0.75	74. A	76.8	70.6	73.7	0.47
5	13.63	33.805	25.341	6.41	108.8	8.8	0.64	5.6	0.18	2.75	0.75	46.	105.7	106.6	106.1	0.47
10	12.97	33.809	25.477	5.94	99.4	10.0	0.75	7.5	0.20	3.05	1.46					
14	12.45	33.819	25.587	5.46	90.4	12.1	0.97	9.8	0.22	2.72	1.26	12.	52.1	48.4	50.2	0.41
20	11.96	33.829	25.688	4.93	80.8	14.5	1.18	12.5	0.25	2.36	1.55	4.6	19.1	18.9	19.0	0.26
27	11.68	33.829	25.741	4.60	74.9	15.9	1.30	13.9	0.26	1.93	1.26	1.6	5.6	5.3	5.4	0.18
38	11.44	33.822	25.780	4.12	66.8	17.5	1.41	15.7	0.27	1.08	1.09	0.29	0.37	0.31	0.34	0.10

RV NEW HORIZON — CALCOFI CRUISE 0707 — STATION 76.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 3.2 N	122 56.2 W	12/07/07	1847 UTC	23 m	1214 - 1953 PST	1217 PST	1951 PST	362.2 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	17.58	32.895	23.763	5.69	103.9	2.0	0.33	0.4	0.00	0.11	0.02	88. A	3.6	3.3	3.5	0.07
12	17.26	33.002	23.922	5.75	104.4	2.8	0.33	0.3	0.00	0.14	0.03	45.	4.8	5.0	4.9	0.09
22	17.03	33.007	23.980	5.77	104.3	2.8	0.33	0.3	0.00	0.17	0.05					
33	14.38	32.789	24.402	6.47	110.8	2.5	0.36	0.3	0.00	0.27	0.09	11.	5.6	5.5	5.6	0.13
40	13.63	32.813	24.575	6.41	108.1	2.7	0.43	0.9	0.05	0.83	0.38					
47	13.10	32.827	24.692	6.18	103.1	4.2	0.54	2.0	0.14	0.73	0.34	4.3	7.9	8.1	8.0	0.10
54	12.84	32.851	24.762	5.94	98.6	5.6	0.65	3.0	0.34	0.36	0.26					
62	12.93	33.023	24.878	5.86	97.5	3.5	0.51	1.9	0.29	0.44	0.39	1.6	2.3	2.2	2.3	0.06
75	12.30	33.111	25.068	5.65	92.8	5.3	0.71	5.4	0.03	0.15	0.19					
88	12.52	33.325	25.192	5.49	90.7	5.5	0.75	6.7	0.03	0.08	0.10	0.28	0.05	0.06	0.05	0.03

RV NEW HORIZON — CALCOFI CRUISE 0707 — STATION 80.0 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 18.7 N	120 47.4 W	10/07/07	1818 UTC	7 m	1204 - 1948 PST	1209 PST	1948 PST	1071.8 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	14.33	33.719	25.129	6.32	108.8	2.2	0.48	3.6	0.13	2.98	0.72	80. A	79.9	74.7	77.3	0.55
4	14.14	33.724	25.173	6.40	109.7	1.6	0.46	3.3	0.13	3.22	0.98	42.	107.1	101.5	104.3	0.68
10	13.53	33.688	25.271	5.60	94.8	7.9	0.75	7.0	0.13	1.88	0.79	11.	65.3	55.3	60.3	0.55
14	13.40	33.690	25.299	5.29	89.3	8.9	0.82	8.1	0.13	1.48	0.67	4.6	17.8	17.5	17.6	0.28
19	12.97	33.714	25.404	4.87	81.5	10.8	0.97	10.1	0.17	1.13	0.54	1.6	3.8	4.5	4.2	0.18
27	11.65	33.748	25.683	4.15	67.5	15.6	1.33	15.9	0.15	0.89	0.51	0.27	0.33	0.26	0.30	0.10

RV NEW HORIZON — CALCOFI CRUISE 0707 — STATION 80.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 9.1 N	123 13.4 W	11/07/07	1859 UTC	26 m	1219 - 1954 PST	1218 PST	1954 PST	167.8 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	17.40	33.095	23.959	5.61	102.2	2.2	0.31	0.0	0.01	0.09	0.01	94. A	2.3	2.3	2.3	0.17
2	17.40															
14	16.86	33.110	24.098	5.64	101.7	2.1	0.31	0.0	0.01	0.12	0.00	44.	2.9	3.0	2.9	0.11
27	16.78	33.114	24.120	5.67	102.1	2.1	0.31	0.1	0.01	0.12	0.02					
37	16.70	33.108	24.135	5.67	101.9	2.1	0.30	0.0	0.01	0.16	0.03	11.	2.5	2.4	2.5	0.22
45	16.61	33.097	24.148	5.68	101.9	2.2	0.31	0.0	0.01	0.24	0.01					
53	16.21	33.145	24.276	5.77	102.7	1.9	0.30	0.0	0.01	0.28	0.05	4.4	1.6	1.7	1.6	0.17
62	14.73	33.106	24.573	6.07	104.9	2.1	0.31	0.1	0.00	0.46	0.08					
69	14.31	33.055	24.623	6.10	104.5	2.3	0.32	0.1	0.00	0.49	0.18	1.7	0.88	1.0	0.95	0.07
79	13.95	33.150	24.771	5.93	100.9	2.2	0.36	0.2	0.03	0.60	0.36					
90	13.41	33.169	24.896	5.80	97.6	2.7	0.42	0.8	0.26	0.38	0.25					
100	13.00	33.162	24.973	5.72	95.4	3.3	0.51	2.3	0.22	0.30	0.23	0.27	0.12	0.09	0.11	0.02

A) INCUBATION LIGHT INTENSITIES WERE 99, 44, 11, 4.3, 1.6, 0.28 PERCENT RESPECTIVELY.

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 53.0 N	120 8.2 W	09/07/07	1845 UTC	12 m	1207 - 1942 PST	1206 PST	1941 PST	781.7 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
2	17.48	33.706	24.408	5.95	109.0	3.0	0.23	0.1	0.01	0.92	0.11	77. A	8.6	7.7	8.1	0.24
6	17.35	33.703	24.437	5.96	108.9	3.0	0.23	0.1	0.01	0.93	0.25	46.	26.2	27.0	26.6	0.21
10	17.20	33.701	24.471	5.95	108.4	3.2	0.24	0.1	0.01	1.35	0.19					
17	16.95	33.699	24.529	5.96	108.0	3.5	0.26	0.4	0.01	1.76	0.30	11.	36.3	37.1	36.7	0.19
25	16.77	33.701	24.573	5.96	107.7	3.8	0.28	0.5	0.02	2.10	0.09	4.1	18.9	18.0	18.4	0.25
31	15.16	33.700	24.937	5.51	96.4	7.0	0.57	4.3	0.07	2.30	0.23	1.9	6.4	7.0	6.7	0.22
40	13.79	33.688	25.219	5.20	88.5	9.0	0.74	7.1	0.12	2.11	0.38					
46	12.22	33.727	25.560	4.30	70.8	14.3	1.17	13.4	0.14	1.88	0.49	0.28	0.33	0.21	0.27	0.10

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 83.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 54.5 N	122 8.5 W	08/07/07	2020 UTC	10 m	1328 - 1947 PST	1214 PST	1947 PST	442.5 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	14.68	33.155	24.619	6.05	104.5	2.3	0.49	2.9	0.11	1.20	0.08	74. A	16.0	15.4	15.7	0.13
5	14.61	33.165	24.642	6.06	104.5	2.3	0.50	3.1	0.11	1.24	0.12	46.	17.8	18.0	17.9	0.13
10	14.06	33.253	24.826	6.18	105.5	2.0	0.55	3.8	0.13	2.32	0.04					
14	13.71	33.339	24.964	6.24	105.8	1.8	0.59	4.7	0.15	3.09	0.14	12.	23.6	21.9	22.7	0.24
20	13.62	33.370	25.007	6.23	105.4	1.7	0.60	5.0	0.15	2.99	0.38	4.6	11.8	10.8	11.3	0.19
28	13.37	33.418	25.095	6.21	104.6	1.5	0.65	5.8	0.16	3.48	0.06	1.4	3.3	3.8	3.5	0.15
37	13.20	33.431	25.139	6.19	103.9	1.4	0.71	6.6	0.17	3.36	0.10	0.34	0.19	0.26	0.23	0.14

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 29.6 N	119 18.9 W	05/07/07	1842 UTC	11 m	1158 - 1938 PST	1202 PST	1941 PST	571.9 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	17.47	33.736	24.434	6.04	110.6	0.9	0.21	0.3	0.01	0.42	0.03	76. A	11.8	11.6	11.7	0.29
6	17.41	33.736	24.448	6.07	111.0	0.7	0.21	0.3	0.01	0.45	0.03	43.	12.0	11.9	11.9	0.27
10	13.30	33.735	25.354	6.09	102.6	2.2	0.50	4.5	0.14	1.77	0.37					
16	11.97	33.725	25.605	4.75	77.8	7.0	0.96	10.7	0.22	3.45	0.45	11.	40.4	38.0	39.2	0.53
23	11.01	33.748	25.800	3.27	52.5	16.7	1.54	19.0	0.21	2.68	0.58	4.0	12.2	12.0	12.1	0.22
29	10.72	33.766	25.865	3.01	48.0	19.3	1.67	20.9	0.14	1.62	0.70	1.7	3.1	3.0	3.1	0.13
42	10.23	33.819	25.992	2.74	43.3	22.6	1.83	23.3	0.06	0.49	0.22	0.28	0.10	0.05	0.08	0.06

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 19.8 N	121 42.6 W	06/07/07	2032 UTC	13 m	1330 - 1947 PST	1212 PST	1947 PST	309.5 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	14.71	33.511	24.887	6.17	106.9	0.4	0.42	2.7	0.16	0.89	0.01	89. A	11.5	11.2	11.3	0.16
8	14.65	33.512	24.901	6.17	106.7	0.4	0.45	2.7	0.16	0.86	0.12	39.	13.1	12.6	12.9	0.12
10	14.65	33.517	24.905	6.15	106.4	0.4	0.41	2.7	0.16	0.93	0.12					
19	14.65	33.527	24.913	6.13	106.0	0.4	0.41	2.7	0.16	1.19	0.06	11.	9.3	10.1	9.7	0.12
26	14.57	33.510	24.917	6.14	106.0	0.4	0.45	2.7	0.16	0.95	0.20	4.6	5.0	4.6	4.8	0.11
35	14.10	33.696	25.160	5.86	100.3	1.6	0.53	2.8	0.20	0.77	0.17	1.6	1.6	1.4	1.5	0.09
41	12.52	33.434	25.275	5.59	92.5	5.5	0.76	7.3	0.20	0.40	0.15					
48	11.54	33.280	25.340	5.35	86.6	8.7	0.95	10.6	0.20	0.32	0.19	0.35	0.05	0.05	0.05	0.05

A) INCUBATION LIGHT INTENSITIES WERE 99, 44, 11, 4.3, 1.6, 0.28 PERCENT RESPECTIVELY.

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 86.7 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 19.2 N	123 44.8 W	07/07/07	1726 UTC	24 m	1217 - 1957 PST	1220 PST	1953 PST	69.9 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
3	17.67	33.288	24.042	5.56	102.0	1.7	0.31	0.1	0.01	0.08	0.01	83. A	1.5	1.6	1.5	0.07
10	17.67	33.293	24.047	5.55	101.8	1.6	0.28	0.0	0.01	0.09	0.01					
13	17.67	33.288	24.043	5.56	102.0	1.6	0.28	0.1	0.01	0.08	0.00	44.	1.8	1.9	1.8	0.06
25	17.67	33.291	24.046	5.55	101.8	1.6	0.28	0.1	0.01	0.09	0.00					
34	17.63	33.304	24.066	5.57	102.1	1.6	0.28	0.1	0.01	0.10	0.01	11.	1.2	1.1	1.1	0.07
50	17.18	33.424	24.265	5.68	103.2	1.6	0.26	0.2	0.00	0.11	0.00	4.1	0.44	0.46	0.45	0.06
64	16.31	33.581	24.589	5.87	105.0	1.6	0.24	0.1	0.01	0.11	0.02	1.7	0.15	0.13	0.14	0.05
75	16.28	33.656	24.654	5.83	104.3	1.6	0.23	0.2	0.01	0.12	0.01					
84	15.77	33.589	24.718	5.84	103.3	1.6	0.24	0.2	0.01	0.14	0.01					
91	15.41	33.552	24.770	5.83	102.4	1.6	0.25	0.2	0.01	0.19	0.02	0.30	0.00	0.01	0.00	0.03

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 25.0 N	117 54.3 W	04/07/07	1943 UTC	21 m	1248 - 1936 PST	1156 PST	1935 PST	504.4 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
1	21.06	33.755	23.532	5.70	111.7	1.6	0.19	0.0	0.00	0.16	0.00	93. A	5.5	5.4	5.5	0.12
11	17.91	33.690	24.292	6.39	118.0	2.2	0.21	0.0	0.00	0.19	0.00	45.	5.8	5.7	5.8	0.13
20	15.82	33.660	24.759	6.73	119.3	1.9	0.25	0.0	0.00	0.24	0.01					
30	13.50	33.690	25.279	6.41	108.4	0.6	0.44	1.0	0.06	1.54	0.15	11.	19.6	21.1	20.4	0.28
36	12.40	33.695	25.501	4.98	82.3	9.9	1.09	11.8	0.51	1.09	0.56					
43	11.80	33.682	25.605	4.77	77.8	11.6	1.24	15.2	0.05	0.61	0.30	4.3	3.7	3.5	3.6	0.07
50	11.26	33.691	25.711	4.29	69.2	14.5	1.39	17.5	0.05	0.45	0.17					
57	10.89	33.687	25.774	3.98	63.7	16.2	1.46	18.5	0.04	0.28	0.19	1.6	0.63	0.70	0.66	0.05
67	10.38	33.731	25.898	3.52	55.7	19.4	1.61	20.8	0.03	0.13	0.16					
80	10.04	33.787	26.000	3.19	50.1	22.3	1.73	22.8	0.02	0.10	0.14	0.29	0.01	0.00	0.01	0.03

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 25.2 N	119 57.8 W	03/07/07	1936 UTC	14 m	1220 - 1937 PST	1204 PST	1937 PST	285.1 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	14.93	33.585	24.897	5.93	103.2	2.7	0.65	5.2	0.16	0.44	0.00	80. A	6.1	5.3	5.7	0.09
7	14.93	33.583	24.896	5.92	103.0	2.7	0.64	5.2	0.16	0.48	0.03	46.	12.2	10.8	11.5	0.11
13	14.88	33.583	24.907	5.93	103.1	2.7	0.64	5.2	0.16	0.44	0.02					
20	14.81	33.581	24.921	5.94	103.1	2.7	0.64	5.3	0.17	0.50	0.00	11.	8.4	7.5	7.9	0.11
29	14.52	33.558	24.965	5.92	102.2	2.8	0.65	5.3	0.17	0.46	0.05	4.2	4.2	4.2	4.2	0.10
38	13.99	33.566	25.083	5.90	100.7	3.3	0.70	6.1	0.19	0.54	0.09	1.6	2.4	2.5	2.4	0.10
45	12.36	33.483	25.344	5.60	92.4	5.9	0.83	8.3	0.29	0.90	0.22					
54	11.43	33.504	25.535	5.06	81.8	10.4	1.17	13.7	0.34	0.80	0.09	0.27	0.17	0.15	0.16	0.07

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 5.3 N	122 40.2 W	02/07/07	1735 UTC	29 m	1212 - 1950 PST	1215 PST	1944 PST	98.4 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	17.24	33.354	24.196	5.60	101.9	1.7	0.28	0.0	0.01	0.07	0.00	90. A	0.91	0.80	0.86	0.05
15	17.23	33.354	24.198	5.60	101.9	1.6	0.28	0.0	0.01	0.06	0.01	45.	1.9	1.8	1.8	0.04
30	17.20	33.351	24.204	5.61	102.0	1.5	0.28	0.0	0.01	0.07	0.01					
44	17.14	33.347	24.216	5.62	102.0	1.6	0.28	0.0	0.01	0.07	0.01	9.7	1.5	1.3	1.4	0.05
59	16.55	33.462	24.442	5.78	103.8	1.6	0.26	0.0	0.01	0.09	0.03	4.4	0.83	0.78	0.81	0.07
75	15.25	33.323	24.628	5.96	104.2	1.6	0.28	0.0	0.01	0.14	0.02	1.9	0.30	0.28	0.29	0.05
85	14.81	33.317	24.719	5.97	103.5	1.8	0.28	0.0	0.01	0.13	0.05					
94	14.72	33.370	24.780	5.94	102.8	1.9	0.28	0.0	0.01	0.18	0.05					
105	14.28	33.441	24.928	5.73	98.3	2.3	0.33	0.3	0.06	0.28	0.11					
115	13.67	33.380	25.007	5.65	95.7	2.8	0.43	1.6	0.15	0.33	0.08	0.23	0.10	0.09	0.09	0.02

A) INCUBATION LIGHT INTENSITIES WERE 99, 44, 11, 4.3, 1.6, 0.28 PERCENT RESPECTIVELY.

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 57.7 N	117 17.8 W	28/06/07	1818 UTC	12 m	1151 - 1931 PST	1152 PST	1931 PST	1411.5 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	20.72			5.88		0.5	0.11	0.4	0.00	0.39	0.05	77. A	21.6	21.1	21.4	0.35
6	20.23	33.768	23.763	5.91	114.1	0.5	0.12	0.2	0.00	0.34	0.06	46.	26.1	24.7	25.4	0.39
10	17.35	33.701	24.436	6.31	115.3	3.1	0.20	0.3	0.01	0.74	0.21					
17	12.69	33.653	25.411	5.57	92.6	9.9	0.68	3.5	0.06	4.69	1.16	11.	113.4	111.3	112.4	0.61
25	11.17	33.663	25.705	3.81	61.3	15.0	1.41	16.8	0.26	0.55	0.39	4.1	6.6	6.4	6.5	0.09
32	10.91	33.695	25.776	3.56	57.0	17.2	1.54	18.8	0.24	0.49	0.23	1.7	1.8	1.9	1.8	0.07
39	10.80	33.712	25.809	3.34	53.4	18.8	1.61	19.6	0.28	0.48	0.22					
45	10.78	33.712	25.813	3.36	53.6	18.7	1.62	19.6	0.27	0.43	0.28	0.32	0.15	0.12	0.13	0.07

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 20.6 N	118 34.5 W	29/06/07	1827 UTC	16 m	1157 - 1935 PST	1158 PST	1935 PST	541.3 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
1	18.61	33.712	24.136	5.84	109.3	1.8	0.21	0.1	0.01	0.27	0.05					
9	18.46	33.710	24.172	5.87	109.6	1.7	0.21	0.1	0.01	0.30	0.03	42.	1.8	1.4	1.6	0.15
16	17.13	33.712	24.497	6.20	112.8	1.3	0.21	0.2	0.01	0.42	0.02					
23	15.80	33.718	24.808	6.35	112.5	0.7	0.24	0.2	0.02	0.83	0.15	11.	36.9	39.8	38.3	0.33
33	14.29	33.728	25.145	5.90	101.4	5.0	0.59	4.9	0.15	2.49	0.46	4.2	6.9	6.6	6.8	0.31
43	12.35	33.702	25.516	4.86	80.2	10.9	1.14	13.0	0.52	0.56	0.16	1.6	0.12	0.15	0.13	0.17
52	11.78	33.725	25.642	4.36	71.1	13.8	1.34	16.3	0.15	0.30	0.20					
61	10.84	33.686	25.783	3.93	62.8	16.3	1.47	18.6	0.02	0.10	0.09	0.29	0.08	0.07	0.08	0.06

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 10.8 N	120 54.8 W	30/06/07	1859 UTC	0 m	1211 - 1946 PST	1207 PST	1941 PST	87.8 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	16.37	33.506	24.515	5.79	103.7	2.4	0.31	0.1	0.01	0.19	0.05					
8	16.35	33.503	24.518	5.76	103.1	2.4	0.30	0.1	0.01	0.25	0.03	0.44	4.9	4.7	4.8	0.12
20	16.29	33.502	24.531	5.79	103.5	2.4	0.30	0.2	0.00	0.23	0.05	0.11	4.1	4.1	4.1	0.13
28	16.28	33.502	24.534	5.79	103.5	2.4	0.30	0.2	0.01	0.25	0.06	0.04	2.0	2.0	2.0	0.11
34	16.27	33.501	24.536	5.79	103.4	2.3	0.30	0.2	0.00	0.27	0.06	0.02	0.40	0.29	0.34	0.09
41	16.26	33.505	24.541	5.78	103.2	2.4	0.30	0.2	0.01	0.29	0.09					
50	16.11	33.493	24.566	5.81	103.5	2.4	0.30	0.1	0.01	0.44	0.06	0.00	0.03	0.02	0.03	0.06

RV NEW HORIZON CALCOFI CRUISE 0707 STATION 93.3 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
29 50.9 N	123 35.0 W	01/07/07	2017 UTC	25 m	1318 - 1952 PST	1218 PST	1950 PST	76.4 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	17.50	33.307	24.098	5.62	102.7	2.1	0.30	0.0	0.00	0.07	0.01	88. A	1.2	1.2	1.2	0.08
14	17.43	33.300	24.109	5.63	102.8	2.0	0.29	0.0	0.00	0.07	0.01	42.	2.0	1.9	1.9	0.07
23	17.36	33.300	24.127	5.62	102.4	1.9	0.28	0.1	0.00	0.08	0.01					
37	17.08	33.343	24.226	5.68	103.0	1.8	0.28	0.1	0.00	0.09	0.02	10.	1.3	1.1	1.2	0.12
51	16.66	33.519	24.460	5.77	103.9	1.8	0.26	0.1	0.00	0.09	0.02	4.4	0.44	0.41	0.42	0.09
67	16.12	33.553	24.611	5.85	104.2	1.7	0.26	0.1	0.00	0.11	0.04	1.6	0.20	0.21	0.20	0.09
77	15.54	33.476	24.682	5.89	103.7	1.8	0.28	0.0	0.00	0.15	0.06					
87	15.07	33.420	24.742	5.84	101.8	1.7	0.29	0.1	0.01	0.18	0.10					
96	14.50	33.347	24.809	5.84	100.6	1.9	0.35	0.3	0.06	0.30	0.19	0.28	0.05	0.04	0.04	0.04

A) INCUBATION LIGHT INTENSITIES WERE 99, 44, 11, 4.3, 1.6, 0.28 PERCENT RESPECTIVELY.

MACROZOOPLANKTON BIOMASS
Net Mesh Size: 0.505mm

Line	Sta.	Latitude N	Longitude W	Date Mo/Day	Time (PST) Start	Time (PST) End	Water Volume Strained (m^3)	Max. Tow Depth (m)	Volume per 1000 m^3 Strained Total (cm^3)	Volume per 1000 m^3 Strained Small (cm^3)
76.7	49.0	35 05.1	120 46.5	07/13	0830	0835	109	41	73	73
76.7	51.0	35 01.3	120 55.2	07/13	0642	0659	215	171	1094	1094
76.7	55.0	34 53.0	121 12.8	07/13	0333	0354	428	200	599	599
76.7	60.0	34 43.3	121 33.1	07/12	2331	2354	437	210	330	330
76.7	70.0	34 23.1	122 15.4	07/12	1750	1811	417	212	77	77
76.7	80.0	34 03.1	122 56.7	07/12	1159	1221	444	214	72	72
76.7	90.0	33 43.3	123 38.0	07/12	0615	0636	398	214	40	40
76.7	100.0	33 23.3	124 19.4	07/12	0036	0057	452	210	40	40
80.0	50.5	34 27.7	120 29.1	07/10	0515	0517	49	14	122	122
80.0	51.0	34 27.0	120 31.5	07/10	0621	0626	109	49	146	146
80.0	55.0	34 18.7	120 47.4	07/10	0919	0940	276	212	72	72
80.0	60.0	34 09.0	121 08.4	07/10	1507	1528	433	212	159	159
80.0	70.0	33 49.0	121 49.7	07/10	2315	2338	461	208	134	134
80.0	80.0	33 29.0	122 31.4	07/11	0537	0558	435	209	37	37
80.0	90.0	33 08.9	123 13.2	07/11	1223	1243	435	209	55	55
80.0	100.0	32 49.0	123 54.0	07/11	1840	1901	417	213	96	96
81.8	46.9	34 16.3	120 00.7	07/10	0212	0233	427	215	150	150
83.3	39.4	34 15.3	119 19.5	07/09	1730	1732	61	18	82	82
83.3	40.6	34 13.4	119 24.5	07/09	1909	1912	71	28	84	84
83.3	42.0	34 10.8	119 30.3	07/09	2110	2123	264	119	57	57
83.3	51.0	33 52.7	120 08.1	07/09	1149	1155	129	55	147	147
83.3	55.0	33 44.4	120 24.3	07/09	0819	0840	427	210	80	80
83.3	60.0	33 34.5	120 44.8	07/09	0401	0422	399	206	196	196
83.3	70.0	33 14.7	121 26.4	07/08	2110	2132	412	213	209	209
83.3	80.0	32 54.5	122 08.0	07/08	1331	1352	475	205	183	183
83.3	90.0	32 34.2	122 48.5	07/08	0641	0701	421	218	74	74
83.3	100.0	32 14.4	123 29.5	07/07	2345	0006	484	211	45	45
83.3	110.0	31 54.3	124 10.0	07/07	1649	1710	475	211	23	23
86.7	33.0	33 53.5	118 29.3	07/05	0018	0022	92	31	501	501
86.7	35.0	33 49.6	118 37.5	07/05	0317	0338	427	212	98	98
86.7	40.0	33 39.6	118 58.3	07/05	0741	0802	431	212	132	132
86.7	45.0	33 29.5	119 18.8	07/05	1210	1231	429	209	96	96
86.7	50.0	33 19.3	119 39.1	07/05	1617	1625	172	77	145	145
86.7	55.0	33 09.1	119 59.6	07/05	2031	2053	480	208	92	92
86.7	60.0	32 59.4	120 20.6	07/06	0103	0124	497	205	121	121
86.7	70.0	32 39.5	121 01.7	07/06	0710	0731	430	212	58	58
86.7	80.0	32 19.6	121 42.8	07/06	1340	1401	447	208	121	121
86.7	90.0	31 59.3	122 23.1	07/06	2017	2039	403	213	224	224
86.7	100.0	31 39.0	123 03.8	07/07	0234	0255	432	217	28	28
86.7	110.0	31 19.1	123 43.9	07/07	0802	0824	472	211	21	21
86.8	32.5	33 53.3	118 26.7	07/04	2204	2206	48	13	166	166
88.5	30.1	33 40.3	118 05.5	07/04	1900	1902	46	13	65	65
90.0	27.7	33 29.9	117 45.0	07/04	1608	1610	47	14	43	43
90.0	28.0	33 29.1	117 46.1	07/04	1538	1543	100	41	139	139
90.0	30.0	33 25.0	117 54.5	07/04	1309	1330	423	211	45	45
90.0	35.0	33 15.1	118 15.2	07/04	0900	0915	299	142	80	80
90.0	37.0	33 10.9	118 23.0	07/04	0618	0639	418	208	77	77
90.0	45.0	32 55.2	118 56.1	07/04	0029	0050	435	207	161	161
90.0	53.0	32 39.0	119 28.7	07/03	1830	1851	428	218	164	164
90.0	60.0	32 24.8	119 57.5	07/03	1306	1327	445	214	117	117
90.0	70.0	32 04.9	120 38.1	07/03	0614	0634	428	208	47	47
90.0	80.0	31 45.0	121 18.7	07/02	2327	2350	492	212	31	31
90.0	90.0	31 24.4	121 59.9	07/02	1638	1659	465	209	32	32
90.0	100.0	31 04.6	122 39.6	07/02	0832	0854	472	211	6	6
90.0	110.0	30 44.7	123 19.7	07/02	0304	0326	485	214	23	23
90.0	120.0	30 24.7	123 59.9	0'7/01	2011	2032	483	210	14	14
91.7	26.4	33 14.7	117 27.7	06/28	1503	1505	40	15	25	25
93.3	26.7	32 57.4	117 18.3	06/28	1113	1117	91	32	241	241
93.3	28.0	32 54.7	117 23.6	06/28	1903	1923	417	208	60	60
93.3	30.0	32 50.9	117 31.8	06/28	2152	2212	398	211	98	98
93.3	35.0	32 40.8	117 52.4	06/29	0158	0219	413	213	65	65
93.3	40.0	32 30.9	118 11.9	06/29	0617	0638	411	205	73	73
93.3	45.0	32 20.8	118 33.0	06/29	0926	0947	451	212	49	49
93.3	50.0	32 10.6	118 52.8	06/29	1509	1530	426	213	129	129
93.3	55.0	32 00.6	119 13.6	06/29	1913	1934	437	215	64	64
93.3	60.0	31 50.8	119 33.7	06/29	2326	2348	473	213	57	57
93.3	70.0	31 30.9	120 13.9	06/30	0541	0602	424	215	85	85
93.3	80.0	31 10.7	120 54.6	06/30	1211	1233	456	221	57	57
93.3	90.0	30 50.9	121 35.0	06/30	1832	1853	467	204	19	19
93.3	100.0	30 31.0	122 15.0	07/01	0038	0060	499	207	8	8
93.3	110.0	30 10.8	122 54.4	07/01	0702	0723	480	208	4	4
93.3	120.0	29 50.8	123 35.0	07/01	1322	1344	427	212	12	12
93.4	26.4	32 57.2	117 16.9	06/28	1223	1225	49	14	82	82