UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

CalCOFI Cruise 0607
8 – 24 July 2006

CC Reference 08-03
23 June 2008

UNIVERSITY OF CALIFORNIA, SAN DIEGO

SCRIPPS INSTITUTION OF OCEANOGRAPHY

LA JOLLA, CALIFORNIA 92093-0227

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 0607
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INTRODUCTION

The data presented in this report were collected during cruise 0607* of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *New Horizon*. 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 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.

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

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 63.10 µCi of ^{14}C as $NaHCO_3$ (200 µl of 335.90 µCi/ml stock) prepared in a 0.3 g/liter solution of sodium carbonate (Fitzwater *et al*., 1982). An adjustment to the specific activity was made to account for the 10 ml aliquot removed for DOC-14 analysis on CCE-LTER samples. 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 diffusion chamber that was then 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.

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) *Bio-optics*. Spectral radiometry of the top 100 meters of the water column were measured daily with a multi-spectral free fall radiometer (PRR-800, Biospherical). Water samples obtained from the CTD/rosette cast were analyzed for determination of absorption by particulate, detrital materials, and algal HPLC pigments. (G. Mitchell, SIO)

7) *Marine mammal observations*. During daylight transits, visual line-transect surveys were conducted by marine mammal observers focusing on cetaceans. Acoustic line-transect surveys were performed using a towed hydrophone array which consists of multiple hydrophone elements that sample sounds up to 100 kHz allowing for localization of calling animals. Acoustic monitoring also takes place on individual stations using sonobuoys.

8) *O_2 Isotopes.* Water samples were collected at 38 stations for analysis of isotopic composition of dissolved oxygen to assess in situ primary production rates and compare with CalCOFI 14-C primary production. Isotopic analysis was performed at the University of Washington.

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.

LITERATURE CITED

Anderson, G. C., compiler, 1971. "Oxygen Analysis," Marine Technician's Handbook, SIO Ref. No. 71-8, Sea Grant Pub. No. 9.

Carpenter, J. H., 1965. The Chesapeake Bay Institute technique for the Winkler dissolved oxygen method. *Limnol. Oceanogr., 10*: 141-143.

Carter, D. J. T., 1980. Echo-sounding correction tables. Third Edition. Hydrographic Department, Ministry of Defence, Taunton, U.K., NP 139: 150 pp.

Culberson, C. H. 1991. Dissolved oxygen. WHP Operations and Methods -- July 1991.

Fitzwater, S. E., G. A. Knauer and J. H. Martin, 1982. Metal contamination and its effect on primary production measurements. *Limnol. Oceanogr., 27*: 544-551.

Gordon, L. I., J. C. Jennings, Jr., A. A. Ross, and J. M. Krest, 1993. A suggested protocol for continuous flow automated analysis of seawater nutrients (phosphate, nitrate, nitrite and silicic acid) in the WOCE Hydrographic Program and the Joint Global Ocean Fluxes Study. WOCE Operations Manual, Part 3.1.3 "WHP Operations and Methods," *WHP Office Report WHPO 91-1*.

Holm-Hansen, O., C. J. Lorenzen, R. W. Holmes and J. D. H. Strickland, 1965. Fluorometric determination of chlorophyll. *J. Cons. perm. int. Explor. Mer, 30*: 3-15.

Klein, H. T., 1973. A new technique for processing physical oceanographic data. SIO Ref. No. 73-14.

Kramer, D., M. J. Kalin, E. G. Stevens, J. R. Thrailkill and J. R. Zweifel, 1972. Collecting and processing data on fish eggs and larvae in the California Current region. *NOAA Technical Report NMFS CIRC-370:* 38 pp.

Lean, D. R. S. and B. K. Burnison, 1979. An evaluation of errors in the ^{14}C method of primary production measurement. *Limnol. Oceanogr., 24*: 917-928.

Reid, J. L. and A. W. Mantyla, 1976. The effect of the geostrophic flow upon coastal sea elevations in the northern North Pacific Ocean. *J. Geophys. Res., 81:* 3100-3110.

Parsons, T. R., Y. Maita, C. M. Lalli, 1984. *A Manual of Chemical and Biological Methods for Seawater Analysis*. Pergamon Press Ltd., 3-28.

Saunders, P. M., 1981. Practical conversion of pressure to depth. *J. Phys. Oceanogr., 11*: 573-574.

Scripps Institution of Oceanography, University of California, 1991. Physical, Chemical and Biological Data, CalCOFI Cruises 9003 and 9004. SIO Ref. 91-4, 96 pp.

UNESCO, 1981, a. Background papers and supporting data on the Practical Salinity Scale, 1978. *UNESCO Tech. Pap. in Mar. Sci., No. 37*.

UNESCO, 1981, b. Background papers and supporting data on the International Equation of State 1980. *UNESCO Tech. Pap. in Mar. Sci., No. 38.*

Venrick, E. L. and T. L. Hayward, 1984. Determining chlorophyll on the 1984 CalCOFI surveys. *CalCOFI Rep., Vol. XXV*: 74-79.

Weiss, R. F., 1970. The solubility of nitrogen, oxygen and argon in water and seawater. *Deep-Sea Res., 17:* 721-735.

Yentsch, C. S. and D. W. Menzel, 1963. A method for the determination of phytoplankton, chlorophyll and phaeophytin by fluorescence. *Deep-Sea Res., 10:* 221-231.

FIGURES

Cruise 0607

1. CalCOFI Cruise 0607 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.

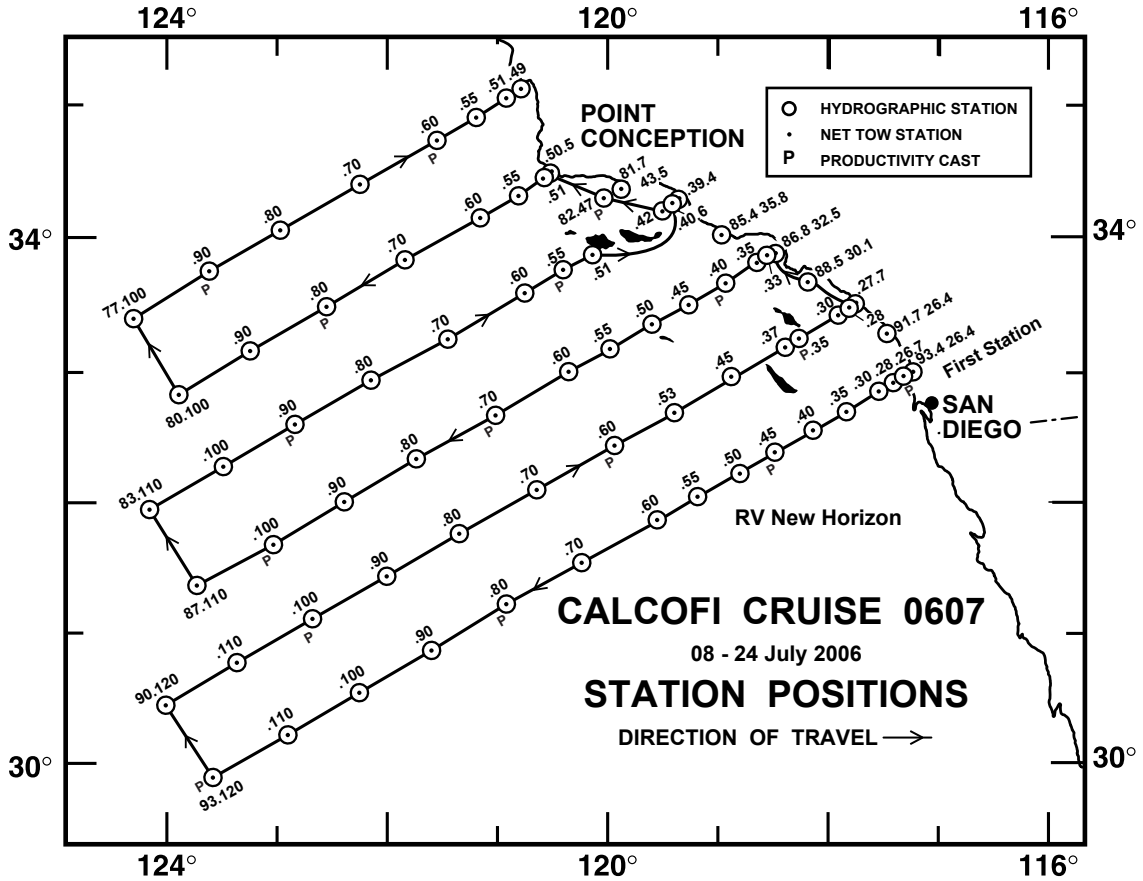

FIGURE 1

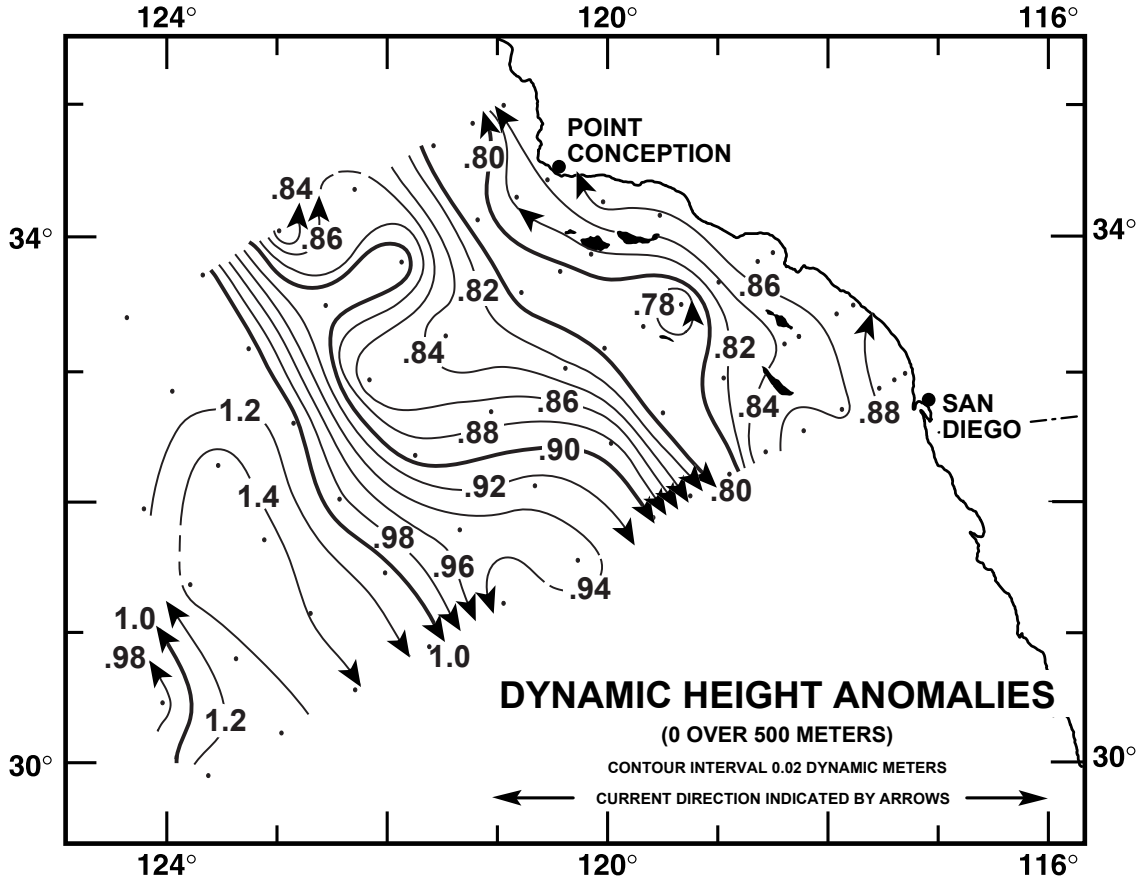

FIGURE 2

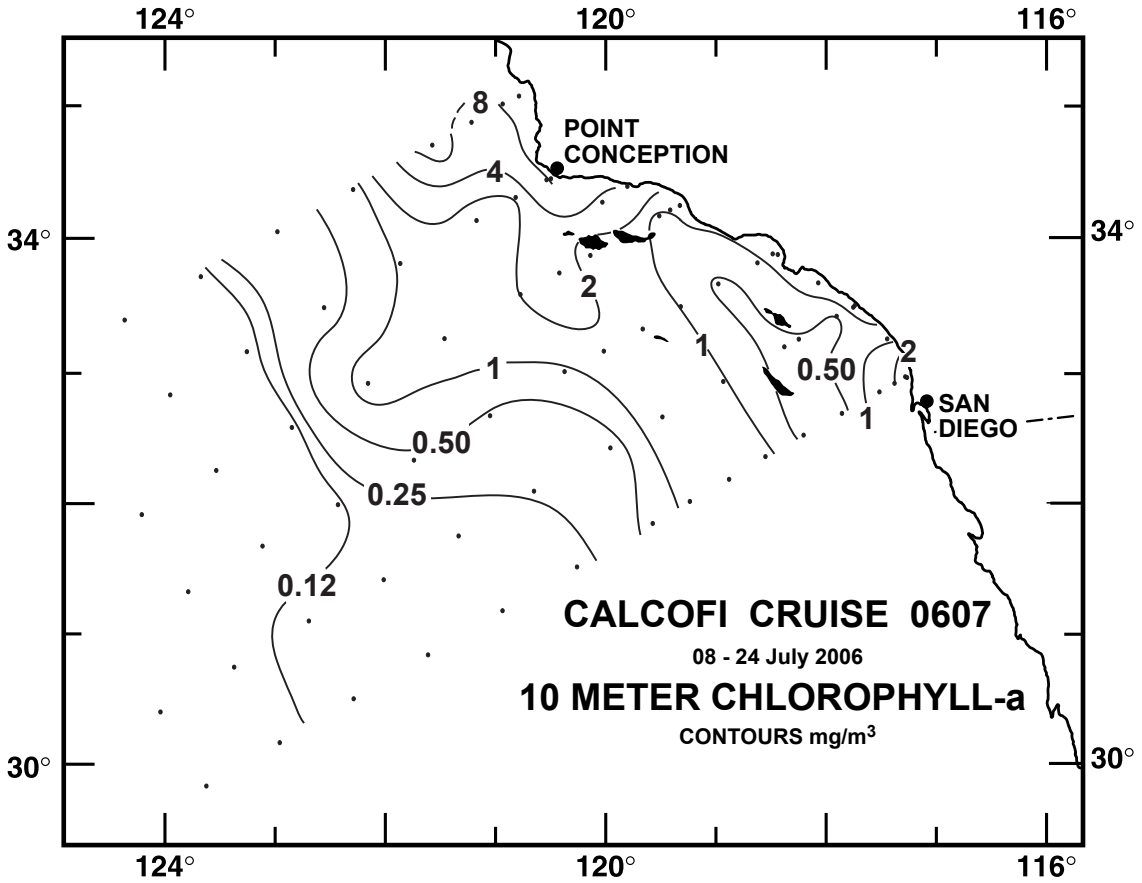

FIGURE 3A

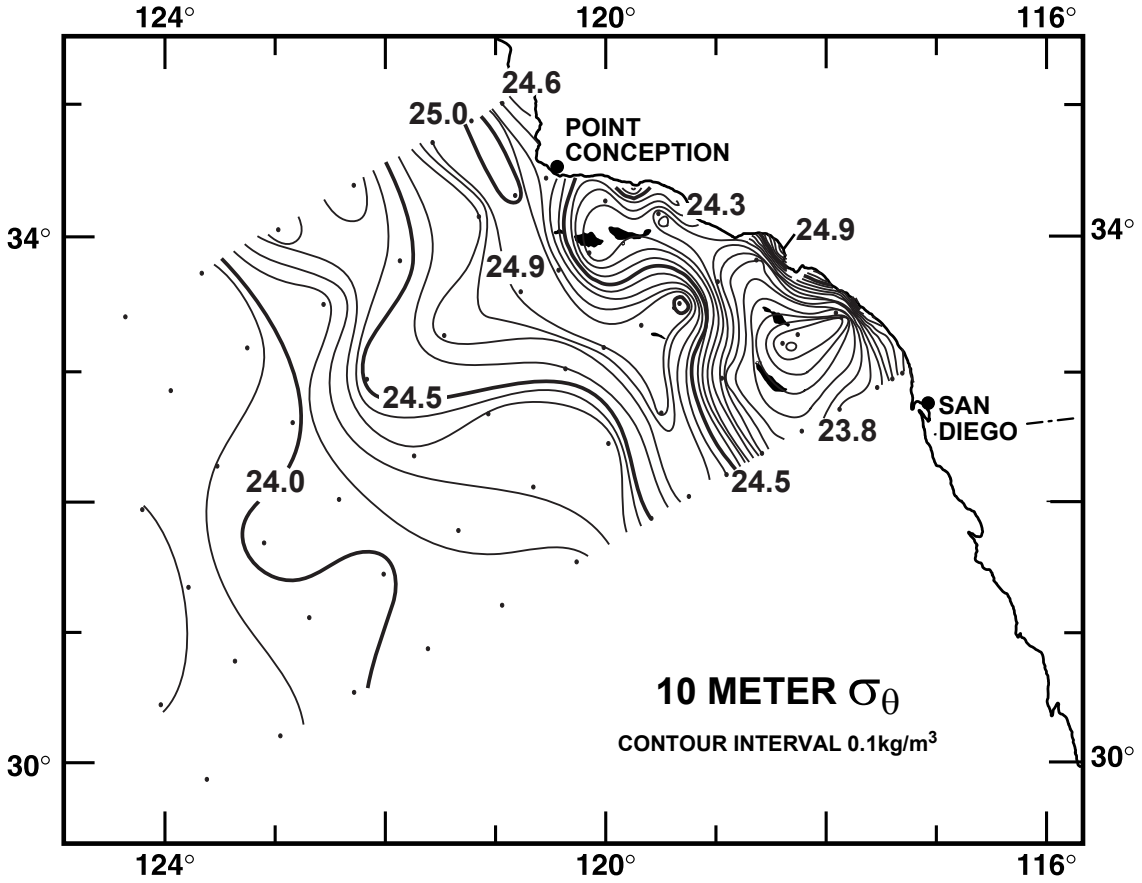

FIGURE 3B

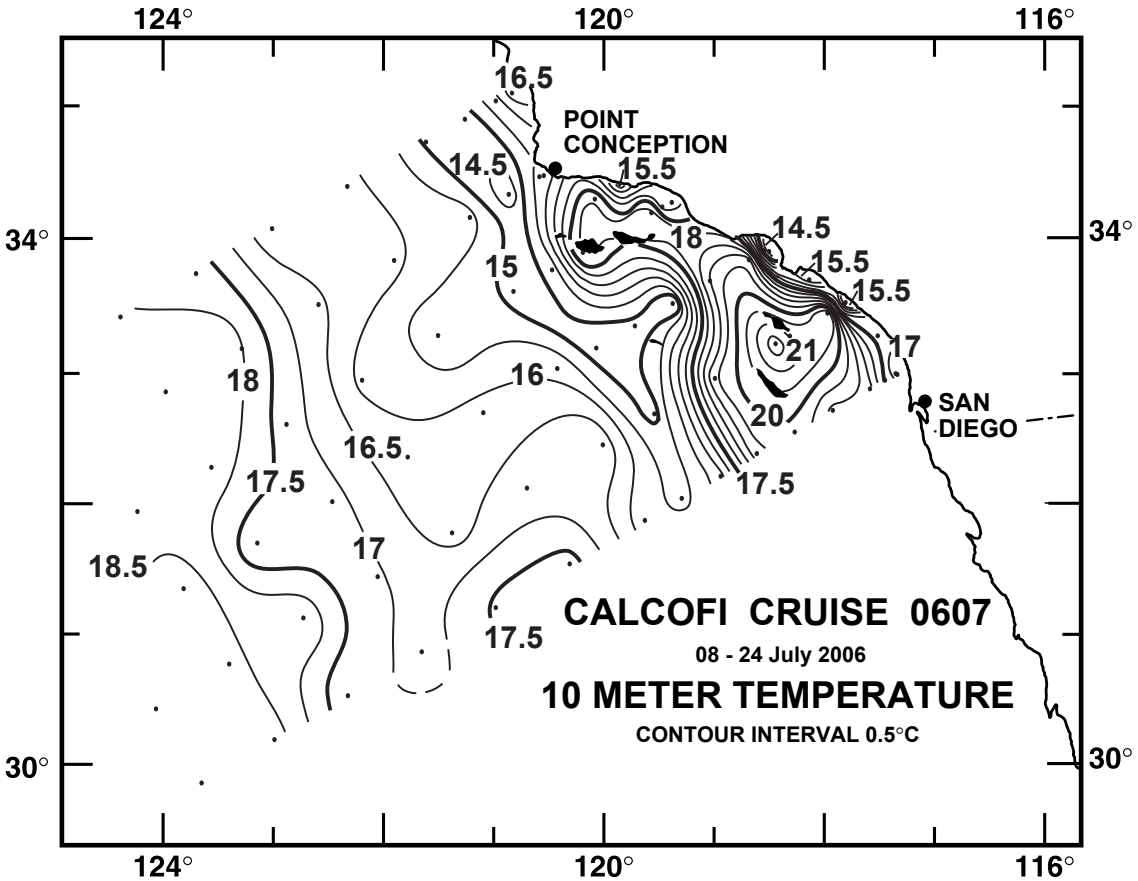

FIGURE 3C

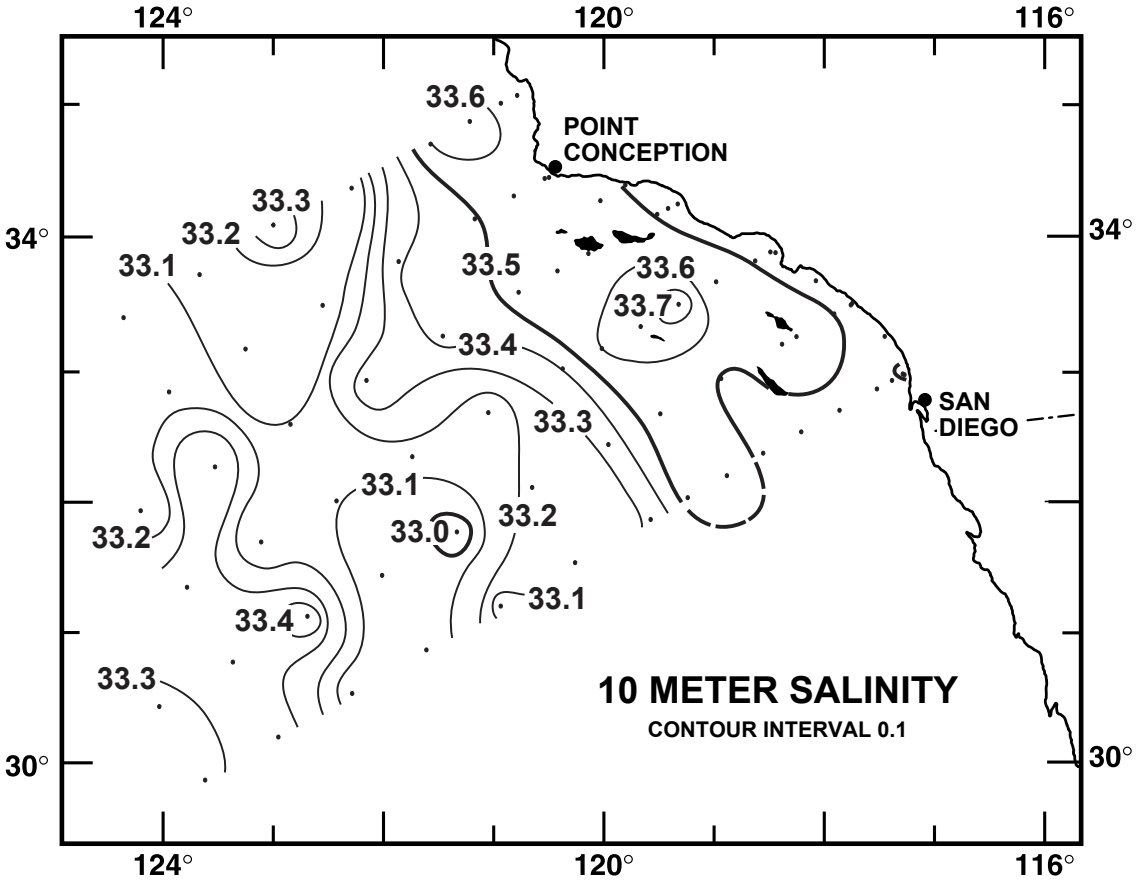

FIGURE 3D

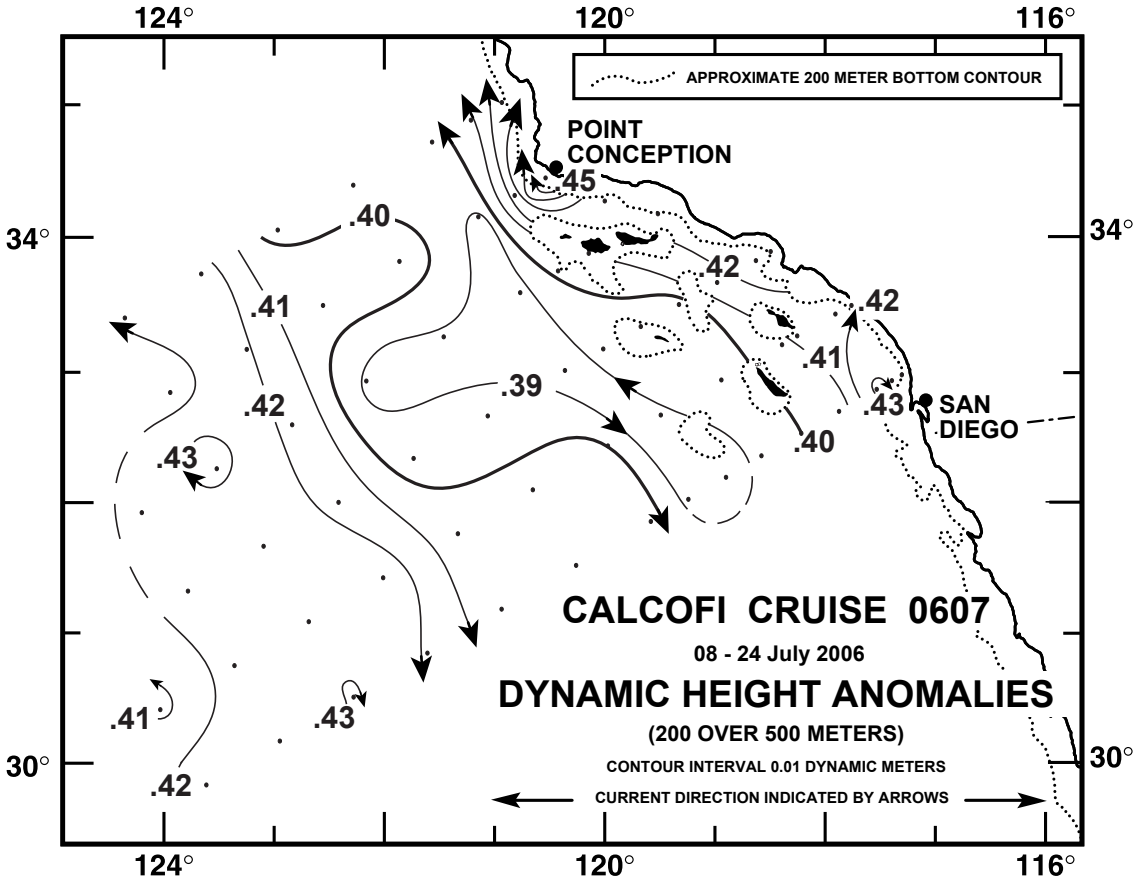

FIGURE 4A

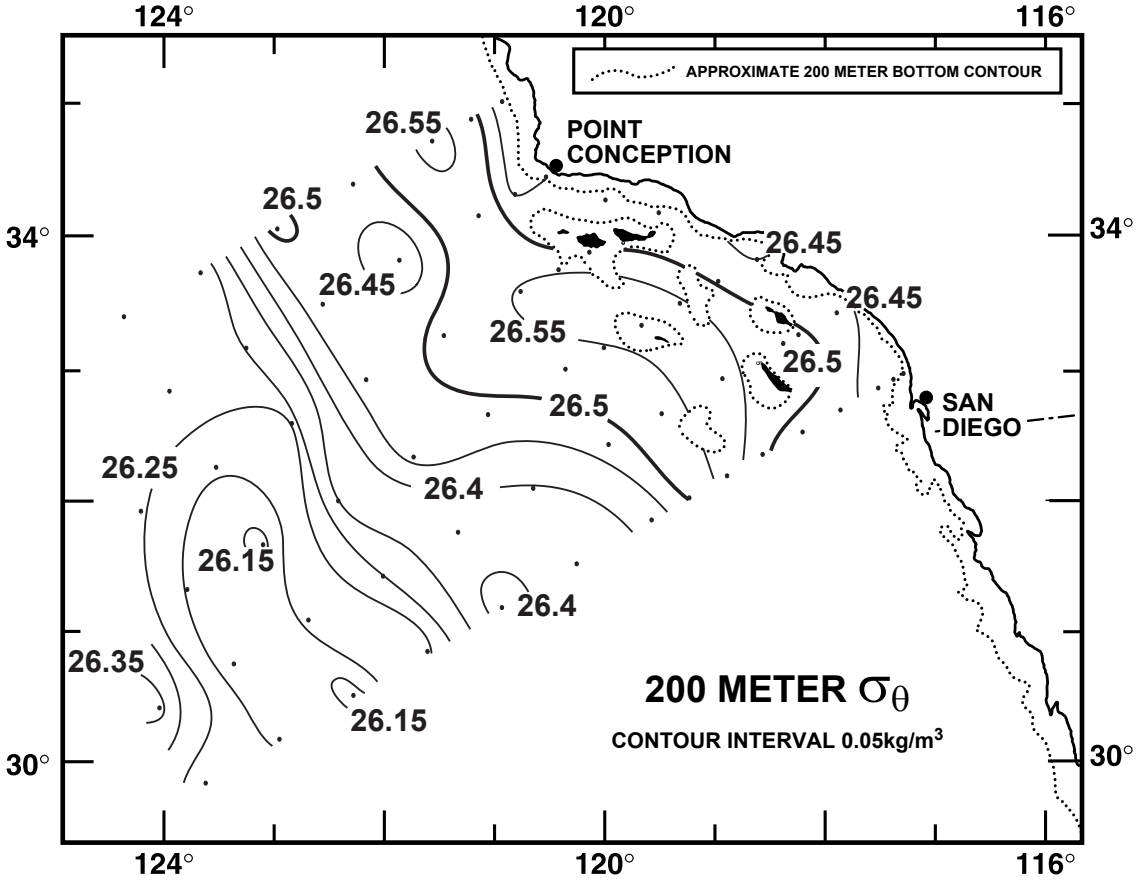

FIGURE 4B

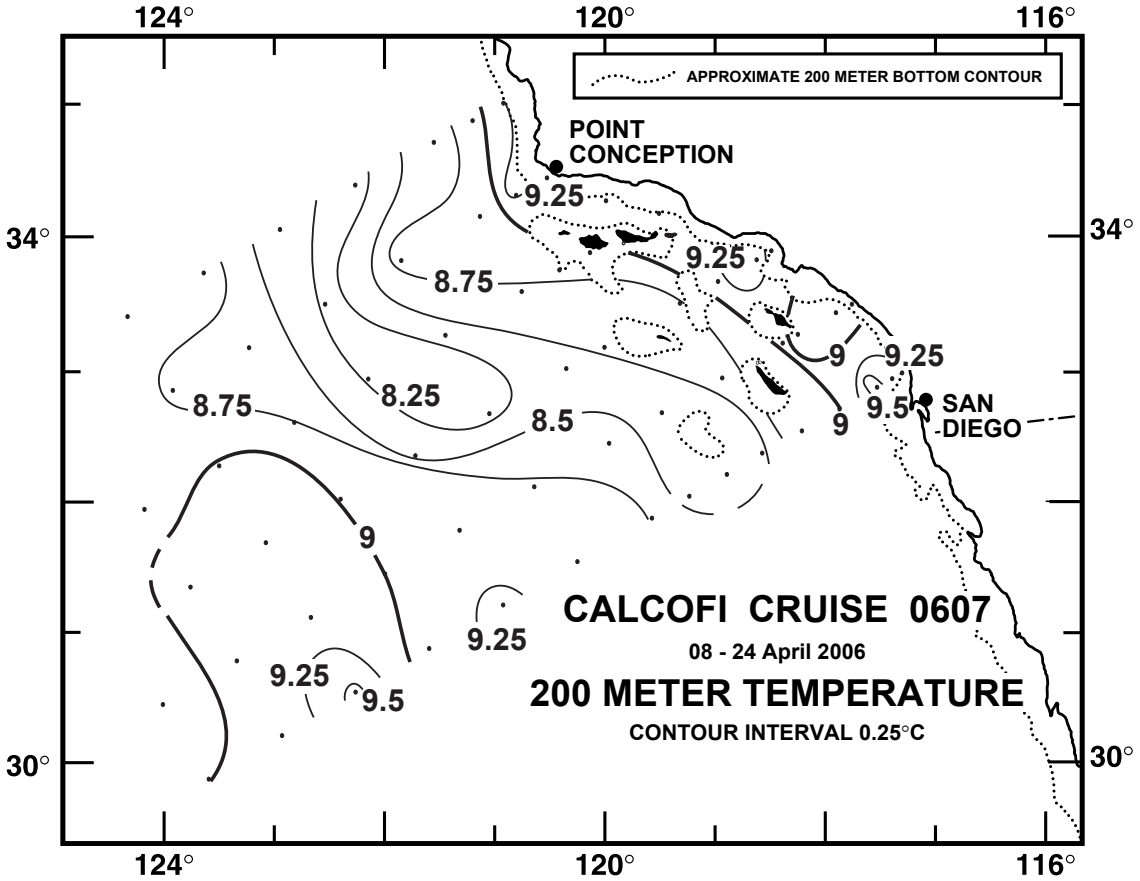

FIGURE 4C

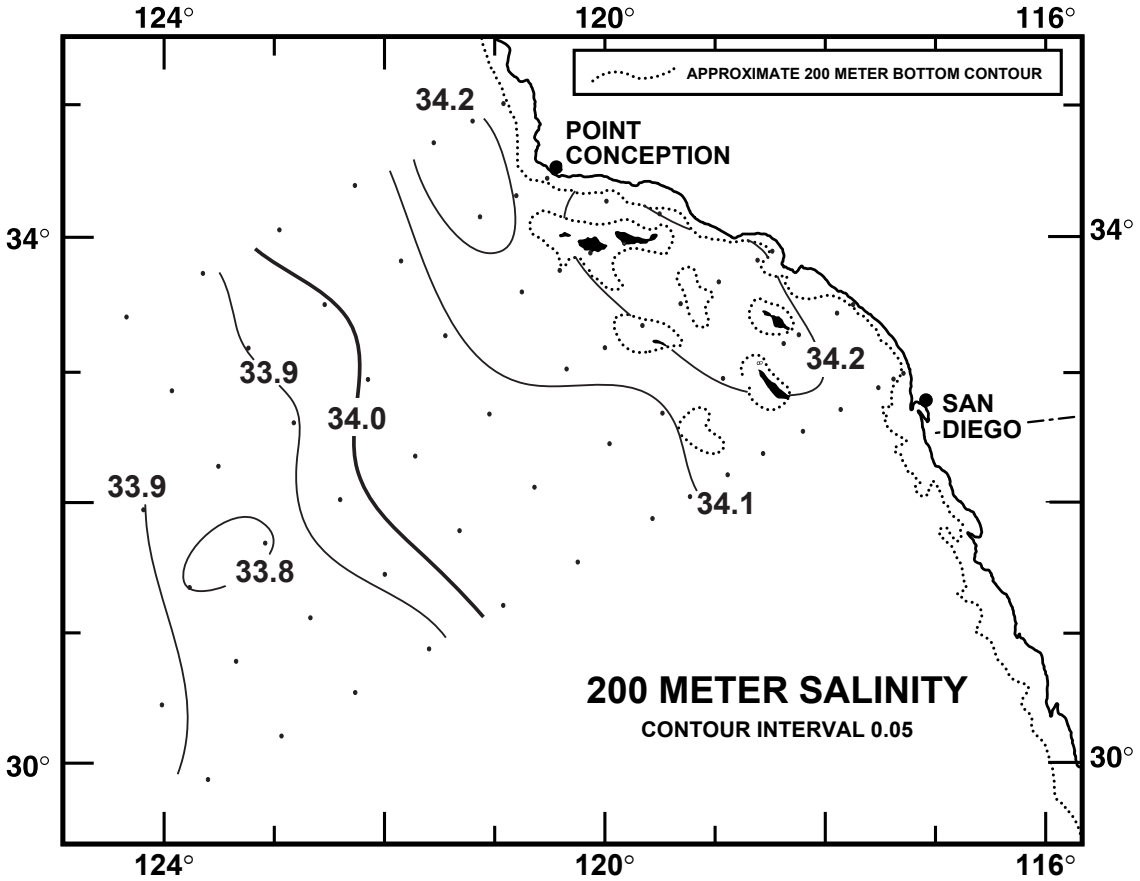

FIGURE 4D

CALCOFI CRUISE 0607

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POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

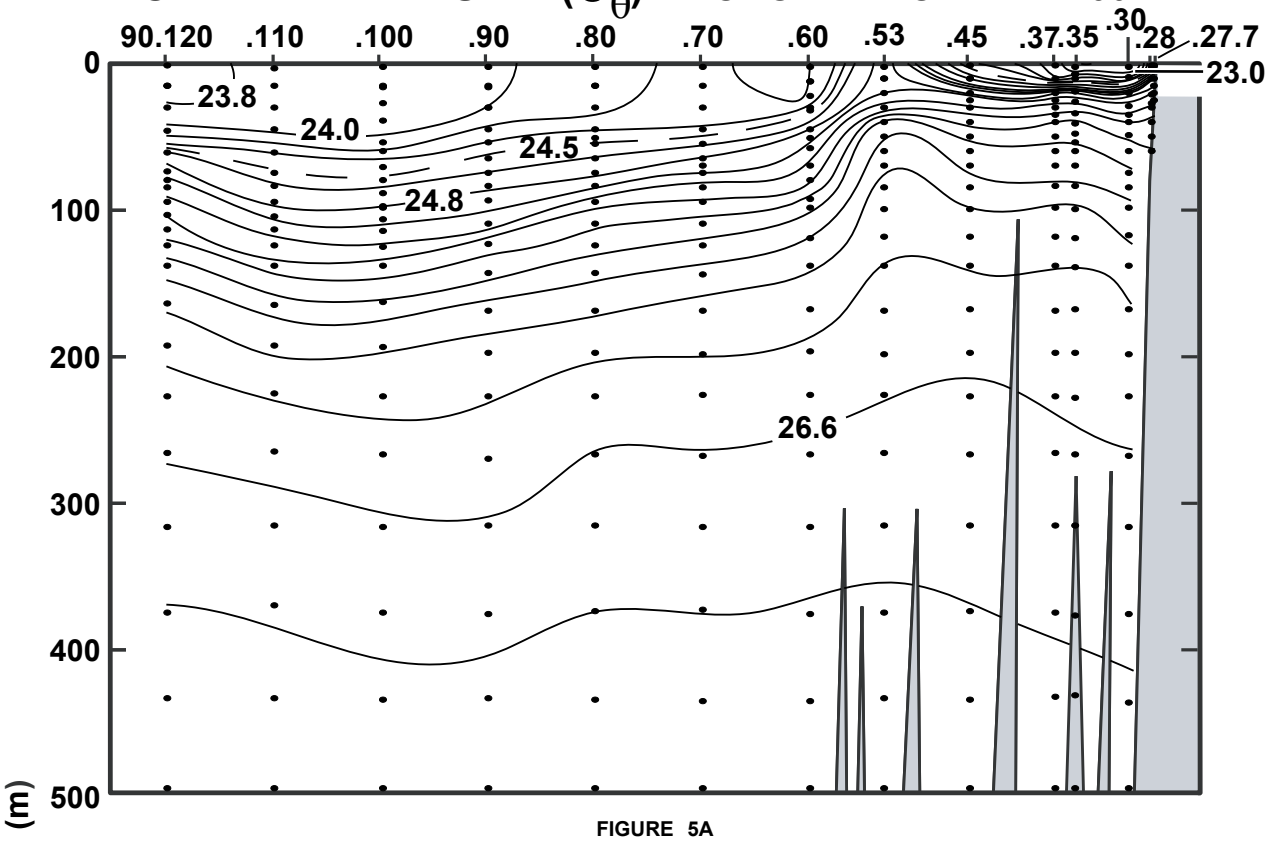

FIGURE 5A

TEMPERATURE (°C) ALONG CALCOFI LINE 90

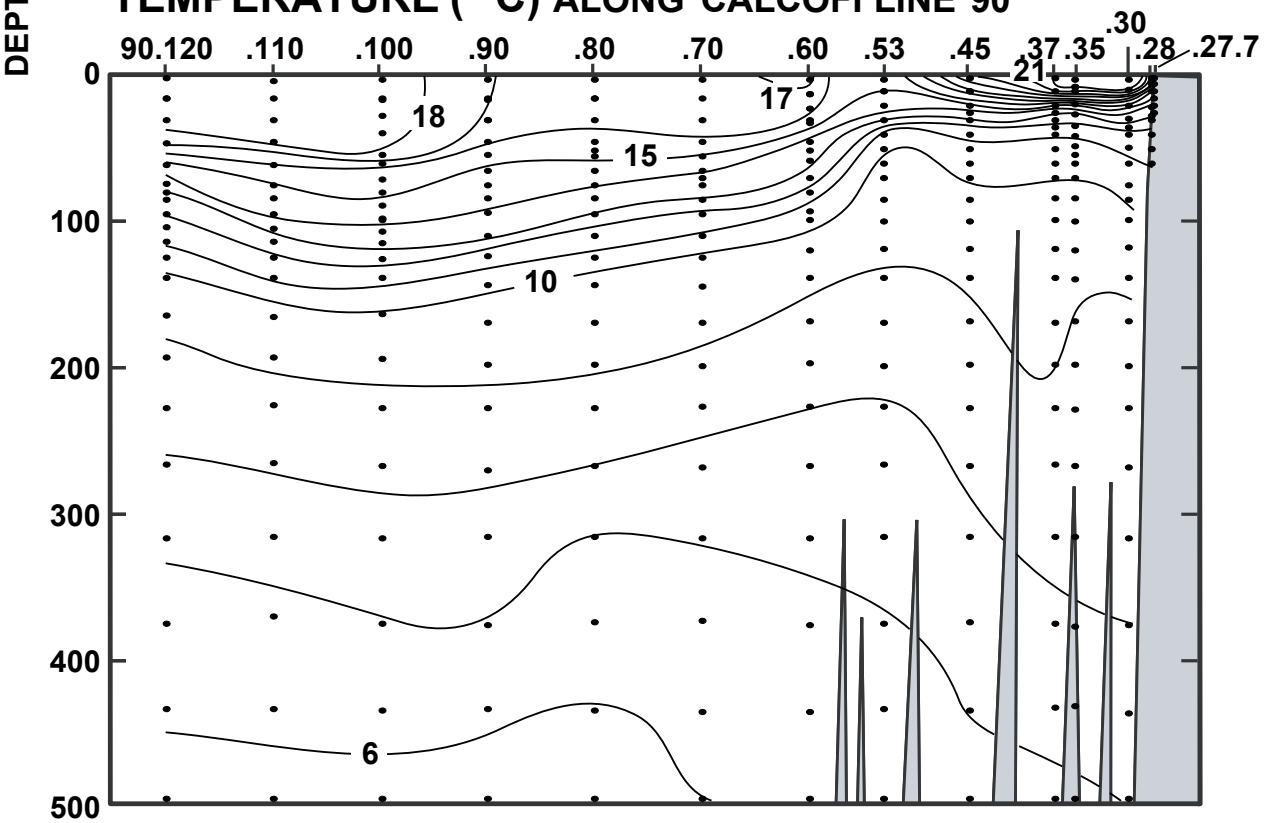

FIGURE 5B

CALCOFI CRUISE 0607

12 - 15 July 2006

SALINITY ALONG CALCOFI LINE 90

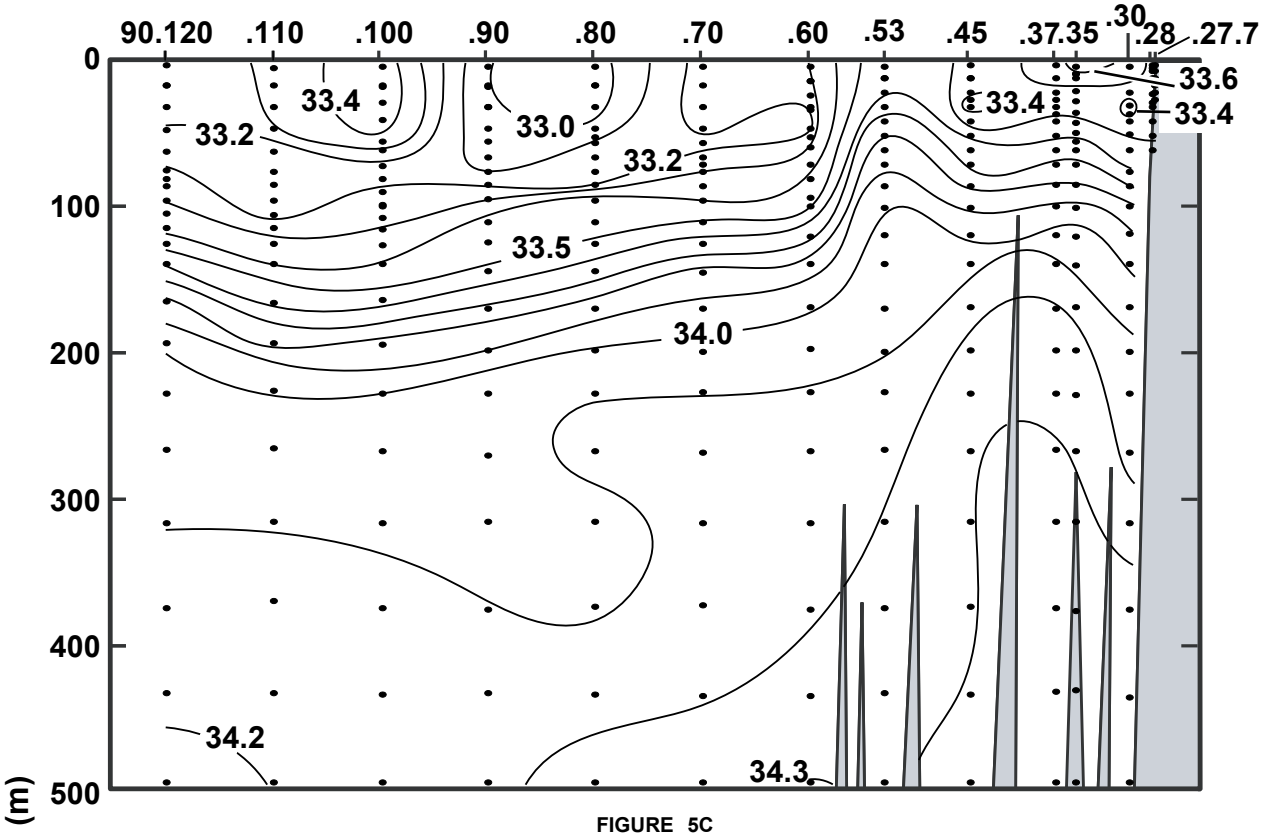

FIGURE 5C

SILICATE (μM/L) ALONG CALCOFI LINE 90

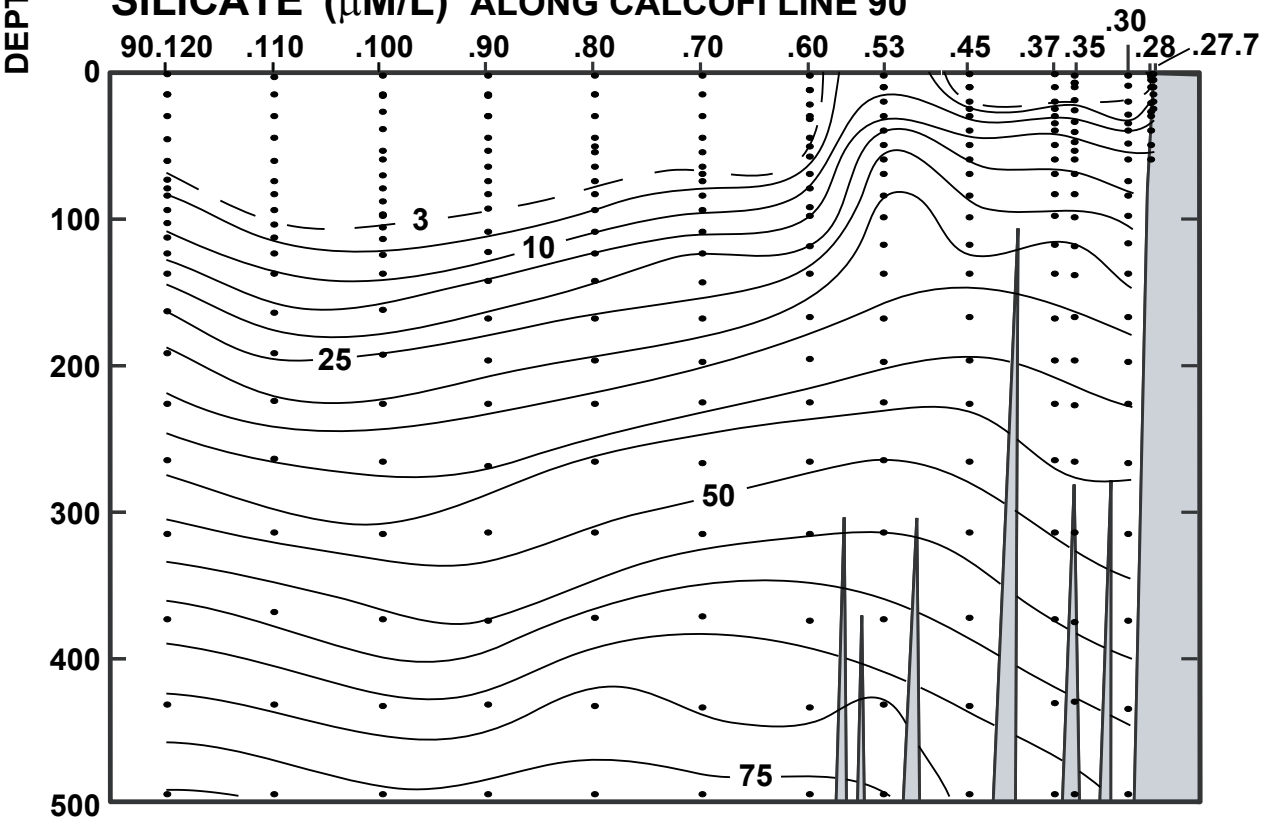

FIGURE 5D

CALCOFI CRUISE 0607

12- 15 July 2006

NITRATE (μM/L) ALONG CALCOFI LINE 90

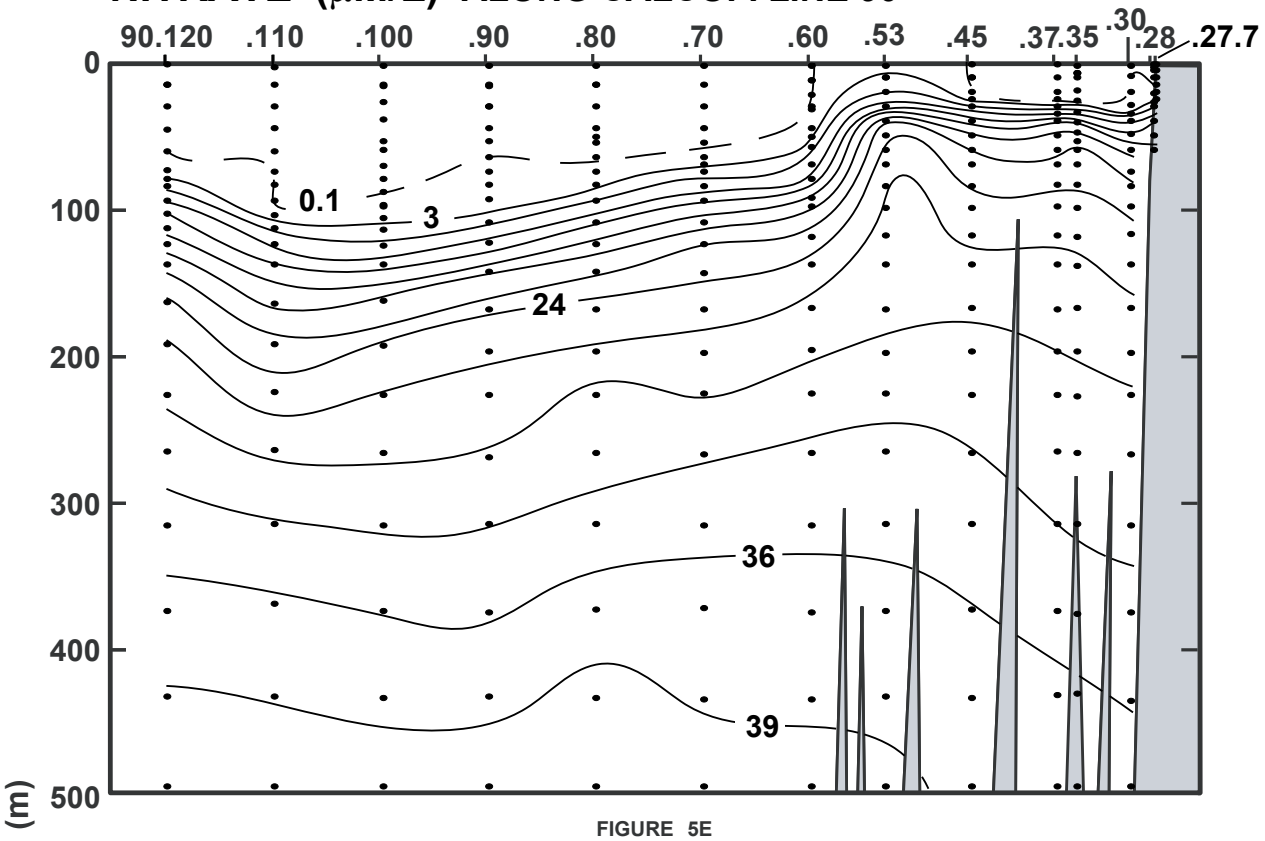

FIGURE 5E

PHOSPHATE (μM/L) ALONG CALCOFI LINE 90

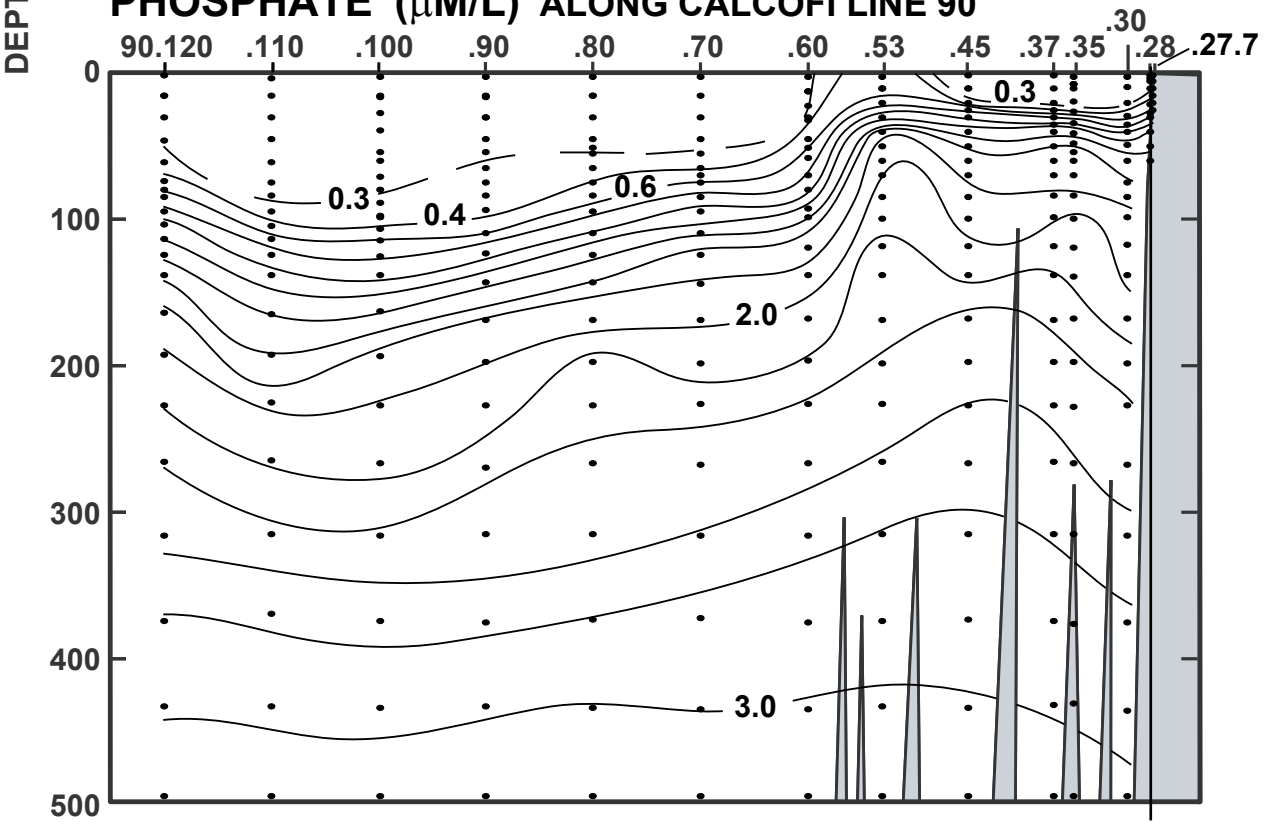

FIGURE 5F

CALCOFI CRUISE 0607

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

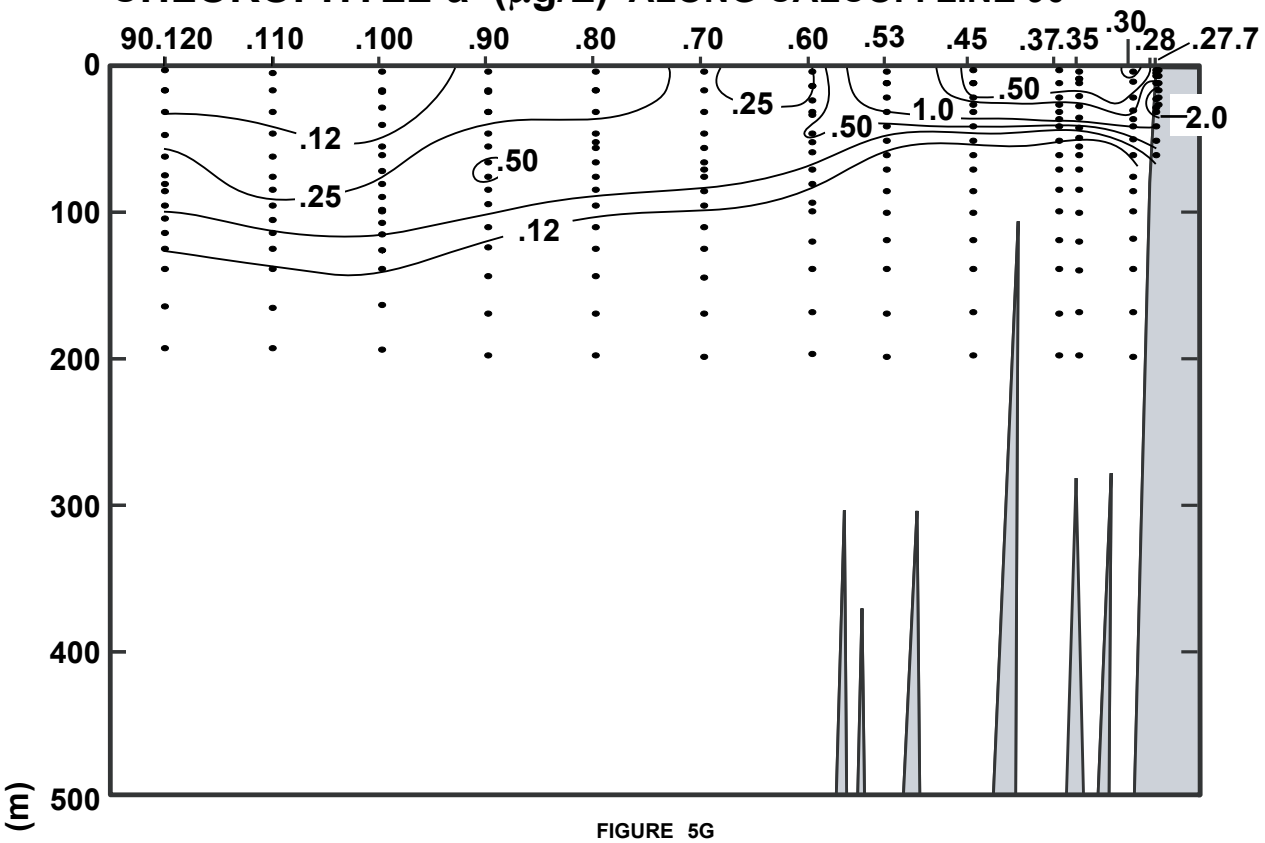

FIGURE 5G

OXYGEN SATURATION (%) ALONG CALCOFI LINE 90

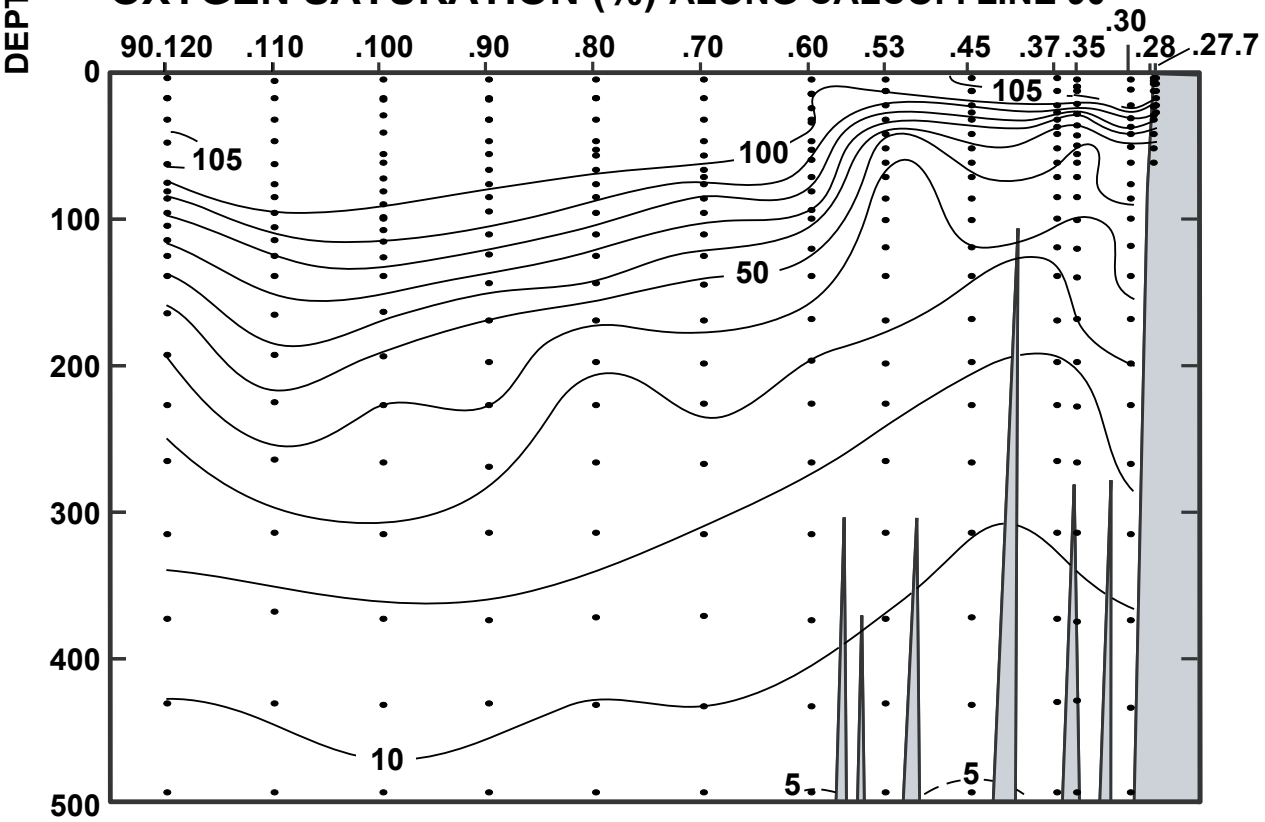

FIGURE 5H

CALCOFI CRUISE 0607

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OXYGEN (mL/L) ALONG CALCOFI LINE 90

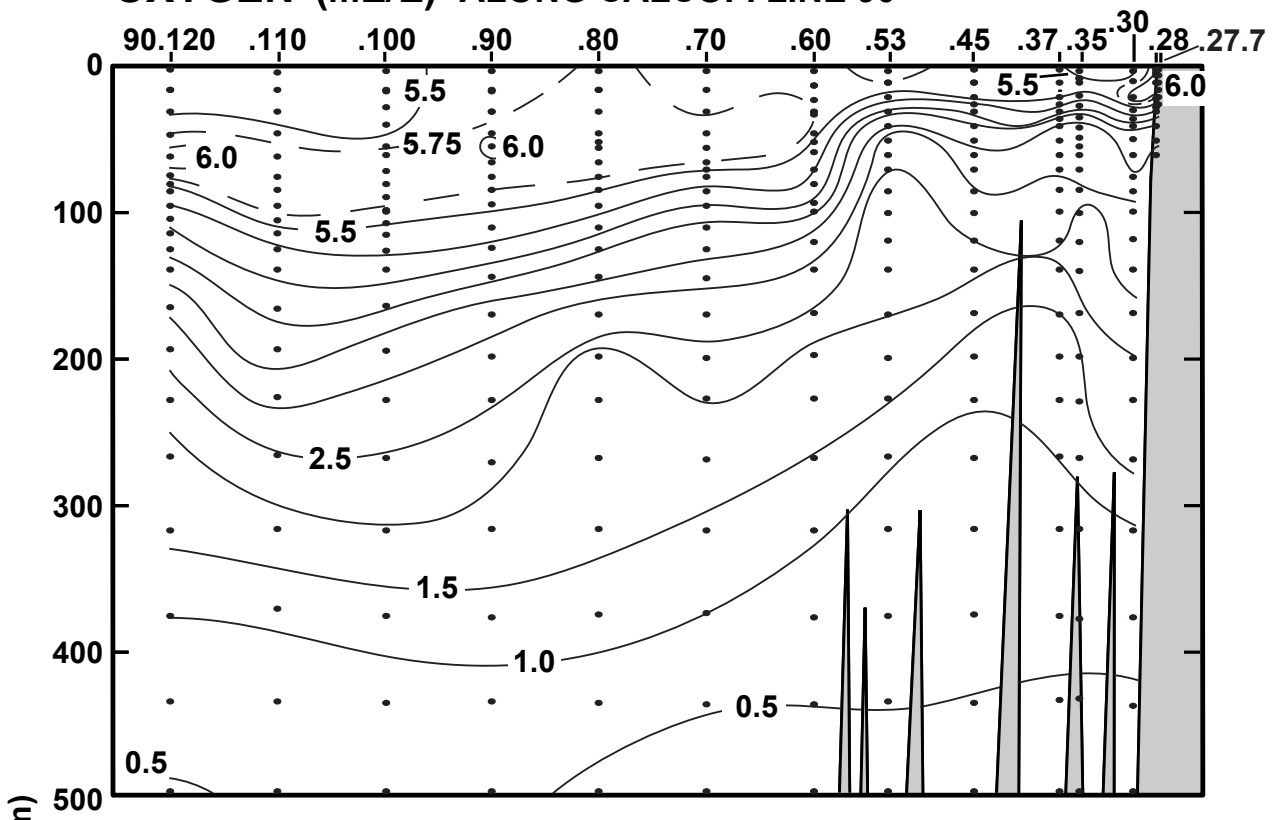


FIGURE 5I

NITRITE (μM/L) ALONG CALCOFI LINE 90

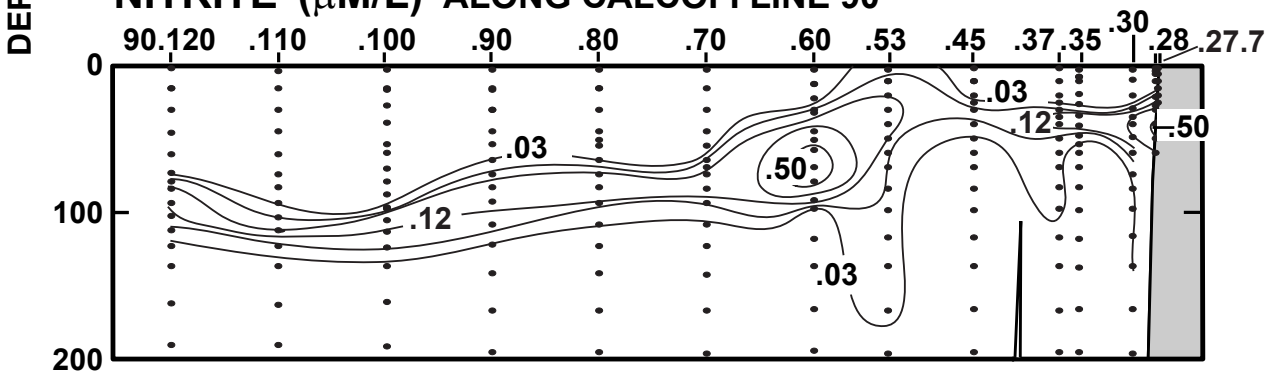


FIGURE 5J

PHAEOPIGMENTS (μg/L) ALONG CALCOFI LINE 90

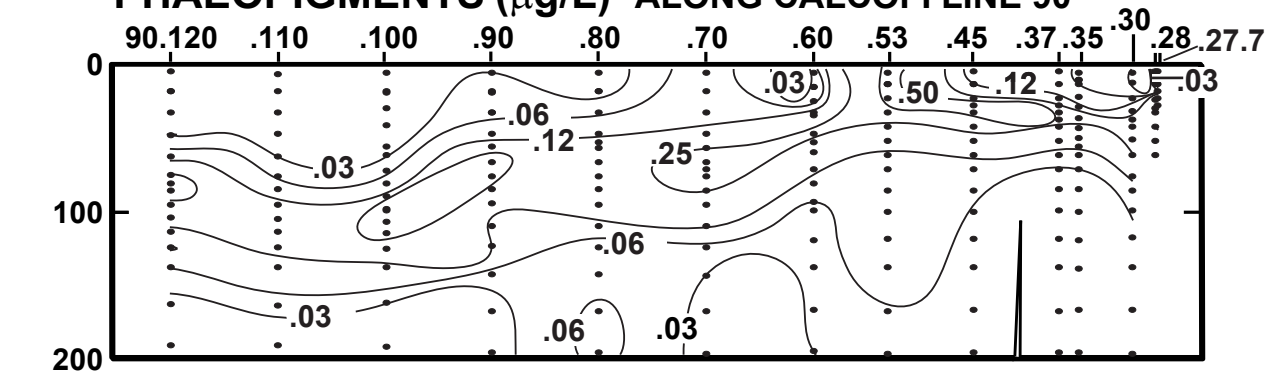


FIGURE 5K

PERSONNEL
CalCOFI Cruise 0607

SHIP'S CAPTAIN

John P. Manion, RV *New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

		Participating (Legs)
Wolgast, David M. (Chief Scientist)	Staff Research Associate, SIO	1
Abramenkoff, Dimitry N.	Fishery Biologist, NMFS	1
Becker, Susan M.	Staff Research Associate, SIO	1
Camacho, Dominique	Marine Mammal Observer, Cascadia Research	1
Campbell, Gregory S.	Staff Research Associate, SIO	1
Dovel, Shonna L.	Staff Research Associate, SIO	1
Harron, Andrea M.	Marine Mammal Observer, Cascadia Research	1
Hays, Amy E.	Fishery Biologist, NMFS	1
Munro, David R.	Graduate Student, University of Washington	1
Perloski, Michele M.	Volunteer	1
Ramirez, Fernando	Staff Research Associate, SIO	1
Roadman, Megan J.	Staff Research Associate, SIO	1
Sheldon, Jennifer L.	Staff Research Associate, SIO	1
Shultz, Derek A.	Volunteer	1
Stanaway, Kathryn E.	Staff Research Associate, SIO	1
Yakich, Jason D.	Seabird Biologist, Pt. Reyes Bird Observatory	1

San Diego-San Diego, 8-24 July, 2006

RV NEW HORIZON CALCOFI CRUISE 0607 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	24/07/06	0331	UTC	71 m	320	10 kn	320 02 07	1	1006.9 mb	17.7 C	16.7 C		2/8	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	16.84	16.84	33.556	24.445	347.7	0.000	6.42	116.0	2.5	0.16	0.2	0.01	4.32	0.55	0	
1	16.84	16.84	33.556	24.445	347.7	0.003	6.42	116.0	2.5	0.16	0.2	0.01	4.32	0.55	1	209
10	16.54	16.54	33.559	24.517	341.1	0.034									10	208
10	16.54	16.54	33.562	24.519	340.9	0.034	6.44	115.7	3.1	0.17	0.2	0.02	4.33	0.37	10	207
20	13.27	13.27	33.596	25.253	271.3	0.065	4.99	83.9	11.8	0.93	7.8	0.16	1.22	0.46	20	206
30	12.31	12.31	33.639	25.474	250.4	0.091	4.51	74.4	15.1	1.16	11.3	0.19	0.51	0.47	30	205
40	11.74	11.73	33.623	25.570	241.6	0.116	3.85	62.7	16.5	1.34	14.6	0.26	0.77	0.56	40	204
50	11.64	11.63	33.635	25.598	239.1	0.140	3.75	61.0	16.9	1.39	14.7	0.29	1.03	0.56	50	203
60	11.85	11.84	33.733	25.635	235.9	0.164	4.52	73.9	18.4	1.40	13.0	0.28	2.28	1.08	60	202
65	11.77	11.76	33.734	25.651	234.5	0.175	4.37	71.3	19.4	1.50	13.4	0.29	2.04	1.40	65	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 1.6 N	120 55.3 W	24/07/06	0049	UTC	244 m	300	11 kn	310 03 08	1	1007.2 mb	17.9 C	16.9 C	04m	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	16.98	16.98	33.570	24.423	349.8	0.000	7.20	130.5	3.9	0.13	0.1	0.01	6.68	0.95	0	
2	16.98	16.98	33.570	24.423	349.8	0.007	7.20	130.5	3.9	0.13	0.1	0.01	6.68	0.95	2	216
2	16.98	16.98	33.570	24.423	349.8	0.007									2	217
10	15.84	15.84	33.574	24.688	324.8	0.034	6.66	118.0	6.1	0.21	0.1	0.01	8.72	1.46	10	214
10	15.85	15.85	33.567	24.681	325.5	0.034			6.0	0.22	0.1	0.01			10	215
20	12.47	12.47	33.596	25.410	256.3	0.063	4.49	74.3	13.9	1.12	11.2	0.21	0.97	0.62	20	213
30	11.63	11.63	33.591	25.565	241.8	0.088	3.94	64.0	15.5	1.32	14.7	0.24	0.46	0.45	30	212
40	11.28	11.28	33.653	25.678	231.3	0.112	3.52	56.8	18.6	1.50	16.9	0.24	0.35	0.46	40	211
49	11.17	11.16	33.649	25.695	229.9	0.132	3.41	54.9	18.8	1.54	17.6	0.24	0.37	0.37	49	210
50 ISL	11.16	11.15	33.651	25.698	229.6	0.135	3.39	54.5	18.9	1.55	17.7	0.24	0.37	0.36	50	
60	10.98	10.97	33.674	25.748	225.0	0.157	3.19	51.1	20.0	1.62	18.9	0.27	0.33	0.31	60	209
70	10.76	10.75	33.691	25.801	220.2	0.180	2.98	47.5	20.8	1.68	20.1	0.27	0.29	0.35	70	208
75 ISL	10.60	10.59	33.705	25.840	216.6	0.191	2.93	46.6	21.3	1.72	20.8	0.24	0.26	0.34	75	
86	10.28	10.27	33.738	25.921	209.1	0.214	2.85	45.0	22.4	1.79	22.1	0.17	0.20	0.29	86	207
98	10.15	10.14	33.770	25.969	204.9	0.239	2.75	43.3	23.3	1.83	22.7	0.15	0.15	0.22	99	206
100 ISL	10.13	10.12	33.775	25.976	204.2	0.243	2.73	43.0	23.4	1.84	22.8	0.15	0.14	0.21	101	
121	9.94	9.93	33.837	26.057	197.0	0.285	2.55	40.0	25.0	1.92	24.1	0.11	0.10	0.15	122	205
125 ISL	9.91	9.90	33.849	26.071	195.7	0.293	2.52	39.5	25.4	1.94	24.3	0.11	0.10	0.14	126	
139	9.81	9.79	33.899	26.127	190.6	0.320	2.37	37.1	27.0	2.00	25.2	0.11	0.08	0.13	140	204
150 ISL	9.71	9.69	33.963	26.194	184.5	0.341	2.16	33.7	28.9	2.08	26.3	0.08	0.06	0.13	151	
169	9.54	9.52	34.074	26.309	174.0	0.375	1.76	27.4	32.6	2.25	28.1	0.03	0.03	0.13	170	203
199	9.27	9.25	34.163	26.423	163.7	0.425	1.36	21.1	38.2	2.47	29.7	0.06	0.04	0.29	200	202
200 ISL	9.27	9.25	34.164	26.424	163.6	0.427	1.35	20.9	38.3	2.47	29.7	0.06			201	
234	9.11	9.08	34.200	26.479	159.1	0.482	1.18	18.2	41.5	2.60	30.2	0.07			235	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 53.3 N	121 12.1 W	23/07/06	2058	UTC	562 m	290	13 kn	300 03 08	1	1009.0 mb	17.4 C	16.5 C	04m	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	15.58	15.58	33.703	24.845	309.5	0.000	6.58	116.1	9.3	0.28	0.9	0.05	7.20	0.92	0	
2	15.58	15.58	33.703	24.845	309.6	0.006	6.58	116.1	9.3	0.28	0.9	0.05	7.20	0.92	2	221
10	14.66	14.66	33.658	25.012	293.9	0.030	6.32	109.4	8.3	0.45	2.9	0.08	5.07	1.14	10	219
10	14.65	14.65	33.656	25.012	293.9	0.030									10	220
20	12.72	12.72	33.625	25.384	258.8	0.058	5.63	93.6	8.6	1.10	11.4	0.33	2.90	0.80	20	218
30	12.22	12.22	33.662	25.510	247.1	0.083	4.52	74.4	15.3	1.21	12.4	0.22	1.77	0.69	30	217
40	10.50	10.50	33.756	25.896	210.5	0.106	3.04	48.3	22.2	1.74	21.5	0.21	0.38	0.38	40	216
50	10.14	10.13	33.895	26.067	194.5	0.126	2.58	40.7	26.5	1.94	24.1	0.17	0.29	0.29	50	215
59	10.08	10.07	34.002	26.161	185.8	0.143	2.29	36.1	29.8	2.08	25.3	0.16	0.29	0.28	59	214
70	9.83	9.82	34.028	26.223	180.0	0.164	2.09	32.7	30.8	2.15	26.4	0.13	0.23	0.24	70	213
75 ISL	9.66	9.65	34.023	26.248	177.8	0.173	2.04	31.8	30.9	2.17	27.0	0.10	0.17	0.20	75	
85	9.36	9.35	34.011	26.288	174.1	0.190	1.98	30.7	31.2	2.20	28.0	0.05	0.06	0.14	85	212
100	9.22	9.21	34.044	26.336	169.8	0.216	1.91	29.5	32.8	2.23	28.7	0.04	0.04	0.13	101	211
119	9.27	9.26	34.088	26.363	167.7	0.248	1.73	26.8	34.0	2.29	29.0	0.07	0.06	0.19	120	210
125 ISL	9.27	9.26	34.100	26.373	166.9	0.258	1.70	26.3	34.1	2.30	29.0	0.07	0.05	0.18	126	
140	9.26	9.24	34.137	26.403	164.3	0.283	1.63	25.2	34.7	2.32	29.1	0.06	0.03	0.15	141	209
150 ISL	9.23	9.21	34.162	26.428	162.2	0.299	1.50	23.2	35.8	2.37	29.5	0.05	0.02	0.12	151	
168	9.13	9.11	34.201	26.475	158.1	0.328	1.27	19.6	38.2	2.47	30.3	0.04	0.02	0.09	169	208
199	8.87	8.85	34.226	26.536	152.8	0.376	1.13	17.3	40.9	2.54	31.3	0.03	0.01	0.12	200	207
200 ISL	8.86	8.84	34.226	26.538	152.7	0.378	1.12	17.2	41.1	2.54	31.3	0.03			201	
231	8.57	8.55	34.240	26.595	147.8	0.424	0.94	14.3	45.9	2.65	32.1	0.02			232	206
250 ISL	8.57	8.54	34.262	26.612	146.5	0.452	0.93	14.2	45.6	2.64	32.2	0.01			252	
267	8.57	8.54	34.277	26.624	145.7	0.477	0.92	14.0	45.1	2.64	32.2	0.01			269	205
300 ISL	8.25	8.22	34.264	26.663	142.4	0.525	0.84	12.7	49.3	2.72	33.0	0.01			302	
317	8.04	8.01	34.251	26.685	140.6	0.549	0.79	11.9	52.1	2.77	33.5	0.01			319	204
378	7.42	7.38	34.238	26.765	133.6	0.632	0.69	10.2	59.1	2.88	34.9	0.01			381	203
400 ISL	7.23	7.19	34.240	26.794	131.1	0.661	0.63	9.3	62.5	2.94	35.2	0.00			403	
435	6.96	6.92	34.248	26.838	127.2	0.707	0.53	7.8	67.5	3.02	35.7	0.00			438	202
500 ISL	6.57	6.52	34.275	26.912	120.8	0.787	0.44	6.4	71.2	3.07	38.0	0.04			504	
513	6.49	6.44	34.281	26.927	119.5	0.803	0.42	6.1	71.9	3.08	38.5	0.05			517	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 42.9 N	121 33.3 W	23/07/06	1738 UTC	980 m	320 12 kn	320 03 05	2	1008.8 mb	16.5 C	15.4 C	04m	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	15.49	15.49	33.592	24.780	315.7	0.000	6.55	115.3	3.6	0.21	0.4	0.02	7.61	0.28	0	
1 A	15.49	15.49	33.592	24.780	315.7	0.003	6.55	115.3	3.6	0.21	0.4	0.02	7.61	0.28	1	224
2 A	15.48	15.48	33.589	24.780	315.8	0.006	6.54	115.1	3.7	0.22	0.3	0.02	5.55	0.67	2	223
6 A	15.38	15.38	33.594	24.806	313.4	0.019	6.57	115.4	3.9	0.22	0.3	0.02	6.91	0.69	6	222
8 A	15.05	15.05	33.611	24.891	305.4	0.025	6.65	116.0	5.6	0.31	0.9	0.05	7.98	0.66	8	221
10 A	14.87	14.87	33.615	24.933	301.4	0.031	6.62	115.1	6.1	0.35	1.3	0.06	8.16	0.60	10	220
15 A	13.38	13.38	33.642	25.266	269.9	0.045	5.92	99.8	10.7	0.88	7.5	0.33	1.16	0.19	15	219
20 ISL	13.14	13.14	33.640	25.313	265.6	0.059	5.69	95.5	11.1	0.97	8.7	0.36	1.05	0.15	20	
22	13.05	13.05	33.640	25.331	263.9	0.064	5.66	94.8	11.2	1.00	9.2	0.37	1.00	0.14	22	218
30	12.47	12.47	33.626	25.434	254.3	0.085	5.28	87.4	11.1	1.19	12.1	0.46	1.04	0.25	30	217
40	11.62	11.61	33.627	25.595	239.1	0.110	4.62	75.1	13.7	1.40	16.0	0.49	0.47	0.21	40	216
50	10.46	10.45	33.649	25.820	217.9	0.132	3.58	56.7	19.2	1.62	20.4	0.17	0.69	0.32	50	215
59	10.17	10.16	33.738	25.939	206.8	0.151	3.10	48.8	22.4	1.76	22.3	0.11	0.36	0.26	59	214
71	9.83	9.82	33.840	26.076	194.0	0.176	2.63	41.2	25.7	1.93	24.7	0.03	0.19	0.20	71	213
75 ISL	9.81	9.80	33.880	26.111	190.7	0.183	2.48	38.8	26.7	1.98	25.2	0.03	0.16	0.18	75	
85	9.77	9.76	33.951	26.173	185.1	0.202	2.18	34.1	28.5	2.07	26.0	0.04	0.11	0.16	85	212
100 ISL	9.73	9.72	33.978	26.201	182.7	0.230	2.14	33.4	29.0	2.09	26.3	0.05	0.11	0.17	101	
103	9.72	9.71	33.979	26.204	182.6	0.235	2.13	33.3	29.1	2.09	26.3	0.05	0.11	0.17	104	211
121	9.55	9.54	34.032	26.274	176.3	0.267	2.07	32.2	30.4	2.13	27.0	0.04	0.05	0.12	122	210
125 ISL	9.49	9.48	34.064	26.309	173.0	0.274	1.94	30.2	31.7	2.18	27.5	0.05	0.04	0.11	126	
136	9.32	9.30	34.153	26.406	164.0	0.293	1.53	23.7	35.4	2.33	29.1	0.07	0.02	0.10	137	209
150 ISL	9.20	9.18	34.195	26.459	159.3	0.316	1.33	20.6	37.5	2.41	29.9	0.06	0.02	0.10	151	
168	9.07	9.05	34.206	26.489	156.8	0.344	1.24	19.1	39.3	2.47	30.5	0.04	0.03	0.11	169	208
200 ISL	8.62	8.60	34.227	26.576	148.9	0.393	0.89	13.6	45.9	2.65	32.3	0.04	0.02	0.14	201	
201	8.61	8.59	34.227	26.578	148.8	0.394	0.88	13.4	46.1	2.66	32.3	0.04	0.02	0.14	202	207
228	8.35	8.33	34.234	26.624	144.9	0.434	0.86	13.0	49.4	2.71	32.7	0.01			229	205
250 ISL	8.21	8.18	34.249	26.657	142.1	0.466	0.87	13.2	49.4	2.70	33.1	0.01			252	
265	8.12	8.09	34.257	26.677	140.4	0.487	0.87	13.1	49.4	2.69	33.4	0.01			267	206
300 ISL	7.76	7.73	34.249	26.724	136.4	0.535	0.84	12.6	52.6	2.74	34.5	0.03			302	
321	7.54	7.51	34.240	26.749	134.2	0.564	0.81	12.1	55.1	2.78	35.2	0.04			323	204
376	7.14	7.10	34.241	26.807	129.4	0.636	0.69	10.2	60.2	2.87	36.4	0.05			379	203
400 ISL	6.99	6.95	34.250	26.835	127.0	0.667	0.60	8.8	64.2	2.94	36.5	0.03			403	
435	6.75	6.71	34.267	26.881	122.9	0.711	0.47	6.9	70.2	3.03	36.7	0.00			438	202
500 ISL	6.18	6.14	34.292	26.976	114.3	0.788	0.36	5.2	76.9	3.11	39.3	0.01			504	
516	6.04	5.99	34.299	27.000	112.2	0.806	0.33	4.7	78.6	3.13	40.0	0.01			520	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 22.7 N	122 16.0 W	23/07/06	0843 UTC	4034 m	300 15 kn			1009.2 mb	17.0 C	16.4 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.70	16.70	32.917	23.987	391.3	0.000	5.87	105.4	1.6	0.31	0.2	0.02	0.29	0.07	0	
2	16.70	16.70	32.917	23.987	391.4	0.008	5.87	105.4	1.6	0.31	0.2	0.02	0.29	0.07	2	221
5	16.70	16.70	32.919	23.989	391.3	0.020									5	220
10	16.08	16.08	33.030	24.216	369.8	0.039	6.07	107.7	2.1	0.38	1.5	0.06	0.54	0.12	10	219
20	14.17	14.17	33.122	24.702	323.7	0.073	6.03	103.0	2.8	0.50	3.5	0.15	0.87	0.21	20	218
30	13.96	13.96	33.358	24.928	302.5	0.105	6.06	103.3	3.8	0.77	7.9	0.24	0.98	0.22	30	217
40	13.65	13.64	33.504	25.105	285.9	0.134	6.37	107.9	6.1	0.79	7.7	0.27	1.36	0.47	40	216
50	13.04	13.03	33.622	25.319	265.7	0.162	5.67	94.9	9.0	1.06	10.6	0.38	1.83	0.42	50	215
60	12.75	12.74	33.644	25.394	258.9	0.188	5.34	88.9	11.2	1.14	11.6	0.50	0.38	0.28	60	214
70	12.45	12.44	33.700	25.496	249.4	0.213	5.10	84.4	13.4	1.24	12.9	0.55	0.21	0.19	70	213
75 ISL	11.81	11.80	33.637	25.568	242.6	0.226	4.61	75.2	14.9	1.37	15.4	0.39	0.22	0.20	75	
85	10.52	10.51	33.523	25.712	229.0	0.249	3.62	57.4	17.9	1.64	20.7	0.04	0.28	0.21	85	212
100	10.26	10.25	33.644	25.851	216.0	0.282	3.44	54.3	20.6	1.77	22.5	0.01	0.17	0.17	100	211
120	9.55	9.54	33.755	26.057	196.8	0.324	2.96	46.0	25.2	1.92	24.9	0.02	0.13	0.19	121	210
125 ISL	9.40	9.39	33.782	26.103	192.5	0.333	3.01	46.6	25.3	1.89	24.8	0.02	0.12	0.17	126	
140	9.01	8.99	33.854	26.222	181.4	0.362	3.29	50.5	25.7	1.78	24.0	0.03	0.09	0.11	141	209
150 ISL	8.81	8.79	33.892	26.283	175.7	0.379	3.32	50.8	26.6	1.79	24.3	0.03	0.07	0.11	151	
170	8.49	8.47	33.950	26.378	167.0	0.414	3.37	51.2	29.6	1.80	25.0	0.02	0.04	0.11	171	208
199	8.03	8.01	34.006	26.492	156.6	0.461	2.75	41.4	36.8	2.04	28.7	0.02	0.01	0.07	200	207
200 ISL	8.02	8.00	34.007	26.494	156.4	0.462	2.74	41.2	36.9	2.04	28.8	0.02			201	
229	7.80	7.78	34.020	26.537	152.7	0.507	2.48	37.1	40.2	2.16	30.2	0.02			230	206
250 ISL	7.54	7.52	34.034	26.586	148.4	0.539	2.22	33.0	44.0	2.27	31.7	0.01			251	
268	7.30	7.27	34.047	26.630	144.3	0.565	1.99	29.4	47.6	2.38	33.0	0.01			270	205
300 ISL	6.92	6.89	34.066	26.698	138.2	0.610	1.62	23.8	53.6	2.55	35.0	0.01			302	
319	6.74	6.71	34.082	26.735	134.9	0.636	1.41	20.6	56.9	2.65	36.0	0.01			321	204
377	6.66	6.63	34.184	26.827	127.0	0.712	0.78	11.4	63.6	2.88	37.8	0.01			379	203
400 ISL	6.51	6.47	34.201	26.860	124.1	0.741	0.66	9.6	66.6	2.94	38.5	0.01			403	
436	6.27	6.23	34.222	26.909	119.8	0.785	0.54	7.8	71.2	3.02	39.3	0.01			439	202
500 ISL	6.11	6.07	34.296	26.988	113.1	0.859	0.35	5.0	77.1	3.13	39.8	0.01			503	
507	6.09	6.05	34.304	26.997	112.3	0.867	0.33	4.8	77.7	3.14	39.9	0.01			511	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 3.5 N	122 56.9 W	23/07/06	0140 UTC	4244 m	320 17 kn	330 05 06	2	1009.8 mb	18.0 C	17.0 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.99	16.99	33.423	24.307	360.7	0.000	5.90	106.9	4.2	0.47	3.2	0.10	0.41	0.14	0	
1	16.99	16.99	33.423	24.307	360.8	0.004	5.90	106.9	4.2	0.47	3.2	0.10	0.41	0.14	1	220
2	16.98	16.98	33.423	24.310	360.6	0.007									2	221
10	16.01	16.01	33.418	24.530	339.9	0.035	6.02	106.9	3.9	0.46	2.8	0.10	0.41	0.13	10	219
20	15.38	15.38	33.439	24.687	325.2	0.068	5.94	104.2	4.2	0.53	3.9	0.13	0.49	0.15	20	218
30	14.27	14.27	33.497	24.971	298.4	0.100	5.85	100.4	5.2	0.76	7.0	0.21	0.58	0.23	30	217
40	12.81	12.80	33.545	25.305	266.8	0.128	5.36	89.3	8.4	1.04	9.9	0.60	0.93	0.30	40	216
50	12.64	12.63	33.637	25.410	257.1	0.154	4.93	81.9	10.8	1.18	11.7	1.26	0.76	0.34	50	215
60	11.88	11.87	33.662	25.574	241.6	0.179	4.12	67.3	15.1	1.40	17.1	0.23	0.35	0.16	60	214
70	11.10	11.09	33.688	25.738	226.3	0.202	3.54	56.9	19.2	1.63	20.4	0.02	0.14	0.13	70	213
75 ISL	10.76	10.75	33.716	25.820	218.5	0.214	3.27	52.2	21.1	1.73	21.8	0.02	0.12	0.13	75	
85	10.21	10.20	33.775	25.962	205.2	0.235	2.85	45.0	24.0	1.88	24.0	0.02	0.08	0.14	85	212
100	9.80	9.79	33.824	26.069	195.2	0.265	2.61	40.8	25.8	1.96	25.4	0.01	0.03	0.14	101	211
120	9.07	9.06	33.864	26.220	181.2	0.302	2.90	44.6	27.6	1.92	25.8	0.01	0.01	0.13	121	210
125 ISL	8.97	8.96	33.881	26.249	178.5	0.311	2.94	45.1	27.9	1.92	25.8	0.01	0.01	0.13	126	
139	8.77	8.76	33.930	26.319	172.1	0.336	2.99	45.7	29.0	1.91	26.0	0.01	0.01	0.13	140	209
150 ISL	8.55	8.53	33.948	26.367	167.7	0.355	2.95	44.9	30.6	1.92	26.5	0.01	0.01	0.12	151	
170	8.24	8.22	33.982	26.441	160.9	0.388	2.87	43.4	34.1	1.98	27.8	0.02	0.01	0.10	171	208
199	8.30	8.28	34.089 D	26.517	154.4	0.433									200	207
200 ISL	8.29	8.27	34.090	26.519	154.2	0.435	2.21	33.5	39.3	2.22	30.4	0.03			201	
229	8.03	8.01	34.120	26.582	148.6	0.479	1.51	22.7	44.1	2.47	32.8	0.03			230	206
250 ISL	7.92	7.89	34.155	26.626	144.8	0.510	1.28	19.2	47.2	2.58	33.6	0.02			252	
269	7.80	7.77	34.180	26.663	141.5	0.537	1.15	17.2	49.9	2.65	34.1	0.01			271	205
300 ISL	7.34	7.31	34.166	26.719	136.5	0.580	1.08	16.0	54.2	2.71	35.4	0.01			302	
318	7.05	7.02	34.153	26.749	133.8	0.604	1.07	15.7	56.7	2.74	36.2	0.01			320	204
377	6.53	6.50	34.170	26.833	126.3	0.681	0.85	12.4	64.6	2.87	38.0	0.01			379	203
400 ISL	6.42	6.38	34.190	26.864	123.7	0.710	0.73	10.6	67.2	2.93	38.5	0.01			403	
437	6.29	6.25	34.228	26.911	119.7	0.755	0.55	8.0	71.2	3.01	39.1	0.01			440	202
500 ISL	6.03	5.99	34.284	26.989	113.0	0.828	0.38	5.5	77.8	3.12	40.1	0.01			504	
511	5.99	5.95	34.294	27.002	111.8	0.840	0.35	5.0	78.9	3.14	40.3	0.01			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 43.0 N	123 38.2 W	22/07/06	1925 UTC	4202 m	320 12 kn	320 03 05	2	1012.4 mb	18.8 C	17.5 C	34m	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	17.89	17.89	33.026	23.789	410.2	0.000	5.55	102.0	1.9	0.28	0.0	0.00	0.11	0.01	0	
2 A	17.89	17.89	33.026	23.789	410.3	0.008	5.55	102.0	1.9	0.28	0.0	0.00	0.11	0.01	2	222
10 ISL	17.85	17.85	33.026	23.799	409.6	0.041	5.56	102.1	1.9	0.28	0.0	0.00	0.11	0.01	10	
18 A	17.73	17.73	33.025	23.827	407.1	0.074	5.58	102.3	1.8	0.28	0.0	0.00	0.11	0.01	18	220
18	17.73	17.73	33.023	23.826	407.3	0.074									18	221
20 ISL	17.68	17.68	33.024	23.839	406.1	0.082	5.59	102.4	1.8	0.28	0.0	0.00	0.11	0.01	20	
28	17.49	17.49	33.021	23.882	402.2	0.114	5.61	102.3	1.8	0.28	0.0	0.00	0.13	0.02	28	219
30 ISL	17.48	17.48	33.023	23.886	401.9	0.122	5.61	102.3	1.8	0.28	0.0	0.00	0.14	0.02	30	
38	17.42	17.41	33.029	23.905	400.4	0.154	5.62	102.4	1.8	0.27	0.0	0.00	0.17	0.00	38	218
49 A	15.84	15.83	33.021	24.264	366.4	0.196	5.92	104.6	1.8	0.28	0.0	0.00	0.23	0.02	49	217
50 ISL	15.77	15.76	33.020	24.279	365.0	0.200	5.93	104.6	1.8	0.28	0.0	0.00	0.24	0.02	50	
58	15.35	15.34	33.009	24.364	357.1	0.229	5.97	104.4	1.9	0.29	0.0	0.00	0.29	0.02	58	216
68 A	14.85	14.84	33.005	24.469	347.3	0.264	5.95	103.0	1.8	0.30	0.0	0.00	0.30	0.08	68	215
75 ISL	14.53	14.52	33.023	24.552	339.6	0.288	5.89	101.3	1.9	0.33	0.1	0.02	0.35	0.10	75	
78	14.39	14.38	33.034	24.590	336.1	0.298	5.87	100.7	1.9	0.34	0.1	0.03	0.36	0.11	78	214
89 A	13.76	13.75	33.078	24.755	320.6	0.334	6.01	101.8	1.4	0.31	0.0	0.02	0.29	0.13	89	213
100 ISL	12.82	12.81	33.007	24.888	308.1	0.369	5.84	96.9	2.2	0.42	1.2	0.13	0.32	0.10	100	
101	12.74	12.73	33.008	24.904	306.5	0.372	5.83	96.6	2.3	0.44	1.3	0.14	0.32	0.10	101	212
112	12.32	12.31	33.349	25.250	273.9	0.404	5.02	82.6	6.5	0.79	7.8	0.07	0.22	0.11	112	211
124 A	11.61	11.59	33.398	25.421	257.7	0.436	4.70	76.2	9.0	1.00	11.2	0.04	0.14	0.12	125	210
125 ISL	11.54	11.52	33.401	25.436	256.3	0.439	4.67	75.6	9.3	1.02	11.5	0.04	0.13	0.12	126	
145	10.24	10.22	33.491	25.736	227.9	0.487	4.27	67.3	14.2	1.32	16.5	0.02	0.05	0.06	146	209
150 ISL	10.04	10.02	33.543	25.811	220.9	0.498	4.29	67.3	14.9	1.32	17.0	0.02	0.04	0.05	151	
169	9.48	9.46	33.744	26.061	197.4	0.538	4.41	68.4	17.4	1.34	18.0	0.01	0.01	0.03	170	208
199	8.88	8.86	33.861	26.249	180.0	0.595	4.04	61.9	23.2	1.55	21.5	0.01	0.00	0.02	200	207
200 ISL	8.87	8.85	33.865	26.254	179.6	0.596	4.04	61.9	23.3	1.55	21.5	0.01			201	
229	8.55	8.53	33.971	26.387	167.4	0.647	4.16	63.3	26.4	1.53	21.8	0.01			230	206
250 ISL	8.15	8.12	33.985	26.458	160.8	0.681	3.86	58.2	31.0	1.68	23.9	0.01			251	
269	7.76	7.73	33.981	26.513	155.7	0.711	3.45	51.6	35.8	1.86	26.4	0.01			270	205
300 ISL	7.30	7.27	33.996	26.591	148.6	0.758	2.81	41.5	43.1	2.12	30.0	0.01			302	
319	7.06	7.03	34.006	26.632	144.9	0.786	2.43	35.7	47.3	2.27	32.0	0.01			321	204
379	6.38	6.35	34.038	26.748	134.2	0.870	1.67	24.2	58.4	2.61	36.2	0.01			381	203
400 ISL	6.11	6.07	34.048	26.791	130.2	0.898	1.46	21.0	63.1	2.71	37.4	0.01			402	
437	5.67	5.63	34.070	26.863	123.5	0.945	1.14	16.2	71.2	2.86	39.2	0.01			440	202
500 ISL	5.31	5.27	34.139	26.962	114.6	1.020	0.69	9.7	81.8	3.04	41.3	0.01			503	
512	5.24	5.20	34.152	26.980	112.9	1.033	0.60	8.5	83.8	3.08	41.7	0.01			515	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 23.3 N	124 19.3 W	22/07/06	1321	UTC	4596 m	320	10 kn	330 03 05	2	1012.7 mb	17.0 C	16.0 C		8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	18.07	18.07	33.162	23.849	404.5	0.000	5.54	102.3	1.7	0.27	0.0	0.02	0.12	0.01	0	
1	18.07	18.07	33.162	23.849	404.5	0.004	5.54	102.3	1.7	0.27	0.0	0.02	0.12	0.01	1	221
10 ISL	18.06	18.06	33.168	23.856	404.1	0.040	5.54	102.3	1.6	0.27	0.0	0.02	0.13	0.01	10	
15	18.05	18.05	33.178	23.867	403.3	0.061	5.54	102.3	1.6	0.27	0.0	0.02	0.14	0.01	15	220
20 ISL	17.98	17.98	33.173	23.880	402.2	0.081	5.55	102.3	1.6	0.27	0.0	0.02	0.15	0.02	20	
30	17.81	17.80	33.155	23.908	399.9	0.121	5.57	102.3	1.7	0.27	0.0	0.02	0.17	0.04	30	219
45	17.69	17.68	33.132	23.920	399.2	0.181	5.60	102.6	1.7	0.27	0.0	0.02	0.23	0.07	45	218
50 ISL	17.39	17.38	33.108	23.973	394.3	0.201	5.67	103.3	1.7	0.27	0.0	0.02	0.23	0.09	50	
60	16.43	16.42	33.067	24.166	376.1	0.239	5.86	104.7	1.8	0.28	0.0	0.02	0.24	0.13	60	217
75	14.15	14.14	33.096	24.688	326.6	0.292	6.16	105.2	2.6	0.30	0.0	0.02	0.42	0.18	75	216
85	13.47	13.46	33.193	24.902	306.4	0.324	5.84	98.4	3.5	0.40	0.7	0.08	0.42	0.21	85	215
95	13.17	13.16	33.255	25.011	296.3	0.354	5.55	93.0	4.2	0.52	2.7	0.18	0.38	0.15	95	214
100 ISL	12.88	12.87	33.303	25.105	287.4	0.368	5.33	88.8	5.2	0.64	4.8	0.16	0.28	0.19	100	
105	12.53	12.52	33.344	25.205	278.0	0.382	5.11	84.5	6.3	0.76	7.0	0.14	0.18	0.22	105	213
114	11.86	11.85	33.358	25.344	264.9	0.407	4.83	78.7	8.1	0.91	9.8	0.05	0.15	0.12	114	212
125	10.91	10.89	33.414	25.560	244.4	0.435	4.44	70.9	11.8	1.18	14.1	0.03	0.05	0.05	126	211
139	10.13	10.11	33.517	25.775	224.1	0.468	4.10	64.4	15.6	1.40	17.6	0.02	0.01	0.04	140	210
150 ISL	9.72	9.70	33.597	25.906	211.8	0.492	3.93	61.2	18.1	1.51	19.4	0.02	0.01	0.03	151	
164	9.35	9.33	33.691	26.041	199.2	0.520	3.75	58.0	21.0	1.61	21.2	0.02	0.01	0.03	165	209
194	8.89	8.87	33.840	26.231	181.6	0.577	3.25	49.8	26.9	1.83	24.7	0.02	0.00	0.03	195	208
200 ISL	8.79	8.77	33.867	26.268	178.2	0.588	3.18	48.6	28.0	1.86	25.2	0.02			201	
229	8.36	8.34	33.974	26.418	164.3	0.638	2.88	43.6	33.3	1.97	27.4	0.01			230	207
250 ISL	8.16	8.13	34.020	26.484	158.3	0.672	2.61	39.4	36.8	2.08	28.8	0.01			251	
269	8.00	7.97	34.046	26.529	154.4	0.702	2.36	35.5	40.0	2.18	30.1	0.01			270	206
300 ISL	7.64	7.61	34.075	26.604	147.5	0.748	1.97	29.4	45.4	2.35	32.3	0.01			302	
319	7.40	7.37	34.085	26.647	143.7	0.776	1.75	25.9	48.7	2.45	33.5	0.01			321	205
377	6.74	6.71	34.102	26.752	134.2	0.857	1.28	18.7	58.4	2.69	36.5	0.01			379	204
400 ISL	6.52	6.48	34.122	26.797	130.1	0.887	1.09	15.8	62.4	2.78	37.5	0.01			402	
438	6.22	6.18	34.160	26.866	123.8	0.935	0.80	11.5	68.9	2.92	38.9	0.01			441	202
500 ISL	5.87	5.83	34.218	26.957	115.8	1.009	0.50	7.2	77.5	3.07	40.5	0.00			503	
512	5.80	5.76	34.230	26.975	114.1	1.023	0.44	6.3	79.2	3.10	40.8	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 27.6 N	120 29.3 W	20/07/06	2135	UTC	28 m	290	06 kn	270 01 07	2	1014.4 mb	18.0 C	17.0 C		8/8	AS

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.90	16.90	33.562	24.435	348.6	0.000	6.34	114.7	7.1	0.27	0.2	0.01	4.92	0.58	0	
2	16.90	16.90	33.562	24.435	348.6	0.007	6.34	114.7	7.1	0.27	0.2	0.01	4.92	0.58	2	205
5	16.53	16.53	33.560	24.520	340.6	0.017	6.24	112.1	7.7	0.29	0.3	0.02	5.90	0.79	5	204
10	15.55	15.55	33.564	24.745	319.3	0.034	5.75	101.3	8.8	0.40	0.6	0.04	8.48	1.39	10	203
15	14.64	14.64	33.564	24.944	300.6	0.049	5.15	89.1	10.5	0.54	2.3	0.12	9.30	1.32	15	202
20	14.15	14.15	33.563	25.047	290.9	0.064	4.98	85.3	11.0	0.63	3.0	0.15	7.43	0.88	20	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 27.1 N	120 31.6 W	20/07/06	2232	UTC	77 m	270	07 kn	270 02 07	2	1014.1 mb	18.4 C	17.2 C	06m	8/8	AS

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	17.62	17.62	33.550	24.255	365.7	0.000	6.60	121.1	4.6	0.18	0.1	0.00	3.57	0.72	0	
2	17.62	17.62	33.550	24.255	365.8	0.007	6.60	121.1	4.6	0.18	0.1	0.00	3.57	0.72	2	209
5	16.78	16.78	33.550	24.454	346.9	0.018	6.50	117.3	5.2	0.25	0.1	0.01	5.25	0.98	5	208
10	15.70	15.70	33.565	24.713	322.4	0.035	6.13	108.3	6.9	0.37	0.6	0.05	7.64	1.35	10	207
20	13.76	13.76	33.573	25.135	282.5	0.065	4.85	82.4	11.4	0.78	4.4	0.22	2.36	0.88	20	206
30	12.12	12.12	33.529	25.425	255.1	0.092	3.67	60.2	14.4	1.11	9.4	0.37	0.90	0.33	30	205
40	11.67	11.66	33.526	25.507	247.5	0.117	3.52	57.2	14.9	1.25	12.6	0.34	0.55	0.35	40	204
50	11.35	11.34	33.534	25.573	241.5	0.141	3.44	55.5	15.5	1.35	14.7	0.26	0.53	0.39	50	203
60	11.28	11.27	33.544	25.593	239.8	0.166	3.45	55.6	15.5	1.37	15.2	0.24	0.47	0.39	60	202
68	11.24	11.23	33.544	25.601	239.3	0.185	3.41	54.9	16.0	1.39	15.4	0.23	0.49	0.38	68	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 19.1 N	120 48.3 W	21/07/06	0201	UTC	771 m	320	08 kn	330 02 06	2	1013.4 mb	17.8 C	16.5 C		8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	17.52	17.52	33.535	24.267	364.5	0.000	6.19	113.4	0.7	0.20	0.1	0.02	2.13	0.22	0	
2	17.52	17.52	33.535	24.268	364.6	0.007	6.19	113.4	0.7	0.20	0.1	0.02	2.13	0.22	2	220
2	17.52	17.52	33.535	24.268	364.6	0.007									2	221
10 ISL	14.13	14.13	33.532	25.027	292.5	0.034	5.20	89.0	7.1	0.67	5.4	0.15	1.84	0.45	10	
11	13.59	13.59	33.544	25.147	281.0	0.036	5.03	85.2	8.2	0.75	6.4	0.17	1.80	0.48	11	219
20	11.81	11.81	33.585	25.527	245.2	0.060	4.09	66.7	14.7	1.23	13.5	0.19	1.73	0.50	20	218
30	10.99	10.99	33.593	25.683	230.5	0.084	3.53	56.6	16.9	1.45	17.2	0.14	0.66	0.43	30	217
40	10.72	10.72	33.601	25.737	225.6	0.107	3.39	54.0	17.6	1.51	18.3	0.11	0.47	0.33	40	216
50	10.35	10.34	33.644	25.835	216.5	0.129	3.34	52.8	19.6	1.61	20.3	0.08	0.28	0.30	50	215
60	10.38	10.37	33.722	25.891	211.4	0.150	3.03	48.0	21.2	1.69	21.2	0.11	0.28	0.25	60	214
70	10.27	10.26	33.779 D	25.954	205.6	0.171	2.80	44.2	23.0	1.77	22.2	0.12	0.27	0.30	70	213
75 ISL	10.14	10.13	33.804	25.996	201.7	0.181	2.71	42.7	23.9	1.81	22.9	0.10	0.21	0.27	75	
85	9.90	9.89	33.851	26.074	194.6	0.201	2.55	40.0	25.5	1.89	24.2	0.05	0.09	0.18	85	212
99	9.81	9.80	33.911	26.136	188.9	0.228	2.36	36.9	27.0	1.97	25.2	0.05	0.05	0.11	100	211
100 ISL	9.80	9.79	33.919	26.144	188.2	0.230	2.34	36.6	27.2	1.98	25.3	0.05	0.05	0.11	101	
120	9.58	9.57	34.065	26.295	174.3	0.266	1.90	29.6	31.3	2.17	27.6	0.04	0.02	0.09	121	210
125 ISL	9.54	9.53	34.078	26.311	172.8	0.275	1.88	29.3	31.8	2.18	27.8	0.04	0.02	0.09	126	
140	9.46	9.44	34.095	26.338	170.6	0.300	1.82	28.3	32.9	2.21	28.1	0.05	0.01	0.08	141	209
150 ISL	9.43	9.41	34.107	26.353	169.4	0.317	1.80	28.0	33.3	2.22	28.2	0.04	0.01	0.08	151	
170	9.40	9.38	34.133	26.378	167.4	0.351	1.73	26.9	34.0	2.24	28.6	0.03	0.01	0.09	171	208
199	9.30	9.28	34.188	26.438	162.3	0.399	1.46	22.6	36.2	2.34	29.7	0.04	0.01	0.08	200	207
200 ISL	9.29	9.27	34.190	26.441	162.0	0.401	1.45	22.5	36.3	2.34	29.7	0.04			201	
229	9.07	9.04	34.241	26.517	155.3	0.447	1.23	19.0	39.3	2.44	30.7	0.03			230	206
250 ISL	8.98	8.95	34.257	26.544	153.2	0.479	1.17	18.0	40.5	2.48	30.9	0.04			252	
268	8.91	8.88	34.263	26.560	152.0	0.506	1.13	17.4	41.4	2.51	31.1	0.04			270	205
300 ISL	8.69	8.66	34.273	26.603	148.4	0.554	1.00	15.3	44.0	2.57	32.0	0.03			302	
318	8.55	8.52	34.277	26.628	146.3	0.581	0.92	14.0	45.6	2.60	32.6	0.02			320	204
378	8.03	7.99	34.280	26.710	139.3	0.667	0.77	11.6	51.3	2.72	34.3	0.01			381	203
400 ISL	7.79	7.75	34.279	26.745	136.2	0.697	0.70	10.5	54.1	2.78	35.1	0.01			403	
437	7.39	7.35	34.276	26.800	131.2	0.746	0.61	9.1	58.7	2.86	36.5	0.01			440	202
500 ISL	6.94	6.89	34.260	26.851	127.0	0.828	0.58	8.5	63.7	2.91	37.8	0.02			504	
512	6.85	6.80	34.257	26.861	126.2	0.843	0.57	8.4	64.7	2.92	38.1	0.02			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 8.6 N	121 9.4 W	21/07/06	0640	UTC	2233 m	300	07 kn			1013.6 mb	16.8 C	15.8 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	17.02	17.02	33.438	24.312	360.3	0.000	5.96	108.0	4.1	0.38	1.6	0.09	0.49	0.13	0	
2	17.02	17.02	33.438	24.312	360.4	0.007	5.96	108.0	4.1	0.38	1.6	0.09	0.49	0.13	2	220
2	17.02	17.02	33.438	24.312	360.4	0.007			4.1	0.38	1.6	0.09			2	221
10	15.77	15.77	33.485	24.635	329.8	0.035	5.97	105.6	4.3	0.39	1.8	0.10	0.72	0.15	10	219
20	15.21	15.21	33.539	24.801	314.3	0.067	6.11	106.9	5.9	0.48	3.0	0.20	1.71	0.54	20	218
30	13.64	13.64	33.637	25.210	275.7	0.097	5.49	93.1	8.9	0.86	6.2	0.46	1.76	0.41	30	217
40	12.13	12.12	33.628	25.500	248.2	0.123	4.30	70.6	16.4	1.25	12.5	0.32	0.96	0.46	40	216
50 ISL	10.97	10.96	33.693	25.765	223.2	0.146	3.40	54.5	19.5	1.54	18.1	0.23	0.77	0.40	50	
51	10.87	10.86	33.703	25.790	220.8	0.148	3.32	53.1	19.7	1.57	18.6	0.22	0.75	0.39	51	215
59	10.09	10.08	33.795	25.997	201.2	0.165	2.74	43.1	23.4	1.82	22.5	0.13	0.27	0.26	59	214
70	9.84	9.83	33.855	26.086	193.0	0.187	2.56	40.1	25.2	1.92	24.4	0.07	0.12	0.16	70	213
75 ISL	9.76	9.75	33.883	26.122	189.7	0.197	2.51	39.2	25.9	1.95	24.9	0.06	0.07	0.13	75	
85	9.66	9.65	33.932	26.177	184.7	0.215	2.45	38.2	27.1	1.98	25.4	0.04	0.02	0.09	85	212
100	9.62	9.61	33.972	26.215	181.4	0.243	2.35	36.6	28.2	2.03	25.9	0.04	0.02	0.09	101	211
120	9.54	9.53	34.044	26.285	175.2	0.278	2.08	32.4	30.5	2.13	27.0	0.04	0.01	0.08	121	210
125 ISL	9.49	9.48	34.064	26.309	173.0	0.287	1.99	30.9	31.4	2.16	27.4	0.04	0.01	0.08	126	
140	9.33	9.31	34.119	26.378	166.7	0.313	1.74	27.0	34.1	2.26	28.6	0.03	0.01	0.08	141	209
150 ISL	9.22	9.20	34.146	26.417	163.2	0.329	1.61	24.9	35.7	2.32	29.3	0.03	0.01	0.09	151	
169	9.02	9.00	34.184	26.479	157.6	0.360	1.40	21.6	38.3	2.41	30.3	0.04	0.00	0.10	170	208
199	8.77	8.75	34.218	26.546	151.9	0.406	1.18	18.1	41.4	2.51	31.4	0.03	0.01	0.10	200	207
200 ISL	8.76	8.74	34.219	26.548	151.6	0.408	1.17	17.9	41.5	2.51	31.4	0.03			201	
230	8.46	8.44	34.236	26.608	146.4	0.452	1.05	16.0	44.6	2.58	32.3	0.02			231	206
250 ISL	8.33	8.30	34.239	26.631	144.6	0.481	1.01	15.3	45.9	2.61	32.7	0.02			252	
268	8.20	8.17	34.241	26.652	142.8	0.507	0.97	14.7	47.3	2.64	33.2	0.02			270	205
300 ISL	7.75	7.72	34.262	26.736	135.2	0.552	0.77	11.5	53.4	2.77	34.7	0.02			302	
319	7.46	7.43	34.275	26.788	130.4	0.577	0.65	9.7	57.3	2.85	35.7	0.02			321	204
378	6.91	6.87	34.271	26.862	124.0	0.652	0.55	8.1	64.5	2.96	37.4	0.02			381	203
400 ISL	6.73	6.69	34.270	26.886	121.9	0.679	0.52	7.6	66.9	2.99	38.0	0.02			403	
437	6.45	6.41	34.275	26.927	118.3	0.724	0.46	6.7	70.9	3.03	38.9	0.01			440	202
500 ISL	6.00	5.96	34.312	27.015	110.5	0.796	0.32	4.6	79.4	3.14	40.3	0.01			504	
511	5.92	5.88	34.319	27.030	109.1	0.808	0.29	4.2	80.9	3.16	40.6	0.01			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 50.6 W	21/07/06	1228 UTC	3634 m	320 05 kn			1013.8 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	17.83	17.83	33.425	24.109	379.7	0.000	6.00	110.5	4.0	0.26	0.0	0.01	1.24	0.12	0	
1	17.83	17.83	33.425	24.109	379.7	0.004	6.00	110.5	4.0	0.26	0.0	0.01	1.24	0.12	1	221
10	16.22	16.22	33.414	24.479	344.7	0.036	6.19	110.4	4.0	0.30	0.4	0.04	0.99	0.17	10	220
20	15.79	15.79	33.417	24.579	335.5	0.070	5.90	104.4	4.3	0.37	1.4	0.11	1.10	0.31	20	219
25	15.56	15.56	33.425	24.637	330.2	0.087	5.75	101.2	4.7	0.46	2.0	0.21	1.00	0.28	25	218
30	14.84	14.84	33.441	24.807	314.1	0.103	5.59	97.0	5.7	0.62	3.3	0.44	0.83	0.30	30	217
40	14.17	14.16	33.488	24.985	297.3	0.134	5.48	93.8	7.6	0.76	4.9	0.71	0.50	0.16	40	216
50	13.95	13.94	33.508	25.047	291.8	0.163	5.44	92.7	8.2	0.80	5.5	0.82	0.32	0.15	50	215
60	13.82	13.81	33.520	25.083	288.6	0.192	5.42	92.2	8.5	0.82	6.0	0.85	0.20	0.17	60	214
70	13.64	13.63	33.516	25.117	285.6	0.221	5.35	90.6	8.7	0.85	7.2	1.00	0.16	0.09	70	213
75 ISL	13.58	13.57	33.519	25.132	284.3	0.235	5.33	90.2	8.9	0.86	7.7	0.97	0.14	0.10	75	
85	13.34	13.33	33.527	25.187	279.3	0.263	5.28	88.9	9.7	0.91	9.0	0.92	0.11	0.11	85	212
100	12.36	12.35	33.531	25.383	260.9	0.304	4.83	79.7	12.3	1.10	12.9	0.05	0.06	0.10	100	211
120	10.83	10.82	33.597	25.716	229.4	0.353	3.84	61.3	17.6	1.48	18.7	0.01	0.03	0.08	121	210
125 ISL	10.55	10.54	33.618	25.782	223.3	0.364	3.64	57.8	18.7	1.55	19.7	0.01	0.02	0.08	126	
140	9.93	9.91	33.695	25.948	207.7	0.397	3.13	49.0	22.0	1.74	22.4	0.02	0.01	0.10	141	209
150 ISL	9.69	9.67	33.771	26.047	198.4	0.417	2.80	43.7	24.4	1.86	24.1	0.02	0.01	0.10	151	
169	9.41	9.39	33.915	26.206	183.6	0.453	2.29	35.5	28.9	2.05	26.9	0.01	0.01	0.09	170	208
199	8.99	8.97	34.062	26.389	166.8	0.506	1.85	28.4	34.8	2.25	29.4	0.00	0.01	0.07	200	207
200 ISL	8.98	8.96	34.065	26.393	166.4	0.507	1.84	28.3	35.0	2.25	29.5	0.00			201	
229	8.60	8.58	34.120	26.496	157.1	0.554	1.61	24.5	39.0	2.36	31.0	0.01			230	206
250 ISL	8.33	8.30	34.130	26.545	152.7	0.587	1.54	23.3	41.6	2.41	31.9	0.01			251	
278	8.05	8.02	34.142	26.597	148.1	0.629	1.44	21.7	45.0	2.48	32.8	0.01			280	205
300 ISL	7.97	7.94	34.185	26.643	144.1	0.661	1.22	18.3	47.6	2.58	33.4	0.01			302	
319	7.89	7.86	34.218	26.681	140.9	0.688	1.02	15.3	50.1	2.66	33.9	0.01			321	204
378	6.93	6.89	34.193	26.798	130.0	0.768	0.84	12.3	61.0	2.82	37.0	0.01			380	203
400 ISL	6.64	6.60	34.194	26.838	126.4	0.796	0.76	11.1	64.8	2.88	37.9	0.01			403	
437	6.23	6.19	34.202	26.898	120.8	0.842	0.62	9.0	70.6	2.97	39.2	0.00			440	202
500 ISL	5.82	5.78	34.228	26.971	114.4	0.916	0.47	6.7	78.5	3.07	40.6	0.01			503	
511	5.75	5.71	34.233	26.983	113.3	0.929	0.44	6.3	79.9	3.09	40.9	0.01			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 31.7 W	21/07/06	1853 UTC	3982 m	320 08 kn	340 02 07	2	1014.6 mb	18.4 C	16.8 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	17.40	17.40	32.931	23.833	405.9	0.000	5.78	105.2	1.6	0.29	0.0	0.01	0.26	0.00	0	
1 A	17.40	17.40	32.931	23.833	406.0	0.004	5.78	105.2	1.6	0.29	0.0	0.01	0.26	0.00	1	223
1	17.40	17.40				0.004									1	224
10 ISL	16.68	16.68	32.904	23.982	392.1	0.040	5.83	104.6	1.6	0.29	0.0	0.00	0.23	0.01	10	
14	16.24	16.24	32.904	24.083	382.6	0.055									14	222
14 A	16.24	16.24	32.901	24.081	382.8	0.055	5.86	104.3	1.6	0.29	0.0	0.00	0.23	0.02	14	221
20 ISL	15.96	15.96	32.935	24.170	374.4	0.078	5.90	104.4	1.6	0.29	0.0	0.01	0.26	0.02	20	
24	15.74	15.74	32.970	24.246	367.3	0.093	5.92	104.3	1.6	0.29	0.0	0.01	0.31	0.03	24	220
30 ISL	15.04	15.04	33.040	24.454	347.6	0.114	5.92	102.9	2.0	0.38	1.4	0.06	0.48	0.06	30	
34	14.62	14.62	33.090	24.583	335.5	0.128									34	219
34 A	14.62	14.62	33.090	24.583	335.5	0.128	5.92	102.1	2.4	0.45	2.4	0.09	0.62	0.07	34	218
42	14.45	14.44	33.163	24.676	326.9	0.155	5.85	100.6	2.9	0.54	3.6	0.13	0.90	0.03	42	217
48 A	13.84	13.83	33.056	24.720	322.8	0.174	5.97	101.3	2.4	0.48	2.5	0.09	0.77	0.07	48	216
50 ISL	13.88	13.87	33.087	24.736	321.3	0.181	5.96	101.2	2.6	0.51	3.0	0.10	0.80	0.10	50	
56	14.03	14.02	33.204	24.796	315.8	0.200	5.88	100.2	3.6	0.65	5.1	0.17	0.87	0.18	56	215
63 A	13.38	13.37	33.167	24.900	306.0	0.221	5.82	97.9	4.8	0.73	5.9	0.22	0.62	0.19	63	214
75	11.47	11.46	33.155	25.257	272.1	0.256	4.97	80.3	9.3	1.07	11.7	0.25	0.14	0.11	75	213
88 A	10.86	10.85	33.461	25.604	239.3	0.289	4.23	67.5	13.9	1.41	17.4	0.12	0.17	0.06	88	212
100 ISL	10.12	10.11	33.597	25.839	217.2	0.317	3.93	61.8	17.0	1.52	19.2	0.12	0.09	0.04	100	
104	9.89	9.88	33.623	25.898	211.6	0.325	3.87	60.6	17.9	1.54	19.5	0.12	0.06	0.04	104	211
120	9.52	9.51	33.706	26.024	199.9	0.358	3.45	53.6	21.9	1.69	22.0	0.02	0.01	0.04	121	210
125 ISL	9.40	9.39	33.732	26.064	196.2	0.368	3.43	53.1	22.7	1.71	22.5	0.02	0.01	0.04	126	
139	9.09	9.07	33.805	26.171	186.3	0.395	3.39	52.2	24.7	1.75	23.5	0.01	0.02	0.05	140	209
150 ISL	8.93	8.91	33.867	26.245	179.4	0.415	3.18	48.8	26.8	1.83	24.7	0.01	0.01	0.05	151	
168	8.70	8.68	33.950	26.346	170.1	0.447	2.86	43.7	30.3	1.95	26.5	0.01	0.00	0.04	169	208
199	8.15	8.13	33.988	26.460	159.7	0.498	3.07	46.3	34.4	1.94	27.1	0.01	0.00	0.02	200	207
200 ISL	8.13	8.11	33.989	26.464	159.3	0.499	3.06	46.1	34.6	1.95	27.2	0.01			201	
229	7.78	7.76	34.029	26.547	151.8	0.544	2.48	37.1	40.7	2.16	30.1	0.01			230	206
250 ISL	7.63	7.61	34.057	26.591	147.9	0.576	2.08	31.0	44.3	2.31	31.8	0.01			251	
268	7.57	7.54	34.085	26.622	145.3	0.602	1.75	26.1	47.0	2.43	32.9	0.01			270	205
300 ISL	7.61	7.58	34.159	26.675	140.9	0.648	1.25	18.6	50.4	2.61	34.1	0.01			302	
318	7.62	7.59	34.198	26.704	138.4	0.673	1.03	15.4	52.2	2.69	34.6	0.01			320	204
378	7.02	6.98	34.234	26.818	128.3	0.753	0.70	10.3	61.9	2.88	36.8	0.01			380	203
400 ISL	6.77	6.73	34.236	26.854	125.0	0.781	0.63	9.2	65.5	2.93	37.7	0.01			403	
437	6.35	6.31	34.232	26.906	120.2	0.826	0.54	7.8	71.3	3.01	39.1	0.01			440	202
500 ISL	5.74	5.70	34.224	26.977	113.7	0.900	0.46	6.6	80.1	3.09	40.8	0.00			503	
513	5.62	5.58	34.223	26.991	112.4	0.915	0.44	6.3	81.9	3.11	41.2	0.00			517	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 8.9 N	123 13.4 W	22/07/06	0103	UTC	4232 m	330	10 kn	330 02 06	2	1012.6 mb	18.8 C	17.2 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	18.69	18.69	33.128	23.670	421.5	0.000	5.57	104.1	1.4	0.26	0.1	0.00	0.10	0.01	0	
2	18.69	18.69	33.128	23.670	421.6	0.008	5.57	104.1	1.4	0.26	0.1	0.00	0.10	0.01	2	221
10 ISL	18.14	18.14	33.121	23.801	409.4	0.042	5.57	103.0	1.4	0.26	0.1	0.00	0.09	0.02	10	
15	17.71	17.71	33.126	23.909	399.2	0.062	5.58	102.3							15	220
15	17.71	17.71	33.118	23.903	399.8	0.062	5.58	102.3	1.4	0.26	0.1	0.00	0.08	0.02	15	219
20 ISL	17.67	17.67	33.118	23.913	399.0	0.082	5.59	102.4	1.4	0.26	0.1	0.00	0.08	0.02	20	
30	17.60	17.59	33.117	23.929	397.8	0.122	5.60	102.4	1.5	0.26	0.1	0.00	0.09	0.03	30	218
45	17.35	17.34	33.108	23.983	393.2	0.181	5.64	102.7	1.3	0.25	0.1	0.00	0.14	0.02	45	217
50 ISL	16.87	16.86	33.087	24.080	384.1	0.200	5.76	103.9	1.3	0.25	0.1	0.00	0.15	0.03	50	
60	15.76	15.75	33.069	24.319	361.5	0.238	5.99	105.6	1.4	0.26	0.1	0.00	0.17	0.06	60	216
75	14.60	14.59	33.161	24.643	330.9	0.290	6.00	103.4	1.5	0.28	0.1	0.00	0.24	0.09	75	215
85	14.15	14.14	33.176	24.750	321.0	0.322	5.77	98.6	1.8	0.38	0.9	0.13	0.33	0.20	85	214
95	13.63	13.62	33.247	24.912	305.8	0.354	5.67	95.9	3.1	0.41	1.4	0.13	0.33	0.23	95	213
100 ISL	13.09	13.08	33.263	25.033	294.3	0.369	5.45	91.1	4.3	0.55	3.8	0.13	0.32	0.18	100	
104	12.67	12.66	33.280	25.129	285.3	0.380	5.26	87.2	5.3	0.67	5.9	0.13	0.32	0.16	104	212
115	12.21	12.20	33.381	25.295	269.6	0.411	5.00	82.1	6.3	0.76	7.8	0.04	0.18	0.36	115	211
124	11.50	11.48	33.390	25.435	256.4	0.434	4.79	77.5	8.3	0.93	10.6	0.02	0.15	0.13	125	210
125 ISL	11.43	11.41	33.392	25.449	255.0	0.437	4.77	77.1	8.5	0.95	10.9	0.02	0.15	0.13	126	
139	10.51	10.49	33.446	25.655	235.6	0.471	4.51	71.4	11.7	1.16	14.4	0.01	0.09	0.14	140	209
150 ISL	10.01	9.99	33.534	25.809	221.1	0.496	4.32	67.7	14.5	1.30	16.8	0.00	0.05	0.10	151	
164	9.52	9.50	33.661	25.989	204.1	0.526	4.05	62.9	18.3	1.47	19.5	0.00	0.02	0.04	165	208
194	8.73	8.71	33.866	26.276	177.3	0.583	3.30	50.4	27.4	1.82	25.0	0.00	0.00	0.03	195	207
200 ISL	8.70	8.68	33.903	26.310	174.2	0.594	3.12	47.6	28.7	1.88	25.7	0.00			201	
229	8.62	8.60	34.034	26.425	163.8	0.643	2.42	36.9	34.0	2.11	28.4	0.00			230	206
250 ISL	8.22	8.19	34.047	26.497	157.2	0.677	2.30	34.7	37.9	2.19	29.8	0.00			251	
268	7.84	7.81	34.042	26.549	152.3	0.704	2.26	33.8	41.2	2.24	30.9	0.00			269	205
300 ISL	7.49	7.46	34.077	26.628	145.3	0.752	1.88	27.9	46.6	2.41	32.9	0.00			302	
316	7.36	7.33	34.096	26.661	142.3	0.775	1.67	24.7	49.0	2.49	33.8	0.00			318	204
377	6.87	6.83	34.114	26.744	135.1	0.860	1.30	19.0	56.3	2.65	35.9	0.00			379	203
400 ISL	6.72	6.68	34.134	26.780	131.9	0.890	1.14	16.6	59.3	2.73	36.6	0.00			402	
438	6.46	6.42	34.167	26.841	126.5	0.939	0.88	12.8	64.9	2.87	37.9	0.00			441	202
500 ISL	5.82	5.78	34.181	26.933	117.9	1.015	0.63	9.0	75.9	3.03	40.3	0.00			503	
511	5.71	5.67	34.184	26.949	116.4	1.028	0.59	8.4	77.9	3.06	40.7	0.00			514	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 49.2 N	123 54.7 W	22/07/06	0711	UTC	4363 m	330	08 kn			1013.7 mb	17.9 C	16.7 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	18.13	18.13	33.091	23.780	411.0	0.000	5.56	102.7	1.4	0.27	0.0	0.00	0.09	0.02	0	
2	18.13	18.13	33.091	23.780	411.1	0.008	5.56	102.7	1.4	0.27	0.0	0.00	0.09	0.02	2	222
10 ISL	18.14	18.14	33.142	23.817	407.9	0.041	5.57	103.0	1.3	0.27	0.0	0.00	0.09	0.02	10	
15	18.16	18.16				0.061									15	221
15	18.15	18.15	33.190	23.851	404.8	0.061	5.57	103.0	1.2	0.27	0.0	0.00	0.09	0.02	15	220
20 ISL	17.99	17.99	33.173	23.878	402.4	0.081	5.59	103.1	1.2	0.27	0.0	0.00	0.09	0.02	20	
30	17.56	17.55	33.123	23.943	396.4	0.121									30	219
30	17.56	17.55	33.116	23.938	397.0	0.121	5.64	103.1	1.2	0.27	0.0	0.00	0.09	0.02	30	218
45	16.90	16.89	33.109	24.089	383.0	0.180	5.79	104.5	1.4	0.27	0.0	0.00	0.13	0.03	45	217
50 ISL	16.34	16.33	33.120	24.227	370.0	0.199	5.90	105.3	1.5	0.27	0.0	0.00	0.14	0.04	50	
55	15.77	15.76	33.128	24.362	357.2	0.217	5.99	105.7	1.5	0.27	0.0	0.00	0.17	0.04	55	216
65	15.08	15.07	33.083	24.480	346.3	0.252	5.99	104.2	1.4	0.29	0.1	0.01	0.34	0.10	65	215
75	14.34	14.33	33.056	24.617	333.4	0.286	6.08	104.2	1.1	0.29	0.0	0.00	0.25	0.10	75	214
86	14.15	14.14	33.192	24.762	319.9	0.322	5.96	101.8	1.5	0.29	0.1	0.00	0.34	0.10	86	213
95	13.59	13.58	33.205	24.888	308.1	0.350	5.82	98.3	2.2	0.37	0.5	0.05	0.40	0.20	95	212
100 ISL	13.31	13.30	33.241	24.972	300.2	0.365	5.67	95.2	2.9	0.44	1.6	0.06	0.36	0.22	100	
110	12.67	12.66	33.319	25.159	282.5	0.395	5.27	87.4	5.0	0.64	5.2	0.09	0.23	0.26	110	211
125	11.22	11.20	33.373	25.473	252.8	0.435	4.57	73.5	10.1	1.10	12.7	0.02	0.13	0.20	126	210
145	10.04	10.02	33.530	25.801	221.8	0.482	4.24	66.5	15.0	1.34	17.1	0.01	0.04	0.05	146	209
150 ISL	9.88	9.86	33.565	25.855	216.7	0.493	4.19	65.5	15.9	1.38	17.8	0.01	0.03	0.05	151	
170	9.42	9.40	33.696	26.033	200.1	0.535	3.99	61.8	19.5	1.51	20.1	0.01	0.01	0.05	171	208
199	8.72	8.70	33.876	26.286	176.4	0.589	3.41	52.1	27.1	1.78	24.5	0.01	0.00	0.02	200	207
200 ISL	8.70	8.68	33.881	26.292	175.8	0.591	3.39	51.7	27.3	1.79	24.6	0.01			201	
230	8.28	8.26	33.986	26.439	162.3	0.642	2.93	44.3	33.7	1.97	27.3	0.00			231	206
250 ISL	7.99	7.96	34.015	26.506	156.2	0.674	2.67	40.1	37.8	2.09	29.0	0.00			251	
268	7.73	7.70	34.026	26.553	151.9	0.701	2.45	36.6	41.4	2.20	30.5	0.00			269	205
300 ISL	7.28	7.25	34.046	26.633	144.6	0.749	2.03	30.0	47.8	2.38	33.0	0.00			302	
317	7.06	7.03	34.053	26.669	141.3	0.773	1.83	26.9	51.0	2.47	34.1	0.00			319	204
378	6.39	6.36	34.065	26.768	132.3	0.857	1.45	21.0	60.7	2.69	36.8	0.00			380	203
400 ISL	6.24	6.20	34.083	26.802	129.3	0.885	1.27	18.3	63.8	2.77	37.6	0.00			402	
438	6.01	5.97	34.120	26.861	124.1	0.934	0.96	13.8	69.2	2.89	38.9	0.01			441	202
500 ISL	5.61	5.57	34.170	26.950	116.0	1.008	0.64	9.1	78.8	3.04	40.7	0.00			503	
512	5.53	5.49	34.180	26.968	114.4	1.022	0.58	8.2	80.7	3.07	41.0	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 STATION 81.7 43.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 24.1 N	119 48.0 W	20/07/06	1242 UTC	27 m	250 03 kn			1012.8 mb	17.5 C	16.8 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	17.54	17.54	33.517	24.249	366.3	0.000	5.93	108.6	8.7	0.31	0.1	0.03	7.66	0.47	0	
1	17.54	17.54	33.517	24.249	366.3	0.004	5.93	108.6	8.7	0.31	0.1	0.03	7.66	0.47	1	206
5	15.94	15.94	33.505	24.612	331.8	0.018	5.33	94.6	9.0	0.31	0.3	0.07	5.13	0.95	5	205
10	15.02	15.02	33.495	24.809	313.3	0.034	4.90	85.4	10.7	0.42	0.6	0.11	4.02	0.83	10	203
10	15.10	15.10	33.496	24.792	314.9	0.034									10	204
15	14.85	14.85	33.493	24.844	310.1	0.049	4.98	86.5	10.9	0.47	0.9	0.14	3.95	0.44	15	202
20	13.30	13.30	33.495	25.168	279.3	0.064	4.49	75.5	11.9	0.61	1.9	0.25	2.82	0.58	20	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 16.9 N	120 1.5 W	20/07/06	1752 UTC	581 m	270 06 kn	280 01 09	2	1014.6 mb	18.2 C	16.7 C	08m	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	18.75	18.75	33.539	23.969	393.0	0.000	6.23	116.8	3.1	0.15	0.1	0.00	3.01	0.44	0	
1 A,B	18.75	18.75	33.539	23.969	393.0	0.004	6.23	116.8	3.1	0.15	0.1	0.00	3.01	0.44	1	224
5 A	18.63	18.63	33.536	23.997	390.5	0.020	6.22	116.3	3.2	0.17	0.1	0.00	2.46	0.28	5	223
10 ISL	18.12	18.12	33.530	24.119	379.1	0.039	6.17	114.3	3.7	0.19	0.1	0.01	3.42	0.74	10	
12 A	17.87	17.87	33.534	24.183	373.0	0.046	6.14	113.2	4.1	0.20	0.1	0.01	4.13	0.89	12	222
16 A	17.42	17.42	33.569	24.318	360.3	0.061	6.06	110.8	5.3	0.19	0.1	0.01	5.62	0.52	16	221
20 ISL	16.05	16.05	33.585	24.650	328.8	0.075	5.57	99.1	8.3	0.47	1.8	0.07	3.25	0.29	20	
21 A	15.68	15.68	33.589	24.736	320.6	0.078	5.43	95.9	9.0	0.55	2.3	0.09	2.49	0.27	21	220
29 A	14.72	14.72	33.568	24.930	302.3	0.103	5.15	89.2	9.6	0.69	5.1	0.13	1.84	0.68	29	219
30 ISL	14.69	14.69	33.570	24.938	301.6	0.106	5.14	89.0	9.7	0.70	5.2	0.13	1.79	0.67	30	
40	14.22	14.21	33.591	25.054	290.8	0.136	4.85	83.2	11.4	0.82	6.5	0.18	1.25	0.53	40	218
50	12.46	12.45	33.580	25.400	258.0	0.163	3.91	64.7	13.9	1.15	11.3	0.32	0.35	0.36	50	217
60	11.29	11.28	33.544	25.591	240.0	0.188	3.42	55.1	14.8	1.35	14.6	0.21	0.30	0.25	60	216
75 ISL	10.30	10.29	33.714	25.899	211.0	0.222	2.81	44.4	21.1	1.74	21.2	0.09	0.14	0.19	75	
79	10.16	10.15	33.771	25.967	204.6	0.230	2.70	42.5	23.0	1.83	22.8	0.07	0.10	0.18	79	215
100	9.85	9.84	33.869	26.096	192.7	0.272	2.63	41.2	25.9	1.93	24.3	0.14	0.14	0.05	101	214
120	9.63	9.62	34.037	26.265	177.1	0.309	1.93	30.1	30.6	2.17	27.2	0.08	0.04	0.10	121	213
125 ISL	9.61	9.60	34.055	26.282	175.6	0.318	1.87	29.2	31.1	2.18	27.3	0.08	0.04	0.10	126	
139	9.56	9.54	34.086	26.315	172.8	0.342	1.80	28.0	32.0	2.20	27.6	0.10	0.03	0.11	140	212
150 ISL	9.52	9.50	34.112	26.342	170.4	0.361	1.68	26.2	32.9	2.24	28.1	0.07	0.04	0.12	151	
169	9.43	9.41	34.154	26.390	166.3	0.393	1.46	22.7	34.8	2.33	29.1	0.02	0.05	0.12	170	211
199	9.22	9.20	34.218	26.474	158.8	0.442	1.24	19.2	38.2	2.45	30.2	0.01	0.03	0.11	200	210
200 ISL	9.22	9.20	34.219	26.475	158.8	0.443	1.24	19.2	38.3	2.45	30.2	0.01			201	
229	9.10	9.07	34.239	26.511	155.9	0.489	1.11	17.1	40.5	2.50	30.6	0.01			230	209
250 ISL	8.85	8.82	34.234	26.547	152.8	0.521	1.00	15.3	43.2	2.58	31.5	0.00			252	
268	8.61	8.58	34.225	26.577	150.2	0.549	0.91	13.9	45.8	2.65	32.3	0.00			270	208
300 ISL	8.29	8.26	34.216	26.620	146.6	0.596	0.83	12.6	50.1	2.73	33.0	0.00			302	
318	8.13	8.10	34.213	26.641	144.7	0.622	0.80	12.1	52.5	2.77	33.3	0.00			320	207
397	7.53	7.49	34.217	26.733	137.0	0.733	0.61	9.1	62.2	2.93	33.9	0.00			400	206
400 ISL	7.49	7.45	34.217	26.739	136.4	0.738	0.59	8.8	63.0	2.94	33.9	0.00			403	
477	6.68	6.64	34.228	26.860	125.5	0.838	0.20	2.9	85.7	3.34	31.0	0.00			480	205
500 ISL	6.55	6.50	34.231	26.880	123.8	0.867	0.12	1.7	91.7	3.45	29.5	0.00			503	
511	6.51	6.46	34.232	26.886	123.3	0.881	0.09	1.3	94.6	3.51	28.7	0.00			515	204
541	6.44	6.39	34.235	26.898	122.6	0.918	0.03	0.4	102.9	3.74	25.8	0.01			545	203
564	6.41	6.36	34.240	26.906	122.1	0.946	0.01	0.1	115.0	4.32	20.2	0.00			568	202
568	6.41	6.36	34.238	26.905	122.3	0.951	0.01	0.1	115.0	4.35	20.1	0.00			572	201

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

RV NEW HORIZON CALCOFI CRUISE 0607 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 15.4 N	119 19.7 W	20/07/06	0657 UTC	21 m	280 06 kn			1012.9 mb	17.9 C	17.2 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	18.56	18.56	33.457	23.954	394.5	0.000	6.04	112.8	4.6	0.19	0.1	0.00	0.74	0.17	0	
1	18.56	18.56	33.457	23.954	394.5	0.004	6.04	112.8	4.6	0.19	0.1	0.00	0.74	0.17	1	205
5	18.45	18.45	33.457	23.981	392.0	0.020	6.07	113.1	4.5	0.20	0.1	0.00	0.79	0.30	5	204
10	17.01	17.01	33.450	24.324	359.5	0.038	6.14	111.3	4.6	0.22	0.1	0.00	1.50	0.65	10	202
10	16.96	16.96	33.450	24.336	358.4	0.038									10	203
15	16.23	16.23	33.449	24.504	342.5	0.056	5.99	106.9	5.5	0.27	0.1	0.01	2.05	0.86	15	201

RV NEW HORIZON CALCOFI CRUISE 0607 STATION 81.7 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 24.9 W	20/07/06	0811 UTC	37 m	280 04 kn			1013.1 mb	17.8 C	16.9 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	19.72	19.72	33.492	23.686	420.0	0.000	6.46	123.3	7.0	0.10	0.1	0.00	1.28	0.23	0	
2	19.72	19.72	33.492	23.686	420.1	0.008	6.46	123.3	7.0	0.10	0.1	0.00	1.28	0.23	2	206
5	18.13	18.13	33.464	24.065	384.0	0.020									5	205
10	16.40	16.40	33.454	24.469	345.7	0.039	5.92	106.0	5.3	0.25	0.1	0.01	1.20	0.56	10	204
10	16.21	16.21	33.454	24.512	341.5	0.039	5.90	105.3	5.4	0.26	0.0	0.00	1.31	0.64	10	203
20	13.52	13.52	33.446	25.086	287.1	0.070	5.03	85.0	8.6	0.57	2.2	0.15	1.97	0.83	20	202
30	13.23	13.23	33.455	25.152	281.2	0.099	4.76	79.9	9.5	0.74	4.0	0.19	1.51	0.61	30	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 10.7 N	119 30.8 W	20/07/06	0407	UTC	155 m	280	09 kn			1012.0 mb	18.1 C	17.3 C				

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	19.82	19.82	33.501	23.667	421.8	0.000	5.79	110.7	2.3	0.15	0.0	0.01	0.53	0.12	0	
1	19.82	19.82	33.501	23.667	421.9	0.004									1	215
1	19.82	19.82	33.501	23.667	421.9	0.004	5.79	110.7	2.3	0.15	0.0	0.01	0.53	0.12	1	214
10	19.11	19.11	33.489	23.840	405.6	0.041	5.91	111.5	2.4	0.15	0.0	0.01	0.57	0.13	10	212
11	19.10	19.10	33.489	23.843	405.4	0.046									11	213
20 ISL	17.49	17.49	33.461	24.219	369.9	0.080	6.09	111.4	2.9	0.22	0.0	0.01	1.29	0.24	20	
21	17.28	17.28	33.458	24.267	365.3	0.084	6.10	111.1	3.0	0.23	0.0	0.01	1.35	0.25	21	211
30	14.95	14.95	33.420	24.767	317.9	0.115	5.87	102.1	4.7	0.40	1.2	0.06	0.94	0.30	30	210
40	12.80	12.79	33.460	25.241	272.9	0.144	4.69	78.1	9.6	0.86	7.6	0.17	0.77	0.29	40	209
50	11.25	11.24	33.557	25.609	238.1	0.170	3.53	56.9	15.5	1.37	15.5	0.12	0.38	0.32	50	208
61	10.52	10.51	33.658	25.817	218.5	0.195	2.99	47.5	19.7	1.66	20.1	0.05	0.17	0.23	61	207
71	10.22	10.21	33.737	25.930	207.9	0.216	2.49	39.3	23.1	1.86	23.3	0.02	0.04	0.10	71	206
75 ISL	10.16	10.15	33.754	25.954	205.7	0.225	2.46	38.8	23.7	1.88	23.6	0.02	0.04	0.09	75	
85	10.08	10.07	33.788	25.994	202.1	0.245	2.37	37.3	24.7	1.92	24.3	0.02	0.03	0.08	85	205
100	9.93	9.92	33.864	26.079	194.4	0.275	2.25	35.3	26.5	2.00	25.2	0.02	0.01	0.08	100	204
119	9.77	9.76	33.954	26.176	185.5	0.311	2.14	33.5	28.7	2.07	26.0	0.02	0.01	0.10	120	203
125 ISL	9.73	9.72	33.977	26.201	183.3	0.322	2.11	33.0	29.3	2.08	26.2	0.02	0.01	0.12	126	
139	9.66	9.64	34.008	26.237	180.2	0.347	2.07	32.3	30.2	2.11	26.5	0.03	0.01	0.14	140	202
146	9.66	9.64	34.004	26.234	180.6	0.360	2.07	32.3	30.2	2.12	26.4	0.04	0.01	0.12	147	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 52.7 N	120 8.0 W	19/07/06	2216	UTC	102 m	250	07 kn	260 02 07	4	1012.0 mb	19.1 C	18.1 C	11m	8/8		ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	19.67	19.67	33.522	23.722	416.6	0.000	5.79	110.4	0.0	0.17	0.1	0.00	0.50	0.01	0	
2	19.67	19.67	33.522	23.722	416.7	0.008	5.79	110.4	0.0	0.17	0.1	0.00	0.50	0.01	2	211
10	18.44	18.44	33.511	24.025	388.0	0.041	5.93	110.5	0.0	0.17	0.1	0.00	0.56	0.06	10	209
10	18.41	18.41	33.514	24.035	387.1	0.041									10	210
20	16.23	16.23	33.509	24.550	338.3	0.077	5.91	105.5	3.0	0.35	1.3	0.05	1.88	0.04	20	208
30	11.78	11.78	33.554	25.509	247.1	0.106	4.00	65.2	13.7	1.24	14.0	0.33	1.05	0.44	30	207
40	10.74	10.74	33.613	25.743	225.0	0.130	3.36	53.6	17.8	1.54	18.7	0.10	0.42	0.15	40	206
50 ISL	10.77	10.76	33.672	25.784	221.4	0.152	3.11	49.6	19.5	1.61	19.2	0.13	0.37	0.24	50	
51	10.77	10.76	33.676	25.787	221.1	0.154	3.09	49.3	19.7	1.62	19.2	0.13	0.37	0.25	51	205
60	10.27	10.26	33.777	25.953	205.5	0.173	2.69	42.5	23.1	1.82	22.3	0.06	0.12	0.14	60	204
70	10.12	10.11	33.834	26.023	199.1	0.194	2.52	39.7	24.9	1.90	23.4	0.07	0.11	0.12	70	203
75 ISL	10.04	10.03	33.856	26.054	196.2	0.204	2.46	38.7	25.5	1.93	23.8	0.06	0.09	0.12	75	
80	9.97	9.96	33.878	26.083	193.6	0.213	2.39	37.5	26.0	1.96	24.3	0.05	0.07	0.13	80	202
90	9.83	9.82	33.941	26.156	186.9	0.232	2.21	34.6	27.8	2.05	25.4	0.05	0.04	0.13	90	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 44.7 N	120 24.7 W	19/07/06	1807	UTC	968 m	160	05 kn	310 02 10	2	1013.1 mb	18.5 C	17.9 C	07m	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	17.71	17.71	33.558	24.239	367.2	0.000	6.32	116.2	5.6	0.30	0.1	0.02	2.97	0.06	0	
1 A	17.71	17.71	33.558	24.240	367.3	0.004	6.32	116.2	5.6	0.30	0.1	0.02	2.97	0.06	1	224
4 A	16.19	16.19	33.552	24.592	333.8	0.014	6.19	110.5	6.5	0.35	0.7	0.03	3.68	0.00	4	223
10 ISL	15.03	15.03	33.564	24.860	308.4	0.033	5.77	100.6	8.1	0.51	2.9	0.05	3.89	0.29	10	
11	15.01	15.01	33.559	24.860	308.4	0.037									11	222
11 A	15.00	15.00	33.564	24.866	307.8	0.037	5.70	99.3	8.3	0.53	3.2	0.05	3.93	0.37	11	221
14 A	14.84	14.84	33.560	24.898	304.9	0.046	5.59	97.1	8.5	0.56	3.7	0.05	3.55	0.61	14	220
18 A	14.82	14.82	33.561	24.903	304.6	0.058	5.52	95.8	8.6	0.57	3.9	0.05	3.96	0.10	18	219
20 ISL	14.73	14.73	33.561	24.922	302.8	0.064	5.44	94.3	8.9	0.59	4.2	0.05	3.90	0.12	20	
26 A	13.98	13.98	33.565	25.084	287.5	0.082	4.96	84.7	9.8	0.76	6.7	0.09	3.07	0.44	26	218
30 ISL	12.90	12.90	33.586	25.319	265.3	0.093	4.36	72.8	12.4	1.02	10.4	0.14	2.13	0.40	30	
32	12.32	12.32	33.603	25.445	253.3	0.098	4.05	66.8	13.9	1.16	12.5	0.16	1.65	0.35	32	217
40	10.61	10.61	33.667	25.808	218.9	0.117	3.17	50.4	19.1	1.59	19.1	0.16	0.68	0.19	40	216
49	10.15	10.14	33.725	25.932	207.2	0.136	2.87	45.2	21.6	1.75	21.9	0.09	0.24	0.13	49	215
50 ISL	10.11	10.10	33.739	25.950	205.5	0.138	2.84	44.7	22.0	1.77	22.2	0.09	0.23	0.13	50	
60	9.85	9.84	33.873	26.099	191.6	0.158	2.56	40.1	25.7	1.92	24.3	0.06	0.13	0.10	60	214
69	9.73	9.72	33.911	26.149	187.1	0.175	2.42	37.8	27.0	1.98	25.3	0.04	0.11	0.10	69	213
75 ISL	9.63	9.62	33.958	26.202	182.1	0.186	2.25	35.1	28.8	2.05	26.2	0.04	0.09	0.10	75	
85	9.46	9.45	34.035	26.290	173.9	0.204	1.98	30.8	31.9	2.16	27.5	0.04	0.05	0.09	85	212
100	9.23	9.22	34.085	26.367	166.9	0.229	1.80	27.8	34.5	2.24	28.6	0.02	0.02	0.09	101	211
119	9.10	9.09	34.121	26.416	162.6	0.261	1.64	25.3	36.0	2.31	29.4	0.01	0.02	0.08	120	210
125 ISL	9.06	9.05	34.133	26.432	161.2	0.270	1.61	24.8	36.5	2.32	29.6	0.01	0.02	0.07	126	
140	8.97	8.95	34.158	26.466	158.3	0.294	1.54	23.7	37.5	2.35	30.1	0.02	0.01	0.06	141	209
150 ISL	8.94	8.92	34.167	26.478	157.3	0.310	1.49	22.9	38.0	2.37	30.3	0.02	0.01	0.06	151	
169	8.91	8.89	34.178	26.492	156.4	0.340	1.41	21.7	38.8	2.40	30.5	0.01	0.01	0.07	170	208
200	8.84	8.82	34.194	26.516	154.7	0.388	1.39	21.3	39.7	2.42	30.7	0.03	0.01	0.06	201	207
229	8.53	8.51	34.245	26.605	146.8	0.432	1.06	16.1	44.7	2.58	32.1	0.03			230	206
250 ISL	8.28	8.25	34.259	26.654	142.4	0.462	0.92	13.9	48.0	2.66	32.9	0.02			252	
269	8.07	8.04	34.264	26.690	139.2	0.489	0.83	12.5	50.6	2.71	33.5	0.01			271	205
300 ISL	7.83	7.80	34.270	26.730	135.8	0.532	0.75	11.2	53.4	2.77	34.3	0.00			302	
318	7.71	7.68	34.271	26.749	134.3	0.556	0.72	10.8	54.7	2.80	34.7	0.00			320	204
378	7.32	7.28	34.277	26.810	129.2	0.635	0.60	8.9	60.3	2.89	36.1	0.00			381	203
400 ISL	7.22	7.18	34.279	26.826	128.0	0.663	0.57	8.4	61.7	2.91	36.4	0.00			403	
437	7.04	7.00	34.282	26.854	125.8	0.710	0.52	7.7	64.1	2.95	37.0	0.00			440	202
500 ISL	6.62	6.57	34.295	26.921	120.0	0.788	0.42	6.1	70.1	3.03	38.3	0.00			504	
511	6.55	6.50	34.297	26.932	119.1	0.801	0.40	5.8	71.1	3.04	38.5	0.00			515	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 34.9 N	120 45.7 W	19/07/06	1314 UTC	1454 m	230 04 kn	320 03 10	4	1011.7 mb	16.5 C	15.8 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	15.76	15.76	33.574	24.706	322.8	0.000	6.43	113.8	8.3	0.46	0.9	0.08	7.76	1.29	0	
2	15.76	15.76	33.574	24.706	322.8	0.006	6.43	113.8	8.3	0.46	0.9	0.08	7.76 A	1.29 A	2	221
10	14.68	14.68	33.571	24.940	300.7	0.031	6.25	108.2	8.9	0.52	2.4	0.09	2.04	0.34	10	219
10	14.72	14.72	33.574	24.934	301.3	0.031									10	220
18	14.49	14.49	33.575	24.984	296.8	0.055	5.89	101.6	9.2	0.58	3.3	0.09	1.34	0.29	18	218
20 ISL	14.47	14.47	33.573	24.987	296.6	0.061	5.87	101.2	9.2	0.58	3.4	0.09	1.35	0.25	20	
30	14.39	14.39	33.563	24.997	296.0	0.091	5.76	99.1	9.4	0.61	3.9	0.10	1.38	0.09	30	217
41	12.78	12.77	33.634	25.380	259.7	0.121	5.04	83.9	15.3	1.12	10.8	0.39	0.43	0.26	41	216
50	11.47	11.46	33.691	25.673	232.0	0.144	4.24	68.7	19.0	1.46	17.2	0.49	0.23	0.33	50	215
60	10.39	10.38	33.747	25.909	209.7	0.166	3.18	50.4	22.3	1.75	22.2	0.05	0.14	0.23	60	214
70	9.89	9.88	33.766	26.009	200.4	0.186	2.99	46.8	23.7	1.82	23.5	0.03	0.05	0.13	70	213
75 ISL	9.76	9.75	33.799	26.056	196.0	0.196	2.82	44.0	24.6	1.88	24.3	0.03	0.04	0.12	75	
85	9.61	9.60	33.878	26.143	187.9	0.215	2.47	38.5	26.6	1.99	25.8	0.03	0.03	0.10	85	212
100	9.41	9.40	33.964	26.243	178.7	0.243	2.18	33.8	29.6	2.10	27.2	0.04	0.02	0.11	101	211
119	9.03	9.02	34.048	26.370	167.0	0.276	1.94	29.9	33.5	2.22	29.0	0.04	0.01	0.13	120	210
125 ISL	9.03	9.02	34.067	26.385	165.7	0.286	1.89	29.1	33.9	2.24	29.2	0.04	0.02	0.12	126	
139	9.02	9.00	34.092	26.407	163.9	0.309	1.78	27.4	34.6	2.27	29.4	0.03	0.03	0.08	140	209
150 ISL	8.93	8.91	34.107	26.433	161.6	0.327	1.71	26.3	35.7	2.30	29.8	0.03	0.03	0.08	151	
169	8.73	8.71	34.133	26.485	157.0	0.357	1.59	24.3	38.0	2.36	30.6	0.03	0.02	0.10	170	208
199	8.53	8.51	34.195	26.565	149.9	0.403	1.29	19.6	42.1	2.49	31.7	0.02	0.01	0.08	200	207
200 ISL	8.53	8.51	34.197	26.567	149.8	0.404	1.28	19.5	42.2	2.49	31.7	0.02			201	
229	8.46	8.44	34.242	26.613	145.9	0.447	1.06	16.1	44.6	2.58	32.3	0.02			230	206
250 ISL	8.22	8.19	34.247	26.654	142.4	0.478	1.00	15.1	47.1	2.63	33.0	0.02			252	
269	7.95	7.92	34.246	26.693	138.8	0.504	0.96	14.4	49.9	2.68	33.7	0.02			271	205
300 ISL	7.56	7.53	34.260	26.761	132.7	0.546	0.77	11.5	55.4	2.80	35.0	0.02			302	
318	7.36	7.33	34.270	26.798	129.4	0.570	0.65	9.6	58.6	2.87	35.8	0.02			320	204
378	6.89	6.85	34.285	26.876	122.7	0.646	0.50	7.3	65.0	2.98	37.3	0.01			381	203
400 ISL	6.74	6.70	34.290	26.900	120.6	0.672	0.45	6.6	67.3	3.02	37.8	0.01			403	
437	6.51	6.47	34.299	26.938	117.3	0.716	0.37	5.4	71.1	3.08	38.5	0.01			440	202
500 ISL	6.18	6.14	34.310	26.990	113.0	0.789	0.31	4.5	76.4	3.13	39.6	0.01			504	
512	6.12	6.07	34.312	27.000	112.2	0.802	0.30	4.3	77.4	3.14	39.8	0.01			516	201

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

RV NEW HORIZON CALCOFI CRUISE 0607 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 14.8 N	121 26.7 W	19/07/06	0653 UTC	3801 m	260 03 kn			1011.7 mb	17.0 C	16.0 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	15.72	15.72	33.414	24.592	333.7	0.000	5.97	105.5	5.2	0.49	3.0	0.19	0.93	0.28	0	
2	15.72	15.72	33.414	24.592	333.7	0.007	5.97	105.5	5.2	0.49	3.0	0.19	0.93	0.28	2	221
10 ISL	14.90	14.90	33.450	24.800	314.1	0.033	6.01	104.4	6.2	0.55	3.9	0.31	1.68	0.56	10	
11	14.78	14.78	33.455	24.830	311.3	0.036			6.4	0.56	4.1	0.33			11	220
11	14.77	14.77	33.456	24.833	311.0	0.036	6.01	104.2	6.4	0.56	4.0	0.33	1.77	0.60	11	219
20 ISL	14.36	14.36	33.471	24.932	301.9	0.063	5.76	99.0	7.1	0.67	4.7	0.40	1.15	0.38	20	
21	14.34	14.34	33.472	24.937	301.4	0.066	5.73	98.5	7.2	0.68	4.8	0.40	1.05	0.35	21	218
30	14.15	14.15	33.510	25.006	295.1	0.093	5.73	98.1	8.4	0.74	5.5	0.43	0.83	0.30	30	217
40	13.80	13.79	33.575	25.129	283.6	0.122	5.65	96.1	11.2	0.84	6.5	0.44	0.44	0.20	40	216
50	10.75	10.74	33.413	25.586	240.2	0.148	4.52	72.0	11.7	1.18	14.1	0.09	0.10	0.09	50	215
60	10.32	10.31	33.528	25.750	224.8	0.172	4.11	64.9	15.7	1.41	17.9	0.04	0.05	0.07	60	214
70	10.16	10.15	33.567	25.808	219.5	0.194	3.94	62.0	17.2	1.49	18.9	0.03	0.04	0.05	70	213
75 ISL	10.02	10.01	33.593	25.852	215.4	0.205	3.84	60.2	18.2	1.53	19.6	0.03	0.04	0.05	75	
84	9.77	9.76	33.649	25.938	207.4	0.224	3.60	56.2	20.4	1.63	21.1	0.03	0.03	0.05	84	212
100	9.68	9.67	33.777	26.053	196.8	0.256	2.80	43.7	24.5	1.87	24.2	0.02	0.02	0.06	101	211
119	9.41	9.40	33.894	26.189	184.3	0.292	2.41	37.4	28.4	2.02	26.3	0.02	0.01	0.05	120	210
125 ISL	9.32	9.31	33.916	26.221	181.3	0.303	2.40	37.1	29.1	2.03	26.6	0.02	0.01	0.05	126	
139	9.10	9.08	33.955	26.287	175.3	0.328	2.38	36.7	30.5	2.05	27.2	0.02	0.01	0.06	140	209
150 ISL	8.93	8.91	33.980	26.333	171.0	0.347	2.36	36.2	31.7	2.06	27.6	0.02	0.01	0.06	151	
169	8.64	8.62	34.019	26.410	164.1	0.379	2.33	35.5	34.4	2.11	28.6	0.02	0.01	0.05	170	208
200	8.26	8.24	34.102	26.533	152.8	0.428	1.76	26.6	41.0	2.34	31.3	0.03	0.00	0.04	201	207
229	7.62	7.60	34.074	26.606	146.2	0.471	1.91	28.5	45.4	2.36	32.3	0.02			230	206
250 ISL	7.49	7.47	34.096	26.642	143.1	0.502	1.69	25.1	48.2	2.46	33.3	0.01			252	
269	7.44	7.41	34.123	26.670	140.6	0.529	1.42	21.1	50.7	2.56	34.2	0.01			271	205
300 ISL	7.10	7.07	34.137	26.729	135.4	0.572	1.20	17.7	55.4	2.67	35.6	0.01			302	
318	6.88	6.85	34.143	26.764	132.2	0.596	1.10	16.1	58.2	2.73	36.3	0.01			320	204
378	6.47	6.44	34.184	26.852	124.5	0.673	0.77	11.2	66.5	2.90	38.1	0.00			380	203
400 ISL	6.29	6.25	34.195	26.884	121.6	0.700	0.68	9.8	69.7	2.95	38.8	0.00			403	
437	6.02	5.98	34.215	26.935	117.1	0.744	0.54	7.8	74.8	3.03	39.8	0.00			440	202
500 ISL	5.77	5.73	34.266	27.007	110.9	0.816	0.36	5.1	81.3	3.12	40.8	0.00			503	
512	5.72	5.68	34.276	27.021	109.7	0.829	0.32	4.6	82.5	3.14	41.0	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 8.0 W	19/07/06	0035 UTC	4186 m	330 02 kn	300 04 07	2	1011.8 mb	19.0 C	17.5 C	13m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.62	16.62	33.398	24.375	354.3	0.000	5.99	107.7	4.6	0.39	1.9	0.12	0.70	0.18	0	
1	16.62	16.62	33.398	24.375	354.3	0.004	5.99	107.7	4.6	0.39	1.9	0.12	0.70	0.18	1	221
1	16.69	16.69	33.398	24.358	355.9	0.004									1	222
10	15.83	15.83	33.406	24.561	336.9	0.035	6.11	108.2	5.5	0.41	2.1	0.14	1.31	0.29	10	219
10	15.89	15.89	33.404	24.546	338.3	0.035									10	220
20	15.20	15.20	33.504	24.777	316.7	0.067	6.22	108.8	8.8	0.49	3.2	0.21	1.79	0.57	20	218
30	14.82	14.82	33.536	24.884	306.7	0.099	5.99	104.0	10.0	0.61	4.3	0.31	1.25	0.39	30	217
40	13.54	13.53	33.583	25.189	278.0	0.128	5.60	94.7	12.6	0.91	8.4	0.59	0.62	0.29	40	216
50	12.95	12.94	33.593	25.315	266.2	0.155	5.23	87.4	13.5	1.04	11.0	0.76	0.37	0.25	50	215
60	12.62	12.61	33.619	25.400	258.3	0.181	5.04	83.6	14.8	1.13	12.7	0.58	0.21	0.26	60	214
70	12.23	12.22	33.655	25.503	248.7	0.207	4.93	81.2	17.0	1.25	14.3	0.54	0.14	0.18	70	213
75 ISL	11.85	11.84	33.652	25.573	242.2	0.219	4.67	76.3	17.6	1.32	15.7	0.38	0.11	0.16	75	
85	11.03	11.02	33.646	25.718	228.5	0.242	4.02	64.5	18.7	1.48	18.6	0.06	0.06	0.13	85	212
100	10.15	10.14	33.696	25.911	210.4	0.275	3.16	49.8	21.5	1.71	22.1	0.03	0.04	0.11	100	211
120	9.59	9.58	33.894	26.159	187.1	0.315	2.36	36.7	27.9	2.02	26.2	0.02	0.03	0.12	121	210
125 ISL	9.44	9.43	33.911	26.197	183.6	0.324	2.38	36.9	28.7	2.03	26.7	0.02	0.02	0.11	126	
139	9.04	9.03	33.932	26.278	176.1	0.350	2.43	37.4	30.3	2.06	27.4	0.03	0.01	0.07	140	209
150 ISL	8.78	8.76	33.946	26.330	171.3	0.369	2.62	40.1	31.1	2.02	27.3	0.05	0.01	0.07	151	
169	8.44	8.42	33.969	26.401	164.8	0.401	2.87	43.6	32.5	1.96	27.1	0.08	0.01	0.06	170	208
199	8.20	8.18	34.028	26.484	157.4	0.449	2.37	35.8	37.6	2.14	29.5	0.04	0.01	0.04	200	207
200 ISL	8.18	8.16	34.028	26.487	157.2	0.451	2.36	35.6	37.8	2.15	29.6	0.04			201	
228	7.56	7.54	34.027 D	26.577	148.8	0.493									229	206
250 ISL	7.20	7.18	34.030	26.631	143.9	0.526	2.00	29.5	47.7	2.38	33.0	0.03			251	
269	6.94	6.91	34.034	26.670	140.4	0.553	1.92	28.2	51.5	2.45	34.1	0.02			271	205
300 ISL	6.54	6.51	34.044	26.731	134.8	0.595	1.67	24.3	57.0	2.57	35.8	0.01			302	
318	6.33	6.30	34.051	26.764	131.8	0.619	1.53	22.1	60.1	2.64	36.7	0.01			320	204
378	5.71	5.68	34.080	26.866	122.5	0.695	1.13	16.1	71.3	2.85	39.3	0.01			380	203
400 ISL	5.58	5.55	34.095	26.894	120.0	0.722	1.01	14.3	74.2	2.90	39.9	0.01			403	
437	5.42	5.38	34.126	26.938	116.2	0.766	0.82	11.6	78.7	2.98	40.7	0.01			440	202
500 ISL	5.18	5.14	34.204	27.028	108.2	0.837	0.45	6.3	87.7	3.12	42.1	0.01			503	
512	5.13	5.09	34.219	27.046	106.6	0.849	0.38	5.3	89.4	3.15	42.4	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 34.4 N	122 49.1 W	18/07/06	1818 UTC	4254 m	250 08 kn	340 04 08	2	1013.3 mb	17.9 C	16.8 C	33m	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	17.25	17.25	33.076	23.980	391.9	0.000	5.61	101.9	1.7	0.27	0.1	0.00	0.11	0.00	0	
1 A	17.25	17.25	33.076	23.980	392.0	0.004	5.61	101.9	1.7	0.27	0.1	0.00	0.11	0.00	1	223
10 ISL	17.19	17.19	33.078	23.996	390.7	0.039	5.60	101.6	1.7	0.27	0.1	0.00	0.10	0.02	10	
11	17.18	17.18	33.078	23.999	390.5	0.043	5.60	101.6	1.7	0.27	0.1	0.00	0.10	0.02	11	221
11	17.18	17.18	33.085	24.004	390.0	0.043									11	222
18 A	17.17	17.17	33.076	24.000	390.7	0.070	5.62	101.9	1.6	0.27	0.1	0.00	0.13	0.01	18	220
20 ISL	17.14	17.14	33.073	24.005	390.3	0.078	5.62	101.9	1.6	0.27	0.1	0.00	0.13	0.01	20	
29	17.02	17.02	33.060	24.023	388.8	0.113	5.63	101.8	1.7	0.28	0.1	0.00	0.15	0.01	29	219
30 ISL	16.91	16.91	33.050	24.041	387.1	0.117	5.65	101.9	1.7	0.28	0.1	0.00	0.16	0.02	30	
38	15.93	15.92	32.975	24.208	371.4	0.147	5.85	103.5	1.6	0.29	0.1	0.00	0.27	0.07	38	218
49 A	15.36	15.35	32.980	24.339	359.2	0.188	5.92	103.5	1.5	0.32	0.4	0.03	0.46	0.16	49	217
50 ISL	15.33	15.32	32.979	24.345	358.7	0.191	5.92	103.5	1.5	0.32	0.4	0.03	0.46	0.16	50	
59	15.13	15.12	32.976	24.386	355.0	0.223	5.87	102.2	1.4	0.36	0.7	0.04	0.41	0.11	59	216
68 A	14.87	14.86	32.984	24.449	349.2	0.255	5.88	101.8	1.4	0.38	0.9	0.05	0.37	0.09	68	215
75 ISL	14.70	14.69	33.025	24.517	342.9	0.279	5.87	101.3	2.0	0.43	1.7	0.09	0.35	0.10	75	
78	14.64	14.63	33.044	24.545	340.4	0.290	5.87	101.2	2.2	0.45	2.1	0.11	0.35	0.10	78	214
89 A	14.44	14.43	33.067	24.605	334.9	0.327	5.89	101.1	2.2	0.49	2.5	0.12	0.37	0.07	89	213
100	13.30	13.29	33.206	24.947	302.5	0.362	5.57	93.5	3.6	0.53	3.1	0.21	0.20	0.13	100	212
113	12.47	12.46	33.367	25.235	275.3	0.399	5.05	83.4	6.4	0.75	7.5	0.06	0.15	0.13	113	211
124 A	11.71	11.69	33.371	25.382	261.5	0.429	4.81	78.2	8.3	0.93	10.3	0.03	0.11	0.10	125	210
125 ISL	11.62	11.60	33.375	25.401	259.6	0.431	4.78	77.5	8.6	0.95	10.6	0.03	0.11	0.10	126	
139	10.40	10.38	33.460	25.685	232.7	0.466	4.41	69.7	12.8	1.22	15.2	0.02	0.07	0.07	140	209
150 ISL	9.88	9.86	33.526	25.824	219.6	0.491	4.14	64.7	15.8	1.38	17.9	0.02	0.04	0.05	151	
170	9.41	9.39	33.650 D	25.999	203.3	0.533	3.69	57.1	20.7	1.61	21.5	0.01	0.01	0.03	171	208
199	9.02	9.00	33.874	26.237	181.2	0.589	3.12	47.9	26.9	1.83	25.0	0.00	0.00	0.02	200	207
200 ISL	9.00	8.98	33.880	26.245	180.4	0.591	3.10	47.6	27.1	1.84	25.1	0.00			201	
230	8.55	8.53	34.002	26.411	165.1	0.642	2.66	40.5	33.2	2.02	27.8	0.00			231	206
250 ISL	8.28	8.25	34.048	26.488	158.0	0.675	2.32	35.1	37.4	2.16	29.7	0.00			251	
270	8.03	8.00	34.078	26.550	152.5	0.706	1.99	29.9	41.5	2.29	31.4	0.00			271	205
300 ISL	7.69	7.66	34.113	26.627	145.4	0.750	1.59	23.7	47.0	2.46	33.3	0.00			302	
318	7.51	7.48	34.130	26.667	141.9	0.776	1.39	20.7	50.0	2.55	34.2	0.00			320	204
377	7.10	7.06	34.195	26.776	132.2	0.857	0.89	13.1	58.3	2.77	36.3	0.01			379	203
400 ISL	6.75	6.71	34.181	26.813	128.8	0.887	0.84	12.3	62.3	2.82	37.4	0.01			402	
438	6.20	6.16	34.156	26.865	123.9	0.935	0.81	11.7	68.6	2.89	39.0	0.01			441	202
500 ISL	5.95	5.91	34.208	26.939	117.6	1.010	0.52	7.5	75.8	3.03	40.2	0.00			503	
512	5.90	5.86	34.218	26.953	116.3	1.024	0.46	6.6	77.2	3.06	40.4	0.00			515	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 14.8 N	123 29.9 W	18/07/06	1150 UTC	4139 m	320 12 kn			1012.9 mb	17.7 C	16.4 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	18.60	18.60	33.394	23.896	400.0	0.000	5.44	101.6	1.5	0.25	0.1	0.00	0.10	0.01	0	
2	18.60	18.60	33.394	23.896	400.1	0.008	5.44	101.6	1.5	0.25	0.1	0.00	0.10	0.01	2	221
10	18.60	18.60	33.393	23.895	400.4	0.040	5.44	101.6	1.5	0.25	0.1	0.00	0.09	0.02	10	220
15	18.60	18.60	33.395	23.897	400.4	0.060	5.44	101.6	1.5	0.25	0.1	0.00	0.10	0.01	15	219
20 ISL	18.60	18.60	33.395	23.897	400.6	0.080	5.44	101.6	1.5	0.25	0.1	0.00	0.11	0.01	20	
30	18.60	18.59	33.394	23.897	400.9	0.120	5.45	101.8	1.4	0.25	0.1	0.00	0.11	0.01	30	218
45	18.42	18.41	33.372	23.925	398.7	0.180	5.47	101.8	1.4	0.25	0.1	0.00	0.12	0.01	45	217
50 ISL	17.51	17.50	33.270	24.069	385.2	0.200	5.65	103.3	1.4	0.25	0.1	0.00	0.12	0.02	50	
60	15.65	15.64	33.111	24.376	356.0	0.237	5.98	105.3	1.5	0.26	0.1	0.00	0.12	0.05	60	216
75	15.15	15.14	33.187	24.545	340.4	0.289	5.90	102.9	1.5	0.27	0.1	0.00	0.22	0.05	75	215
85	14.92	14.91	33.222	24.622	333.3	0.323	5.86	101.7	1.7	0.27	0.1	0.00	0.22	0.13	85	214
95	14.50	14.49	33.223	24.713	324.9	0.356	5.81	100.0	1.9	0.30	0.1	0.00	0.26	0.23	95	213
100 ISL	14.22	14.21	33.257	24.798	316.9	0.372	5.74	98.2	2.0	0.32	0.2	0.00	0.30	0.32	100	
105	13.93	13.92	33.300	24.892	308.0	0.387	5.64	96.0	2.3	0.35	0.3	0.01	0.33	0.40	105	212
115	13.38	13.36	33.366	25.055	292.7	0.417	5.36	90.2	3.4	0.48	2.6	0.20	0.30	0.36	115	211
124	12.95	12.93	33.381	25.153	283.6	0.443	5.24	87.4	4.1	0.57	4.2	0.19	0.27	0.31	124	210
125 ISL	12.90	12.88	33.382	25.163	282.6	0.446	5.23	87.2	4.2	0.58	4.4	0.18	0.27	0.30	126	
139	12.06	12.04	33.397	25.337	266.2	0.484	4.98	81.5	6.2	0.77	8.0	0.04	0.19	0.17	140	209
150 ISL	11.23	11.21	33.419	25.507	250.1	0.513	4.71	75.8	9.0	0.98	11.5	0.02	0.13	0.10	151	
165	10.17	10.15	33.491	25.749	227.2	0.549	4.28	67.3	13.9	1.29	16.4	0.00	0.06	0.05	166	208
194	9.14	9.12	33.780	26.144	189.9	0.609	3.29	50.7	24.6	1.78	24.0	0.00	0.00	0.03	195	207
200 ISL	9.04	9.02	33.826	26.196	185.0	0.620	3.16	48.6	26.1	1.83	24.8	0.00			201	
229	8.78	8.76	33.989	26.365	169.5	0.672	2.69	41.1	31.4	2.00	27.2	0.00			230	206
250 ISL	8.60	8.57	34.042	26.435	163.2	0.707	2.42	36.9	34.4	2.10	28.6	0.00			251	
269	8.43	8.40	34.064	26.479	159.4	0.737	2.21	33.5	36.9	2.19	29.7	0.00			270	205
300 ISL	8.03	8.00	34.094	26.563	151.8	0.786	1.91	28.7	42.1	2.33	31.6	0.00			302	
318	7.78	7.75	34.104	26.607	147.7	0.813	1.75	26.2	45.3	2.41	32.6	0.00			320	204
378	7.00	6.96	34.129	26.738	135.8	0.898	1.29	19.0	55.5	2.65	35.6	0.00			380	203
400 ISL	6.76	6.72	34.148	26.785	131.4	0.927	1.12	16.4	59.3	2.73	36.6	0.00			402	
437	6.39	6.35	34.177	26.858	124.8	0.974	0.88	12.8	65.7	2.86	38.2	0.00			440	202
500 ISL	5.78	5.74	34.168	26.928	118.3	1.051	0.69	9.9	76.1	3.00	40.2	0.00			503	
516	5.62	5.58	34.167	26.947	116.6	1.070	0.64	9.1	78.7	3.03	40.7	0.00			519	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 54.7 N	124 10.1 W	18/07/06	0544 UTC	4209 m	350 13 kn			1015.3 mb	18.1 C	16.5 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	18.24	18.24	33.099	23.759	413.0	0.000	5.49	101.7	1.0	0.26	0.1	0.00	0.08	0.01	0	
1	18.24	18.24	33.099	23.759	413.1	0.004	5.49	101.7	1.0	0.26	0.1	0.00	0.08	0.01	1	222
10	18.25	18.25	33.096	23.755	413.8	0.041	5.50	101.9	1.0	0.26	0.1	0.00	0.08	0.01	10	221
15	18.24	18.24	33.101	23.761	413.4	0.062	5.51	102.0	1.2	0.26	0.1	0.00	0.08	0.01	15	219
15	18.25	18.25	33.094	23.753	414.1	0.062									15	220
20 ISL	18.25	18.25	33.114	23.769	412.8	0.083	5.51	102.1	1.2	0.26	0.1	0.00	0.08	0.01	20	
30	18.28	18.27	33.141	23.783	411.8	0.124	5.50	101.9	1.3	0.26	0.1	0.00	0.10	0.01	30	218
45	16.80	16.79	33.195	24.179	374.5	0.183	5.84	105.2	1.4	0.25	0.1	0.00	0.13	0.02	45	217
50 ISL	16.41	16.40	33.241	24.304	362.7	0.201	5.85	104.6	1.4	0.24	0.1	0.00	0.13	0.03	50	
60	15.76	15.75	33.310	24.505	343.8	0.237	5.88	103.9	1.4	0.24	0.1	0.00	0.14	0.04	60	216
75	15.06	15.05	33.228	24.596	335.5	0.288	5.84	101.7	1.7	0.27	0.1	0.00	0.14	0.07	75	215
85	14.71	14.70	33.346	24.763	319.9	0.320	5.76	99.6	2.0	0.29	0.1	0.00	0.20	0.12	85	214
95	14.06	14.05	33.369	24.918	305.3	0.352	5.56	94.9	2.6	0.37	0.8	0.11	0.27	0.17	95	213
100 ISL	14.00	13.99	33.465	25.005	297.2	0.367	5.47	93.3	2.9	0.39	1.6	0.13	0.26	0.18	100	
105	13.87	13.86	33.551	25.098	288.4	0.381	5.37	91.4	3.4	0.43	2.7	0.16	0.26	0.19	105	212
115	12.65	12.63	33.505	25.307	268.6	0.409	5.13	85.1	5.4	0.64	6.2	0.07	0.21	0.15	115	211
124	11.57	11.55	33.427	25.451	254.9	0.433	4.93	79.9	7.7	0.85	9.5	0.04	0.16	0.12	125	210
125 ISL	11.49	11.47	33.426	25.465	253.6	0.435	4.91	79.4	7.9	0.87	9.8	0.04	0.16	0.12	126	
139	10.74	10.72	33.464	25.629	238.1	0.470	4.72	75.2	10.4	1.04	12.7	0.01	0.10	0.10	140	209
150 ISL	10.22	10.20	33.494	25.742	227.5	0.495	4.54	71.5	12.8	1.19	15.1	0.01	0.07	0.07	151	
165	9.64	9.62	33.567	25.896	213.0	0.528	4.28	66.6	16.4	1.37	18.0	0.01	0.03	0.04	166	208
194	9.02	9.00	33.873	26.236	181.2	0.585	3.81	58.6	23.8	1.60	22.0	0.00	0.00	0.02	195	207
200 ISL	8.89	8.87	33.900	26.278	177.3	0.596	3.77	57.8	25.0	1.63	22.5	0.00			201	
228	8.35	8.33	33.963	26.411	165.0	0.644	3.51	53.2	30.5	1.76	24.9	0.00			229	206
250 ISL	8.11	8.08	34.006	26.481	158.6	0.680	2.96	44.6	35.4	1.97	27.7	0.00			251	
268	7.95	7.92	34.032	26.525	154.7	0.708	2.48	37.2	39.4	2.15	29.9	0.00			269	205
300 ISL	7.60	7.57	34.065	26.602	147.7	0.756	1.97	29.3	45.3	2.36	32.4	0.00			302	
319	7.37	7.34	34.076	26.644	143.9	0.784	1.76	26.1	48.6	2.45	33.6	0.00			321	204
378	6.54	6.51	34.085	26.765	132.8	0.866	1.32	19.2	59.4	2.68	36.8	0.00			380	203
400 ISL	6.37	6.33	34.100	26.799	129.8	0.895	1.15	16.6	62.8	2.76	37.7	0.00			402	
437	6.15	6.11	34.134	26.854	124.8	0.942	0.89	12.8	68.2	2.87	38.9	0.00			440	202
500 ISL	5.77	5.73	34.207	26.960	115.3	1.017	0.52	7.4	78.1	3.03	40.6	0.00			503	
511	5.70	5.66	34.220	26.979	113.6	1.030	0.46	6.6	79.8	3.06	40.9	0.00			514	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 53.1 N	118 26.8 W	15/07/06	0914 UTC	30 m	230 04 kn			1010.2 mb	20.1 C	18.5 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	21.05	21.05	33.513	23.350	452.1	0.000	5.92	115.8	1.4	0.10	0.0	0.00	1.17	0.28	0	
1	21.05	21.05	33.513	23.350	452.1	0.005	5.92	115.8	1.4	0.10	0.0	0.00	1.17	0.28	1	206
5	18.80	18.80	33.440	23.881	401.6	0.022	5.94	111.4	4.2	0.25	0.0	0.01	1.50	0.27	5	205
10	13.85	13.85	33.404	24.986	296.4	0.039	5.67	96.4	6.2	0.37	0.1	0.02	1.47	0.47	10	204
15	13.29	13.29	33.420	25.112	284.5	0.054	5.17	86.9	7.4	0.46	0.3	0.04	1.33	0.43	15	203
20	12.22	12.22	33.417	25.319	264.9	0.067	4.25	69.9	11.1	0.84	6.0	0.35	1.71	0.60	20	202
25	11.69	11.69	33.431	25.430	254.5	0.080	3.85	62.6	12.8	1.09	10.1	0.47	1.24	0.55	25	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 53.4 N	118 29.6 W	15/07/06	1011 UTC	58 m	270 02 kn			1009.8 mb	19.8 C	18.5 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	19.64	19.64	33.493	23.707	418.0	0.000	6.07	115.7	2.1	0.13	0.0	0.01	0.81	0.21	0	
2	19.64	19.64	33.493	23.707	418.0	0.008	6.07	115.7	2.1	0.13	0.0	0.01	0.81	0.21	2	209
5	17.68	17.68	33.471	24.180	373.0	0.020	6.02	110.5	3.0	0.19	0.0	0.01	0.85	0.18	5	208
10	14.68	14.68	33.451	24.848	309.5	0.037	6.01	104.0	5.5	0.32	0.1	0.02	1.12	0.23	10	207
10	14.78	14.78	33.454	24.829	311.4	0.037	6.04	104.7	5.2	0.30	0.0	0.01	1.24	0.01	10	206
20	13.13	13.13	33.436	25.157	280.4	0.067	5.31	89.0	8.4	0.49	0.6	0.07	2.01	0.54	20	205
25	12.35	12.35	33.437	25.310	265.9	0.081	4.49	74.0	9.7	0.72	3.8	0.21	2.02	0.66	25	204
30	11.77	11.77	33.444	25.425	255.1	0.094	4.10	66.8	11.1	1.01	9.4	0.31	1.36	0.49	30	203
40	11.09	11.09	33.485	25.581	240.4	0.118	3.58	57.5	14.7	1.35	15.5	0.46	0.62	0.39	40	202
50	10.93	10.92	33.517	25.635	235.6	0.142	3.34	53.4	16.3	1.46	17.4	0.44	0.40	0.33	50	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 49.3 N	118 37.8 W	15/07/06	1235 UTC	675 m	270 06 kn			1009.9 mb	19.6 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	19.62	19.62	33.516	23.730	415.8	0.000	5.71	108.8	1.8	0.12	0.0	0.00	0.59	0.14	0	
2	19.62	19.62	33.516	23.730	415.9	0.008	5.71	108.8	1.8	0.12	0.0	0.00	0.59	0.14	2	221
10	19.41	19.41	33.510	23.780	411.4	0.041									10	220
10	19.37	19.37	33.509	23.789	410.5	0.041	5.75	109.0	2.1	0.13	0.0	0.00	0.73	0.16	10	219
20	16.70	16.70	33.477	24.417	350.9	0.079	5.80	104.5	4.6	0.29	0.0	0.00	1.00	0.32	20	218
30 ISL	13.40	13.40	33.452	25.115	284.6	0.111	4.91	82.7	8.3	0.58	1.7	0.20	1.57	0.66	30	
31	13.10	13.10	33.453	25.176	278.9	0.114	4.78	80.1	8.8	0.62	1.9	0.23	1.59	0.68	31	217
40	11.77	11.76	33.453	25.432	254.6	0.138	3.55	57.8	14.0	1.22	9.7	0.58	0.56	0.42	40	216
50	11.01	11.00	33.484	25.595	239.4	0.163	3.81	61.0	14.1	1.33	15.9	0.17	0.52	0.35	50	215
60	10.91	10.90	33.556	25.669	232.6	0.186	3.32	53.1	16.3	1.50	17.8	0.05	0.37	0.25	60	214
70	10.85	10.84	33.644	25.748	225.2	0.209	2.71	43.3	18.9	1.67	19.6	0.03	0.22	0.24	70	213
75 ISL	10.70	10.69	33.659	25.786	221.7	0.220	2.74	43.7	19.3	1.69	20.1	0.03	0.15	0.19	75	
85	10.34	10.33	33.681	25.866	214.3	0.242	2.92	46.2	20.1	1.71	21.2	0.04	0.06	0.10	85	212
99	10.07	10.06	33.765	25.978	203.9	0.272	2.49	39.2	23.7	1.87	23.9	0.01	0.04	0.13	99	211
100 ISL	10.05	10.04	33.774	25.989	203.0	0.274	2.47	38.8	24.0	1.88	24.0	0.01	0.04	0.13	100	
119	9.78	9.77	33.937	26.161	186.9	0.311	2.19	34.2	28.0	2.04	25.8	0.01	0.01	0.07	120	210
125 ISL	9.77	9.76	33.961	26.182	185.1	0.322	2.14	33.5	28.5	2.06	26.1	0.01	0.01	0.07	126	
140	9.74	9.72	33.991	26.211	182.7	0.349	2.04	31.9	29.2	2.10	26.5	0.02	0.01	0.07	141	209
150 ISL	9.72	9.70	34.023	26.239	180.2	0.367	1.95	30.5	30.0	2.13	26.9	0.01	0.01	0.07	151	
170	9.64	9.62	34.097	26.311	173.9	0.403	1.75	27.3	32.0	2.20	27.7	0.00	0.01	0.07	171	208
199	9.40	9.38	34.222	26.448	161.4	0.451	1.44	22.4	36.3	2.34	29.0	0.00	0.00	0.06	200	207
200 ISL	9.40	9.38	34.224	26.450	161.2	0.453	1.43	22.2	36.4	2.34	29.0	0.00			201	
229	9.29	9.26	34.265	26.500	157.0	0.499	1.27	19.7	38.2	2.42	29.6	0.00			230	206
250 ISL	9.17	9.14	34.284	26.535	154.1	0.532	1.15	17.8	39.9	2.47	30.1	0.00			251	
268	9.05	9.02	34.294	26.562	151.8	0.559	1.05	16.2	41.5	2.52	30.5	0.00			270	205
300 ISL	8.79	8.76	34.301	26.609	147.9	0.607	0.94	14.4	44.3	2.59	31.4	0.00			302	
318	8.62	8.59	34.301	26.636	145.6	0.634	0.89	13.6	46.0	2.63	31.9	0.00			320	204
377	7.97	7.93	34.289	26.726	137.7	0.717	0.74	11.1	51.8	2.74	33.9	0.00			379	203
400 ISL	7.77	7.73	34.296	26.761	134.7	0.749	0.66	9.9	54.4	2.83	34.6	0.00			403	
438	7.47	7.43	34.309	26.815	130.0	0.799	0.53	7.9	58.8	2.97	35.6	0.00			441	202
500 ISL	6.97	6.92	34.311	26.887	123.7	0.878	0.41	6.0	65.4	3.02	37.2	0.00			503	
512	6.87	6.82	34.312	26.901	122.4	0.892	0.39	5.7	66.7	3.03	37.5	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 39.7 N	118 58.9 W	15/07/06	1731 UTC	789 m	090 03 kn	300 04 05	1	1013.3 mb	22.0 C	19.9 C	16m	2/8	CC

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	21.17	21.17	33.514	23.318	455.1	0.000	5.67	111.2	2.3	0.11	0.1	0.00	0.33	0.06	0	
1 A	21.17	21.17	33.514	23.318	455.1	0.005	5.67	111.2	2.3	0.11	0.1	0.00	0.33	0.06	1	224
9 A	20.33	20.33	33.509	23.540	434.3	0.040	5.74	110.8	1.6	0.12	0.1	0.00	0.37	0.07	9	223
10	19.09	19.09	33.503	23.856	404.1	0.044	5.87	110.7	1.0	0.13	0.1	0.00	0.45	0.08	10	222
17	15.40	15.40	33.456	24.696	324.3	0.070	6.11	107.3	3.5	0.31	0.5	0.02	1.27	0.26	17	221
20 ISL	14.30	14.30	33.448	24.927	302.4	0.079	5.93	101.8	4.9	0.39	1.1	0.04	1.68	0.39	20	
24 A	13.18	13.18	33.442	25.151	281.0	0.091	5.46	91.6	6.9	0.53	2.0	0.06	2.02	0.52	24	220
30 ISL	12.08	12.08	33.462	25.381	259.3	0.107	4.25	69.7	10.5	0.95	8.3	0.24	1.51	0.36	30	
31 A	11.95	11.95	33.466	25.408	256.7	0.110	4.05	66.2	11.1	1.02	9.5	0.27	1.38	0.32	31	219
42 A	11.09	11.08	33.539	25.623	236.5	0.137	3.21	51.5	15.2	1.40	16.2	0.05	0.38	0.25	42	218
50	10.67	10.66	33.588	25.736	225.9	0.155	3.15	50.1	17.1	1.53	18.5	0.03	0.17	0.17	50	217
59 A	10.29	10.28	33.653	25.853	215.0	0.175	3.03	47.8	19.5	1.65	20.8	0.03	0.08	0.11	59	216
70	10.03	10.02	33.748	25.971	204.0	0.198	2.81	44.1	22.1	1.77	22.6	0.02	0.04	0.07	70	215
75 ISL	9.97	9.96	33.790	26.014	200.0	0.208	2.69	42.2	23.2	1.83	23.3	0.02	0.03	0.07	75	
85	9.84	9.83	33.856	26.088	193.2	0.228	2.56	40.1	24.8	1.90	24.3	0.02	0.02	0.09	85	214
99	9.46	9.45	33.881	26.170	185.6	0.254	2.88	44.7	25.7	1.83	24.4	0.03	0.02	0.06	100	213
100 ISL	9.46	9.45	33.889	26.176	185.0	0.256	2.87	44.6	25.9	1.84	24.5	0.03	0.02	0.06	101	
119	9.41	9.40	34.020	26.287	174.9	0.291	2.37	36.8	29.5	2.02	26.3	0.02	0.01	0.04	120	212
125 ISL	9.42	9.41	34.054	26.312	172.7	0.301	2.22	34.5	30.5	2.08	26.7	0.02	0.01	0.04	126	
140	9.44	9.42	34.124	26.364	168.1	0.326	1.88	29.2	32.8	2.20	27.7	0.01	0.01	0.05	141	211
150 ISL	9.40	9.38	34.152	26.393	165.6	0.343	1.74	27.0	34.0	2.25	28.3	0.01	0.01	0.05	151	
170	9.29	9.27	34.187	26.438	161.6	0.376	1.55	24.0	35.7	2.31	29.1	0.02	0.01	0.04	171	210
199	9.22	9.20	34.222	26.478	158.5	0.422	1.41	21.8	37.3	2.37	29.5	0.03	0.01	0.04	200	209
200 ISL	9.22	9.20	34.224	26.479	158.4	0.424	1.40	21.7	37.4	2.37	29.5	0.03			201	
229	9.19	9.16	34.270	26.520	155.1	0.469	1.19	18.4	39.3	2.46	30.0	0.02			230	208
250 ISL	9.05	9.02	34.286	26.556	152.1	0.502	1.07	16.5	41.3	2.52	30.6	0.02			252	
268	8.89	8.86	34.294	26.588	149.4	0.529	0.99	15.2	43.1	2.57	31.1	0.02			270	207
300 ISL	8.67	8.64	34.311	26.636	145.3	0.576	0.88	13.5	45.4	2.63	31.7	0.01			302	
318	8.54	8.51	34.317	26.661	143.2	0.602	0.83	12.7	46.8	2.66	32.1	0.01			320	206
378	7.87	7.83	34.309	26.756	134.8	0.685	0.67	10.1	53.7	2.80	34.2	0.01			380	205
400 ISL	7.65	7.61	34.306	26.786	132.2	0.715	0.61	9.1	56.2	2.88	34.9	0.01			403	
437	7.30	7.26	34.303	26.834	128.0	0.763	0.51	7.6	60.6	3.01	36.1	0.02			440	204
500 ISL	6.66	6.61	34.313	26.930	119.2	0.841	0.36	5.3	69.6	3.08	38.2	0.01			503	
512	6.55	6.50	34.316	26.947	117.7	0.855	0.33	4.8	71.4	3.08	38.5	0.01			516	203
600 ISL	5.98	5.93	34.337	27.038	109.7	0.955	0.22	3.2	83.4	3.16	39.2	0.01			604	
626	5.85	5.80	34.344	27.060	107.8	0.983	0.20	2.9	86.9	3.19	39.4	0.01			631	202
700 ISL	5.54	5.48	34.370	27.119	102.7	1.061	0.12	1.7	97.8	3.28	37.4	0.05			705	
765	5.26	5.20	34.394	27.172	98.1	1.126	0.05	0.7	107.3	3.36	35.7	0.09			771	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 29.4 N	119 19.2 W	15/07/06	2154 UTC	1639 m	280 08 kn	270 03 06	1	1012.2 mb	18.1 C	17.1 C	07m	1/8	CC

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	15.98	15.98	33.740	24.784	315.3	0.000	5.55	98.7	14.7	0.66	5.6	0.05	0.88	0.32	0	
2	15.98	15.98	33.740	24.784	315.4	0.006	5.55	98.7	14.7	0.66	5.6	0.05	0.88	0.32	2	221
10	14.36	14.36	33.741	25.140	281.8	0.030	5.26	90.6	16.1	0.81	7.9	0.06			10	220
10	14.35	14.35	33.741	25.142	281.6	0.030	5.25	90.4	16.1	0.81	7.9	0.06	1.37	0.65	10	219
20 ISL	13.47	13.47	33.754	25.334	263.5	0.057	4.81	81.3	17.6	0.97	10.1	0.07	1.31	0.78	20	
21	13.35	13.35	33.756	25.360	261.1	0.060	4.77	80.5	17.7	0.99	10.6	0.07	1.30	0.78	21	218
30	10.52	10.52	33.869	25.981	202.2	0.081	2.88	45.8	25.1	1.71	21.0	0.16	1.50	0.82	30	217
40	10.13	10.13	33.899	26.071	193.8	0.101	2.42	38.1	26.9	1.88	23.6	0.21	1.18	0.56	40	216
50	9.97	9.96	33.918	26.114	190.0	0.120	2.23	35.0	28.0	1.95	24.7	0.20	0.98	0.54	50	215
60	9.90	9.89	33.926	26.132	188.5	0.139	2.15	33.7	28.3	1.98	25.2	0.18	0.89	0.50	60	214
70	9.58	9.57	33.988	26.234	179.0	0.157	1.92	29.9	30.6	2.14	27.2	0.06	0.28	0.25	70	213
75 ISL	9.50	9.49	34.006	26.261	176.5	0.166	1.86	28.9	31.3	2.18	27.7	0.05	0.21	0.23	75	
85	9.41	9.40	34.040	26.302	172.8	0.184	1.77	27.5	32.6	2.23	28.3	0.03	0.08	0.20	85	212
99	9.26	9.25	34.117	26.387	165.0	0.207	1.59	24.6	35.0	2.31	29.3	0.02	0.02	0.15	100	211
100 ISL	9.25	9.24	34.120	26.391	164.6	0.209	1.58	24.5	35.1	2.31	29.3	0.02	0.02	0.15	101	
119	9.16	9.15	34.147	26.427	161.6	0.240	1.45	22.4	36.5	2.37	29.9	0.02	0.01	0.13	120	210
125 ISL	9.12	9.11	34.158	26.442	160.3	0.250	1.39	21.5	37.1	2.40	30.2	0.03	0.01	0.12	126	
140	9.00	8.98	34.186	26.483	156.7	0.273	1.22	18.8	38.6	2.46	31.1	0.05	0.01	0.11	141	209
150 ISL	8.91	8.89	34.201	26.510	154.3	0.289	1.12	17.2	39.9	2.50	31.5	0.06	0.01	0.11	151	
168	8.76	8.74	34.222	26.550	150.8	0.316	0.99	15.2	42.0	2.55	32.1	0.07	0.01	0.10	169	208
199	8.66	8.64	34.243	26.583	148.3	0.363	0.95	14.5	43.6	2.59	32.3	0.05	0.01	0.09	200	207
200 ISL	8.65	8.63	34.244	26.585	148.1	0.364	0.95	14.5	43.7	2.59	32.3	0.05			201	
228	8.46	8.44	34.261	26.628	144.5	0.405	0.87	13.2	46.4	2.65	32.7	0.04			229	206
250 ISL	8.39	8.36	34.287	26.659	141.9	0.437	0.82	12.5	47.7	2.68	32.8	0.03			252	
268	8.32	8.29	34.303	26.683	140.0	0.462	0.78	11.8	48.8	2.70	32.8	0.02			270	205
300 ISL	8.01	7.98	34.286	26.716	137.2	0.506	0.75	11.3	51.7	2.75	33.8	0.02			302	
319	7.80	7.77	34.270	26.735	135.7	0.532	0.73	10.9	53.7	2.79	34.5	0.02			321	204
377	7.27	7.23	34.273	26.814	128.8	0.609	0.59	8.7	60.1	2.91	36.1	0.01			380	203
400 ISL	7.12	7.08	34.276	26.837	126.9	0.638	0.55	8.1	62.3	2.94	36.6	0.01			403	
436	6.91	6.87	34.283	26.872	123.9	0.684	0.48	7.0	65.7	2.98	37.3	0.01			439	202
500 ISL	6.49	6.44	34.301	26.943	117.8	0.761	0.35	5.1	72.9	3.08	38.5	0.01			504	
512	6.41	6.36	34.304	26.956	116.7	0.775	0.33	4.8	74.3	3.10	38.7	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 19.2 N	119 39.7 W	16/07/06	0322	UTC	81 m	300	15 kn	310 04 06	0	1010.5 mb	16.0 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	14.77	14.77	33.616	24.956	299.0	0.000	5.16	89.5	8.7	0.68	6.1	0.08	2.02	0.30	0	
1	14.77	14.77	33.616	24.956	299.0	0.003	5.16	89.5	8.7	0.68	6.1	0.08	2.02	0.30	1	212
5	14.82	14.82	33.617	24.946	300.1	0.015									5	211
5	14.82	14.82	33.616	24.945	300.2	0.015	5.18	90.0	8.5	0.67	6.0	0.07	2.00	0.55	5	210
10 ISL	14.85	14.85	33.611	24.935	301.3	0.030	5.20	90.4	8.5	0.66	5.8	0.07	2.03	0.34	10	
11	14.85	14.85	33.616	24.939	300.9	0.033									11	209
11	14.86	14.86	33.610	24.932	301.6	0.033	5.20	90.4	8.5	0.66	5.8	0.07	2.04	0.27	11	208
20	11.56	11.56	33.720	25.678	230.8	0.057	3.69	59.9	19.0	1.42	16.7	0.14	1.08	0.29	20	207
30	10.31	10.31	33.773	25.942	205.9	0.079	2.95	46.6	23.0	1.72	21.2	0.15	0.77	0.28	30	206
40	9.73	9.73	33.911	26.148	186.5	0.098	2.50	39.1	27.9	1.96	24.8	0.11	0.26	0.19	40	205
50	9.69	9.68	33.936	26.174	184.2	0.117	2.40	37.5	28.8	1.99	25.2	0.11	0.23	0.18	50	204
60	9.66	9.65	33.953	26.193	182.7	0.135	2.34	36.5	29.5	2.01	25.6	0.11	0.18	0.20	60	203
70	9.47	9.46	34.007	26.266	175.9	0.153	2.09	32.5	31.6	2.12	26.9	0.10	0.09	0.13	70	202
74	9.43	9.42	34.037	26.297	173.1	0.160	1.97	30.6	32.9	2.16	27.5	0.09	0.07	0.14	74	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 9.1 N	120 0.7 W	16/07/06	0707	UTC	1208 m	300	20 kn			1011.9 mb	15.0 C	14.0 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	14.53	14.53	33.611	25.003	294.5	0.000	5.47	94.4	11.6	0.71	6.1	0.14	1.39	0.41	0	
2	14.53	14.53	33.611	25.003	294.5	0.006	5.47	94.4	11.6	0.71	6.1	0.14	1.39	0.41	2	222
10	14.52	14.52	33.611	25.005	294.5	0.029									10	221
10	14.52	14.52	33.620	25.012	293.9	0.029	5.47	94.4	11.6	0.71	6.1	0.14	1.27	0.49	10	220
15	14.40	14.40	33.611	25.031	292.3	0.044	5.46	94.0	11.8	0.73	6.3	0.16	1.40	0.34	15	219
20 ISL	14.13	14.13	33.604	25.083	287.5	0.059	5.39	92.3	12.1	0.78	7.2	0.21	1.34	0.36	20	
21	14.05	14.05	33.603	25.099	286.0	0.061	5.36	91.6	12.2	0.80	7.5	0.22	1.31	0.36	21	218
30 ISL	12.97	12.97	33.598	25.314	265.7	0.086	4.94	82.6	13.8	1.02	10.9	0.31	1.09	0.40	30	
31	12.80	12.80	33.600	25.349	262.4	0.089	4.85	80.8	14.1	1.06	11.5	0.32	1.04	0.40	31	217
40	10.84	10.84	33.663	25.764	223.0	0.111	3.46	55.3	19.1	1.55	19.6	0.03	0.17	0.14	40	216
50 ISL	10.73	10.72	33.688	25.803	219.5	0.133	3.38	53.9	19.9	1.60	20.3	0.02	0.12	0.16	50	
51	10.72	10.71	33.691	25.807	219.2	0.135	3.37	53.7	20.0	1.61	20.4	0.02	0.12	0.16	51	215
59	10.19	10.18	33.782	25.970	203.8	0.152	2.89	45.6	23.3	1.79	23.0	0.01	0.06	0.18	59	214
70	10.01	10.00	33.822	26.032	198.2	0.174	2.69	42.3	24.6	1.87	23.9	0.02	0.09	0.14	70	213
75 ISL	9.93	9.92	33.840	26.060	195.7	0.184	2.61	40.9	25.1	1.90	24.3	0.02	0.09	0.14	75	
86	9.79	9.78	33.872	26.108	191.2	0.205	2.49	38.9	26.1	1.94	24.9	0.02	0.09	0.13	86	212
100	9.70	9.69	33.883	26.132	189.3	0.232	2.46	38.4	26.8	1.98	25.3	0.02	0.05	0.12	101	211
120	9.32	9.31	34.010	26.294	174.3	0.268	2.22	34.4	30.4	2.10	27.1	0.03	0.01	0.08	121	210
125 ISL	9.29	9.28	34.025	26.311	172.8	0.277	2.20	34.1	30.8	2.11	27.3	0.03	0.01	0.08	126	
141	9.25	9.23	34.057	26.343	170.1	0.304	2.12	32.8	31.8	2.14	27.6	0.04	0.01	0.07	142	209
150 ISL	9.20	9.18	34.085	26.373	167.4	0.320	2.02	31.2	32.8	2.17	28.0	0.05	0.01	0.07	151	
169	9.05	9.03	34.142	26.442	161.2	0.351	1.76	27.1	35.5	2.26	29.1	0.06	0.00	0.06	170	208
199	8.68	8.66	34.190	26.538	152.6	0.398	1.33	20.3	40.6	2.44	31.1	0.05	0.00	0.06	200	207
200 ISL	8.67	8.65	34.190	26.539	152.4	0.399	1.33	20.3	40.7	2.44	31.1	0.05			201	
229	8.26	8.24	34.180	26.595	147.5	0.443	1.32	20.0	44.0	2.48	32.1	0.05			230	206
250 ISL	8.06	8.03	34.189	26.632	144.3	0.473	1.23	18.5	46.3	2.55	32.8	0.06			252	
268	7.93	7.90	34.202	26.662	141.8	0.499	1.13	17.0	48.3	2.61	33.3	0.06			270	205
300 ISL	7.69	7.66	34.229	26.718	136.8	0.544	0.94	14.0	52.2	2.71	34.2	0.03			302	
320	7.55	7.52	34.246	26.752	133.9	0.571	0.82	12.2	54.6	2.76	34.8	0.01			322	204
377	7.11	7.07	34.267	26.831	127.0	0.645	0.63	9.3	60.7	2.87	36.4	0.01			379	203
400 ISL	6.94	6.90	34.270	26.857	124.8	0.674	0.58	8.5	63.1	2.91	37.0	0.01			403	
437	6.70	6.66	34.275	26.894	121.7	0.720	0.51	7.4	66.8	2.97	37.8	0.01			440	202
500 ISL	6.40	6.35	34.298	26.953	116.8	0.795	0.38	5.5	71.9	3.05	38.9	0.01			504	
512	6.34	6.29	34.302	26.964	115.9	0.809	0.36	5.2	72.9	3.07	39.1	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 59.8 N	120 21.9 W	16/07/06	1149	UTC	737 m	320	16 kn			1012.0 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	15.98	15.98	33.397	24.520	340.5	0.000	5.79	102.8	4.2	0.36	1.4	0.07	0.87	0.10	0	
2	15.98	15.98	33.397	24.520	340.5	0.007	5.79	102.8	4.2	0.36	1.4	0.07	0.87	0.10	2	221
10	15.97	15.97	33.398	24.524	340.5	0.034	5.79	102.8	4.2	0.36	1.4	0.07	0.80	0.21	10	219
10	15.98	15.98	33.396	24.520	340.8	0.034									10	220
20	15.55	15.55	33.482	24.682	325.6	0.067	5.85	103.0	6.4	0.45	2.7	0.12	0.84	0.23	20	218
30	14.84	14.84	33.585	24.917	303.5	0.099	5.82	101.1	8.9	0.61	4.6	0.21	0.71	0.23	30	217
40	13.77	13.76	33.584	25.142	282.4	0.128	5.52	93.8	11.4	0.85	7.8	0.52	0.62	0.25	40	216
50	12.61	12.60	33.544	25.344	263.4	0.155	4.97	82.4	12.7	1.04	11.9	0.22	0.23	0.19	50	215
60	12.46	12.45	33.560	25.385	259.7	0.182	4.83	79.9	13.3	1.10	12.8	0.13	0.20	0.23	60	214
70	12.12	12.11	33.599	25.481	250.8	0.207	4.47	73.4	15.0	1.23	14.5	0.13	0.16	0.16	70	213
75 ISL	11.75	11.74	33.622	25.568	242.6	0.219	4.15	67.6	16.3	1.34	16.2	0.10	0.14	0.15	75	
84	11.01	11.00	33.665	25.737	226.7	0.241	3.57	57.3	18.8	1.55	19.4	0.03	0.10	0.14	84	212
100	10.13	10.12	33.726	25.938	207.8	0.275	3.07	48.3	22.1	1.73	22.3	0.03	0.06	0.12	100	211
119	9.11	9.10	33.872	26.220	181.2	0.312	2.91	44.8	27.2	1.91	25.4	0.02	0.01	0.06	120	210
125 ISL	8.98	8.97	33.899	26.262	177.3	0.323	2.86	43.9	28.3	1.94	25.9	0.02	0.01	0.05	126	
139	8.82	8.81	33.948	26.325	171.5	0.347	2.70	41.3	30.5	1.99	26.9	0.01	0.01	0.04	140	209
150 ISL	8.69	8.67	33.992	26.380	166.5	0.366	2.49	38.0	32.7	2.06	28.0	0.01	0.01	0.04	151	
169	8.50	8.48	34.057	26.461	159.2	0.397	2.11	32.1	36.4	2.20	29.7	0.01	0.00	0.04	170	208
199	8.34	8.32	34.110	26.527	153.4	0.444	1.78	27.0	40.1	2.34	31.1	0.01	0.00	0.05	200	207
200 ISL	8.32	8.30	34.111	26.531	153.1	0.445	1.77	26.8	40.3	2.35	31.2	0.01			201	
229	7.70	7.68	34.123	26.633	143.7	0.488	1.55	23.2	46.9	2.49	33.2	0.02			230	206
250 ISL	7.38	7.36	34.131	26.685	138.9	0.518	1.40	20.8	50.9	2.57	34.3	0.02			251	
271	7.14	7.11	34.139	26.725	135.3	0.547	1.27	18.7	54.3	2.64	35.1	0.01			273	205
300 ISL	6.94	6.91	34.154	26.765	131.9	0.586	1.11	16.3	57.5	2.71	35.9	0.01			302	
318	6.85	6.82	34.166	26.786	130.1	0.609	1.02	14.9	59.3	2.75	36.4	0.01			320	204
378	6.38	6.35	34.225	26.896	120.3	0.684	0.64	9.3	68.6	2.93	38.5	0.01			380	203
400 ISL	6.35	6.31	34.250	26.920	118.3	0.711	0.54	7.8	70.5	2.98	38.7	0.01			403	
438	6.32	6.28	34.290	26.956	115.5	0.755	0.42	6.1	73.3	3.05	39.0	0.01			441	202
500 ISL	5.96	5.92	34.319	27.025	109.4	0.825	0.30	4.3	80.3	3.13	40.2	0.01			503	
513	5.88	5.84	34.325	27.040	108.1	0.839	0.28	4.0	81.8	3.15	40.5	0.01			517	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 39.7 N	121 2.1 W	16/07/06	1843 UTC	3775 m	360 12 kn	360 06 06	2	1015.7 mb	17.0 C	15.5 C	20m	8/8	ST

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.29	16.29	33.105	24.225	368.5	0.000	5.76	102.7	1.8	0.29	0.2	0.02	0.26	0.06	0	
2 A	16.29	16.29	33.105	24.226	368.6	0.007	5.76	102.7	1.8	0.29	0.2	0.02	0.26	0.06	2	222
10 ISL	16.27	16.27	33.105	24.230	368.4	0.037	5.76	102.7	1.6	0.29	0.2	0.02	0.29	0.05	10	
11	16.26	16.26	33.105	24.233	368.2	0.041	5.77	102.8	1.7	0.28	0.2	0.01	0.31	0.06	11	221
11 A	16.26	16.26	33.105	24.233	368.2	0.041	5.76	102.6	1.6	0.29	0.2	0.02	0.30	0.05	11	220
20	16.19	16.19	33.107	24.250	366.8	0.074	5.77	102.7	1.6	0.28	0.2	0.01	0.31	0.08	20	219
30 A	15.97	15.97	33.124	24.314	361.1	0.110	5.81	102.9	1.8	0.31	0.5	0.03	0.39	0.12	30	218
35	15.07	15.06	33.309	24.655	328.7	0.127	5.98	104.2	4.1	0.43	2.2	0.14	0.66	0.25	35	217
41 A	13.16	13.15	33.094	24.887	306.7	0.146	5.75	96.2	4.7	0.59	3.7	0.26	0.49	0.21	41	216
50 ISL	13.11	13.10	33.309	25.063	290.1	0.173	5.42	90.7	4.9	0.74	4.9	0.62	0.27	0.13	50	
52 A	13.10	13.09	33.341	25.090	287.6	0.179	5.35	89.5	5.0	0.77	5.3	0.68	0.23	0.12	52	215
62	11.95	11.94	33.309	25.287	269.0	0.207	4.92	80.3	7.5	0.95	9.9	0.48	0.18	0.16	62	214
72 A	11.34	11.33	33.435	25.498	249.1	0.233	4.58	73.9	11.5	1.17	14.1	0.04	0.05	0.05	72	213
75 ISL	11.13	11.12	33.445	25.544	244.8	0.240	4.54	72.9	11.9	1.19	14.4	0.04	0.05	0.05	75	
84	10.50	10.49	33.458	25.665	233.4	0.262	4.44	70.3	12.8	1.22	15.0	0.04	0.05	0.06	84	212
100 ISL	9.62	9.61	33.556	25.890	212.2	0.297	4.01	62.3	17.7	1.47	19.3	0.02	0.03	0.04	100	
101	9.58	9.57	33.564	25.903	211.0	0.299	3.98	61.8	18.0	1.49	19.6	0.02	0.03	0.04	101	211
120	9.18	9.17	33.744	26.108	191.8	0.338	3.83	59.0	21.6	1.59	21.5	0.01	0.01	0.03	121	210
125 ISL	9.19	9.18	33.793	26.145	188.4	0.347	3.49	53.8	23.5	1.69	22.8	0.01	0.01	0.03	126	
139	9.22	9.20	33.911	26.233	180.4	0.373	2.51	38.8	28.7	1.99	26.6	0.01	0.02	0.05	140	209
150 ISL	9.03	9.01	33.961	26.303	174.0	0.392	2.52	38.8	31.0	2.02	27.2	0.01	0.02	0.07	151	
169	8.59	8.57	34.002	26.404	164.6	0.425	2.53	38.5	33.4	2.06	28.2	0.01	0.01	0.08	170	208
200	8.09	8.07	34.009	26.485	157.3	0.475	2.63	39.6	36.8	2.11	28.9	0.01	0.00	0.04	201	207
228	7.68	7.66	34.021	26.555	151.0	0.518	2.44	36.4	41.1	2.19	30.7	0.01			229	206
250 ISL	7.33	7.31	34.024	26.608	146.2	0.550	2.23	33.0	45.6	2.29	32.2	0.01			251	
269	7.05	7.02	34.028	26.650	142.3	0.578	2.03	29.9	49.5	2.39	33.5	0.01			271	205
300 ISL	6.78	6.75	34.052	26.706	137.4	0.621	1.65	24.1	54.5	2.54	35.4	0.01			302	
318	6.69	6.66	34.073	26.735	134.9	0.646	1.43	20.9	57.0	2.63	36.3	0.01			320	204
380	6.63	6.60	34.191	26.836	126.2	0.727	0.81	11.8	63.3	2.86	37.6	0.01			382	203
400 ISL	6.47	6.43	34.199	26.864	123.7	0.752	0.71	10.3	66.2	2.92	38.3	0.01			403	
437	6.13	6.09	34.205	26.913	119.3	0.796	0.60	8.6	71.9	3.00	39.5	0.01			440	202
500 ISL	5.72	5.68	34.249	27.000	111.6	0.869	0.48	6.8	80.4	3.10	40.7	0.01			503	
513	5.64	5.60	34.258	27.017	110.0	0.884	0.46	6.6	82.1	3.12	41.0	0.01			517	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 19.5 N	121 43.2 W	17/07/06	0212 UTC	4053 m	330 21 kn	330 07 07	2	1013.9 mb	16.9 C	15.8 C		8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.29	16.29	33.155	24.264	364.9	0.000	5.82	103.8	2.2	0.31	0.6	0.03	0.31	0.04	0	
2	16.29	16.29	33.155	24.264	364.9	0.007	5.82	103.8	2.2	0.31	0.6	0.03	0.31	0.04	2	223
10	16.24	16.24	33.147	24.270	364.7	0.036	5.81	103.5	2.0	0.31	0.5	0.03	0.28	0.05	10	220
10	16.25	16.25	33.149	24.269	364.7	0.036									10	221
20	16.20	16.20	33.143	24.276	364.4	0.073	5.83	103.8	2.1	0.31	0.5	0.03	0.28	0.08	20	219
30	15.47	15.47	33.384	24.625	331.4	0.108	5.90	103.7	4.3	0.48	2.7	0.16	0.46	0.14	30	218
35	14.90	14.89	33.290	24.677	326.5	0.124	5.88	102.1	3.5	0.47	2.3	0.13	0.49	0.14	35	217
40	14.78	14.77	33.306	24.716	323.0	0.140	5.81	100.6	3.7	0.52	2.6	0.16	0.68	0.14	40	216
50	13.51	13.50	33.175	24.879	307.6	0.172	5.77	97.3	3.5	0.63	3.8	0.19	0.52	0.18	50	215
60	13.72	13.71	33.354	24.975	298.8	0.202	5.73	97.1	4.4	0.70	5.0	0.20	0.36	0.14	60	214
70	13.60	13.59	33.388	25.026	294.2	0.232	5.69	96.2	5.1	0.76	5.8	0.23	0.17	0.09	70	213
75 ISL	13.14	13.13	33.390	25.121	285.3	0.246	5.47	91.6	5.4	0.77	6.3	0.18	0.17	0.11	75	
84	12.05	12.04	33.390	25.332	265.3	0.271	4.97	81.4	6.7	0.79	8.2	0.07	0.18	0.15	84	212
100 ISL	10.25	10.24	33.406	25.667	233.5	0.311	4.31	67.9	14.3	1.34	16.9	0.02	0.08	0.09	100	
101	10.16	10.15	33.409	25.685	231.8	0.313	4.28	67.3	14.8	1.38	17.4	0.02	0.07	0.08	101	211
120	9.52	9.51	33.559	25.909	210.8	0.355	4.02	62.4	18.4	1.50	19.8	0.02	0.03	0.05	121	210
125 ISL	9.44	9.43	33.627	25.975	204.6	0.366	3.71	57.5	20.4	1.62	21.3	0.02	0.03	0.06	126	
139	9.26	9.24	33.811	26.148	188.4	0.393	2.83	43.7	26.3	1.94	25.5	0.01	0.02	0.09	140	209
150 ISL	9.02	9.00	33.885	26.245	179.5	0.414	2.80	43.0	28.6	1.96	26.1	0.01	0.02	0.08	151	
169	8.64	8.62	33.958	26.362	168.6	0.447	2.74	41.8	31.4	2.00	27.2	0.02	0.01	0.07	170	208
199	8.48	8.46	34.054	26.462	159.6	0.496	1.88	28.6	37.7	2.29	30.7	0.01	0.00	0.06	200	207
200 ISL	8.47	8.45	34.057	26.466	159.3	0.498	1.86	28.3	37.9	2.30	30.8	0.01			201	
229	8.20	8.18	34.115	26.553	151.5	0.543	1.54	23.3	42.6	2.44	32.3	0.01			230	206
250 ISL	7.79	7.77	34.104	26.605	146.7	0.574	1.59	23.8	46.0	2.47	33.1	0.01			251	
268	7.38	7.35	34.081	26.646	142.9	0.600	1.70	25.2	49.1	2.48	33.7	0.01			270	205
300 ISL	6.70	6.67	34.043	26.709	136.9	0.645	1.69	24.7	55.4	2.55	35.2	0.01			302	
319	6.38	6.35	34.034	26.745	133.7	0.670	1.69	24.5	59.0	2.61	36.1	0.01			321	204
377	6.29	6.26	34.155	26.852	124.3	0.745	0.87	12.6	67.1	2.89	38.4	0.00			379	203
400 ISL	6.19	6.15	34.181	26.886	121.4	0.774	0.71	10.2	70.1	2.95	39.0	0.00			403	
438	5.99	5.95	34.211	26.935	117.1	0.819	0.55	7.9	74.7	3.01	39.9	0.00			441	202
500 ISL	5.73	5.69	34.252	27.001	111.5	0.890	0.40	5.7	81.1	3.13	40.9	0.00			503	
513	5.68	5.64	34.261	27.014	110.3	0.904	0.37	5.3	82.4	3.15	41.1	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 24.2 W	17/07/06	0820 UTC	4144 m	340 17 kn			1016.1 mb	17.0 C	15.8 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	17.18	17.18	33.086	24.004	389.6	0.000	5.61	101.8	1.2	0.25	0.0	0.00	0.10	0.01	0	
3	17.18	17.18	33.086	24.004	389.7	0.012	5.61	101.8	1.2	0.25	0.0	0.00	0.10	0.01	3	221
10	17.18	17.18	33.103	24.018	388.7	0.039	5.62	102.0	1.5	0.25	0.0	0.00	0.10	0.01	10	220
15	17.19	17.19	33.089	24.005	390.1	0.058	5.62	102.0	1.3	0.25	0.1	0.00	0.10	0.02	15	219
20 ISL	17.17	17.17	33.091	24.011	389.6	0.078	5.62	101.9	1.3	0.25	0.1	0.00	0.10	0.02	20	
30	17.13	17.13	33.096	24.025	388.7	0.117	5.63	102.0	1.3	0.25	0.1	0.00	0.10	0.02	30	218
45	15.98	15.97	33.023	24.234	369.1	0.174	5.88	104.1	1.2	0.27	0.0	0.00	0.21	0.07	45	217
50 ISL	15.40	15.39	33.016	24.358	357.4	0.192	5.97	104.5	1.2	0.28	0.0	0.00	0.27	0.08	50	
56	14.84	14.83	33.040	24.498	344.2	0.213	6.04	104.6	1.2	0.28	0.0	0.00	0.34	0.10	56	216
64	14.77	14.76	33.154	24.601	334.6	0.240	5.97	103.3	1.3	0.27	0.0	0.00	0.36	0.19	64	215
75	14.60	14.59	33.240	24.704	325.1	0.276	5.84	100.7	1.4	0.29	0.1	0.02	0.47	0.22	75	214
85	14.18	14.17	33.309	24.846	311.9	0.308	5.65	96.7	2.5	0.39	0.9	0.43	0.34	0.24	85	213
94	14.04	14.03	33.360	24.915	305.5	0.336	5.51	94.0	2.8	0.44	1.9	0.65	0.30	0.22	94	212
100 ISL	13.54	13.53	33.380	25.033	294.4	0.354	5.35	90.4	3.5	0.52	3.4	0.45	0.25	0.21	100	
110	12.47	12.46	33.404	25.264	272.6	0.382	5.04	83.3	5.8	0.73	7.1	0.06	0.16	0.17	110	211
124	11.23	11.21	33.422	25.509	249.3	0.419	4.57	73.5	11.2	1.20	13.9	0.30	0.11	0.08	125	210
125 ISL	11.15	11.13	33.429	25.529	247.4	0.421	4.53	72.8	11.6	1.23	14.3	0.29	0.11	0.08	126	
144	10.00	9.98	33.603	25.864	215.7	0.465	3.72	58.3	19.9	1.65	21.2	0.02	0.03	0.08	145	209
150 ISL	9.75	9.73	33.668	25.957	207.0	0.478	3.45	53.8	22.1	1.75	22.7	0.02	0.03	0.08	151	
170	9.19	9.17	33.863	26.201	184.1	0.517	2.66	41.0	28.0	1.98	26.3	0.01	0.01	0.09	171	208
199	8.93	8.91	33.995	26.346	170.8	0.569	2.07	31.8	33.1	2.18	28.9	0.01	0.01	0.09	200	207
200 ISL	8.91	8.89	33.999	26.352	170.2	0.570	2.05	31.5	33.3	2.19	29.0	0.01			201	
229	8.44	8.42	34.079	26.488	157.7	0.618	1.73	26.3	38.3	2.33	31.4	0.03			230	206
250 ISL	8.21	8.18	34.093	26.534	153.6	0.650	1.65	24.9	40.9	2.37	32.2	0.02			251	
271	8.00	7.97	34.094	26.567	150.9	0.682	1.61	24.2	43.3	2.41	32.7	0.01			272	205
300 ISL	7.65	7.62	34.116	26.635	144.6	0.725	1.43	21.3	48.0	2.52	33.9	0.01			302	
318	7.43	7.40	34.130	26.678	140.8	0.751	1.30	19.3	51.0	2.59	34.7	0.01			320	204
381	6.84	6.80	34.160	26.784	131.3	0.837	0.95	13.9	60.0	2.76	36.9	0.00			383	203
400 ISL	6.46	6.42	34.128	26.809	128.9	0.861	1.01	14.7	63.6	2.78	37.7	0.00			402	
437	5.74	5.70	34.075	26.859	124.0	0.908	1.13	16.1	70.9	2.83	39.2	0.01			440	202
500 ISL	5.42	5.38	34.146	26.954	115.5	0.984	0.70	9.9	80.9	3.00	41.0	0.00			503	
511	5.36	5.32	34.159	26.972	113.9	0.996	0.63	8.9	82.7	3.03	41.3	0.00			514	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 40.4 N	123 4.9 W	17/07/06	1734 UTC	4142 m	350 14 kn	340 07 07	2	1016.3 mb	17.9 C	16.7 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	16.86	16.86	33.072	24.069	383.5	0.000	5.71	102.9	0.9	0.26	0.1	0.00	0.17	0.03	0	
2 A	16.86	16.86	33.072	24.069	383.6	0.008	5.71	102.9	0.9	0.26	0.1	0.00	0.17	0.03	2	224
10	16.87	16.87	33.068	24.064	384.3	0.038	5.70	102.8	0.9	0.26	0.0	0.00	0.17	0.03	10	223
14 A	16.86	16.86	33.068	24.066	384.2	0.054	5.72	103.1	0.9	0.26	0.0	0.00	0.17	0.02	14	222
20 ISL	16.85	16.85	33.069	24.069	384.1	0.077	5.73	103.3	0.9	0.26	0.0	0.00	0.18	0.03	20	
24	16.83	16.83	33.069	24.074	383.7	0.092	5.73	103.2	0.9	0.26	0.0	0.00	0.18	0.03	24	221
30 ISL	16.80	16.80	33.071	24.083	383.1	0.115	5.73	103.2	0.9	0.27	0.0	0.01	0.22	0.04	30	
35 A	16.74	16.73	33.071	24.097	381.9	0.134	5.73	103.0	0.9	0.27	0.0	0.01	0.28	0.04	35	220
42	16.54	16.53	33.061	24.136	378.4	0.161	5.78	103.5	1.0	0.27	0.0	0.01	0.39	0.07	42	219
48 A	16.34	16.33	33.049	24.173	375.1	0.184	5.83	104.0	0.9	0.28	0.0	0.01	0.44	0.07	48	218
50 ISL	16.31	16.30	33.047	24.178	374.7	0.191	5.83	103.9	0.9	0.28	0.0	0.01	0.44	0.08	50	
56	16.26	16.25	33.045	24.188	373.9	0.213	5.83	103.8	0.8	0.28	0.0	0.01	0.44	0.10	56	217
63 A	16.20	16.19	33.042	24.200	373.0	0.240	5.83	103.7	0.9	0.28	0.0	0.02	0.41	0.09	63	216
71	15.18	15.17	33.013	24.405	353.6	0.269	5.98	104.2	0.7	0.28	0.0	0.01	0.36	0.11	71	215
75 ISL	15.16	15.15	33.096	24.473	347.2	0.283	5.96	103.9	0.8	0.28	0.0	0.01	0.32	0.11	75	
79	15.14	15.13	33.155	24.523	342.6	0.296	5.91	103.0	0.9	0.27	0.0	0.01	0.29	0.11	79	214
88 A	15.02	15.01	33.201	24.585	337.0	0.327	5.87	102.1	0.9	0.26	0.0	0.01	0.30	0.14	88	213
99	14.35	14.34	33.148	24.687	327.4	0.364	5.87	100.7	1.2	0.33	0.5	0.05	0.25	0.17	99	212
100 ISL	14.28	14.27	33.150	24.703	325.9	0.367	5.86	100.4	1.4	0.35	0.7	0.06	0.25	0.16	100	
110	13.77	13.75	33.223	24.865	310.7	0.399	5.73	97.1	2.9	0.50	2.3	0.17	0.21	0.08	110	211
125	14.19	14.17	33.476	24.974	300.8	0.445	5.51	94.4	2.3	0.38	1.4	0.24	0.17	0.16	126	210
145	12.37	12.35	33.424	25.299	270.1	0.502	5.03	82.9	5.4	0.73	7.2	0.07	0.12	0.20	146	209
150 ISL	11.82	11.80	33.433	25.410	259.5	0.515	4.82	78.5	7.4	0.88	9.6	0.06	0.10	0.17	151	
170	9.90	9.88	33.541	25.833	219.2	0.563	3.98	62.2	16.3	1.46	18.8	0.02	0.03	0.04	171	208
199	9.20	9.18	33.763	26.121	192.2	0.622	3.34	51.5	23.6	1.77	23.6	0.02	0.00	0.02	200	207
200 ISL	9.18	9.16	33.772	26.132	191.2	0.624	3.32	51.2	23.9	1.78	23.7	0.02			201	
229	8.73	8.71	33.992	26.375	168.5	0.676	2.71	41.4	31.1	2.00	27.2	0.01			230	206
250 ISL	8.46	8.43	34.049	26.462	160.6	0.711	2.43	36.9	35.0	2.12	28.9	0.01			251	
268	8.25	8.22	34.066	26.507	156.5	0.740	2.23	33.7	38.1	2.21	30.1	0.02			269	205
300 ISL	7.83	7.80	34.103	26.599	148.2	0.788	1.79	26.8	44.6	2.40	32.5	0.01			302	
318	7.59	7.56	34.118	26.646	143.9	0.815	1.56	23.2	48.3	2.51	33.7	0.01			320	204
377	6.85	6.81	34.148	26.773	132.3	0.896	1.06	15.5	58.9	2.77	36.9	0.01			379	203
400 ISL	6.66	6.62	34.158	26.807	129.3	0.926	0.94	13.7	62.1	2.83	37.6	0.01			402	
438	6.39	6.35	34.175	26.856	125.0	0.975	0.80	11.6	66.8	2.91	38.5	0.01			441	202
500 ISL	5.98	5.94	34.207	26.934	118.0	1.050	0.59	8.5	74.8	3.04	40.0	0.02			503	
516	5.88	5.84	34.216	26.954	116.3	1.069	0.53	7.6	76.9	3.07	40.4	0.02			519	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 19.6 N	123 45.0 W	17/07/06	2303 UTC	3992 m	330 17 kn	330 07 07	2	1015.0 mb	19.0 C	17.3 C	25m	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	18.90	18.90	33.403	23.827	406.5	0.000	5.42	101.8	1.5	0.28	0.0	0.00	0.08	0.01	0	
2	18.90	18.90	33.403	23.827	406.6	0.008	5.42	101.8	1.5	0.28	0.0	0.00	0.08	0.01	2	222
10 ISL	18.89	18.89	33.402	23.830	406.7	0.041	5.42	101.8	1.4	0.27	0.0	0.00	0.08	0.01	10	
11	18.89	18.89	33.402	23.830	406.7	0.045	5.42	101.8	1.4	0.27	0.0	0.00	0.08	0.01	11	221
15	18.89	18.89	33.402	23.830	406.8	0.061									15	220
16	18.87	18.87	33.402	23.835	406.4	0.065	5.44	102.1	1.4	0.27	0.1	0.00	0.08	0.01	16	219
20 ISL	18.86	18.86	33.403	23.838	406.2	0.081	5.43	101.9	1.4	0.27	0.1	0.00	0.08	0.01	20	
30 ISL	18.83	18.82	33.407	23.849	405.5	0.122	5.42	101.7	1.5	0.26	0.1	0.00	0.09	0.01	30	
31	18.83	18.82	33.407	23.849	405.5	0.126	5.42	101.7	1.5	0.26	0.1	0.00	0.09	0.01	31	218
45	18.83	18.82	33.407	23.850	406.0	0.183	5.42	101.7	1.5	0.26	0.0	0.00	0.10	0.01	45	217
50 ISL	17.93	17.92	33.299	23.990	392.7	0.203	5.60	103.2	1.5	0.27	0.0	0.00	0.11	0.01	50	
59	16.16	16.15	33.125	24.272	365.9	0.237	5.93	105.5	1.5	0.28	0.1	0.00	0.14	0.02	59	216
75	15.13	15.12	33.114	24.493	345.3	0.294	5.98	104.2	1.5	0.28	0.0	0.00	0.16	0.03	75	215
85	14.90	14.89	33.175	24.590	336.3	0.328	5.92	102.7	1.7	0.28	0.0	0.00	0.18	0.06	85	214
95	14.66	14.65	33.189	24.653	330.6	0.361	5.88	101.5	1.8	0.29	0.0	0.01	0.20	0.09	95	213
100 ISL	14.32	14.31	33.173	24.713	325.0	0.378	5.87	100.6	2.0	0.31	0.0	0.01	0.26	0.16	100	
105	13.96	13.95	33.162	24.779	318.8	0.394	5.84	99.4	2.3	0.34	0.0	0.01	0.32	0.23	105	212
114	13.57	13.55	33.203	24.891	308.3	0.422	5.70	96.2	3.2	0.43	1.0	0.06	0.37	0.22	114	211
125	12.25	12.23	33.271	25.203	278.6	0.454	5.11	83.9	6.4	0.79	7.7	0.09	0.26	0.20	125	210
139	10.97	10.95	33.389	25.530	247.6	0.491	4.65	74.4	9.9	1.06	12.6	0.03	0.15	0.09	140	209
150 ISL	10.39	10.37	33.482	25.704	231.2	0.517	4.51	71.3	12.1	1.17	14.7	0.03	0.09	0.07	151	
166	9.89	9.87	33.601	25.882	214.5	0.553	4.36	68.2	15.2	1.29	16.8	0.02	0.04	0.04	167	208
194	9.28	9.26	33.760	26.106	193.6	0.610	3.66	56.5	22.0	1.63	21.9	0.01	0.01	0.03	195	207
200 ISL	9.19	9.17	33.793	26.147	189.8	0.622	3.60	55.5	23.0	1.66	22.4	0.01			201	
230	8.81	8.79	33.936	26.319	173.9	0.676	3.33	51.0	27.8	1.79	24.5	0.01			231	206
250 ISL	8.49	8.46	34.003	26.421	164.5	0.710	2.85	43.3	32.9	1.98	27.1	0.01			251	
271	8.17	8.14	34.056	26.512	156.1	0.744	2.31	34.9	38.4	2.19	29.8	0.01			272	205
300 ISL	7.94	7.91	34.109	26.588	149.3	0.788	1.82	27.3	43.3	2.37	31.9	0.01			302	
320	7.80	7.77	34.131	26.626	146.0	0.818	1.57	23.5	46.2	2.47	32.9	0.01			322	204
377	6.97	6.93	34.139	26.750	134.6	0.897	1.17	17.2	56.4	2.69	36.0	0.01			379	203
400 ISL	6.69	6.65	34.143	26.791	130.8	0.928	1.04	15.2	60.4	2.77	37.0	0.01			402	
439	6.30	6.26	34.156	26.853	125.2	0.978	0.84	12.1	67.0	2.89	38.5	0.01			442	202
500 ISL	5.88	5.84	34.199	26.940	117.3	1.052	0.58	8.3	76.0	3.04	40.3	0.01			503	
512	5.80	5.76	34.208	26.958	115.8	1.066	0.53	7.6	77.8	3.07	40.6	0.01			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 STATION 88.5 30.1

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 40.2 N	118 5.0 W	15/07/06	0527 UTC	24 m	230 07 kn			1010.2 mb	19.3 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	17.64	17.64	33.408	24.141	376.6	0.000	5.79	106.2	6.4	0.27	0.1	0.00	1.42	0.28	0	
1	17.64	17.64	33.408	24.141	376.6	0.004	5.79	106.2	6.4	0.27	0.1	0.00	1.42	0.28	1	204
5	17.63	17.63	33.411	24.146	376.3	0.019	5.79	106.2	6.3	0.27	0.1	0.01	1.42	0.30	5	203
10	15.55	15.55	33.420	24.634	329.9	0.036	5.81	102.3	6.3	0.32	0.1	0.00	1.48	0.33	10	202
15	13.94	13.94	33.434	24.991	296.1	0.052	5.36	91.3	7.5	0.40	0.1	0.00	2.11	0.31	15	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 45.3 W	15/07/06	0251 UTC	32 m	310 10 kn	290 02 06	1	1009.2 mb	20.7 C	19.2 C		2/8	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	19.19	19.19	33.445	23.786	410.5	0.000	6.03	113.9	4.2	0.24	0.0	0.02	1.75	0.72	0	
1	19.19	19.19	33.445	23.786	410.5	0.004	6.03	113.9	4.2	0.24	0.0	0.02	1.75	0.72	1	206
5	18.27	18.27	33.429	24.004	389.8	0.020	6.17	114.5	3.7	0.24	0.0	0.02	1.45	0.41	5	205
10	15.58	15.58	33.408	24.619	331.4	0.038	6.34	111.7	3.1	0.29	0.0	0.02	1.46	0.22	10	204
15	14.81	14.81	33.406	24.786	315.6	0.054	6.12	106.1	4.0	0.36	0.0	0.02	2.55	0.05	15	203
20	13.68	13.68	33.407	25.023	293.1	0.070	5.50	93.2	6.3	0.52	0.4	0.09	2.46	0.62	20	202
25	13.72	13.72	33.406	25.015	294.1	0.084	5.51	93.4	6.5	0.53	0.5	0.10	2.21	0.45	25	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 29.1 N	117 46.1 W	15/07/06	0038 UTC	67 m	320 11 kn	300 02 06	1	1009.1 mb	22.0 C	20.0 C	07m	2/8	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	21.05	21.05	33.475	23.321	454.8	0.000	5.90	115.4	3.3	0.17	0.0	0.01	0.60	0.01	0	
1	21.05	21.05	33.475	23.321	454.8	0.005	5.90	115.4	3.3	0.17	0.0	0.01	0.60	0.01	1	210
3	21.03	21.03	33.469	23.322	454.8	0.014									3	209
5	20.74	20.74	33.468	23.399	447.5	0.023	5.98	116.3	3.1	0.17	0.0	0.01	0.59	0.09	5	208
10	14.80	14.80	33.394	24.778	316.2	0.042	6.29	109.1	2.1	0.30	0.0	0.01	1.33	0.00	10	207
20 ISL	13.49	13.49	33.406	25.061	289.5	0.072	5.89	99.4	4.3	0.50	1.1	0.06	3.32	0.21	20	
21	13.36	13.36	33.408	25.089	286.9	0.075	5.85	98.5	4.8	0.53	1.2	0.07	3.45	0.23	21	206
27	12.76	12.76	33.435	25.229	273.7	0.092	5.08	84.5	7.9	0.78	5.2	0.21	3.05	0.51	27	205
30	12.49	12.49	33.433	25.280	268.9	0.100	4.87	80.5	8.6	0.85	6.4	0.33	2.64	0.33	30	204
40	11.56	11.55	33.471	25.485	249.6	0.126	3.81	61.8	13.0	1.26	12.5	0.59	0.98	0.23	40	203
50	11.40	11.39	33.481	25.522	246.3	0.151	3.65	59.0	13.7	1.33	13.4	0.54	0.77	0.28	50	202
60	11.15	11.14	33.538	25.612	238.0	0.175	3.26	52.4	16.3	1.53	16.0	0.22	0.32	0.42	60	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 55.1 W	14/07/06	2112	UTC	697 m	280	13 kn	280 02 07	1	1010.9 mb	23.2 C	22.0 C	11m	2/8	CU

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	22.79	22.79	33.573	22.913	493.8	0.000	5.41	109.2	0.8	0.07	0.1	0.00	0.29	0.04	0	
2	22.79	22.79	33.573	22.913	493.9	0.010	5.41	109.2	0.8	0.07	0.1	0.00	0.29	0.04	2	221
2	22.80	22.80	33.573	22.910	494.2	0.010									2	222
9	22.08	22.08	33.558	23.102	476.1	0.044	5.52	110.0	0.6	0.07	0.2	0.00	0.32	0.05	9	220
10 ISL	21.53	21.53	33.530	23.233	463.6	0.049	5.60	110.5	0.9	0.08	0.2	0.00	0.33	0.06	10	
20	15.51	15.51	33.408	24.634	330.2	0.088	6.20	109.0	3.2	0.23	0.1	0.00	0.39	0.12	20	219
29	13.56	13.56	33.384	25.030	292.7	0.116	5.77	97.5	2.1	0.41	0.1	0.00	0.42	0.15	29	218
30 ISL	13.36	13.36	33.382	25.069	289.0	0.119	5.66	95.3	2.5	0.45	0.3	0.02	0.61	0.21	30	
35	12.53	12.53	33.385	25.235	273.3	0.133	5.03	83.2	5.2	0.68	2.7	0.09	1.43	0.49	35	217
40	12.05	12.04	33.412	25.348	262.7	0.147	4.36	71.4	8.8	0.99	8.2	0.41	1.12	0.55	40	216
49	11.28	11.27	33.500	25.559	242.8	0.169	3.49	56.3	13.5	1.27	12.0	0.11	0.24	0.25	49	215
50 ISL	11.22	11.21	33.503	25.572	241.6	0.172	3.51	56.5	13.7	1.29	12.5	0.11	0.23	0.25	50	
60	10.77	10.76	33.520	25.666	232.9	0.196	3.76	59.9	15.2	1.43	17.0	0.07	0.12	0.20	60	214
75	10.16	10.15	33.604	25.837	216.8	0.229	3.53	55.6	18.4	1.60	20.0	0.03	0.06	0.14	75	213
85	9.97	9.96	33.679	25.928	208.4	0.251	3.31	51.9	20.1	1.67	21.1	0.03	0.03	0.07	85	212
99	9.91	9.90	33.825	26.052	196.9	0.279	2.73	42.8	23.8	1.88	23.4	0.03	0.02	0.06	99	211
100 ISL	9.90	9.89	33.832	26.059	196.3	0.281	2.72	42.6	24.0	1.88	23.5	0.03	0.02	0.06	100	
118	9.62	9.61	33.915	26.171	186.0	0.315	2.63	41.0	26.2	1.95	24.8	0.03	0.02	0.05	119	210
125 ISL	9.43	9.42	33.930	26.214	182.0	0.328	2.72	42.2	26.8	1.94	25.0	0.03	0.02	0.05	126	
139	9.08	9.06	33.956	26.291	174.9	0.353	2.87	44.2	28.2	1.92	25.3	0.03	0.01	0.04	140	209
150 ISL	9.02	9.00	34.007	26.340	170.4	0.372	2.70	41.5	30.0	1.99	26.2	0.03	0.01	0.04	151	
169	8.91	8.89	34.071	26.408	164.3	0.404	2.29	35.2	33.3	2.14	27.8	0.02	0.01	0.04	170	208
200	8.77	8.75	34.126	26.474	158.7	0.454	1.98	30.3	36.2	2.26	29.0	0.02	0.01	0.03	201	207
229	8.72	8.70	34.200	26.540	153.0	0.499	1.52	23.2	39.8	2.42	30.3	0.02			230	206
250 ISL	8.31	8.28	34.168	26.578	149.6	0.531	1.59	24.1	42.3	2.43	31.2	0.02			251	
270	7.93	7.90	34.136	26.610	146.7	0.561	1.68	25.2	44.5	2.44	31.9	0.02			272	205
300 ISL	8.04	8.01	34.216	26.657	142.9	0.604	1.26	19.0	46.8	2.59	32.3	0.01			302	
319	8.20	8.17	34.280	26.684	140.8	0.631	0.94	14.2	48.0	2.69	32.5	0.01			321	204
379	8.00	7.96	34.326	26.750	135.5	0.714	0.62	9.3	52.1	2.83	33.7	0.01			381	203
400 ISL	7.84	7.80	34.327	26.775	133.4	0.742	0.55	8.2	54.3	2.87	34.3	0.01			403	
440	7.49	7.45	34.322	26.822	129.3	0.795	0.46	6.8	58.7	2.95	35.4	0.01			443	202
500 ISL	7.03	6.98	34.318	26.884	124.0	0.871	0.39	5.7	64.0	3.02	36.9	0.01			503	
513	6.93	6.88	34.317	26.897	122.9	0.887	0.38	5.6	65.2	3.04	37.2	0.01			517	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 14.6 N	118 15.5 W	14/07/06	1748	UTC	729 m	310	08 kn	300 02 06	1	1012.4 mb	22.0 C	20.0 C	13m	5/8	CI

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	23.38	23.38	33.646	22.799	504.7	0.000	5.36	109.4	0.7	0.03	0.1	0.00	0.41	0.05	0	
2 A	23.38	23.38	33.646	22.799	504.8	0.010	5.36	109.4	0.7	0.03	0.1	0.00	0.41	0.05	2	224
7	22.20	22.20	33.587	23.091	477.1	0.035									7	223
7 A	21.93	21.93	33.567	23.151	471.4	0.035	5.61	111.5	1.1	0.06	0.1	0.00	0.42	0.06	7	222
10	20.91	20.91	33.529	23.401	447.6	0.048	5.73	111.8	1.3	0.08	0.1	0.00	0.50	0.05	10	221
19 A	14.69	14.69	33.445	24.841	310.4	0.083	5.38	93.1	2.9	0.21	0.1	0.00	0.62	0.11	19	220
20 ISL	14.31	14.31	33.446	24.923	302.7	0.086	5.25	90.1	3.5	0.24	0.1	0.00	0.76	0.11	20	
26 A	12.76	12.76	33.451	25.242	272.5	0.103	4.38	72.8	7.8	0.48	0.4	0.02	1.48	0.11	26	219
30 ISL	12.08	12.08	33.465	25.383	259.1	0.113	3.92	64.3	10.0	0.75	3.4	0.14	1.31	0.26	30	
34 A	11.59	11.59	33.486	25.491	248.9	0.124	3.56	57.8	11.9	1.04	7.6	0.23	1.14	0.39	34	218
41	10.96	10.96	33.549	25.654	233.5	0.141	3.17	50.8	15.3	1.44	15.2	0.05	0.27	0.21	41	217
48 A	10.62	10.61	33.586	25.743	225.2	0.157	3.15	50.1	16.9	1.58	18.4	0.03	0.13	0.14	48	216
50 ISL	10.55	10.54	33.607	25.772	222.5	0.161	3.09	49.1	17.6	1.63	19.3	0.03	0.10	0.12	50	
54	10.43	10.42	33.647	25.824	217.7	0.170	2.97	47.0	18.8	1.71	20.8	0.02	0.06	0.10	54	215
60	10.32	10.31	33.671	25.861	214.2	0.183	2.86	45.2	19.7	1.77	21.8	0.02	0.05	0.11	60	214
70	9.90	9.89	33.712	25.965	204.5	0.204	3.14	49.2	20.8	1.74	22.0	0.03	0.03	0.06	70	213
75 ISL	9.78	9.77	33.741	26.008	200.6	0.214	3.07	48.0	21.6	1.77	22.5	0.03	0.03	0.06	75	
84	9.66	9.65	33.812	26.083	193.6	0.232	2.95	46.0	23.6	1.85	23.7	0.02	0.02	0.05	84	212
100	9.54	9.53	34.012	26.259	177.2	0.261	2.39	37.2	28.3	2.06	26.0	0.02	0.01	0.04	101	211
120	9.15	9.14	34.046	26.350	169.0	0.296	2.40	37.0	30.3	2.08	26.8	0.02	0.01	0.03	121	210
125 ISL	9.14	9.13	34.063	26.365	167.6	0.304	2.34	36.1	30.9	2.10	27.1	0.02	0.01	0.03	126	
140	9.10	9.08	34.102	26.402	164.4	0.329	2.15	33.2	32.8	2.18	27.8	0.02	0.01	0.03	141	209
150 ISL	9.03	9.01	34.110	26.419	162.9	0.346	2.12	32.6	33.6	2.20	28.1	0.02	0.01	0.03	151	
169	8.89	8.87	34.123	26.452	160.2	0.376	2.05	31.5	35.0	2.23	28.6	0.02	0.01	0.03	170	208
199	8.89	8.87	34.206	26.517	154.6	0.424	1.53	23.5	38.6	2.42	29.8	0.03	0.00	0.04	200	207
200 ISL	8.89	8.87	34.208	26.519	154.5	0.425	1.52	23.3	38.7	2.43	29.8	0.03			201	
230	8.84	8.82	34.262	26.570	150.2	0.471	1.19	18.3	41.2	2.55	30.7	0.03			231	206
250 ISL	8.78	8.75	34.281	26.594	148.3	0.501	1.08	16.5	42.5	2.60	31.1	0.03			252	
269	8.71	8.68	34.291	26.614	146.8	0.529	1.02	15.6	43.6	2.63	31.4	0.02			271	205
300 ISL	8.61	8.58	34.301	26.637	145.1	0.574	0.94	14.3	44.8	2.67	31.7	0.01			302	
318	8.52	8.49	34.303	26.653	143.9	0.600	0.89	13.6	45.8	2.69	32.0	0.01			320	204
380	7.71	7.67	34.303	26.775	132.9	0.686	0.65	9.7	54.3	2.87	34.7	0.01			382	203
400 ISL	7.53	7.49	34.311	26.807	130.1	0.712	0.57	8.5	57.0	2.92	35.4	0.01			403	
435	7.26	7.22	34.324	26.856	125.8	0.757	0.44	6.5	61.4	3.00	36.4	0.01			438	202
500 ISL	6.83	6.78	34.326	26.918	120.6	0.837	0.36	5.3	67.1	3.08	37.8	0.01			503	
512	6.75	6.70	34.327	26.929	119.6	0.851	0.34	5.0	68.2	3.09	38.0	0.01			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 23.3 W	14/07/06	1209 UTC	1177 m	310 07 kn			1012.5 mb	18.3 C	17.4 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	21.98	21.98	33.548	23.122	473.9	0.000	5.57	110.8	2.4	0.10	0.0	0.01	0.36	0.08	0	
1	21.98	21.98	33.548	23.122	473.9	0.005	5.57	110.8	2.4	0.10	0.0	0.01	0.36	0.08	1	222
10	21.88	21.88	33.539	23.143	472.2	0.047	5.61	111.4	2.3	0.10	0.0	0.01	0.37	0.10	10	221
20	14.45	14.45	33.406	24.862	308.5	0.086	5.82	100.2	2.6	0.25	0.0	0.01	0.56	0.11	20	220
25	13.23	13.23	33.422	25.126	283.5	0.101	4.90	82.3	6.1	0.42	0.0	0.01	0.99	0.22	25	219
30	12.68	12.68	33.429	25.240	272.7	0.115	5.00	83.0	8.2	0.63	1.8	0.06	2.19	0.64	30	218
35	11.93	11.93	33.504	25.442	253.6	0.128	3.88	63.4	12.1	1.08	7.2	0.39	1.15	0.55	35	217
40	11.24	11.24	33.557	25.610	237.7	0.140	3.25	52.4	15.6	1.46	15.3	0.08	0.54	0.32	40	216
50	10.58	10.57	33.592	25.755	224.1	0.164	3.57	56.7	17.5	1.59	19.0	0.05	0.11	0.13	50	215
60	10.33	10.32	33.628	25.826	217.5	0.186	3.26	51.5	18.7	1.64	19.9	0.04	0.04	0.10	60	214
70	10.10	10.09	33.710	25.930	207.9	0.207	3.01	47.3	21.0	1.75	21.7	0.04	0.02	0.06	70	213
75 ISL	9.99	9.98	33.753	25.982	203.1	0.217	2.93	46.0	22.1	1.80	22.4	0.04	0.01	0.06	75	
84	9.80	9.79	33.828	26.072	194.6	0.235	2.82	44.1	24.0	1.88	23.5	0.03	0.01	0.06	84	212
99	9.46	9.45	33.936	26.213	181.5	0.263	2.67	41.5	27.3	1.96	25.0	0.04	0.02	0.05	99	211
100 ISL	9.44	9.43	33.940	26.219	180.9	0.265	2.66	41.3	27.4	1.96	25.1	0.04	0.02	0.05	101	
119	9.20	9.19	34.017	26.319	171.9	0.299	2.53	39.1	30.0	2.03	26.2	0.03	0.01	0.04	120	210
125 ISL	9.29	9.28	34.064	26.341	169.9	0.309	2.26	35.0	31.2	2.12	26.9	0.03	0.01	0.04	126	
139	9.56	9.54	34.171	26.381	166.5	0.332	1.59	24.8	33.8	2.32	28.4	0.02	0.01	0.05	140	209
150 ISL	9.50	9.48	34.194	26.409	164.0	0.351	1.53	23.8	35.0	2.35	28.6	0.02	0.01	0.05	151	
170	9.39	9.37	34.228	26.454	160.2	0.383	1.42	22.1	36.6	2.40	29.0	0.02	0.01	0.05	171	208
199	9.26	9.24	34.278	26.515	155.0	0.429	1.14	17.7	39.4	2.51	30.0	0.01	0.00	0.05	200	207
200 ISL	9.24	9.22	34.277	26.517	154.8	0.430	1.14	17.7	39.5	2.51	30.0	0.01			201	
229	8.79	8.77	34.249	26.567	150.4	0.475	1.28	19.6	41.7	2.51	30.6	0.02			230	206
250 ISL	8.77	8.74	34.285	26.599	147.8	0.506	1.10	16.9	43.4	2.58	31.1	0.02			251	
268	8.76	8.73	34.313	26.623	145.9	0.532	0.90	13.8	44.9	2.66	31.5	0.01			270	205
300 ISL	8.47	8.44	34.315	26.670	141.9	0.578	0.75	11.4	48.1	2.75	32.5	0.01			302	
318	8.28	8.25	34.309	26.694	139.8	0.604	0.70	10.6	49.9	2.79	33.1	0.01			320	204
378	7.90	7.86	34.331	26.769	133.6	0.686	0.57	8.6	54.3	2.88	34.3	0.01			380	203
400 ISL	7.68	7.64	34.328	26.799	131.0	0.715	0.53	7.9	56.6	2.91	35.0	0.01			403	
436	7.30	7.26	34.319	26.847	126.8	0.761	0.47	7.0	60.8	2.97	36.2	0.01			439	202
500 ISL	6.67	6.62	34.307	26.924	119.8	0.840	0.37	5.4	69.1	3.08	38.3	0.01			503	
512	6.55	6.50	34.305	26.939	118.5	0.854	0.35	5.1	70.7	3.10	38.7	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 56.2 W	14/07/06	0618 UTC	1706 m	290 06 kn			1013.5 mb	16.5 C	15.7 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	19.81	19.81	33.479	23.653	423.2	0.000	5.52	105.5	0.0	0.12	0.0	0.01	0.28	0.06	0	
1	19.81	19.81	33.479	23.653	423.2	0.004	5.52	105.5	0.0	0.12	0.0	0.01	0.28	0.06	1	222
10	19.57	19.57	33.476	23.713	417.8	0.042									10	221
10	19.59	19.59	33.473	23.705	418.5	0.042	5.57	106.0	0.0	0.12	0.0	0.01	0.30	0.07	10	220
20	14.91	14.91	33.404	24.763	318.0	0.079	5.71	99.2	2.2	0.33	0.0	0.01	0.41	0.15	20	219
25	13.16	13.16	33.396	25.120	284.0	0.094	4.96	83.1	4.9	0.54	0.3	0.03	2.39	0.93	25	218
30	12.33	12.33	33.355	25.250	271.7	0.108	4.83	79.5	7.1	0.87	7.2	0.08	1.53	0.66	30	217
40	11.44	11.44	33.478	25.512	247.0	0.134	3.88	62.7	12.1	1.27	13.5	0.04	0.38	0.27	40	216
50	10.43	10.42	33.571	25.764	223.2	0.157	3.69	58.4	17.0	1.54	18.7	0.03	0.12	0.16	50	215
60	10.30	10.29	33.649	25.848	215.5	0.179	3.24	51.2	19.2	1.68	20.5	0.02	0.05	0.12	60	214
70	10.10	10.09	33.683	25.908	209.9	0.200	3.14	49.4	21.5	1.75	22.0	0.01	0.05	0.12	70	213
75 ISL	9.96	9.95	33.715	25.957	205.4	0.211	3.11	48.8	22.1	1.77	22.4	0.01	0.04	0.10	75	
85	9.65	9.64	33.788	26.066	195.2	0.231	3.04	47.4	23.3	1.82	23.2	0.01	0.01	0.07	85	212
100	9.27	9.26	33.888	26.206	182.1	0.259	2.90	44.8	26.4	1.91	24.9	0.01	0.01	0.05	101	211
119	9.24	9.23	33.978	26.282	175.4	0.293	2.63	40.7	28.5	2.01	25.9	0.01	0.01	0.04	120	210
125 ISL	9.21	9.20	34.014	26.315	172.4	0.304	2.49	38.5	29.6	2.06	26.5	0.01	0.01	0.04	126	
139	9.10	9.08	34.088	26.391	165.4	0.327	2.18	33.6	32.4	2.16	27.8	0.00	0.00	0.04	140	209
150 ISL	8.95	8.93	34.108	26.430	161.9	0.345	2.08	32.0	34.2	2.21	28.5	0.00	0.00	0.04	151	
169	8.70	8.68	34.128	26.486	156.9	0.376	1.94	29.7	37.0	2.29	29.5	0.00	0.00	0.04	170	208
199	8.60	8.58	34.217	26.571	149.4	0.421	1.40	21.4	41.3	2.50	31.1	0.01	0.00	0.04	200	207
200 ISL	8.60	8.58	34.220	26.574	149.1	0.423	1.38	21.1	41.4	2.51	31.1	0.01			201	
229	8.52	8.50	34.278	26.632	144.2	0.466	1.02	15.5	44.7	2.64	32.0	0.01			230	206
250 ISL	8.38	8.35	34.288	26.662	141.7	0.496	0.88	13.4	46.6	2.70	32.6	0.01			252	
269	8.23	8.20	34.288	26.685	139.8	0.522	0.81	12.3	48.3	2.74	33.2	0.01			271	205
300 ISL	8.00	7.97	34.296	26.726	136.4	0.565	0.71	10.7	51.2	2.81	33.9	0.01			302	
318	7.86	7.83	34.299	26.749	134.4	0.589	0.67	10.1	52.9	2.84	34.3	0.01			320	204
377	7.36	7.32	34.298	26.821	128.2	0.667	0.54	8.0	58.9	2.94	36.0	0.00			379	203
400 ISL	7.24	7.20	34.299	26.839	126.8	0.696	0.51	7.5	60.5	2.97	36.4	0.00			403	
438	7.08	7.04	34.305	26.866	124.7	0.744	0.46	6.8	62.9	3.01	37.0	0.00			441	202
500 ISL	6.77	6.72	34.336	26.934	119.0	0.820	0.31	4.5	68.4	3.10	38.2	0.00			503	
512	6.71	6.66	34.342	26.947	117.9	0.834	0.28	4.1	69.5	3.12	38.4	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 39.2 N	119 29.1 W	14/07/06	0038	UTC	1320 m	300	13 kn	300 03 07	2	1013.5 mb	16.1 C	15.0 C	06m	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	14.78	14.78	33.589	24.933	301.2	0.000	5.85	101.5	10.5	0.58	3.3	0.06	1.97	0.72	0	
2	15.17	15.17	33.576	24.838	310.3	0.006	5.92	103.5	10.5	0.54	2.7	0.06	1.69	0.32	2	221
10	14.78	14.78	33.588	24.932	301.5	0.031									10	220
10	14.78	14.78	33.589	24.933	301.5	0.031	5.85	101.5	10.5	0.58	3.3	0.06	1.97	0.72	10	219
20	14.42	14.42	33.609	25.025	293.0	0.060	5.48	94.4	11.1	0.71	5.3	0.10	1.68	0.61	20	218
30	13.30	13.30	33.632	25.275	269.5	0.088	4.60	77.4	12.8	1.05	10.2	0.24	0.86	0.45	30	217
40	10.59	10.59	33.766	25.888	211.2	0.112	2.88	45.8	21.4	1.76	21.5	0.15	0.34	0.23	40	216
50	10.04	10.03	33.811	26.018	199.1	0.133	2.63	41.3	24.3	1.91	23.7	0.06	0.18	0.16	50	215
60	9.72	9.71	33.855	26.106	190.9	0.152	2.57	40.1	26.1	1.97	24.8	0.04	0.09	0.09	60	214
70	9.45	9.44	33.885	26.174	184.6	0.171	2.54	39.4	27.4	2.02	25.8	0.04	0.03	0.09	70	213
75 ISL	9.40	9.39	33.919	26.209	181.4	0.180	2.43	37.7	28.4	2.06	26.3	0.04	0.03	0.09	75	
85	9.35	9.34	33.987	26.271	175.8	0.198	2.20	34.1	30.4	2.14	27.1	0.04	0.03	0.08	85	212
100	9.26	9.25	34.014	26.307	172.7	0.224	2.08	32.2	31.6	2.19	27.7	0.05	0.02	0.10	101	211
119	9.16	9.15	34.040	26.343	169.6	0.257	1.97	30.4	32.8	2.24	28.4	0.03	0.01	0.12	120	210
125 ISL	9.11	9.10	34.051	26.360	168.1	0.267	1.94	29.9	33.3	2.26	28.6	0.04	0.01	0.12	126	
139	8.96	8.95	34.072	26.401	164.5	0.290	1.90	29.2	34.5	2.28	29.1	0.06	0.01	0.10	140	209
150 ISL	8.85	8.83	34.075	26.420	162.8	0.308	1.98	30.4	34.8	2.26	29.1	0.05	0.01	0.08	151	
170	8.64	8.62	34.073	26.452	160.1	0.341	2.13	32.5	35.7	2.22	29.1	0.04	0.01	0.05	171	208
200	8.27	8.25	34.093	26.525	153.7	0.388	1.95	29.5	39.8	2.33	30.5	0.02	0.01	0.04	201	207
228	7.95	7.93	34.112	26.588	148.1	0.430	1.76	26.4	43.7	2.43	31.9	0.02			229	206
250 ISL	7.72	7.70	34.139	26.643	143.1	0.462	1.51	22.6	47.4	2.54	33.0	0.01			252	
268	7.56	7.53	34.163	26.685	139.4	0.487	1.30	19.4	50.3	2.63	33.9	0.01			270	205
300 ISL	7.36	7.33	34.190	26.735	135.0	0.531	1.06	15.7	54.0	2.75	34.9	0.01			302	
318	7.26	7.23	34.202	26.759	133.0	0.555	0.96	14.2	55.9	2.80	35.4	0.01			320	204
378	6.86	6.82	34.242	26.846	125.4	0.633	0.66	9.7	62.8	2.93	37.1	0.01			380	203
400 ISL	6.65	6.61	34.245	26.877	122.7	0.660	0.60	8.8	66.0	2.98	37.9	0.01			403	
437	6.32	6.28	34.249	26.923	118.5	0.705	0.52	7.5	71.1	3.05	39.0	0.00			440	202
500 ISL	6.14	6.10	34.284	26.975	114.4	0.778	0.38	5.5	75.5	3.13	39.8	0.00			503	
512	6.10	6.05	34.291	26.986	113.5	0.792	0.35	5.0	76.3	3.14	39.9	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 25.1 N	119 57.2 W	13/07/06	1858	UTC	1876 m	310	10 kn	340 04 05	2	1015.5 mb	17.0 C	15.9 C	22m	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	17.09	17.09	33.300	24.190	372.0	0.000	5.61	101.7	1.5	0.28	0.1	0.00	0.21	0.03	0	
2 A	17.09	17.09	33.300	24.190	372.0	0.007	5.61	101.7	1.5	0.28	0.1	0.00	0.21	0.03	2	223
10 ISL	17.04	17.04	33.299 D	24.200	371.1	0.037	5.61	84.5	1.5	0.28	0.1	0.00	0.21	0.04	10	
12	17.03	17.03	33.299	24.203	371.0	0.045									12	222
12 A	17.03	17.03	33.299	24.203	371.0	0.045	5.61	101.6	1.5	0.28	0.1	0.00	0.21	0.04	12	221
20 ISL	14.00	14.00	33.297 D	24.207	370.9	0.074	5.63	95.5	1.6	0.27	0.1	0.00	0.24	0.02	20	
22	17.01	17.01	33.297	24.207	371.0	0.082	5.63	101.9	1.6	0.27	0.1	0.00	0.25	0.02	22	220
30	16.06	16.06	33.251	24.391	353.7	0.111									30	219
32 A	15.63	15.63	33.235	24.475	345.8	0.118	5.83	102.7	1.7	0.31	0.1	0.01	0.43	0.17	32	218
45 A	13.58	13.57	33.123	24.825	312.7	0.160	5.69	96.0	2.3	0.50	1.7	0.37	0.55	0.28	45	217
50 ISL	13.48	13.47	33.214	24.916	304.2	0.176	5.55	93.5	2.9	0.56	2.9	0.46	0.45	0.24	50	
51	13.46	13.45	33.230	24.932	302.6	0.179	5.52	93.0	3.0	0.57	3.1	0.48	0.43	0.23	51	216
58 A	13.44	13.43	33.376	25.049	291.7	0.200	5.38	90.7	3.5	0.59	3.9	0.56	0.37	0.23	58	215
70	12.47	12.46	33.367	25.234	274.3	0.234	5.08	83.9	5.9	0.81	7.8	0.55	0.20	0.13	70	214
75 ISL	12.35	12.34	33.398	25.281	270.0	0.247	5.05	83.2	6.4	0.87	8.6	0.69	0.18	0.10	75	
80 A	12.18	12.17	33.431	25.339	264.5	0.261	4.99	81.9	7.1	0.94	9.5	0.77	0.16	0.08	80	213
93	10.59	10.58	33.457	25.649	235.2	0.293	4.31	68.4	13.1	1.27	15.5	0.04	0.06	0.06	93	212
99	10.27	10.26	33.485	25.726	227.9	0.307	4.13	65.1	14.7	1.38	17.2	0.02	0.05	0.05	99	211
100 ISL	10.23	10.22	33.493	25.739	226.7	0.309	4.09	64.4	15.0	1.40	17.5	0.02	0.05	0.05	100	
120	9.68	9.67	33.680	25.977	204.4	0.352	3.41	53.1	20.6	1.69	21.9	0.01	0.01	0.04	121	210
125 ISL	9.56	9.55	33.721	26.029	199.6	0.363	3.29	51.1	21.9	1.74	22.7	0.01	0.01	0.04	126	
139	9.28	9.26	33.823	26.155	187.9	0.390	3.01	46.5	25.3	1.87	24.6	0.01	0.01	0.03	140	209
150 ISL	9.15	9.13	33.889	26.227	181.2	0.410	2.77	42.7	27.5	1.96	25.9	0.01	0.01	0.03	151	
169	8.99	8.97	33.981	26.325	172.2	0.444	2.39	36.7	30.8	2.09	27.7	0.01	0.01	0.04	170	208
198	8.69	8.67	34.086	26.455	160.4	0.492	1.96	29.9	36.1	2.26	29.8	0.01	0.00	0.03	199	207
200 ISL	8.67	8.65	34.091	26.462	159.8	0.495	1.93	29.5	36.5	2.27	29.9	0.01			201	
228	8.33	8.31	34.131	26.546	152.2	0.539	1.58	23.9	41.6	2.43	31.7	0.01			229	206
250 ISL	8.08	8.05	34.136	26.587	148.5	0.572	1.51	22.8	44.0	2.48	32.5	0.01			251	
269	7.86	7.83	34.135	26.619	145.7	0.600	1.49	22.3	45.9	2.51	33.1	0.01			271	205
300 ISL	7.49	7.46	34.151	26.686	139.8	0.644	1.29	19.2	50.6	2.62	34.4	0.01			302	
319	7.27	7.24	34.161	26.725	136.2	0.670	1.15	17.0	53.7	2.70	35.2	0.01			321	204
379	6.59	6.56	34.174	26.828	126.9	0.749	0.86	12.5	63.5	2.87	37.7	0.00			381	203
400 ISL	6.59	6.55	34.207	26.855	124.7	0.775	0.72	10.5	65.2	2.93	38.0	0.00			403	
439	6.59	6.55	34.264	26.900	121.0	0.823	0.49	7.1	68.0	3.03	38.3	0.01			442	202
500 ISL	6.16	6.12	34.305	26.989	113.1	0.895	0.33	4.8	75.8	3.14	39.9	0.00			503	
511	6.08	6.03	34.313 D	27.006	111.6	0.907	0.30	4.3	77.2	3.16	40.2	0.00			514	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 5.4 N	120 38.4 W	13/07/06	1220 UTC	3820 m	340 16 kn			1014.7 mb	16.2 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	16.57	16.57	33.237	24.263	365.0	0.000	5.68	101.9	1.9	0.28	0.1	0.00	0.27	0.08	0	
2	16.57	16.57	33.237	24.263	365.1	0.007	5.68	101.9	1.9	0.28	0.1	0.00	0.27	0.08	2	221
10 ISL	16.56	16.56	33.235	24.264	365.2	0.037	5.69	102.1	1.9	0.28	0.0	0.00	0.27	0.08	10	
15	16.55	16.55	33.233	24.265	365.3	0.055	5.69	102.1	1.9	0.28	0.0	0.00	0.27	0.08	15	220
20 ISL	16.54	16.54	33.233	24.267	365.2	0.073	5.69	102.0	1.9	0.28	0.0	0.00	0.27	0.08	20	
30	16.52	16.52	33.233	24.272	365.1	0.110	5.70	102.2	1.8	0.28	0.0	0.00	0.27	0.09	30	219
45	16.09	16.08	33.221	24.362	357.0	0.164	5.78	102.7	2.0	0.29	0.1	0.00	0.50	0.14	45	218
50 ISL	15.42	15.41	33.195	24.491	344.7	0.181	5.89	103.3	2.3	0.30	0.1	0.00	0.47	0.18	50	
55	14.73	14.72	33.179	24.629	331.7	0.198	5.97	103.2	2.6	0.32	0.1	0.00	0.43	0.24	55	217
65	14.08	14.07	33.214	24.793	316.3	0.231	5.80	99.0	2.8	0.39	0.3	0.04	0.44	0.39	65	216
70	13.65	13.64	33.316	24.961	300.5	0.246	5.44	92.1	3.8	0.52	1.7	0.09	0.44	0.38	70	215
75	13.11	13.10	33.329	25.079	289.3	0.261	5.14	86.0	5.1	0.68	4.6	0.18	0.31	0.39	75	214
85	12.19	12.18	33.352	25.276	270.7	0.289	4.78	78.5	7.5	0.92	9.0	0.11	0.21	0.24	85	213
95	11.73	11.72	33.400	25.400	259.1	0.315	4.49	73.0	9.4	1.07	11.6	0.06	0.14	0.22	95	212
100 ISL	11.35	11.34	33.433	25.495	250.1	0.328	4.32	69.7	11.0	1.18	13.4	0.04	0.11	0.19	100	
110	10.57	10.56	33.518	25.700	230.7	0.352	3.96	62.8	14.8	1.40	17.1	0.02	0.07	0.12	110	211
125	9.86	9.85	33.672	25.941	208.0	0.385	3.45	54.0	20.2	1.67	21.3	0.01	0.02	0.04	126	210
145	9.47	9.45	33.840	26.137	189.7	0.425	3.11	48.3	24.5	1.84	23.7	0.00	0.00	0.03	146	209
150 ISL	9.40	9.38	33.868	26.171	186.6	0.434	3.04	47.1	25.4	1.87	24.2	0.00	0.00	0.03	151	
170	9.14	9.12	33.952	26.278	176.7	0.470	2.79	43.0	28.6	1.97	25.7	0.00	0.00	0.02	171	208
200	8.81	8.79	34.036	26.397	166.0	0.522	2.49	38.1	32.9	2.10	27.6	0.00	0.00	0.02	201	207
228	8.41	8.39	34.090	26.501	156.4	0.567	2.14	32.5	38.1	2.25	29.7	0.00			229	206
250 ISL	8.12	8.09	34.110	26.561	151.1	0.601	1.91	28.8	41.8	2.36	31.1	0.00			251	
270	7.88	7.85	34.120	26.605	147.2	0.631	1.73	25.9	45.0	2.45	32.2	0.00			272	205
300 ISL	7.54	7.51	34.137	26.668	141.5	0.674	1.46	21.7	49.6	2.58	33.7	0.00			302	
319	7.34	7.31	34.146	26.703	138.3	0.700	1.31	19.4	52.4	2.65	34.6	0.00			321	204
376	6.76	6.73	34.161	26.795	130.1	0.777	1.00	14.6	60.8	2.83	36.9	0.00			378	203
400 ISL	6.57	6.53	34.172	26.830	127.1	0.808	0.88	12.8	63.9	2.90	37.6	0.00			402	
439	6.32	6.28	34.194	26.880	122.6	0.856	0.69	10.0	68.8	2.99	38.7	0.00			442	202
500 ISL	5.99	5.95	34.245	26.963	115.3	0.929	0.46	6.6	76.3	3.12	40.1	0.00			503	
512	5.92	5.88	34.255	26.980	113.8	0.943	0.41	5.9	77.8	3.14	40.4	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 45.0 N	121 19.1 W	13/07/06	0549 UTC	3691 m	330 16 kn			1015.3 mb	16.3 C	15.2 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	16.24	16.24	32.964	24.129	377.8	0.000	5.78	102.9	1.4	0.30	0.0	0.01	0.18	0.01	0	
2	16.24	16.24	32.964	24.129	377.9	0.008	5.78	102.9	1.4	0.30	0.0	0.01	0.18	0.01	2	222
10 ISL	16.25	16.25	32.963	24.126	378.4	0.038	5.78	102.9	1.3	0.30	0.0	0.01	0.17	0.02	10	
15	16.24	16.24	32.964	24.129	378.2	0.057									15	221
15	16.25	16.25	32.963	24.126	378.5	0.057	5.78	102.9	1.3	0.30	0.0	0.01	0.17	0.03	15	220
20 ISL	16.25	16.25	32.964	24.127	378.6	0.076	5.78	102.9	1.3	0.30	0.0	0.01	0.17	0.03	20	
30	16.24	16.24	32.965	24.130	378.6	0.114	5.78	102.9	1.3	0.30	0.0	0.00	0.18	0.04	30	219
45	15.45	15.44	33.023	24.352	357.8	0.169	5.95	104.3	1.3	0.30	0.0	0.00	0.37	0.12	45	218
50 ISL	15.26	15.25	33.078	24.436	350.0	0.186	5.96	104.1	1.4	0.30	0.0	0.00	0.40	0.13	50	
51	15.23	15.22	33.092	24.454	348.3	0.190	5.96	104.0	1.4	0.30	0.0	0.00	0.41	0.13	51	217
55	15.09	15.08	33.165	24.541	340.2	0.204	5.93	103.3	1.4	0.29	0.0	0.01	0.34	0.13	55	216
65	14.82	14.81	33.191	24.619	333.0	0.237	5.90	102.2	1.4	0.29	0.0	0.01	0.32	0.15	65	215
75	14.32	14.31	33.175	24.713	324.2	0.270	5.76	98.7	1.8	0.40	0.6	0.14	0.33	0.22	75	214
84	13.41	13.40	33.178	24.903	306.3	0.299	5.61	94.4	3.1	0.48	1.6	0.19	0.27	0.16	84	213
95	12.92	12.91	33.531	25.274	271.3	0.330	5.11	85.3	4.9	0.64	5.8	0.06	0.14	0.12	95	212
100 ISL	11.83	11.82	33.454	25.423	257.0	0.343	4.96	80.9	6.4	0.77	7.9	0.05	0.12	0.12	100	
110	11.02	11.01	33.429	25.552	244.9	0.369	4.72	75.6	9.7	1.04	11.9	0.03	0.10	0.11	110	211
125	10.27	10.26	33.511	25.746	226.5	0.404	4.30	67.8	14.2	1.32	16.2	0.02	0.05	0.05	126	210
144	9.72	9.70	33.639	25.939	208.5	0.445	3.85	60.0	19.3	1.60	20.4	0.01	0.02	0.05	145	209
150 ISL	9.63	9.61	33.691	25.995	203.4	0.458	3.57	55.6	21.1	1.70	21.7	0.01	0.02	0.05	151	
170	9.43	9.41	33.864	26.163	187.8	0.497	2.62	40.6	27.0	1.99	25.5	0.01	0.01	0.07	171	208
199	9.07	9.05	34.039	26.358	169.7	0.549	1.96	30.2	33.0	2.24	28.6	0.01	0.01	0.07	200	207
200 ISL	9.05	9.03	34.042	26.364	169.2	0.550	1.95	30.0	33.2	2.25	28.7	0.01			201	
229	8.51	8.49	34.104	26.497	156.9	0.598	1.74	26.5	38.8	2.37	30.8	0.01			230	206
250 ISL	8.23	8.20	34.136	26.565	150.7	0.630	1.55	23.4	42.3	2.46	32.0	0.01			251	
269	7.98	7.95	34.144	26.609	146.8	0.658	1.44	21.6	45.3	2.53	32.8	0.01			270	205
300 ISL	7.32	7.29	34.083	26.656	142.4	0.703	1.68	24.9	49.7	2.52	33.7	0.01			302	
318	6.93	6.90	34.045	26.680	140.2	0.728	1.82	26.7	52.4	2.52	34.3	0.01			320	204
377	6.25	6.22	34.086	26.803	128.9	0.808	1.18	17.0	63.9	2.82	37.9	0.01			379	203
400 ISL	6.11	6.07	34.115	26.844	125.2	0.837	0.96	13.8	67.7	2.91	38.8	0.01			402	
438	5.97	5.93	34.167	26.903	120.1	0.884	0.67	9.6	73.0	3.03	39.8	0.00			441	202
500 ISL	5.86	5.82	34.242	26.977	113.9	0.956	0.42	6.0	78.2	3.14	40.5	0.00			503	
512	5.84	5.80	34.257	26.991	112.6	0.970	0.37	5.3	79.2	3.16	40.6	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 25.1 N	121 59.5 W	12/07/06	2309 UTC	3873 m	350 23 kn	350 06 06	2	1016.6 mb	17.9 C	16.7 C	24m	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	17.06	17.06	33.004	23.970	392.9	0.000	5.62	101.7	1.8	0.29	0.0	0.00	0.14	0.03	0	
2	17.06	17.06	33.004	23.970	393.0	0.008	5.62	101.7	1.8	0.29	0.0	0.00	0.14	0.03	2	222
10 ISL	17.05	17.05	33.003	23.972	393.1	0.039	5.63	101.8	1.8	0.29	0.0	0.00	0.13	0.04	10	
15	17.04	17.04	33.001	23.973	393.2	0.059									15	221
16	17.04	17.04	33.002	23.973	393.1	0.063	5.64	102.0	1.7	0.29	0.0	0.00	0.13	0.04	16	220
20 ISL	17.01	17.01	32.999	23.978	392.8	0.079	5.64	101.9	1.7	0.29	0.0	0.00	0.14	0.04	20	
30	16.96	16.96	32.996	23.988	392.2	0.118									30	219
30	16.94	16.94	32.993	23.991	391.9	0.118	5.64	101.8	1.6	0.29	0.0	0.00	0.16	0.03	30	218
45	16.19	16.18	33.080	24.231	369.5	0.175	5.86	104.3	1.6	0.29	0.0	0.00	0.29	0.08	45	217
50 ISL	15.42	15.41	33.009	24.348	358.4	0.193	5.98	104.7	1.5	0.30	0.0	0.00	0.36	0.11	50	
54	14.86	14.85	32.969	24.439	349.8	0.207	6.05	104.7	1.4	0.30	0.0	0.00	0.41	0.14	54	216
65	14.83	14.82	33.141	24.578	336.8	0.245	5.93	102.7	1.8	0.30	0.1	0.01	0.53	0.30	65	215
75	14.27	14.26	33.064	24.638	331.4	0.278	5.87	100.5	1.7	0.37	0.4	0.07	0.54	0.29	75	214
84	14.16	14.15	33.168	24.742	321.8	0.308	5.73	97.9	2.2	0.42	0.7	0.20	0.46	0.10	84	213
94	14.03	14.02	33.304	24.874	309.5	0.339	5.65	96.4	2.4	0.38	0.8	0.22	0.31	0.24	94	212
100 ISL	13.69	13.68	33.352	24.981	299.4	0.358	5.52	93.5	2.9	0.42	1.8	0.17	0.23	0.20	100	
110	13.45	13.43	33.429	25.090	289.3	0.387	5.24	88.4	4.4	0.58	4.6	0.06	0.14	0.10	110	211
124	11.47	11.45	33.430	25.472	252.9	0.425	4.81	77.8	8.4	0.94	10.3	0.03	0.10	0.12	125	210
125 ISL	11.37	11.35	33.433	25.492	251.0	0.428	4.77	77.0	8.7	0.97	10.7	0.03	0.10	0.12	126	
144	10.12	10.10	33.538	25.793	222.5	0.473	4.08	64.1	15.4	1.40	17.5	0.01	0.04	0.04	145	209
150 ISL	9.89	9.87	33.593	25.875	214.8	0.486	3.84	60.1	17.5	1.52	19.2	0.01	0.03	0.04	151	
170	9.41	9.39	33.779	26.100	193.7	0.527	3.19	49.4	23.8	1.81	23.5	0.01	0.00	0.02	171	208
199	9.01	8.99	33.938	26.289	176.3	0.580	2.94	45.2	28.5	1.93	25.6	0.01	0.00	0.02	200	207
200 ISL	9.00	8.98	33.941	26.293	175.9	0.582	2.93	45.0	28.6	1.93	25.7	0.01			201	
229	8.79	8.77	34.009	26.379	168.2	0.632	2.63	40.2	31.7	2.04	27.1	0.01			230	206
250 ISL	8.51	8.48	34.040	26.447	162.0	0.666	2.39	36.3	35.0	2.15	28.6	0.01			251	
272	8.19	8.16	34.061	26.512	156.1	0.701	2.17	32.8	38.8	2.26	30.3	0.01			273	205
300 ISL	7.85	7.82	34.075	26.574	150.5	0.744	2.01	30.1	43.0	2.37	31.8	0.01			302	
318	7.65	7.62	34.080	26.607	147.6	0.771	1.92	28.6	45.6	2.43	32.7	0.01			320	204
379	7.04	7.00	34.113	26.720	137.5	0.858	1.31	19.3	54.8	2.69	35.5	0.01			381	203
400 ISL	6.80	6.76	34.132	26.767	133.1	0.887	1.12	16.4	58.8	2.78	36.5	0.01			402	
437	6.40	6.36	34.163	26.845	126.0	0.935	0.83	12.0	66.0	2.92	38.2	0.01			440	202
500 ISL	5.86	5.82	34.180	26.928	118.5	1.012	0.62	8.9	75.5	3.05	40.1	0.01			503	
513	5.75	5.71	34.184	26.945	116.9	1.027	0.58	8.3	77.4	3.08	40.5	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 6.3 N	122 39.9 W	12/07/06	1746 UTC	4062 m	360 16 kn	360 05 08	2	1018.0 mb	18.1 C	16.5 C	27m	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	18.52	18.52	33.454	23.961	393.7	0.000	5.44	101.5	1.2	0.28	0.0	0.00	0.09	0.02	0	
2 A	18.52	18.52	33.454	23.961	393.8	0.008	5.44	101.5	1.2	0.28	0.0	0.00	0.09	0.02	2	224
10 ISL	18.52	18.52	33.454	23.962	394.0	0.039	5.44	101.5	1.2	0.27	0.0	0.00	0.10	0.01	10	
15	18.52	18.52	33.449	23.958	394.6	0.059									15	223
16 A	18.52	18.52	33.454	23.962	394.2	0.063	5.44	101.5	1.2	0.27	0.0	0.00	0.11	0.01	16	222
20 ISL	18.52	18.52	33.452	23.961	394.5	0.079	5.44	101.5	1.2	0.27	0.0	0.00	0.11	0.01	20	
27	18.51	18.51	33.449	23.961	394.7	0.106	5.44	101.5	1.3	0.27	0.0	0.00	0.10	0.01	27	221
30 ISL	18.51	18.50	33.449	23.961	394.8	0.118	5.44	101.5	1.3	0.27	0.0	0.00	0.10	0.01	30	
39 A	18.51	18.50	33.449	23.962	395.1	0.154	5.45	101.6	1.4	0.27	0.0	0.00	0.11	0.01	39	220
50 ISL	18.38	18.37	33.431	23.981	393.7	0.197	5.48	101.9	1.4	0.27	0.0	0.00	0.12	0.02	50	
54 A	18.33	18.32	33.425	23.989	393.1	0.213	5.49	102.0	1.4	0.27	0.0	0.00	0.13	0.02	54	219
60	16.32	16.31	33.212	24.303	363.1	0.236	5.86	104.6	1.5	0.28	0.0	0.00	0.19	0.03	60	218
71 A	15.54	15.53	33.163	24.441	350.2	0.275	5.90	103.7	1.7	0.29	0.0	0.00	0.23	0.03	71	217
75 ISL	15.39	15.38	33.167	24.477	346.9	0.289	5.90	103.4	1.6	0.29	0.0	0.00	0.24	0.04	75	
80	15.21	15.20	33.182	24.528	342.1	0.306	5.90	103.0	1.6	0.29	0.0	0.00	0.26	0.08	80	216
89	14.71	14.70	33.228	24.672	328.6	0.336	5.80	100.2	1.9	0.32	0.1	0.00	0.36	0.22	89	215
98 A	14.16	14.15	33.248	24.804	316.3	0.365	5.68	97.1	2.4	0.38	0.2	0.02	0.51	0.34	98	213
99	14.16	14.15	33.249	24.805	316.2	0.368									99	214
100 ISL	13.99	13.98	33.249	24.840	312.9	0.372	5.63	95.9	2.6	0.41	0.6	0.05	0.49	0.34	100	
107	13.44	13.43	33.265	24.965	301.1	0.393	5.46	92.0	3.5	0.52	2.3	0.16	0.35	0.33	107	212
115	13.07	13.05	33.327	25.087	289.6	0.417	5.34	89.3	4.2	0.61	4.2	0.12	0.24	0.33	115	211
125 ISL	12.66	12.64	33.387	25.214	277.7	0.445	5.12	84.9	5.3	0.71	6.3	0.07	0.21	0.20	125	
126	12.61	12.59	33.391	25.227	276.5	0.448	5.09	84.3	5.4	0.72	6.5	0.06	0.21	0.18	126	210
139	11.39	11.37	33.400	25.463	254.0	0.482	4.77	77.0	8.5	0.97	10.8	0.01	0.13	0.11	140	209
150 ISL	10.62	10.60	33.448	25.638	237.5	0.509	4.46	70.8	11.9	1.19	14.4	0.01	0.08	0.07	151	
164	9.91	9.89	33.544	25.834	219.0	0.541	4.03	63.0	16.5	1.45	18.5	0.00	0.03	0.03	165	208
195	9.13	9.11	33.837	26.191	185.5	0.604	3.05	47.0	26.2	1.89	24.9	0.00	0.00	0.02	196	207
200 ISL	9.06	9.04	33.869	26.227	182.2	0.613	2.95	45.4	27.2	1.93	25.4	0.00			201	
229	8.77	8.75	33.998	26.374	168.7	0.664	2.57	39.3	32.0	2.06	27.5	0.00			230	206
250 ISL	8.48	8.45	34.043	26.454	161.4	0.699	2.44	37.1	35.3	2.13	28.7	0.00			251	
269	8.20	8.17	34.063	26.513	156.0	0.729	2.34	35.3	38.3	2.20	29.8	0.00			270	205
300 ISL	7.74	7.71	34.081	26.595	148.5	0.776	2.03	30.3	43.9	2.35	31.8	0.00			302	
319	7.48	7.45	34.088	26.638	144.6	0.804	1.82	27.0	47.4	2.45	33.0	0.00			321	204
378	6.95	6.91	34.129	26.745	135.1	0.886	1.26	18.5	56.3	2.70	35.9	0.00			380	203
400 ISL	6.70	6.66	34.133	26.782	131.7	0.916	1.14	16.6	59.9	2.77	36.8	0.00			402	
438	6.28	6.24	34.143	26.845	125.9	0.965	0.97	14.0	66.1	2.87	38.3	0.00			441	202
500 ISL	5.87	5.83	34.199	26.942	117.2	1.040	0.62	8.9	76.0	3.04	40.1	0.00			503	
512	5.79	5.75	34.210	26.960	115.5	1.054	0.55	7.9	77.9	3.07	40.5	0.00			515	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 45.3 N	123 20.2 W	12/07/06	0751	UTC	4026 m	360	13 kn			1016.7 mb	17.7 C	15.3 C			

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	18.55	18.55	33.322	23.853	404.1	0.000	5.45	101.7	1.5	0.28	0.0	0.00	0.09	0.02	0	
3	18.55	18.55	33.322	23.853	404.2	0.012	5.45	101.7	1.5	0.28	0.0	0.00	0.09	0.02	3	220
10 ISL	18.55	18.55	33.316	23.849	404.8	0.040	5.44	101.5	1.5	0.28	0.0	0.00	0.09	0.02	10	
15	18.56	18.56	33.312	23.844	405.5	0.061	5.44	101.5	1.5	0.28	0.0	0.00	0.09	0.02	15	219
20 ISL	18.56	18.56	33.316	23.847	405.4	0.081	5.44	101.5	1.5	0.28	0.0	0.00	0.09	0.02	20	
30	18.57	18.56	33.325	23.852	405.3	0.122	5.45	101.7	1.5	0.28	0.0	0.00	0.08	0.01	30	218
45	18.20	18.19	33.292	23.918	399.4	0.182	5.53	102.4	1.5	0.28	0.0	0.00	0.15	0.03	45	217
50 ISL	17.39	17.38	33.228	24.065	385.5	0.201	5.66	103.2	1.5	0.28	0.0	0.00	0.14	0.03	50	
61	15.55	15.54	33.117	24.403	353.5	0.242	5.94	104.4	1.6	0.29	0.0	0.00	0.13	0.03	61	216
75	14.80	14.79	33.108	24.560	338.9	0.291	5.95	103.0	1.5	0.30	0.0	0.00	0.19	0.05	75	215
84	14.72	14.71	33.176	24.630	332.5	0.321	5.89	101.8	1.4	0.29	0.1	0.00	0.23	0.07	84	214
95	14.43	14.42	33.203	24.712	324.9	0.357	5.85	100.5	1.7	0.31	0.0	0.00	0.25	0.14	95	213
100 ISL	13.76	13.75	33.120	24.787	317.8	0.373	5.83	98.8	2.2	0.35	0.2	0.01	0.27	0.15	100	
105	13.55	13.54	33.125	24.834	313.4	0.389	5.81	98.0	2.9	0.41	0.3	0.02	0.29	0.16	105	212
114	12.85	12.83	33.290	25.101	288.1	0.416	5.27	87.7	4.2	0.62	4.4	0.14	0.24	0.26	114	211
125	11.81	11.79	33.325	25.327	266.7	0.446	4.89	79.6	7.4	0.92	9.5	0.04	0.19	0.13	125	210
139	11.04	11.02	33.396	25.523	248.3	0.482	4.68	75.0	9.7	1.07	12.1	0.02	0.11	0.12	140	209
150 ISL	10.51	10.49	33.464	25.669	234.5	0.509	4.49	71.1	12.1	1.20	14.3	0.02	0.07	0.09	151	
166	9.88	9.86	33.576	25.864	216.2	0.545	4.23	66.1	15.8	1.38	17.4	0.01	0.03	0.04	167	208
194	9.22	9.20	33.789	26.139	190.5	0.602	3.87	59.7	21.7	1.59	21.2	0.01	0.01	0.02	195	207
200 ISL	9.12	9.10	33.828	26.185	186.2	0.613	3.76	57.9	23.1	1.64	21.9	0.01			201	
227	8.73	8.71	33.965	26.354	170.5	0.661	3.21	49.0	29.3	1.85	25.1	0.00			228	206
250 ISL	8.34	8.31	34.024	26.461	160.7	0.700	2.81	42.6	34.7	2.03	27.6	0.00			251	
267	8.05	8.02	34.048	26.523	154.9	0.726	2.54	38.2	38.5	2.15	29.2	0.00			268	205
300 ISL	7.61	7.58	34.079	26.612	146.8	0.776	2.06	30.7	45.2	2.36	31.7	0.00			302	
318	7.41	7.38	34.091	26.650	143.4	0.802	1.81	26.8	48.6	2.47	32.9	0.00			320	204
373	6.86	6.83	34.151	26.774	132.1	0.878	1.06	15.5	59.1	2.79	36.4	0.00			375	203
400 ISL	6.59	6.55	34.169	26.825	127.5	0.913	0.87	12.7	63.7	2.89	37.6	0.00			402	
437	6.24	6.20	34.185	26.883	122.2	0.959	0.72	10.4	69.6	2.98	38.8	0.00			440	202
500 ISL	5.68	5.64	34.198	26.964	114.8	1.034	0.58	8.3	79.3	3.08	40.5	0.00			503	
511	5.58	5.54	34.201	26.979	113.5	1.046	0.56	8.0	81.0	3.10	40.8	0.00			514	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 24.9 N	124 0.0 W	12/07/06	0109	UTC	4297 m	350	15 kn	350 06 06	2	1015.4 mb	18.4 C	16.3 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	18.55	18.55	33.245	23.794	409.7	0.000	5.48	102.2	2.0	0.29	0.1	0.00	0.10	0.02	0	
1	18.55	18.55	33.245	23.794	409.7	0.004	5.48	102.2	2.0	0.29	0.1	0.00	0.10	0.02	1	222
10 ISL	18.56	18.56	33.244	23.791	410.3	0.041	5.46	101.8	1.9	0.28	0.0	0.00	0.10	0.02	10	
15	18.56	18.56	33.243	23.791	410.5	0.062									15	221
15	18.56	18.56	33.243	23.791	410.5	0.062	5.45	101.6	1.8	0.28	0.0	0.00	0.10	0.02	15	220
20 ISL	18.55	18.55	33.244	23.794	410.4	0.082	5.45	101.6	1.8	0.28	0.0	0.00	0.10	0.02	20	
30	18.53	18.52	33.247	23.802	410.0	0.123	5.46	101.8	1.8	0.28	0.0	0.00	0.11	0.02	30	219
46	17.21	17.20	33.188	24.077	384.2	0.187	5.76	104.6	2.0	0.29	0.0	0.00	0.22	0.03	46	218
50 ISL	16.52	16.51	33.163	24.219	370.8	0.202	5.89	105.5	2.0	0.30	0.0	0.00	0.23	0.04	50	
61	14.64	14.63	33.141	24.619	332.8	0.240	6.14	105.9	2.3	0.32	0.0	0.00	0.27	0.08	61	217
74	13.47	13.46	33.215	24.919	304.5	0.282	5.90	99.4	3.4	0.45	0.6	0.01	0.39	0.26	74	216
75 ISL	13.37	13.36	33.216	24.940	302.5	0.285	5.84	98.2	3.5	0.47	1.0	0.02	0.39	0.28	75	
80	12.94	12.93	33.223	25.031	293.9	0.300	5.55	92.5	4.2	0.58	3.2	0.08	0.37	0.33	80	215
85	12.65	12.64	33.244	25.104	287.1	0.314	5.36	88.8	5.1	0.68	5.1	0.14	0.37	0.32	85	214
95	12.07	12.06	33.293	25.253	273.1	0.342	4.99	81.7	6.9	0.86	8.5	0.13	0.31	0.22	95	213
100 ISL	11.76	11.75	33.322	25.334	265.5	0.356	4.76	77.4	8.2	0.99	10.6	0.11	0.24	0.24	100	
104	11.53	11.52	33.343	25.392	259.9	0.366	4.60	74.5	9.2	1.09	12.1	0.09	0.20	0.25	104	212
114	11.18	11.17	33.365	25.473	252.4	0.392	4.43	71.2	10.6	1.19	13.8	0.05	0.25	0.06	114	211
125	10.50	10.49	33.463	25.670	233.9	0.419	4.13	65.4	13.7	1.35	16.6	0.02	0.13	0.13	126	210
139	9.84	9.82	33.586	25.878	214.3	0.450	3.80	59.4	17.8	1.55	19.8	0.02	0.04	0.06	140	209
150 ISL	9.52	9.50	33.691	26.013	201.6	0.473	3.49	54.2	21.0	1.69	22.0	0.01	0.03	0.04	151	
165	9.23	9.21	33.822	26.162	187.6	0.502	3.08	47.5	25.0	1.85	24.5	0.00	0.01	0.02	166	208
194	8.82	8.80	33.979	26.351	170.2	0.554	2.63	40.3	30.9	2.03	27.3	0.00	0.00	0.03	195	207
200 ISL	8.76	8.74	33.998	26.375	168.0	0.564	2.56	39.1	31.9	2.06	27.7	0.00			201	
229	8.46	8.44	34.056	26.467	159.7	0.612	2.24	34.0	36.3	2.19	29.4	0.00			230	206
250 ISL	8.17	8.14	34.083	26.532	153.8	0.645	2.01	30.3	40.1	2.30	30.8	0.00			251	
268	7.90	7.87	34.097	26.584	149.1	0.672	1.84	27.6	43.4	2.39	31.9	0.00			269	205
300 ISL	7.42	7.39	34.097	26.653	142.8	0.719	1.71	25.4	48.6	2.49	33.3	0.00			302	
319	7.16	7.13	34.096	26.689	139.5	0.745	1.64	24.2	51.6	2.54	34.1	0.00			321	204
378	6.55	6.52	34.146	26.812	128.4	0.824	1.01	14.7	62.4	2.82	37.4	0.00			380	203
400 ISL	6.37	6.33	34.161	26.847	125.2	0.852	0.86	12.5	65.8	2.89	38.2	0.00			402	
437	6.11	6.07	34.184	26.899	120.6	0.898	0.68	9.8	71.1	2.98	39.2	0.00			440	202
500 ISL	5.67	5.63	34.231	26.991	112.3	0.971	0.46	6.6	80.6	3.11	40.8	0.00			503	
514	5.57	5.53	34.242	27.012	110.4	0.987	0.41	5.8	82.7	3.14	41.2	0.00			517	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 14.7 N	117 27.8 W	08/07/06	2330	UTC	23 m	260	07 kn	260 01 06	1	1011.4 mb	24.0 C	22.2 C		2/8	CU

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	23.21	23.21	33.522	22.754	509.0	0.000	5.80	118.0	3.0	0.09	0.1	0.00	0.65	0.03	0	
1	23.21	23.21	33.522	22.754	509.0	0.005	5.80	118.0	3.0	0.09	0.1	0.00	0.65	0.03	1	205
5	22.92	22.92	33.523	22.839	501.1	0.025	5.87	118.8	2.9	0.09	0.1	0.00	0.62	0.05	5	204
10	17.33	17.33	33.440	24.240	367.5	0.047	6.64	121.1	2.9	0.15	0.1	0.00	0.94	0.02	10	202
10	17.37	17.37	33.440	24.231	368.4	0.047	6.58	120.1							10	203
15	14.61	14.61	33.430	24.847	309.8	0.064	5.26	90.9	6.5	0.43	0.1	0.01	2.88	0.51	15	201

RV NEW HORIZON CALCOFI CRUISE 0607 STATION 93.4 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 57.1 N	117 17.1 W	08/07/06	2039	UTC	29 m	260	06 kn	280 01 07	1	1012.9 mb	24.5 C	23.0 C		3/8	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	22.99	22.99	33.572	22.855	499.3	0.000	6.02	122.0	3.1	0.15	0.1	0.00	1.54	0.09	0	
1	22.99	22.99	33.572	22.855	499.3	0.005	6.02	122.0	3.1	0.15	0.1	0.00	1.54	0.09	1	205
5	21.48	21.48	33.538	23.253	461.6	0.024	6.41	126.4	3.3	0.18	0.1	0.00	1.67	0.26	5	204
10	16.44	16.44	33.505	24.499	342.8	0.044	6.41	114.9	5.9	0.29	0.0	0.01	3.38	0.59	10	203
15	13.84	13.84	33.455	25.028	292.6	0.060	5.39	91.7	6.7	0.44	0.1	0.01	3.05	0.73	15	202
20	13.47	13.47	33.434	25.087	287.1	0.075	5.17	87.2	6.4	0.47	0.1	0.02	3.16	0.25	20	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 57.5 N	117 18.0 W	08/07/06	1839	UTC	56 m	230	08 kn	230 01 04	1	1013.8 mb	23.9 C	22.0 C	07m	3/8	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	22.71	22.71	33.574	22.937	491.6	0.000	5.89	118.8	4.0	0.17	0.1	0.00	1.40	0.15	0	
1 A	22.71	22.71	33.574	22.937	491.6	0.005	5.89	118.8	4.0	0.17	0.1	0.00	1.40	0.15	1	210
4 A	21.54	21.54	33.558	23.251	461.7	0.019	5.98	118.1	4.4	0.17	0.1	0.00	1.28	0.19	4	209
10	16.95	16.95	33.529	24.399	352.4	0.044							2.56	0.05	10	208
10 ISL	17.57	17.57	33.513	24.239	367.6	0.044	6.45	118.2	5.5	0.27	0.1	0.00	2.48	0.14	10	
11 A	16.83	16.83	33.510	24.412	351.1	0.047	6.46	116.7	5.8	0.30	0.1	0.00	2.74	0.13	11	207
14 A	14.94	14.94	33.478	24.813	313.0	0.057	5.97	103.9	6.9	0.37	0.1	0.00	3.16	0.00	14	206
18 A	13.64	13.64	33.484	25.091	286.6	0.069	5.35	90.6	7.8	0.50	0.1	0.02	4.06	1.00	18	205
20 ISL	13.20	13.20	33.472	25.171	279.1	0.075	5.16	86.6	8.0	0.57	1.0	0.05	3.79	0.91	20	
26 A	12.35	12.35	33.440	25.312	265.7	0.091	4.69	77.3	8.9	0.80	4.6	0.20	2.14	0.65	26	204
30 ISL	12.02	12.02	33.466	25.395	257.9	0.102	4.20	68.8	10.3	0.99	6.7	0.32	1.34	0.57	30	
32	11.91	11.91	33.481	25.428	254.9	0.107	3.98	65.0	11.0	1.07	7.6	0.37	1.03	0.55	32	203
40	11.64	11.63	33.491	25.486	249.5	0.127	3.71	60.3	12.4	1.20	10.4	0.45	0.67	0.65	40	202
50 ISL	11.16	11.15	33.587	25.648	234.3	0.151	2.89	46.5	17.4	1.55	15.9	0.30	0.44	0.64	50	
53	11.02	11.01	33.616	25.696	229.8	0.158	2.65	42.5	18.9	1.65	17.5	0.26	0.37	0.64	53	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 54.5 N	117 23.8 W	09/07/06	0218	UTC	569 m	260	05 kn	260 01 06	1	1010.9 mb	25.0 C	21.9 C		1/8	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	23.22	23.22	33.583	22.798	504.8	0.000	5.86	119.2	1.8	0.12	0.0	0.01	0.60	0.10	0	
2	23.22	23.22	33.583	22.798	504.9	0.010	5.86	119.2	1.8	0.12	0.0	0.01	0.60	0.10	2	222
10	17.38	17.38	33.472	24.253	366.2	0.045									10	221
10	17.25	17.25	33.470	24.282	363.5	0.045	6.24	113.6	0.0	0.20	0.0	0.01	0.50	0.10	10	220
20	14.17	14.17	33.402	24.918	303.1	0.078	6.21	106.3	1.0	0.38	0.2	0.03	0.72	0.23	20	219
25	13.64	13.64	33.432	25.051	290.6	0.093	5.77	97.7	2.9	0.57	2.7	0.12	0.86	0.35	25	218
30	13.02	13.02	33.457	25.195	277.0	0.107	5.22	87.3	7.3	0.82	6.4	0.25	1.24	0.46	30	217
40	11.74	11.73	33.418	25.411	256.7	0.134	4.46	72.6	10.3	1.12	11.7	0.35	0.64	0.37	40	216
50	10.93	10.92	33.456	25.587	240.1	0.159	4.01	64.1	13.4	1.35	15.8	0.12	0.26	0.18	50	215
59	10.54	10.53	33.655	25.811	219.0	0.179	2.89	45.9	20.0	1.74	20.5	0.07	0.11	0.22	59	214
71	10.48	10.47	33.692	25.850	215.5	0.206	2.70	42.8	21.5	1.82	21.4	0.07	0.11	0.18	71	213
75 ISL	10.46	10.45	33.705	25.864	214.3	0.214	2.56	40.6	22.2	1.87	21.9	0.12	0.10	0.17	75	
85	10.40	10.39	33.736	25.899	211.2	0.235	2.23	35.3	24.0	1.99	23.2	0.24	0.08	0.16	85	212
99	10.29	10.28	33.775	25.948	206.8	0.265	2.13	33.7	25.0	2.04	24.2	0.25	0.06	0.14	99	211
100 ISL	10.28	10.27	33.779	25.953	206.4	0.267	2.12	33.5	25.1	2.04	24.3	0.24	0.06	0.14	100	
119	10.06	10.05	33.860	26.054	197.2	0.305	2.01	31.6	27.2	2.11	25.5	0.11	0.03	0.12	120	210
125 ISL	9.99	9.98	33.879	26.081	194.7	0.317	2.07	32.5	27.4	2.10	25.5	0.08	0.03	0.11	126	
139	9.84	9.82	33.925	26.142	189.2	0.344	2.19	34.3	27.9	2.09	25.4	0.02	0.02	0.09	140	209
150 ISL	9.74	9.72	33.975	26.198	184.1	0.364	2.11	33.0	29.1	2.13	25.9	0.02	0.02	0.09	151	
169	9.59	9.57	34.069	26.297	175.1	0.398	1.85	28.8	31.7	2.23	27.0	0.02	0.01	0.10	170	208
199	9.40	9.38	34.199	26.430	163.0	0.449	1.43	22.2	35.9	2.40	28.7	0.03	0.00	0.09	200	207
200 ISL	9.40	9.38	34.202	26.433	162.9	0.451	1.42	22.1	36.0	2.40	28.7	0.03			201	
229	9.27	9.24	34.254	26.495	157.5	0.497	1.19	18.4	38.6	2.50	29.6	0.03			230	206
250 ISL	9.15	9.12	34.281	26.536	154.0	0.530	1.07	16.5	40.5	2.56	30.1	0.03			251	
269	9.03	9.00	34.298	26.569	151.2	0.559	0.99	15.3	42.1	2.61	30.4	0.03			271	205
300 ISL	8.85	8.82	34.316	26.612	147.7	0.605	0.86	13.2	44.6	2.68	31.0	0.04			302	
318	8.75	8.72	34.322	26.632	146.0	0.632	0.79	12.1	45.9	2.72	31.3	0.05			320	204
378	8.37	8.33	34.331	26.699	140.6	0.718	0.67	10.2	49.6	2.79	32.7	0.02			380	203
400 ISL	8.17	8.13	34.330	26.729	138.1	0.748	0.62	9.4	51.6	2.82	33.3	0.01			403	
438	7.80	7.76	34.326	26.781	133.5	0.800	0.55	8.2	55.5	2.89	34.4	0.01			441	202
500 ISL	7.17	7.12	34.315	26.863	126.2	0.880	0.47	6.9	62.7	3.00	36.6	0.01			503	
512	7.05	7.00	34.314	26.878	124.7	0.895	0.45	6.6	64.1	3.02	37.0	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 50.6 N	117 32.0 W	09/07/06	0524 UTC	866 m	320 03 kn			1012.0 mb	21.0 C	19.8 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	21.05	21.05	33.496	23.337	453.3	0.000	5.55	108.6	0.0	0.14	0.0	0.01	0.27	0.05	0	
2	21.05	21.05	33.496	23.337	453.4	0.009	5.55	108.6	0.0	0.14	0.0	0.01	0.27	0.05	2	221
10	18.69	18.69	33.445	23.913	398.7	0.043									10	220
10	18.72	18.72	33.443	23.904	399.6	0.043	5.80	108.6	0.0	0.18	0.0	0.00	0.31	0.06	10	219
20	15.88	15.88	33.328	24.490	343.9	0.080	6.06	107.3	0.8	0.27	0.0	0.00	0.27	0.07	20	218
30	13.57	13.57	33.362	25.011	294.5	0.112	5.82	98.4	0.0	0.45	0.7	0.06	0.57	0.33	30	217
40	12.47	12.46	33.390	25.251	271.9	0.141	4.88	80.6	6.8	0.88	7.9	0.35	0.44	0.41	40	216
50	11.76	11.75	33.415	25.405	257.5	0.167	4.51	73.4	9.3	1.09	11.6	0.30	0.37	0.30	50	215
60	10.73	10.72	33.484	25.645	234.8	0.192	3.92	62.4	13.9	1.40	16.8	0.06	0.16	0.24	60	214
70	10.54	10.53	33.621	25.785	221.7	0.214	3.18	50.5	17.8	1.64	19.6	0.04	0.11	0.14	70	213
75 ISL	10.38	10.37	33.668	25.849	215.7	0.225	3.04	48.1	19.3	1.71	20.6	0.04	0.08	0.12	75	
85	10.07	10.06	33.743	25.961	205.3	0.246	2.93	46.1	21.8	1.81	22.1	0.05	0.04	0.10	85	212
100	9.89	9.88	33.848	26.073	194.9	0.276	2.59	40.6	24.8	1.94	23.8	0.06	0.02	0.07	100	211
120	9.61	9.60	33.990	26.231	180.3	0.314	2.32	36.2	28.8	2.07	25.6	0.02	0.01	0.06	121	210
125 ISL	9.61	9.60	34.013	26.249	178.7	0.323	2.24	34.9	29.4	2.10	25.9	0.02	0.01	0.06	126	
140	9.60	9.58	34.053	26.282	175.9	0.350	2.03	31.6	30.9	2.16	26.4	0.01	0.01	0.08	141	209
150 ISL	9.58	9.56	34.079	26.306	173.8	0.367	1.93	30.1	31.6	2.20	26.7	0.01	0.01	0.07	151	
169	9.55	9.53	34.125	26.347	170.3	0.400	1.79	27.9	32.8	2.26	27.2	0.02	0.01	0.06	170	208
199	9.54	9.52	34.195	26.404	165.6	0.450	1.57	24.5	34.6	2.33	27.9	0.03	0.00	0.07	200	207
200 ISL	9.54	9.52	34.196	26.405	165.5	0.452	1.56	24.3	34.6	2.33	27.9	0.03			201	
229	9.50	9.47	34.238	26.445	162.4	0.499	1.37	21.3	36.1	2.40	28.4	0.05			230	206
250 ISL	9.24	9.21	34.259	26.504	157.1	0.533	1.27	19.7	38.6	2.46	29.2	0.04			251	
269	8.99	8.96	34.274	26.556	152.4	0.562	1.19	18.3	41.0	2.52	30.0	0.02			271	205
300 ISL	8.92	8.89	34.292	26.582	150.6	0.609	1.07	16.4	42.5	2.57	30.5	0.02			302	
318	8.89	8.86	34.298	26.592	150.0	0.636	1.01	15.5	43.3	2.60	30.7	0.02			320	204
377	8.15	8.11	34.309	26.715	138.9	0.722	0.78	11.8	50.3	2.77	32.9	0.01			379	203
400 ISL	8.05	8.01	34.326	26.743	136.6	0.753	0.67	10.1	52.1	2.82	33.4	0.01			403	
438	7.90	7.86	34.347	26.783	133.4	0.805	0.50	7.5	55.1	2.90	34.1	0.00			441	202
500 ISL	7.21	7.16	34.321	26.862	126.3	0.885	0.42	6.2	62.7	2.99	36.1	0.01			503	
512	7.08	7.03	34.317	26.877	124.9	0.900	0.41	6.0	64.2	3.01	36.5	0.01			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 40.8 N	117 52.2 W	09/07/06	0928 UTC	626 m	280 10 kn			1011.6 mb	19.5 C	18.1 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	20.52	20.52	33.522	23.499	437.8	0.000	5.50	106.6	0.2	0.13	0.0	0.00	0.35	0.05	0	
1	20.52	20.52	33.522	23.499	437.9	0.004	5.50	106.6	0.2	0.13	0.0	0.00	0.35	0.05	1	221
10	18.80	18.80	33.449	23.888	401.1	0.042	5.67	106.3	0.1	0.19	0.0	0.00	0.35	0.02	10	220
20	15.10	15.10	33.281	24.627	330.9	0.079	6.10	106.3	2.5	0.30	0.0	0.00	0.41	0.16	20	219
30	13.52	13.52	33.312	24.983	297.2	0.110	5.47	92.3	3.2	0.41	0.0	0.00	0.79	0.36	30	218
40	12.62	12.61	33.388	25.220	274.8	0.139	4.50	74.6	6.9	0.80	3.9	0.19	1.09	0.81	40	217
45	12.15	12.14	33.433	25.345	263.0	0.152	4.21	69.1	9.2	1.01	8.2	0.09	0.47	0.51	45	216
50	11.46	11.45	33.444	25.483	250.1	0.165	4.26	68.9	11.5	1.20	12.9	0.09	0.29	0.29	50	215
60	11.29	11.28	33.458	25.525	246.3	0.190	4.19	67.5	12.2	1.25	13.9	0.08	0.18	0.32	60	214
70	10.69	10.68	33.533	25.690	230.7	0.214	3.72	59.2	15.2	1.45	17.2	0.03	0.11	0.13	70	213
75 ISL	10.46	10.45	33.566	25.756	224.6	0.225	3.61	57.2	16.6	1.52	18.4	0.03	0.08	0.11	75	
84	10.12	10.11	33.625	25.860	214.8	0.245	3.48	54.7	18.9	1.62	20.1	0.02	0.04	0.07	84	212
100	9.67	9.66	33.744	26.029	199.1	0.278	3.17	49.4	22.3	1.77	22.4	0.02	0.02	0.04	100	211
119	9.50	9.49	33.864	26.151	187.9	0.315	2.88	44.7	25.2	1.89	24.0	0.01	0.01	0.04	120	210
125 ISL	9.43	9.42	33.906	26.195	183.8	0.326	2.79	43.3	26.4	1.93	24.5	0.01	0.01	0.04	126	
139	9.28	9.26	33.999	26.292	174.8	0.351	2.57	39.8	29.2	2.01	25.8	0.01	0.01	0.03	140	209
150 ISL	9.20	9.18	34.056	26.350	169.6	0.370	2.36	36.5	31.3	2.09	26.7	0.01	0.01	0.03	151	
169	9.10	9.08	34.129	26.423	163.0	0.402	2.00	30.8	34.4	2.22	28.0	0.01	0.01	0.03	170	208
199	8.94	8.92	34.186	26.494	156.8	0.449	1.64	25.2	37.6	2.36	29.3	0.01	0.00	0.03	200	207
200 ISL	8.94	8.92	34.189	26.496	156.6	0.451	1.63	25.1	37.7	2.37	29.3	0.01			201	
229	8.85	8.83	34.253	26.561	151.1	0.496	1.24	19.0	41.2	2.51	30.4	0.01			230	206
250 ISL	8.66	8.63	34.267	26.602	147.5	0.527	1.10	16.8	43.5	2.58	31.1	0.00			251	
268	8.47	8.44	34.270	26.634	144.7	0.553	1.03	15.7	45.4	2.63	31.7	0.00			270	205
300 ISL	8.16	8.13	34.280	26.689	139.9	0.599	0.88	13.3	48.9	2.71	32.7	0.01			302	
319	8.00	7.97	34.288	26.720	137.3	0.625	0.79	11.9	50.9	2.76	33.3	0.01			321	204
375	7.75	7.71	34.342	26.800	130.6	0.700	0.48	7.2	56.4	2.94	34.4	0.00			377	203
400 ISL	7.51	7.47	34.340	26.833	127.6	0.732	0.42	6.3	59.4	2.98	35.3	0.00			403	
438	7.12	7.08	34.331	26.881	123.4	0.780	0.36	5.3	64.1	3.03	36.6	0.00			441	202
500 ISL	6.70	6.65	34.347	26.952	117.3	0.855	0.26	3.8	70.5	3.11	38.0	0.00			503	
511	6.63	6.58	34.350	26.964	116.2	0.868	0.24	3.5	71.6	3.13	38.3	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 30.9 N	118 12.9 W	09/07/06	1406 UTC	1638 m	320 08 kn	310 03 05	1	1011.3 mb	17.0 C	16.1 C		7/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	19.84	19.84	33.476	23.643	424.1	0.000	5.59	106.9	0.0	0.11	0.0	0.00	0.40	0.04	0	
1	19.84	19.84	33.476	23.643	424.2	0.004	5.59	106.9	0.0	0.11	0.0	0.00	0.40	0.04	1	220
10	19.84	19.84	33.496	23.658	423.0	0.042	5.59	106.9	0.0	0.11	0.0	0.00	0.35	0.05	10	219
20	19.84	19.84	33.492	23.656	423.6	0.085	5.59	106.9	0.0	0.10	0.0	0.00	0.36	0.06	20	218
30	15.04	15.04	33.320	24.670	327.1	0.122	6.08	105.9	1.2	0.29	0.0	0.00	0.48	0.14	30	217
40	13.28	13.27	33.397	25.097	286.6	0.153	4.66	78.3	4.7	0.57	1.0	0.30	2.05	0.89	40	216
50	12.61	12.60	33.402	25.233	273.9	0.181	4.26	70.6	7.3	0.82	4.1	0.12	0.96	0.60	50	215
60	11.65	11.64	33.433	25.439	254.5	0.207	4.25	69.0	10.5	1.10	11.3	0.04	0.24	0.37	60	214
69	11.10	11.09	33.481	25.577	241.5	0.230	3.89	62.4	13.4	1.31	15.4	0.03	0.17	0.19	69	213
75 ISL	10.79	10.78	33.552	25.687	231.1	0.244	3.50	55.8	15.9	1.47	17.7	0.03	0.11	0.13	75	
85	10.36	10.35	33.683	25.864	214.5	0.266	2.92	46.2	19.9	1.70	20.7	0.03	0.02	0.08	85	212
99	9.96	9.95	33.800	26.024	199.6	0.295	2.74	43.0	23.5	1.84	22.9	0.02	0.01	0.07	99	211
100 ISL	9.94	9.93	33.809	26.034	198.6	0.297	2.73	42.8	23.7	1.85	23.0	0.02	0.01	0.07	100	
119	9.64	9.63	33.943	26.189	184.3	0.333	2.58	40.2	26.8	1.95	24.8	0.01	0.01	0.04	120	210
125 ISL	9.59	9.58	33.958	26.209	182.5	0.344	2.55	39.7	27.3	1.97	25.1	0.01	0.01	0.04	126	
140	9.51	9.49	33.981	26.241	179.8	0.372	2.49	38.7	28.3	2.00	25.5	0.01	0.01	0.04	141	209
150 ISL	9.43	9.41	34.013	26.279	176.3	0.389	2.40	37.3	29.5	2.04	26.0	0.01	0.01	0.04	151	
170	9.25	9.23	34.079	26.360	169.0	0.424	2.20	34.0	32.1	2.12	27.0	0.01	0.01	0.04	171	208
199	8.98	8.96	34.140	26.452	160.9	0.472	1.96	30.1	35.5	2.23	28.4	0.01	0.01	0.04	200	207
200 ISL	8.96	8.94	34.140	26.455	160.6	0.473	1.96	30.1	35.7	2.23	28.5	0.01			201	
228	8.43	8.41	34.137 D	26.535	153.2	0.517	1.81	27.5	40.4	2.33	30.2	0.01			229	206
250 ISL	8.16	8.13	34.170	26.602	147.2	0.550	1.52	23.0	44.3	2.45	31.5	0.01			251	
269	8.00	7.97	34.206	26.655	142.5	0.578	1.26	19.0	47.4	2.55	32.4	0.01			271	205
300 ISL	7.89	7.86	34.240	26.698	138.9	0.622	1.02	15.3	50.4	2.66	33.3	0.01			302	
319	7.84	7.81	34.258	26.720	137.2	0.648	0.91	13.6	52.0	2.72	33.7	0.01			321	204
377	7.45	7.41	34.338	26.840	126.6	0.724	0.47	7.0	58.9	2.92	35.4	0.00			379	203
400 ISL	7.29	7.25	34.344	26.867	124.2	0.753	0.39	5.8	61.3	2.97	36.0	0.00			403	
437	7.05	7.01	34.343	26.900	121.5	0.799	0.33	4.9	64.9	3.04	36.9	0.00			440	202
500 ISL	6.66	6.61	34.357	26.965	116.0	0.873	0.25	3.6	70.7	3.11	38.2	0.01			503	
512	6.59	6.54	34.360 D	26.977	114.9	0.887	0.24	3.5	71.8	3.12	38.4	0.01			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 21.1 N	118 33.5 W	09/07/06	1823 UTC	1334 m	300 11 kn	300 03 04	1	1011.8 mb	17.2 C	16.0 C	12m	6/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	19.41	19.41	33.490	23.764	412.5	0.000	5.72	108.5	0.0	0.10	0.1	0.00	0.45	0.05	0	
2 A	19.41	19.41	33.490	23.764	412.6	0.008	5.72	108.5	0.0	0.10	0.1	0.00	0.45	0.05	2	224
6 A	19.41	19.41	33.489	23.764	412.8	0.025	5.56	105.5	0.0	0.10	0.1	0.00	0.43	0.08	6	223
10	19.36	19.36	33.489	23.777	411.7	0.041									10	222
10 ISL	19.34	19.34	33.487	23.780	411.4	0.041	5.58	105.7	0.0	0.10	0.1	0.00	0.44	0.08	10	
18 A	19.19	19.19	33.484	23.817	408.2	0.074	5.62	106.2	0.0	0.11	0.0	0.00	0.47	0.08	18	220
18	19.19	19.19	33.484	23.817	408.2	0.074									18	221
20 ISL	18.61	18.61	33.474	23.955	395.0	0.082	5.66	105.8	0.2	0.13	0.0	0.00	0.53	0.09	20	
24 A	17.34	17.34	33.461	24.255	366.6	0.097	5.71	104.1	0.8	0.17	0.1	0.00	0.66	0.13	24	219
30 ISL	16.01	16.01	33.449	24.554	338.1	0.118	5.55	98.6	1.4	0.23	0.1	0.00	0.76	0.18	30	
32 A	15.55	15.55	33.440	24.651	329.0	0.125	5.49	96.7	1.8	0.27	0.1	0.00	0.79	0.20	32	218
39	13.13	13.12	33.393	25.124	284.0	0.147	4.73	79.2	5.4	0.62	2.1	0.15	2.08	0.56	39	217
44 A	12.69	12.68	33.391	25.209	276.0	0.161	4.48	74.4	6.8	0.79	4.4	0.17	1.31	0.60	44	216
50 ISL	11.68	11.67	33.475	25.466	251.6	0.176	3.86	62.7	11.4	1.20	11.6	0.08	0.43	0.29	50	
52	11.36	11.35	33.509	25.551	243.6	0.181	3.66	59.1	13.0	1.33	14.0	0.04	0.20	0.17	52	215
61	11.09	11.08	33.540	25.624	236.8	0.203	3.50	56.2	14.4	1.42	15.7	0.04	0.09	0.16	61	214
70	10.70	10.69	33.586	25.729	227.0	0.224	3.33	53.0	16.7	1.55	18.1	0.03	0.04	0.10	70	213
75 ISL	10.48	10.47	33.620	25.794	220.9	0.235	3.25	51.5	18.0	1.61	19.3	0.03	0.04	0.08	75	
85	10.08	10.07	33.697	25.923	208.9	0.257	3.11	48.9	20.5	1.72	21.2	0.02	0.03	0.07	85	212
100	9.71	9.70	33.816	26.078	194.4	0.287	2.96	46.2	23.6	1.83	23.2	0.02	0.01	0.05	100	211
120	9.47	9.46	33.938	26.213	182.0	0.324	2.62	40.7	27.2	1.97	25.2	0.01	0.01	0.04	121	210
125 ISL	9.36	9.35	33.949	26.240	179.5	0.333	2.63	40.8	27.9	1.98	25.5	0.01	0.01	0.04	126	
139	9.04	9.02	33.969	26.307	173.3	0.358	2.70	41.5	29.6	1.99	26.0	0.01	0.00	0.04	140	209
150 ISL	8.89	8.87	33.997	26.353	169.2	0.377	2.63	40.3	31.0	2.03	26.6	0.01	0.00	0.04	151	
170	8.69	8.67	34.051	26.427	162.5	0.410	2.41	36.8	33.8	2.12	27.8	0.01	0.01	0.04	171	208
199	8.45	8.43	34.106	26.507	155.3	0.456	2.06	31.3	38.2	2.27	29.6	0.01	0.00	0.04	200	207
200 ISL	8.44	8.42	34.107	26.510	155.1	0.458	2.05	31.1	38.3	2.27	29.7	0.01			201	
229	8.19	8.17	34.131	26.567	150.2	0.502	1.75	26.4	42.1	2.40	31.2	0.01			230	206
250 ISL	8.00	7.97	34.164	26.621	145.3	0.533	1.46	22.0	45.6	2.52	32.3	0.01			251	
268	7.86	7.83	34.196	26.667	141.2	0.559	1.22	18.3	48.6	2.63	33.1	0.01			270	205
300 ISL	7.74	7.71	34.243	26.722	136.5	0.603	0.94	14.1	51.9	2.75	33.9	0.01			302	
317	7.67	7.64	34.260	26.746	134.5	0.626	0.83	12.4	53.5	2.80	34.3	0.01			319	204
377	7.02	6.98	34.259	26.837	126.4	0.705	0.63	9.3	62.0	2.93	36.6	0.01			379	203
400 ISL	6.89	6.85	34.283	26.874	123.2	0.733	0.51	7.5	64.7	2.99	37.2	0.01			403	
438	6.71	6.67	34.322	26.930	118.4	0.779	0.34	5.0	69.0	3.08	38.0	0.01			441	202
500 ISL	6.17	6.13	34.324	27.003	111.8	0.851	0.29	4.2	76.8	3.16	39.7	0.01			503	
512	6.06	6.01	34.325	27.018	110.5	0.864	0.28	4.0	78.3	3.17	40.0	0.01			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 10.8 N	118 53.1 W	09/07/06	2235 UTC	1442 m	280 13 kn	290 02 08	1	1010.3 mb	17.2 C	16.0 C	08m	7/8	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	17.42	17.42	33.561	24.311	360.4	0.000	5.90	107.8	0.0	0.18	0.2	0.00	1.81	0.37	0	
1	17.42	17.42	33.561	24.311	360.4	0.004	5.90	107.8	0.0	0.18	0.2	0.00	1.81	0.37	1	221
10	16.30	16.30	33.556	24.570	336.0	0.035	5.68	101.6	2.0	0.30	1.0	0.11	1.91	0.42	10	219
11	16.30	16.30	33.556	24.570	336.1	0.038									11	220
20	14.21	14.21	33.547	25.022	293.3	0.067	5.02	86.1	7.8	0.76	6.6	0.54	1.22	0.62	20	218
30	12.35	12.35	33.543	25.392	258.2	0.094	4.48	73.9	12.1	1.16	12.3	0.73	0.49	0.32	30	217
39	11.69	11.69	33.552	25.524	245.9	0.117	4.14	67.3	14.2	1.32	15.1	0.28	0.28	0.24	39	216
50	11.26	11.25	33.578	25.623	236.7	0.143	3.83	61.7	16.3	1.44	16.9	0.12	0.22	0.17	50	215
60	11.08	11.07	33.591	25.666	232.9	0.167	3.83	61.5	17.3	1.49	17.9	0.10	0.19	0.17	60	214
70	10.75	10.74	33.618	25.746	225.5	0.190	3.52	56.1	18.4	1.58	19.2	0.06	0.12	0.13	70	213
75 ISL	10.47	10.46	33.668	25.833	217.2	0.201	3.26	51.7	20.1	1.67	20.5	0.05	0.09	0.11	75	
85	9.90	9.89	33.779	26.017	199.9	0.222	2.79	43.7	23.8	1.86	23.2	0.04	0.05	0.09	85	212
100	9.44	9.43	33.854	26.152	187.3	0.251	2.67	41.4	27.1	1.96	25.2	0.02	0.02	0.09	101	211
120	9.01	9.00	33.995	26.332	170.6	0.287	2.37	36.4	31.8	2.11	27.3	0.01	0.02	0.09	121	210
125 ISL	8.93	8.92	34.013	26.359	168.1	0.295	2.32	35.6	32.7	2.13	27.6	0.01	0.02	0.09	126	
140	8.74	8.73	34.048	26.416	162.9	0.320	2.20	33.6	35.0	2.19	28.4	0.02	0.02	0.07	141	209
150 ISL	8.64	8.62	34.063	26.444	160.5	0.336	2.18	33.3	35.9	2.21	28.7	0.02	0.02	0.06	151	
169	8.48	8.46	34.086	26.487	156.7	0.366	2.10	31.9	37.5	2.25	29.4	0.02	0.01	0.04	170	208
199	8.27	8.25	34.142	26.563	150.0	0.412	1.61	24.4	42.3	2.44	31.3	0.02	0.01	0.05	200	207
200 ISL	8.27	8.25	34.144	26.564	149.9	0.414	1.59	24.1	42.4	2.45	31.4	0.02			201	
228	8.31	8.29	34.221	26.619	145.3	0.455	1.06	16.1	46.1	2.63	32.5	0.01			229	206
250 ISL	8.26	8.23	34.274	26.669	141.0	0.486	0.86	13.0	48.2	2.72	32.8	0.01			251	
268	8.16	8.13	34.306	26.709	137.4	0.512	0.76	11.5	50.0	2.77	33.0	0.01			270	205
300 ISL	7.80	7.77	34.321	26.775	131.6	0.555	0.59	8.8	54.5	2.87	34.2	0.01			302	
318	7.58	7.55	34.320	26.806	128.8	0.578	0.52	7.8	57.1	2.92	35.0	0.01			320	204
378	7.19	7.15	34.333	26.872	123.3	0.654	0.38	5.6	62.6	3.02	36.4	0.00			380	203
400 ISL	7.05	7.01	34.339	26.897	121.2	0.681	0.34	5.0	65.0	3.04	36.9	0.00			403	
439	6.79	6.75	34.344	26.937	117.8	0.727	0.29	4.2							442	202
500 ISL	6.30	6.25	34.326	26.988	113.4	0.798	0.29	4.2	76.0	3.15	39.0	0.01			503	
512	6.20	6.15	34.323	26.998	112.5	0.811	0.29	4.2	77.3	3.16	39.3	0.01			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 0.7 N	119 14.3 W	10/07/06	0243 UTC	1596 m	300 15 kn	290 05 08	2	1009.5 mb	15.2 C	14.8 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	15.79	15.79	33.543	24.675	325.7	0.000	5.97	105.7	6.2	0.34	0.5	0.03	1.12	0.34	0	
1	15.79	15.79	33.543	24.675	325.7	0.003	5.97	105.7	6.2	0.34	0.5	0.03	1.12	0.34	1	221
10	15.37	15.37	33.540	24.767	317.3	0.032									10	220
10	15.39	15.39	33.540	24.762	317.7	0.032	6.02	105.7	6.7	0.41	1.3	0.06	1.24	0.45	10	219
20 ISL	14.98	14.98	33.539	24.851	309.5	0.064	5.85	101.9	7.2	0.51	2.7	0.12	1.36	0.57	20	
21	14.95	14.95	33.539	24.858	308.9	0.067	5.83	101.5	7.2	0.52	2.8	0.13	1.37	0.57	21	218
30	14.88	14.88	33.536	24.871	308.0	0.094	5.74	99.8	6.6	0.55	3.0	0.18	1.09	0.34	30	217
40	14.75	14.74	33.534	24.898	305.7	0.125	5.63	97.6	6.1	0.58	3.3	0.26	0.77	0.28	40	216
50	13.20	13.19	33.424	25.134	283.4	0.155	5.21	87.4	6.1	0.79	6.4	0.76	0.22	0.12	50	215
60	12.23	12.22	33.407	25.310	266.8	0.182	4.91	80.7	8.1	0.92	9.5	0.22	0.13	0.16	60	214
70	11.60	11.59	33.412	25.432	255.3	0.208	4.69	76.1	10.0	1.04	11.5	0.04	0.11	0.07	70	213
75 ISL	11.19	11.18	33.422	25.515	247.6	0.221	4.47	71.9	11.4	1.15	13.3	0.04	0.09	0.07	75	
85	10.40	10.39	33.482	25.701	230.0	0.245	3.96	62.6	15.0	1.41	17.4	0.03	0.05	0.06	85	212
100	9.74	9.73	33.697	25.980	203.7	0.277	3.20	49.9	21.6	1.75	22.4	0.03	0.02	0.05	100	211
120	9.40	9.39	33.872	26.173	185.7	0.316	2.82	43.7	26.2	1.92	24.8	0.03	0.01	0.04	121	210
125 ISL	9.33	9.32	33.898	26.205	182.8	0.325	2.80	43.3	26.9	1.93	25.1	0.03	0.01	0.04	126	
140	9.14	9.12	33.955	26.280	175.9	0.352	2.74	42.2	28.7	1.97	25.7	0.02	0.01	0.03	141	209
150 ISL	8.96	8.94	33.996	26.341	170.3	0.370	2.58	39.6	30.9	2.04	26.7	0.02	0.01	0.03	151	
169	8.65	8.63	34.059	26.439	161.3	0.401	2.24	34.2	35.1	2.18	28.5	0.02	0.00	0.04	170	208
199	8.43	8.41	34.094	26.501	155.9	0.449	2.01	30.5	38.6	2.28	29.8	0.02	0.00	0.03	200	207
200 ISL	8.42	8.40	34.095	26.503	155.7	0.450	2.00	30.4	38.8	2.29	29.9	0.02			201	
227	8.06	8.04	34.134	26.589	148.0	0.491	1.65	24.9	43.9	2.45	31.7	0.01			228	206
250 ISL	7.93	7.90	34.182	26.646	143.0	0.525	1.31	19.7	47.3	2.59	32.8	0.01			251	
270	7.84	7.81	34.221	26.690	139.1	0.553	1.03	15.4	50.2	2.70	33.6	0.01			272	205
300 ISL	7.52	7.49	34.254	26.762	132.5	0.594	0.77	11.5	55.5	2.83	34.9	0.01			302	
319	7.30	7.27	34.268	26.805	128.7	0.618	0.65	9.6	58.9	2.90	35.7	0.01			321	204
379	6.73	6.69	34.291	26.902	120.1	0.693	0.44	6.4	67.6	3.05	37.7	0.00			381	203
400 ISL	6.63	6.59	34.298	26.921	118.5	0.718	0.40	5.8	69.3	3.08	38.0	0.00			403	
438	6.49	6.45	34.310	26.949	116.3	0.763	0.35	5.1	71.8	3.11	38.5	0.00			441	202
500 ISL	6.20	6.16	34.322	26.997	112.4	0.834	0.29	4.2	77.1	3.17	39.4	0.00			503	
512	6.14	6.09	34.325	27.007	111.5	0.847	0.28	4.0	78.1	3.18	39.6	0.00			516	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 34.3 W	10/07/06	0640 UTC	1822 m	320 10 kn			1010.8 mb	15.0 C	14.0 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	15.59	15.59	33.306	24.537	338.8	0.000	5.88	103.5	2.6	0.34	0.4	0.05	0.62	0.17	0	
2	15.59	15.59	33.306	24.538	338.9	0.007	5.88	103.5	2.6	0.34	0.4	0.05	0.62	0.17	2	220
10	15.58	15.58	33.306	24.540	338.9	0.034	5.87	103.3	2.6	0.34	0.4	0.05	0.61	0.16	10	219
20 ISL	15.48	15.48	33.324	24.576	335.7	0.068	5.87	103.1	2.6	0.35	0.5	0.06	0.89	0.23	20	
21	15.47	15.47	33.326	24.580	335.4	0.071	5.87	103.1	2.6	0.35	0.5	0.06	0.92	0.24	21	218
30	15.29	15.29	33.333	24.625	331.3	0.101	5.86	102.6	2.4	0.36	0.7	0.08	0.90	0.24	30	217
40	14.89	14.88	33.313	24.697	324.8	0.134	5.75	99.8	2.6	0.42	0.9	0.15	0.56	0.25	40	216
50	14.63	14.62	33.348	24.780	317.2	0.166	5.63	97.2	2.9	0.48	1.4	0.33	0.40	0.22	50	215
60	13.96	13.95	33.275	24.865	309.3	0.197	5.54	94.3	3.3	0.52	2.0	0.50	0.22	0.29	60	214
70	12.73	12.72	33.311	25.140	283.3	0.227	5.04	83.7	6.1	0.79	7.5	0.03	0.12	0.13	70	213
75 ISL	12.38	12.37	33.345	25.234	274.4	0.241	4.92	81.1	7.1	0.87	8.9	0.03	0.11	0.12	75	
85	11.80	11.79	33.409	25.394	259.4	0.267	4.72	76.9	9.2	1.00	11.0	0.03	0.09	0.10	85	212
99	10.60	10.59	33.458	25.648	235.4	0.302	4.19	66.5	13.7	1.31	16.0	0.02	0.05	0.07	99	211
100 ISL	10.54	10.53	33.470	25.668	233.5	0.304	4.15	65.8	14.0	1.33	16.3	0.02	0.05	0.07	100	
119	9.88	9.87	33.701	25.960	206.0	0.346	3.48	54.5	19.8	1.64	20.8	0.03	0.03	0.05	120	210
125 ISL	9.78	9.77	33.733	26.002	202.2	0.358	3.39	52.9	20.8	1.68	21.5	0.03	0.02	0.05	126	
140	9.62	9.60	33.787	26.071	195.9	0.388	3.23	50.3	22.7	1.76	22.6	0.02	0.01	0.05	141	209
150 ISL	9.48	9.46	33.846	26.140	189.5	0.408	3.06	47.5	24.6	1.83	23.6	0.02	0.00	0.05	151	
169	9.21	9.19	33.953	26.268	177.7	0.442	2.74	42.3	28.3	1.97	25.6	0.01	0.00	0.05	170	208
199	8.75	8.73	34.042	26.411	164.6	0.494	2.41	36.9	33.6	2.11	27.8	0.01	0.00	0.05	200	207
200 ISL	8.74	8.72	34.043	26.413	164.4	0.495	2.40	36.7	33.8	2.11	27.9	0.01			201	
229	8.38	8.36	34.079	26.497	156.8	0.542	2.14	32.5	38.0	2.24	29.7	0.01			230	206
250 ISL	8.26	8.23	34.131	26.557	151.6	0.574	1.75	26.5	41.4	2.39	31.1	0.01			251	
270	8.20	8.17	34.188	26.611	146.8	0.604	1.35	20.4	44.6	2.54	32.2	0.01			272	205
300 ISL	8.14	8.11	34.263	26.679	140.9	0.647	0.91	13.7	48.4	2.70	32.9	0.01			302	
318	8.11	8.08	34.303	26.715	137.8	0.672	0.73	11.0	50.7	2.78	33.3	0.01			320	204
379	7.11	7.07	34.258	26.824	127.7	0.753	0.66	9.7	60.6	2.91	36.3	0.01			381	203
400 ISL	6.93	6.89	34.269	26.858	124.7	0.780	0.57	8.4	63.6	2.96	37.0	0.01			403	
437	6.71	6.67	34.298	26.911	120.1	0.825	0.41	6.0	68.4	3.05	37.9	0.01			440	202
500 ISL	6.28	6.23	34.323	26.988	113.4	0.899	0.33	4.8	76.0	3.13	39.1	0.00			503	
512	6.20	6.15	34.328	27.002	112.1	0.912	0.31	4.5	77.5	3.15	39.3	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 30.9 N	120 15.2 W	10/07/06	1246 UTC	3932 m	330 10 kn			1010.7 mb	16.0 C	14.9 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	17.75	17.75	33.290	24.025	387.7	0.000	5.53	101.6	1.7	0.29	0.1	0.00	0.13	0.02	0	
2	17.75	17.75	33.290	24.025	387.8	0.008	5.53	101.6	1.7	0.29	0.1	0.00	0.13	0.02	2	220
10 ISL	17.75	17.75	33.290	24.025	388.0	0.039	5.53	101.6	1.7	0.28	0.1	0.00	0.14	0.02	10	
15	17.75	17.75	33.289	24.024	388.2	0.058	5.53	101.6	1.7	0.28	0.1	0.00	0.14	0.02	15	219
20 ISL	17.75	17.75	33.289	24.025	388.4	0.078	5.54	101.7	1.7	0.28	0.1	0.00	0.14	0.02	20	
30	17.74	17.73	33.289	24.027	388.5	0.116	5.55	101.9	1.7	0.27	0.0	0.00	0.13	0.02	30	218
44	15.45	15.44	33.185	24.477	345.9	0.168	6.03	105.8	1.8	0.28	0.0	0.00	0.30	0.11	44	217
50 ISL	15.12	15.11	33.189	24.552	338.9	0.188	6.00	104.6	1.8	0.29	0.0	0.00	0.38	0.15	50	
55	14.98	14.97	33.196	24.588	335.6	0.205	5.98	103.9	1.8	0.30	0.0	0.00	0.47	0.23	55	216
65	14.54	14.53	33.188	24.677	327.5	0.238	5.87	101.1	1.9	0.33	0.1	0.02	0.73	0.62	65	215
75	14.19	14.18	33.217	24.773	318.5	0.271	5.73	98.0	2.4	0.38	0.5	0.10	0.57	0.65	75	214
85	12.96	12.95	33.238	25.039	293.3	0.301	5.29	88.2	4.4	0.64	4.6	0.14	0.28	0.39	85	213
95	11.90	11.89	33.292	25.284	270.1	0.329	4.90	79.9	7.2	0.89	9.0	0.02	0.17	0.22	95	212
100 ISL	11.52	11.51	33.322	25.378	261.2	0.343	4.74	76.7	8.5	0.99	10.7	0.02	0.14	0.17	100	
110	10.97	10.96	33.386	25.527	247.2	0.368	4.43	70.9	11.2	1.18	13.7	0.02	0.09	0.10	110	211
125	10.44	10.43	33.502	25.710	230.0	0.404	3.87	61.2	15.2	1.44	17.7	0.01	0.04	0.05	126	210
144	9.56	9.54	33.669	25.989	203.8	0.445	3.58	55.6	20.4	1.66	21.3	0.02	0.01	0.03	145	209
150 ISL	9.45	9.43	33.724	26.050	198.1	0.457	3.39	52.6	22.1	1.73	22.4	0.02	0.01	0.03	151	
169	9.28	9.26	33.879	26.199	184.3	0.494	2.80	43.3	26.7	1.93	25.1	0.01	0.00	0.02	170	208
200 ISL	8.94	8.92	34.014	26.359	169.6	0.548	2.59	39.8	31.0	2.04	26.6	0.01	0.00	0.03	201	
201	8.93	8.91	34.017	26.363	169.2	0.550	2.59	39.8	31.1	2.04	26.6	0.01	0.00	0.03	202	207
230	8.85	8.83	34.139	26.472	159.5	0.598	2.01	30.8	35.9	2.25	28.5	0.01			231	206
250 ISL	8.46	8.43	34.134	26.529	154.3	0.629	1.83	27.8	39.4	2.34	30.2	0.01			251	
269	8.03	8.00	34.111	26.576	150.0	0.658	1.73	26.0	42.8	2.41	31.7	0.00			270	205
300 ISL	7.60	7.57	34.130	26.654	142.9	0.703	1.46	21.8	48.3	2.55	33.4	0.00			302	
320	7.39	7.36	34.151	26.700	138.7	0.732	1.28	19.0	51.8	2.64	34.2	0.00			322	204
378	6.88	6.84	34.210	26.818	128.1	0.809	0.82	12.0	60.7	2.87	36.5	0.00			380	203
400 ISL	6.67	6.63	34.210	26.846	125.6	0.837	0.75	10.9	63.7	2.92	37.2	0.00			402	
437	6.32	6.28	34.205	26.889	121.8	0.883	0.67	9.7	68.7	2.98	38.4	0.00			440	202
500 ISL	5.82	5.78	34.231	26.973	114.2	0.957	0.47	6.7	78.1	3.09	40.2	0.00			503	
514	5.71	5.67	34.237	26.991	112.5	0.973	0.43	6.1	80.2	3.12	40.6	0.00			517	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 11.0 N	120 55.4 W	10/07/06	1902 UTC	3831 m	340 11 kn	340 04 05	2	1012.6 mb	16.9 C	15.4 C	26m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	17.66	17.66	33.319	24.068	383.5	0.000	5.55	101.8	1.7	0.28	0.0	0.01	0.15	0.01	0	
2 A	17.66	17.66	33.319	24.068	383.6	0.008	5.55	101.8	1.7	0.28	0.0	0.01	0.15	0.01	2	224
8	17.66	17.66	33.314	24.065	384.1	0.031	5.55	101.8	1.7	0.28	0.0	0.00	0.14	0.02	8	223
10 ISL	17.66	17.66	33.314	24.065	384.2	0.038	5.55	101.8	1.7	0.28	0.0	0.00	0.15	0.02	10	
14	17.66	17.66	33.318	24.068	384.0	0.054									14	222
14 A	17.66	17.66	33.314	24.065	384.3	0.054	5.55	101.8	1.7	0.28	0.0	0.00	0.16	0.03	14	221
20 ISL	17.65	17.65	33.318	24.071	384.0	0.077	5.57	102.1	1.7	0.28	0.0	0.00	0.17	0.03	20	
26	17.65	17.65	33.322	24.074	383.9	0.100			1.7	0.28	0.0	0.00	0.18	0.03	26	220
30 ISL	17.37	17.37	33.299	24.124	379.3	0.115	5.66	103.2	1.7	0.29	0.0	0.00	0.39	0.05	30	
37	16.58	16.57	33.246	24.269	365.6	0.141									37	219
37 A	16.58	16.57	33.251	24.272	365.3	0.141	5.77	103.6	1.7	0.31	0.1	0.02	0.74	0.11	37	218
44	15.44	15.43	33.221	24.507	343.1	0.166	5.94	104.2	1.9	0.35	0.6	0.05	0.79	0.18	44	217
50 ISL	14.51	14.50	33.147	24.651	329.5	0.186	5.96	102.6	1.5	0.40	0.9	0.11	0.78	0.24	50	
52 A	14.24	14.23	33.122	24.688	325.9	0.193	5.97	102.1	1.4	0.41	0.9	0.13	0.78	0.25	52	216
60	13.64	13.63	33.081	24.781	317.3	0.218	5.86	99.0	1.8	0.44	0.9	0.24	0.66	0.22	60	215
68 A	13.28	13.27	33.095	24.864	309.5	0.243	5.68	95.3	2.6	0.58	2.5	0.28	0.40	0.16	68	214
75 ISL	13.25	13.24	33.238	24.981	298.6	0.265	5.48	91.9	3.3	0.61	3.5	0.30	0.27	0.14	75	
81	13.23	13.22	33.381	25.096	287.9	0.282	5.30	88.9	4.1	0.62	4.5	0.31	0.20	0.13	81	213
95 A	12.04	12.03	33.436	25.370	262.0	0.321	4.95	81.0	7.3	0.86	8.8	0.09	0.10	0.11	95	212
100 ISL	11.38	11.37	33.440	25.495	250.1	0.334	4.66	75.2	10.0	1.06	11.9	0.05	0.07	0.09	100	
108	10.41	10.40	33.460	25.682	232.3	0.353	4.22	66.7	14.2	1.35	16.5	0.02	0.04	0.05	108	211
119	9.91	9.90	33.538	25.828	218.6	0.378	4.05	63.4	16.4	1.44	18.2	0.02	0.04	0.04	120	210
125 ISL	9.75	9.74	33.611	25.912	210.7	0.391	3.77	58.8	18.5	1.56	19.8	0.02	0.03	0.03	126	
138	9.53	9.51	33.773	26.075	195.5	0.417	3.12	48.5	23.4	1.82	23.3	0.01	0.01	0.02	139	209
150 ISL	9.36	9.34	33.858	26.169	186.7	0.440	2.85	44.1	26.0	1.93	24.8	0.01	0.01	0.02	151	
169	9.11	9.09	33.942	26.275	177.0	0.475	2.64	40.7	29.0	2.01	26.2	0.01	0.00	0.03	170	208
200	8.63	8.61	34.042	26.430	162.8	0.527	2.31	35.2	34.7	2.16	28.7	0.01	0.00	0.03	201	207
230	8.43	8.41	34.111	26.515	155.2	0.575	2.01	30.5	38.7	2.29	29.9	0.01			231	206
250 ISL	8.21	8.18	34.137	26.569	150.4	0.605	1.81	27.4	41.9	2.38	30.9	0.01			251	
268	7.98	7.95	34.151	26.614	146.3	0.632	1.63	24.5	45.0	2.47	31.9	0.01			269	205
300 ISL	7.58	7.55	34.162	26.682	140.2	0.678	1.36	20.3	50.0	2.61	33.6	0.00			302	
318	7.36	7.33	34.164	26.715	137.3	0.703	1.22	18.1	52.9	2.68	34.6	0.00			320	204
376	6.65	6.62	34.187	26.831	126.7	0.779	0.87	12.7	63.5	2.88	37.2	0.01			378	203
400 ISL	6.45	6.41	34.197	26.865	123.6	0.810	0.76	11.0	66.9	2.94	38.0	0.01			402	
438	6.17	6.13	34.212	26.913	119.3	0.856	0.62	8.9	71.9	3.01	39.0	0.00			441	202
500 ISL	5.71	5.67	34.237	26.991	112.3	0.927	0.44	6.3	80.7	3.12	40.7	0.00			503	
513	5.61	5.57	34.243	27.008	110.8	0.942	0.40	5.7	82.6	3.14	41.1	0.00			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

RV NEW HORIZON CALCOFI CRUISE 0607 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 35.6 W	11/07/06	0058 UTC	4125 m	340 14 kn	330 04 08	1	1011.6 mb	16.7 C	16.0 C		7/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.82	16.82	33.013	24.033	386.9	0.000	5.68	102.3	1.5	0.29	0.1	0.00	0.14	0.03	0	
2	16.82	16.82	33.013	24.033	387.0	0.008	5.68	102.3	1.5	0.29	0.1	0.00	0.14	0.03	2	220
10 ISL	16.80	16.80	33.014	24.039	386.7	0.039	5.68	102.2	1.5	0.28	0.1	0.00	0.14	0.03	10	
15	16.79	16.79	33.017	24.043	386.4	0.058									15	219
15	16.79	16.79	33.015	24.042	386.6	0.058	5.68	102.2	1.5	0.28	0.1	0.00	0.14	0.03	15	218
20 ISL	16.72	16.72	33.012	24.056	385.4	0.077	5.69	102.3	1.5	0.28	0.1	0.00	0.15	0.03	20	
30	16.52	16.52	33.015	24.105	381.0	0.116	5.72	102.4	1.4	0.28	0.1	0.00	0.18	0.04	30	217
45	16.08	16.07	33.066	24.245	368.1	0.172	5.84	103.7	1.4	0.28	0.1	0.00	0.30	0.08	45	216
50 ISL	15.89	15.88	33.085	24.302	362.8	0.190	5.87	103.8	1.5	0.28	0.1	0.00	0.27	0.07	50	
60	15.49	15.48	33.115	24.415	352.4	0.226	5.92	103.9	1.7	0.28	0.1	0.00	0.19	0.04	60	215
75	15.02	15.01	33.115	24.518	342.9	0.278	5.91	102.7	1.8	0.29	0.1	0.00	0.23	0.08	75	214
85	14.83	14.82	33.169	24.601	335.3	0.312	5.91	102.4	1.5	0.29	0.0	0.00	0.25	0.12	85	213
95	14.43	14.42	33.169	24.686	327.4	0.345	5.81	99.8	2.2	0.33	0.0	0.00	0.31	0.26	95	212
100	14.05	14.04	33.165	24.763	320.2	0.361	5.74	97.8	2.4	0.36	0.1	0.01	0.38	0.33	100	211
120	12.33	12.31	33.248	25.170	281.7	0.421	5.15	84.7	5.2	0.76	6.7	0.07	0.19	0.30	120	210
125 ISL	11.90	11.88	33.285	25.280	271.3	0.435	4.96	80.9	6.7	0.88	8.7	0.06	0.16	0.25	126	
140	10.75	10.73	33.413	25.587	242.1	0.474	4.41	70.2	11.8	1.22	14.5	0.02	0.09	0.09	141	209
150 ISL	10.25	10.23	33.485	25.730	228.6	0.497	4.17	65.7	14.4	1.37	17.0	0.02	0.06	0.07	151	
169	9.59	9.57	33.613	25.941	208.8	0.539	3.82	59.4	18.8	1.57	20.4	0.01	0.02	0.03	170	208
200	8.80	8.78	33.834	26.240	180.8	0.599	3.30	50.5	26.6	1.83	24.9	0.01	0.00	0.02	201	207
229	8.40	8.38	33.969	26.408	165.3	0.649	2.88	43.7	33.1	2.00	27.3	0.01			230	206
250 ISL	8.14	8.11	34.024	26.491	157.7	0.683	2.53	38.1	37.2	2.14	29.1	0.01			251	
270	7.91	7.88	34.059	26.552	152.1	0.714	2.20	33.0	40.9	2.27	30.8	0.00			271	205
300 ISL	7.63	7.60	34.102	26.627	145.4	0.759	1.74	25.9	46.4	2.47	32.9	0.00			302	
319	7.46	7.43	34.123	26.668	141.7	0.786	1.48	22.0	49.7	2.58	34.0	0.00			321	204
378	6.90	6.86	34.175	26.788	131.0	0.867	0.96	14.1	58.9	2.81	36.5	0.00			380	203
400 ISL	6.70	6.66	34.184	26.822	127.9	0.895	0.84	12.3	62.1	2.87	37.3	0.00			402	
439	6.36	6.32	34.196	26.876	123.0	0.944	0.68	9.8	68.0	2.97	38.6	0.00			442	202
500 ISL	5.79	5.75	34.221	26.969	114.5	1.017	0.51	7.3	78.3	3.09	40.4	0.00			503	
512	5.68	5.64	34.226	26.986	112.9	1.030	0.48	6.8	80.3	3.11	40.7	0.00			515	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 30.9 N	122 15.7 W	11/07/06	0654 UTC	4184 m	350 17 kn			1013.0 mb	16.4 C	15.9 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	17.00	17.00	33.002	23.982	391.7	0.000	5.66	102.3	1.2	0.30	0.0	0.01	0.15	0.03	0	
2	17.00	17.00	33.002	23.982	391.8	0.008	5.66	102.3	1.2	0.30	0.0	0.01	0.15	0.03	2	220
10	16.99	16.99	33.000	23.983	392.0	0.039	5.66	102.3	1.2	0.29	0.0	0.00	0.16	0.03	10	219
20	16.84	16.84	32.999	24.018	389.0	0.078	5.68	102.3	1.3	0.29	0.0	0.01	0.16	0.04	20	218
30	16.72	16.72	33.000	24.047	386.5	0.117	5.68	102.1	1.2	0.29	0.0	0.01	0.19	0.05	30	217
40	16.64	16.63	33.009	24.073	384.4	0.156	5.73	102.8	1.2	0.29	0.1	0.00	0.26	0.06	40	216
50	16.71	16.70	33.050	24.089	383.2	0.194	5.73	103.0	1.3	0.29	0.1	0.00	0.33	0.11	50	215
60	16.83	16.82	33.376	24.311	362.3	0.231	5.77	104.1	1.5	0.27	0.1	0.00	0.33	0.10	60	214
70	16.56	16.55	33.444	24.426	351.7	0.267	5.75	103.3	1.6	0.28	0.1	0.00	0.31	0.11	70	213
75 ISL	16.32	16.31	33.434	24.474	347.3	0.284	5.74	102.6	1.7	0.29	0.1	0.00	0.30	0.14	75	
85	15.69	15.68	33.387	24.581	337.4	0.319	5.71	100.8	1.8	0.31	0.1	0.00	0.28	0.21	85	212
100	14.54	14.53	33.363	24.813	315.5	0.368	5.43	93.6	2.9	0.45	0.8	0.10	0.24	0.32	100	211
120	12.93	12.91	33.405	25.175	281.3	0.427	4.79	79.9	6.5	0.82	7.3	0.05	0.19	0.17	120	210
125 ISL	12.57	12.55	33.415	25.253	274.0	0.441	4.66	77.1	7.4	0.90	8.8	0.04	0.16	0.16	125	
139	11.67	11.65	33.453	25.453	255.1	0.478	4.32	70.2	10.2	1.12	12.5	0.02	0.09	0.14	140	209
150 ISL	11.10	11.08	33.504	25.597	241.6	0.506	4.09	65.7	12.7	1.28	15.0	0.02	0.06	0.11	151	
169	10.34	10.32	33.621	25.821	220.4	0.549	3.74	59.1	17.1	1.51	18.5	0.01	0.03	0.05	170	208
198	9.61	9.59	33.851	26.124	192.1	0.609	3.25	50.6	23.5	1.77	22.5	0.01	0.00	0.02	199	207
200 ISL	9.56	9.54	33.862	26.141	190.6	0.613	3.23	50.2	23.9	1.78	22.7	0.01			201	
229	8.90	8.88	33.985	26.343	171.7	0.666	2.98	45.7	29.6	1.91	25.6	0.00			230	206
250 ISL	8.61	8.58	34.036	26.429	163.8	0.701	2.71	41.3	33.3	2.03	27.3	0.00			251	
268	8.41	8.38	34.063	26.481	159.1	0.730	2.47	37.5	36.4	2.13	28.6	0.00			269	205
300 ISL	7.97	7.94	34.097	26.574	150.7	0.779	2.07	31.1	42.4	2.32	30.9	0.00			302	
318	7.72	7.69	34.108	26.619	146.5	0.806	1.87	27.9	45.8	2.42	32.1	0.00			320	204
378	6.94	6.90	34.123	26.741	135.4	0.891	1.43	21.0	55.9	2.66	35.0	0.00			380	203
400 ISL	6.73	6.69	34.137	26.781	131.8	0.920	1.25	18.3	59.5	2.75	36.0	0.00			402	
438	6.39	6.35	34.164	26.847	125.8	0.969	0.96	13.9	65.8	2.89	37.7	0.00			441	202
500 ISL	5.76	5.72	34.199	26.955	115.8	1.044	0.67	9.6	77.5	3.06	40.1	0.00			503	
517	5.59	5.55	34.209	26.984	113.1	1.063	0.59	8.4	80.7	3.11	40.7	0.00			520	201

RV NEW HORIZON CALCOFI CRUISE 0607 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 10.9 N	122 55.6 W	11/07/06	1246 UTC	3677 m	350 16 kn			1013.9 mb	17.2 C	16.2 C		

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	18.78	18.78	33.365	23.828	406.4	0.000	5.41	101.4	1.4	0.28	0.0	0.00	0.10	0.01	0	
2	18.78	18.78	33.365	23.829	406.5	0.008	5.41	101.4	1.4	0.28	0.0	0.00	0.10	0.01	2	221
10 ISL	18.78	18.78	33.365	23.829	406.7	0.041	5.41	101.4	1.5	0.27	0.0	0.00	0.09	0.02	10	
15	18.78	18.78	33.365	23.829	406.9	0.061	5.41	101.4	1.5	0.27	0.0	0.00	0.09	0.02	15	220
20 ISL	18.78	18.78	33.365	23.829	407.0	0.081	5.41	101.4	1.5	0.27	0.0	0.00	0.09	0.02	20	
30	18.79	18.78	33.365	23.827	407.6	0.122	5.41	101.4	1.5	0.27	0.0	0.00	0.09	0.02	30	219
45	16.61	16.60	33.134	24.176	374.7	0.181	5.82	104.4	1.6	0.28	0.0	0.00	0.15	0.03	45	218
50 ISL	16.05	16.04	33.114	24.289	364.1	0.199	5.89	104.5	1.6	0.28	0.0	0.00	0.15	0.03	50	
60	15.26	15.25	33.123	24.471	346.9	0.235	5.95	103.9	1.5	0.29	0.0	0.00	0.16	0.04	60	217
75	15.00	14.99	33.181	24.573	337.7	0.286	5.87	102.0	1.6	0.29	0.0	0.00	0.21	0.09	75	216
85	14.75	14.74	33.186	24.631	332.4	0.320	5.85	101.2	1.8	0.30	0.0	0.00	0.25	0.12	85	215
95	14.14	14.13	33.196	24.768	319.6	0.352	5.72	97.7	2.2	0.35	0.1	0.02	0.25	0.30	95	214
100	13.81	13.80	33.283	24.903	306.8	0.368	5.54	94.0	3.1	0.43	1.1	0.12	0.26	0.21	100	213
104	13.73	13.72	33.336	24.961	301.4	0.380	5.46	92.6	4.2	0.47	1.8	0.17	0.22	0.21	104	212
114	13.06	13.04	33.303	25.070	291.2	0.410	5.32	88.9	5.2	0.59	3.7	0.17	0.19	0.25	114	211
124	12.61	12.59	33.302	25.158	283.0	0.438	5.21	86.3	7.0	0.68	5.3	0.11	0.18	0.20	124	210
125 ISL	12.56	12.54	33.308	25.172	281.6	0.441	5.19	85.8	7.0	0.69	5.5	0.10	0.18	0.20	125	
140	11.76	11.74	33.416	25.408	259.4	0.482	4.91	79.9	7.1	0.85	8.9	0.03	0.14	0.14	141	209
150 ISL	11.13	11.11	33.460	25.557	245.3	0.507	4.70	75.5	9.2	1.01	11.7	0.02	0.10	0.11	151	
167	10.13	10.11	33.545	25.798	222.6	0.547	4.32	67.9	14.4	1.30	16.3	0.00	0.03	0.07	168	208
194	9.23	9.21	33.793	26.140	190.4	0.603	3.74	57.7	22.4	1.62	21.6	0.00	0.00	0.02	195	207
200 ISL	9.15	9.13	33.836	26.187	186.0	0.614	3.62	55.8	23.7	1.67	22.3	0.00			201	
229	8.90	8.88	33.983	26.342	171.8	0.666	3.08	47.2	29.0	1.87	25.0	0.00			230	206
250 ISL	8.55	8.52	34.030	26.433	163.4	0.701	2.78	42.3	33.4	2.00	27.0	0.00			251	
268	8.22	8.19	34.048	26.498	157.4	0.730	2.57	38.8	37.2	2.11	28.6	0.00			269	205
300 ISL	7.70	7.67	34.062	26.586	149.4	0.779	2.25	33.6	43.4	2.28	31.0	0.00			302	
319	7.42	7.39	34.065	26.628	145.5	0.807	2.07	30.7	46.8	2.37	32.2	0.00			321	204
377	6.80	6.77	34.106	26.747	134.7	0.888	1.45	21.2	56.6	2.67	35.3	0.00			379	203
400 ISL	6.57	6.53	34.115	26.785	131.3	0.919	1.28	18.6	60.4	2.75	36.4	0.00			402	
438	6.21	6.17	34.130	26.844	125.9	0.968	1.04	15.0	66.7	2.86	37.9	0.00			441	202
500 ISL	5.75	5.71	34.179	26.941	117.2	1.043	0.71	10.1	76.6	3.02	39.9	0.00			503	
512	5.66	5.62	34.189	26.959	115.4	1.057	0.65	9.3	78.5	3.05	40.3	0.00			515	201

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
29 51.2 N	123 35.2 W	11/07/06	1859 UTC	4132 m	360 15 kn	360 05 07	2	1016.3 mb	19.0 C	17.3 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	18.65	18.65	33.282 D	23.798	409.4	0.000	5.45	101.8	1.8	0.30	0.0	0.00	0.10	0.01	0	
1 A	18.65	18.65	33.282 D	23.798	409.4	0.004	5.45	101.8	1.8	0.30	0.0	0.00	0.10	0.01	1	222
1	18.64	18.64	33.285	23.802	408.9	0.004									1	223
10 ISL	18.64	18.64	33.283	23.801	409.4	0.041	5.45	101.8	1.8	0.31	0.0	0.00	0.09	0.01	10	
16	18.63	18.63	33.283	23.804	409.3	0.065									16	221
16 A	18.62	18.62	33.283	23.806	409.1	0.065	5.45	101.8	1.8	0.31	0.0	0.00	0.09	0.01	16	220
20 ISL	18.61	18.61	33.281	23.808	409.1	0.082	5.45	101.7	1.8	0.31	0.0	0.00	0.09	0.01	20	
30	18.57	18.56	33.276	23.814	408.8	0.123	5.45	101.7	1.7	0.29	0.0	0.01	0.10	0.01	30	219
43 A	16.12	16.11	33.137	24.290	363.7	0.173	5.90	104.9	1.6	0.28	0.0	0.00	0.14	0.04	43	218
50 ISL	15.61	15.60	33.142	24.409	352.6	0.198	5.90	103.8	1.5	0.28	0.0	0.00	0.15	0.04	50	
60 A	15.45	15.44	33.233	24.514	342.9	0.233	5.90	103.5	1.5	0.28	0.0	0.00	0.17	0.04	60	217
71	15.15	15.14	33.223	24.573	337.6	0.270	5.91	103.1	1.5	0.29	0.0	0.01	0.20	0.05	71	216
75 ISL	15.00	14.99	33.205	24.592	335.9	0.284	5.92	102.9	1.4	0.29	0.0	0.01	0.21	0.06	75	
79 A	14.87	14.86	33.195	24.612	334.1	0.297	5.93	102.8	1.3	0.29	0.0	0.01	0.21	0.07	79	215
88	14.82	14.81	33.257	24.671	328.7	0.327	5.82	100.8	1.5	0.29	0.0	0.01	0.20	0.13	88	214
98	14.55	14.54	33.349	24.800	316.7	0.359	5.73	98.8	1.8	0.31	0.0	0.02	0.34	0.22	98	213
100 ISL	14.47	14.46	33.351	24.818	315.0	0.365	5.70	98.1	1.9	0.32	0.1	0.04	0.33	0.22	100	
110 A	13.89	13.87	33.346	24.936	304.0	0.396	5.52	93.9	2.8	0.43	1.4	0.14	0.26	0.24	110	212
118	13.22	13.20	33.371	25.091	289.3	0.420	5.31	89.1	3.8	0.56	3.6	0.14	0.23	0.23	118	211
125 ISL	12.75	12.73	33.374	25.186	280.3	0.440	5.21	86.6	4.5	0.64	5.0	0.09	0.24	0.16	125	
127	12.61	12.59	33.373	25.213	277.8	0.446	5.18	85.8	4.7	0.66	5.4	0.08	0.24	0.14	127	210
140	11.45	11.43	33.365	25.425	257.7	0.481	4.89	79.0	7.7	0.93	9.9	0.04	0.12	0.16	141	209
150 ISL	10.74	10.72	33.439	25.610	240.2	0.505	4.70	74.8	10.4	1.09	12.8	0.02	0.07	0.12	151	
164	9.97	9.95	33.580	25.852	217.3	0.537	4.45	69.7	14.3	1.28	16.1	0.01	0.04	0.05	165	208
194	9.09	9.07	33.790	26.160	188.4	0.598	3.95	60.8	21.9	1.58	21.2	0.01	0.00	0.02	195	207
200 ISL	9.01	8.99	33.821	26.197	185.0	0.609	3.88	59.6	22.9	1.61	21.7	0.01			201	
228	8.75	8.73	33.931	26.324	173.3	0.660	3.54	54.1	27.2	1.74	23.7	0.01			229	206
250 ISL	8.46	8.43	33.985	26.412	165.4	0.697	3.13	47.5	31.8	1.91	26.0	0.01			251	
270	8.20	8.17	34.023	26.481	159.0	0.729	2.70	40.8	36.3	2.08	28.3	0.01			271	205
300 ISL	7.91	7.88	34.088	26.576	150.5	0.776	1.98	29.7	43.1	2.36	31.4	0.01			302	
318	7.74	7.71	34.120	26.626	145.9	0.802	1.59	23.8	47.0	2.51	33.0	0.01			320	204
379	6.95	6.91	34.149	26.760	133.6	0.888	1.09	16.0	57.8	2.77	36.1	0.01			381	203
400 ISL	6.69	6.65	34.155	26.800	129.9	0.915	0.96	14.0	61.6	2.85	37.1	0.01			402	
437	6.29	6.25	34.167	26.863	124.2	0.962	0.78	11.3	68.1	2.96	38.6	0.01			440	202
500 ISL	5.87	5.83	34.205	26.946	116.7	1.038	0.56	8.0	76.7	3.08	40.2	0.01			503	
513	5.78	5.74	34.213	26.964	115.2	1.053	0.51	7.3	78.5	3.11	40.5	0.01			516	201

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 42.9 N	121 33.3 W	23/07/06	1738 UTC	4 m	1213 - 1947 PST	1213 PST	1942 PST	639.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	15.49	33.592	24.780	6.55	115.3	3.6	0.21	0.4	0.02	7.61	0.28	68. A	98.2	98.2	98.2	0.86
2	15.48	33.589	24.780	6.54	115.1	3.7	0.22	0.3	0.02	5.55	0.67	46.	106.3	107.7	107.0	0.83
6	15.38	33.594	24.806	6.57	115.4	3.9	0.22	0.3	0.02	6.91	0.69	10.	52.8	44.7	48.7	0.81
8	15.05	33.611	24.891	6.65	116.0	5.6	0.31	0.9	0.05	7.98	0.66	4.6	26.5	27.1	26.8	0.70
10	14.87	33.615	24.933	6.62	115.1	6.1	0.35	1.3	0.06	8.16	0.60	2.2	7.4	6.7	7.1	0.60
15	13.38	33.642	25.266	5.92	99.8	10.7	0.88	7.5	0.33	1.16	0.19	0.32	0.21	0.21	0.21	0.11

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 76.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 43.0 N	123 38.2 W	22/07/06	1925 UTC	34 m	1231 - 1951 PST	1221 PST	1948 PST	198.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.89	33.026	23.789	5.55	102.0	1.9	0.28	0.0	0.00	0.11	0.01	91. A	2.5	2.5	2.5	0.08
18	17.73	33.025	23.827	5.58	102.3	1.8	0.28	0.0	0.00	0.11	0.01	44.	2.6	2.6	2.6	0.07
28	17.49	33.021	23.882	5.61	102.3	1.8	0.28	0.0	0.00	0.13	0.02					
38	17.42	33.029	23.905	5.62	102.4	1.8	0.27	0.0	0.00	0.17	0.00					
49	15.84	33.021	24.264	5.92	104.6	1.8	0.28	0.0	0.00	0.23	0.02	11.	2.3	2.3	2.3	0.06
58	15.35	33.009	24.364	5.97	104.4	1.9	0.29	0.0	0.00	0.29	0.02					
68	14.85	33.005	24.469	5.95	103.0	1.8	0.30	0.0	0.00	0.30	0.08	4.6	1.7	1.6	1.7	0.06
78	14.39	33.034	24.590	5.87	100.7	1.9	0.34	0.1	0.03	0.36	0.11					
89	13.76	33.078	24.755	6.01	101.8	1.4	0.31	0.0	0.02	0.29	0.13	1.8	0.70	0.73	0.71	0.04
101	12.74	33.008	24.904	5.83	96.6	2.3	0.44	1.3	0.14	0.32	0.10					
112	12.32	33.349	25.250	5.02	82.6	6.5	0.79	7.8	0.07	0.22	0.11					
124	11.61	33.398	25.421	4.70	76.2	9.0	1.00	11.2	0.04	0.14	0.12	0.37	0.05	0.06	0.06	0.02

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 80.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 28.9 N	122 31.7 W	21/07/06	1853 UTC	24 m	1208 - 1951 PST	1217 PST	1948 PST	407.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.40	32.931	23.833	5.78	105.2	1.6	0.29	0.0	0.01	0.26	0.00	94. A	6.2	6.1	6.2	0.11
14	16.24	32.901	24.081	5.86	104.3	1.6	0.29	0.0	0.00	0.23	0.02	41.	6.0	6.1	6.0	0.13
24	15.74	32.970	24.246	5.92	104.3	1.6	0.29	0.0	0.01	0.31	0.03					
34	14.62	33.090	24.583	5.92	102.1	2.4	0.45	2.4	0.09	0.62	0.07	11.	8.4	8.5	8.5	0.14
42	14.45	33.163	24.676	5.85	100.6	2.9	0.54	3.6	0.13	0.90	0.03					
48	13.84	33.056	24.720	5.97	101.3	2.4	0.48	2.5	0.09	0.77	0.07	4.6	5.7	5.6	5.7	0.14
56	14.03	33.204	24.796	5.88	100.2	3.6	0.65	5.1	0.17	0.87	0.18					
63	13.38	33.167	24.900	5.82	97.9	4.8	0.73	5.9	0.22	0.62	0.19	1.8	1.8	1.6	1.7	0.13
75	11.47	33.155	25.257	4.97	80.3	9.3	1.07	11.7	0.25	0.14	0.11					
88	10.86	33.461	25.604	4.23	67.5	13.9	1.41	17.4	0.12	0.17	0.06	0.36	0.11	0.10	0.10	0.07

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 81.8 46.9

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 16.9 N	120 1.5 W	20/07/06	1752 UTC	8 m	1209 - 1943 PST	1206 PST	1942 PST	896.0 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.75	33.539	23.969	6.23	116.8	3.1	0.15	0.1	0.00	3.01	0.44	83. A	43.4	60.8	52.1	0.68
5	18.63	33.536	23.997	6.22	116.3	3.2	0.17	0.1	0.00	2.46	0.28	38.	61.9	60.6	61.2	0.68
12	17.87	33.534	24.183	6.14	113.2	4.1	0.20	0.1	0.01	4.13	0.89	10.	48.8	48.3	48.5	0.69
16	17.42	33.569	24.318	6.06	110.8	5.3	0.19	0.1	0.01	5.62	0.52	4.6	25.2	27.1	26.1	0.71
21	15.68	33.589	24.736	5.43	95.9	9.0	0.55	2.3	0.09	2.49	0.27	1.8	2.4	3.0	2.7	0.37
29	14.72	33.568	24.930	5.15	89.2	9.6	0.69	5.1	0.13	1.84	0.68	0.38	0.37	0.30	0.33	0.11

A) INCUBATION LIGHT INTENSITIES WERE 94, 44, 11, 0.05, 0.02, 0.00 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 83.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 44.7 N	120 24.7 W	19/07/06	1807 UTC	7 m	1200 - 1935 PST	1208 PST	1937 PST	1183.4 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	17.71	33.558	24.240	6.32	116.2	5.6	0.30	0.1	0.02	2.97	0.06	80. A	76.5	77.0	76.8	0.59
4	16.19	33.552	24.592	6.19	110.5	6.5	0.35	0.7	0.03	3.68	0.00	42.	101.9	105.2	103.6	0.76
11	15.00	33.564	24.866	5.70	99.3	8.3	0.53	3.2	0.05	3.93	0.37	9.0	64.7	62.0	63.3	0.56
14	14.84	33.560	24.898	5.59	97.1	8.5	0.56	3.7	0.05	3.55	0.61	4.6	30.4	29.3	29.8	0.51
18	14.82	33.561	24.903	5.52	95.8	8.6	0.57	3.9	0.05	3.96	0.10	1.9	7.7	8.9	8.3	0.48
26	13.98	33.565	25.084	4.96	84.7	9.8	0.76	6.7	0.09	3.07	0.44	0.33	0.74	0.64	0.69	0.11

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 83.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 34.4 N	122 49.1 W	18/07/06	1818 UTC	33 m	1222 - 1940 PST	1218 PST	1944 PST	319.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.25	33.076	23.980	5.61	101.9	1.7	0.27	0.1	0.00	0.11	0.00	95. A	1.8	1.8	1.8	0.08
11	17.18	33.078	23.999	5.60	101.6	1.7	0.27	0.1	0.00	0.10	0.02					
18	17.17	33.076	24.000	5.62	101.9	1.6	0.27	0.1	0.00	0.13	0.01	43.	2.7	2.7	2.7	0.09
29	17.02	33.060	24.023	5.63	101.8	1.7	0.28	0.1	0.00	0.15	0.01					
38	15.93	32.975	24.208	5.85	103.5	1.6	0.29	0.1	0.00	0.27	0.07					
49	15.36	32.980	24.339	5.92	103.5	1.5	0.32	0.4	0.03	0.46	0.16	10.	6.0	5.9	6.0	0.08
59	15.13	32.976	24.386	5.87	102.2	1.4	0.36	0.7	0.04	0.41	0.11					
68	14.87	32.984	24.449	5.88	101.8	1.4	0.38	0.9	0.05	0.37	0.09	4.2	2.5	2.6	2.5	0.07
78	14.64	33.044	24.545	5.87	101.2	2.2	0.45	2.1	0.11	0.35	0.10					
89	14.44	33.067	24.605	5.89	101.1	2.2	0.49	2.5	0.12	0.37	0.07	1.6	1.3	1.3	1.3	0.08
100	13.30	33.206	24.947	5.57	93.5	3.6	0.53	3.1	0.21	0.20	0.13					
113	12.47	33.367	25.235	5.05	83.4	6.4	0.75	7.5	0.06	0.15	0.13					
124	11.71	33.371	25.382	4.81	78.2	8.3	0.93	10.3	0.03	0.11	0.10	0.31	0.07	0.08	0.07	0.02

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 86.7 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 39.7 N	118 58.9 W	15/07/06	1731 UTC	16 m	1205 - 1928 PST	1202 PST	1937 PST	720.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	21.17	33.514	23.318	5.67	111.2	2.3	0.11	0.1	0.00	0.33	0.06	91. A	5.0	5.5	5.3	0.25
9	20.33	33.509	23.540	5.74	110.8	1.6	0.12	0.1	0.00	0.37	0.07	42.	12.4	11.4	11.9	0.28
10	19.09	33.503	23.856	5.87	110.7	1.0	0.13	0.1	0.00	0.45	0.08					
17	15.40	33.456	24.696	6.11	107.3	3.5	0.31	0.5	0.02	1.27	0.26					
24	13.18	33.442	25.151	5.46	91.6	6.9	0.53	2.0	0.06	2.02	0.52	10.	37.2	39.5	38.4	0.30
31	11.95	33.466	25.408	4.05	66.2	11.1	1.02	9.5	0.27	1.38	0.32	5.1	11.4	12.2	11.8	0.18
42	11.09	33.539	25.623	3.21	51.5	15.2	1.40	16.2	0.05	0.38	0.25	1.8	2.0	2.0	2.0	0.07
50	10.67	33.588	25.736	3.15	50.1	17.1	1.53	18.5	0.03	0.17	0.17					
59	10.29	33.653	25.853	3.03	47.8	19.5	1.65	20.8	0.03	0.08	0.11	0.35	0.08	0.09	0.09	0.02

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 86.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 39.7 N	121 2.1 W	16/07/06	1843 UTC	20 m	1220 - 1937 PST	1210 PST	1941 PST	298.4 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	16.29	33.105	24.226	5.76	102.7	1.8	0.29	0.2	0.02	0.26	0.06	86. A	4.6	4.0	4.3	0.12
11	16.26	33.105	24.233	5.76	102.6	1.6	0.29	0.2	0.02	0.30	0.05	43.	6.7	7.0	6.8	0.14
20	16.19	33.107	24.250	5.77	102.7	1.6	0.28	0.2	0.01	0.31	0.08					
30	15.97	33.124	24.314	5.81	102.9	1.8	0.31	0.5	0.03	0.39	0.12	10.	7.5	7.6	7.6	0.14
35	15.07	33.309	24.655	5.98	104.2	4.1	0.43	2.2	0.14	0.66	0.25					
41	13.16	33.094	24.887	5.75	96.2	4.7	0.59	3.7	0.26	0.49	0.21	4.3	4.2	4.6	4.4	0.08
52	13.10	33.341	25.090	5.35	89.5	5.0	0.77	5.3	0.68	0.23	0.12	1.8	0.74	0.86	0.80	0.07
62	11.95	33.309	25.287	4.92	80.3	7.5	0.95	9.9	0.48	0.18	0.16					
72	11.34	33.435	25.498	4.58	73.9	11.5	1.17	14.1	0.04	0.05	0.05	0.40	0.02	0.06	0.04	0.02

A) INCUBATION LIGHT INTENSITIES WERE 94, 44, 11, 0.05, 0.02, 0.00 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 86.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 40.4 N	123 4.9 W	17/07/06	1734 UTC	24 m	1225 - 1951 PST	1218 PST	1949 PST	237.5 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	16.86	33.072	24.069	5.71	102.9	0.9	0.26	0.1	0.00	0.17	0.03	88. A	3.3	3.2	3.3	0.09
10	16.87	33.068	24.064	5.70	102.8	0.9	0.26	0.0	0.00	0.17	0.03					
14	16.86	33.068	24.066	5.72	103.1	0.9	0.26	0.0	0.00	0.17	0.02	41.	4.2	4.2	4.2	0.09
24	16.83	33.069	24.074	5.73	103.2	0.9	0.26	0.0	0.00	0.18	0.03					
35	16.74	33.071	24.097	5.73	103.0	0.9	0.27	0.0	0.01	0.28	0.04	11.	4.4	4.4	4.4	0.09
42	16.54	33.061	24.136	5.78	103.5	1.0	0.27	0.0	0.01	0.39	0.07					
48	16.34	33.049	24.173	5.83	104.0	0.9	0.28	0.0	0.01	0.44	0.07	4.6	3.0	3.0	3.0	0.10
56	16.26	33.045	24.188	5.83	103.8	0.8	0.28	0.0	0.01	0.44	0.10					
63	16.20	33.042	24.200	5.83	103.7	0.9	0.28	0.0	0.02	0.41	0.09	1.8	1.2	1.2	1.2	0.11
71	15.18	33.013	24.405	5.98	104.2	0.7	0.28	0.0	0.01	0.36	0.11					
79	15.14	33.155	24.523	5.91	103.0	0.9	0.27	0.0	0.01	0.29	0.11					
88	15.02	33.201	24.585	5.87	102.1	0.9	0.26	0.0	0.01	0.30	0.14	0.36	0.08	0.08	0.08	0.02

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 90.0 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 14.6 N	118 15.5 W	14/07/06	1748 UTC	13 m	1156 - 1933 PST	1159 PST	1934 PST	563.8 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	23.38	33.646	22.799	5.36	109.4	0.7	0.03	0.1	0.00	0.41	0.05	79. A	13.3	14.2	13.8	0.41
7	21.93	33.567	23.151	5.61	111.5	1.1	0.06	0.1	0.00	0.42	0.06	44.	20.4	19.9	20.1	0.50
10	20.91	33.529	23.401	5.73	111.8	1.3	0.08	0.1	0.00	0.50	0.05					
19	14.69	33.445	24.841	5.38	93.1	2.9	0.21	0.1	0.00	0.62	0.11	11.	13.1	14.3	13.7	0.44
26	12.76	33.451	25.242	4.38	72.8	7.8	0.48	0.4	0.02	1.48	0.11	4.6	17.9	17.4	17.7	0.39
34	11.59	33.486	25.491	3.56	57.8	11.9	1.04	7.6	0.23	1.14	0.39	1.8	6.8	5.3	6.1	0.21
41	10.96	33.549	25.654	3.17	50.8	15.3	1.44	15.2	0.05	0.27	0.21					
48	10.62	33.586	25.743	3.15	50.1	16.9	1.58	18.4	0.03	0.13	0.14	0.35	0.12	0.12	0.12	0.02

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 90.0 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 25.1 N	119 57.2 W	13/07/06	1858 UTC	22 m	1210 - 1926 PST	1206 PST	1934 PST	224.2 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	17.09	33.300	24.190	5.61	101.7	1.5	0.28	0.1	0.00	0.21	0.03	87. A	2.7	2.8	2.8	0.14
12	17.03	33.299	24.203													
12	17.03	33.299	24.203	5.61	101.6	1.5	0.28	0.1	0.00	0.21	0.04	43.	3.5	3.5	3.5	0.15
22	17.01	33.297	24.207	5.63	101.9	1.6	0.27	0.1	0.00	0.25	0.02					
30	16.06	33.251	24.391													
32	15.63	33.235	24.475	5.83	102.7	1.7	0.31	0.1	0.01	0.43	0.17	11.	4.6	4.6	4.6	0.14
45	13.58	33.123	24.825	5.69	96.0	2.3	0.50	1.7	0.37	0.55	0.28	4.3	4.0	4.1	4.0	0.10
51	13.46	33.230	24.932	5.52	93.0	3.0	0.57	3.1	0.48	0.43	0.23					
58	13.44	33.376	25.049	5.38	90.7	3.5	0.59	3.9	0.56	0.37	0.23	1.7	1.3	1.4	1.3	0.05
70	12.47	33.367	25.234	5.08	83.9	5.9	0.81	7.8	0.55	0.20	0.13					
80	12.18	33.431	25.339	4.99	81.9	7.1	0.94	9.5	0.77	0.16	0.08	0.38	0.12	0.14	0.13	0.02

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 6.3 N	122 39.9 W	12/07/06	1746 UTC	27 m	1210 - 1935 PST	1216 PST	1941 PST	97.0 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	18.52	33.454	23.961	5.44	101.5	1.2	0.28	0.0	0.00	0.09	0.02	89. A	1.0	0.79	0.90	0.08
16	18.52	33.454	23.962	5.44	101.5	1.2	0.27	0.0	0.00	0.11	0.01	40.	2.0	2.0	2.0	0.08
27	18.51	33.449	23.961	5.44	101.5	1.3	0.27	0.0	0.00	0.10	0.01					
39	18.51	33.449	23.962	5.45	101.6	1.4	0.27	0.0	0.00	0.11	0.01	11.	1.4	1.3	1.4	0.09
54	18.33	33.425	23.989	5.49	102.0	1.4	0.27	0.0	0.00	0.13	0.02	4.6	0.83	0.88	0.85	0.08
60	16.32	33.212	24.303	5.86	104.6	1.5	0.28	0.0	0.00	0.19	0.03					
71	15.54	33.163	24.441	5.90	103.7	1.7	0.29	0.0	0.00	0.23	0.03	1.8	0.48	0.41	0.45	0.06
80	15.21	33.182	24.528	5.90	103.0	1.6	0.29	0.0	0.00	0.26	0.08					
89	14.71	33.228	24.672	5.80	100.2	1.9	0.32	0.1	0.00	0.36	0.22					
98	14.16	33.248	24.804	5.68	97.1	2.4	0.38	0.2	0.02	0.51	0.34	0.38	0.15	0.12	0.13	0.11

A) INCUBATION LIGHT INTENSITIES WERE 94, 44, 11, 0.05, 0.02, 0.00 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 57.5 N	117 18.0 W	08/07/06	1839 UTC	7 m	1150 - 1925 PST	1154 PST	1929 PST	784.7 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	22.71	33.574	22.937	5.89	118.8	4.0	0.17	0.1	0.00	1.40	0.15	80. A	38.7	36.0	37.3	0.86
4	21.54	33.558	23.251	5.98	118.1	4.4	0.17	0.1	0.00	1.28	0.19	42.	47.7	43.4	45.5	0.93
11	16.83	33.510	24.412	6.46	116.7	5.8	0.30	0.1	0.00	2.74	0.13	9.0	51.9	58.8	55.4	1.3
14	14.94	33.478	24.813	5.97	103.9	6.9	0.37	0.1	0.00	3.16	0.00	4.6		24.7	24.7	0.81
18	13.64	33.484	25.091	5.35	90.6	7.8	0.50	0.1	0.02	4.06	1.00	1.9	15.0	17.4	16.2	0.78
26	12.35	33.440	25.312	4.69	77.3	8.9	0.80	4.6	0.20	2.14	0.65	0.33	0.81	0.85	0.83	0.29

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 93.3 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 21.1 N	118 33.5 W	09/07/06	1823 UTC	12 m	1203 - 1934 PST	1200 PST	1934 PST	231.7 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	19.41	33.490	23.764	5.72	108.5	0.0	0.10	0.1	0.00	0.45	0.05	77. A	8.3	7.4	7.8	0.36
6	19.41	33.489	23.764	5.56	105.5	0.0	0.10	0.1	0.00	0.43	0.08	46.	9.7	9.6	9.6	0.27
18	19.19	33.484	23.817	5.62	106.2	0.0	0.11	0.0	0.00	0.47	0.08	10.	7.7	6.8	7.2	0.32
24	17.34	33.461	24.255	5.71	104.1	0.8	0.17	0.1	0.00	0.66	0.13	4.6	4.9	4.8	4.9	0.33
32	15.55	33.440	24.651	5.49	96.7	1.8	0.27	0.1	0.00	0.79	0.20	1.7	2.0	2.0	2.0	0.38
39	13.13	33.393	25.124	4.73	79.2	5.4	0.62	2.1	0.15	2.08	0.56					
44	12.69	33.391	25.209	4.48	74.4	6.8	0.79	4.4	0.17	1.31	0.60	0.36	0.70	0.84	0.77	0.11

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 93.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 11.0 N	120 55.4 W	10/07/06	1902 UTC	26 m	1214 - 1938 PST	1209 PST	1941 PST	336.6 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.66	33.319	24.068	5.55	101.8	1.7	0.28	0.0	0.01	0.15	0.01	89. A	2.2	2.5	2.4	0.13
8	17.66	33.314	24.065	5.55	101.8	1.7	0.28	0.0	0.00	0.14	0.02					
14	17.66	33.314	24.065	5.55	101.8	1.7	0.28	0.0	0.00	0.16	0.03	44.	3.0	2.9	3.0	0.10
26	17.65	33.322	24.074			1.7	0.28	0.0	0.00	0.18	0.03					
37	16.58	33.251	24.272	5.77	103.6	1.7	0.31	0.1	0.02	0.74	0.11	11.	8.8	10.1	9.5	0.13
44	15.44	33.221	24.507	5.94	104.2	1.9	0.35	0.6	0.05	0.79	0.18					
52	14.24	33.122	24.688	5.97	102.1	1.4	0.41	0.9	0.13	0.78	0.25	4.6	4.3	3.9	4.1	0.10
60	13.64	33.081	24.781	5.86	99.0	1.8	0.44	0.9	0.24	0.66	0.22					
68	13.28	33.095	24.864	5.68	95.3	2.6	0.58	2.5	0.28	0.40	0.16	1.8	0.92	0.94	0.93	0.06
81	13.23	33.381	25.096	5.30	88.9	4.1	0.62	4.5	0.31	0.20	0.13					
95	12.04	33.436	25.370	4.95	81.0	7.3	0.86	8.8	0.09	0.10	0.11	0.37	0.07	0.06	0.06	0.02

RV NEW HORIZON — CALCOFI CRUISE 0607 — STATION 93.3 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
29 51.2 N	123 35.2 W	11/07/06	1859 UTC	30 m	1215 - 1940 PST	1220 PST	1947 PST	119.6 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	18.65	33.282 D	23.798	5.45	101.8	1.8	0.30	0.0	0.00	0.10	0.01	95. A	2.1	1.9	2.0	0.07
16	18.62	33.283	23.806	5.45	101.8	1.8	0.31	0.0	0.00	0.09	0.01	44.	2.0	2.0	2.0	0.08
30	18.57	33.276	23.814	5.45	101.7	1.7	0.29	0.0	0.01	0.10	0.01					
43	16.12	33.137	24.290	5.90	104.9	1.6	0.28	0.0	0.00	0.14	0.04	11.	1.8	1.6	1.7	0.11
60	15.45	33.233	24.514	5.90	103.5	1.5	0.28	0.0	0.00	0.17	0.04	4.6	0.83	0.81	0.82	0.08
71	15.15	33.223	24.573	5.91	103.1	1.5	0.29	0.0	0.01	0.20	0.05					
79	14.87	33.195	24.612	5.93	102.8	1.3	0.29	0.0	0.01	0.21	0.07	1.8	0.39	0.19	0.29	0.05
88	14.82	33.257	24.671	5.82	100.8	1.5	0.29	0.0	0.01	0.20	0.13					
98	14.55	33.349	24.800	5.73	98.8	1.8	0.31	0.0	0.02	0.34	0.22					
110	13.89	33.346	24.936	5.52	93.9	2.8	0.43	1.4	0.14	0.26	0.24	0.36	0.08	0.09	0.08	0.02

A) INCUBATION LIGHT INTENSITIES WERE 94, 44, 11, 0.05, 0.02, 0.00 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	07/23	2013	2020	120	62	100	100
76.7	51.0	35 01.4	120 55.2	07/23	1753	1815	426	202	136	136
76.7	55.0	34 53.3	121 12.0	07/23	1413	1435	433	197	115	115
76.7	60.0	34 43.3	121 32.9	07/23	0830	0851	392	201	166	166
76.7	70.0	34 23.0	122 14.8	07/23	0205	0228	469	204	122	122
76.7	80.0	34 03.3	122 56.6	07/22	1854	1916	415	207	137	137
76.7	90.0	33 43.2	123 38.1	07/22	1231	1253	415	211	53	53
76.7	100.0	33 23.2	124 19.3	07/22	0626	0648	404	209	99	99
80.0	50.5	34 27.7	120 29.2	07/20	1349	1351	47	12	150	150
80.0	51.0	34 27.1	120 31.5	07/20	1534	1540	125	49	177	177
80.0	55.0	34 19.0	120 48.2	07/20	2002	2026	473	205	99	99
80.0	60.0	34 09.2	121 08.8	07/24	0222	0245	403	216	161	161
80.0	70.0	33 49.0	121 50.3	07/24	0651	0713	427	201	68	68
80.0	80.0	33 29.0	122 31.9	07/21	1218	1240	428	186	65	65
80.0	90.0	33 09.0	123 13.3	07/21	1832	1854	421	196	1003	1003
80.0	100.0	32 49.1	123 54.5	07/22	0042	0105	430	207	44	44
81.7	43.5	34 24.2	119 48.1	07/20	0454	0456	46	13	108	108
81.8	46.9	34 16.5	120 01.5	07/20	0848	0909	405	204	151	131
83.3	39.4	34 15.4	119 19.7	07/19	2310	2312	46	11	130	130
83.3	40.6	34 13.4	119 24.7	07/20	0101	0104	74	19	188	188
83.3	42.0	34 10.7	119 30.7	07/19	2116	2131	325	143	286	286
83.3	51.0	33 52.7	120 08.0	07/19	1519	1529	209	92	258	258
83.3	55.0	33 44.6	120 24.5	07/19	1147	1209	451	205	49	49
83.3	60.0	33 34.6	120 45.6	07/19	0651	0713	410	204	78	78
83.3	70.0	33 14.8	121 26.7	07/19	0025	0047	444	211	374	374
83.3	80.0	32 54.6	122 07.7	07/18	1742	1805	457	201	112	112
83.3	90.0	32 34.5	122 48.7	07/18	1130	1152	474	196	40	40
83.3	100.0	32 14.5	123 29.4	07/18	0507	0530	462	211	32	32
83.3	110.0	31 54.6	124 10.1	07/17	2255	2316	454	211	33	33
86.7	33.0	33 53.4	118 29.4	07/15	0312	0318	118	49	186	186
86.7	35.0	33 49.4	118 37.5	07/15	0610	0632	431	211	42	42
86.7	40.0	33 39.4	118 58.4	07/15	1053	1114	429	207	89	89
86.7	45.0	33 29.4	119 19.1	07/15	1530	1552	437	213	39	39
86.7	50.0	33 19.2	119 39.7	07/15	2024	2030	143	41	91	91
86.7	55.0	33 09.3	120 00.5	07/16	0053	0116	449	211	103	103
86.7	60.0	32 59.5	120 21.0	07/16	0527	0550	468	203	105	105
86.7	70.0	32 39.2	121 01.9	07/16	1254	1317	456	206	75	75
86.7	80.0	32 19.4	121 43.0	07/16	1920	1943	507	194	116	116
86.7	90.0	31 59.2	122 23.5	07/17	0143	0206	477	208	115	115
86.7	100.0	31 39.4	123 04.1	07/17	0828	0851	521	203	31	31
86.7	110.0	31 19.5	123 44.6	07/17	1622	1646	543	203	18	18
86.8	32.5	33 53.0	118 26.7	07/15	0130	0133	56	16	142	142
88.5	30.1	33 40.2	118 05.0	07/14	2139	2142	64	21	391	391
90.0	27.7	33 29.9	117 45.2	07/14	1905	1908	72	25	111	111
90.0	28.0	33 29.0	117 46.1	07/14	1744	1806	439	212	71	71
90.0	30.0	33 25.0	117 54.8	07/14	1449	1511	438	211	46	46
90.0	35.0	33 15.1	118 15.0	07/14	0843	0904	419	207	45	45
90.0	37.0	33 11.1	118 23.2	07/14	0544	0606	426	206	35	35
90.0	45.0	32 55.2	118 56.1	07/13	2353	0016	431	213	56	56
90.0	53.0	32 39.2	119 28.9	07/13	1808	1830	426	213	341	341
90.0	60.0	32 25.0	119 57.5	07/13	1231	1254	426	217	52	52
90.0	70.0	32 05.0	120 38.3	07/13	0600	0623	432	210	51	51
90.0	80.0	31 45.0	121 19.0	07/12	2311	2332	437	212	50	50
90.0	90.0	31 25.0	121 59.3	07/12	1642	1705	469	212	21	21
90.0	100.0	31 05.0	122 39.3	07/12	0843	0904	439	207	14	14
90.0	110.0	30 45.1	123 20.0	07/12	0137	0159	463	211	35	35
90.0	120.0	30 24.9	123 59.9	07/11	1844	1907	452	214	35	35
91.7	26.4	33 14.7	117 27.8	07/08	1548	1551	55	17	91	91
93.3	26.7	32 57.4	117 18.2	07/08	1152	1158	128	56	195	195
93.3	28.0	32 54.8	117 23.6	07/08	1955	2015	406	209	42	42
93.3	30.0	32 50.8	117 31.8	07/08	2240	2302	459	206	68	68
93.3	35.0	32 40.8	117 52.4	07/09	0315	0336	399	217	60	60
93.3	40.0	32 30.8	118 12.8	07/09	0719	0741	472	206	42	42
93.3	45.0	32 20.8	118 33.2	07/09	1148	1210	429	216	77	77
93.3	50.0	32 10.9	118 53.0	07/09	1558	1621	465	201	52	52
93.3	55.0	32 00.8	119 14.1	07/09	2003	2025	465	202	92	92
93.3	60.0	31 50.7	119 34.2	07/09	2353	0015	458	212	94	94
93.3	70.0	31 30.8	120 14.8	07/10	0609	0633	517	199	37	37
93.3	80.0	31 10.7	120 55.1	07/10	1210	1233	454	215	53	53
93.3	90.0	30 50.9	121 35.4	07/10	1811	1836	532	206	38	38
93.3	100.0	30 30.8	122 15.6	07/11	0003	0025	455	214	44	44
93.3	110.0	30 10.8	122 55.3	07/11	0554	0617	487	214	27	27
93.3	120.0	29 50.7	123 35.1	07/11	1206	1228	444	215	27	27
93.4	26.4	32 57.1	117 17.0	07/08	1257	1260	56	19	320	320

FIGURES

Avifauna Observations

CalCOFI Cruise 0607

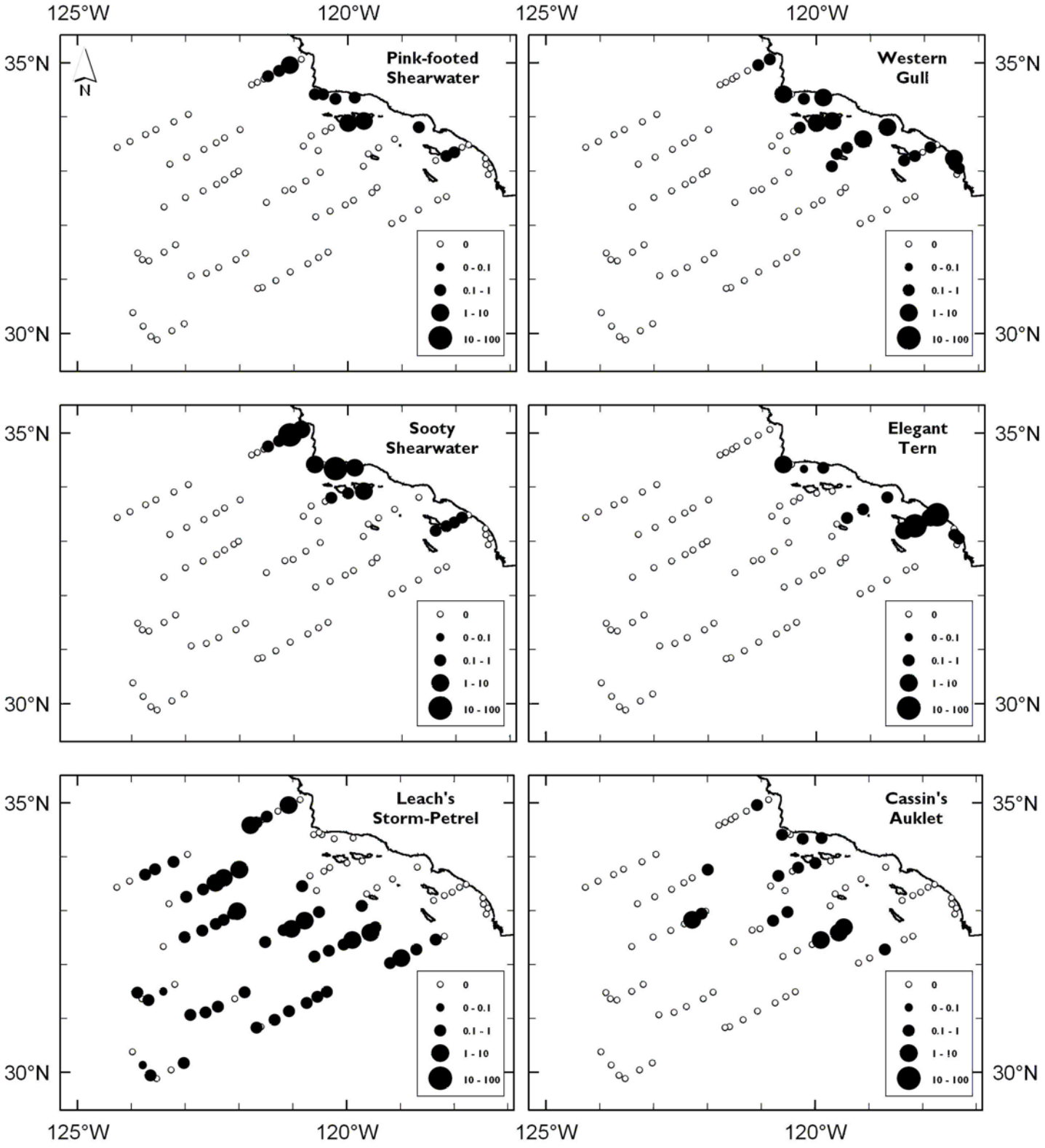
1a. Pink-footed Shearwater distribution.

1b. Western Gull distribution.

1c. Sooty Shearwater distribution.

1d. Elegant Tern distribution

1e. Leach’s Storm-Petrel distribution.

1f. Cassin’s Auklet distribution.

CalCOFI Cruise 0607