UNIVERSITY OF CALIFORNIA, SAN DIEGO SCRIPPS INSTITUTION OF OCEANOGRAPHY

data report

CalCOFI Cruise 1008
30 July – 17 August 2010

CC Reference 10-07
9 August 2011

UNIVERSITY OF CALIFORNIA, SAN DIEGO

SCRIPPS INSTITUTION OF OCEANOGRAPHY

LA JOLLA, CALIFORNIA 92093-0227

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 1008
30 July – 17 August 2010

CC Reference 10-07
9 August 2011

CONTENTS

Introduction 3

Literature Cited 8

CalCOFI Cruise 1008

List of Figures 9

Personnel 20

Tabulated Rosette Cast Data 21

Tabulated Primary Productivity Data 52

Tabulated Macrozooplankton Data 56

INTRODUCTION

The data presented in this report were collected during cruise 1008* of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *New Horizon* of Scripps Institution of Oceanography, University of California, San Diego. The CalCOFI program was organized in the late 1940's to study the causes of variations in population size of fishes of importance to the State of California. It is carried out by NOAA's National Marine Fisheries Service Southwest Fisheries Science Center, the California Department of Fish and Game, and the Integrative Oceanography Division (IOD) at Scripps Institution of Oceanography (SIO). IOD contributes to this program by investigations of the physical, chemical and biological structure of the California Current. Data from the cruises were collected and processed by personnel of the Integrative Oceanography Division and the Southwest Fisheries Science Center. SIO staff members from the Ocean Data Facility participate in the chemical analysis of nutrient samples at sea. CalCOFI data presented in this report and collected on previous cruises can be accessed at http://www.calcofi.org.

STANDARD PROCEDURES

CTD/Rosette Cast Data

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

Pressures and temperatures assigned to the water sample data were derived from the CTD signals recorded just prior to the bottle trip. Pressures have been converted to depths by the Saunders (1981) pressure-to-depth conversion technique. CTD temperatures reported with the bottle data have been rounded to the nearest hundredth of a degree Celsius.

Salinity samples were collected from all rosette bottles and analyzed at sea using a Guildline model 8410 Portasal salinometer. Salinity samples were drawn into 200 ml Kimax high-alumina borosilicate bottles that were rinsed three times with sample prior to filling. The results were compared with the CTD salinity to verify that the rosette bottle did not mis-trip or leak. The salinometer was standardized before and after each group of samples with standardized seawater. Periodic checks on the conductivity of the standardized seawater were made by comparison with IAPSO Standard Seawater batch P150. 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

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

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

Nutrient samples were analyzed at sea by the Scripps Ocean Data Facility for dissolved silicate, phosphate, nitrate, nitrite, and ammonium using procedures similar to those described in Gordon et al. (1993) and Koroleff (1969, 1970). Samples were collected in 45 ml high-density polypropylene screw-capped tubes which were acid washed and rinsed with sample three times prior to filling. Daily standardizations and drift corrections were accomplished by running freshly prepared mid-range standards at the beginning and end of each group of samples. Samples not analyzed immediately after collection were refrigerated and run the following day. In addition to daily standardizations, periodic full calibrations were performed with sets of six different concentration standards.

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 25.6 µCi of ^{14}C as $NaHCO_3$ (200µl of stock solution) prepared in a 0.3 g/liter solution of sodium carbonate (Fitzwater *et al*., 1982). Samples were incubated from LAN to civil twilight in seawater-cooled incubators with neutral-density screens which simulate *in situ* light levels. At the end of the incubation, the samples were filtered onto Millipore HA filters and placed in scintillation vials. One half ml of 10% HCl was added to each sample. The sample was then allowed to sit, without a cap, at room temperature for 12 hours (after Lean and Burnison, 1979). Following this, 10 ml of scintillation cocktail were added to each sample and the samples were returned to SIO where the radioactivity was determined with a scintillation counter. Salinity, oxygen, nutrients, chlorophyll-*a* and phaeopigments were determined from all rosette productivity bottles.

Macrozooplankton Net Tows

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

Avifauna Observations (Farallon Institute of Advanced Ecosystem Research)

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

4) *SCCOOS Nearshore Observations*: The objective of these observations is to extend CalCOFI time series to the nearshore. 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. (R. Goericke, SIO)

5) *Inorganic Carbon System*: The CalCOFI group collected samples for the characterization of the inorganic carbon system at selected locations along the cruise track. Total inorganic carbon and alkalinity will be measured which will allow the calculation of pH and pCO_2. The objectives of these measurements are first the long-term characterization of the inorganic carbon system and its response to changing ocean climate and second measurements of pH in the coastal zone in order to monitor the impact of 'corrosive' waters on benthic ecosystems in the Southern California Bight. (R. Goericke, SIO)

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

7) *Lagrangian Drifter Buoys*. Surface Velocity Program (SVP) drifters, drogued at 15 meters depth, were deployed at 7 stations. The drifter observations of position and SST approximately every hour following the 15-meter currents supplement Eulerian current profiles. This will provide new insight into the connection between continental shelf flows and the larger scale California Current located further offshore. Drifter pairs were deployed at 6 of the 7 stations to assess the relative motion of drifter pairs which gives an understanding of energy as a function of spatial scale. Drifter tracks are displayed in near real-time on the web (http://www.icess.ucsb.edu/drifter/realtime-SVP/index.php). (C. Ohlmann, UCSB)

8) *Micronekton trawling*: A Matsuda-Oozeki-Hu trawl (MOHT) with 5 m2 mouth opening and 1.77 mm mesh is used to sample the micronekton (krill, small pelagic fishes, squids, etc) within the epipelagic (upper 200 m) and

mesopelagic (200 - 500 m) depth horizons. The samples provide size- and species composition data on the pelagic community, which is combined with Ek-60 multi-frequency acoustic data to estimate the distribution and abundance of the micronekton. (T. Koslow, SIO)

TABULATED DATA

CTD/Rosette Cast Data

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

Data values from discreet sampled CTD rosette were interpolated and are reported for standard depths. Interpolated or extrapolated standard level data are noted by the footnote "ISL" printed after the depth. Multiple bottles tripped at the same depth to provide water for ancillary programs are not used in the calculation of standard depth data. Density-related parameters have been calculated from the International Equation of State of Seawater 1980 (UNESCO, 1981b). Computed values of potential temperature, sigma-theta, specific volume anomaly (SVA), and dynamic height or geopotential anomaly are included with both observed and interpolated standard depth levels.

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

Primary Productivity Data

In addition to the normal hydrographic data that are reported in the rosette cast data section, the tabulated data include: the *in situ* light levels at which the samples were collected, the uptake from each of the replicate light bottles, uptake 1 and uptake 2 (which have been corrected for dark uptake by subtracting the dark value), the mean of the two uptake values and the dark uptake. The uptake values are totals for the incubation period. Also shown are the times of LAN, civil twilight, and the value of the mean uptake integrated from the surface to the deepest sample, assuming the shallowest value continues to the surface and that negative values (when dark uptake exceeds light uptake) are zero. The uptake data are reported to two significant digits (values <1.00) or one decimal (values >1.00). Incubation time, LAN, and civil twilight are given in local Pacific Standard Time (PST); to convert to UTC, add eight hours to the PST time. Incubation light intensities are listed in a footnote at the bottom of each page.

Macrozooplankton Data

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

FOOTNOTES

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

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

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.

Koroleff, F. 1969. Direct determination of ammonia in natural waters as Indophenol Blue. Int. Con. Explor. Sea, C.M. C: 9.

Koroleff, F. 1970. The above paper revised, Int. Con. Explor. Sea, Information on techniques and methods for sea water analysis. Interlab Report No. 3, 19-22.

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 1008

1. CalCOFI Cruise 1008 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.

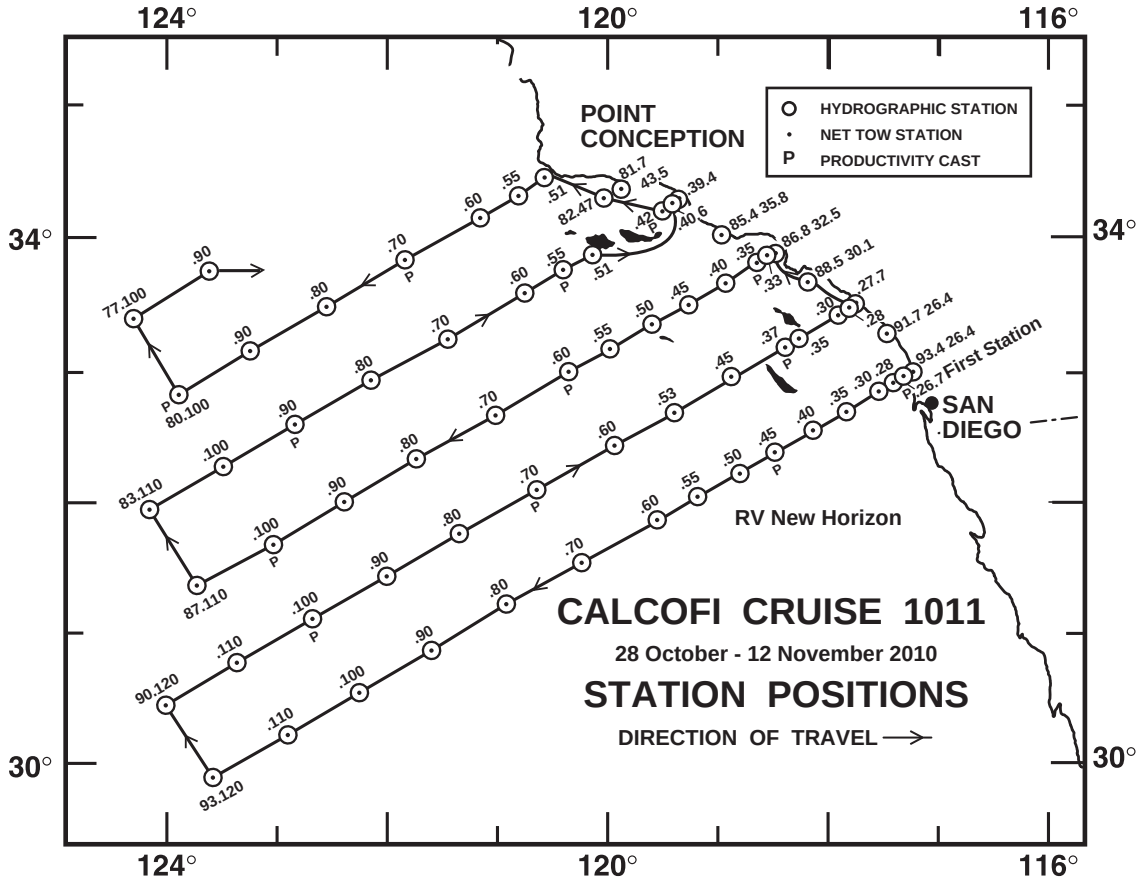


FIGURE 1

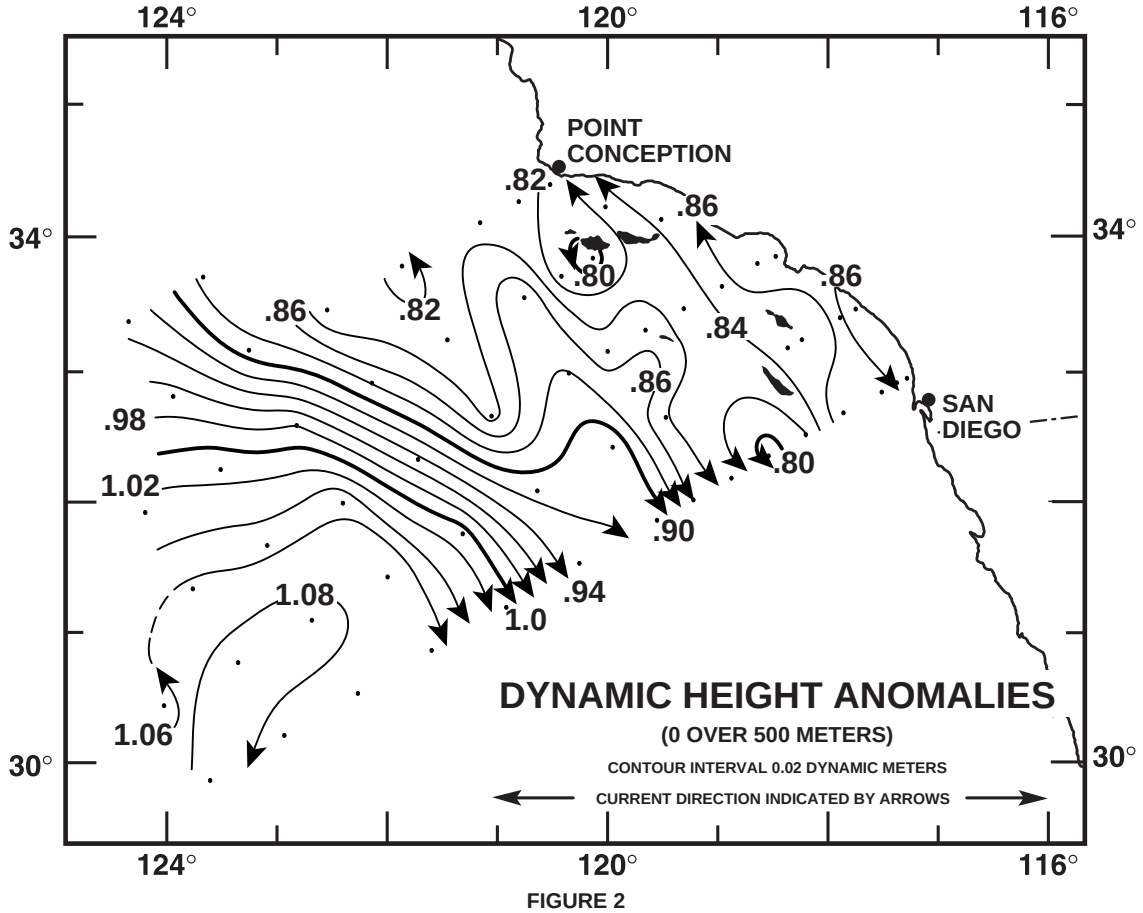


FIGURE 2

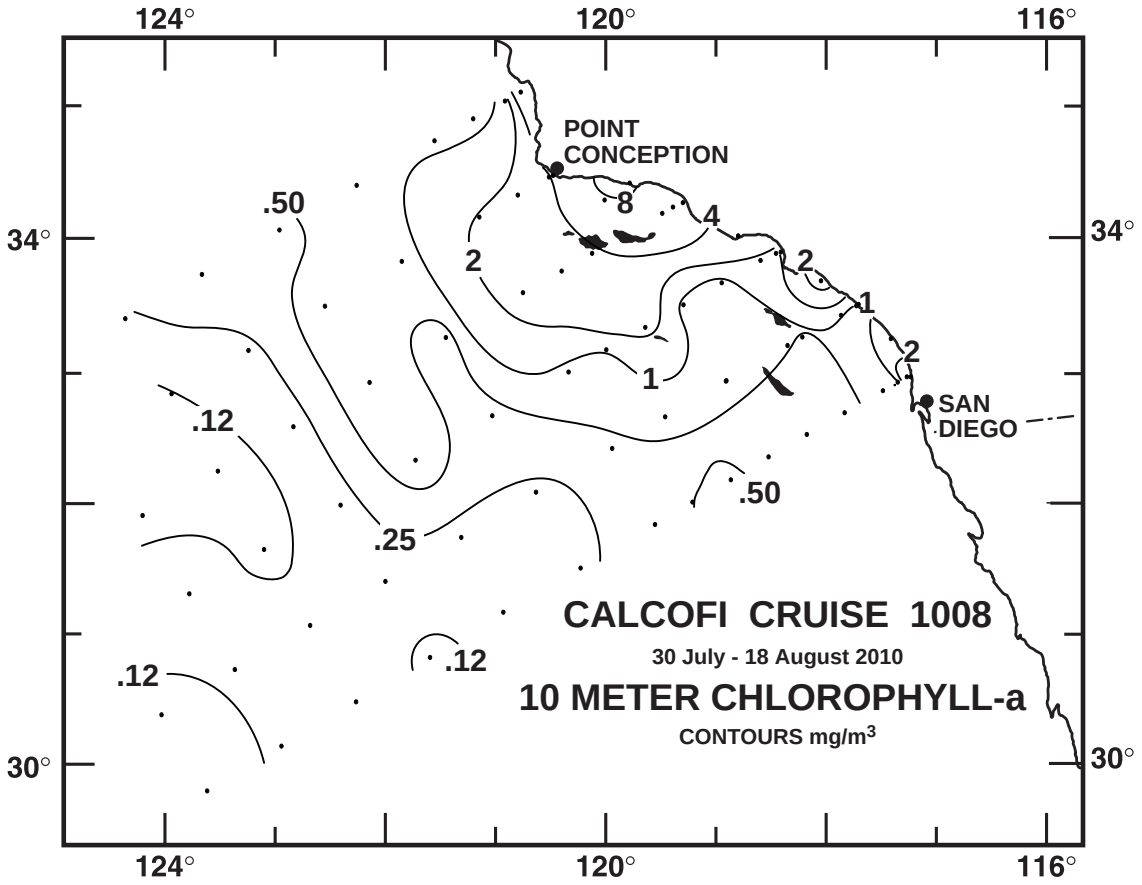


FIGURE 3A

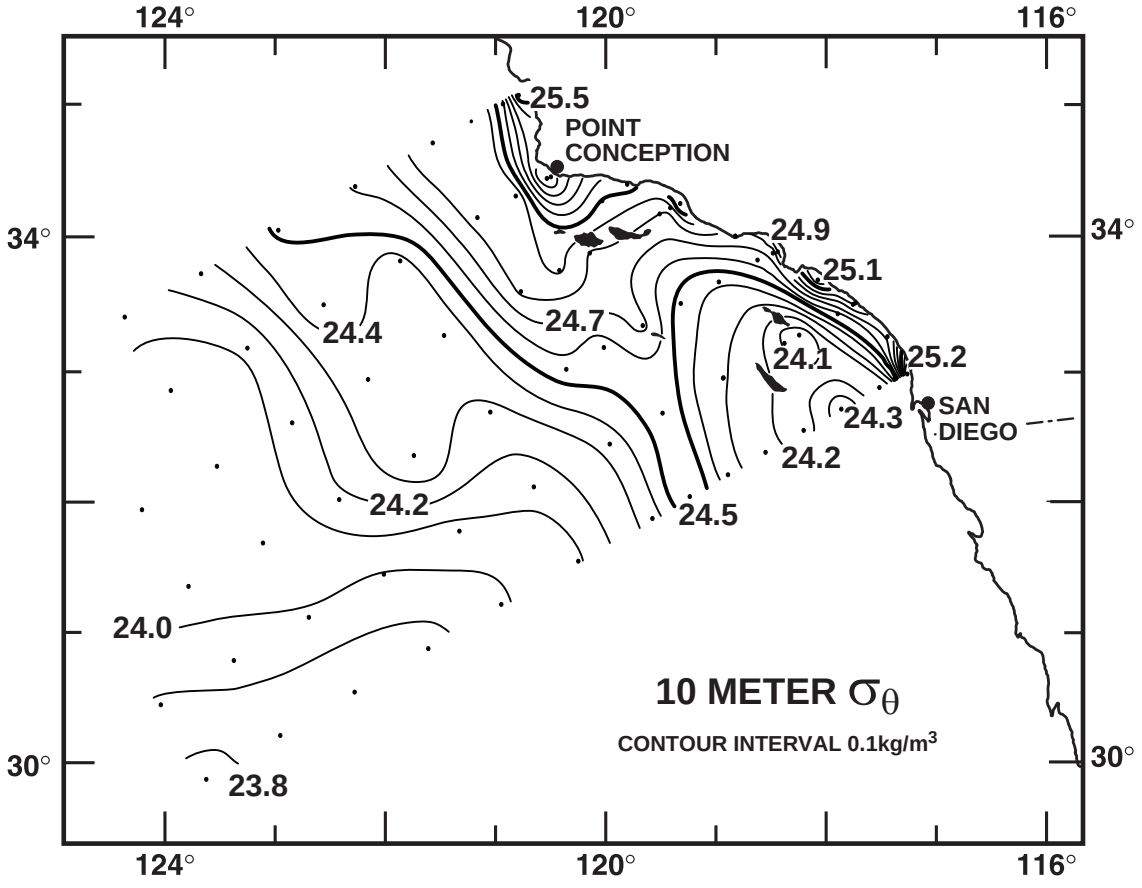


FIGURE 3B

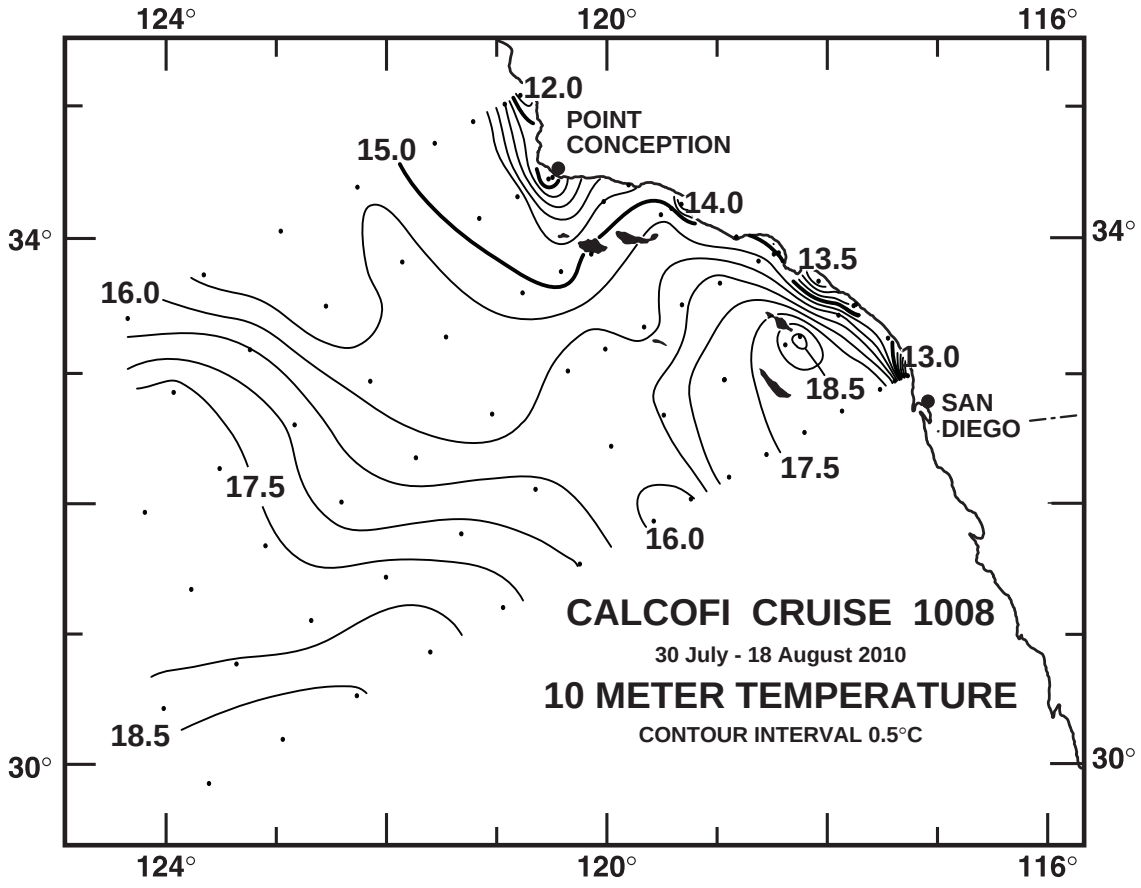


FIGURE 3C

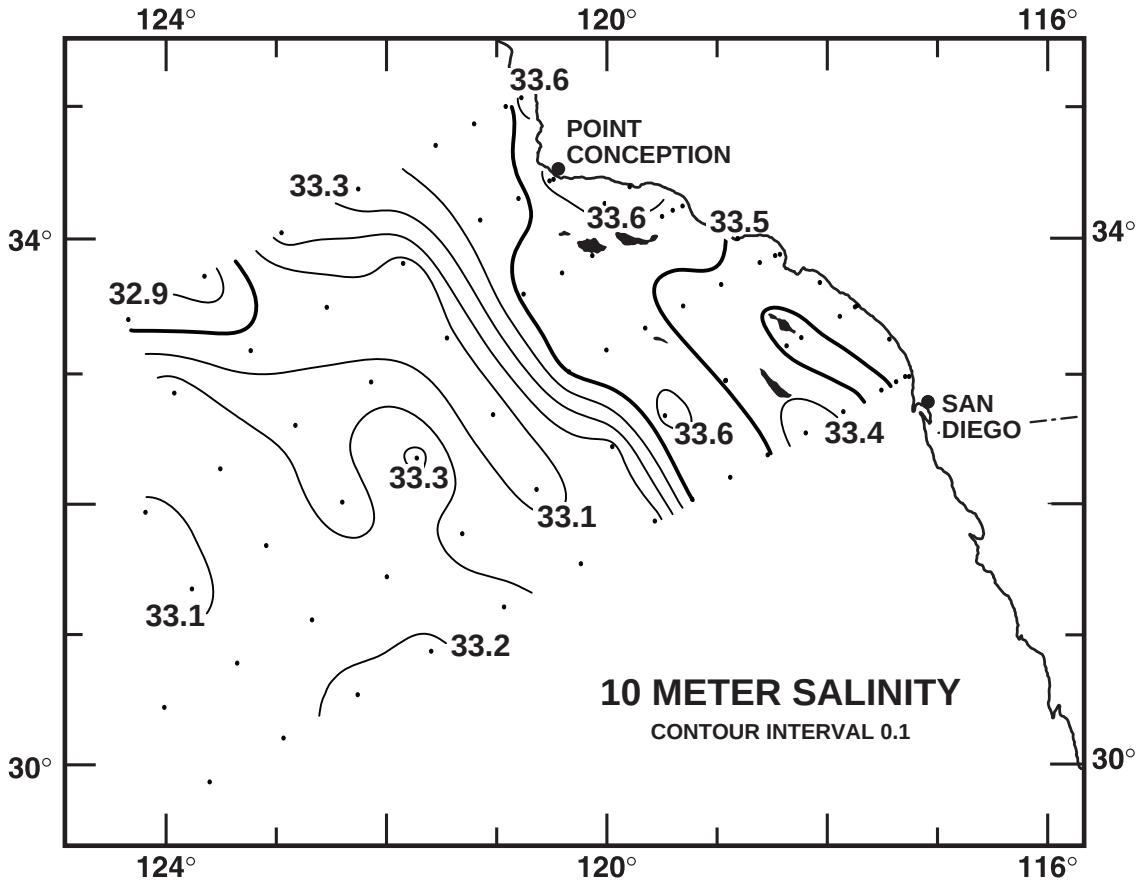


FIGURE 3D

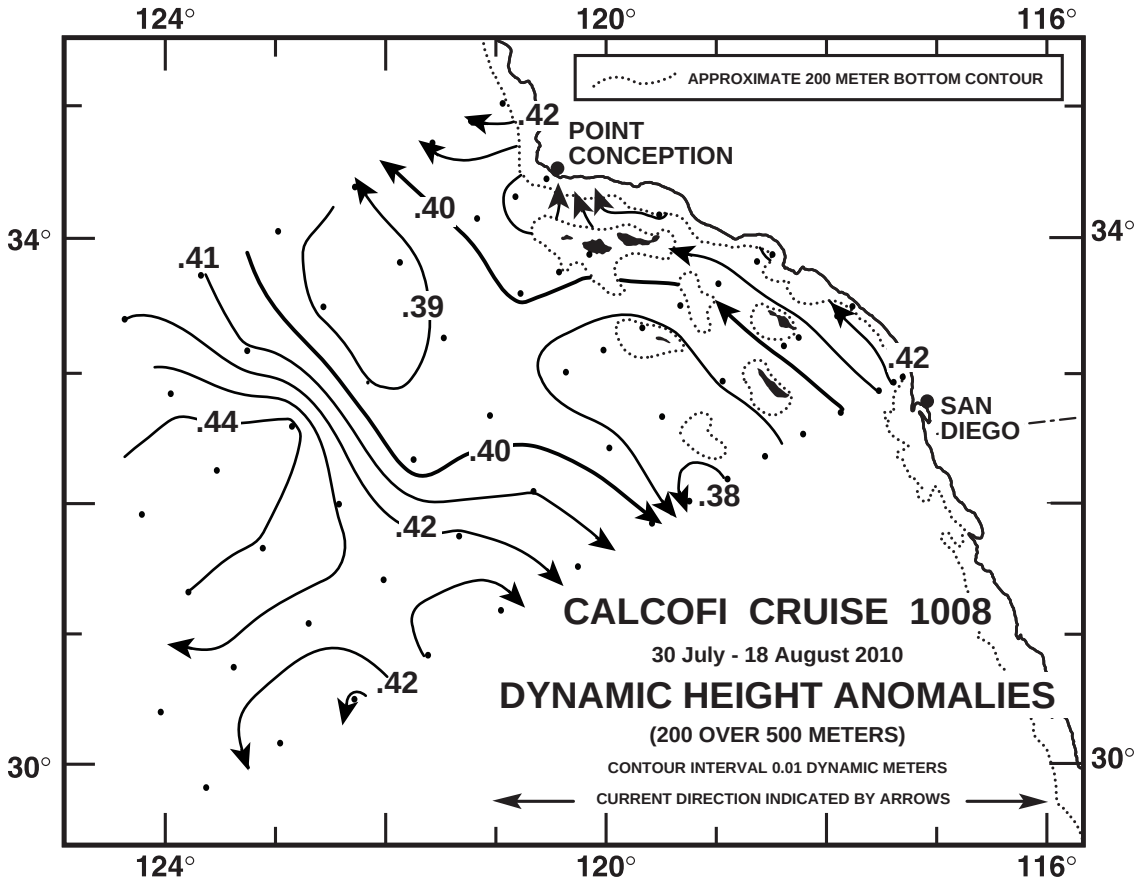
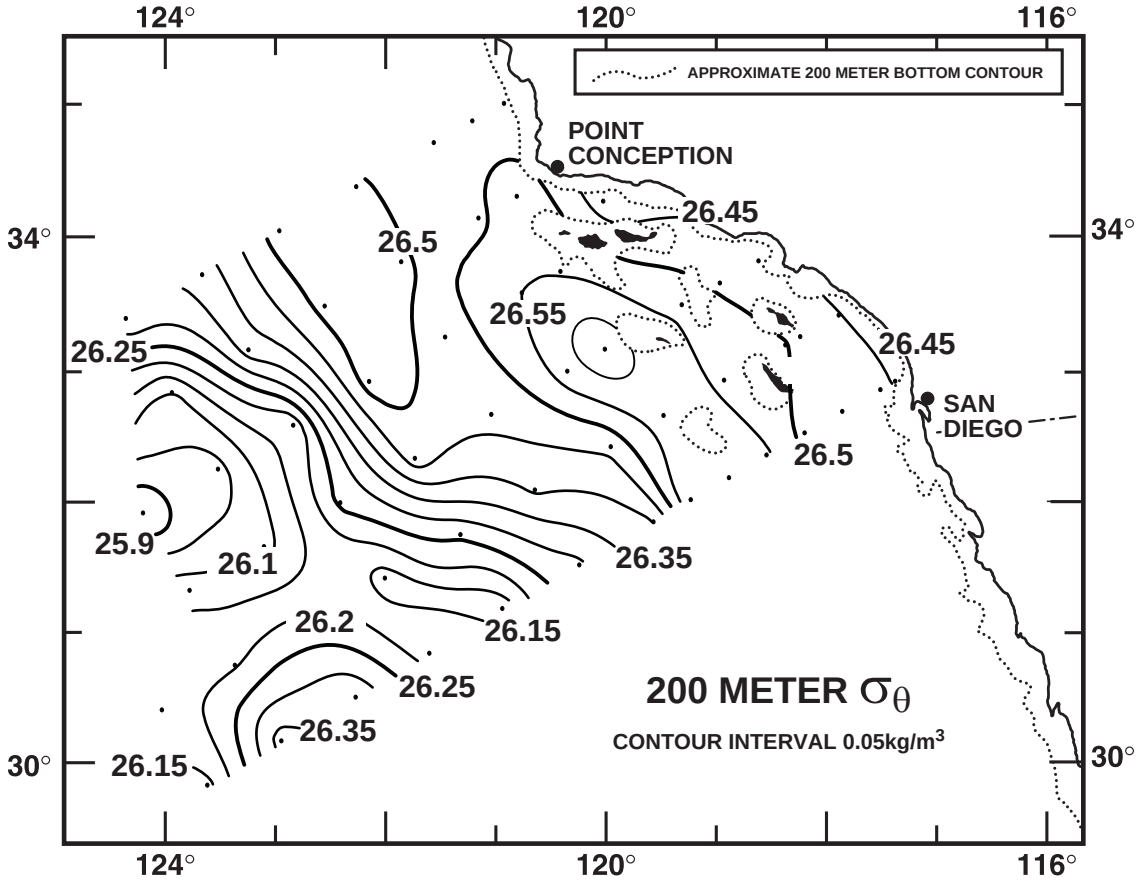


FIGURE 4A



26.25

FIGURE 4B

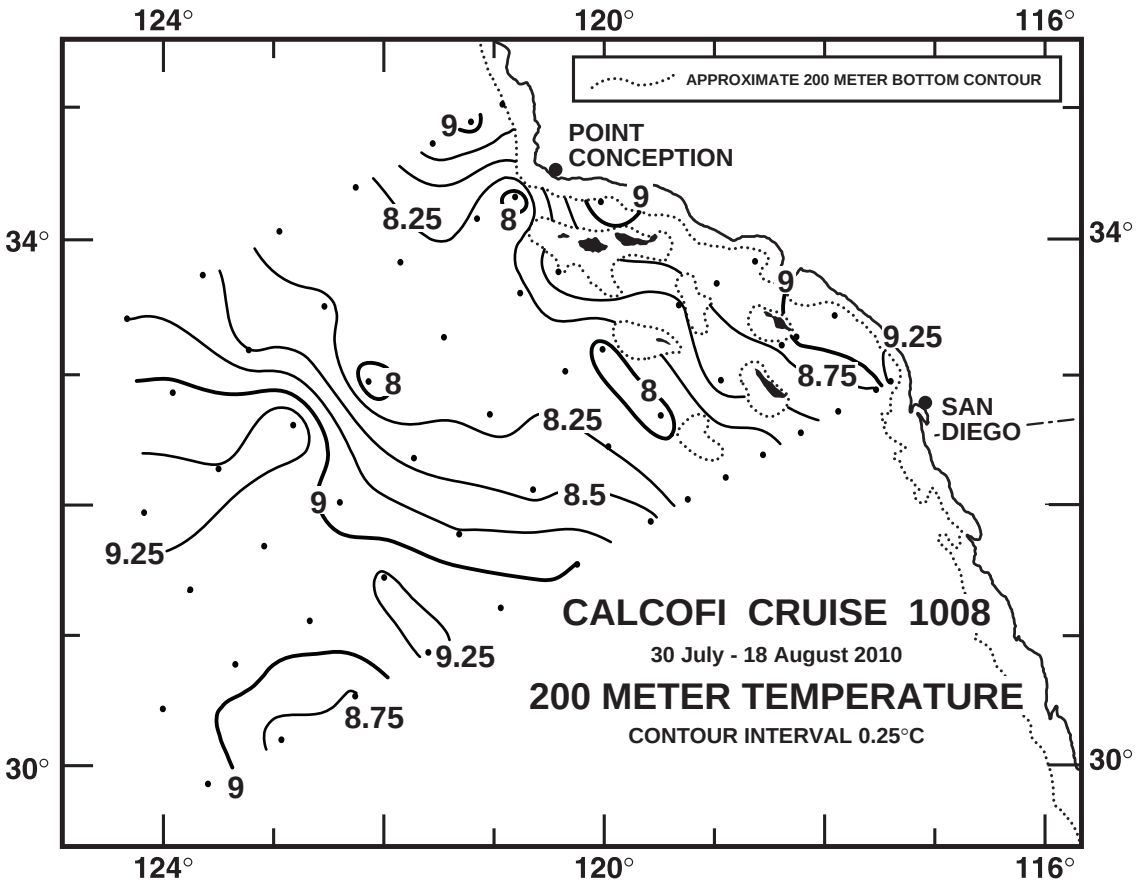


FIGURE 4C

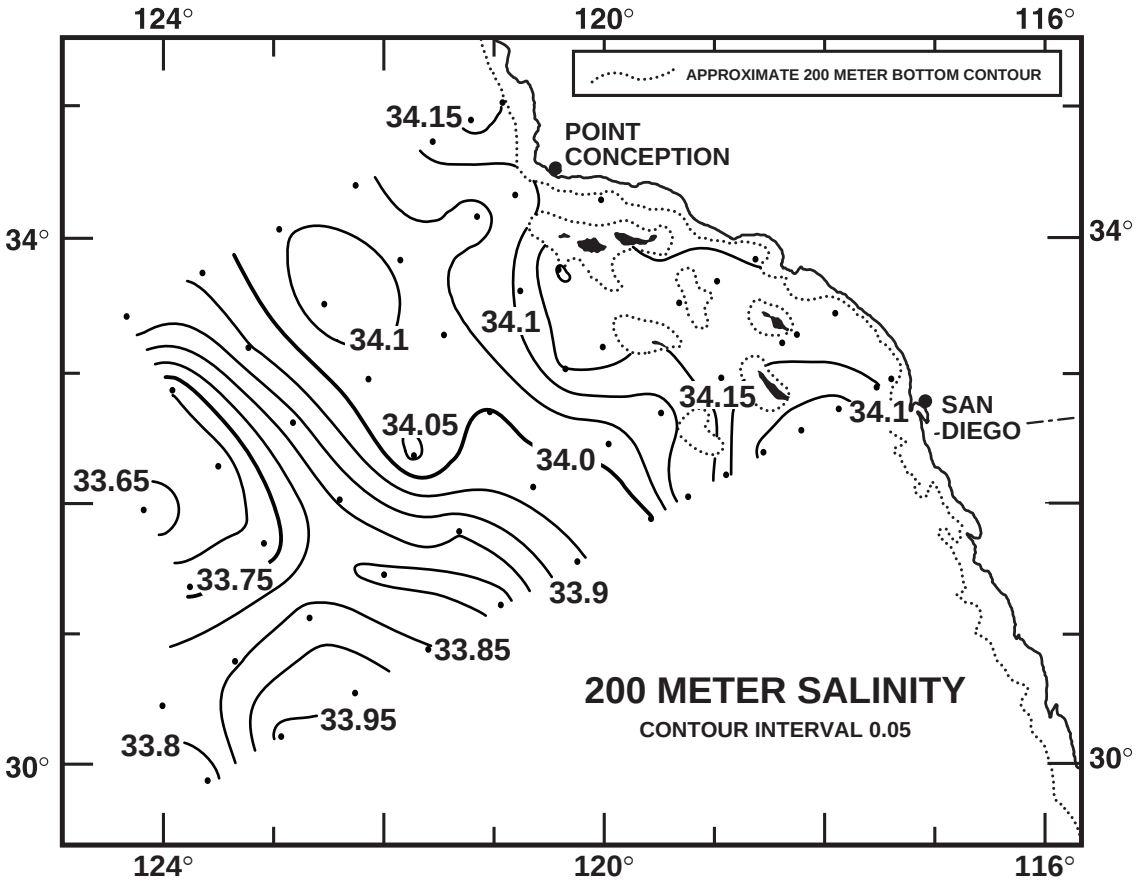


FIGURE 4D

CALCOFI CRUISE 1008

30 July - 18 August 2010

POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

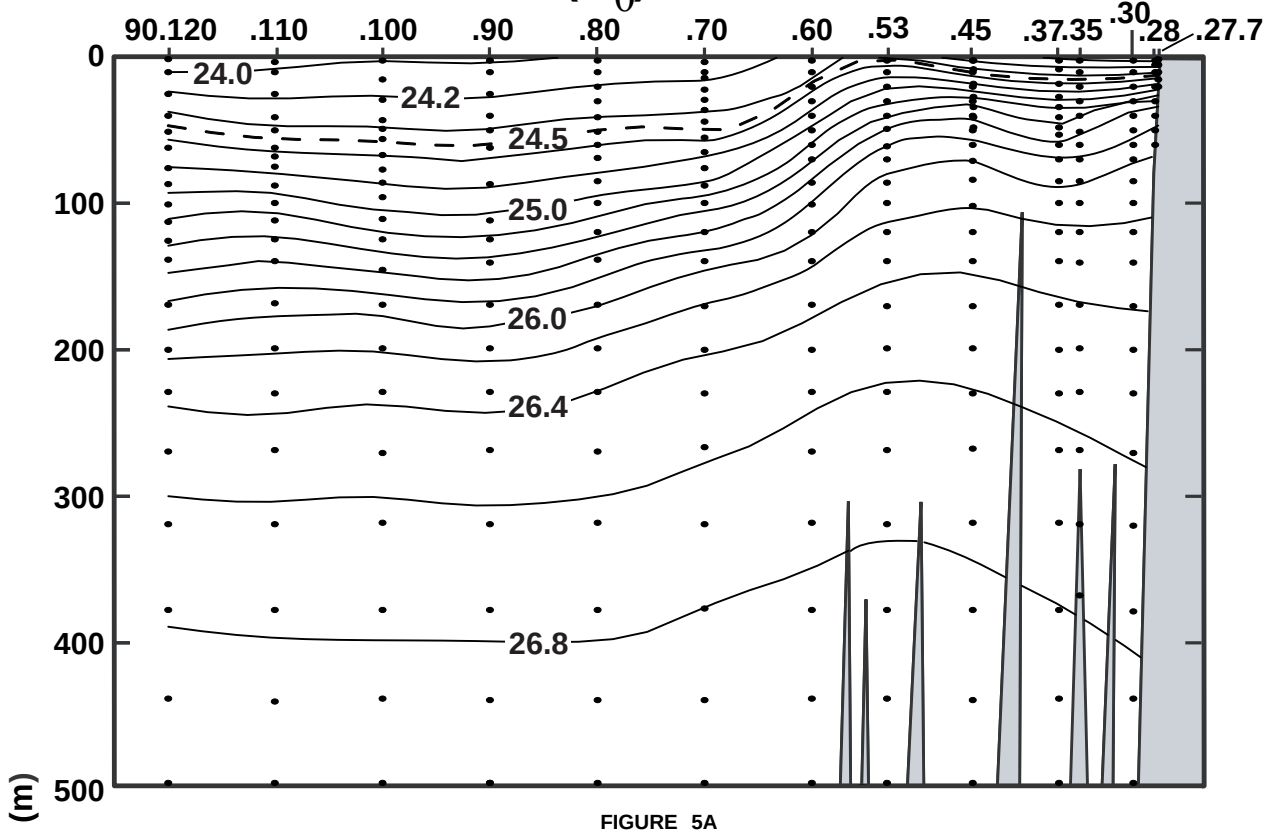


FIGURE 5A

TEMPERATURE (^{o}C) ALONG CALCOFI LINE 90

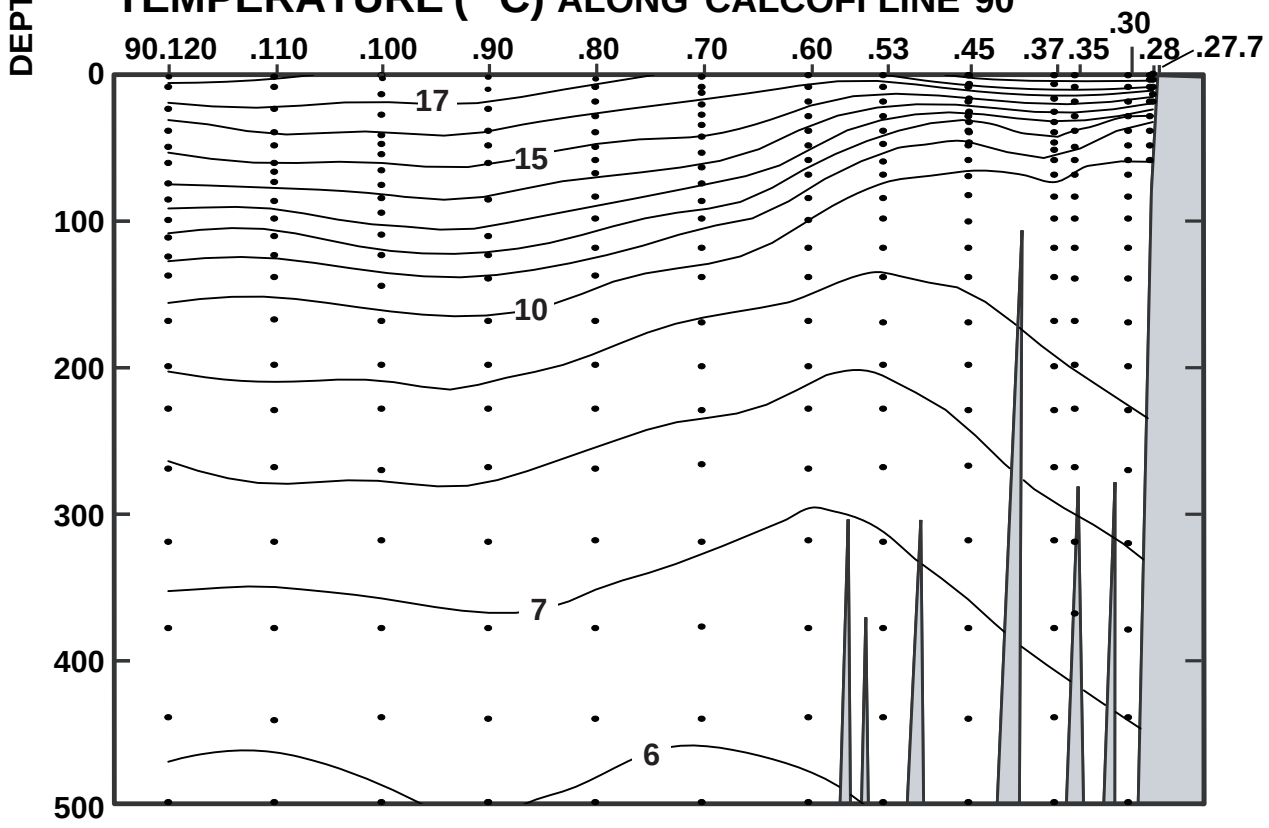


FIGURE 5B

CALCOFI CRUISE 1008

30 July - 18 August 2010

SALINITY ALONG CALCOFI LINE 90

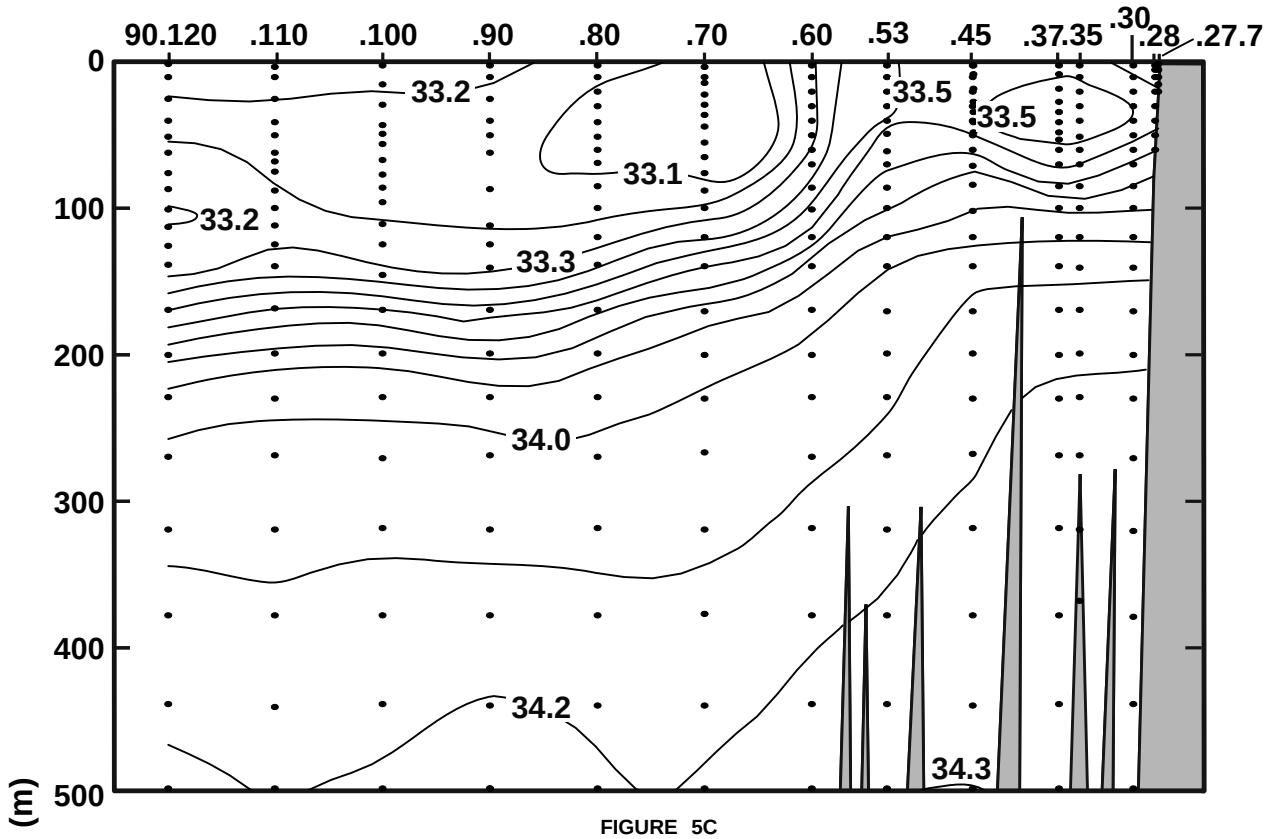


FIGURE 5C

SILICATE (μM/L) ALONG CALCOFI LINE 90

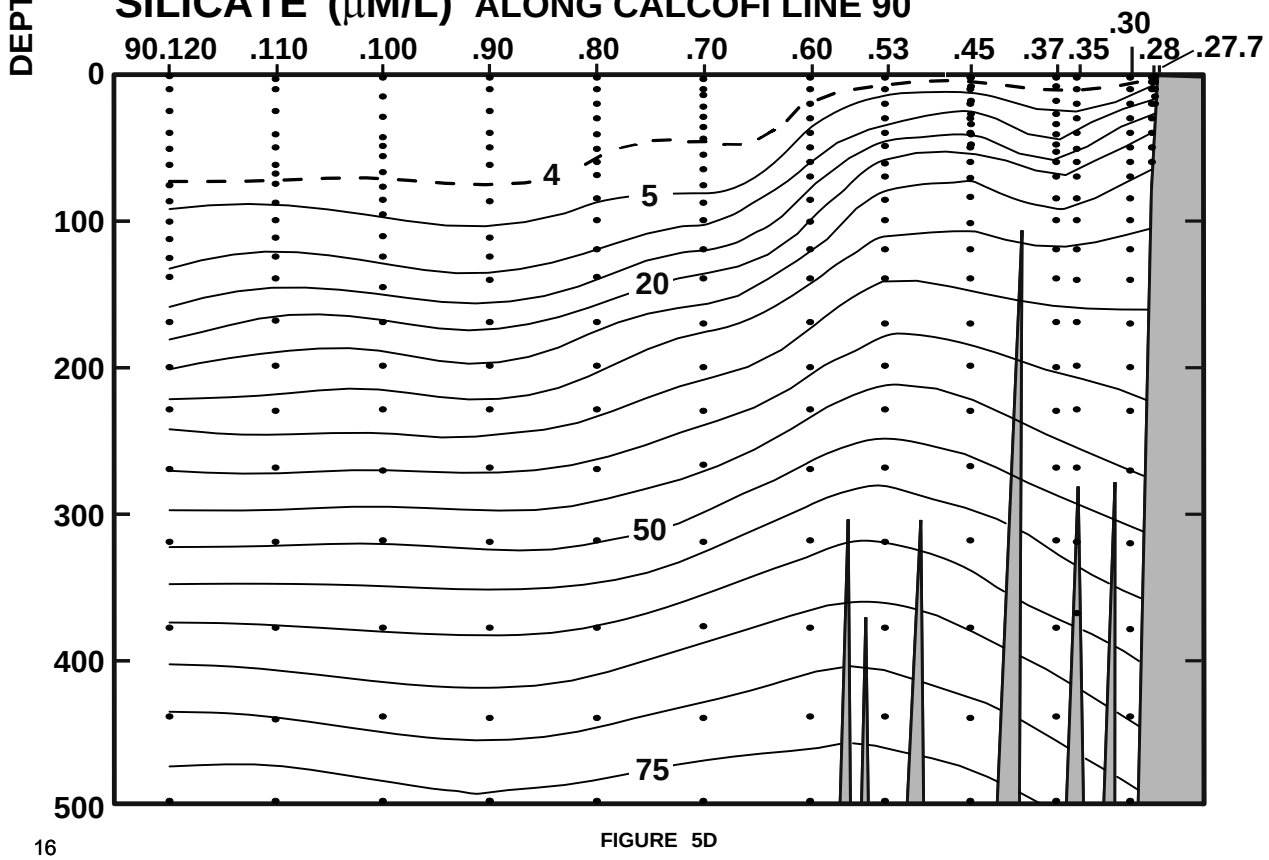


FIGURE 5D

CALCOFI CRUISE 1008

30 July - 18 August 2010

NITRATE (μM/L) ALONG CALCOFI LINE 90

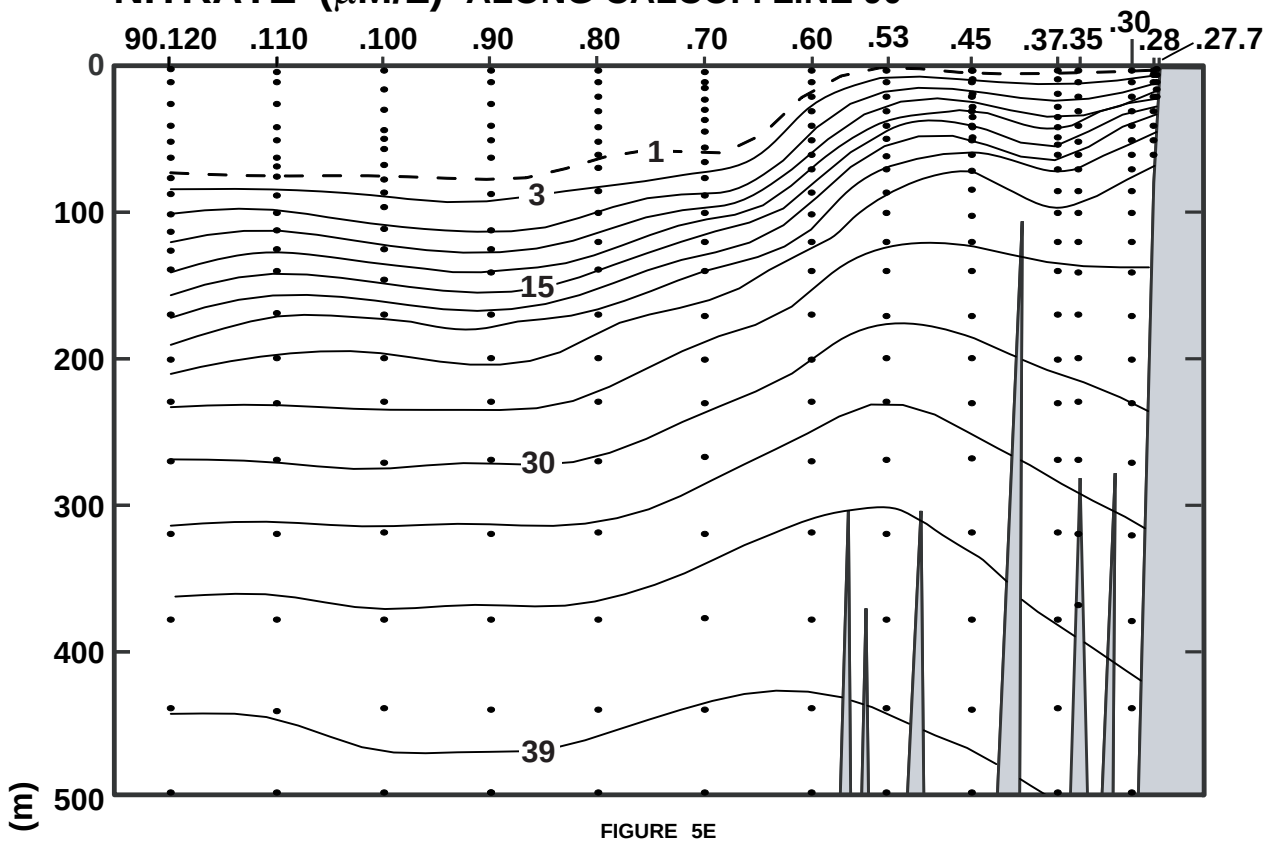


FIGURE 5E

PHOSPHATE (μM/L) ALONG CALCOFI LINE 90

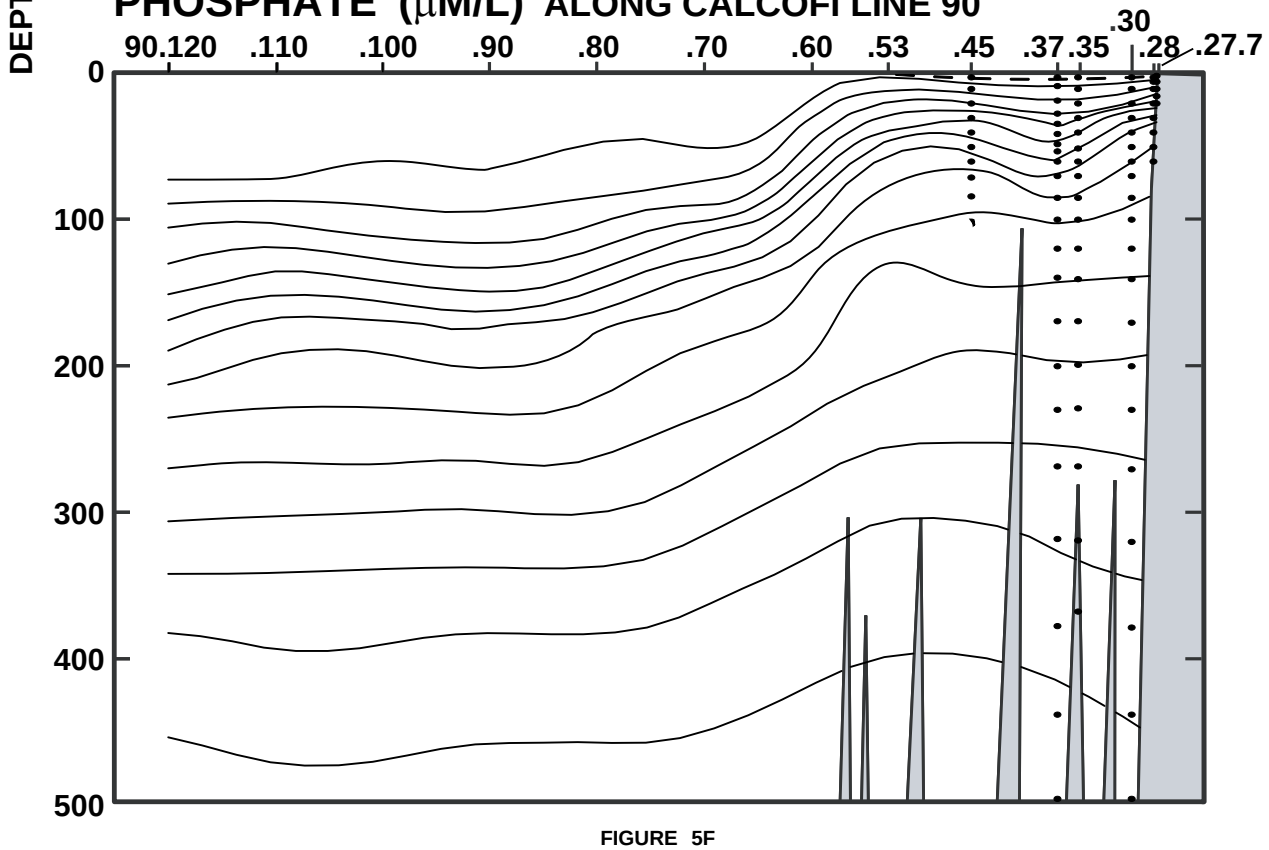


FIGURE 5F

CALCOFI CRUISE 1008

30 July - 18 August 2010

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

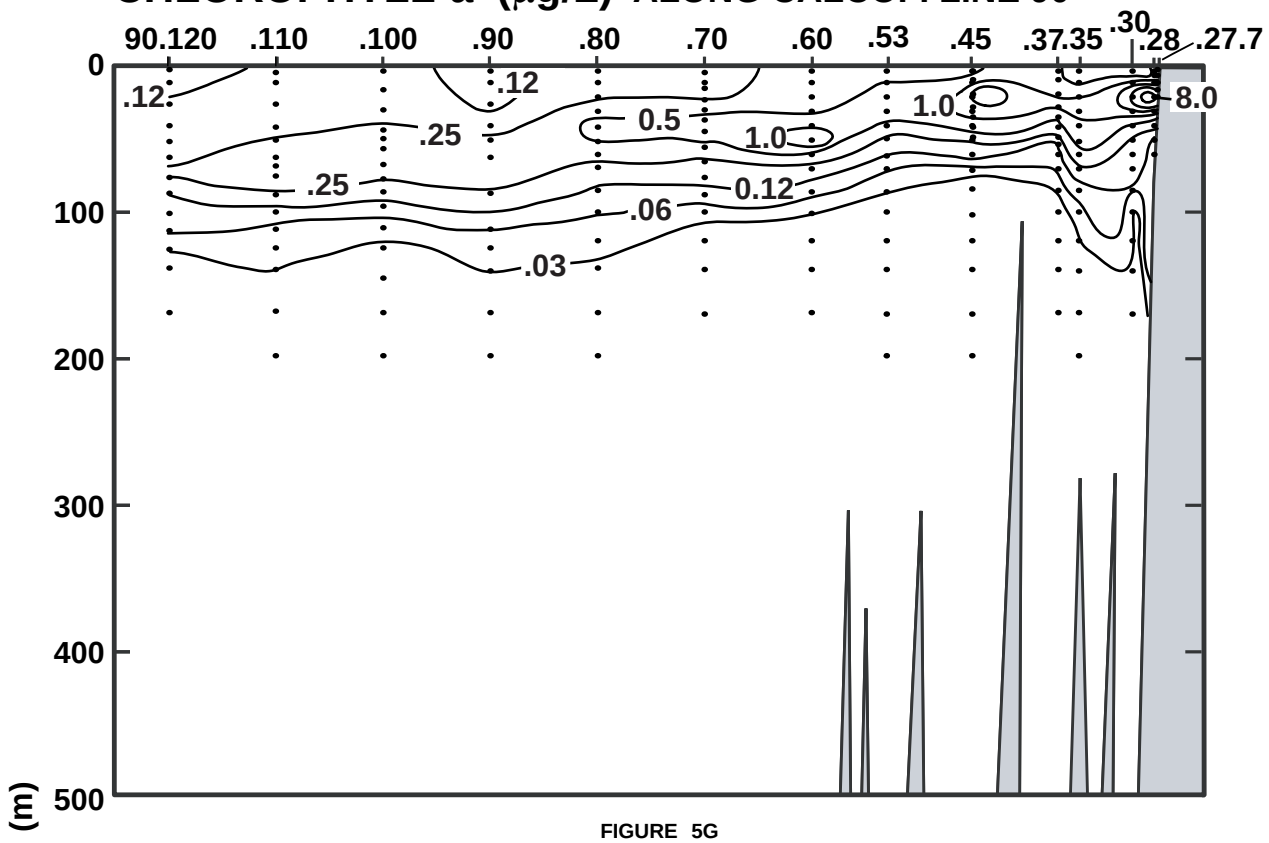


FIGURE 5G

OXYGEN SATURATION (%) ALONG CALCOFI LINE 90

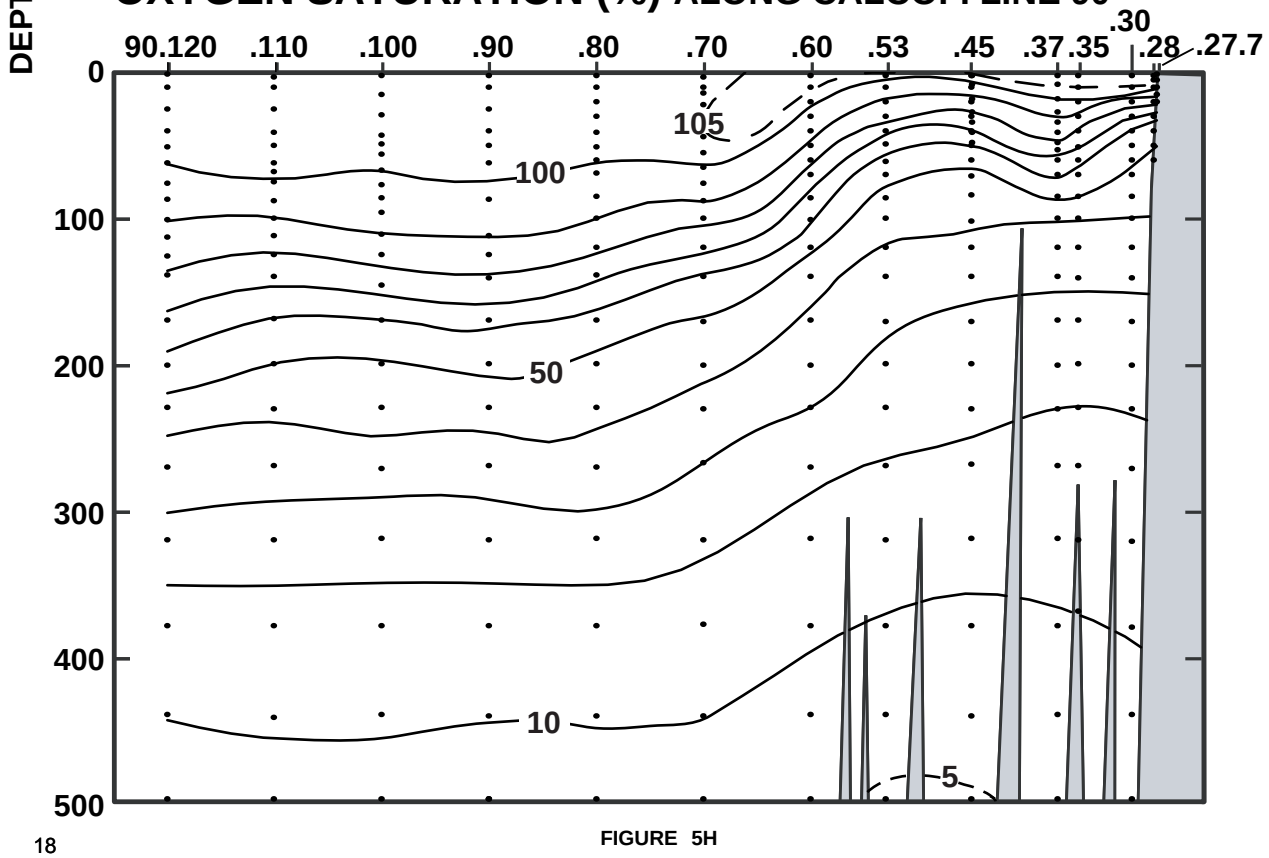


FIGURE 5H

CALCOFI CRUISE 1008

30 July - 18 August 2010

OXYGEN (mL/L) ALONG CALCOFI LINE 90

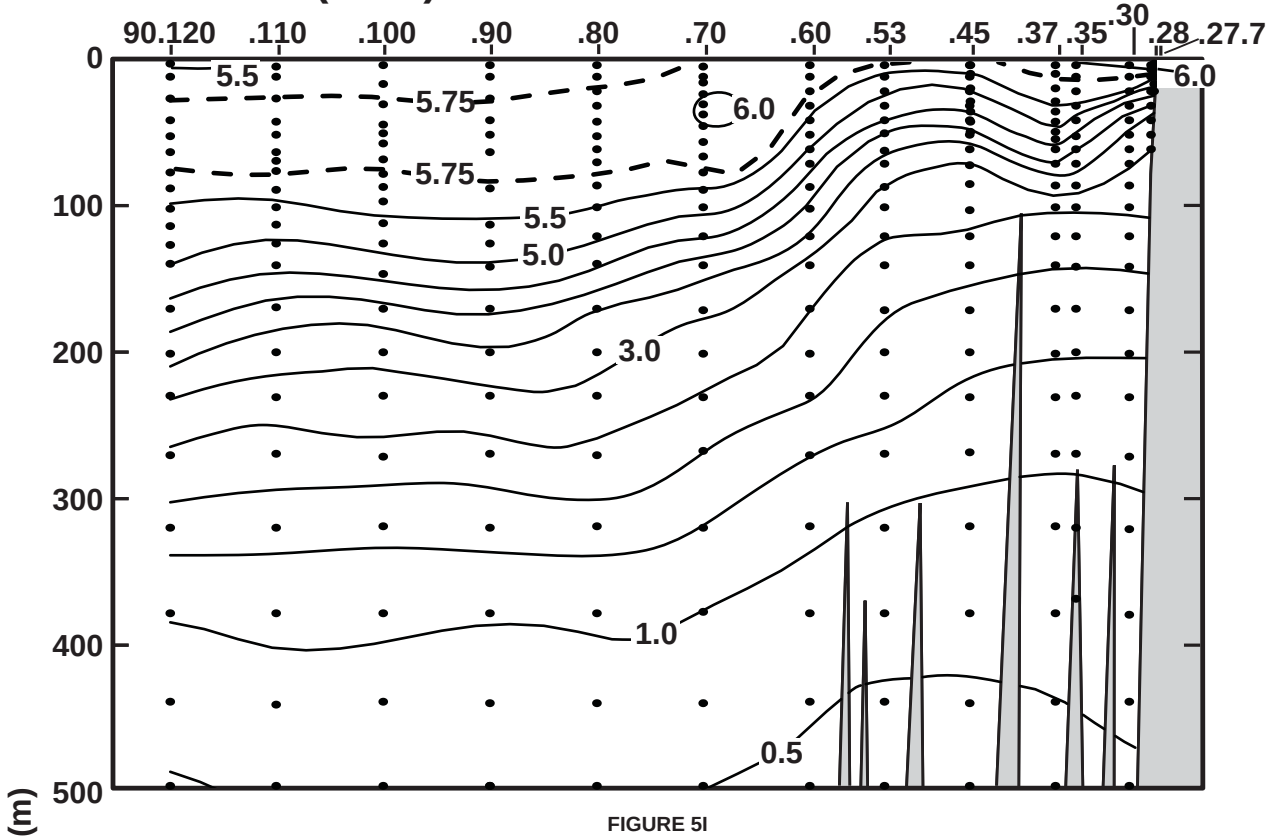


FIGURE 5I

NITRITE (μM/L) ALONG CALCOFI LINE 90

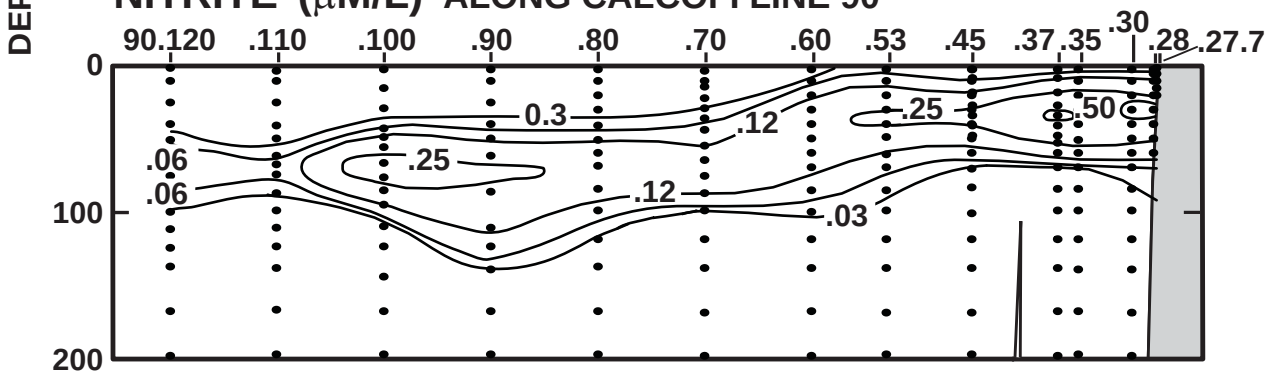


FIGURE 5J

PHAEOPIGMENTS (μg/L) ALONG CALCOFI LINE 90

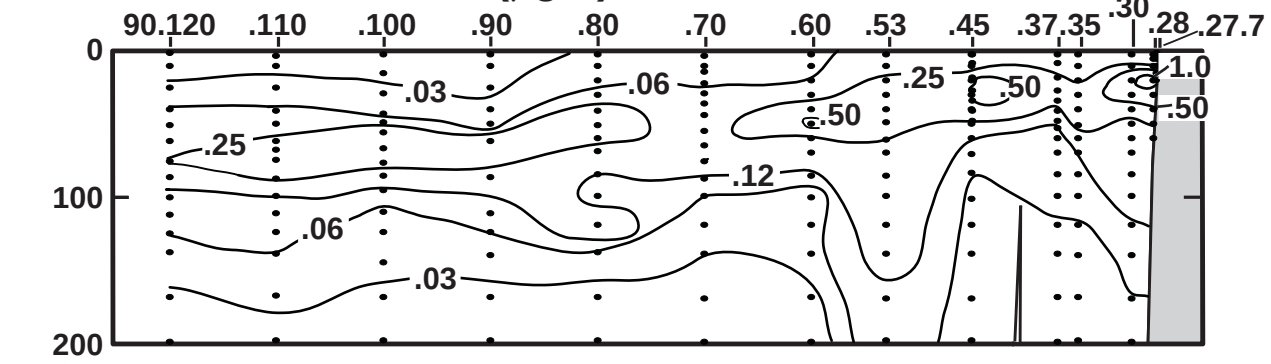


FIGURE 5K

PERSONNEL

CalCOFI Cruise 1008

SHIP'S CAPTAIN

Wes Hill, RV *New Horizon*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

Wolgast, David M. (Chief Scientist)	Staff Research Associate, SIO
Bowlin, Noelle	Fishery Biologist, NMFS
Breese, Dawn	Bird Observer, FIAER
Camacho-Wiley Dominique	Marine Mammal Observer, MPL
Chen, Yu-Kai	Fishery Biologist, Taiwan Fisheries Research Inst.
Dovel, Shonna	Staff Research Associate, SIO
Hays, Amy	Fishery Biologist, NMFS
Liu, Jian	Staff Research Associate, SIO
Miller, Melissa	Staff Research Associate, SIO
Nash, Alice	Volunteer, SIO
Netburn, Amanda	Graduate Student, SIO
Overcash, Bryan	Staff Research Associate, SIO
Roadman, Megan	Staff Research Associate, SIO
Roache, Lauren	Staff Research Associate, MPL
Rodgers-Wolgast, Jennifer	Staff Research Associate, SIO
Susner, Grant M.	Staff Research Associate, SIO
Whitaker, Katherine	Marine Mammal Observer, MPL
Wilkinson, James R.	Programmer Analyst, SIO

San Diego to San Diego, California, 30 July – 17 Aug, 2010

RV NEW HORIZON CALCOFI CRUISE 1008 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 46.6 W	16/08/10	0547 UTC	71 m	250 18 kn			1011.7 mb	13.1 C	12.0 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	11.76	11.76	33.631		25.571	240.4	0.000	5.06	82.5	14.5	1.27	14.1	0.27	0.09	6.23	0.39	0	
2		11.76	11.76	33.631		25.571	240.5	0.005	5.06	82.5	14.5	1.27	14.1	0.27	0.09	6.23	0.39	2	209
5		11.74	11.74	33.634		25.578	240.0	0.012	5.00	81.5	14.4	1.27	14.3	0.28	0.11	6.19	0.42	5	208
10		11.74	11.74	33.633		25.577	240.1	0.024	5.02	81.8	14.4	1.26	14.2	0.27	0.12	6.31	0.36	10	206
10		11.73	11.73	33.634		25.580	239.9	0.024										10	207
20		11.67	11.67	33.638		25.594	238.8	0.048	4.88	79.4	15.0	1.32	14.7	0.27	0.12	6.16	0.30	20	205
30		11.60	11.60	33.646		25.613	237.2	0.072	4.76	77.3	15.2	1.33	15.1	0.28	0.12	5.62	0.36	30	204
40		11.26	11.26	33.652		25.680	231.0	0.095	4.21	67.9	17.3	1.49	17.6	0.28	0.18	4.09	0.30	40	203
50		10.48	10.47	33.735		25.884	211.9	0.117	3.00	47.6	23.8	1.92	23.3	0.22	0.00	0.40	0.29	50	202
60		10.26	10.25	33.798		25.971	203.8	0.138	2.57	40.6	26.7	2.05	25.1	0.11	0.00	0.16	0.23	60	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 76.7 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
35 1.2 N	120 55.1 W	16/08/10	0313 UTC	243 m	260 20 kn	310 06 07	2	1011.2 mb	14.0 C	12.9 C		8/8	ST

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	13.57		13.57		33.445		25.075	287.7	0.000	5.94	100.5	4.8	0.71	6.0	0.35	0.26	1.13	0.26	0	
2		13.57		13.57		33.445		25.075	287.7	0.006	5.94	100.5	4.8	0.71	6.0	0.35	0.26	1.13	0.26	2	216
10		13.55		13.55		33.444		25.078	287.6	0.029	5.92	100.1	4.9	0.73	6.2	0.35	0.26	1.08	0.27	10	214
10		13.56		13.56		33.444		25.076	287.8	0.029										10	215
20		12.30		12.30		33.366		25.264	270.1	0.057	5.61	92.3	8.8	1.03	10.1	0.55	0.48	0.81	0.31	20	213
30		11.06		11.06		33.341		25.474	250.4	0.083	5.00	80.1	14.7	1.37	15.7	0.47	0.24	0.42	0.21	30	212
40		10.73		10.73		33.414		25.590	239.6	0.107	4.61	73.4	16.4	1.50	18.2	0.25	0.00	0.26	0.13	40	211
50		10.55		10.54		33.478		25.671	232.1	0.131	4.34	68.8	18.1	1.59	19.8	0.16	0.00	0.20	0.11	50	210
61		10.11		10.10		33.586		25.831	217.1	0.155	3.71	58.3	22.1	1.79	23.1	0.05	0.00	0.11	0.14	61	209
71		9.94		9.93		33.705		25.953	205.7	0.177	3.22	50.5	24.6	1.90	24.7	0.03	0.00	0.08	0.11	71	208
75	ISL	9.91	D	9.90		33.724	D	25.973	203.9	0.185	3.14	49.2	25.1	1.92	25.0	0.03	0.00	0.07	0.11	75	
85		9.67		9.66		33.747		26.031	198.6	0.205	3.02	47.1	25.9	1.96	25.6	0.02	0.00	0.05	0.12	85	207
100		9.46		9.45		33.828		26.129	189.6	0.234	2.67	41.4	28.4	2.07	26.8	0.02	0.00	0.04	0.11	101	206
120		9.24		9.23		33.970		26.276	176.0	0.271	2.13	32.9	32.9	2.21	28.6	0.02	0.00	0.02	0.11	121	205
125	ISL	9.14	D	9.13		33.977	D	26.297	174.0	0.279	2.11	32.5	33.3	2.22	28.8	0.02	0.00	0.02	0.11	126	
141		9.06		9.04		34.014		26.339	170.4	0.307	2.06	31.7	34.2	2.25	29.2	0.02	0.00	0.02	0.11	142	204
150	ISL	9.08	D	9.06		34.085	D	26.392	165.6	0.322	1.86	28.7	35.7	2.32	29.7	0.03	0.00	0.02	0.12	151	
170		8.98		8.96		34.140		26.451	160.3	0.355	1.38	21.2	39.4	2.47	30.9	0.04	0.00	0.02	0.14	171	203
200	ISL	8.81	D	8.79		34.152	D	26.488	157.4	0.402	1.23	18.8	42.4	2.55	31.6	0.14	0.00	0.02	0.20	201	
201		8.82		8.80		34.161		26.493	156.9	0.404	1.23	18.9	42.5	2.55	31.6	0.14	0.00	0.02	0.20	202	202
231		8.81		8.79		34.154		26.490	157.8	0.451	1.23	18.8	42.6	2.56	31.6	0.15	0.00			232	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 53.2 N	121 12.2 W	15/08/10	2327 UTC	570 m	270 18 kn	280 06 05	2	1010.7 mb	15.9 C	14.0 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.37		15.37		33.421		24.675	325.7	0.000	6.02	105.6	0.6	0.34	0.5	0.04	0.00	0.76	0.20	0	
2		15.37		15.37		33.421		24.675	325.8	0.007	6.02	105.6	0.6	0.34	0.5	0.04	0.00	0.76	0.20	2	221
10		15.36		15.36		33.422		24.678	325.7	0.033	6.04	105.9	0.6	0.33	0.5	0.04	0.00	0.77	0.21	10	219
10		15.37		15.37		33.423		24.677	325.9	0.033										10	220
20		14.56		14.56		33.450		24.873	307.5	0.064	6.03	104.1	1.5	0.47	2.5	0.15	0.18	0.83	0.28	20	218
30		12.63		12.63		33.365		25.200	276.5	0.093	5.50	91.2	6.4	1.01	8.8	0.57	1.28	0.60	0.30	30	217
40		11.36		11.36		33.453		25.508	247.4	0.120	4.70	75.9	11.6	1.35	16.1	0.17	0.00	0.15	0.14	40	216
50		10.27		10.26		33.562		25.785	221.2	0.143	3.89	61.4	19.4	1.66	21.5	0.02	0.00	0.04	0.09	50	215
60		9.74		9.73		33.660		25.951	205.7	0.164	3.35	52.3	23.7	1.83	24.3	0.02	0.00	0.03	0.10	60	214
71		9.65		9.64		33.723		26.015	199.8	0.187	3.08	48.0	25.4	1.95	25.5	0.02	0.00	0.02	0.12	71	213
75	ISL	9.53	D	9.52		33.761	D	26.064	195.1	0.195	2.79	43.3	26.9	2.02	26.2	0.02	0.00	0.02	0.12	75	
85		9.74		9.73		33.927		26.160	186.4	0.214	2.08	32.5	30.4	2.17	27.7	0.02	0.00	0.01	0.13	85	212
100		9.70		9.69		33.954		26.188	184.0	0.241	1.99	31.1	31.2	2.19	28.0	0.01	0.00	0.01	0.14	101	211
120		9.52		9.51		34.048		26.291	174.6	0.277	1.68	26.1	34.2	2.30	29.0	0.01	0.00	0.01	0.12	121	210
125	ISL	9.52	D	9.51		34.052	D	26.294	174.4	0.286	1.64	25.5	34.6	2.32	29.2	0.01	0.00	0.01	0.12	126	
143		9.45		9.43		34.086		26.333	171.1	0.317	1.55	24.1	35.3	2.35	29.6	0.01	0.00	0.01	0.14	144	209
150	ISL	9.44	D	9.42		34.087	D	26.335	171.0	0.329	1.52	23.6	35.5	2.36	29.7	0.01	0.00	0.01	0.14	151	
169		9.39		9.37		34.120		26.370	168.2	0.361	1.44	22.3	36.1	2.38	29.9	0.02	0.00	0.01	0.13	170	208
200		9.13		9.11		34.171		26.452	160.9	0.412	1.32	20.4	39.0	2.45	30.7	0.02	0.00	0.01	0.11	201	207
232		8.76		8.74		34.202		26.535	153.5	0.463	1.13	17.3	42.8	2.54	32.0	0.01	0.00			233	206
250	ISL	8.59	D	8.56		34.208	D	26.567	150.8	0.490	1.08	16.5	44.1	2.57	32.4	0.01	0.00			252	
271		8.51		8.48		34.217		26.586	149.3	0.522	1.05	16.0	45.3	2.60	32.7	0.01	0.00			273	205
300	ISL	8.35	D	8.32		34.216	D	26.610	147.5	0.565	1.00	15.2	47.3	2.64	33.3	0.01	0.00			302	
320		8.19		8.16		34.217		26.636	145.4	0.594	0.96	14.5	48.9	2.67	33.7	0.01	0.00			322	204
380		7.67		7.63		34.227		26.721	138.0	0.679	0.83	12.4	54.9	2.78	35.2	0.01	0.00			383	203
400	ISL	7.41	D	7.37		34.220	D	26.753	135.1	0.706	0.76	11.3	58.7	2.84	36.2	0.01	0.00			403	
441		6.73		6.69		34.226		26.851	125.8	0.760	0.63	9.2	66.5	2.95	38.2	0.01	0.00			444	202
500	ISL	6.47	D	6.42		34.246	D	26.902	121.6	0.833	0.50	7.3	71.3	3.04	38.9	0.01	0.00			504	
514		6.43		6.38		34.248		26.909	121.1	0.850	0.47	6.8	72.4	3.06	39.1	0.01	0.00			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 43.3 N	121 33.0 W	15/08/10	1903 UTC	936 m	270 18 kn	330 04 06	2	1014.5 mb	15.7 C	13.8 C	09m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	14.26	14.26		33.474		24.954	299.1	0.000	5.93	101.7	2.6	0.63	4.7	0.28	0.15	0.93	0.17	0	
2		14.26	14.26		33.474		24.954	299.2	0.006	5.93	101.7	2.6	0.63	4.7	0.28	0.15	0.93	0.17	2	222
6		14.25	14.25		33.470		24.953	299.4	0.018	5.93	101.7	2.6	0.63	4.7	0.28	0.15	0.80	0.27	6	221
10	ISL	14.24	14.24	D	33.473	D	24.958	299.0	0.030	5.94	101.9	2.6	0.63	4.7	0.28	0.15	0.87	0.29	10	
12		14.24	14.24		33.472		24.957	299.2	0.036	5.94	101.9	2.6	0.63	4.7	0.28	0.15	0.92	0.30	12	220
19		14.23	14.23		33.477		24.964	298.8	0.057	5.93	101.7	2.4	0.62	4.6	0.28	0.18	0.90	0.29	19	219
20	ISL	14.23	14.23	D	33.474	D	24.961	299.0	0.060	5.93	101.7	2.4	0.62	4.6	0.28	0.18	0.89	0.31	20	
23		14.22	14.22		33.473		24.963	299.0	0.069	5.93	101.7	2.4	0.62	4.6	0.28	0.17	0.84	0.37	23	218
30	ISL	13.33	13.33	D	33.464	D	25.139	282.4	0.089	5.52	92.9	5.0	0.86	7.9	0.38	0.37	0.78	0.31	30	
33		12.60	12.60		33.432		25.258	271.1	0.097	5.28	87.5	6.7	1.00	9.9	0.42	0.45	0.74	0.29	33	217
41		11.77	11.76		33.443		25.424	255.4	0.119	4.87	79.3	10.9	1.26	14.3	0.33	0.26	0.53	0.19	41	216
50		10.90	10.89		33.498		25.625	236.5	0.141	4.32	69.1	15.7	1.53	18.8	0.17	0.05	0.17	0.11	50	215
60		10.28	10.27		33.586		25.802	219.8	0.163	3.73	58.9	20.4	1.72	21.9	0.06	0.00	0.11	0.13	60	214
70		9.89	9.88		33.801		26.036	197.8	0.184	2.68	42.0	26.9	2.01	25.7	0.02	0.00	0.03	0.12	70	213
75	ISL	9.78	9.77	D	33.814	D	26.065	195.2	0.194	2.67	41.7	27.3	2.02	26.0	0.02	0.00	0.03	0.11	75	
85		9.56	9.55		33.829		26.113	190.8	0.213	2.65	41.2	28.2	2.04	26.5	0.02	0.00	0.02	0.11	85	212
100		9.52	9.51		33.911		26.184	184.4	0.242	2.29	35.6	30.5	2.14	27.5	0.01	0.00	0.01	0.13	101	211
120		9.36	9.35		34.003		26.282	175.4	0.278	1.95	30.2	33.4	2.25	28.7	0.01	0.00	0.01	0.12	121	210
125	ISL	9.31	9.30	D	34.012	D	26.297	174.1	0.286	1.85	28.6	34.0	2.28	29.0	0.01	0.00	0.01	0.12	126	
141		9.34	9.32		34.087		26.351	169.3	0.314	1.60	24.8	35.6	2.36	29.7	0.01	0.00	0.01	0.12	142	209
150	ISL	9.30	9.28	D	34.108	D	26.375	167.3	0.329	1.62	25.1	36.2	2.36	29.9	0.02	0.00	0.01	0.12	151	
170		9.00	8.98		34.093		26.411	164.1	0.362	1.65	25.4	37.4	2.37	30.3	0.03	0.00	0.01	0.13	171	208
200		8.93	8.91		34.130		26.452	160.8	0.411	1.40	21.5	39.6	2.46	31.0	0.02	0.00	0.01	0.13	201	207
230		8.47	8.45		34.117		26.513	155.4	0.458	1.53	23.3	41.8	2.47	31.9	0.05	0.00			231	206
250	ISL	8.29	8.26	D	34.121	D	26.544	152.7	0.489	1.52	23.0	43.7	2.49	32.6	0.03	0.00			252	
271		7.90	7.87		34.103		26.588	148.7	0.521	1.51	22.7	45.9	2.53	33.3	0.01	0.00			273	205
300	ISL	7.69	7.66	D	34.123	D	26.635	144.7	0.563	1.40	20.9	48.6	2.59	34.1	0.01	0.00			302	
320		7.61	7.58		34.126		26.649	143.6	0.592	1.29	19.2	50.8	2.64	34.7	0.01	0.00			322	204
379		6.91	6.87		34.164		26.778	131.9	0.673	0.90	13.2	61.2	2.87	37.3	0.00	0.00			382	203
400	ISL	6.74	6.70	D	34.167	D	26.803	129.7	0.701	0.83	12.1	65.2	2.92	38.3	0.00	0.00			403	
440		6.06	6.02		34.152		26.880	122.4	0.751	0.72	10.3	72.2	3.00	40.0	0.00	0.00			443	202
500	ISL	5.74	5.70	D	34.197	D	26.956	115.7	0.823	0.52	7.4	79.0	3.10	41.0	0.00	0.00			504	
517		5.70	5.66		34.212		26.973	114.3	0.842	0.46	6.6	80.9	3.13	41.3	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 76.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 23.3 N	122 14.9 W	15/08/10	1248 UTC	4025 m	270 15 kn			1014.0 mb	15.0 C	13.8 C			

DEPTH m		TEMP DEG C	POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.54	15.54		33.390		24.613	331.6	0.000	6.04	106.3	1.3	0.32	0.2	0.01	0.09	0.68	0.16	0	
2		15.54	15.54		33.390		24.613	331.7	0.007	6.04	106.3	1.3	0.32	0.2	0.01	0.09	0.68	0.16	2	220
10		15.54	15.54		33.394		24.617	331.6	0.033	6.03	106.1	1.2	0.33	0.2	0.01	0.09	0.67	0.14	10	219
20		15.53	15.53		33.391		24.617	331.9	0.066	6.04	106.3	1.2	0.33	0.2	0.01	0.09	0.69	0.16	20	218
30		13.79	13.79		33.323		24.936	301.7	0.098	6.05	102.7	9.0	0.77	6.6	0.17	0.17	1.00	0.35	30	217
40		12.29	12.28		33.273		25.195	277.3	0.127	5.73	94.2	12.3	1.04	10.3	0.33	0.34	0.96	0.45	40	216
49		10.78	10.77		33.196	D	25.411	256.8	0.151	5.11	D 81.3								49	215
50	ISL	10.74	10.73	D	33.196	D	25.418	256.1	0.154	5.05	80.3	16.2	1.34	15.4	0.22	0.20	0.57	0.32	50	
60		9.98	9.97		33.397		25.705	229.0	0.178	4.55	71.2	20.0	1.59	20.0	0.04	0.00	0.16	0.14	60	214
70		9.43	9.42		33.461		25.846	215.7	0.200	4.25	65.8	22.9	1.71	22.0	0.02	0.00	0.06	0.08	70	213
75	ISL	9.42	9.41	D	33.489	D	25.870	213.6	0.211	4.10	63.4	23.8	1.76	22.8	0.01	0.00	0.05	0.08	75	
86		9.27	9.26		33.585		25.969	204.4	0.234	3.75	57.9	25.8	1.87	24.6	0.01	0.00	0.03	0.07	86	212
100	ISL	9.10	9.09	D	33.737	D	26.115	190.7	0.261	3.17	48.8	29.5	2.04	27.2	0.01	0.00	0.01	0.06	101	
101		9.09	9.08		33.727		26.109	191.3	0.263	3.13	48.1	29.8	2.05	27.4	0.01	0.00	0.01	0.06	102	211
120		8.74	8.73		33.847		26.258	177.5	0.298	2.85	43.5	31.9	2.06	27.8	0.01	0.00	0.01	0.06	121	210
125	ISL	8.88	8.87	D	33.905	D	26.282	175.4	0.307	2.70	41.4	32.6	2.09	28.2	0.01	0.00	0.01	0.06	126	
140		8.81	8.80		33.985		26.356	168.7	0.333	2.24	34.3	34.7	2.21	29.3	0.01	0.00	0.00	0.06	141	209
150	ISL	8.61	8.59	D	33.996	D	26.396	165.0	0.350	2.04	31.1	36.1	2.26	29.8	0.01	0.00	0.00	0.06	151	
170		8.70	8.68		34.065		26.436	161.6	0.382	1.86	28.4	38.6	2.33	30.4	0.01	0.00	0.00	0.06	171	208
200	ISL	8.06	8.04	D	34.041	D	26.515	154.4	0.430	2.10	31.6	41.2	2.33	31.2	0.02	0.00	0.00	0.06	201	
201		8.07	8.05		34.034		26.508	155.1	0.431	2.11	31.8	41.3	2.33	31.2	0.02	0.00	0.00	0.06	202	207
230		7.87	7.85		34.100		26.590	147.8	0.475	1.59	23.8	46.7	2.51	33.0	0.02	0.00			231	206
250	ISL	7.43	7.41	D	34.078	D	26.636	143.6	0.504	1.36	20.2	50.1	2.61	34.2	0.02	0.00			252	
270		7.41	7.38		34.124		26.675	140.2	0.533	1.20	17.8	53.3	2.69	35.4	0.01	0.00			272	205
300	ISL	7.06	7.03	D	34.142	D	26.739	134.5	0.574	1.01	14.9	57.9	2.78	36.8	0.01	0.00			302	
320		7.03	7.00		34.172	D	26.767	132.1	0.601	0.92	D 13.5								322	204
380		6.28	6.25		34.141		26.843	125.3	0.678	0.80	11.6	69.1	2.96	39.2	0.00	0.00			383	203
400	ISL	6.16	6.12	D	34.166	D	26.878	122.1	0.703	0.72	10.4	71.7	3.00	39.6	0.00	0.00			403	
441		6.00	5.96		34.206		26.930	117.6	0.752	0.54	7.8	76.6	3.08	40.3	0.00	0.00			444	202
500	ISL	5.92	5.88	D	34.299	D	27.014	110.4	0.819	0.37	5.3	82.0	3.17	40.9	0.00	0.00			504	
516		5.82	5.78		34.295		27.024	109.6	0.837	0.32	4.6	83.5	3.19	41.0	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 76.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 3.2 N	122 56.4 W	15/08/10	0648 UTC	4234 m	250 11 kn			1014.7 mb	17.1 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.08		16.08		33.289		24.415	350.5	0.000	5.95	105.8	1.4	0.45	1.6	0.06	0.11	0.42	0.09	0	
1		16.08		16.08		33.289		24.415	350.5	0.004	5.95	105.8	1.4	0.45	1.6	0.06	0.11	0.42	0.09	1	220
10		15.53		15.53		33.246		24.505	342.2	0.035	6.06	106.5	2.1	0.49	2.1	0.08	0.11	0.38	0.08	10	219
20		13.17		13.17		32.986		24.801	314.3	0.068	6.29	105.2	5.3	0.62	3.6	0.15	0.07	0.60	0.18	20	218
30		12.04		12.04		32.950		24.991	296.4	0.098	5.99	97.8	6.8	0.78	5.6	0.35	0.26	0.75	0.36	30	217
40		12.48		12.47		33.219		25.116	284.7	0.127	5.77	95.2	8.3	0.90	7.6	0.42	0.86	0.43	0.27	40	216
50		11.13		11.12		33.155		25.317	265.7	0.155	5.47	87.7	12.4	1.13	11.0	0.61	0.60	0.36	0.25	50	215
60		10.08		10.07		33.114		25.468	251.6	0.180	5.06	79.3	14.4	1.28	14.4	0.27	0.00	0.20	0.16	60	214
70		9.72		9.71		33.341		25.705	229.2	0.205	4.38	68.2	18.1	1.54	19.1	0.04	0.00	0.05	0.05	70	213
75	ISL	9.65	D	9.64		33.438	D	25.792	221.0	0.216	4.16	64.7	19.9	1.64	20.8	0.03	0.00	0.04	0.05	75	
85		9.34		9.33		33.536		25.919	209.1	0.237	3.80	58.7	23.3	1.80	23.4	0.02	0.00	0.02	0.06	85	212
100		9.01		9.00		33.719		26.115	190.7	0.267	3.20	49.1	27.5	1.95	26.0	0.01	0.00	0.01	0.04	101	211
121		8.81		8.80		33.874		26.269	176.6	0.306	2.59	39.6	34.2	2.20	30.0	0.00	0.00	0.01	0.06	122	210
125	ISL	8.82	D	8.81		33.901	D	26.288	174.8	0.313	2.43	37.2	34.8	2.23	30.4	0.00	0.00	0.01	0.06	126	
140		8.70		8.69		33.978		26.368	167.5	0.339	1.92	29.3	36.4	2.30	31.1	0.00	0.00	0.01	0.08	141	209
150	ISL	8.59	D	8.57		33.993	D	26.396	164.9	0.355	1.95	29.7	37.1	2.30	31.2	0.00	0.00	0.01	0.08	151	
170		8.35		8.33		34.018		26.453	159.9	0.388	2.00	30.3	38.6	2.29	31.3	0.01	0.00	0.01	0.07	171	208
200		7.99		7.97		34.045		26.529	153.1	0.435	1.75	26.3	43.0	2.41	32.9	0.01	0.00	0.00	0.06	201	207
232		7.59		7.57		34.053		26.594	147.4	0.483	1.45	21.6	48.1	2.56	35.0	0.00	0.00			233	206
250	ISL	7.38	D	7.36		34.071	D	26.638	143.4	0.509	1.36	20.2	50.2	2.60	35.5	0.00	0.00			252	
270		7.30		7.27		34.079		26.656	142.0	0.537	1.28	18.9	52.4	2.64	35.8	0.00	0.00			272	205
300	ISL	7.11	D	7.08		34.130	D	26.722	136.0	0.579	1.03	15.2	57.0	2.75	36.7	0.00	0.00			302	
320		7.00		6.97		34.153		26.756	133.1	0.606	0.86	12.6	60.0	2.83	37.3	0.00	0.00			322	204
380		6.61		6.58		34.178		26.829	126.9	0.684	0.69	10.1	66.4	2.94	38.6	0.00	0.00			383	203
400	ISL	6.51	D	6.47		34.191	D	26.853	124.9	0.709	0.65	9.4	69.0	2.98	39.1	0.00	0.00			403	
440		6.01		5.97		34.180		26.908	119.6	0.758	0.58	8.3	74.6	3.06	40.2	0.00	0.00			443	202
500	ISL	5.48	D	5.44		34.212	D	26.999	111.3	0.827	0.45	D	6.4	83.4	3.16	41.6	0.00	0.00			504	
515		5.48		5.44		34.229		27.013	110.2	0.844	0.42	D	6.0	85.6	3.18	42.0	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 43.2 N	123 38.1 W	14/08/10	2344 UTC	4250 m	240 06 kn	320 03 07	2	1014.1 mb	18.4 C	16.4 C	15m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.99		15.99		32.815		24.071	383.3	0.000	6.02	106.5	3.9	0.42	0.3	0.02	0.08	0.35	0.07	0	
2		15.99		15.99		32.815		24.071	383.4	0.008	6.02	106.5	3.9	0.42	0.3	0.02	0.08	0.35	0.07	2	220
10	ISL	15.11	D	15.11		32.811	D	24.262	365.3	0.038	6.11	106.2	3.8	0.42	0.3	0.02	0.06	0.40	0.09	10	
11		15.07		15.07		32.819		24.277	364.0	0.041	6.12	106.3	3.8	0.42	0.3	0.02	0.06	0.41	0.09	11	219
20		14.67		14.67		32.819		24.363	356.0	0.074	6.18	106.5	3.9	0.40	0.2	0.03	0.05	0.54	0.12	20	218
30		14.28		14.28		32.806		24.436	349.4	0.109	6.22	106.3	3.5	0.40	0.2	0.02	0.03	0.69	0.19	30	217
40		13.37		13.36		32.777		24.599	334.0	0.143	6.14	103.0	3.7	0.49	1.0	0.13	0.19	0.67	0.23	40	216
50		12.90		12.89		32.866		24.762	318.8	0.176	5.90	98.0	3.7	0.53	1.6	0.28	0.15	0.37	0.22	50	215
60		12.88		12.87		32.979		24.853	310.3	0.207	5.65	93.9	3.4	0.51	1.9	0.03	0.00	0.26	0.16	60	214
71		12.35		12.34		32.988		24.963	300.1	0.241	5.54	91.1	4.2	0.60	3.4	0.03	0.00	0.21	0.13	71	213
75	ISL	11.94	D	11.93		33.013	D	25.060	290.9	0.253	5.52	90.0	5.3	0.70	5.1	0.02	0.00	0.16	0.11	75	
85		11.61		11.60		33.073		25.168	280.9	0.281	5.46	88.4	8.7	0.98	9.7	0.01	0.00	0.04	0.06	85	212
100	ISL	10.78	D	10.77		33.158	D	25.383	260.6	0.322	5.28	84.0	12.7	1.19	13.5	0.01	0.00	0.02	0.05	100	
101		10.81		10.80		33.156		25.376	261.3	0.324	5.26	83.7	12.9	1.20	13.7	0.01	0.00	0.02	0.05	101	211
120		9.86		9.85		33.327		25.672	233.4	0.371	4.52	70.5	17.0	1.44	17.8	0.01	0.00	0.02	0.05	121	210
125	ISL	9.75	D	9.74		33.401	D	25.748	226.3	0.383	4.26	66.4	18.8	1.55	19.4	0.01	0.00	0.02	0.05	126	
140		9.56		9.54		33.603		25.937	208.6	0.415	3.52	54.7	24.3	1.85	24.0	0.00	0.00	0.01	0.04	141	209
150	ISL	9.22	D	9.20		33.670	D	26.045	198.5	0.436	3.19	49.2	26.7	1.95	25.6	0.00	0.00	0.01	0.04	151	
171		8.98		8.96		33.848		26.223	182.0	0.476	2.77	42.5	30.3	2.04	27.4	0.00	0.00	0.00	0.04	172	208
200		8.60		8.58		33.959		26.369	168.5	0.527	2.61	39.8	33.3	2.08	28.3	0.00	0.00	0.00	0.02	201	207
230		7.97		7.95		33.976		26.478	158.5	0.576	2.86	42.9	36.5	2.05	28.6	0.00	0.00			231	206
250	ISL	7.76	D	7.74		34.017	D	26.541	152.7	0.607	2.48	37.1	40.8	2.20	30.4	0.00	0.00			251	
269		7.58		7.55		34.042		26.587	148.6	0.635	1.99	29.6	45.4	2.37	32.5	0.00	0.00			271	205
300	ISL	7.26	D	7.23		34.071	D	26.655	142.5	0.681	1.54	22.8	51.1	2.55	34.6	0.00	0.00			302	
321		7.11		7.08		34.091		26.692	139.3	0.710	1.32	19.4	54.4	2.64	35.7	0.00	0.00			323	204
380		6.63		6.60		34.121		26.781	131.4	0.790	0.95	13.8	62.6	2.84	38.0	0.00	0.00			382	203
400	ISL	6.50	D	6.46		34.139	D	26.813	128.6	0.816	0.84	12.2	65.6	2.90	38.7	0.00	0.00			403	
439		6.20		6.16		34.166		26.873	123.1	0.865	0.65	9.4	71.3	3.01	39.7	0.00	0.00			442	202
500	ISL	5.88	D	5.84		34.219	D	26.956	115.9	0.938	0.45	6.4	79.0	3.11	40.6	0.00	0.00			503	
515		5.81		5.77		34.234		26.977	114.0	0.955	0.40	5.7	80.9	3.13	40.8	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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	14/08/10	1738 UTC	4535 m	240 07 kn	340 05 10	2	1014.4 mb	17.9 C	15.5 C	20m	8/8	SC

DEPTH m	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	16.30	16.30	32.949	24.103	380.2	0.000	5.77	102.8	2.7	0.35	0.0	0.00	0.00	0.18	0.04	0	
2	16.30	16.30	32.949	24.103	380.2	0.008	5.77	102.8	2.7	0.35	0.0	0.00	0.00	0.18	0.04	2	222
10 ISL	16.14 D	16.14	32.950 D	24.141	376.9	0.038	5.83	103.5	2.7	0.34	0.0	0.00	0.00	0.20	0.05	10	
12	16.00	16.00	32.948	24.171	374.1	0.045	5.85	103.6	2.7	0.34	0.0	0.00	0.00	0.21	0.06	12	221
20	15.81	15.81	32.960	24.223	369.4	0.075	5.83	102.9	2.7	0.34	0.0	0.00	0.00	0.26	0.07	20	220
27	15.71	15.71	32.960	24.246	367.5	0.101	5.84	102.8	2.6	0.35	0.0	0.00	0.00	0.30	0.10	27	219
30 ISL	15.50 D	15.50	32.965 D	24.296	362.7	0.112	5.86	102.8	2.6	0.34	0.0	0.00	0.00	0.34	0.10	30	
34	15.40	15.39	32.965	24.318	360.7	0.126	5.90	103.3	2.6	0.34	0.0	0.00	0.00	0.41	0.11	34	218
42	14.33	14.32	32.927	24.519	341.8	0.154	6.09	104.3	2.8	0.37	0.0	0.01	0.00	0.62	0.32	42	217
50 ISL	13.37 D	13.36	32.871 D	24.672	327.3	0.181	6.05	101.5	3.4	0.44	0.6	0.18	0.05	0.86	0.36	50	
53	13.10	13.09	32.854	24.713	323.5	0.191	6.04	100.8	3.6	0.47	1.0	0.25	0.07	0.89	0.37	53	215
53	13.11	13.10	32.851	24.709	323.9	0.191	6.03	100.6	3.6	0.47	1.0	0.25	0.05	0.74	0.48	53	216
63	13.17	13.16	32.996	24.809	314.6	0.223	5.74	96.0	4.2	0.57	2.7	0.26	0.00	0.44	0.39	63	214
74	12.34	12.33	33.025	24.994	297.3	0.257	5.58	91.7	5.8	0.72	5.7	0.04	0.00	0.20	0.17	74	213
75 ISL	12.12 D	12.11	33.019 D	25.031	293.7	0.260	5.57	91.1	5.9	0.73	5.9	0.04	0.00	0.19	0.17	75	
87	11.58	11.57	33.034	25.143	283.3	0.294	5.44	88.0	7.8	0.87	8.2	0.02	0.00	0.14	0.14	87	212
99	11.06	11.05	33.094	25.283	270.1	0.327	5.34	85.4	10.6	1.04	11.2	0.02	0.00	0.07	0.07	99	211
100 ISL	10.82 D	10.81	33.134 D	25.357	263.1	0.330	5.30	84.4	11.0	1.06	11.6	0.02	0.00	0.07	0.07	100	
120	9.91	9.90	33.333	25.668	233.8	0.380	4.38	68.4	18.1	1.53	19.0	0.01	0.00	0.02	0.04	121	210
125 ISL	9.95 D	9.94	33.415 D	25.726	228.4	0.391	4.22	66.0	19.1	1.58	19.9	0.01	0.00	0.02	0.04	126	
140	9.69	9.67	33.568	25.888	213.2	0.424	3.80	59.2	21.4	1.68	21.7	0.01	0.00	0.01	0.03	141	209
150 ISL	9.52 D	9.50	33.691 D	26.013	201.6	0.445	3.48	54.0	23.7	1.78	23.3	0.01	0.00	0.01	0.03	151	
174	9.10	9.08	33.839	26.196	184.5	0.491	2.85	43.9	29.2	1.99	26.7	0.01	0.00	0.00	0.03	175	208
197	8.74	8.72	33.943	26.335	171.7	0.532	2.62	40.0	32.6	2.08	27.9	0.01	0.00	0.00	0.03	198	207
200 ISL	8.74 D	8.72	33.960 D	26.348	170.5	0.538	2.62	40.0	32.8	2.08	27.9	0.01	0.00			201	
231	8.36	8.34	33.977	26.420	164.1	0.589	2.71	41.1	34.4	2.06	28.3	0.00	0.00			232	206
250 ISL	8.11 D	8.08	33.989 D	26.468	159.9	0.620	2.62	39.5	37.0	2.12	29.2	0.00	0.00			251	
271	7.77	7.74	33.995	26.522	154.9	0.653	2.45	36.6	40.6	2.21	30.5	0.00	0.00			273	205
300 ISL	7.30 D	7.27	34.009 D	26.601	147.6	0.697	2.20	32.5	45.4	2.34	32.4	0.00	0.00			302	
323	7.07	7.04	34.019	26.641	144.1	0.731	1.94	28.5	49.5	2.46	33.9	0.00	0.00			325	204
377	6.68	6.65	34.103	26.760	133.3	0.806	1.07	15.6	60.8	2.79	37.4	0.00	0.00			379	203
400 ISL	6.22 D	6.18	34.089 D	26.810	128.6	0.836	1.04	15.0	65.2	2.85	38.4	0.00	0.00			403	
441	5.81	5.77	34.091	26.863	123.7	0.887	0.98	14.0	72.4	2.92	39.7	0.00	0.00			444	202
500 ISL	5.46 D	5.42	34.160 D	26.960	114.9	0.958	0.61	8.6	81.6	3.08	41.3	0.00	0.00			503	
520	5.36	5.32	34.184	26.991	112.1	0.981	0.48	6.8	84.7	3.13	41.8	0.00	0.00			524	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 80.0 50.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 27.7 N	120 29.2 W	12/08/10	2049 UTC	26 m	220 22 kn	290 02 05	1	1010.6 mb	16.0 C	14.5 C		2/8	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	12.49	12.49	33.626	25.429	254.0	0.000	4.96	82.1	11.6	1.13	11.1	0.33	0.34	7.43	0.40	0	
2	12.49	12.49	33.626	25.429	254.0	0.005	4.96	82.1	11.6	1.13	11.1	0.33	0.34	7.43	0.40	2	206
5	12.54	12.54	33.628	25.421	254.9	0.013	5.01	83.0	11.5	1.18	10.9	0.33	0.32	6.63	0.54	5	205
10	12.39	12.39	33.629	25.451	252.1	0.025	4.89	80.8	12.1	1.16	11.4	0.34	0.33	6.34	0.63	10	203
10	12.39	12.39	33.630	25.452	252.1	0.025	4.86	80.3								10	204
15	12.10	12.10	33.630	25.507	246.9	0.038	4.37	71.7	14.6	1.36	13.7	0.37	0.53	4.23	0.38	15	202
20	12.08	12.08	33.632	25.513	246.5	0.050	4.28	70.2	15.3	1.37	14.3	0.37	0.59	3.45	0.31	20	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 80.0 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 27.0 N	120 31.4 W	12/08/10	1903 UTC	78 m	240 21 kn	300 03 05	1	1012.2 mb	14.9 C	13.2 C	07m	2/8	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0 ISL	12.78	12.78	33.639	25.383	258.4	0.000	5.38	89.6	9.8	0.98	9.1	0.30	0.19	8.81	0.19	0	
1	12.78	12.78	33.639	25.383	258.4	0.003	5.38	89.6	9.8	0.98	9.1	0.30	0.19	8.81	0.19	1	211
5	12.82	12.82	33.635	25.372	259.5	0.013	5.40	90.0	9.7	1.01	9.0	0.30	0.18	7.46	1.11	5	210
10	11.73	11.73	33.631	25.577	240.1	0.025	3.93	64.0	15.0	1.44	15.6	0.39	0.70	3.11	0.60	10	209
14	11.22	11.22	33.646	25.682	230.2	0.035	3.36	54.1	18.9	1.69	18.9	0.41	0.60	1.02	0.47	14	208
18	10.87	10.87	33.682	25.773	221.7	0.044	3.03	48.5	21.9	1.81	20.8	0.36	0.46	0.57	0.44	18	207
20 ISL	10.63 D	10.63	33.690 D	25.822	217.1	0.048	2.91	46.3	22.9	1.86	21.7	0.32	0.33	0.43	0.41	20	
26	10.30	10.30	33.734	25.913	208.5	0.061	2.66	42.0	24.8	1.96	23.8	0.18	0.00	0.19	0.33	26	206
30 ISL	10.15 D	10.15	33.774 D	25.970	203.2	0.069	2.54	40.0	25.8	2.01	24.7	0.11	0.00	0.17	0.38	30	
33	10.11	10.11	33.787	25.987	201.6	0.075	2.48	39.0	26.3	2.04	25.1	0.07	0.00	0.15	0.41	33	205
41	10.08	10.08	33.801	26.003	200.3	0.091	2.42	38.1	26.9	2.07	25.4	0.06	0.00	0.12	0.28	41	204
50	10.04	10.03	33.818	26.024	198.5	0.109	2.39	37.6	27.4	2.08	25.6	0.07	0.00	0.11	0.36	50	203
60	10.04	10.03	33.819	26.025	198.7	0.129	2.37	37.3	27.2	2.09	25.6	0.07	0.00	0.13	0.29	60	202
70	10.01	10.00	33.832	26.040	197.4	0.149	2.35	36.9	27.7	2.10	25.7	0.08	0.00	0.11	0.27	70	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 80.0 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 18.9 N	120 48.2 W	12/08/10	2332 UTC	832 m	260 12 kn	300 04 06	2	1010.9 mb	15.0 C	14.0 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.05		15.05		33.462		24.776	316.1	0.000	6.14	107.0	0.5	0.38	1.3	0.11	0.13	2.18	0.16	0	
2		15.05		15.05		33.462		24.776	316.1	0.006	6.14	107.0	0.5	0.38	1.3	0.11	0.13	2.18	0.16	2	221
10		15.00		15.00		33.462		24.787	315.3	0.032	6.16	107.3	0.5	0.39	1.3	0.12	0.10	2.33	0.18	10	219
10		15.02		15.02		33.457		24.779	316.1	0.032										10	220
20		13.40		13.40		33.500		25.152	280.9	0.061	5.67	95.6	2.5	0.69	5.6	0.46	0.90	4.24	0.31	20	218
30		11.92		11.92		33.487		25.430	254.6	0.088	4.93	80.6	8.3	1.22	13.3	0.39	0.28	0.18	0.14	30	217
40		11.31		11.31		33.543		25.587	239.9	0.113	4.46	72.0	12.4	1.43	17.1	0.05	0.00	0.09	0.11	40	216
50		10.62		10.61		33.545		25.711	228.3	0.136	4.09	65.0	17.4	1.60	19.8	0.04	0.11	0.07	0.12	50	215
61		10.24		10.23		33.592		25.813	218.8	0.161	3.79	59.8	20.7	1.74	22.0	0.04	0.00	0.06	0.13	61	214
70		9.97		9.96		33.669		25.919	208.9	0.180	3.41	53.5	23.5	1.87	24.0	0.03	0.00	0.06	0.13	70	213
75	ISL	9.91	D	9.90		33.687	D	25.944	206.7	0.191	3.30	51.7	24.4	1.90	24.6	0.03	0.00	0.06	0.13	75	
85		9.72		9.71		33.724		26.004	201.1	0.211	3.11	48.5	25.9	1.95	25.4	0.02	0.00	0.05	0.13	85	212
100		9.34		9.33		33.864		26.176	185.0	0.240	2.53	39.2	30.0	2.10	27.5	0.02	0.00	0.03	0.12	101	211
121		8.97		8.96		33.947		26.301	173.6	0.278	2.29	35.2	33.1	2.16	28.7	0.01	0.00	0.03	0.15	122	210
125	ISL	8.90	D	8.89		33.956	D	26.319	171.9	0.284	2.26	34.7	33.7	2.18	28.9	0.01	0.01	0.03	0.15	126	
140		8.68		8.67		33.993		26.382	166.1	0.310	2.18	33.3	35.8	2.23	29.6	0.01	0.06	0.02	0.12	141	209
150	ISL	8.54	D	8.52		34.007	D	26.415	163.2	0.326	2.15	32.7	36.8	2.25	29.9	0.01	0.05	0.02	0.11	151	
170		8.32		8.30		34.020		26.459	159.3	0.359	2.09	31.6	38.9	2.28	30.6	0.02	0.00	0.02	0.10	171	208
200		7.92		7.90		34.054		26.546	151.5	0.405	1.81	27.2	43.4	2.41	32.3	0.01	0.00	0.01	0.11	201	207
230		7.68		7.66		34.058		26.584	148.2	0.450	1.70	25.4	46.3	2.48	33.2	0.01	0.00			231	206
250	ISL	7.49	D	7.47		34.083	D	26.632	144.0	0.479	1.54	22.9	49.3	2.55	34.1	0.01	0.00			252	
271		7.33		7.30		34.098		26.666	141.0	0.509	1.35	20.0	52.6	2.63	35.0	0.01	0.00			273	205
300	ISL	7.20	D	7.17		34.116	D	26.699	138.3	0.550	1.17	17.3	55.7	2.72	35.8	0.01	0.00			302	
320		7.06		7.03		34.130		26.729	135.7	0.577	1.07	15.7	57.8	2.78	36.3	0.01	0.00			322	204
381		6.46		6.43		34.145		26.823	127.3	0.657	0.85	12.3	66.2	2.92	38.4	0.01	0.00			384	203
400	ISL	6.87	D	6.83		34.239	D	26.842	126.1	0.681	0.75	11.0	67.8	2.96	38.4	0.01	0.00			403	
441		6.58		6.54		34.247		26.888	122.2	0.732	0.54	7.9	71.0	3.03	38.3	0.01	0.00			444	202
500	ISL	6.10	D	6.06		34.261	D	26.962	115.6	0.802	0.41	5.9	78.5	3.13	39.4	0.03	0.00			504	
515		6.05		6.00		34.267		26.973	114.7	0.820	0.38	5.5	80.4	3.15	39.7	0.03	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 9.0 N	121 8.9 W	13/08/10	0526 UTC	2161 m	250 14 kn			1011.6 mb	15.0 C	13.8 C			

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	14.73		14.73		33.465		24.848	309.3	0.000	6.16	106.7	0.4	0.42	2.1	0.15	0.10	2.22	0.40	0	
2		14.73		14.73		33.465		24.848	309.3	0.006	6.16	106.7	0.4	0.42	2.1	0.15	0.10	2.22	0.40	2	220
10		14.73		14.73		33.463		24.846	309.7	0.031	6.16	106.7	0.2	0.42	2.1	0.15	0.08	2.13	0.35	10	219
20		14.66		14.66		33.463		24.862	308.5	0.062	6.15	106.4	0.3	0.39	2.1	0.15	0.09	2.28	0.37	20	218
29		13.47		13.47		33.453		25.102	285.9	0.089	5.68	95.9	1.8	0.80	5.0	0.49	1.69	1.58	0.36	29	217
30	ISL	13.18	D	13.18		33.465	D	25.170	279.5	0.091	5.61	94.1	2.2	0.85	5.8	0.49	1.63	1.43	0.34	30	
40		12.07		12.06		33.545		25.447	253.2	0.118	4.91	80.5	7.5	1.24	13.4	0.54	0.38	0.15	0.13	40	216
50		11.24		11.23		33.498		25.564	242.3	0.143	4.59	73.9	12.3	1.40	16.8	0.02	0.00	0.10	0.15	50	215
60		10.66		10.65		33.455		25.634	235.8	0.167	4.50	71.5	16.5	1.52	18.7	0.03	0.00	0.08	0.09	60	214
70		10.28		10.27		33.499		25.734	226.5	0.190	4.22	66.6	19.1	1.64	20.6	0.02	0.00	0.07	0.11	70	213
75	ISL	10.04	D	10.03		33.574	D	25.834	217.1	0.201	3.86	60.6	21.5	1.76	22.4	0.02	0.00	0.06	0.11	75	
85		9.64		9.63		33.721		26.015	200.0	0.222	3.12	48.6	26.3	1.98	25.8	0.01	0.00	0.03	0.11	85	212
100		9.37		9.36		33.828		26.143	188.2	0.251	2.67	41.4	29.5	2.09	27.5	0.01	0.00	0.03	0.12	101	211
120		9.01		9.00		33.900		26.258	177.6	0.288	2.50	38.4	31.5	2.12	28.3	0.01	0.00	0.01	0.08	121	210
125	ISL	8.98	D	8.97		33.902	D	26.264	177.1	0.296	2.45	37.6	32.1	2.13	28.5	0.01	0.00	0.01	0.08	126	
140		8.78		8.77		33.960		26.341	170.1	0.322	2.31	35.3	34.0	2.18	29.0	0.01	0.00	0.01	0.08	141	209
150	ISL	8.73	D	8.71		33.985	D	26.369	167.6	0.339	2.26	34.5	34.9	2.20	29.2	0.01	0.00	0.01	0.07	151	
170		8.53		8.51		34.006		26.416	163.4	0.372	2.20	33.5	36.5	2.23	29.7	0.01	0.00	0.01	0.06	171	208
200		8.19		8.17		34.031		26.488	157.1	0.420	2.04	30.8	39.7	2.31	31.0	0.01	0.00	0.01	0.05	201	207
230		7.93		7.91		34.075		26.561	150.5	0.467	1.68	25.2	44.4	2.45	32.6	0.01	0.00			231	206
250	ISL	7.68	D	7.66		34.097	D	26.615	145.7	0.496	1.48	22.1	47.8	2.55	33.7	0.01	0.00			252	
270		7.46		7.43		34.104		26.653	142.4	0.525	1.32	19.6	51.2	2.64	34.8	0.01	0.00			272	205
300	ISL	7.17	D	7.14		34.119	D	26.705	137.7	0.567	1.15	17.0	55.8	2.74	36.2	0.01	0.00			302	
320		6.94		6.91		34.113		26.733	135.3	0.594	1.06	15.6	58.5	2.79	36.9	0.01	0.00			322	204
381		6.82		6.78		34.186		26.807	129.1	0.675	0.73	10.7	63.4	2.93	37.6	0.00	0.00			384	203
400	ISL	6.54	D	6.50		34.167	D	26.830	127.0	0.699	0.68	9.9	65.3	2.96	38.0	0.00	0.00			403	
440		6.40		6.36		34.195		26.870	123.6	0.749	0.60	8.7	69.9	3.02	39.0	0.01	0.00			443	202
500	ISL	5.92	D	5.88		34.205	D	26.940	117.4	0.822	0.49	7.0	78.6	3.10	40.7	0.00	0.00			504	
516		5.66		5.62		34.204		26.971	114.3	0.840	0.46	6.6	80.9	3.12	41.1	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 49.1 N	121 50.6 W	13/08/10	1236 UTC	433 m	240	15 kn			1011.7 mb	14.9 C	13.8 C			

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.64		15.64		33.061		24.338	357.8	0.000	5.96	104.9	1.4	0.39	0.1	0.03	0.10	0.77	0.15	0	
2		15.64		15.64		33.061		24.338	357.9	0.007	5.96	104.9	1.4	0.39	0.1	0.03	0.10	0.77	0.15	2	220
10		15.61		15.61		33.058		24.343	357.7	0.036	5.99	105.3	1.3	0.36	0.1	0.03	0.09	0.72	0.14	10	219
20		12.48		12.48		32.971		24.924	302.5	0.069	6.13	101.0	4.6	0.66	3.8	0.39	0.19	0.95	0.28	20	218
30		11.95		11.95		33.023	D	25.064	289.4	0.098	5.82	94.9	7.5	0.84	6.7	0.66	0.15	0.63	0.25	30	217
40		11.68		11.67		33.182		25.238	273.1	0.127	5.43	88.1	9.6	1.04	10.6	0.40	0.00	0.49	0.24	40	216
50		10.69		10.68		33.223		25.448	253.3	0.153	5.05	80.2	12.6	1.23	14.0	0.05	0.00	0.22	0.10	50	215
60		10.17		10.16		33.226		25.540	244.7	0.178	4.82	75.7	14.2	1.30	15.3	0.03	0.00	0.10	0.10	60	214
70		9.96		9.95		33.341		25.665	233.0	0.202	4.47	69.9	17.5	1.50	18.5	0.02	0.00	0.09	0.11	70	213
75	ISL	9.77	D	9.76		33.413	D	25.753	224.7	0.213	4.23	65.9	19.7	1.61	20.3	0.02	0.00	0.08	0.10	75	
85		9.60		9.59		33.564		25.899	211.0	0.235	3.76	58.4	23.8	1.80	23.5	0.02	0.00	0.05	0.08	85	212
100		9.54		9.53		33.682		26.001	201.6	0.266	3.40	52.8	26.4	1.93	25.5	0.02	0.00	0.04	0.09	101	211
120		9.03		9.02		33.793		26.171	185.9	0.305	2.90	44.6	30.0	2.04	27.4	0.01	0.00	0.02	0.08	121	210
125	ISL	8.98	D	8.97		33.820	D	26.200	183.2	0.314	2.76	42.4	30.6	2.06	27.6	0.01	0.00	0.02	0.07	126	
140		8.93		8.92		33.936		26.299	174.1	0.341	2.41	37.0	32.2	2.11	28.2	0.01	0.00	0.01	0.06	141	209
150	ISL	8.76	D	8.74		33.969	D	26.351	169.3	0.358	2.31	35.3	33.6	2.15	28.7	0.01	0.00	0.01	0.06	151	
170		8.46		8.44		34.007		26.428	162.3	0.391	2.20	33.4	36.7	2.22	29.8	0.02	0.00	0.01	0.07	171	208
200		8.17		8.15		34.048		26.504	155.5	0.439	1.95	29.4	40.8	2.33	31.2	0.01	0.00	0.01	0.06	201	207
230		7.77		7.75		34.082		26.590	147.7	0.484	1.66	24.8	46.2	2.47	33.0	0.01	0.00			231	206
250	ISL	7.65	D	7.63		34.110	D	26.630	144.3	0.513	1.38	20.6	49.9	2.58	34.1	0.01	0.00			252	
270		7.46		7.43		34.144		26.684	139.4	0.542	1.12	16.6	53.6	2.69	35.1	0.01	0.00			272	205
300	ISL	6.95	D	6.92		34.124	D	26.740	134.3	0.583	1.00	14.7	59.4	2.79	36.8	0.00	0.00			302	
320		6.58		6.55		34.119		26.786	130.0	0.609	0.97	14.1	62.9	2.84	37.8	0.00	0.00			322	204
381		6.18		6.15		34.140		26.855	124.0	0.687	0.76	11.0	69.5	2.95	39.2	0.01	0.00			384	203
400	ISL	6.02	D	5.99		34.155	D	26.887	121.1	0.710	0.70	10.1	72.1	2.99	39.6	0.01	0.00			403	
441		5.78		5.74		34.185		26.941	116.4	0.759	0.57	8.1	77.8	3.08	40.5	0.00	0.00			444	202
500	ISL	5.55	D	5.51		34.257	D	27.026	108.8	0.825	0.41	5.8	85.4	3.17	41.5	0.00	0.00			504	
516		5.39		5.35		34.241		27.033	108.2	0.842	0.37	5.2	87.4	3.19	41.8	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 31.9 W	13/08/10	1856 UTC	3983 m	240	10 kn	320 03 07	1	1013.3 mb	17.5 C	15.2 C	15m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	14.87		14.87		32.982		24.445	347.6	0.000	6.17	106.9	3.2	0.45	0.9	0.06	0.06	0.43	0.08	0	
2		14.87		14.87		32.982		24.445	347.7	0.007	6.17	106.9	3.2	0.45	0.9	0.06	0.06	0.43	0.08	2	221
10		14.70		14.70		32.991		24.489	343.7	0.035	6.15	106.1	3.4	0.45	0.9	0.06	0.09	0.63	0.11	10	220
20		14.55		14.55		33.088		24.596	333.8	0.068	6.20	106.7	3.4	0.52	2.1	0.12	0.08	0.83	0.17	20	219
30	ISL	12.90	D	12.90		32.909	D	24.794	315.1	0.101	6.10	101.4	4.6	0.62	3.0	0.26	0.10	0.68	0.28	30	
31		12.86		12.86		32.907		24.801	314.6	0.104	6.08	101.0	4.8	0.63	3.1	0.28	0.10	0.65	0.29	31	222
39		12.01		12.01		32.864		24.930	302.4	0.129	5.88	95.9	5.6	0.74	4.5	0.38	0.17	0.37	0.24	39	217
47		11.86		11.85		32.912		24.995	296.3	0.153	5.73	93.2	6.2	0.76	5.5	0.27	0.00	0.29	0.21	47	216
50	ISL	11.79	D	11.78		33.016	D	25.089	287.5	0.161	5.61	91.1	7.0	0.83	6.8	0.18	0.00	0.25	0.20	50	
55		11.45		11.44		33.059		25.185	278.4	0.176	5.40	87.1	8.5	0.96	9.2	0.05	0.00	0.18	0.17	55	215
62		10.96		10.95		33.087		25.295	268.1	0.195	5.25	83.8	10.2	1.08	11.2	0.04	0.00	0.14	0.12	62	214
70		10.60		10.59		33.149		25.406	257.7	0.216	5.14	81.4	12.0	1.19	13.1	0.03	0.00	0.09	0.10	70	213
75	ISL	10.17	D	10.16		33.193	D	25.514	247.4	0.228	4.96	77.9	13.3	1.26	14.4	0.03	0.00	0.07	0.08	75	
85		9.73		9.72		33.291		25.664	233.3	0.252	4.56	71.0	16.5	1.43	17.4	0.02	0.00	0.06	0.06	85	212
100	ISL	9.57	D	9.56		33.531	D	25.879	213.3	0.286	4.20	65.2	23.2	1.77	22.8	0.02	0.00	0.04	0.07	100	
101		9.58		9.57		33.524		25.871	214.0	0.288	4.17	64.8	23.7	1.79	23.1	0.02	0.00	0.04	0.07	101	211
121		9.08		9.07		33.742		26.123	190.4	0.329	3.13	48.1	29.7	2.04	27.4	0.01	0.00	0.02	0.07	122	210
125	ISL	8.95	D	8.94		33.750	D	26.150	187.9	0.336	3.14	48.1	30.1	2.03	27.3	0.01	0.00	0.02	0.07	126	
140		8.59		8.58		33.782		26.231	180.4	0.364	3.32	50.5	30.9	2.00	26.9	0.01	0.00	0.02	0.06	141	209
150	ISL	8.43	D	8.41		33.841	D	26.302	173.9	0.381	3.19	48.4	32.4	2.03	27.4	0.01	0.00	0.02	0.06	151	
170		8.24		8.22		33.917		26.390	165.8	0.415	2.69	40.6	36.0	2.16	29.1	0.01	0.00	0.01	0.05	171	208
200		8.31		8.29		34.090		26.516	154.5	0.463	1.74	26.4	41.2	2.40	31.3	0.01	0.00	0.00	0.03	201	207
230		7.87		7.85		34.112		26.599	146.9	0.509	1.50	22.5	46.4	2.54	33.1	0.00	0.09			231	206
250	ISL	7.73	D	7.71		34.136	D	26.639	143.5	0.538	1.38	20.6	49.6	2.60	34.1	0.00	0.06			251	
271		7.38		7.35		34.126		26.681	139.6	0.567	1.25	18.5	52.8	2.66	35.0	0.00	0.00			273	205
300	ISL	7.15	D	7.12		34.163	D	26.743	134.1	0.607	1.02	15.0	57.0	2.77	36.0	0.00	0.00			302	
319		7.04		7.01		34.173		26.766	132.2	0.632	0.88	12.9	59.6	2.84	36.6	0.00	0.00			321	204
381		6.50		6.47		34.183		26.847	125.0	0.712	0.71	10.3	66.8	2.96	38.3	0.00	0.00			383	203
400	ISL	6.33	D	6.29		34.199	D	26.882	121.9	0.736	0.64	9.3	69.6	3.01	38.9	0.00	0.00			403	
440		6.06		6.02		34.225		26.938	116.9	0.783	0.48	6.9	75.7	3.10	39.9	0.00	0.00			443	202
500	ISL	5.78	D	5.74		34.329	D	27.056	106.4	0.850	0.27	3.9	83.4	3.21	40.8	0.00	0.00			503	
516		5.75		5.71		34.340		27.068	105.4	0.867	0.21	3.0	85.4	3.24	41.0	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 80.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 9.0 N	123 13.1 W	14/08/10	0222 UTC	4235 m	250 14 kn	340 06 08	1	1012.1 mb	17.1 C	15.2 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.65	16.65		33.044	24.096	380.9	0.000	5.69	102.1	2.4	0.35	0.1	0.00	0.00	0.15	0.03	0	
1		16.65	16.65		33.044	24.096	380.9	0.004	5.69	102.1	2.4	0.35	0.1	0.00	0.00	0.15	0.03	1	224
10		16.65	16.65		33.045	24.097	381.1	0.038	5.71	102.5	2.4	0.35	0.0	0.00	0.00	0.16	0.03	10	223
20	ISL	16.49	16.49	D	33.039	24.130	378.3	0.076	5.70	102.0	2.4	0.34	0.0	0.00	0.00	0.19	0.05	20	
21		16.53	16.53		33.044	24.124	378.9	0.080	5.70	102.1	2.4	0.34	0.0	0.00	0.00	0.19	0.05	21	222
30		16.27	16.27		33.032	24.175	374.3	0.114	5.75	102.4	2.4	0.34	0.0	0.00	0.00	0.26	0.08	30	221
40		15.23	15.22		33.080	24.444	348.9	0.150	5.95	103.8	2.4	0.34	0.0	0.00	0.00	0.32	0.19	40	220
50		14.61	14.60		33.076	24.575	336.7	0.184	5.83	100.5	2.7	0.41	0.1	0.14	0.07	0.51	0.42	50	219
60		14.13	14.12		33.074	24.675	327.5	0.217	5.74	98.0	2.9	0.45	0.8	0.61	0.00	0.35	0.31	60	218
70		13.71	13.70		33.075	24.762	319.4	0.250	5.63	95.3	3.2	0.49	2.0	0.06	0.00	0.23	0.25	70	217
75	ISL	13.24	13.23	D	33.096	24.873	308.9	0.265	5.56	93.2	3.9	0.57	3.4	0.05	0.00	0.20	0.24	75	
86		12.54	12.53		33.181	25.077	289.7	0.298	5.36	88.6	6.6	0.82	7.4	0.02	0.00	0.16	0.20	86	216
99		11.62	11.61		33.290	25.335	265.3	0.334	4.97	80.6	11.2	1.17	13.0	0.02	0.00	0.13	0.10	99	215
100	ISL	11.37	11.36	D	33.326	25.408	258.3	0.337	4.94	79.7	11.5	1.19	13.3	0.02	0.00	0.12	0.10	100	
121		10.34	10.33		33.440	25.679	232.9	0.389	4.28	67.6	17.4	1.52	18.8	0.01	0.00	0.02	0.04	122	214
125	ISL	9.98	9.97	D	33.487	25.777	223.6	0.398	4.12	64.5	18.5	1.58	19.8	0.01	0.00	0.02	0.04	126	
140		9.66	9.64		33.607	25.924	209.9	0.430	3.51	54.6	22.7	1.79	23.1	0.00	0.00	0.01	0.03	141	213
150	ISL	9.16	9.14	D	33.690	26.070	196.1	0.451	3.17	48.8	25.3	1.90	24.8	0.00	0.00	0.01	0.03	151	
171		9.08	9.06		33.855	26.212	183.0	0.490	2.72	41.9	29.7	2.03	27.1	0.00	0.00	0.00	0.03	172	212
200		8.48	8.46		33.946	26.377	167.7	0.541	2.85	43.3	32.4	2.02	27.7	0.00	0.00	0.00	0.01	201	211
230		7.96	7.94		33.966	26.471	159.1	0.590	3.32	49.8	34.6	1.93	26.6	0.00	0.00			231	210
250	ISL	7.65	7.63	D	33.980	26.528	153.9	0.622	2.93	43.7	39.1	2.08	28.7	0.00	0.00			251	
271		7.43	7.40		34.011	26.584	148.9	0.653	2.33	34.6	44.5	2.30	31.6	0.00	0.00			273	209
300	ISL	7.09	7.06	D	34.023	26.641	143.7	0.696	1.90	28.0	50.2	2.47	33.9	0.00	0.00			302	
321		6.88	6.85		34.039	26.682	140.0	0.726	1.67	24.5	54.0	2.56	35.2	0.00	0.00			323	208
381		6.21	6.18		34.069	26.795	129.7	0.806	1.21	17.4	65.1	2.79	38.2	0.00	0.00			383	207
400	ISL	6.03	6.00	D	34.093	26.837	125.9	0.831	1.12	16.1	68.0	2.84	38.9	0.00	0.00			403	
440		5.70	5.66		34.092	26.877	122.2	0.880	0.96	13.7	73.6	2.94	40.0	0.00	0.00			443	206
500	ISL	5.50	5.46	D	34.170	26.964	114.7	0.951	0.62	8.8	82.0	3.08	41.4	0.00	0.00			503	
516		5.38	5.34		34.179	26.985	112.7	0.970	0.53	7.5	84.2	3.12	41.7	0.00	0.00			519	205
600	CSL	5.02	4.97		34.231	27.069	105.3	1.061	0.33	4.6								604	200
700	CSL	4.63	4.57		34.310	27.176	95.8	1.162	0.22	3.1								705	200
800	CSL	4.31	4.25		34.377	27.265	87.9	1.254	0.24	3.3								806	200
900	CSL	4.07	4.00		34.436	27.338	81.6	1.338	0.34	4.7								907	200
1000	CSL	3.80	3.73		34.464	27.388	77.2	1.418	0.46	6.3								1008	200
1100	CSL	3.50	3.42		34.492	27.440	72.4	1.493	0.60	8.1								1109	200
1200	CSL	3.25	3.16		34.517	27.484	68.4	1.563	0.75	10.1								1211	200
1300	CSL	3.08	2.99		34.534	27.514	65.8	1.630	0.86	11.5								1312	200
1400	CSL	2.91	2.81		34.550	27.543	63.3	1.695	0.98	13.1								1413	200
1500	CSL	2.77	2.66		34.561	27.565	61.4	1.757	1.10	14.6								1515	200
1501		2.77	2.66		34.561	27.565	61.4	1.758	1.08	14.3	149.3	3.16	43.8	0.00	0.00			1516	204
1600	CSL	2.62	2.51		34.571	27.586	59.5	1.817	1.20	15.9								1616	200
1800	CSL	2.32	2.19		34.600	27.636	54.8	1.932	1.50	19.7								1819	200
2000	CSL	2.13	1.99		34.617	27.666	52.1	2.039	1.74	22.7								2022	200
2200	CSL	1.97	1.81		34.633	27.692	49.8	2.141	1.99	25.9								2225	200
2400	CSL	1.85	1.68		34.641	27.709	48.5	2.239	2.14	27.7								2429	200
2503		1.80	1.62		34.646	27.717	47.8	2.288	2.19	28.3	172.3	2.88	40.8	0.00	0.00			2534	203
2600	CSL	1.75	1.56		34.650	27.725	47.2	2.335	2.28	29.5								2633	200
2800	CSL	1.68	1.47		34.657	27.737	46.4	2.428	2.47	31.8								2837	200
3000	CSL	1.62	1.40		34.663	27.747	45.8	2.520	2.56	32.9								3041	200
3200	CSL	1.58	1.34		34.667	27.755	45.6	2.612	2.71	34.8								3245	200
3400	CSL	1.55	1.29		34.671	27.761	45.4	2.703	2.83	36.3								3449	200
3503		1.53	1.26		34.674	27.766	45.2	2.840	2.88	36.9	173.9	2.70	38.9	0.00	0.00			3555	201
3504		1.53	1.26		34.678	27.769	44.9	2.840	2.89	37.0	173.8	2.72	38.8	0.00	0.00			3556	202

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 49.5 N	123 54.4 W	14/08/10	1217 UTC	4488 m	230 11 kn			1012.8 mb	16.8 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.85	17.85		33.271	23.986	391.4	0.000	5.52	101.6	2.4	0.28	0.0	0.00	0.00	0.10	0.02	0	
2		17.85	17.85		33.271	23.986	391.5	0.008	5.52	101.6	2.4	0.28	0.0	0.00	0.00	0.10	0.02	2	220
10		17.81	17.81		33.277	24.000	390.3	0.039	5.53	101.7	2.4	0.28	0.0	0.00	0.00	0.10	0.02	10	219
20	ISL	17.64	17.64	D	33.271	24.037	387.2	0.078	5.55	101.7	2.4	0.29	0.0	0.00	0.03	0.12	0.03	20	
25		17.56	17.56		33.256	24.045	386.6	0.097	5.57	101.9	2.4	0.29	0.0	0.00	0.05	0.13	0.03	25	218
30	ISL	17.29	17.29	D	33.218	24.081	383.4	0.117	5.58	101.5	2.4	0.29	0.0	0.00	0.05	0.14	0.03	30	
41		17.00	16.99		33.160	24.105	381.4	0.159	5.67	102.5	2.4	0.29	0.0	0.00	0.04	0.15	0.04	41	217
50	ISL	16.43	16.42	D	33.337	24.373	356.1	0.192	5.85	104.7	2.4	0.25	0.0	0.00	0.04	0.14	0.08	50	
51		16.50	16.49		33.336	24.357	357.7	0.195	5.87	105.2	2.4	0.25	0.0	0.00	0.04	0.14	0.08	51	216
74		15.10	15.09		33.429	24.742	321.5	0.274	5.90	102.9	2.7	0.23	0.0	0.00	0.04	0.20	0.10	74	214
75	ISL	15.05	15.04	D	33.451	24.770	318.9	0.277	5.90	102.8	2.7	0.23	0.0	0.00	0.04	0.20	0.11	75	
87		14.47	14.46		33.398	24.854	311.2	0.315	5.84	100.6	2.8	0.25	0.0	0.00	0.00	0.19	0.21	87	213
100		13.94	13.93		33.392	24.961	301.4	0.354	5.65	96.2	3.3	0.33	0.6	0.17	0.00	0.20	0.24	100	212
112		12.87	12.85		33.313	25.115	286.8	0.390	5.48	91.2	4.7	0.50	3.3	0.08	0.00	0.13	0.22	112	211
125		11.63	11.61		33.271	25.319	267.5	0.426	5.33	86.4	7.1	0.75	7.0	0.02	0.00	0.08	0.17	126	210
140		10.89	10.87		33.344	25.509	249.6	0.464	5.11	81.6	9.5	0.90	10.0	0.01	0.00	0.05	0.08	141	209
150	ISL	10.21	10.19	D	33.352	25.633	237.8	0.489	4.95	77.9	11.9	1.05	12.5	0.01	0.00	0.03	0.05	151	
171		9.54	9.52		33.444	25.817	220.6	0.537	4.48	69.5	17.7	1.40	17.9	0.01	0.00	0.01	0.02	172	208
200		9.07	9.05		33.699	26.092	194.9	0.597	3.45	53.0	26.1	1.81	24.3	0.01	0.00	0.00	0.02	201	207
231		8.65	8.63		33.899	26.315	174.3	0.654	3.01	45.9	31.1	1.95	27.0	0.00	0.00			232	206
250	ISL	8.28	8.25	D	33.950	26.411	165.3	0.687	3.09	46.7	33.7	1.95	27.2	0.00	0.00			251	
270		7.86	7.83		33.968	26.488	158.1	0.719	3.17	47.5	36.7	1.95	27.5	0.00	0.00			271	205
300	ISL	7.38	7.35	D	33.977	26.564	151.1	0.765	2.58	38.2	43.0	2.18	30.6	0.00	0.00			302	
320		7.28	7.25		34.015	26.609	147.2	0.795	2.10	31.0	47.5	2.36	32.9	0.00	0.00			322	204
380		6.60	6.57		34.039	26.720	137.0	0.881	1.54	22.4	58.8	2.62	36.3	0.00	0.00			382	203
400	ISL	6.54	6.50	D	34.084	26.764	133.2	0.908	1.42	20.6	62.2	2.69	37.3	0.00	0.00			402	
442		5.97	5.93		34.063	26.821	127.8	0.962	1.19	17.1	69.1	2.81	39.0	0.00	0.00			445	202
500	ISL	5.44	5.40	D	34.108	26.922	118.5	1.034	0.83	11.8	77.8	2.96	40.8	0.00	0.00			503	
517		5.42	5.38		34.133	26.944	116.6	1.054	0.72	10.2	80.4	3.01	41.3	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 81.7 43.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
34 24.3 N	119 48.0 W	12/08/10	1128 UTC	20 m	240 03 kn			1011.2 mb	14.3 C	13.5 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	14.47	14.47	33.614	25.018	293.1	0.000	6.40	110.4	1.4	0.30	0.4	0.08	0.26	6.77	1.74	0	
1		14.47	14.47	33.614	25.018	293.1	0.003	6.40	110.4	1.4	0.30	0.4	0.08	0.26	6.77	1.74	1	204
5		14.45	14.45	33.614	25.022	292.8	0.015	6.38	110.0	1.4	0.30	0.5	0.08	0.26	7.45	1.91	5	203
10		14.31	14.31	33.613	25.052	290.2	0.029	6.23	107.1	2.0	0.36	1.2	0.11	0.38	8.90	2.22	10	202
15		13.78	13.78	33.609	25.159	280.1	0.043	5.64	95.9	5.0	0.61	3.4	0.23	1.15	8.51	2.93	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 16.7 N	120 1.5 W	12/08/10	1332 UTC	580 m	230 03 kn	270 03 04	1	1011.7 mb	14.9 C	13.8 C	05m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	14.69		14.69		33.619		24.975	297.1	0.000	6.37	110.3	0.2	0.17	0.0	0.02	0.00	7.10	0.74	0	
2	A	14.69		14.69		33.619		24.975	297.2	0.006	6.37	110.3	0.2	0.17	0.0	0.02	0.00	7.10	0.74	2	224
10		14.63		14.63		33.615		24.985	296.5	0.030	6.28	108.7	0.5	0.19	0.2	0.04	0.07	7.86	0.77	10	223
20		11.91		11.91		33.619		25.535	244.4	0.057	3.79	62.0	14.1	1.45	14.4	0.44	1.96	0.91	0.54	20	222
30		10.83		10.83		33.633		25.742	224.9	0.080	3.25	51.9	20.1	1.74	20.5	0.44	0.43	0.25	0.29	30	221
40		10.54		10.54		33.700		25.846	215.3	0.102	2.88	45.7	22.9	1.88	22.5	0.32	0.25	0.26	0.40	40	220
50		10.17		10.16		33.727		25.931	207.4	0.123	2.85	44.9	23.6	1.89	23.3	0.09	0.00	0.19	0.27	50	219
61		9.97		9.96		33.776		26.003	200.7	0.146	2.72	42.7	25.3	1.91	24.5	0.04	0.00	0.25	0.30	61	218
70		9.81		9.80		33.887		26.116	190.1	0.163	2.37	37.1	28.5	2.05	25.8	0.07	0.25	0.29	0.35	70	217
75	ISL	9.74	D	9.73		33.919	D	26.153	186.8	0.173	2.26	35.3	29.5	2.10	26.2	0.06	0.20	0.28	0.32	75	
85		9.65		9.64		33.965		26.204	182.1	0.191	2.13	33.2	30.7	2.15	26.8	0.04	0.00	0.22	0.25	85	216
100		9.53		9.52		34.002		26.253	177.8	0.218	2.04	31.7	31.7	2.14	27.5	0.03	0.00	0.15	0.25	101	215
120		9.48		9.47		34.022		26.277	175.9	0.254	1.94	30.2	32.5	2.19	27.6	0.03	0.00	0.09	0.20	121	214
125	ISL	9.46	D	9.45		34.046	D	26.300	173.9	0.262	1.92	29.8	32.9	2.21	27.7	0.03	0.00	0.09	0.20	126	
140		9.38		9.36		34.068		26.330	171.3	0.288	1.85	28.7	34.3	2.26	28.2	0.03	0.00	0.08	0.19	141	213
150	ISL	9.36	D	9.34		34.077	D	26.341	170.5	0.305	1.74	27.0	35.1	2.30	28.5	0.03	0.00	0.06	0.19	151	
170		9.34		9.32		34.116		26.375	167.7	0.339	1.52	23.6	36.5	2.37	29.1	0.04	0.00	0.04	0.18	171	212
200		9.19		9.17		34.143		26.421	163.9	0.389	1.42	21.9	38.2	2.40	29.8	0.02	0.00	0.06	0.18	201	211
230		9.01		8.99		34.168		26.469	159.8	0.437	1.33	20.5	40.3	2.46	30.5	0.04	0.33			231	210
250	ISL	8.93	D	8.90		34.211	D	26.516	155.8	0.469	1.13	17.4	43.3	2.57	31.4	0.03	0.21			252	
271		8.67		8.64		34.204		26.552	152.7	0.501	0.89	13.6	47.0	2.69	32.5	0.01	0.00			273	209
300	ISL	8.27	D	8.24		34.201	D	26.611	147.4	0.545	0.71	10.7	51.6	2.69	33.9	0.01	0.00			302	
320		8.00		7.97		34.192		26.644	144.4	0.574	0.62	9.3	54.9	2.69	34.7	0.01	0.00			322	208
380		7.40		7.36		34.214		26.749	135.1	0.658	0.44	6.5	65.4	3.04	35.0	0.01	0.00			383	207
400	ISL	7.26	D	7.22		34.226	D	26.779	132.5	0.685	0.39	5.8	69.4	3.06	34.7	0.01	0.00			403	
441		6.88		6.84		34.235		26.839	127.2	0.738	0.26	3.8	79.3	3.13	34.1	0.01	0.00			444	206
481		6.67		6.63		34.246		26.876	124.0	0.788	0.09	1.3	92.6	3.42	29.7	0.00	0.00			484	205
500	ISL	6.57	D	6.52		34.248	D	26.891	122.8	0.812	0.07	1.0	97.6	3.55	28.3	0.00	0.00			504	
515		6.56		6.51		34.245		26.890	123.1	0.830	0.06	0.9	101.0	3.65	27.3	0.00	0.00			519	204
540		6.55		6.50		34.247		26.893	123.2	0.861	0.03	0.4	105.8	3.80	25.7	0.01	0.00			544	203
563		6.55		6.50		34.248		26.894	123.4	0.889	0.02	0.3	107.0	3.90	25.0	0.03	0.17			567	202
568		6.55		6.50		34.251		26.897	123.3	0.895	0.02	0.3	107.3	3.89	24.9	0.04	0.22			572	201

A) SANTA BARBARA BASIN STATION.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 83.3 39.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
34 15.5 N	119 19.4 W	12/08/10	0827 UTC	23 m	030 04 kn			1011.9 mb	15.1 C	13.9 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	14.78	14.78	33.585	24.929	301.5	0.000	5.45	94.6	6.7	0.50	2.7	0.19	1.03	3.74	1.20	0	
2		14.78	14.78	33.585	24.930	301.6	0.006	5.45	94.6	6.7	0.50	2.7	0.19	1.03	3.74	1.20	2	205
5		14.49	14.49	33.578	24.986	296.2	0.015	5.27	90.9	7.0	0.57	3.3	0.21	1.21	5.51	1.48	5	204
10		13.53	13.53	33.588	25.194	276.6	0.029	5.68	96.1	4.8	0.45	2.9	0.15	0.53	7.75	1.45	10	202
10		13.54	13.54	33.588	25.192	276.8	0.029										10	203
19		12.62	12.62	33.553	25.348	262.2	0.054	4.46	74.0	10.0	1.01	8.8	0.34	1.78	6.96	1.75	19	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 83.3 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT TYPE
34 13.5 N	119 24.7 W	12/08/10	0646 UTC	37 m	140 07 kn			1011.9 mb	15.8 C	14.1 C		

DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.44	15.44	33.590	24.789	314.8	0.000	6.56	115.4	0.8	0.20	0.1	0.02	0.00	4.79	0.65	0	
2		15.44	15.44	33.590	24.789	314.9	0.006	6.56	115.3	0.8	0.20	0.1	0.02	0.00	4.79	0.65	2	206
5		15.44	15.44	33.588	24.788	315.1	0.016	6.59	115.9	0.8	0.18	0.1	0.02	0.00	4.32	0.54	5	205
10		15.39	15.39	33.587	24.798	314.3	0.031	6.58	115.6	0.8	0.22	0.0	0.02	0.00	4.69	0.52	10	203
10		15.43	15.43	33.587	24.790	315.1	0.031										10	204
20		13.10	13.10	33.549	25.250	271.5	0.061	4.90	82.1	8.2	0.96	8.8	0.27	0.96	2.89	0.82	20	202
30		12.25	12.25	33.538	25.408	256.8	0.087	4.19	69.0	12.4	1.28	12.0	0.36	1.63	1.57	0.71	30	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 30.5 W	12/08/10	0433 UTC	134 m	190 17 kn			1011.3 mb	15.4 C	14.1 C			

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.53		15.53		33.602		24.779	315.8	0.000	6.59	116.1	0.3	0.16	0.0	0.01	0.00	3.91	0.41	0	
2		15.53		15.53		33.602		24.779	315.9	0.006	6.59	116.1	0.3	0.16	0.0	0.01	0.00	3.91	0.41	2	212
10		15.44		15.44		33.601		24.798	314.3	0.032	6.59	115.9	0.3	0.16	0.0	0.01	0.00	3.90	0.51	10	210
10		15.50		15.50		33.600		24.784	315.6	0.032										10	211
20		14.50		14.50		33.595		24.998	295.6	0.062	5.89	101.6	2.5	0.44	2.7	0.10	0.44	7.33	0.65	20	209
30		12.36		12.36		33.615		25.446	253.1	0.090	4.26	70.3	12.5	1.19	12.3	0.27	1.10	1.23	0.67	30	208
40		11.38		11.38		33.680		25.680	231.0	0.114	3.52	56.9	19.2	1.55	17.6	0.23	0.71	0.53	0.57	40	207
50		10.55		10.54		33.739		25.875	212.8	0.136	2.93	46.6	24.4	1.84	21.8	0.23	0.40	0.26	0.46	50	206
60		10.06		10.05		33.771		25.984	202.6	0.157	2.66	41.8	24.4	1.94	24.4	0.02	0.00	0.11	0.19	60	205
70		9.83		9.82		33.906		26.128	189.1	0.176	2.42	37.9	28.0	2.04	25.7	0.04	0.00	0.08	0.16	70	204
75	ISL	9.73	D	9.72		33.967	D	26.192	183.0	0.186	2.32	36.3	29.0	2.08	26.2	0.04	0.00	0.07	0.15	75	
85		9.66		9.65		33.988		26.221	180.6	0.204	2.14	33.4	30.4	2.14	26.9	0.03	0.00	0.05	0.15	85	203
100		9.47		9.46		34.046		26.297	173.6	0.230	1.97	30.6	32.8	2.22	27.7	0.03	0.00	0.04	0.13	101	202
125	ISL	9.35	D	9.34		34.081	D	26.345	169.6	0.273	1.85	28.7	34.5	2.27	28.2	0.03	0.00	0.04	0.18	126	
126		9.35		9.34		34.081		26.345	169.6	0.275	1.85	28.7	34.6	2.27	28.2	0.03	0.00	0.04	0.18	127	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 8.2 W	11/08/10	2239 UTC	104 m	230 21 kn	280 02 06	1	1013.3 mb	16.2 C	14.9 C	08m	4/8	ST

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.26		15.26		33.535		24.787	315.1	0.000	6.14	107.5	2.9	0.43	1.4	0.07	0.22	3.68	0.18	0	
2		15.26		15.26		33.535		24.787	315.1	0.006	6.14	107.5	2.9	0.43	1.4	0.07	0.22	3.68	0.18	2	211
10		15.27		15.27		33.534		24.784	315.6	0.032	6.14	107.6	2.7	0.41	1.3	0.06	0.25	3.49	0.09	10	209
10		15.27		15.27		33.534		24.784	315.6	0.032										10	210
20		14.68		14.68		33.546		24.922	302.8	0.062	5.91	102.3	3.8	0.53	2.8	0.10	0.34	3.53	0.58	20	208
30		14.17		14.17		33.552		25.034	292.4	0.092	5.63	96.5	5.1	0.63	4.5	0.14	0.51	3.43	0.45	30	207
40		13.53		13.52		33.553		25.167	280.0	0.121	5.22	88.3	6.8	0.81	6.7	0.20	0.75	2.25	0.43	40	206
50		11.97		11.96		33.608		25.515	247.0	0.147	4.19	68.6	14.4	1.30	14.0	0.25	0.57	0.96	0.40	50	205
60		11.74		11.73		33.637		25.581	241.0	0.172	4.00	65.2	16.2	1.38	15.3	0.23	0.63	0.95	0.60	60	204
75	ISL	10.01	D	10.00		33.895	D	26.089	192.9	0.204	2.60	40.9	27.9	1.97	23.9	0.14	0.20	0.32	0.42	75	
76		10.04		10.03		33.882		26.074	194.3	0.206	2.51	39.5	28.6	2.01	24.4	0.13	0.17	0.28	0.40	76	203
84		10.05		10.04		33.893		26.081	193.8	0.222	2.50	39.3	29.0	2.01	24.5	0.13	0.20	0.28	0.44	84	202
95		10.08		10.07		33.880		26.066	195.5	0.243	2.54	40.0	28.5	1.99	24.2	0.14	0.23	0.33	0.40	95	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 24.6 W	11/08/10	1830 UTC	988 m	270 10 kn	310 03 04	2	1015.7 mb	15.7 C	13.5 C	09m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.70		15.70		33.528		24.684	324.9	0.000	5.81	102.7	2.2	0.44	2.1	0.10	0.07	1.33	0.42	0	
2		15.70		15.70		33.528		24.684	324.9	0.006	5.81	102.7	2.2	0.44	2.1	0.10	0.07	1.33	0.42	2	223
6		15.22		15.22		33.527		24.789	315.0	0.019	5.78	101.1	2.6	0.48	2.8	0.11	0.09	1.57	0.46	6	222
10	ISL	14.64	D	14.64		33.540	D	24.925	302.2	0.032	5.74	99.3	3.4	0.54	3.6	0.12	0.15	2.62	0.39	10	
12		14.57		14.57		33.537		24.938	301.1	0.038	5.71	98.6	3.8	0.58	4.1	0.13	0.17	3.09	0.37	12	220
12		14.57		14.57		33.536		24.937	301.1	0.038										12	221
19		14.15		14.15		33.539		25.028	292.7	0.058	5.49	94.0	5.2	0.70	5.7	0.15	0.14	2.33	0.82	19	219
20	ISL	14.02	D	14.02		33.545	D	25.060	289.6	0.061	5.45	93.1	5.4	0.71	5.9	0.16	0.14	2.29	0.80	20	
23		13.76		13.76		33.536		25.107	285.3	0.070	5.28	89.7	6.5	0.78	7.1	0.17	0.12	2.18	0.70	23	218
30	ISL	11.21	D	11.21		33.578	D	25.632	235.4	0.088	4.18	67.3	14.1	1.31	15.3	0.18	0.06	1.24	0.57	30	
33		10.92		10.92		33.591		25.694	229.5	0.095	3.67	58.7	17.7	1.56	19.1	0.18	0.04	0.79	0.52	33	217
42		10.31		10.31		33.671		25.863	213.7	0.115	3.10	49.0	22.0	1.78	22.5	0.05	0.00	0.26	0.33	42	216
50		10.15		10.14		33.721		25.929	207.5	0.132	2.88	45.4	23.7	1.87	23.6	0.04	0.00	0.13	0.26	50	215
60		10.01		10.00		33.786		26.004	200.6	0.152	2.67	41.9	25.6	1.95	24.7	0.03	0.00	0.09	0.19	60	214
70		9.78		9.77		33.864		26.104	191.4	0.172	2.44	38.1	28.0	2.04	25.8	0.03	0.05	0.04	0.14	70	213
75	ISL	9.66	D	9.65		33.884	D	26.139	188.1	0.181	2.47	38.5	28.7	2.04	26.1	0.03	0.04	0.04	0.14	75	
85		9.43		9.42		33.888		26.180	184.4	0.200	2.56	39.7	29.8	2.05	26.5	0.02	0.00	0.03	0.13	85	212
99		9.31		9.30		33.941		26.241	178.8	0.226	2.36	36.5	31.4	2.13	27.4	0.01	0.00	0.03	0.13	100	211
100	ISL	9.33	D	9.32		33.954	D	26.248	178.2	0.227	2.34	36.2	31.5	2.14	27.4	0.01	0.00	0.03	0.13	101	
119		9.35		9.34		34.034		26.308	172.9	0.261	1.99	30.8	33.6	2.24	28.0	0.02	0.00	0.02	0.11	120	210
125	ISL	9.30	D	9.29		34.061	D	26.337	170.3	0.271	1.94	30.0	34.2	2.27	28.2	0.02	0.00	0.02	0.11	126	
140		9.16		9.14		34.082		26.376	166.8	0.296	1.85	28.6	35.6	2.32	28.9	0.02	0.00	0.03	0.11	141	209
150	ISL	8.98	D	8.96		34.092	D	26.413	163.5	0.313	1.77	27.2	36.8	2.35	29.4	0.02	0.00	0.03	0.11	151	
170		8.89		8.87		34.145		26.469	158.6	0.345	1.57	24.1	39.5	2.42	30.3	0.01	0.00	0.02	0.11	171	208
200		8.73		8.71		34.209		26.545	151.9	0.392	1.18	18.1	43.5	2.56	31.4	0.01	0.00	0.01	0.12	201	207
230		8.62		8.60		34.221		26.572	149.9	0.437	1.07	16.3	45.0	2.63	32.0	0.02	0.00			231	206
250	ISL	8.29	D	8.26		34.219	D	26.621	145.5	0.466	1.00	15.1	47.0	2.67	32.6	0.02	0.00			252	
270		8.16		8.13		34.222		26.643	143.7	0.495	0.96	14.5	49.4	2.71	33.4	0.02	0.00			272	205
300	ISL	7.69	D	7.66		34.181	D	26.681	140.4	0.538	1.09	16.3	52.6	2.72	34.7	0.02	0.00			302	
320		7.26		7.23		34.123		26.696	138.9	0.566	1.18	17.4	54.9	2.72	35.5	0.02	0.00			322	204
380		6.70		6.67		34.131		26.780	131.6	0.647	0.96	14.0	62.7	2.86	37.5	0.02	0.00			383	203
400	ISL	6.42	D	6.38		34.124	D	26.811	128.6	0.673	0.88	12.8	65.7	2.91	38.2	0.02	0.00			403	
440		6.16		6.12		34.159		26.873	123.1	0.723	0.73	10.5	71.5	3.01	39.5	0.01	0.00			443	202
500	ISL	5.75	D	5.71		34.192	D	26.951	116.2	0.795	0.58	8.3	78.3	3.10	40.7	0.01	0.00			504	
518		5.70		5.66		34.189		26.955	116.0	0.816	0.53	7.6	80.4	3.13	41.0	0.01	0.00			522	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 35.0 N	120 45.4 W	11/08/10	1406 UTC	1490 m	270 12 kn	330 03 05	2	1014.3 mb	15.3 C	13.1 C	11m	8/8	SC

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.13		15.13		33.555		24.830	310.9	0.000	6.13	107.1	0.1	0.20	0.0	0.01	0.00	3.36	0.25	0	
2		15.13		15.13		33.555		24.831	311.0	0.006	6.13	107.1	0.1	0.20	0.0	0.01	0.00	3.36	0.25	2	221
10		15.13		15.13		33.546		24.824	311.8	0.031	6.14	107.3	0.0	0.18	0.0	0.01	0.00	3.57	0.34	10	219
10		15.13		15.13		33.555		24.831	311.2	0.031										10	220
20		14.57		14.57		33.581		24.972	298.0	0.062	5.43	93.8	2.2	0.55	4.0	0.14	0.81	3.04	0.61	20	218
30		13.75		13.75		33.607		25.164	280.0	0.090	4.92	83.6	5.5	0.88	7.9	0.25	1.29	0.88	0.51	30	217
40		13.24		13.23		33.631		25.286	268.6	0.118	4.62	77.7	7.5	1.06	10.3	0.29	1.41	0.49	0.39	40	216
50		11.69		11.68		33.674		25.619	237.1	0.143	3.90	63.5	14.9	1.45	16.7	0.32	0.71	0.40	0.41	50	215
60		10.05		10.04		33.775		25.989	202.1	0.165	2.99	47.0	24.9	1.86	24.1	0.09	0.00	0.15	0.25	60	214
70		9.95		9.94		33.784		26.013	200.0	0.185	2.94	46.1	25.5	1.89	24.4	0.07	0.00	0.15	0.21	70	213
75	ISL	9.64	D	9.63		33.852	D	26.117	190.1	0.195	2.87	44.7	26.3	1.93	24.8	0.06	0.00	0.12	0.18	75	
86		9.56		9.55		33.860		26.137	188.5	0.216	2.65	41.2	28.6	2.02	26.1	0.04	0.00	0.05	0.13	86	212
100		9.23		9.22		33.942		26.255	177.5	0.241	2.36	36.5	32.2	2.12	27.7	0.02	0.00	0.02	0.12	101	211
120		8.99		8.98		33.991		26.332	170.6	0.276	2.22	34.1	33.9	2.18	28.5	0.02	0.00	0.01	0.08	121	210
125	ISL	8.98	D	8.97		33.999	D	26.340	169.9	0.285	2.19	33.7	34.5	2.20	28.7	0.02	0.00	0.01	0.08	126	
141		8.76		8.75		34.036		26.404	164.1	0.312	2.09	32.0	36.7	2.25	29.3	0.01	0.00	0.01	0.09	142	209
150	ISL	8.61	D	8.59		34.054	D	26.441	160.7	0.326	2.03	30.9	37.6	2.27	29.7	0.01	0.00	0.01	0.10	151	
171		8.50		8.48		34.058		26.462	159.1	0.360	1.89	28.7	39.7	2.32	30.6	0.01	0.00	0.01	0.11	172	208
200	ISL	8.18	D	8.16		34.110	D	26.551	151.1	0.405	1.64	24.8	44.0	2.45	32.0	0.01	0.00	0.01	0.05	201	
201		8.18		8.16		34.105		26.547	151.5	0.406	1.63	24.6	44.1	2.45	32.0	0.01	0.00	0.01	0.05	202	207
230		8.05		8.03		34.151		26.603	146.6	0.449	1.43	21.5	46.3	2.53	32.7	0.03	0.00			231	206
250	ISL	8.00	D	7.97		34.182	D	26.635	144.0	0.479	1.29	19.4	47.8	2.58	33.1	0.04	0.00			252	
270		7.95		7.92		34.191		26.650	142.9	0.507	1.15	17.3	49.4	2.64	33.5	0.06	0.00			272	205
300	ISL	7.76	D	7.73		34.215	D	26.697	138.9	0.549	0.95	14.2	52.4	2.73	34.3	0.15	0.00			302	
320		7.68		7.65		34.223		26.715	137.5	0.577	0.84	12.5	54.4	2.79	34.9	0.20	0.00			322	204
380		7.31		7.27		34.235		26.778	132.2	0.658	0.70	10.4	59.4	2.87	36.3	0.08	0.00			383	203
400	ISL	7.08	D	7.04		34.251	D	26.823	128.1	0.684	0.65	9.6	62.1	2.91	36.8	0.05	0.00			403	
440		6.81		6.77		34.263		26.870	124.1	0.735	0.54	7.9	67.8	3.00	37.9	0.00	0.00			443	202
500	ISL	6.50	D	6.45		34.294	D	26.936	118.5	0.807	0.39	5.7	74.5	3.08	39.0	0.00	0.00			504	
516		6.35		6.30		34.300		26.961	116.2	0.826	0.35	5.1	76.3	3.10	39.3	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 26.9 W	11/08/10	0737 UTC	3807 m	250 13 kn			1014.2 mb	15.9 C	13.8 C			

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.86		15.86		33.060		24.288	362.6	0.000	5.92	104.6	2.2	0.36	0.0	0.01	0.00	0.34	0.07	0	
2		15.86		15.86		33.060		24.288	362.6	0.007	5.92	104.6	2.2	0.36	0.0	0.01	0.00	0.34	0.07	2	221
10		15.84		15.84		33.062		24.294	362.3	0.036	5.93	104.8	2.2	0.36	0.0	0.01	0.00	0.36	0.07	10	219
10		15.84		15.84		33.059		24.292	362.5	0.036										10	220
20		15.64		15.64		33.063		24.340	358.2	0.072	6.03	106.1	2.1	0.38	0.3	0.03	0.05	0.62	0.11	20	218
30	ISL	13.88	D	13.88		33.080	D	24.730	321.3	0.106	6.32	107.3	5.8	0.60	3.4	0.15	0.06	0.82	0.16	30	
31		13.89		13.89		33.086		24.733	321.1	0.109	6.34	107.7	6.2	0.62	3.7	0.16	0.06	0.83	0.17	31	217
40		13.15		13.14		33.059		24.862	309.0	0.138	6.17	103.2	7.1	0.68	4.8	0.26	0.07	0.68	0.23	40	216
50		12.11		12.10		33.065		25.068	289.6	0.168	5.95	97.4	8.4	0.86	7.3	0.42	0.22	0.62	0.22	50	215
61		11.41		11.40		33.103		25.227	274.6	0.199	5.53	89.2	10.1	1.05	10.8	0.22	0.00	0.38	0.19	61	214
71		10.55		10.54		33.227		25.476	251.1	0.225	5.15	81.6	14.9	1.32	15.6	0.04	0.00	0.19	0.15	71	213
75	ISL	10.34	D	10.33		33.274	D	25.549	244.2	0.235	4.98	78.5	15.7	1.38	16.7	0.03	0.00	0.15	0.13	75	
85		10.20		10.19		33.394		25.666	233.2	0.259	4.53	71.3	17.2	1.49	18.8	0.01	0.00	0.08	0.08	85	212
100		9.52		9.51		33.548		25.900	211.3	0.292	3.81	59.1	21.6	1.71	22.4	0.01	0.00	0.01	0.05	100	211
121		9.32		9.31		33.807		26.135	189.3	0.334	2.84	43.9	27.4	1.98	26.5	0.00	0.00	0.01	0.04	122	210
125	ISL	9.16	D	9.15		33.828	D	26.177	185.4	0.342	2.77	42.7	28.3	2.01	27.0	0.00	0.00	0.01	0.04	126	
140		8.89		8.88		33.916		26.289	175.0	0.369	2.60	39.9	31.2	2.09	28.4	0.00	0.00	0.00	0.04	141	209
150	ISL	8.85	D	8.83		33.951	D	26.323	172.0	0.386	2.44	37.4	32.8	2.13	29.1	0.00	0.00	0.00	0.04	151	
171		8.67		8.65		34.022		26.407	164.4	0.421	2.14	32.7	35.5	2.19	30.0	0.00	0.00	0.01	0.04	172	208
200		8.25		8.23		34.042		26.487	157.1	0.468	2.00	30.2	38.5	2.28	30.9	0.00	0.00	0.00	0.03	201	207
231		7.82		7.80		34.051		26.559	150.8	0.516	2.02	30.2	42.4	2.33	31.6	0.01	0.00			232	206
250	ISL	7.50	D	7.48		34.067	D	26.618	145.4	0.544	1.87	27.8	46.1	2.41	32.9	0.01	0.00			251	
270		7.15		7.12		34.057		26.659	141.6	0.573	1.65	24.3	50.2	2.51	34.5	0.00	0.00			272	205
300	ISL	6.89	D	6.86		34.089	D	26.720	136.1	0.614	1.36	19.9	55.1	2.64	36.0	0.00	0.00			302	
320		6.73		6.70		34.100		26.751	133.4	0.641	1.18	17.2	58.0	2.72	36.7	0.00	0.00			322	204
381		6.36		6.33		34.171		26.856	124.1	0.720	0.77	11.1	66.2	2.94	38.6	0.00	0.00			383	203
400	ISL	6.17	D	6.13		34.186	D	26.892	120.7	0.743	0.69	9.9	68.6	2.98	39.1	0.00	0.00			403	
441		5.96		5.92		34.208		26.937	116.9	0.792	0.56	8.0	73.6	3.04	40.1	0.00	0.00			444	202
500	ISL	5.68	D	5.64		34.254	D	27.008	110.7	0.859	0.37	5.3	79.6	3.15	41.1	0.00	0.00			503	
518		5.66		5.62		34.285		27.036	108.3	0.879	0.31	4.4	81.4	3.18	41.4	0.00	0.00			522	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 54.6 N	122 7.9 W	11/08/10	0019 UTC	4184 m	260 08 kn	320 03 07	2	1014.2 mb	17.0 C	14.9 C	10m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.05	16.05		33.125	24.295	361.9	0.000	5.97	106.0	0.8	0.39	0.0	0.01	0.07	0.73	0.10	0	
2		16.05	16.05		33.125	24.295	362.0	0.007	5.97	106.0	0.8	0.39	0.0	0.01	0.07	0.73	0.10	2	221
10		15.99	15.99		33.151	24.329	359.0	0.036	5.95	105.5	0.8	0.39	0.0	0.01	0.06	0.69	0.09	10	219
10		16.00	16.00		33.158	24.332	358.7	0.036										10	220
20	ISL	15.26	D 15.26		33.228	D 24.551	338.1	0.071	6.10	106.6	1.8	0.47	1.2	0.07	0.13	0.75	0.13	20	
21		15.24	15.24		33.238	24.563	337.0	0.074	6.11	106.8	1.9	0.49	1.3	0.08	0.14	0.76	0.13	21	218
30	ISL	13.69	D 13.69		33.200	D 24.862	308.8	0.103	6.06	102.6	6.4	0.75	5.2	0.22	0.20	0.90	0.25	30	
31		13.63	13.63		33.203	24.876	307.4	0.106	6.05	102.3	7.0	0.78	5.7	0.24	0.21	0.91	0.26	31	217
41		12.50	12.49		33.272	25.154	281.2	0.136	5.78	95.5	11.9	1.03	9.4	0.32	0.67	0.54	0.30	41	216
50		11.21	11.20		33.219	25.353	262.4	0.160	5.38	86.4	13.2	1.18	12.4	0.53	0.39	0.25	0.18	50	215
61		10.21	10.20		33.322	25.608	238.3	0.188	4.83	76.0	17.6	1.45	17.9	0.04	0.04	0.21	0.14	61	214
71		10.10	10.09		33.496	25.763	223.8	0.211	4.29	67.4	19.9	1.62	20.7	0.03	0.00	0.08	0.09	71	213
75	ISL	9.85	D 9.84		33.541	D 25.840	216.5	0.220	4.11	64.2	20.9	1.68	21.6	0.03	0.00	0.09	0.10	75	
85		9.52	9.51		33.579	25.924	208.7	0.241	3.72	57.7	23.7	1.80	23.5	0.03	0.00	0.10	0.12	85	212
100		9.23	9.22		33.698	26.064	195.6	0.271	3.15	48.6	28.1	1.98	26.5	0.02	0.00	0.05	0.10	100	211
120		8.95	8.94		33.845	26.224	180.8	0.309	2.55	39.1	32.2	2.14	28.9	0.01	0.00	0.04	0.09	121	210
125	ISL	8.94	D 8.93		33.878	D 26.251	178.3	0.318	2.44	37.4	32.9	2.17	29.3	0.01	0.00	0.03	0.09	126	
141		8.78	8.77		33.945	26.329	171.2	0.346	2.18	33.3	34.6	2.22	30.1	0.01	0.00	0.02	0.09	142	209
150	ISL	8.59	D 8.57		33.969	D 26.378	166.7	0.361	2.15	32.7	35.7	2.23	30.4	0.01	0.02	0.02	0.09	151	
171		8.23	8.21		34.006	26.462	159.0	0.395	2.09	31.6	38.4	2.26	31.0	0.02	0.06	0.02	0.07	172	208
200	ISL	7.94	D 7.92		34.030	D 26.524	153.5	0.441	1.91	28.7	42.0	2.35	32.1	0.01	0.00	0.01	0.05	201	
201		7.94	7.92		34.033	26.526	153.3	0.442	1.90	28.5	42.1	2.35	32.1	0.01	0.00	0.01	0.05	202	207
231		7.76	7.74		34.080	26.590	147.8	0.487	1.67	25.0	46.0	2.45	32.9	0.01	0.00			232	206
250	ISL	7.53	D 7.51		34.100	D 26.639	143.3	0.515	1.48	22.0	49.3	2.54	33.9	0.01	0.00			251	
271		7.33	7.30		34.114	26.679	139.8	0.545	1.27	18.8	52.9	2.63	35.0	0.01	0.00			273	205
300	ISL	7.07	D 7.04		34.129	D 26.727	135.6	0.585	1.11	16.3	56.8	2.72	36.1	0.01	0.00			302	
321		6.89	6.86		34.132	26.754	133.2	0.613	1.02	15.0	59.3	2.77	36.8	0.01	0.00			323	204
381		6.58	6.55		34.202	26.852	124.7	0.690	0.64	9.3	66.8	2.94	38.2	0.01	0.00			383	203
400	ISL	6.49	D 6.45		34.214	D 26.873	122.9	0.714	0.60	8.7	69.3	2.97	38.7	0.01	0.00			403	
441		6.03	5.99		34.199	26.921	118.5	0.763	0.55	7.9	74.6	3.03	39.7	0.01	0.00			444	202
500	ISL	5.67	D 5.63		34.240	D 26.999	111.6	0.831	0.38	5.4	82.2	3.12	41.0	0.00	0.00			503	
516		5.60	5.56		34.256	27.020	109.7	0.849	0.33	4.7	84.2	3.15	41.3	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 34.7 N	122 48.9 W	10/08/10	1743 UTC	4280 m	270 10 kn	330 03 07	2	1015.4 mb	16.0 C	14.1 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.95	16.95		33.184	24.134	377.3	0.000	5.62	101.6	2.4	0.32	0.1	0.00	0.00	0.11	0.03	0	
2		16.95	16.95		33.184	24.134	377.4	0.008	5.62	101.6	2.4	0.32	0.1	0.00	0.00	0.11	0.03	2	224
10		16.95	16.95		33.182	24.132	377.7	0.038	5.61	101.4	2.4	0.32	0.0	0.00	0.00	0.12	0.03	10	222
10		16.95	16.95		33.185	24.135	377.5	0.038										10	223
17		16.95	16.95		33.182	24.133	377.9	0.064	5.60	101.2	2.4	0.32	0.0	0.00	0.00	0.12	0.03	17	221
20	ISL	16.95	D 16.95		33.183	D 24.134	378.0	0.076	5.60	101.2	2.4	0.32	0.0	0.00	0.00	0.12	0.03	20	
27		16.95	16.95		33.181	24.132	378.3	0.102	5.61	101.4	2.4	0.32	0.0	0.00	0.00	0.14	0.03	27	220
30	ISL	16.94	D 16.94		33.183	D 24.136	378.0	0.113	5.63	101.7	2.4	0.32	0.0	0.00	0.00	0.16	0.04	30	
37		16.70	16.69		33.178	24.189	373.3	0.140	5.66	101.8	2.4	0.31	0.0	0.00	0.00	0.19	0.05	37	219
45		15.47	15.46		33.180	24.469	346.8	0.168	5.96	104.6	2.5	0.28	0.0	0.00	0.00	0.20	0.06	45	218
50	ISL	15.35	D 15.34		33.246	D 24.546	339.5	0.186	5.96	104.4	2.5	0.27	0.0	0.00	0.00	0.21	0.05	50	
55		15.25	15.24		33.245	24.567	337.6	0.203	5.96	104.2	2.4	0.26	0.0	0.00	0.00	0.21	0.05	55	217
63		15.17	15.16		33.290	24.620	332.9	0.229	5.91	103.2	2.5	0.25	0.0	0.00	0.00	0.21	0.07	63	216
70		14.86	14.85		33.301	24.696	325.8	0.252	5.85	101.5	2.6	0.26	0.0	0.00	0.00	0.19	0.10	70	215
75	ISL	14.69	D 14.68		33.332	D 24.756	320.2	0.269	5.83	100.8	2.6	0.25	0.0	0.00	0.00	0.21	0.14	75	
80		14.54	14.53		33.316	24.776	318.5	0.285	5.82	100.3	2.7	0.25	0.0	0.00	0.00	0.25	0.18	80	214
90		13.89	13.88		33.280	24.884	308.4	0.316	5.74	97.6	3.1	0.30	0.2	0.10	0.00	0.31	0.16	90	213
100		13.41	13.40		33.266	24.971	300.3	0.346	5.64	94.9	3.6	0.37	1.1	0.15	0.00	0.25	0.17	100	212
112		11.88	11.87		33.205	25.221	276.5	0.381	5.40	88.0	6.1	0.66	5.7	0.03	0.00	0.13	0.11	112	211
125		10.98	10.96		33.210	25.388	260.7	0.416	5.25	83.9	8.3	0.84	8.8	0.01	0.00	0.09	0.09	126	210
146		10.34	10.32		33.507	25.732	228.4	0.467	3.79	59.8	19.0	1.59	20.3	0.00	0.00	0.01	0.03	147	209
150	ISL	10.23	D 10.21		33.624	D 25.842	218.0	0.476	3.58	56.4	20.3	1.66	21.4	0.00	0.00	0.01	0.03	151	
170		9.91	9.89		33.745	25.991	204.3	0.518	2.84	44.5	25.0	1.88	24.5	0.00	0.00	0.00	0.02	171	208
200	ISL	9.52	D 9.50		33.880	D 26.161	188.6	0.577	2.49	38.7	29.0	2.03	26.9	0.00	0.00	0.00	0.02	201	
201		9.48	9.46		33.871	26.161	188.6	0.579	2.49	38.7	29.1	2.03	26.9	0.00	0.00	0.00	0.02	202	207
230		9.23	9.20		34.000	26.303	175.7	0.632	2.05	31.7	33.1	2.18	28.5	0.00	0.00			231	206
250	ISL	8.94	D 8.91		34.042	D 26.382	168.4	0.666	1.94	29.8	35.3	2.24	29.3	0.00	0.00			251	
270		8.73	8.70		34.058	26.428	164.4	0.700	1.90	29.0	37.4	2.29	30.1	0.00	0.00			271	205
300	ISL	8.16	D 8.13		34.068	D 26.523	155.6	0.748	1.84	27.8	41.6	2.37	31.5	0.00	0.00			302	
321		7.91	7.88		34.074	26.565	151.8	0.780	1.77	26.6	44.9	2.43	32.6	0.00	0.00			323	204
381		7.03	6.99		34.095	26.707	138.7	0.867	1.28	18.8	56.1	2.68	36.0	0.00	0.00			383	203
400	ISL	6.84	D 6.80		34.120	D 26.753	134.6	0.893	1.11	16.2	59.1	2.76	36.8	0.00	0.00			402	
440		6.66	6.62		34.166	26.813	129.3	0.946	0.78	11.4	65.0	2.91	38.1	0.00	0.00			443	202
500	ISL	6.18	D 6.14		34.213	D 26.914	120.2	1.021	0.57	8.2	73.5	3.04	39.7	0.00	0.00			503	
521		6.01	5.96		34.212	26.935	118.3	1.046	0.49	7.0	76.5	3.08	40.3	0.00	0.00			524	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 14.7 N	123 29.5 W	10/08/10	1130 UTC	4169 m	270 11 kn			1013.7 mb	16.1 C	14.3 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.85		17.85		33.284		23.996	390.5	0.000	5.52	101.6	2.3	0.31	0.0	0.00	0.00	0.08	0.02	0	
2		17.85		17.85		33.284		23.996	390.5	0.008	5.52	101.6	2.3	0.31	0.0	0.00	0.00	0.08	0.02	2	221
10		17.85		17.85		33.282		23.995	390.9	0.039	5.53	101.8	2.3	0.30	0.0	0.00	0.00	0.09	0.02	10	219
10		17.85		17.85		33.282		23.995	390.9	0.039										10	220
20	ISL	17.86	D	17.86		33.281	D	23.992	391.5	0.078	5.52	101.6	2.3	0.30	0.0	0.00	0.00	0.09	0.02	20	
25		17.86		17.86		33.282		23.993	391.6	0.098	5.52	101.6	2.3	0.30	0.0	0.00	0.00	0.09	0.02	25	218
30	ISL	17.86	D	17.85		33.281	D	23.992	391.8	0.117	5.52	101.6	2.3	0.30	0.0	0.00	0.00	0.09	0.02	30	
40		17.86		17.85		33.282		23.993	392.0	0.157	5.52	101.6	2.3	0.29	0.0	0.00	0.00	0.09	0.02	40	217
50		17.14		17.13		33.223		24.121	380.2	0.195	5.73	103.9	2.3	0.29	0.0	0.00	0.00	0.12	0.03	50	216
62		16.83		16.82		33.224		24.195	373.5	0.240	5.74	103.5	2.3	0.29	0.0	0.00	0.00	0.14	0.04	62	215
75		15.97		15.96		33.177		24.356	358.5	0.288	5.83	103.3	2.3	0.31	0.0	0.00	0.00	0.18	0.06	75	214
87		15.23		15.22		33.145		24.496	345.4	0.330	5.85	102.1	2.5	0.31	0.0	0.00	0.00	0.25	0.14	87	213
100		14.81		14.80		33.133		24.578	337.9	0.375	5.81	100.6	2.6	0.33	0.0	0.00	0.04	0.25	0.21	100	212
112		14.16		14.14		33.162		24.738	322.9	0.414	5.69	97.2	3.0	0.41	0.3	0.18	0.05	0.23	0.19	112	211
125		13.05		13.03		33.204		24.996	298.5	0.455	5.45	91.0	4.5	0.58	3.3	0.07	0.00	0.16	0.14	125	210
140		11.90		11.88		33.183		25.201	279.1	0.498	5.28	86.0	6.7	0.77	6.8	0.01	0.00	0.11	0.10	141	209
150	ISL	10.98	D	10.96		33.204	D	25.384	261.7	0.525	5.13	82.0	8.5	0.91	9.3	0.01	0.00	0.08	0.08	151	
170		10.08		10.06		33.318		25.629	238.6	0.575	4.73	74.2	13.2	1.20	14.3	0.01	0.00	0.02	0.04	171	208
200		9.25		9.23		33.658		26.031	200.8	0.641	3.85	59.4	22.7	1.64	21.9	0.00	0.00	0.00	0.02	201	207
230		9.02		9.00		33.835		26.207	184.6	0.699	3.40	52.2	26.9	1.79	24.4	0.00	0.00			231	206
250	ISL	8.74	D	8.71		33.948	D	26.340	172.3	0.734	3.15	48.1	30.0	1.88	25.9	0.00	0.00			251	
271		8.47		8.44		33.976		26.404	166.5	0.770	2.90	44.0	33.6	1.98	27.4	0.00	0.00			272	205
300	ISL	8.00	D	7.97		34.035	D	26.521	155.7	0.817	2.46	37.0	39.0	2.16	29.7	0.00	0.00			302	
321		7.81		7.78		34.042		26.554	152.8	0.849	2.14	32.0	43.2	2.29	31.4	0.00	0.00			323	204
381		6.95		6.91		34.089		26.713	138.1	0.936	1.40	20.5	56.7	2.65	35.8	0.00	0.00			383	203
400	ISL	6.75	D	6.71		34.100	D	26.749	134.8	0.962	1.23	18.0	60.3	2.73	36.8	0.00	0.00			402	
440		6.31		6.27		34.116		26.820	128.3	1.015	0.95	13.7	67.0	2.87	38.6	0.00	0.00			443	202
500	ISL	5.93	D	5.89		34.162	D	26.905	120.7	1.090	0.78	11.2	75.6	3.00	40.2	0.00	0.00			503	
516		5.69		5.65		34.154		26.928	118.4	1.109	0.73	10.4	77.9	3.04	40.6	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 10.0 W	10/08/10	0440 UTC	4249 m	300 13 kn			1014.7 mb	17.0 C	15.1 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.06		18.06		33.310		23.965	393.4	0.000	5.50	101.6	2.3	0.29	0.1	0.00	0.00	0.08	0.01	0	
2		18.06		18.06		33.310		23.965	393.5	0.008	5.50	101.6	2.3	0.29	0.1	0.00	0.00	0.08	0.01	2	221
10		18.07		18.07		33.310		23.963	394.0	0.039	5.50	101.6	2.3	0.29	0.0	0.00	0.00	0.08	0.02	10	219
10		18.07		18.07		33.310		23.963	394.0	0.039										10	220
20	ISL	18.07	D	18.07		33.307	D	23.961	394.5	0.079	5.49	101.5	2.2	0.29	0.0	0.00	0.00	0.08	0.01	20	
25		18.07		18.07		33.311		23.964	394.4	0.099	5.49	101.5	2.2	0.29	0.0	0.00	0.00	0.09	0.01	25	218
30	ISL	18.07	D	18.06		33.309	D	23.963	394.7	0.118	5.56	102.7	2.2	0.29	0.0	0.00	0.00	0.10	0.01	30	
41		17.18		17.17		33.228		24.115	380.5	0.161	5.71	103.7	2.3	0.30	0.0	0.00	0.00	0.13	0.03	41	217
50		16.81		16.80		33.225		24.200	372.7	0.195	5.74	103.5	2.3	0.30	0.0	0.00	0.00	0.15	0.04	50	216
62		16.34		16.33		33.207		24.295	363.9	0.239	5.79	103.4	2.3	0.31	0.0	0.00	0.00	0.18	0.06	62	215
75		15.64		15.63		33.190		24.440	350.5	0.285	5.82	102.5	2.3	0.31	0.0	0.00	0.00	0.25	0.14	75	214
87		15.29		15.28		33.171		24.503	344.8	0.327	5.80	101.4	2.3	0.32	0.0	0.00	0.00	0.24	0.24	87	213
100		14.55		14.54		33.154		24.649	331.1	0.371	5.72	98.5	2.6	0.37	0.1	0.04	0.05	0.21	0.25	100	212
113		13.27		13.25		33.203		24.951	302.5	0.412	5.51	92.4	4.0	0.53	2.3	0.17	0.05	0.14	0.20	113	211
125		12.34		12.32		33.210		25.138	284.8	0.447	5.33	87.7	5.7	0.68	5.3	0.02	0.05	0.10	0.15	125	210
140		11.73		11.71		33.231		25.269	272.6	0.489	5.17	84.0	7.1	0.80	7.6	0.01	0.00	0.09	0.14	141	209
150	ISL	11.24	D	11.22		33.235	D	25.362	263.9	0.516	5.06	81.3	8.5	0.91	9.5	0.01	0.00	0.08	0.12	151	
170		10.38		10.36		33.303		25.566	244.6	0.567	4.75	75.0	12.4	1.16	13.6	0.00	0.00	0.04	0.06	171	208
199		9.58		9.56		33.583		25.919	211.5	0.633	4.02	62.4	20.0	1.54	20.0	0.00	0.00	0.00	0.02	200	207
200	ISL	9.54	D	9.52		33.596	D	25.936	209.9	0.635	4.00	62.1	20.2	1.55	20.2	0.00	0.00			201	
230		8.96		8.94		33.836		26.217	183.6	0.694	3.44	52.8	27.0	1.80	24.5	0.00	0.00			231	206
250	ISL	8.67	D	8.64		33.923	D	26.331	173.1	0.730	3.15	48.0	30.7	1.91	26.2	0.00	0.00			251	
270		8.35		8.32		33.978		26.423	164.6	0.764	2.89	43.8	34.3	2.00	27.6	0.00	0.00			271	205
300	ISL	7.89	D	7.86		34.008	D	26.516	156.1	0.812	2.45	36.7	40.1	2.18	30.2	0.00	0.00			302	
320		7.66		7.63		34.026		26.563	151.8	0.843	2.17	32.4	44.0	2.31	31.8	0.00	0.00			322	204
380		6.95		6.91		34.084		26.709	138.4	0.930	1.42	20.8	55.6	2.63	35.7	0.00	0.00			382	203
400	ISL	6.74	D	6.70		34.093	D	26.745	135.2	0.957	1.30	19.0	59.0	2.70	36.7	0.00	0.00			402	
441		6.23		6.19		34.096		26.814	128.7	1.011	1.12	16.2	65.7	2.81	38.3	0.00	0.00			444	202
500	ISL	5.80	D	5.76		34.129	D	26.895	121.5	1.085	0.80	11.4	74.9	2.98	40.1	0.00	0.00			503	
516		5.73		5.69		34.151		26.921	119.2	1.104	0.71	10.1	77.4	3.02	40.6	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 85.4 35.8

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
34 0.5 N	118 49.6 W	06/08/10	1520 UTC	24 m	100 04 kn	260 02 06	2	1011.3 mb	16.6 C	14.9 C		8/8	ST

DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.63	15.63	33.503		24.680	325.2	0.000	6.47	114.1	2.1	0.29	0.1	0.03	0.15	4.05	1.00	0	
2		15.63	15.63	33.503		24.680	325.3	0.007	6.47	114.1	2.1	0.29	0.1	0.03	0.15	4.05	1.00	2	204
5		15.00	15.00	33.480		24.801	313.8	0.016	6.27	109.2	2.8	0.34	0.2	0.04	0.17	6.07	1.03	5	203
10		14.72	14.72	33.473		24.856	308.8	0.032	5.99	103.7	3.3	0.38	0.7	0.07	0.13	6.93	1.07	10	202
20		12.83	12.83	33.489		25.257	270.8	0.061	4.88	81.3	7.0	0.89	6.8	0.29	1.22	2.74	1.15	20	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 52.7 N	118 29.3 W	06/08/10	1224 UTC	65 m	140 07 kn			1009.8 mb	16.2 C	14.9 C			

DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.15	17.15	33.495		24.325	359.1	0.000	6.48	117.8	0.7	0.22	0.0	0.01	0.00	0.72	0.18	0	
1		17.15	17.15	33.495		24.325	359.1	0.004	6.48	117.8	0.7	0.22	0.0	0.01	0.00	0.72	0.18	1	209
5		17.05	17.05	33.495		24.349	357.0	0.018	6.49	117.7	0.9	0.22	0.0	0.00	0.00	0.74	0.17	5	208
10		15.32	15.32	33.463		24.718	321.9	0.035	6.82	119.5	1.5	0.24	0.0	0.01	0.00	0.98	0.33	10	207
15		13.39	13.39	33.467		25.129	283.0	0.050	5.74	96.7	5.4	0.65	4.6	0.24	0.22	3.81	0.99	15	206
20		11.95	11.95	33.455		25.400	257.2	0.064	4.55	74.4	9.9	1.16	11.4	0.52	1.27	1.80	0.60	20	205
30		11.21	11.21	33.467		25.545	243.6	0.089	3.92	63.1	15.0	1.46	16.3	0.55	1.73	0.68	0.38	30	204
40		10.73	10.73	33.556		25.700	229.1	0.112	3.08	49.1	20.4	1.78	22.3	0.69	0.42	0.16	0.30	40	203
50	ISL	10.38	D 10.37	33.623	D	25.813	218.5	0.135	3.00	47.5	22.2	1.82	22.9	0.28	0.01	0.25	0.35	50	
51		10.38	10.37	33.629		25.818	218.1	0.137	2.99	47.3	22.3	1.82	23.0	0.24	0.00	0.26	0.36	51	202
60		10.30	10.29	33.667		25.862	214.2	0.156	2.68	42.3	25.6	1.92	23.2	0.31	0.00	0.15	0.68	60	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 86.7 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 49.5 N	118 37.6 W	06/08/10	1739 UTC	624 m	260 02 kn	250 01 05	2	1011.7 mb	16.5 C	15.1 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.39	16.39	33.455		24.471	345.1	0.000	6.54	117.1	2.2	0.31	0.0	0.00	0.07	1.12	0.26	0	
1		16.39	16.39	33.455		24.471	345.1	0.003	6.54	117.1	2.2	0.31	0.0	0.00	0.07	1.12	0.26	1	224
5		16.32	16.32	33.461		24.492	343.3	0.017	6.55	117.1	2.2	0.31	0.0	0.00	0.06	1.22	0.32	5	223
10		15.61	15.61	33.457		24.650	328.4	0.034	6.72	118.5	1.9	0.30	0.0	0.01	0.04	2.06	0.57	10	221
11		15.58	15.58	33.457		24.656	327.8	0.037										11	222
16		13.71	13.71	33.452		25.052	290.3	0.053	6.41	108.7	2.6	0.37	0.3	0.03	0.06	1.93	0.48	16	220
20	ISL	12.03	D 12.03	33.406	D	25.347	262.3	0.064	5.24	85.8	8.0	0.93	7.8	0.34	0.13	1.26	0.54	20	
21		12.01	12.01	33.412		25.355	261.5	0.066	4.93	80.7	9.5	1.08	9.9	0.42	0.15	1.08	0.56	21	219
29		11.27	11.27	33.452		25.523	245.7	0.087	4.31	69.4	13.3	1.33	14.6	0.37	0.05	0.62	0.39	29	218
30	ISL	11.20	D 11.20	33.463	D	25.544	243.7	0.089	4.23	68.0	13.8	1.36	15.1	0.34	0.05	0.58	0.38	30	
40		10.80	10.80	33.528		25.666	232.3	0.113	3.63	57.9	17.5	1.58	19.1	0.04	0.04	0.29	0.34	40	216
50		10.56	10.55	33.547		25.723	227.1	0.136	3.59	57.0	18.5	1.62	19.8	0.04	0.04	0.29	0.23	50	215
60		10.22	10.21	33.671		25.879	212.6	0.158	2.97	46.8	22.6	1.84	23.0	0.02	0.04	0.18	0.24	60	214
71		10.17	10.16	33.715		25.922	208.7	0.181	2.79	44.0	23.7	1.90	23.9	0.01	0.00	0.09	0.12	71	213
75	ISL	10.01	D 10.00	33.791	D	26.008	200.6	0.189	2.71	42.6	24.5	1.94	24.3	0.01	0.00	0.06	0.12	75	
85		9.91	9.90	33.856		26.076	194.3	0.209	2.52	39.5	26.7	2.02	25.1	0.01	0.00	0.02	0.11	85	212
100	ISL	9.80	D 9.79	33.916	D	26.141	188.4	0.238	2.40	37.5	28.1	2.07	25.8	0.01	0.00	0.01	0.09	101	
101		9.80	9.79	33.917		26.142	188.4	0.240	2.39	37.4	28.2	2.07	25.8	0.01	0.00	0.01	0.09	102	211
120		9.68	9.67	34.002		26.229	180.5	0.275	2.22	34.7	30.2	2.13	26.4	0.01	0.00	0.01	0.09	121	210
125	ISL	9.69	D 9.68	34.045	D	26.261	177.6	0.284	2.14	33.4	31.0	2.16	26.7	0.01	0.00	0.01	0.09	126	
140		9.46	9.44	34.079		26.326	171.7	0.310	1.91	29.7	33.4	2.25	27.8	0.00	0.00	0.01	0.09	141	209
150	ISL	9.30	D 9.28	34.087	D	26.358	168.8	0.327	1.89	29.3	34.4	2.27	28.2	0.00	0.00	0.01	0.09	151	
170		9.10	9.08	34.107		26.406	164.6	0.360	1.86	28.7	36.0	2.30	28.8	0.00	0.00	0.01	0.10	171	208
200	ISL	8.81	D 8.79	34.144	D	26.482	158.0	0.409	1.66	25.4	39.1	2.39	30.0	0.01	0.00	0.01	0.08	201	
201		8.83	8.81	34.145		26.479	158.2	0.410	1.65	25.3	39.2	2.39	30.0	0.01	0.00	0.01	0.08	202	207
231		8.73	8.71	34.200		26.538	153.2	0.457	1.27	19.4	42.5	2.54	31.1	0.06	0.00			232	206
250	ISL	8.59	D 8.56	34.212	D	26.570	150.5	0.486	1.15	17.5	44.2	2.60	31.6	0.09	0.00			252	
270		8.46	8.43	34.221		26.597	148.2	0.516	1.08	16.4	45.9	2.64	32.1	0.10	0.00			272	205
300	ISL	8.21	D 8.18	34.234	D	26.646	144.0	0.559	0.99	15.0	48.7	2.70	32.9	0.05	0.00			302	
321		8.04	8.01	34.236		26.673	141.8	0.589	0.94	14.2	50.6	2.73	33.4	0.01	0.00			323	204
381		7.71	7.67	34.250		26.733	136.9	0.673	0.78	11.7	54.9	2.83	34.6	0.00	0.00			384	203
400	ISL	7.52	D 7.48	34.256	D	26.766	134.0	0.699	0.73	10.9	57.1	2.87	35.2	0.00	0.00			403	
440		7.11	7.07	34.254		26.822	128.9	0.751	0.61	9.0	62.7	2.97	36.6	0.00	0.00			443	202
500	ISL	6.50	D 6.45	34.285	D	26.929	119.1	0.826	0.42	6.1	72.4	3.11	38.0	0.02	0.00			503	
517		6.39	6.34	34.298		26.954	116.9	0.846	0.37	5.4	75.2	3.15	38.4	0.03	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 39.4 N	118 58.5 W	07/08/10	1020 UTC	747 m	090 01 kn			1010.4 mb	15.8 C	14.3 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.57		17.57		33.509		24.236	367.6	0.000	6.07	111.2	2.2	0.29	0.0	0.00	0.00	0.53	0.09	0	
1		17.57		17.57		33.509		24.236	367.6	0.004	6.07	111.2	2.2	0.29	0.0	0.00	0.00	0.53	0.09	1	224
10		16.77		16.77		33.490		24.411	351.2	0.036	6.29	113.5	2.4	0.35	0.0	0.00	0.07	0.65	0.12	10	223
20		14.91		14.91		33.449		24.797	314.7	0.069	6.44	111.9	2.7	0.42	0.6	0.05	0.10	1.46	0.30	20	222
30		12.14		12.14		33.474		25.379	259.5	0.098	5.05	82.9	8.5	1.07	10.4	0.45	0.14	1.20	0.47	30	221
40		11.18		11.18		33.519		25.591	239.5	0.123	4.22	67.9	14.7	1.40	15.7	0.51	0.00	0.61	0.36	40	220
50		10.61		10.60		33.570		25.732	226.3	0.146	3.64	57.8	18.5	1.62	19.4	0.12	0.00	0.36	0.23	50	219
61		10.24		10.23		33.663		25.869	213.5	0.170	3.27	51.6	21.4	1.77	21.9	0.03	0.00	0.20	0.17	61	218
70		10.06		10.05		33.752		25.969	204.2	0.189	2.96	46.5	24.1	1.87	23.3	0.03	0.00	0.11	0.13	70	216
75	ISL	9.95	D	9.94	D	33.792	D	26.019	199.5	0.199	2.89	45.3	24.7	1.90	23.7	0.03	0.00	0.10	0.13	75	
86		9.91		9.90		33.810		26.040	197.8	0.221	2.76	43.3	25.8	1.96	24.4	0.02	0.00	0.08	0.13	86	215
100	ISL	9.61	D	9.60	D	33.931	D	26.185	184.3	0.248	2.40	37.4	29.1	2.08	26.2	0.01	0.00	0.01	0.07	101	
101		9.60		9.59		33.936		26.190	183.8	0.250	2.37	36.9	29.4	2.09	26.3	0.01	0.00	0.01	0.07	102	214
120		9.32		9.31		34.025		26.306	173.2	0.284	2.14	33.1	32.5	2.18	27.5	0.01	0.00	0.01	0.07	121	213
125	ISL	9.22	D	9.21	D	34.028	D	26.324	171.5	0.292	2.12	32.8	32.9	2.19	27.7	0.01	0.00	0.01	0.07	126	
141		9.14		9.12		34.054		26.358	168.6	0.320	2.05	31.6	34.0	2.24	28.1	0.01	0.00	0.01	0.07	142	212
150	ISL	9.10	D	9.08	D	34.085	D	26.389	165.9	0.335	1.93	29.8	35.1	2.29	28.5	0.01	0.00	0.01	0.07	151	
171		9.05		9.03		34.147		26.446	160.9	0.369	1.64	25.3	37.6	2.39	29.4	0.01	0.00	0.01	0.07	172	211
200		8.94		8.92		34.181		26.490	157.2	0.415	1.45	22.3	39.7	2.45	30.0	0.01	0.00	0.01	0.09	201	210
230		8.43		8.41		34.204		26.588	148.3	0.461	1.20	18.2	45.6	2.61	31.9	0.02	0.00			231	209
250	ISL	8.30	D	8.27	D	34.218	D	26.619	145.7	0.490	1.09	16.5	47.7	2.66	32.6	0.02	0.00			252	
270		8.17		8.14		34.222		26.642	143.8	0.519	1.02	15.4	49.2	2.69	33.1	0.02	0.00			272	208
300	ISL	8.02	D	7.99	D	34.227	D	26.669	141.8	0.562	0.94	14.2	51.3	2.75	33.7	0.01	0.00			302	
320		7.89		7.86		34.236		26.695	139.5	0.590	0.89	13.4	52.8	2.79	34.1	0.01	0.00			322	207
380		7.34		7.30		34.252		26.788	131.4	0.671	0.67	9.9	59.7	2.92	35.7	0.01	0.00			383	206
400	ISL	7.09	D	7.05	D	34.260	D	26.829	127.6	0.697	0.61	9.0	62.5	2.97	36.3	0.01	0.00			403	
441		6.76		6.72		34.272		26.884	122.8	0.749	0.51	7.5	68.2	3.06	37.6	0.00	0.00			444	205
500	ISL	6.39	D	6.34	D	34.306	D	26.960	116.1	0.819	0.38	5.5	73.9	3.13	38.7	0.00	0.00			503	
516		6.35		6.30		34.302		26.962	116.1	0.838	0.35	5.1	75.5	3.15	38.9	0.00	0.00			520	204
600	ISL	5.84	D	5.79	D	34.354	D	27.069	106.6	0.931	0.22	3.1	87.9	3.28	39.5	0.00	0.00			604	
607		5.81		5.76		34.362		27.079	105.7	0.939	0.21	3.0	88.9	3.29	39.5	0.00	0.00			611	203
693		5.55		5.49		34.393		27.136	101.0	1.028	0.17	2.4	95.7	3.35	39.6	0.00	0.00			698	202
700	ISL	5.53	D	5.47	D	34.378	D	27.127	102.0	1.035	0.17	2.4	96.2	3.35	39.5	0.00	0.00			705	
735		5.44		5.38		34.391		27.148	100.3	1.070	0.14	2.0	98.9	3.36	39.2	0.01	0.00			741	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 29.5 N	119 19.1 W	07/08/10	2329 UTC	1648 m	180 05 kn	190 01 06	2	1010.7 mb	17.0 C	14.8 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.54		17.54		33.460		24.205	370.5	0.000	5.92	108.4	1.8	0.28	0.0	0.01	0.00	0.38	0.11	0	
2		17.54		17.54		33.460		24.205	370.5	0.007	5.92	108.4	1.8	0.28	0.0	0.01	0.00	0.38	0.11	2	222
10		16.43		16.43		33.428		24.442	348.2	0.036	6.21	111.3	2.2	0.30	0.0	0.01	0.00	0.71	0.17	10	220
10		16.47		16.47		33.429		24.433	349.1	0.036										10	221
20		12.67		12.67		33.367		25.194	276.8	0.067	6.06	100.5	6.3	0.67	4.7	0.12	0.07	1.65	0.43	20	219
30		10.96		10.96		33.434		25.564	241.8	0.093	4.39	70.2	14.0	1.33	15.3	0.21	0.00	0.52	0.29	30	218
40		10.45		10.45		33.542		25.738	225.5	0.117	3.74	59.2	18.4	1.57	19.4	0.04	0.00	0.29	0.16	40	216
50		10.25		10.24		33.634		25.844	215.6	0.139	3.30	52.1	21.0	1.73	21.5	0.03	0.00	0.19	0.17	50	215
61		10.06		10.05		33.740		25.960	204.9	0.162	2.86	45.0	23.7	1.87	23.5	0.02	0.00	0.08	0.12	61	214
71		9.89		9.88		33.819		26.050	196.5	0.182	2.66	41.7	26.0	1.95	24.7	0.02	0.00	0.03	0.07	71	213
75	ISL	9.83	D	9.82	D	33.890	D	26.116	190.3	0.190	2.56	40.1	26.8	1.99	25.1	0.02	0.00	0.02	0.06	75	
86		9.77		9.76		33.940		26.165	185.9	0.210	2.34	36.6	28.6	2.07	25.9	0.01	0.00	0.01	0.05	86	212
100		9.67		9.66		33.975		26.209	182.0	0.236	2.27	35.4	29.7	2.10	26.3	0.01	0.00	0.01	0.05	101	211
120		9.18		9.17		33.987		26.299	173.8	0.272	2.32	35.8	32.3	2.13	27.5	0.01	0.00	0.01	0.05	121	210
125	ISL	8.91	D	8.90	D	33.975	D	26.332	170.6	0.280	2.30	35.3	33.1	2.15	27.8	0.01	0.00	0.01	0.05	126	
141		8.80		8.79		34.057		26.414	163.2	0.307	2.16	33.1	35.7	2.21	28.6	0.01	0.00	0.01	0.05	142	209
150	ISL	8.87	D	8.85	D	34.098	D	26.435	161.4	0.322	2.01	30.8	36.7	2.26	28.9	0.01	0.00	0.01	0.05	151	
170		8.92		8.90		34.156		26.473	158.2	0.354	1.68	25.8	38.6	2.36	29.5	0.01	0.00	0.01	0.04	171	208
200		8.46		8.44		34.155		26.544	151.9	0.400	1.57	23.9	42.2	2.43	31.0	0.02	0.00	0.00	0.04	201	207
230		8.11		8.09		34.179		26.616	145.5	0.445	1.26	19.0	46.9	2.57	32.7	0.02	0.00			231	206
250	ISL	8.12	D	8.09	D	34.218	D	26.646	143.0	0.474	1.09	16.4	49.4	2.64	33.4	0.02	0.00			252	
270		7.88		7.85		34.220		26.683	139.7	0.502	0.94	14.1	51.8	2.71	34.0	0.01	0.00			272	205
300	ISL	7.57	D	7.54	D	34.237	D	26.742	134.5	0.543	0.77	11.5	55.7	2.80	35.0	0.00	0.00			302	
320		7.44		7.41		34.241		26.764	132.7	0.570	0.69	10.3	58.2	2.85	35.7	0.00	0.00			322	204
380		7.02		6.98		34.256		26.835	126.6	0.648	0.57	8.4	64.3	2.95	37.0	0.01	0.00			383	203
400	ISL	6.90	D	6.86	D	34.262	D	26.856	124.8	0.673	0.53	7.8	66.2	2.98	37.3	0.01	0.00			403	
441		6.67		6.63		34.277		26.900	121.2	0.723	0.44	6.4	70.1	3.05	38.0	0.00	0.00			444	202
500	ISL	6.37	D	6.32	D	34.302	D	26.960	116.1	0.793	0.34	4.9	75.5	3.11	39.1	0.01	0.00			504	
516		6.26		6.21		34.306		26.977	114.6	0.812	0.31	4.5	77.0	3.13	39.4	0.01	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 19.4 N	119 39.6 W	08/08/10	0330 UTC	82 m	200 11 kn			1010.5 mb	15.0 C	13.3 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.64	15.64		33.573	24.732	320.3	0.000	6.17	108.9	0.7	0.33	0.8	0.09	0.00	2.52	0.42	0	
2		15.64	15.64		33.573	24.732	320.4	0.006	6.17	108.9	0.7	0.33	0.8	0.09	0.00	2.52	0.42	2	210
5		15.63	15.63		33.571	24.733	320.4	0.016	6.16	108.7	0.7	0.32	0.8	0.08	0.00	2.67	0.49	5	209
10		15.61	15.61		33.569	24.736	320.2	0.032	6.16	108.7	0.6	0.32	0.8	0.09	0.00	2.62	0.50	10	207
10		15.59	15.59		33.569	24.740	319.8	0.032										10	208
20	ISL	12.08	12.08	D	33.558	25.455	252.0	0.061	4.96	81.4	5.4	1.03	10.2	0.43	0.41	2.48	0.83	20	
21		12.34	12.34		33.567	25.413	256.1	0.063	4.81	79.3	6.2	1.11	11.4	0.46	0.44	2.47	0.86	21	206
30	ISL	11.29	11.29	D	33.574	25.614	237.1	0.085	4.18	67.4	13.9	1.41	16.4	0.37	0.05	1.13	0.64	30	
31		11.29	11.29		33.576	25.616	237.0	0.088	4.13	66.6	14.7	1.43	16.8	0.35	0.00	0.98	0.60	31	205
40		10.92	10.92		33.616	25.713	227.9	0.109	3.78	60.5	18.0	1.55	18.5	0.28	0.00	0.56	0.44	40	204
50		10.55	10.54		33.678	25.827	217.3	0.131	3.42	54.3	20.9	1.68	20.4	0.22	0.05	0.49	0.44	50	203
59		10.19	10.18		33.734	25.933	207.4	0.150	3.06	48.2	23.8	1.82	22.7	0.15	0.05	0.27	0.29	59	202
71		10.03	10.02		33.752	25.974	203.7	0.175	2.98	46.8	25.1	1.88	23.4	0.13	0.00	0.14	0.35	71	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 9.3 N	120 0.6 W	08/08/10	0656 UTC	1202 m	220 10 kn			1012.1 mb	15.2 C	13.5 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.51	16.51		33.570	24.532	339.3	0.000	5.85	105.1	1.9	0.33	0.2	0.02	0.08	0.98	0.23	0	
2		16.51	16.51		33.570	24.532	339.4	0.007	5.85	105.1	1.9	0.33	0.2	0.02	0.08	0.98	0.23	2	222
10		16.52	16.52		33.569	24.529	339.9	0.034	5.86	105.3	1.9	0.32	0.1	0.02	0.07	0.97	0.23	10	220
10		16.52	16.52		33.578	24.536	339.3	0.034										10	221
20		16.42	16.42		33.578	24.560	337.4	0.068	5.79	103.8	2.1	0.36	0.6	0.04	0.21	0.90	0.22	20	219
30		15.13	15.13		33.610	24.874	307.7	0.100	5.29	92.4	5.7	0.69	4.9	0.16	0.49	0.95	0.31	30	218
41		12.99	12.98		33.659	25.358	261.8	0.131	4.52	75.6	11.3	1.14	11.4	0.33	0.57	0.94	0.37	41	216
50		11.03	11.02		33.747	25.796	220.3	0.153	3.54	56.8	19.2	1.63	19.5	0.35	0.16	0.55	0.39	50	215
60		9.93	9.92		33.829	26.051	196.2	0.174	2.79	43.8	26.4	1.97	24.8	0.08	0.04	0.17	0.19	60	214
70		9.48	9.47		33.895	26.177	184.3	0.193	2.47	38.4	29.9	2.13	27.0	0.02	0.11	0.05	0.15	70	213
75	ISL	9.14	9.13	D	33.927	26.257	176.8	0.202	2.44	37.6	31.0	2.14	27.5	0.02	0.07	0.04	0.14	75	
84		9.14	9.13		33.940	26.268	176.0	0.218	2.38	36.7	32.2	2.17	27.9	0.02	0.00	0.02	0.13	84	212
100	ISL	8.90	8.89	D	33.954	26.317	171.6	0.246	2.38	36.5	33.6	2.20	28.3	0.02	0.13	0.01	0.14	101	
101		8.92	8.91		33.955	26.315	171.8	0.247	2.38	36.5	33.6	2.20	28.3	0.02	0.14	0.01	0.14	102	211
121		8.77	8.76		33.972	26.352	168.7	0.281	2.39	36.6	33.9	2.23	28.6	0.03	0.00	0.01	0.12	122	210
125	ISL	8.70	8.69	D	33.991	26.378	166.3	0.288	2.32	35.4	34.6	2.25	28.8	0.03	0.00	0.01	0.11	126	
140		8.63	8.62		34.054	26.438	160.8	0.313	1.99	30.4	38.2	2.35	30.0	0.02	0.00	0.01	0.09	141	209
150	ISL	8.29	8.27	D	34.046	26.484	156.6	0.328	1.84	27.8	41.0	2.42	30.9	0.02	0.00	0.01	0.08	151	
170		8.00	7.98		34.113	26.580	147.7	0.359	1.57	23.6	46.0	2.55	32.4	0.04	0.00	0.01	0.06	171	208
200		7.90	7.88		34.180	26.648	141.8	0.402	1.16	17.4	49.7	2.72	33.6	0.05	0.00	0.01	0.05	201	207
230		7.75	7.73		34.198	26.684	138.8	0.444	1.02	15.3	52.6	2.79	34.5	0.05	0.00			231	206
250	ISL	7.65	7.63	D	34.212	26.710	136.7	0.472	0.94	14.0	53.7	2.83	34.7	0.05	0.00			252	
271		7.59	7.56		34.225	26.729	135.2	0.501	0.87	13.0	54.9	2.88	35.0	0.04	0.00			273	205
300	ISL	7.34	7.31	D	34.234	26.772	131.5	0.539	0.76	11.3	58.2	2.94	35.9	0.03	0.09			302	
320		7.18	7.15		34.240	26.800	129.1	0.565	0.69	10.2	60.7	2.98	36.6	0.02	0.14			322	204
380		6.87	6.83		34.258	26.857	124.4	0.641	0.54	7.9	66.6	3.09	37.8	0.02	0.00			383	203
400	ISL	6.76	6.72	D	34.270	26.882	122.4	0.666	0.51	7.5	56.0	2.82	35.0	0.02	0.05			403	
440		6.66	6.62		34.278	26.902	121.0	0.715	0.46	D 6.7	38.2	2.37	30.1	0.02	0.16			443	202
500	ISL	6.29	6.24	D	34.307	26.974	114.7	0.785	0.33	4.8	70.8	3.09	37.8	0.01	0.03			504	
515		6.18	6.13		34.317	26.996	112.7	0.802	0.30	4.3	79.0	3.27	39.7	0.01	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 59.3 N	120 20.9 W	08/08/10	1203 UTC	723 m	270 05 kn			1011.8 mb	14.8 C	13.5 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.19	16.19		33.523	24.569	335.8	0.000	5.84	104.2	1.5	0.31	0.2	0.02	0.25	0.71	0.26	0	
2		16.19	16.19		33.523	24.569	335.8	0.007	5.84	104.2	1.5	0.31	0.2	0.02	0.25	0.71	0.26	2	222
10		16.17	16.17		33.522	24.574	335.7	0.034	5.85	104.3	1.4	0.31	0.2	0.02	0.25	0.73	0.26	10	220
10		16.18	16.18		33.524	24.573	335.8	0.034										10	221
20		15.33	15.33		33.566	24.796	314.8	0.066	5.75	100.9	2.8	0.52	3.1	0.12	0.50	0.75	0.32	20	219
30		14.87	14.87		33.590	24.915	303.8	0.097	5.52	95.9	2.7	0.63	4.6	0.19	0.88	0.70	0.36	30	218
41		13.71	13.70		33.610	25.175	279.3	0.129	4.93	83.7	6.1	0.97	8.7	0.34	1.19	0.65	0.31	41	216
50		12.20	12.19		33.669	25.519	246.7	0.153	4.15	68.3	13.6	1.34	15.0	0.41	0.61	0.56	0.30	50	215
60		10.62	10.61		33.831	25.934	207.3	0.175	3.00	47.8	24.2	1.84	22.6	0.32	0.32	0.76	0.50	60	214
70		10.12	10.11		33.851	26.036	197.8	0.196	2.76	43.5	26.8	1.94	24.7	0.24	0.00	0.34	0.34	70	213
75	ISL	9.81	9.80	D	33.845	26.084	193.4	0.206	2.81	44.0	27.3	1.96	25.4	0.16	0.00	0.20	0.27	75	
85		9.23	9.22		33.796	26.141	188.1	0.225	2.94	45.4	28.1	1.98	26.3	0.02	0.00	0.03	0.16	85	212
100		8.94	8.93		33.881	26.253	177.6	0.252	2.72	41.7	30.9	2.06	27.6	0.01	0.00	0.02	0.12	101	211
120		9.12	9.11		34.069	26.372	166.8	0.286	1.90	29.3	36.0	2.28	29.2	0.02	0.00	0.02	0.15	121	210
125	ISL	9.10	9.09	D	34.080	26.384	165.8	0.295	1.85	28.5	36.6	2.30	29.4	0.02	0.00	0.02	0.16	126	
140		9.03	9.01		34.097	26.409	163.7	0.319	1.70	26.2	37.6	2.34	29.9	0.02	0.00	0.02	0.19	141	209
150	ISL	8.89	8.87	D	34.106	26.438	161.1	0.336	1.72	26.4	38.1	2.35	30.1	0.02	0.00	0.02	0.18	151	
170		8.66	8.64		34.088	26.460	159.3	0.368	1.76	26.9	39.7	2.37	30.7	0.02	0.00	0.01	0.15	171	208
200	ISL	8.18	8.16	D	34.151	26.583	148.0	0.414	1.43	21.6	45.5	2.52	32.6	0.01	0.00	0.01	0.09	201	
201		8.18	8.16		34.145	26.579	148.5	0.415	1.42	21.4	45.7	2.53	32.7	0.01	0.00	0.01	0.09	202	207
231		8.08	8.06		34.198	26.636	143.6	0.459	1.10	16.6	49.0	2.67	33.7	0.01	0.00			232	206
250	ISL	7.77	7.75	D	34.173	26.662	141.3	0.486	1.12	16.8	51.6	2.70	34.5	0.02	0.00			252	
270		7.41	7.38		34.145	26.692	138.6	0.514	1.15	17.1	54.4	2.71	35.3	0.03	0.00			272	205
300	ISL	7.10	7.07	D	34.150	26.740	134.4	0.555	1.01	14.9	58.3	2.80	36.2	0.02	0.00			302	
321		6.99	6.96		34.183	26.781	130.8	0.583	0.88	12.9	61.1	2.87	36.9	0.01	0.00			323	204
381		6.18	6.15		34.163	26.873	122.3	0.659	0.71	10.2	71.1	3.00	39.5	0.00	0.00			384	203
400	ISL	6.11	6.07	D	34.191	26.904	119.6	0.682	0.63	9.1	72.9	3.04	39.8	0.00	0.00			403	
442		6.07	6.03		34.249	26.955	115.3	0.731	0.45	6.5	76.2	3.12	40.1	0.00	0.00			445	202
500	ISL	5.85	5.81	D	34.282	27.010	110.8	0.797	0.36	5.2	81.8	3.18	41.0	0.00	0.00			503	
517		5.77	5.73		34.288	27.024	109.5	0.816	0.33	4.7	83.4	3.20	41.2	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 39.6 N	121 1.9 W	08/08/10	1831 UTC	3782 m	280 09 kn	310 06 07	1	1014.6 mb	15.9 C	14.9 C	18m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.79		15.79		33.005		24.261	365.1	0.000	5.90		104.1	2.9	0.40	0.5	0.04	0.21	0.37	0.11	0	
2		15.79		15.79		33.005		24.262	365.2	0.007	5.90		104.1	2.9	0.40	0.5	0.04	0.21	0.37	0.11	2	222
10	ISL	15.72	D	15.72		33.011	D	24.282	363.5	0.036	5.88		103.6	2.6	0.41	0.5	0.05	0.20	0.37	0.09	10	
12		15.64		15.64		33.032		24.316	360.3	0.044	5.88		103.5	2.5	0.41	0.5	0.05	0.20	0.37	0.08	12	220
12		15.64		15.64		33.035		24.318	360.1	0.044											12	221
20	ISL	14.01	D	14.01		32.979	D	24.625	331.1	0.071	6.04		102.8	4.0	0.50	1.4	0.25	0.13	0.48	0.22	20	
24		13.15		13.15		32.917		24.751	319.1	0.084	6.13		102.4	5.2	0.56	2.3	0.31	0.11	0.57	0.28	24	219
30		13.38		13.38		33.045		24.805	314.2	0.103	6.17		103.7	7.1	0.67	4.3	0.18	0.15	0.73	0.24	30	218
37		13.46		13.45		33.178		24.891	306.1	0.125	5.94		100.1	9.7	0.85	6.9	0.26	0.42	0.75	0.39	37	217
47		12.24		12.23		33.038		25.022	293.9	0.155	5.67		93.0	7.5	0.84	6.7	0.45	0.14	0.55	0.31	47	216
50	ISL	11.85	D	11.84		33.037	D	25.094	287.0	0.164	5.60		91.1	8.1	0.90	7.7	0.37	0.10	0.46	0.27	50	
56		11.43		11.42		33.082		25.207	276.4	0.181	5.47		88.2	10.0	1.04	10.3	0.17	0.07	0.30	0.19	56	215
66		10.91		10.90		33.171		25.369	261.1	0.208	5.27		84.1	12.9	1.21	13.4	0.12	0.05	0.19	0.12	66	214
75		10.55		10.54		33.227		25.476	251.2	0.231	5.13		81.2	15.2	1.33	15.4	0.05	0.00	0.10	0.10	75	213
85		10.13		10.12		33.316		25.617	237.9	0.255	4.89		76.8	17.7	1.46	17.6	0.01	0.00	0.04	0.08	85	212
100	ISL	9.65	D	9.64		33.450	D	25.802	220.6	0.289	4.38		68.1	21.2	1.66	20.9	0.01	0.00	0.02	0.06	100	
101		9.70		9.69		33.450		25.794	221.4	0.292	4.34		67.5	21.4	1.67	21.1	0.01	0.00	0.02	0.06	101	211
119		9.64		9.63		33.708		26.006	201.7	0.330	3.16		49.2	26.0	1.94	25.2	0.01	0.00	0.02	0.06	120	210
125	ISL	9.10	D	9.09		33.715	D	26.099	192.8	0.342	3.08		47.4	27.0	1.96	25.8	0.01	0.00	0.02	0.05	126	
139		9.09		9.07		33.844		26.201	183.4	0.368	2.89		44.5	29.0	1.99	26.4	0.01	0.00	0.01	0.04	140	209
150	ISL	8.91	D	8.89		33.908	D	26.280	176.1	0.388	2.84		43.6	30.5	2.01	26.9	0.01	0.00	0.01	0.03	151	
169		8.57		8.55		33.958		26.372	167.6	0.420	2.81		42.8	32.9	2.04	27.6	0.00	0.00	0.00	0.03	170	208
200		8.17		8.15		33.998		26.465	159.2	0.471	2.61		39.4	37.1	2.13	29.1	0.00	0.00	0.00	0.02	201	207
230		7.84		7.82		34.025		26.535	153.0	0.518	2.26	D	33.8	41.9	2.29	31.1	0.01	0.00			231	206
250	ISL	7.68	D	7.66		34.048	D	26.577	149.3	0.548	1.93		28.8	45.5	2.40	32.4	0.01	0.00			251	
269		7.47		7.44		34.079		26.631	144.3	0.576	1.66		24.7	49.1	2.51	33.7	0.00	0.00			271	205
300	ISL	7.13	D	7.10		34.090	D	26.688	139.3	0.620	1.39		20.5	55.3	2.65	35.7	0.00	0.00			302	
320		6.72		6.69		34.086		26.741	134.3	0.647	1.25		18.2	59.2	2.73	36.8	0.00	0.00			322	204
381		6.12		6.09		34.138		26.861	123.4	0.726	0.90		13.0	69.6	2.93	39.4	0.00	0.00			383	203
400	ISL	6.01	D	5.98		34.143	D	26.879	121.9	0.749	0.79		11.3	72.4	2.98	39.9	0.00	0.00			403	
440		5.76		5.72		34.173		26.934	117.0	0.797	0.60		8.6	77.7	3.07	40.7	0.00	0.00			443	202
500	ISL	5.57	D	5.53		34.231	D	27.004	111.0	0.865	0.43		6.1	83.2	3.15	41.5	0.00	0.00			503	
519		5.53		5.49		34.257		27.029	108.8	0.886	0.38		5.4	84.9	3.18	41.8	0.00	0.00			523	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 19.6 N	121 43.2 W	09/08/10	0308 UTC	4058 m	280 21 kn	330 05 06	1	1012.3 mb	16.3 C	14.9 C		6/8	SC

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l		OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.03		16.03		33.333		24.460	346.2	0.000	5.95		105.7	0.6	0.37	0.2	0.02	0.23	0.66	0.10	0	
2		16.03		16.03		33.333		24.460	346.3	0.007	5.95		105.7	0.6	0.37	0.2	0.02	0.23	0.66	0.10	2	221
10		16.05		16.05		33.335		24.457	346.8	0.035	5.96		105.9	0.7	0.36	0.1	0.02	0.12	0.70	0.10	10	219
10		16.04		16.04		33.334		24.459	346.6	0.035											10	220
20	ISL	16.00	D	16.00		33.324	D	24.460	346.8	0.069	5.94		105.4	0.9	0.37	0.3	0.03	0.21	0.58	0.09	20	
21		15.91		15.91		33.321		24.478	345.1	0.073	5.94		105.3	0.9	0.37	0.3	0.03	0.23	0.57	0.09	21	218
30	ISL	12.86	D	12.86		33.009	D	24.880	307.0	0.102	5.94		98.7	4.5	0.57	3.2	0.21	0.28	0.54	0.17	30	
31		12.86		12.86		33.029	D	24.895	305.6	0.105	5.94		98.7								31	217
41		12.44		12.43		33.159		25.078	288.4	0.135	5.68		93.6	9.5	0.90	7.9	0.49	0.35	0.50	0.25	41	216
49		11.38		11.37		33.120		25.245	272.6	0.157	5.53		89.1	11.4	1.08	10.8	0.64	0.12	0.31	0.20	49	215
50	ISL	11.11	D	11.10		33.144	D	25.312	266.2	0.160	5.50		88.1	11.7	1.10	11.2	0.60	0.11	0.30	0.20	50	
61		10.70		10.69		33.213		25.439	254.4	0.189	5.17		82.1	14.5	1.28	14.9	0.06	0.05	0.19	0.16	61	214
70		10.50		10.49		33.302		25.543	244.7	0.211	5.09		80.6	16.9	1.40	16.9	0.03	0.05	0.13	0.11	70	213
75	ISL	9.92	D	9.91		33.298	D	25.638	235.7	0.223	4.97		77.7	18.4	1.47	18.0	0.03	0.05	0.10	0.09	75	
85		9.63		9.62		33.393		25.761	224.2	0.246	4.57		71.0	21.4	1.62	20.4	0.02	0.06	0.04	0.06	85	212
100		9.43		9.42		33.599		25.954	206.1	0.278	3.65		56.5	25.6	1.87	24.6	0.01	0.04	0.02	0.05	100	211
122		9.11		9.10		33.780		26.148	188.1	0.322	2.81		43.3	30.3	2.09	27.9	0.01	0.05	0.02	0.05	123	210
125	ISL	9.03	D	9.02		33.811	D	26.185	184.6	0.327	2.74		42.1	30.8	2.11	28.2	0.01	0.05	0.02	0.05	126	
141		8.90		8.88		33.894		26.271	176.8	0.356	2.43		37.3	33.0	2.16	29.1	0.01	0.04	0.02	0.05	142	209
150	ISL	8.70	D	8.68		33.911	D	26.315	172.7	0.372	2.27		34.6	34.0	2.19	29.3	0.01	0.03	0.02	0.04	151	
171		8.86		8.84		34.034		26.387	166.4	0.408	2.00		30.7	36.1	2.24	29.6	0.01	0.00	0.01	0.03	172	208
200	ISL	8.43	D	8.41		34.066	D	26.479	158.0	0.455	1.89		28.7	39.4	2.33	30.8	0.00	0.00	0.01	0.02	201	
201		8.43		8.41		34.067		26.480	158.0	0.456	1.89		28.7	39.5	2.33	30.8	0.00	0.00	0.01	0.02	202	207
230		8.14		8.12		34.108		26.556	151.2	0.501	1.57		23.7	44.3	2.47	32.4	0.00	0.00			231	206
250	ISL	7.88	D	7.85		34.121	D	26.605	146.8	0.531	1.39		20.8	47.2	2.55	33.3	0.00	0.00			251	
271		7.79		7.76		34.152		26.643	143.5	0.561	1.22		18.3	50.3	2.62	34.1	0.00	0.00			273	205
300	ISL	7.41	D	7.38		34.181	D	26.721	136.4	0.602	1.00		14.8	54.9	2.74	35.3	0.00	0.00			302	
320		7.24		7.21		34.187		26.750	133.9	0.629	0.88		13.0	58.2	2.81	36.1	0.00	0.00			322	204
383		6.26		6.23		34.149		26.852	124.4	0.710	0.79		11.4	68.8	2.94	38.9	0.00	0.00			385	203
400	ISL	6.09	D	6.05		34.149	D	26.873	122.5	0.731	0.73		10.5	71.1	2.98	39.4	0.00	0.00			403	
440		5.96		5.92		34.189		26.922	118.3	0.779	0.57		8.2	75.9	3.06	40.2	0.00	0.00			443	202
500	ISL	5.80	D	5.76		34.269	D	27.006	111.1	0.848	0.38		5.4	82.4	3.16	41.2	0.00	0.00			503	
517		5.66		5.62		34.266		27.021	109.7	0.867	0.32		4.6	84.2	3.19	41.5	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 59.4 N	122 23.5 W	09/08/10	0938 UTC	4099 m	290 12 kn			1013.4 mb	16.5 C	15.0 C			

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.58		16.58		33.149		24.193	371.7	0.000	5.68	101.9	2.4	0.35	0.1	0.00	0.00	0.16	0.05	0	
2		16.58		16.58		33.149		24.193	371.7	0.007	5.68	101.9	2.4	0.35	0.1	0.00	0.00	0.16	0.05	2	221
10		16.59		16.59		33.149		24.191	372.2	0.037	5.70	102.3	2.5	0.34	0.0	0.00	0.00	0.14	0.04	10	219
10		16.59		16.59		33.149		24.191	372.2	0.037										10	222
20		16.59		16.59		33.151		24.193	372.3	0.074	5.70	102.3	2.4	0.34	0.0	0.00	0.00	0.15	0.04	20	218
30	ISL	16.50	D	16.50		33.145	D	24.209	371.1	0.112	5.69	101.9	2.4	0.35	0.0	0.00	0.00	0.15	0.04	30	
31		16.51		16.51		33.150		24.211	370.9	0.115	5.69	101.9	2.4	0.35	0.0	0.00	0.00	0.15	0.04	31	217
40		16.37		16.36		33.135		24.232	369.2	0.149	5.71	102.0	2.5	0.34	0.0	0.00	0.00	0.24	0.08	40	216
50	ISL	15.33	D	15.32		33.109	D	24.445	349.2	0.185	5.84	102.1	2.3	0.36	0.0	0.00	0.00	0.44	0.23	50	
51		15.33		15.32		33.136		24.466	347.2	0.188	5.86	102.5	2.3	0.36	0.0	0.00	0.00	0.46	0.25	51	215
60		14.82		14.81		33.050		24.510	343.2	0.219	5.93	102.6	2.7	0.38	0.1	0.01	0.07	0.56	0.46	60	214
71		14.07		14.06		33.008		24.636	331.4	0.256	5.85	99.7	4.0	0.50	1.3	0.32	0.28	0.37	0.33	71	213
75	ISL	14.01	D	14.00		33.083	D	24.707	324.8	0.269	5.78	98.4	4.1	0.53	1.8	0.26	0.22	0.30	0.29	75	
85		13.48		13.47		33.094		24.824	313.9	0.301	5.61	94.5	4.3	0.60	3.4	0.03	0.00	0.17	0.20	85	212
100	ISL	12.64	D	12.63		33.167	D	25.047	292.9	0.347	5.45	90.2	6.3	0.77	6.3	0.02	0.00	0.10	0.11	100	
101		12.71		12.70		33.164		25.031	294.5	0.350	5.44	90.2	6.5	0.78	6.5	0.02	0.00	0.10	0.11	101	211
120		11.49		11.48		33.241		25.321	267.1	0.403	5.08	82.1	10.7	1.09	11.8	0.01	0.00	0.04	0.05	121	210
125	ISL	10.98	D	10.96		33.322	D	25.476	252.4	0.416	4.87	77.9	12.2	1.20	13.5	0.01	0.00	0.03	0.04	126	
140		10.44		10.42		33.410		25.639	237.1	0.453	4.29	67.8	16.3	1.47	17.8	0.01	0.00	0.01	0.03	141	209
150	ISL	10.02	D	10.00		33.536	D	25.809	221.1	0.476	4.29	67.3	17.8	1.47	18.4	0.01	0.00	0.01	0.03	151	
170		9.30		9.28		33.663		26.027	200.6	0.518	4.28	66.1	20.3	1.48	19.5	0.01	0.00	0.00	0.02	171	208
200		8.77		8.75		33.857		26.263	178.6	0.575	3.94	60.2	26.0	1.65	22.5	0.00	0.00	0.00	0.01	201	207
231		8.47		8.45		33.935		26.371	168.9	0.629	3.59	54.5	30.1	1.79	24.7	0.00	0.00			232	206
250	ISL	8.07	D	8.04		33.973	D	26.461	160.5	0.660	3.26	49.1	33.8	1.92	26.6	0.00	0.00			251	
270		7.84		7.81		33.984		26.504	156.7	0.692	2.89	43.3	38.1	2.07	28.6	0.00	0.00			271	205
300	ISL	7.45	D	7.42		34.001	D	26.573	150.3	0.738	2.51	37.2	43.8	2.24	30.9	0.00	0.00			302	
321		7.24		7.21		34.012		26.612	146.9	0.769	2.26	33.4	47.7	2.35	32.4	0.00	0.00			323	204
381		6.74		6.70		34.084		26.737	135.6	0.854	1.24	18.1	59.7	2.74	37.0	0.00	0.00			383	203
400	ISL	6.74	D	6.70		34.139	D	26.781	131.8	0.879	1.03	15.0	62.3	2.79	37.5	0.00	0.00			402	
441		6.65		6.61		34.199		26.841	126.7	0.932	0.70	10.2								444	202
500	ISL	6.18	D	6.14		34.241	D	26.936	118.1	1.004	0.51	7.4	75.7	3.07	39.9	0.00	0.00			503	
514		6.02		5.97		34.238		26.954	116.4	1.021	0.46	6.6	77.6	3.11	40.2	0.00	0.00			517	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 86.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 39.4 N	123 4.7 W	09/08/10	1724 UTC	4109 m	260 12 kn	350 05 06	1	1014.9 mb	17.0 C	15.9 C	33m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.64		17.64		33.268		24.034	386.8	0.000	5.55	101.7	2.3	0.30	0.1	0.00	0.00	0.11	0.00	0	
3		17.64		17.64		33.268		24.034	386.9	0.012	5.55	101.7	2.3	0.30	0.1	0.00	0.00	0.11	0.00	3	224
10		17.62		17.62		33.266		24.038	386.8	0.039	5.57	102.0	2.3	0.30	0.0	0.00	0.00	0.08	0.02	10	223
20	ISL	17.59	D	17.59		33.263	D	24.043	386.6	0.077	5.54	101.4	2.3	0.29	0.0	0.00	0.00	0.08	0.02	20	
21		17.59		17.59		33.263		24.043	386.6	0.081	5.54	101.4	2.3	0.29	0.0	0.00	0.00	0.08	0.02	21	222
30	ISL	17.59	D	17.58		33.263	D	24.044	386.9	0.116	5.54	101.4	2.3	0.29	0.0	0.00	0.00	0.08	0.02	30	
33		17.59		17.58		33.270		24.049	386.5	0.128	5.54	101.4	2.3	0.29	0.0	0.00	0.00	0.08	0.02	33	221
45		16.92		16.91		33.249	D	24.192	373.2	0.173	5.73	D103.5								45	220
50	ISL	16.83	D	16.82		33.257	D	24.219	370.8	0.192	5.71	103.0	2.3	0.28	0.0	0.00	0.00	0.11	0.03	50	
56		16.71		16.70		33.269		24.257	367.4	0.214	5.69	102.4	2.3	0.28	0.0	0.00	0.00	0.13	0.04	56	219
67		15.88		15.87		33.197		24.391	354.9	0.254	5.83	103.1	2.3	0.30	0.0	0.00	0.00	0.17	0.06	67	218
75	ISL	15.54	D	15.53		33.248	D	24.507	344.1	0.282	5.84	102.7	2.3	0.29	0.0	0.00	0.00	0.21	0.09	75	
86		15.37		15.36		33.275		24.565	338.8	0.319	5.86	102.7	2.3	0.27	0.0	0.00	0.00	0.24	0.13	86	217
95		14.72		14.71		33.220		24.664	329.6	0.349	5.85	101.1	2.6	0.29	0.0	0.01	0.00	0.23	0.16	95	216
100	ISL	14.32	D	14.31		33.220	D	24.749	321.6	0.366	5.76	98.8	2.8	0.34	0.2	0.10	0.00	0.23	0.18	100	
104		14.14		14.13		33.197		24.769	319.8	0.378	5.68	97.0	3.0	0.40	0.4	0.17	0.00	0.23	0.18	104	215
113		13.20		13.18		33.175		24.943	303.2	0.406	5.53	92.6	4.0	0.53	2.2	0.19	0.00	0.20	0.14	113	214
122		12.94		12.92		33.248		25.052	293.1	0.433	5.48	91.3	4.5	0.54	3.2	0.09	0.00	0.16	0.15	122	213
125	ISL	12.12	D	12.10		33.226	D	25.193	279.6	0.442	5.44	89.1	5.0	0.60	4.2	0.06	0.00	0.15	0.14	126	
131		11.78		11.76		33.224		25.255	273.8	0.458	5.35	87.0	6.3	0.73	6.3	0.02	0.00	0.12	0.12	132	212
140		11.09		11.07		33.227		25.383	261.6	0.483	5.26	84.3	8.1	0.84	8.5	0.01	0.00	0.09	0.09	141	211
150	ISL	10.33	D	10.31		33.248	D	25.532	247.5	0.508	5.12	80.7	10.5	1.01	11.2	0.01	0.00	0.05	0.07	151	
151		10.36		10.34		33.239		25.520	248.7	0.510	5.10	80.4	10.8	1.03	11.5	0.01	0.00	0.05	0.07	152	210
160		9.95		9.93		33.319		25.651	236.2	0.532	4.88	76.3	13.4	1.18	14.0	0.00	0.00	0.03	0.04	161	209
176		9.43		9.41		33.437		25.829	219.5	0.569	4.17	64.5	19.8	1.58	20.2	0.00	0.00	0.01	0.03	177	208
194		9.21		9.19		33.657		26.037	200.1	0.607	3.59	55.3	24.8	1.79	23.7	0.00	0.00	0.00	0.02	195	207
200	ISL	9.22	D	9.20		33.713	D	26.079	196.2	0.618	3.32	51.2	26.3	1.87	24.8	0.00	0.01			201	
230		9.07		9.04		33.945		26.285	177.3	0.674	2.37	36.5	32.2	2.13	28.1	0.00	0.06			231	206
250	ISL	8.63	D	8.60		33.976	D	26.379	168.6	0.709	2.83	43.1	33.4	2.02	27.3	0.00	0.03			251	
269		8.01		7.98		33.957		26.458	161.1	0.740	3.35	50.3	34.5	1.91	26.4	0.00	0.00			270	205
300	ISL	7.61	D	7.58		34.007	D	26.555	152.2	0.789	2.72	40.5	40.9	2.15	29.6	0.00	0.00			302	
320		7.50		7.47		34.026		26.586	149.5	0.819	2.08	30.9	45.9	2.38	32.4	0.00	0.00			322	204
381		6.84		6.80		34.079		26.720	137.3	0.907	1.26	18.4	58.0	2.73	36.7	0.00	0.00			383	203
400	ISL	6.62	D	6.58		34.097	D	26.764	133.3	0.932	1.09	15.9	61.8	2.81	37.6	0.00	0.00			402	
440		6.26		6.22		34.145		26.849	125.5	0.984	0.83	12.0	69.2	2.95	39.1	0.00	0.00			443	202
500	ISL	6.00	D	5.96		34.221	D	26.943	117.2	1.057	0.56	8.0	76.1	3.07	40.3	0.00	0.00			503	
517		5.90		5.85		34.219		26.954	116.3	1.077	0.48	6.9	78.1	3.10	40.6	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 19.5 N	123 44.9 W	09/08/10	2226 UTC	4000 m	270 12 kn	330 04 07	2	1015.2 mb	18.0 C	15.4 C	23m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.28	17.28	33.173		24.047	385.5	0.000	5.61	102.0	2.4	0.32	0.0	0.00	0.00	0.14	0.03	0	
2		17.28	17.28	33.173		24.047	385.6	0.008	5.61	102.0	2.4	0.32	0.0	0.00	0.00	0.14	0.03	2	222
10		17.26	17.26	33.171		24.051	385.5	0.039	5.62	102.2	2.5	0.32	0.0	0.00	0.00	0.14	0.03	10	220
10		17.26	17.26	33.171		24.051	385.5	0.039										10	221
20	ISL	17.23	D 17.23	33.169	D	24.057	385.3	0.077	5.61	101.9	2.4	0.32	0.0	0.00	0.00	0.15	0.04	20	
25		17.22	17.22	33.186		24.073	384.0	0.096	5.61	101.9	2.4	0.32	0.0	0.00	0.00	0.16	0.04	25	219
30	ISL	17.18	D 17.18	33.187	D	24.083	383.1	0.116	5.63	102.2	2.4	0.32	0.0	0.00	0.00	0.18	0.05	30	
40		16.73	16.72	33.177		24.181	374.1	0.153	5.74	103.3	2.4	0.32	0.0	0.00	0.00	0.27	0.08	40	218
50		15.46	15.45	33.089		24.401	353.4	0.190	5.97	104.7	2.5	0.34	0.0	0.00	0.00	0.44	0.22	50	217
62		14.66	14.65	33.051		24.545	339.9	0.231	5.94	102.5	2.6	0.36	0.0	0.01	0.05	0.48	0.44	62	216
75		14.35	14.34	33.087		24.639	331.3	0.275	5.92	101.5	2.6	0.33	0.0	0.02	0.15	0.25	0.25	75	215
87		13.94	13.93	33.060		24.704	325.4	0.314	5.90	100.3	2.7	0.33	0.0	0.03	0.11	0.16	0.20	87	214
100		13.54	13.53	33.085		24.805	316.1	0.356	5.80	97.8	3.0	0.37	0.1	0.15	0.00	0.12	0.16	100	213
112		13.07	13.05	33.168		24.964	301.2	0.393	5.59	93.4	3.9	0.46	1.4	0.23	0.00	0.10	0.13	112	212
125		11.86	11.84	33.145		25.178	280.9	0.431	5.37	87.4	6.6	0.75	6.2	0.02	0.00	0.08	0.12	126	211
140		10.86	10.84	33.210		25.410	259.0	0.471	5.12	81.6	10.0	1.00	10.5	0.01	0.00	0.05	0.12	141	210
150	ISL	10.55	D 10.53	33.309	D	25.541	246.6	0.497	5.02	79.5	11.3	1.07	12.0	0.01	0.00	0.04	0.09	151	
171		9.85	9.83	33.462		25.780	224.2	0.546	4.71	73.5	14.7	1.22	14.9	0.01	0.00	0.02	0.03	172	209
200		8.99	8.97	33.735		26.133	191.0	0.606	3.70	56.8	25.2	1.73	23.0	0.00	0.00	0.00	0.02	201	208
231		8.73	8.71	33.935		26.331	172.8	0.663	3.00	45.8	31.1	1.94	26.4	0.00	0.00			232	207
250	ISL	8.53	D 8.50	33.974	D	26.392	167.2	0.695	2.81	42.7	34.0	2.02	27.6	0.00	0.00			251	
271		8.15	8.12	33.996		26.467	160.3	0.729	2.68	40.4	37.0	2.09	28.7	0.00	0.00			272	206
300	ISL	7.73	D 7.70	34.006	D	26.537	153.9	0.775	2.38	35.5	41.2	2.22	30.4	0.00	0.00			302	
321		7.64	7.61	34.032		26.571	151.1	0.807	2.14	31.9	44.5	2.32	31.7	0.00	0.00			323	205
380		6.907	6.871	34.078		26.710	138.3	0.892	1.38	20.2	56.6	2.65	36.0	0.00	0.00			382	203
400	ISL	6.73	D 6.69	34.101	D	26.752	134.5	0.920	1.20	17.5	60.1	2.73	36.9	0.00	0.00			402	
442		6.35	6.31	34.135		26.830	127.4	0.975	0.91	13.2	67.0	2.88	38.5	0.00	0.00			445	202
500	ISL	5.82	D 5.78	34.172	D	26.926	118.6	1.046	0.63	9.0	76.5	3.03	40.4	0.00	0.00			503	
517		5.74	5.70	34.192		26.952	116.3	1.066	0.55	7.8	79.3	3.08	40.9	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 86.8 32.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 53.3 N	118 26.7 W	06/08/10	1128 UTC	28 m	140 04 kn			1009.6 mb	16.4 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.02	18.02	33.507	24.125	378.1	0.000	6.57	121.5	1.1	0.18	0.0	0.01	0.00	1.36	0.29	0	
1		18.02	18.02	33.507	24.125	378.2	0.004	6.57	121.5	1.1	0.18	0.0	0.01	0.00	1.36	0.29	1	205
5		16.24	16.24	33.491	24.534	339.4	0.018	6.60	117.8	0.9	0.24	0.0	0.01	0.04	1.62	0.28	5	204
10		14.21	14.21	33.471	24.963	298.6	0.034	6.34	108.7	3.1	0.33	0.6	0.06	0.04	3.01	1.04	10	203
20		11.23	11.23	33.481	25.552	242.7	0.061	3.92	63.1	15.6	1.44	16.2	0.61	0.51	0.81	0.57	20	202
23		11.26	11.26	33.480	25.546	243.4	0.068	3.90	62.8	15.8	1.49	16.5	0.63	0.63	0.76	0.61	23	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 88.5 30.1

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 40.3 N	118 5.1 W	06/08/10	0751 UTC	21 m	200 06 kn			1010.1 mb	16.8 C	15.4 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	15.90	15.90	33.405	24.544	338.2	0.000	6.99	123.9	1.5	0.22	0.0	0.01	0.00	2.90	0.87	0	
1		15.90	15.90	33.405	24.544	338.2	0.003	6.99	123.9	1.5	0.22	0.0	0.01	0.00	2.90	0.87	1	204
5		16.55	16.55	33.382	24.379	354.1	0.017	7.05	126.6	0.8	0.17	0.0	0.02	0.00	2.27	0.59	5	203
10		12.89	12.89	33.433	25.202	275.8	0.033	5.52	92.0	5.4	0.82	5.0	0.25	0.39	5.36	1.46	10	202
15		12.65	12.65	33.438	25.253	271.1	0.047	5.24	86.9	7.2	0.89	7.0	0.32	0.86	4.16	1.04	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 90.0 27.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 29.7 N	117 44.9 W	06/08/10	0334 UTC	28 m	230 04 kn			1009.4 mb	18.1 C	16.3 C			

DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.91	18.91	33.469	23.875	401.9	0.000	6.42	120.7	1.6	0.25	0.1	0.02	0.18	0.85	0.20	0	
1		18.91	18.91	33.469	23.875	402.0	0.004	6.42	120.7	1.6	0.25	0.1	0.02	0.18	0.85	0.20	1	205
5		18.30	18.30	33.458	24.019	388.4	0.020	6.80	126.3	1.4	0.19	0.0	0.00	0.00	0.95	0.14	5	204
10		14.40	14.40	33.418	24.882	306.3	0.037	7.09	121.9	1.7	0.33	0.2	0.03	0.07	1.41	0.25	10	203
15		13.44	13.44	33.412	25.076	288.0	0.052	6.43	108.4	4.8	0.53	1.5	0.12	0.19	3.73	0.66	15	202
20		12.04	12.04	33.404	25.343	262.6	0.066	5.07	83.0	9.9	1.11	9.2	0.52	1.07	3.69	0.77	20	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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	06/08/10	0425 UTC	67 m	250 06 kn			1009.6 mb	18.0 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.08	17.08	33.437	24.297	361.7	0.000	7.08	128.5	1.2	0.19	0.0	0.00	0.00	0.48	0.09	0	
2		17.08	17.08	33.437	24.297	361.8	0.007	7.08	128.5	1.2	0.19	0.0	0.00	0.00	0.48	0.09	2	208
5		16.53	16.53	33.433	24.422	349.9	0.018	7.16	128.5	1.1	0.18	0.0	0.00	0.00	0.43	0.09	5	207
10		14.24	14.24	33.412	24.911	303.5	0.034	6.90	118.3	1.3	0.32	0.0	0.00	0.00	0.67	0.19	10	206
20		12.02	12.02	33.415	25.355	261.5	0.062	5.65	92.5	3.7	0.82	5.4	0.24	0.06	16.88	1.79	20	205
30		10.99	10.99	33.461	25.580	240.3	0.088	4.01	64.2	15.1	1.45	16.6	0.50	0.00	1.11	0.59	30	204
40		10.40	10.40	33.585	25.780	221.5	0.111	3.10	49.0	22.3	1.88	22.1	0.30	0.79	0.37	0.52	40	203
50		9.99	9.98	33.769	25.994	201.4	0.132	2.68	42.1	25.3	1.96	24.3	0.09	0.00	0.12	0.26	50	202
60		9.94	9.93	33.808	26.033	197.9	0.152	2.55	40.0	26.3	2.02	24.9	0.09	0.00	0.09	0.20	60	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 24.8 N	117 54.3 W	06/08/10	0052 UTC	615 m	180 02 kn	340 01 06	1	1009.2 mb	19.7 C	17.1 C	10m	3/8	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.25		18.25		33.459		24.032	387.0	0.000	6.26	116.2	1.6	0.26	0.0	0.00	0.09	0.45	0.09	0	
2		18.25		18.25		33.459		24.032	387.1	0.008	6.26	116.2	1.6	0.26	0.0	0.00	0.09	0.45	0.09	2	221
10		16.25		16.25		33.461		24.508	341.9	0.037	6.67	119.1	2.3	0.26	0.0	0.00	0.07	0.88	0.29	10	220
20		13.11		13.11		33.429		25.155	280.5	0.068	6.34	106.2	2.5	0.41	1.1	0.06	0.11	3.39	0.84	20	219
30		11.70		11.70		33.448		25.441	253.5	0.095	4.41	71.7	12.4	1.27	12.6	0.55	0.74	1.61	0.72	30	218
40		10.76		10.76		33.493		25.646	234.3	0.119	3.96	63.1	16.7	1.52	18.1	0.19	0.16	0.41	0.29	40	216
50		10.34		10.33		33.574		25.782	221.5	0.142	3.59	56.7	19.7	1.67	20.4	0.03	0.06	0.20	0.20	50	215
60		10.19		10.18		33.645		25.863	214.0	0.164	3.10	48.8	22.9	1.85	22.6	0.20	0.07	0.17	0.22	60	214
70		9.97		9.96		33.703		25.946	206.3	0.185	3.12	48.9	24.0	1.84	22.9	0.03	0.04	0.25	0.24	70	213
75	ISL	9.60	D	9.59		33.681	D	25.990	202.2	0.195	3.03	47.1	24.8	1.87	23.4	0.03	0.04	0.21	0.20	75	
85		9.77		9.76		33.799		26.055	196.3	0.215	2.84	44.4	26.5	1.94	24.5	0.02	0.04	0.10	0.12	85	212
100		9.39		9.38		33.832		26.143	188.2	0.244	2.82	43.7	29.0	1.99	25.6	0.01	0.00	0.11	0.26	101	211
120		9.86		9.85		34.050	D	26.236	179.9	0.280	2.06	32.3	31.2	2.16	26.3	0.01	0.00	0.10	0.10	121	210
125	ISL	9.80	D	9.79		34.076	D	26.267	177.1	0.289	2.06	32.3	31.7	2.17	26.5	0.01	0.00	0.09	0.09	126	
141		9.43		9.41		34.071	D	26.324	171.9	0.317	2.08	32.3	33.2	2.20	27.2	0.01	0.00	0.05	0.07	142	209
150	ISL	9.43	D	9.41		34.096	D	26.344	170.2	0.333	1.97	30.6	34.0	2.24	27.5	0.01	0.00	0.04	0.07	151	
171		9.44		9.42		34.165		26.397	165.7	0.368	1.67	26.0	35.9	2.35	28.2	0.01	0.00	0.02	0.06	172	208
200	ISL	9.25	D	9.23		34.195	D	26.452	161.0	0.415	1.51	23.4	38.2	2.42	29.1	0.01	0.00	0.01	0.04	201	
201		9.26		9.24		34.190		26.446	161.6	0.417	1.51	23.4	38.3	2.42	29.1	0.01	0.00	0.01	0.04	202	207
231		9.02		8.99		34.215		26.505	156.5	0.465	1.37	21.1	40.8	2.49	29.9	0.01	0.00			232	206
250	ISL	8.80	D	8.77		34.213	D	26.538	153.6	0.494	1.24	19.0	42.3	2.55	30.5	0.03	0.00			252	
272		8.72		8.69		34.252		26.581	149.9	0.528	1.09	16.7	44.4	2.62	31.2	0.04	0.00			274	205
300	ISL	8.30	D	8.27		34.246	D	26.642	144.5	0.569	0.98	14.8	48.2	2.70	32.4	0.02	0.00			302	
322		8.05		8.02		34.238		26.673	141.8	0.600	0.91	13.7	51.3	2.75	33.3	0.00	0.00			324	204
381		7.58		7.54		34.260		26.760	134.3	0.682	0.70	10.4	57.7	2.88	34.8	0.00	0.00			383	203
400	ISL	7.41	D	7.37		34.255	D	26.780	132.5	0.707	0.66	9.8	59.6	2.91	35.3	0.00	0.00			403	
441		7.08		7.04		34.263		26.833	127.9	0.760	0.59	8.7	63.7	2.98	36.5	0.01	0.00			444	202
500	ISL	6.56	D	6.51		34.278	D	26.916	120.5	0.834	0.44	6.4	70.9	3.07	38.2	0.00	0.00			503	
516		6.47		6.42		34.281		26.930	119.2	0.853	0.40	5.8	72.8	3.10	38.7	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 90.0 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
33 15.0 N	118 15.1 W	07/08/10	0210 UTC	380 m	210 13 kn	270 01 07	1	1009.6 mb	18.2 C	16.0 C		4/8	SC

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.94		18.94		33.516		23.904	399.2	0.000	5.85	110.1	1.4	0.25	0.0	0.00	0.04	0.39	0.06	0	
2		18.94		18.94		33.516		23.904	399.3	0.008	5.85	110.1	1.4	0.25	0.0	0.00	0.04	0.39	0.06	2	220
10		18.79		18.79		33.516		23.942	396.0	0.040	5.92	111.1	1.6	0.25	0.0	0.00	0.05	0.41	0.08	10	218
10		18.81		18.81		33.516		23.937	396.4	0.040										10	219
20		14.53		14.53		33.462		24.889	306.0	0.075	6.22	107.3	2.7	0.57	3.3	0.19	0.08	1.00	0.20	20	216
30		12.50		12.50		33.395		25.249	271.9	0.104	5.71	94.4	6.6	0.84	7.2	0.30	0.09	1.25	0.39	30	215
40		11.37		11.37		33.399		25.464	251.6	0.130	4.81	77.6	12.0	1.17	12.5	0.25	0.07	0.96	0.47	40	214
50	ISL	10.89	D	10.88		33.447	D	25.587	240.1	0.155	4.35	69.5	14.9	1.34	15.4	0.22	0.01	0.68	0.33	50	
51		10.89		10.88		33.452		25.591	239.7	0.157	4.30	68.7	15.2	1.36	15.7	0.21	0.00	0.65	0.31	51	213
60		10.56		10.55		33.572		25.743	225.5	0.178	3.51	55.7	18.8	1.63	19.9	0.05	0.00	0.43	0.17	60	212
70		10.32		10.31		33.678		25.867	213.9	0.200	3.03	47.9	22.0	1.80	22.3	0.03	0.00	0.24	0.13	70	211
75	ISL	10.24	D	10.23		33.721	D	25.914	209.5	0.210	2.87	45.3	23.3	1.85	23.1	0.02	0.00	0.17	0.11	75	
85		10.06		10.05		33.792		26.001	201.5	0.231	2.65	41.7	25.3	1.93	24.3	0.01	0.00	0.06	0.07	85	210
100		9.95		9.94		33.864		26.076	194.7	0.261	2.44	38.3	26.9	2.01	25.2	0.01	0.00	0.02	0.06	101	209
120		9.86		9.85		34.007		26.203	183.0	0.298	2.01	31.5	30.1	2.15	26.6	0.01	0.00	0.01	0.05	121	208
125	ISL	9.79	D	9.78		34.031	D	26.233	180.3	0.308	2.01	31.5	30.7	2.16	26.8	0.01	0.00	0.01	0.05	126	
141		9.58		9.56		34.057		26.289	175.3	0.336	1.99	31.0	32.2	2.18	27.1	0.01	0.00	0.01	0.04	142	207
150	ISL	9.53	D	9.51		34.067	D	26.305	173.9	0.352	1.95	30.4	33.1	2.21	27.4	0.01	0.00	0.01	0.04	151	
170		9.28		9.26		34.112		26.381	167.1	0.386	1.82	28.2	35.1	2.30	28.3	0.01	0.00	0.01	0.04	171	206
200		9.08		9.06		34.184		26.470	159.2	0.435	1.50	23.1	38.8	2.41	29.5	0.00	0.00	0.01	0.04	201	205
230		8.86		8.84		34.230		26.542	152.9	0.482	1.24	19.0	42.2	2.51	30.4	0.01	0.00			231	204
250	ISL	8.41	D	8.38		34.224	D	26.607	146.9	0.512	1.19	18.1	44.9	2.56	31.5	0.02	0.00			251	
270		8.15		8.12		34.201		26.628	145.1	0.541	1.16	17.5	47.5	2.60	32.5	0.03	0.00			272	203
300	ISL	8.13	D	8.10		34.236	D	26.659	142.7	0.584	1.00	15.1	49.6	2.68	33.0	0.03	0.00			302	
321		8.01		7.98		34.250		26.688	140.3	0.614	0.88	13.2	51.1	2.73	33.3	0.02	0.00			323	202
370		7.48		7.44		34.258		26.772	132.8	0.681	0.68	10.1	57.4	2.85	35.1	0.02	0.00			372	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 11.2 N	118 23.1 W	05/08/10	1811 UTC	1179 m	190 05 kn	280 03 08	2	1012.4 mb	17.3 C	15.9 C	13m	8/8	ST

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.71		18.71		33.534		23.975	392.4	0.000	5.90	110.5	1.5	0.23	0.0	0.00	0.07	0.53	0.14	0	
2		18.71		18.71		33.534		23.975	392.5	0.008	5.90	110.5	1.5	0.23	0.0	0.00	0.07	0.53	0.14	2	223
8		18.61		18.61		33.534		24.000	390.3	0.031	5.88	109.9	1.3	0.24	0.0	0.00	0.33	0.57	0.14	8	222
10	ISL	18.21	D	18.21		33.524	D	24.092	381.6	0.039	6.01	111.5	1.5	0.25	0.1	0.00	0.31	0.63	0.17	10	
18		15.68		15.68		33.437		24.619	331.6	0.068	6.45	113.8	2.5	0.36	0.3	0.01	0.24	0.93	0.30	18	221
20	ISL	15.70	D	15.70		33.449	D	24.624	331.2	0.074	6.38	112.7	2.8	0.44	1.4	0.08	0.21	0.97	0.34	20	
27		13.39		13.39		33.434		25.103	285.7	0.096	5.96	100.4	3.8	0.75	5.8	0.37	0.10	1.11	0.42	27	220
30	ISL	13.16	D	13.16		33.436	D	25.151	281.2	0.104	5.82	97.6	4.2	0.82	6.8	0.50	0.09	0.86	0.36	30	
34		13.02		13.02		33.423		25.169	279.6	0.116	5.58	93.3	5.2	0.91	8.3	0.59	0.08	0.51	0.26	34	219
41		11.60		11.59		33.346		25.380	259.6	0.134	4.90	79.4	10.1	1.19	13.1	0.22	0.07	0.36	0.20	41	218
48		11.42		11.41		33.397		25.453	252.8	0.152	4.71	76.1	11.8	1.28	14.7	0.12	0.07	0.21	0.13	48	216
50	ISL	11.03	D	11.02		33.403	D	25.528	245.7	0.157	4.64	74.3	12.7	1.31	15.3	0.09	0.06	0.17	0.12	50	
53		10.76		10.75		33.404		25.577	241.1	0.165	4.52	72.0	14.1	1.36	16.1	0.04	0.04	0.12	0.10	53	215
60		10.40		10.39		33.457		25.681	231.4	0.181	4.29	67.8	16.5	1.46	17.8	0.02	0.05	0.06	0.09	60	214
70		10.04		10.03		33.550		25.815	218.8	0.204	3.96	62.1	19.4	1.61	20.1	0.02	0.05	0.02	0.06	70	213
75	ISL	10.01	D	10.00		33.624	D	25.878	212.9	0.214	3.82	59.9	20.9	1.67	21.1	0.02	0.03	0.02	0.07	75	
85		9.62		9.61		33.680		25.986	202.8	0.235	3.45	53.7	23.7	1.78	22.9	0.01	0.00	0.01	0.09	85	212
100		9.85		9.84		33.902		26.122	190.3	0.265	2.50	39.2	27.4	2.01	25.1	0.01	0.00	0.01	0.08	101	211
120		9.63		9.62		34.028		26.257	177.8	0.302	2.24	34.9	30.5	2.09	26.1	0.01	0.00	0.00	0.06	121	210
125	ISL	9.53	D	9.52		34.054	D	26.294	174.4	0.310	2.18	33.9	31.2	2.11	26.4	0.01	0.00	0.00	0.06	126	
140		9.42		9.40		34.075		26.329	171.4	0.336	2.02	31.4	33.2	2.19	27.3	0.01	0.00	0.01	0.06	141	209
150	ISL	9.32	D	9.30		34.096	D	26.362	168.5	0.353	1.93	29.9	34.2	2.23	27.7	0.01	0.00	0.01	0.08	151	
170		9.22		9.20		34.149		26.420	163.4	0.386	1.76	27.2	36.1	2.31	28.4	0.00	0.00	0.01	0.10	171	208
200	ISL	8.78	D	8.76		34.168	D	26.505	155.7	0.434	1.57	24.0	39.8	2.40	29.8	0.01	0.00	0.00	0.05	201	
201		8.84		8.82		34.170		26.497	156.5	0.436	1.56	23.9	39.9	2.40	29.8	0.01	0.00	0.00	0.05	202	207
231		8.76		8.74		34.219		26.549	152.2	0.482	1.30	19.9	42.6	2.51	30.4	0.01	0.00			232	206
250	ISL	8.58	D	8.55		34.245	D	26.597	147.9	0.511	1.15	17.5	44.9	2.59	31.3	0.01	0.00			251	
270		8.34		8.31		34.240		26.630	145.0	0.540	1.01	15.3	47.5	2.66	32.4	0.01	0.00			272	205
300	ISL	7.87	D	7.84		34.238	D	26.699	138.8	0.583	0.89	13.4	51.7	2.74	33.6	0.00	0.00			302	
320		7.69		7.66		34.248		26.734	135.7	0.610	0.83	12.4	54.5	2.79	34.2	0.00	0.00			322	204
380		7.22		7.18		34.262		26.812	129.0	0.689	0.63	9.3	61.1	2.92	35.9	0.00	0.00			382	203
400	ISL	7.10	D	7.06		34.261	D	26.828	127.7	0.715	0.58	8.5	63.7	2.97	36.5	0.00	0.00			403	
441		6.67		6.63		34.276		26.899	121.3	0.766	0.48	7.0	68.8	3.05	37.8	0.00	0.00			444	202
500	ISL	6.33	D	6.28		34.289	D	26.955	116.5	0.836	0.37	5.4	74.6	3.11	38.9	0.00	0.00			503	
518		6.19		6.14		34.300		26.981	114.1	0.857	0.34	4.9	76.4	3.13	39.3	0.00	0.00			522	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 55.2 N	118 56.2 W	05/08/10	1226 UTC	1694 m	230 11 kn			1011.3 mb	15.0 C	13.9 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.74		17.74		33.532		24.212	369.8	0.000	5.70	104.8	1.7	0.27	0.0	0.00	0.12	0.34	0.09	0	
2		17.74		17.74		33.532		24.212	369.9	0.007	5.70	104.8	1.7	0.27	0.0	0.00	0.12	0.34	0.09	2	222
10		17.70		17.70		33.530		24.221	369.3	0.037	5.73	105.3	1.9	0.27	0.0	0.00	0.12	0.37	0.08	10	220
10		17.71		17.71		33.530		24.218	369.6	0.037										10	221
20		14.43		14.43		33.423		24.880	306.8	0.071	6.46	111.2	3.6	0.42	0.6	0.03	0.26	0.88	0.20	20	219
30		11.65		11.65		33.430		25.436	254.0	0.099	4.84	78.6	11.6	1.13	11.6	0.25	0.15	1.06	0.34	30	218
40		10.93		10.93		33.500		25.621	236.6	0.123	4.09	65.4	15.8	1.44	16.6	0.23	0.42	0.40	A 0.19	A 40	216
50		10.48		10.47		33.589		25.770	222.7	0.146	3.53	55.9	19.2	1.65	20.2	0.04	0.06	0.25	0.17	50	215
60		10.25		10.24		33.649		25.856	214.7	0.168	3.29	51.9	21.2	1.74	21.7	0.03	0.06	0.17	0.13	60	214
71		10.05		10.04		33.774		25.988	202.4	0.191	2.82	44.3	24.6	1.91	23.9	0.02	0.05	0.04	0.09	71	213
75	ISL	9.84	D	9.83		33.772	D	26.022	199.2	0.199	2.91	45.5	25.3	1.90	24.1	0.02	0.05	0.03	0.08	75	
84		9.38		9.37		33.748		26.079	193.9	0.217	3.19	49.4	26.4	1.89	24.4	0.01	0.05	0.01	0.06	84	212
100	ISL	9.44	D	9.43		33.886	D	26.177	184.9	0.247	2.81	43.6	28.6	1.97	25.3	0.01	0.06	0.01	0.06	101	
102		9.43		9.42		33.863		26.161	186.5	0.251	2.74	42.5	28.9	1.98	25.4	0.01	0.06	0.01	0.06	103	223
120		9.01		9.00		33.935		26.285	175.0	0.283	2.73	42.0	30.7	2.04	26.6	0.01	0.00	0.01	0.04	121	210
125	ISL	8.98	D	8.97		33.947	D	26.299	173.8	0.292	2.62	40.3	31.3	2.07	26.9	0.01	0.00	0.01	0.04	126	
140		9.15		9.13		34.064		26.364	168.0	0.318	2.23	34.4	33.4	2.16	27.6	0.01	0.00	0.01	0.05	141	209
150	ISL	9.06	D	9.04		34.078	D	26.390	165.8	0.334	2.09	32.2	34.8	2.21	28.1	0.01	0.00	0.01	0.05	151	
171		8.82		8.80		34.121		26.461	159.3	0.369	1.88	28.8	37.7	2.30	29.1	0.01	0.00	0.01	0.04	172	208
200		8.64		8.62		34.183		26.539	152.5	0.414	1.53	23.4	41.6	2.45	30.5	0.02	0.00	0.00	0.04	201	207
231		8.08		8.06		34.153		26.600	147.0	0.460	1.46	22.0	45.9	2.53	32.2	0.02	0.00			232	206
250	ISL	8.00	D	7.97		34.191	D	26.642	143.3	0.488	1.34	20.2	47.9	2.58	32.8	0.01	0.00			252	
269		7.85		7.82		34.184		26.659	142.0	0.515	1.20	18.0	50.0	2.64	33.4	0.01	0.00			271	205
300	ISL	7.65	D	7.62		34.237	D	26.730	135.7	0.558	0.94	14.0	54.7	2.77	34.7	0.02	0.00			302	
320		7.39		7.36		34.235		26.766	132.4	0.585	0.79	11.7	57.8	2.85	35.6	0.02	0.00			322	204
380		6.87		6.83		34.254		26.854	124.7	0.662	0.59	8.7	64.9	2.97	37.2	0.00	0.00			382	203
400	ISL	6.75	D	6.71		34.264	D	26.878	122.6	0.687	0.54	7.9	66.9	3.00	37.6	0.00	0.00			403	
442		6.51		6.47		34.277		26.921	119.0	0.737	0.46	6.7	71.0	3.06	38.4	0.00	0.00			445	202
500	ISL	6.16	D	6.12		34.305	D	26.989	113.1	0.805	0.34	4.9	77.1	3.15	39.6	0.00	0.00			503	
516		6.09		6.04		34.314		27.005	111.7	0.823	0.31	4.5	78.8	3.18	39.9	0.00	0.00			520	201

A) SECOND FLUOROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPIGMENT
CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 55.4 N	118 56.0 W	07/08/10	1849 UTC	1705 m	220 07 kn	290 03 06	1	1012.2 mb	16.5 C	15.0 C	13m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.67		16.67		33.472		24.420	350.0	0.000	5.97	107.5	1.5	0.33	0.0	0.01	0.00	0.55	0.08	0	
2		16.67		16.67		33.472		24.420	350.1	0.007	5.97	107.5	1.5	0.33	0.0	0.01	0.00	0.55	0.08	2	208
8		16.56		16.56		33.474		24.447	347.7	0.028	5.98	107.4	1.3	0.32	0.0	0.00	0.05	0.57	0.12	8	207
10	ISL	16.55	D	16.55		33.470	D	24.446	347.8	0.035	6.08	109.2	1.1	0.35	0.5	0.01	0.06	1.05	0.17	10	
18		13.41		13.41		33.414		25.083	287.3	0.060	6.46	108.9	0.5	0.49	2.3	0.11	0.11	2.77	0.43	18	206
20	ISL	12.44	D	12.44		33.448	D	25.301	266.6	0.066	6.05	99.9	3.3	0.67	4.9	0.14	0.11	2.63	0.49	20	
27		11.40		11.40		33.480		25.521	245.9	0.084	4.50	72.7	13.2	1.28	13.7	0.24	0.13	1.64	0.63	27	205
30	ISL	11.17	D	11.17		33.483	D	25.565	241.7	0.091	4.28	68.8	14.0	1.37	15.1	0.27	0.11	1.33	0.61	30	
34		11.08		11.08		33.496		25.591	239.3	0.101	4.17	66.9	15.1	1.42	15.9	0.29	0.07	1.01	0.56	34	204
41		10.97		10.97		33.520		25.630	235.8	0.117	4.02	64.4	16.2	1.47	16.8	0.29	0.05	0.79	0.51	41	203
48		10.55		10.54		33.584		25.754	224.2	0.133	3.56	56.5	19.1	1.64	19.7	0.14	0.00	0.38	0.31	48	201
50	CSL	10.49		10.48		33.592		25.770	222.6	0.138	3.54	56.1								50	200

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 39.1 N	119 28.9 W	05/08/10	0636 UTC	1316 m	250 15 kn			1012.7 mb	15.4 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.56		16.56		33.624		24.562	336.5	0.000	5.79	104.1	1.5	0.37	1.2	0.05	0.30	0.49	0.13	0	
2		16.56		16.56		33.624		24.562	336.5	0.007	5.79	104.1	1.5	0.37	1.2	0.05	0.30	0.49	0.13	2	220
10		16.54		16.54		33.625		24.568	336.3	0.034	5.80	104.3	1.4	0.37	1.3	0.05	0.30	0.48	0.13	10	219
20		15.34		15.34		33.597		24.818	312.8	0.066	5.77	101.3	0.8	0.56	3.3	0.14	0.90	0.72	0.35	20	218
30		13.98		13.98		33.615		25.123	284.0	0.096	5.16	88.1	3.8	0.91	7.1	0.28	1.56	0.79	0.31	30	221
40		11.19		11.19		33.703		25.733	226.0	0.121	3.58	57.7	18.4	1.62	19.0	0.37	0.28	0.38	0.34	40	216
49		10.47		10.46		33.729		25.880	212.1	0.141	3.27	51.9	22.2	1.78	21.9	0.24	0.00	0.22	0.31	49	215
50	ISL	10.21	D	10.20		33.740	D	25.934	207.1	0.143	3.24	51.1	22.5	1.79	22.1	0.22	0.00	0.21	0.30	50	
61		9.97		9.96		33.771		25.999	201.1	0.166	2.97	46.6	25.2	1.90	24.0	0.09	0.00	0.10	0.25	61	214
70		9.66		9.65		33.823		26.091	192.5	0.183	2.76	43.0	27.3	1.98	25.2	0.05	0.00	0.07	0.24	70	213
75	ISL	9.52	D	9.51		33.842	D	26.129	189.0	0.193	2.73	42.4	27.9	2.00	25.6	0.04	0.00	0.05	0.21	75	
86		9.30		9.29		33.849		26.171	185.2	0.214	2.69	41.6	29.1	2.03	26.3	0.02	0.00	0.03	0.13	86	212
100		9.03		9.02		33.932		26.279	175.2	0.239	2.48	38.1	32.0	2.10	27.4	0.03	0.00	0.02	0.12	101	211
120		9.00		8.99		34.006		26.342	169.6	0.273	2.13	32.8	34.1	2.19	28.3	0.02	0.00	0.02	0.16	121	210
125	ISL	8.98	D	8.97		34.023	D	26.359	168.2	0.282	2.07	31.8	34.7	2.22	28.5	0.02	0.00	0.02	0.16	126	
140		8.87		8.86		34.054		26.401	164.4	0.307	1.92	29.4	36.7	2.29	29.2	0.02	0.00	0.01	0.16	141	209
150	ISL	8.65	D	8.63		34.074	D	26.451	159.8	0.323	1.85	28.2	38.1	2.32	29.7	0.02	0.00	0.01	0.14	151	
171		8.44		8.42		34.082		26.490	156.5	0.356	1.75	26.6	40.9	2.38	30.7	0.03	0.00	0.01	0.10	172	208
200		7.91		7.89		34.075		26.564	149.8	0.400	1.74	26.1	44.6	2.44	32.0	0.02	0.00	0.01	0.09	201	207
230		7.40		7.38		34.066		26.631	143.7	0.444	1.70	25.2	48.9	2.51	33.2	0.02	0.00			231	206
250	ISL	7.15	D	7.13		34.088	D	26.683	138.9	0.473	1.52	22.4	52.4	2.59	34.3	0.02	0.00			252	
270		7.03		7.00		34.099		26.709	136.8	0.500	1.30	19.1	55.8	2.67	35.3	0.01	0.00			272	205
300	ISL	6.98	D	6.95		34.151	D	26.757	132.7	0.541	1.05	15.4	58.8	2.78	36.2	0.00	0.00			302	
321		6.85		6.82		34.170		26.790	129.8	0.568	0.91	13.3	60.6	2.84	36.6	0.00	0.00			323	204
380		6.46		6.43		34.195		26.862	123.6	0.643	0.70	10.2	67.6	2.95	38.1	0.00	0.00			383	203
400	ISL	6.37	D	6.33		34.209	D	26.885	121.6	0.668	0.61	8.8	69.7	2.99	38.4	0.00	0.00			403	
441		6.23		6.19		34.249		26.935	117.4	0.717	0.45	6.5	73.8	3.08	39.0	0.00	0.00			444	202
500	ISL	6.01	D	5.97		34.295	D	27.000	111.9	0.784	0.32	4.6	79.7	3.16	40.0	0.00	0.00			503	
515		5.93		5.88		34.309		27.021	110.0	0.801	0.29	4.2	81.2	3.18	40.2	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 24.9 N	119 57.4 W	05/08/10	0122 UTC	914 m	260 16 kn	330 05 07	2	1012.5 mb	16.0 C	14.7 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.21		16.21		33.162		24.287	362.6	0.000	5.90	105.1	1.2	0.34	0.0	0.00	0.06	0.32	0.04	0	
2		16.21		16.21		33.162		24.287	362.7	0.007	5.90	105.1	1.2	0.34	0.0	0.00	0.06	0.32	0.04	2	220
10		16.15		16.15		33.166		24.304	361.3	0.036	5.92	105.3	0.9	0.34	0.0	0.00	0.05	0.31	0.05	10	219
20		15.97		15.97		33.170		24.349	357.4	0.072	6.04	107.1	0.7	0.34	0.0	0.00	0.07	0.41	0.08	20	218
30		15.23		15.23		33.067	D	24.434	349.6	0.108	6.21	108.4	0.9	0.35	0.0	0.00	0.05	0.40	0.12	30	217
40		13.83		13.82		33.063		24.727	321.8	0.141	6.07	103.0	3.4	0.48	1.2	0.25	0.07	0.90	0.40	40	216
50		13.01		13.00		33.045		24.879	307.7	0.173	5.71	95.2	4.5	0.64	3.6	0.32	0.21	1.57	0.58	50	215
60		12.80		12.79		33.170		25.017	294.7	0.203	5.68	94.4	6.6	0.82	6.7	0.36	0.10	0.37	0.20	60	214
70		11.89		11.88		33.211		25.223	275.3	0.231	5.26	85.7	7.8	0.92	8.8	0.06	0.00	0.19	0.23	70	213
75	ISL	11.56	D	11.55		33.229	D	25.298	268.3	0.245	5.14	83.2	8.6	0.99	9.9	0.05	0.00	0.14	0.19	75	
86		11.06		11.05		33.285		25.432	255.7	0.274	4.92	78.8	11.1	1.16	12.7	0.03	0.00	0.07	0.08	86	212
100	ISL	10.16	D	10.15		33.370	D	25.655	234.7	0.308	4.42	69.5	15.7	1.42	17.0	0.01	0.00	0.03	0.04	100	
101		10.13		10.12		33.368		25.658	234.3	0.310	4.38	68.8	16.1	1.44	17.3	0.01	0.00	0.03	0.04	101	211
120		9.39		9.38		33.542		25.917	210.0	0.352	3.68	56.9	22.7	1.75	22.5	0.01	0.00	0.01	0.04	121	210
125	ISL	9.37	D	9.36		33.670	D	26.020	200.4	0.363	3.47	53.7	24.0	1.81	23.5	0.01	0.00	0.01	0.04	126	
140		9.31		9.29		33.772		26.110	192.1	0.392	2.95	45.6	27.1	1.95	25.6	0.01	0.00	0.01	0.04	141	209
150	ISL	9.25	D	9.23		33.831	D	26.166	187.0	0.411	2.91	44.9	28.7	1.97	26.2	0.01	0.00	0.01	0.03	151	
170		8.77		8.75		33.920		26.312	173.4	0.447	2.84	43.4	31.7	2.00	27.0	0.00	0.00	0.01	0.02	171	208
200	ISL	8.24	D	8.22		34.007	D	26.461	159.6	0.497	2.51	37.9	36.9	2.14	29.0	0.00	0.00	0.00	0.02	201	
201		8.25		8.23		34.002		26.456	160.1	0.499	2.50	37.8	37.1	2.15	29.1	0.00	0.00	0.00	0.02	202	207
230		7.91		7.89		34.047		26.542	152.3	0.544	1.97	29.6	42.8	2.35	31.7	0.00	0.00			231	206
250	ISL	7.59	D	7.57		34.062	D	26.601	147.0	0.574	1.69	25.2	46.5	2.46	32.9	0.00	0.00			251	
271		7.54		7.51		34.115		26.650	142.7	0.604	1.45	21.6	50.4	2.56	33.9	0.00	0.00			273	205
300	ISL	7.02	D	6.99		34.111	D	26.720	136.2	0.645	1.22	17.9	56.2	2.70	35.7	0.00	0.00			302	
320		6.83		6.80		34.121		26.754	133.2	0.672	1.09	16.0	59.8	2.78	36.8	0.00	0.00			322	204
380		6.63		6.60		34.213		26.854	124.5	0.749	0.67	9.8	66.4	2.95	37.9	0.00	0.00			382	203
400	ISL	6.46	D	6.42		34.226	D	26.887	121.6	0.774	0.60	8.7	68.4	2.98	38.3	0.00	0.00			403	
441		6.33		6.29		34.241		26.916	119.3	0.823	0.50	7.2	72.4	3.03	39.1	0.00	0.00			444	202
500	ISL	5.94	D	5.90		34.285	D	27.001	111.7	0.891	0.37	5.3	78.6	3.14	40.2	0.00	0.00			503	
516		5.93		5.88		34.290		27.006	111.4	0.909	0.34	4.9	80.3	3.17	40.5	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 5.2 N	120 38.4 W	04/08/10	1837 UTC	3817 m	250 14 kn	320 05 08	2	1016.0 mb	16.3 C	15.5 C	21m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.70		16.70		33.075		24.108	379.7	0.000	5.73	103.0	2.8	0.34	0.0	0.00	0.22	0.19	0.05	0	
3		16.70		16.70		33.075		24.108	379.8	0.011	5.73	103.0	2.8	0.34	0.0	0.00	0.22	0.19	0.05	3	222
10		16.70		16.70		33.076		24.109	379.9	0.038	5.73	103.0	2.8	0.34	0.0	0.00	0.08	0.19	0.04	10	221
14		16.69		16.69		33.076		24.112	379.8	0.053	5.73	103.0	2.8	0.35	0.0	0.00	0.10	0.20	0.05	14	220
20	ISL	16.64	D	16.64		33.068	D	24.117	379.5	0.076	5.76	103.4	2.8	0.34	0.0	0.00	0.07	0.22	0.06	20	
22		16.59		16.59		33.065		24.127	378.7	0.084	5.77	103.5	2.8	0.33	0.0	0.00	0.05	0.23	0.06	22	219
29		15.39		15.39		32.977		24.329	359.5	0.109	6.03	105.5	3.1	0.35	0.0	0.00	0.06	0.39	0.11	29	218
30	ISL	15.31	D	15.31		32.977	D	24.347	357.9	0.113	6.04	105.5	3.2	0.35	0.0	0.00	0.06	0.43	0.12	30	
36		15.06		15.05		32.967		24.394	353.6	0.134	6.08	105.7	3.6	0.38	0.2	0.01	0.06	0.62	0.15	36	217
44		15.05		15.04		33.043		24.455	348.0	0.162	5.90	102.6	3.4	0.40	0.5	0.02	0.10	0.68	0.23	44	216
50	ISL	14.81	D	14.80		33.070	D	24.528	341.2	0.183	5.85	101.2	3.0	0.39	0.3	0.05	0.17	0.54	0.24	50	
55		14.49		14.48		33.059		24.587	335.7	0.200	5.84	100.4	2.8	0.39	0.2	0.08	0.20	0.38	0.25	55	215
65		13.76		13.75		33.058		24.739	321.5	0.233	5.78	97.9	3.7	0.55	2.1	0.50	0.00	0.21	0.19	65	214
75	ISL	13.67	D	13.66		33.220	D	24.882	308.1	0.264	5.66	95.8	3.5	0.42	0.9	0.27	0.00	0.17	0.26	75	
76		13.75		13.74		33.229		24.873	309.0	0.267	5.64	95.6	3.5	0.41	0.9	0.23	0.00	0.17	0.26	76	213
88		12.44		12.43		33.170		25.087	288.7	0.303	5.40	89.0	7.1	0.84	7.5	0.01	0.00	0.07	0.09	88	212
100		11.34		11.33		33.187		25.306	268.1	0.337	5.03	81.0	10.0	1.06	11.2	0.01	0.00	0.04	0.06	100	211
120		9.96		9.95		33.435		25.739	227.0	0.386	4.41	69.0	16.9	1.42	17.4	0.00	0.00	0.01	0.04	121	210
125	ISL	9.85	D	9.84		33.498	D	25.807	220.7	0.397	4.21	65.8	18.3	1.50	18.7	0.00	0.00	0.01	0.04	126	
140		9.57		9.55		33.610		25.941	208.2	0.430	3.64	56.5	22.2	1.71	22.1	0.00	0.00	0.01	0.03	141	209
150	ISL	9.28	D	9.26		33.729	D	26.081	195.0	0.450	3.34	51.6	25.0	1.82	23.8	0.00	0.00	0.01	0.03	151	
171		8.90		8.88		33.901		26.277	176.8	0.489	2.90	44.5	30.1	1.97	26.3	0.00	0.00	0.00	0.02	172	208
200	ISL	8.41	D	8.39		33.972	D	26.408	164.7	0.538	2.74	41.6	34.2	2.06	27.8	0.00	0.00	0.00	0.02	201	
201		8.41		8.39		33.978		26.413	164.3	0.540	2.74	41.6	34.3	2.06	27.8	0.00	0.00	0.00	0.02	202	207
231		8.11		8.09		34.017		26.489	157.5	0.588	2.37	35.7	38.6	2.21	29.7	0.00	0.00			232	206
250	ISL	7.80	D	7.78		34.040	D	26.553	151.6	0.618	2.17	32.5	41.6	2.30	31.0	0.00	0.00			251	
268		7.63		7.60		34.035		26.574	149.9	0.645	2.00	29.8	44.5	2.38	32.1	0.00	0.00			269	205
300	ISL	7.31	D	7.28		34.049	D	26.631	144.8	0.692	1.71	25.3	49.6	2.51	33.8	0.00	0.00			302	
321		7.10		7.07		34.066		26.674	141.0	0.722	1.53	22.5	53.0	2.60	34.8	0.00	0.00			323	204
379		6.45		6.42		34.115		26.800	129.4	0.800	1.05	15.2	63.8	2.84	37.6	0.00	0.00			381	203
400	ISL	6.29	D	6.25		34.122	D	26.827	127.1	0.827	0.94	13.6	66.6	2.89	38.3	0.00	0.00			402	
442		6.00		5.96		34.144		26.881	122.2	0.879	0.78	11.2	71.6	2.97	39.3	0.00	0.00			445	202
500	ISL	5.68	D	5.64		34.190	D	26.958	115.4	0.948	0.54	7.7	78.5	3.08	40.5	0.00	0.00			503	
518		5.61		5.57		34.213		26.985	113.1	0.969	0.47	6.7	80.7	3.12	40.9	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 44.9 N	121 18.6 W	04/08/10	1222 UTC	3590 m	260 17 kn			1014.7 mb	14.9 C	13.9 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.28		17.28		33.144		24.025	387.7	0.000	5.62	102.2	2.4	0.33	0.0	0.00	0.00	0.19	0.04	0	
2		17.28		17.28		33.144		24.025	387.7	0.008	5.62	102.2	2.4	0.33	0.0	0.00	0.00	0.19	0.04	2	220
10		17.27		17.27		33.143		24.027	387.8	0.039	5.63	102.4	2.5	0.34	0.0	0.00	0.00	0.17	0.04	10	219
20		16.37		16.37		33.066		24.178	373.7	0.077	5.86	104.6	2.5	0.34	0.0	0.00	0.00	0.22	0.06	20	218
30		15.63		15.63		33.068		24.347	357.9	0.113	5.94	104.5	2.2	0.35	0.0	0.00	0.00	0.38	0.17	30	217
41		15.31		15.30		33.082		24.428	350.5	0.152	5.87	102.6	2.5	0.36	0.0	0.00	0.00	0.60	0.34	41	216
50	ISL	14.93	D	14.92		33.071	D	24.503	343.6	0.184	5.92	102.7	2.5	0.37	0.0	0.00	0.08	0.50	0.32	50	
51		14.99		14.98		33.083		24.499	344.0	0.187	5.93	103.0	2.5	0.37	0.0	0.00	0.09	0.48	0.32	51	215
60		14.46		14.45		33.059		24.594	335.2	0.218	5.91	101.5	2.6	0.41	0.3	0.10	0.23	0.33	0.29	60	214
69		13.77		13.76		33.021		24.708	324.5	0.247	5.86	99.2	3.1	0.47	0.9	0.39	0.09	0.18	0.19	69	213
75	ISL	13.80	D	13.79		33.088	D	24.754	320.3	0.267	5.76	97.6	3.5	0.52	1.8	0.29	0.04	0.14	0.15	75	
85		13.47		13.46		33.123		24.848	311.5	0.298	5.57	93.8	4.5	0.63	3.7	0.01	0.00	0.11	0.12	85	212
100		12.61		12.60		33.179		25.062	291.5	0.343	5.46	90.3	6.7	0.84	7.2	0.01	0.00	0.06	0.08	100	211
120		11.33		11.32		33.205		25.322	267.0	0.399	5.33	85.8	7.3	0.81	7.5	0.01	0.00	0.05	0.21	121	210
125	ISL	11.00	D	10.98		33.235	D	25.404	259.2	0.412	5.22	83.5	8.6	0.89	8.9	0.01	0.00	0.04	0.18	126	
139		10.15		10.13		33.354		25.645	236.5	0.447	4.78	75.1	13.5	1.20	14.0	0.00	0.00	0.02	0.05	140	209
150	ISL	9.79	D	9.77		33.466	D	25.792	222.6	0.472	4.23	66.0	17.7	1.45	17.9	0.00	0.00	0.01	0.04	151	
170		9.51		9.49		33.693		26.016	201.7	0.515	3.35	52.0	24.5	1.81	23.4	0.00	0.00	0.00	0.02	171	208
200		8.77		8.75		33.854		26.260	178.9	0.572	3.30	50.4	28.8	1.88	25.2	0.00	0.00	0.00	0.02	201	207
230		8.38		8.36		33.963		26.406	165.5	0.624	2.89	43.8	34.1	2.02	27.3	0.00	0.00			231	206
250	ISL	8.01	D	7.98		33.983	D	26.478	158.9	0.656	2.71	40.7	37.5	2.10	28.6	0.00	0.00			251	
271		7.76		7.73		34.008		26.534	153.7	0.689	2.52	37.7	41.1	2.20	29.9	0.00	0.00			272	205
300	ISL	7.49	D	7.46		34.046	D	26.603	147.6	0.733	2.06	30.6	45.9	2.38	32.0	0.00	0.00			302	
320		7.39		7.36		34.071		26.637	144.6	0.762	1.73	25.6	49.2	2.50	33.4	0.00	0.00			322	204
380		6.83		6.79		34.137		26.767	132.9	0.845	1.09	16.0	60.2	2.78	36.4	0.00	0.00			382	203
400	ISL	6.65	D	6.61		34.142	D	26.795	130.4	0.871	0.94	13.7	63.1	2.85	37.1	0.00	0.00			402	
442		6.40		6.36		34.193		26.869	123.8	0.925	0.70	10.1	68.7	2.96	38.3	0.00	0.00			445	202
500	ISL	5.82	D	5.78		34.205	D	26.953	116.1	0.994	0.54	7.7	77.4	3.07	39.9	0.00	0.00			503	
518		5.76		5.72		34.222		26.974	114.3	1.015	0.49	7.0	80.1	3.11	40.4	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 59.4 W	04/08/10	0411 UTC	3847 m	290 20 kn	340 05 06	2	1015.4 mb	16.2 C	14.8 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.80	17.80		33.245	23.978	392.2	0.000	5.54	101.8	2.3	0.32	0.0	0.00	0.09	0.12	0.02	0	
2		17.80	17.80		33.245	23.978	392.2	0.008	5.54	101.8	2.3	0.32	0.0	0.00	0.09	0.12 A	0.02 A	2	223
10		17.79	17.79		33.244	23.980	392.3	0.039	5.56	102.2	2.4	0.32	0.0	0.00	0.05	0.12	0.02	10	222
20	ISL	17.79	17.79	D	33.241	23.978	392.8	0.078	5.63	103.4	2.4	0.32	0.0	0.00	0.07	0.11	0.02	20	
25		17.59	17.59		33.211	24.004	390.6	0.098	5.68	103.9	2.4	0.32	0.0	0.00	0.08	0.11	0.02	25	221
30	ISL	16.41	16.41	D	33.151	24.234	368.7	0.117	5.74	102.6	2.4	0.32	0.0	0.00	0.07	0.12	0.03	30	
40		15.94	15.93	D	33.141	24.334	359.5	0.153	5.87	D104.0	2.4	0.32	0.0	0.00	0.05	0.15	0.04	40	220
50		15.48	15.47		33.135	24.432	350.4	0.189	5.91	103.7	2.5	0.34	0.0	0.00	0.06	0.30	0.15	50	219
62		15.05	15.04		33.143	24.532	341.2	0.230	5.92	103.0	2.5	0.36	0.0	0.00	0.08	0.41	0.31	62	218
75		14.70	14.69	D	33.153	24.616	333.6	0.274	5.82	D100.5						0.12	0.02	75	217
87		14.14	14.13		33.136	24.721	323.8	0.314	5.73	97.8	3.2	0.51	1.2	0.71	0.07	0.23	0.24	87	216
99		13.94	13.93		33.208	24.818	314.9	0.352	5.67	96.5						0.12	0.10	99	215
100	ISL	13.62	13.61	D	33.184	24.865	310.4	0.355	5.65	95.5	4.5	0.63	3.5	0.38	0.07	0.11	0.10	100	
112		12.58	12.57		33.191	25.077	290.3	0.391	5.41	89.5	5.9	0.75	5.9	0.02	0.06	0.05	0.07	112	214
125		11.78	11.76		33.199	25.235	275.5	0.428	5.25	85.4	7.2	0.85	7.7	0.02	0.05	0.04	0.06	126	213
141		10.93	10.91		33.254	25.432	256.9	0.471	4.99	79.7	10.4	1.08	11.6	0.01	0.04	0.03	0.05	142	212
150	ISL	10.47	10.45	D	33.305	25.552	245.6	0.493	4.77	75.4	12.8	1.21	13.9	0.01	0.04	0.02	0.04	151	
170		9.76	9.74		33.505	25.828	219.6	0.540	4.19	65.3	18.3	1.49	18.7	0.00	0.04	0.01	0.02	171	211
200		9.30	9.28		33.790	26.127	191.8	0.601	3.34	51.6	25.4	1.82	23.9	0.00	0.00	0.00	0.02	201	210
230		8.80	8.78		33.959	26.339	172.1	0.656	2.89	44.2	30.9	1.96	26.4	0.00	0.00			231	209
250	ISL	8.43	8.40	D	33.996	26.425	164.1	0.690	2.55	38.7	35.1	2.10	28.3	0.00	0.00			251	
270		8.20	8.17		34.033	26.489	158.3	0.722	2.23	33.7	39.3	2.25	30.1	0.00	0.00			271	208
300	ISL	7.77	7.74	D	34.065	26.578	150.1	0.768	1.89	28.3	45.2	2.41	32.2	0.00	0.00			302	
321		7.45	7.42		34.073	26.630	145.3	0.799	1.69	25.1	49.1	2.51	33.5	0.00	0.00			323	207
380		6.89	6.85		34.137	26.759	133.7	0.881	1.06	15.5	59.3	2.79	36.6	0.00	0.00			382	206
400	ISL	6.83	6.79	D	34.181	26.802	129.9	0.908	0.91	13.3	62.2	2.86	37.2	0.00	0.00			402	
442		6.51	6.47		34.207	26.866	124.2	0.961	0.68	9.9	67.7	2.97	38.3	0.00	0.00			445	205
500	ISL	6.16	6.12	D	34.252	26.947	117.0	1.031	0.51	7.4	75.2	3.08	39.8	0.00	0.00			503	
516		5.97	5.92		34.238	26.960	115.8	1.050	0.48	6.9	77.2	3.10	40.2	0.00	0.00			519	204
600	CSL	5.48	5.43		34.294	27.065	106.4	1.143	0.34	4.8								604	200
700	CSL	5.09	5.03		34.376	27.177	96.5	1.244	0.28	3.9								705	200
800	CSL	4.52	4.46		34.404	27.264	88.5	1.337	0.37	5.1								806	200
900	CSL	4.27	4.20		34.441	27.321	83.7	1.423	0.43	5.9								907	200
1000	CSL	4.02	3.94		34.477	27.376	78.9	1.504	0.53	7.3								1008	200
1100	CSL	3.73	3.65		34.500	27.424	74.5	1.581	0.64	8.7								1109	200
1200	CSL	3.49	3.40		34.517	27.462	71.2	1.654	0.75	10.1								1210	200
1300	CSL	3.26	3.16		34.534	27.498	67.9	1.723	0.86	11.6								1312	200
1400	CSL	3.04	2.94		34.550	27.531	64.8	1.790	0.99	13.2								1413	200
1500	CSL	2.84	2.73		34.564	27.561	62.0	1.853	1.12	14.9								1514	200
1600	CSL	2.66	2.55		34.577	27.588	59.5	1.914	1.25	16.5								1616	200
1800	CSL	2.33	2.20		34.602	27.636	54.7	2.028	1.56	20.5								1819	200
2000	CSL	2.12	1.98		34.622	27.670	51.6	2.135	1.85	24.2								2022	200
2200	CSL	1.97	1.81		34.634	27.693	49.7	2.236	2.03	26.4								2225	200
2400	CSL	1.86	1.69		34.645	27.711	48.3	2.334	2.23	28.9								2428	200
2600	CSL	1.77	1.58		34.654	27.727	47.2	2.429	2.41	31.1								2632	200
2800	CSL	1.70	1.49		34.660	27.738	46.5	2.523	2.55	32.9								2836	200
3000	CSL	1.65	1.43		34.664	27.746	46.2	2.616	2.64	34.0								3040	200
3200	CSL	1.60	1.36		34.669	27.755	45.7	2.708	2.76	35.5								3244	200
3400	CSL	1.56	1.30		34.672	27.761	45.5	2.799	2.85	36.6								3449	200
3504		1.55	1.28		34.673	27.764	45.6	3.461	2.90	37.2	172.0	2.71	38.6	0.00	0.00			3554	201
3504		1.55	1.28		34.674	27.765	45.5	3.461										3554	203

A) FIRST FLUOROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPIGMENT
CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
31 5.3 N	122 39.9 W	03/08/10	2041 UTC	4122 m	290 11 kn	310 04 08	2	1016.9 mb	18.1 C	16.2 C	21m	8/8	SC

DEPTH m		TEMP DEG C	POT TEMP DEG C		SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.72	17.72		33.247	23.999	390.2	0.000	5.55	101.8	2.8	0.33	0.0	0.00	0.04	0.14	0.02	0	
2		17.72	17.72		33.247	23.999	390.2	0.008	5.55	101.8	2.8	0.33	0.0	0.00	0.04	0.14	0.02	2	221
10	ISL	17.72	17.72	D	33.241	23.995	390.9	0.039	5.56	102.0	2.7	0.33	0.0	0.00	0.02	0.14	0.03	10	
15		17.67	17.67		33.243	24.008	389.8	0.059	5.56	101.9	2.6	0.33	0.0	0.00	0.00	0.14	0.03	15	220
20	ISL	17.65	17.65	D	33.237	24.009	389.9	0.078	5.64	103.3	2.7	0.33	0.0	0.00	0.00	0.15	0.03	20	
29		16.73	16.73		33.161	24.168	375.0	0.112	5.81	104.5	2.8	0.32	0.0	0.00	0.00	0.19	0.04	29	219
30	ISL	16.41	16.41	D	33.154	24.237	368.4	0.116	5.82	104.0	2.8	0.32	0.0	0.00	0.00	0.20	0.04	30	
43		15.79	15.78		33.148	24.373	355.8	0.163	5.91	104.4	2.8	0.34	0.0	0.00	0.00	0.28	0.09	43	218
49		15.50	15.49		33.148	24.438	349.8	0.184	5.91	103.8	2.6	0.34	0.0	0.00	0.00	0.30	0.19	49	217
50	ISL	15.26	15.25	D	33.145	24.488	345.1	0.188	5.91	103.2	2.6	0.34	0.0	0.00	0.00	0.31	0.22	50	
56		15.09	15.08		33.145	24.525	341.7	0.209	5.89	102.5	2.7	0.37	0.0	0.00	0.00	0.40	0.37	56	216
67		14.71	14.70		33.133	24.598	335.0	0.246	5.82	100.5	2.9	0.42	0.2	0.11	0.10	0.50	0.45	67	215
75	ISL	14.38	14.37	D	33.136	24.671	328.3	0.272	5.71	98.0	3.1	0.47	0.5	0.66	0.02	0.30	0.29	75	
77		14.36	14.35		33.139	24.677	327.7	0.279	5.68	97.4	3.1	0.48	0.7	0.75	0.00	0.24	0.25	77	214
86		14.01	14.00		33.142	24.753	320.7	0.308	5.61	95.5	3.4	0.52	2.0	0.10	0.00	0.18	0.20	86	213
96		13.44	13.43		33.164	24.886	308.2	0.339	5.57	93.8	4.5	0.64	4.0	0.03	0.00	0.08	0.09	96	212
100	ISL	13.22	13.21	D	33.166	24.932	303.9	0.352	5.56	93.2	4.9	0.67	4.6	0.02	0.00	0.06	0.08	100	
111		12.85	12.84		33.218	25.046	293.4	0.385	5.50	91.5	6.1	0.76	6.2	0.01	0.00	0.04	0.05	111	211
125		11.63	11.61		33.212	25.273	271.8	0.424	5.23	84.8	8.2	0.94	9.2	0.00	0.00	0.02	0.05	126	210
146		10.42	10.40		33.327	25.578	243.0	0.478	4.69	74.1	13.4	1.25	14.4	0.00	0.00	0.01	0.04	147	209
150	ISL	10.20	10.18	D	33.389	25.664	234.9	0.488	4.54	71.4	14.7	1.32	15.6	0.00	0.00	0.01	0.04	151	
170		9.65	9.63		33.617	25.934	209.5	0.532	3.77	58.7	21.1	1.64	20.9	0.00	0.00	0.01	0.02	171	208
200		9.19	9.17		33.875	26.211	183.7	0.591	3.03	46.7	27.7	1.90	25.0	0.00	0.00	0.00	0.02	201	207
230		8.62	8.60		33.962	26.369	169.1	0.644	2.94	44.8	32.0	1.97	26.4	0.00	0.00			231	206
250	ISL	8.29	8.26	D	34.007	26.455	161.2	0.677	2.67	40.4	35.7	2.08	27.8	0.00	0.00			251	
272		8.09	8.06		34.043	26.513	155.9	0.712	2.30	34.6	40.1	2.22	29.6	0.00	0.00			273	205
300	ISL	7.70	7.67	D	34.092	26.609	147.1	0.754	1.88	28.1	45.8	2.39	31.8	0.00	0.00			302	
320		7.45	7.42		34.093	26.646	143.8	0.784	1.62	24.1	49.7	2.51	33.3	0.00	0.00			322	204
380		6.80	6.76		34.125	26.762	133.4	0.867	1.12	16.4	59.7	2.76	36.2	0.00	0.00			382	203
400	ISL	6.66	6.62	D	34.153	26.803	129.7	0.893	1.00	14.6	62.5	2.82	36.9	0.00	0.00			402	
441		6.36	6.32		34.176	26.861	124.5	0.945	0.79	11.4	68.2	2.92	38.0	0.00	0.00			444	202
500	ISL	5.90	5.86	D	34.214	26.950	116.4	1.016	0.53	7.6	77.1	3.06	39.7	0.00	0.00			503	
516		5.79	5.75		34.234	26.979	113.8	1.035	0.46	6.6	79.5	3.10	40.2	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 45.4 N	123 20.4 W	03/08/10	1511	UTC	4051 m	270	11 kn	340 04 05	2	1017.6 mb	16.5 C	14.8 C	22m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.11	18.11		33.278		23.928	396.9	0.000	5.51	101.9	2.4	0.33	0.1	0.00	0.45	0.13	0.03	0	
3		18.11	18.11		33.278		23.928	397.0	0.012	5.51	101.9	2.4	0.33	0.1	0.00	0.45	0.13	0.03	3	221
10		18.10	18.10		33.279		23.931	396.9	0.040	5.53	102.2	2.5	0.32	0.0	0.00	0.06	0.13	0.02	10	220
20	ISL	17.78	17.78	D	33.248	D	23.986	392.1	0.079	5.66	104.0	2.4	0.32	0.0	0.00	0.05	0.15	0.04	20	
25		17.17	17.17		33.211		24.104	381.0	0.098	5.74	104.2	2.3	0.32	0.0	0.00	0.04	0.16	0.05	25	219
30	ISL	16.61	16.61	D	33.172	D	24.205	371.5	0.117	5.81	104.3	2.3	0.32	0.0	0.00	0.04	0.18	0.06	30	
41		16.03	16.02		33.171		24.337	359.2	0.157	5.91	104.9	2.4	0.32	0.0	0.00	0.04	0.22	0.09	41	218
50		15.65	15.64		33.173		24.424	351.2	0.189	5.91	104.1	2.5	0.32	0.0	0.00	0.00	0.25	0.10	50	217
62		15.25	15.24		33.187		24.523	342.1	0.231	5.92	103.4	2.3	0.33	0.0	0.00	0.00	0.32	0.28	62	216
68		14.65	14.64		33.171		24.640	331.0	0.251	5.93	102.3	2.6	0.38	0.1	0.03	0.09	0.45	0.46	68	215
75		14.45	14.44		33.219		24.720	323.6	0.274	5.75	98.9	3.0	0.39	0.2	0.09	0.08	0.37	0.40	75	214
88		13.34	13.33		33.175		24.915	305.3	0.315	5.55	93.2	4.2	0.61	3.4	0.09	0.00	0.22	0.27	88	213
100		12.41	12.40		33.211		25.125	285.4	0.350	5.40	89.0	6.3	0.81	7.1	0.01	0.00	0.07	0.09	100	212
112		11.76	11.75		33.233		25.265	272.3	0.384	5.25	85.3	8.0	0.90	8.6	0.01	0.00	0.05	0.07	112	211
125		10.98	10.96		33.241		25.413	258.4	0.418	5.03	80.4	10.0	1.05	11.3	0.00	0.00	0.04	0.07	126	210
140		10.27	10.25		33.345		25.617	239.1	0.456	4.65	73.2	13.4	1.24	14.6	0.00	0.00	0.03	0.06	141	209
150	ISL	10.08	10.06	D	33.397	D	25.690	232.3	0.479	4.32	67.8	16.3	1.40	17.1	0.00	0.00	0.02	0.05	151	
169		9.68	9.66		33.607		25.921	210.7	0.521	3.72	57.9	21.7	1.68	21.4	0.00	0.00	0.00	0.04	170	208
200		9.18	9.16		33.842		26.187	186.0	0.583	3.27	50.4	26.4	1.83	24.2	0.00	0.00	0.00	0.02	201	207
231		8.80	8.78		33.978		26.354	170.7	0.638	2.68	41.0	32.0	2.02	27.0	0.00	0.00			232	206
250	ISL	8.58	8.55	D	34.007	D	26.411	165.5	0.670	2.47	37.6	35.4	2.11	28.4	0.00	0.00			251	
270		8.23	8.20		34.042		26.492	158.1	0.703	2.29	34.6	39.0	2.21	29.8	0.00	0.00			271	205
300	ISL	7.71	7.68	D	34.063	D	26.585	149.4	0.749	1.93	28.8	45.1	2.38	32.1	0.00	0.00			302	
321		7.38	7.35		34.073		26.640	144.3	0.779	1.68	24.9	49.5	2.49	33.6	0.00	0.00			323	204
380		6.66	6.63		34.103		26.763	133.1	0.861	1.18	17.2	60.4	2.75	36.8	0.00	0.00			382	203
400	ISL	6.44	6.40	D	34.117	D	26.803	129.4	0.888	1.03	14.9	63.6	2.81	37.6	0.00	0.00			402	
443		6.16	6.12		34.151		26.867	123.8	0.942	0.77	11.1	70.2	2.92	38.9	0.00	0.00			446	202
500	ISL	5.71	5.67	D	34.190	D	26.954	115.8	1.010	0.57	8.1	78.8	3.05	40.4	0.00	0.00			503	
519		5.60	5.56		34.202		26.977	113.8	1.032	0.50	7.1	81.6	3.10	40.9	0.00	0.00			522	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 25.1 N	123 59.8 W	03/08/10	0711	UTC	4229 m	210	14 kn			1017.0 mb	17.8 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.41	18.41		33.274		23.851	404.3	0.000	5.49	102.1	2.2	0.31	0.0	0.00	0.04	0.10	0.02	0	
1		18.41	18.41		33.274		23.851	404.3	0.004	5.49	102.1	2.2	0.31	0.0	0.00	0.04	0.10	0.02	1	220
10		18.41	18.41		33.278		23.854	404.3	0.040	5.51	102.5	2.3	0.31	0.0	0.00	0.04	0.10	0.01	10	219
20	ISL	16.70	16.70	D	33.204	D	24.208	370.9	0.079	5.74	103.2	2.2	0.32	0.0	0.00	0.01	0.12	0.03	20	
25		16.37	16.37		33.177		24.263	365.7	0.098	5.86	104.7	2.2	0.32	0.0	0.00	0.00	0.13	0.04	25	218
30	ISL	16.00	16.00	D	33.168	D	24.341	358.5	0.116	5.85	103.7	2.2	0.32	0.0	0.00	0.00	0.14	0.06	30	
40		15.62	15.61		33.156		24.417	351.5	0.151	5.83	102.6	2.3	0.33	0.0	0.00	0.00	0.17	0.09	40	217
50	ISL	15.44	15.43	D	33.225	D	24.510	343.0	0.186	5.82	102.1	2.3	0.32	0.0	0.00	0.00	0.21	0.13	50	
51		15.44	15.43		33.228		24.512	342.8	0.189	5.82	102.1	2.3	0.32	0.0	0.00	0.00	0.21	0.13	51	216
62		15.33	15.32		33.342		24.625	332.4	0.227	5.84	102.3	2.2	0.28	0.0	0.00	0.00	0.23	0.17	62	215
75	ISL	13.88	13.87	D	33.182	D	24.810	315.0	0.269	5.74	97.5	3.0	0.43	1.1	0.18	0.00	0.26	0.26	75	
76		14.07	14.06		33.190		24.777	318.2	0.272	5.73	97.7	3.1	0.45	1.2	0.19	0.00	0.26	0.26	76	214
87		13.12	13.11		33.162		24.948	302.0	0.306	5.63	94.1	5.0	0.67	4.6	0.02	0.00	0.12	0.13	87	213
100	ISL	12.54	12.53	D	33.177	D	25.074	290.3	0.344	5.46	90.2	5.9	0.76	6.1	0.01	0.00	0.08	0.11	100	
101		12.53	12.52		33.179		25.077	290.0	0.347	5.45	90.0	5.9	0.76	6.2	0.01	0.00	0.08	0.11	101	212
113		11.79	11.78		33.207		25.239	274.8	0.381	5.36	87.2	7.2	0.87	8.0	0.01	0.00	0.06	0.09	113	211
125	ISL	11.00	10.98	D	33.222	D	25.394	260.1	0.413	5.15	82.3	9.2	0.99	10.3	0.00	0.00	0.03	0.06	126	
126		10.91	10.89		33.226		25.413	258.3	0.416	5.13	81.9	9.4	1.00	10.5	0.00	0.00	0.03	0.06	127	210
139		10.42	10.40		33.244		25.513	249.0	0.449	5.03	79.4	10.6	1.06	11.6	0.00	0.00	0.03	0.06	140	209
150	ISL	10.13	10.11	D	33.284	D	25.594	241.5	0.476	4.80	75.3	12.6	1.18	13.6	0.00	0.00	0.02	0.05	151	
170		9.76	9.74		33.478		25.807	221.6	0.522	4.31	67.2	17.1	1.43	17.8	0.00	0.00	0.01	0.02	171	208
200	ISL	9.02	9.00	D	33.800	D	26.179	186.7	0.583	3.87	59.4	23.7	1.63	22.0	0.00	0.00	0.00	0.01	201	
201		9.04	9.02		33.780		26.160	188.5	0.585	3.85	59.2	23.9	1.64	22.1	0.00	0.00	0.00	0.01	202	207
230		8.50	8.48		33.958		26.384	167.6	0.637	2.86	43.5	32.8	2.01	27.4	0.00	0.00			231	206
250	ISL	8.25	8.22	D	33.993	D	26.450	161.6	0.670	2.64	39.9	36.4	2.11	29.0	0.00	0.00			251	
271		7.84	7.81		34.005		26.520	155.1	0.703	2.53	37.9	39.5	2.18	29.9	0.00	0.00			272	205
300	ISL	7.55	7.52	D	34.046	D	26.595	148.4	0.747	2.07	30.8	45.1	2.35	31.9	0.00	0.00			302	
321		7.31	7.28		34.075		26.652	143.2	0.778	1.71	25.3	49.3	2.48	33.4	0.00	0.00			323	204
380		6.79	6.75		34.143		26.777	131.9	0.859	1.03	15.1	60.8	2.79	36.9	0.00	0.00			382	203
400	ISL	6.60	6.56	D	34.163	D	26.819	128.1	0.885	0.89	13.0	64.3	2.86	37.7	0.00	0.00			402	
441		6.20	6.16		34.180		26.884	122.1	0.936	0.69	10.0	70.8	2.98	39.0	0.00	0.00			444	202
500	ISL	5.83	5.79	D	34.232	D	26.973	114.2	1.006	0.45	6.4	78.0	3.09	40.2	0.00	0.00			503	
516		5.82	5.78		34.253		26.991	112.7	1.024	0.38	5.4	80.0	3.12	40.5	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 14.3 N	117 27.5 W	31/07/10	0128	UTC	22 m	190	05 kn	270 01 06	4	1012.7 mb	18.3 C	16.2 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.86	18.86		33.465		23.885	401.0	0.000	6.06	113.8	1.7	0.19	0.0	0.00	0.00	0.64	0.12	0	
1		18.86	18.86		33.465		23.885	401.1	0.004	6.06	113.8	1.7	0.19	0.0	0.00	0.00	0.64	0.12	1	205
5		18.69	18.69		33.459		23.923	397.6	0.020	6.12	114.6	1.7	0.17	0.0	0.00	0.00	0.62	0.12	5	204
10		15.40	15.40		33.439		24.682	325.3	0.038	6.59	115.7	4.7	0.31	0.4	0.04	0.05	1.56	0.36	10	202
10		16.13	16.13		33.440		24.520	340.8	0.038										10	203
15		14.15	14.15		33.446		24.956	299.4	0.054	5.94	101.7	6.8	0.66	4.2	0.26	0.22	2.55	0.89	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 57.1 N	117 18.9 W	30/07/10	2121	UTC	245 m	150	04 kn	270 02 07	2	1014.4 mb	19.3 C	18.0 C	05m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.34	17.34	33.466		24.258	365.5	0.000	6.53	119.1	4.4	0.27	0.0	0.01	0.05	1.74	0.54	0	
1		17.34	17.34	33.466		24.258	365.5	0.004	6.53	119.1	4.4	0.27	0.0	0.01	0.05	1.74	0.54	1	211
3		17.35	17.35	33.467		24.256	365.7	0.011	6.53	119.1	4.4	0.29	0.0	0.01	0.13	1.78	0.57	3	210
6		15.62	15.62	33.459		24.649	328.4	0.021	6.74	118.8	4.6	0.31	0.0	0.02	0.10	2.95	0.81	6	209
10		13.70	13.70	33.382		25.000	295.1	0.034	6.78	114.9	4.3	0.42	0.0	0.02	0.24	4.03	0.69	10	208
13		13.06	13.06	33.467		25.194	276.6	0.042	6.09	101.9	6.4	0.61	3.1	0.16	0.11	3.46	0.64	13	207
18		11.74	11.74	33.400		25.396	257.5	0.056	5.05	82.2	9.2	1.10	12.0	0.57	0.05	1.04	0.38	18	206
20	ISL	11.60	D 11.60	33.375	D	25.403	257.0	0.061	5.00	81.1	9.8	1.12	12.5	0.49	0.05	0.90	0.35	20	
24		11.15	11.15	33.351		25.466	251.0	0.071	4.89	78.5	11.1	1.16	13.6	0.20	0.05	0.61	0.31	24	205
30		10.89	10.89	33.456		25.594	239.0	0.086	4.44	70.9	14.9	1.39	17.1	0.05	0.12	0.22	0.15	30	204
40		10.39	10.39	33.613		25.804	219.2	0.109	3.48	55.1	19.9	1.64	20.6	0.21	0.10	0.18	0.19	40	203
50		10.30	10.29	33.708		25.894	210.9	0.130	2.97	46.9	22.9	1.82	22.7	0.32	0.05	0.11	0.16	50	202
60		10.15	10.14	33.736		25.941	206.6	0.151	2.91	45.8	23.9	1.84	23.3	0.14	0.00	0.06	0.10	60	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 54.7 N	117 23.8 W	31/07/10	0406	UTC	628 m	130	01 kn			1013.1 mb	18.9 C	16.6 C			

DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.85	18.85	33.461		23.884	401.1	0.000	5.95	111.7	1.7	0.25	0.0	0.01	0.06	0.34	0.07	0	
2		18.85	18.85	33.461		23.884	401.2	0.008	5.95	111.7	1.7	0.25	0.0	0.01	0.06	0.34	0.07	2	220
10		16.91	16.91	33.404		24.312	360.6	0.038	6.41	115.9	1.8	0.29	0.0	0.00	0.04	0.45	0.14	10	219
20		13.24	13.24	33.441		25.139	282.1	0.071	5.79	97.2	4.6	0.77	6.3	0.47	0.10	0.91	0.32	20	218
30		11.71	11.71	33.420		25.417	255.8	0.098	4.82	78.4	10.6	1.21	13.6	0.26	0.00	0.60	0.26	30	217
40		10.76	10.76	33.450		25.612	237.4	0.122	4.21	67.1	15.2	1.42	16.7	0.15	0.00	0.34	0.20	40	216
50		10.72	10.71	33.557		25.703	229.1	0.146	3.63	57.8	18.4	1.62	18.4	0.54	0.00	0.31	0.33	50	215
60		10.46	10.45	33.636		25.810	219.1	0.168	3.24	51.3	20.9	1.73	20.9	0.22	0.00	0.19	0.20	60	214
70		10.38	10.37	33.693		25.868	213.7	0.190	2.95	46.7	22.5	1.84	22.2	0.48	0.19	0.12	0.15	70	213
75	ISL	10.31	D 10.30	33.720	D	25.902	210.7	0.200	2.80	44.2	23.4	1.89	22.8	0.37	0.17	0.10	0.13	75	
85		10.29	10.28	33.829		25.990	202.5	0.221	2.54	40.1	25.1	1.96	23.9	0.05	0.07	0.07	0.11	85	212
100		10.18	10.17	33.890		26.057	196.5	0.251	2.41	38.0	26.7	2.01	24.6	0.02	0.04	0.05	0.10	101	211
120		9.95	9.94	33.983		26.169	186.3	0.289	2.23	35.0	28.7	2.08	25.7	0.04	0.05	0.02	0.07	121	210
125	ISL	9.93	D 9.92	34.022	D	26.203	183.2	0.298	2.17	34.1	29.5	2.11	26.0	0.05	0.05	0.02	0.07	126	
140		9.76	9.74	34.116		26.305	173.8	0.325	1.98	D 31.0	31.8	2.19	26.7	0.07	0.04	0.01	0.07	141	209
150	ISL	9.67	D 9.65	34.119	D	26.323	172.3	0.342	1.89	29.5	32.8	2.22	27.0	0.07	0.02	0.01	0.07	151	
170		9.59	9.57	34.152		26.362	169.0	0.376	1.75	27.3	34.3	2.27	27.6	0.05	0.00	0.01	0.08	171	208
200	ISL	9.35	D 9.33	34.197	D	26.437	162.4	0.426	1.54	23.9	37.0	2.36	28.6	0.03	0.05	0.01	0.07	201	
201		9.36	9.34	34.202		26.439	162.2	0.428	1.53	23.7	37.1	2.36	28.6	0.03	0.05	0.01	0.07	202	207
230		9.22	9.19	34.231		26.485	158.5	0.474	1.39	21.5	38.8	2.44	29.2	0.02	0.00			231	206
250	ISL	8.88	D 8.85	34.219	D	26.530	154.4	0.506	1.28	19.6	40.9	2.49	29.9	0.02	0.00			251	
271		8.78	8.75	34.250		26.570	151.0	0.538	1.17	17.9	43.3	2.55	30.7	0.03	0.00			273	205
300	ISL	8.53	D 8.50	34.265	D	26.621	146.6	0.581	1.01	15.4	45.8	2.64	31.6	0.06	0.05			302	
322		8.39	8.36	34.276		26.652	144.0	0.613	0.90	13.7	47.9	2.70	32.3	0.07	0.09			324	204
381		7.65	7.61	34.262		26.751	135.1	0.695	0.71	10.6	56.0	2.81	34.7	0.02	0.04			383	203
400	ISL	7.45	D 7.41	34.254	D	26.774	133.1	0.721	0.67	10.0	58.0	2.84	35.1	0.04	0.02			403	
440		7.23	7.19	34.265		26.814	129.8	0.773	0.60	8.9	61.9	2.91	35.9	0.07	0.00			443	202
500	ISL	6.58	D 6.53	34.272	D	26.908	121.2	0.848	0.47	6.8	68.7	3.01	37.9	0.01	0.00			503	
515		6.55	6.50	34.278		26.917	120.5	0.867	0.44	6.4	70.4	3.04	38.4	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST	TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 50.9 N	117 31.8 W	31/07/10	0735	UTC	843 m	130	05 kn			1013.9 mb	17.0 C	15.6 C			

DEPTH m		TEMP DEG C	POT TEMP DEG C	SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	19.15	19.15	33.540	D	23.869	402.6	0.000	5.66	106.9	1.6	0.21	0.0	0.00	0.00	0.50	0.13	0	
1		19.15	19.15	33.540	D	23.869	402.6	0.004	5.66	106.9	1.6	0.21	0.0	0.00	0.00	0.50	0.13	1	220
10		17.89	17.89	33.517		24.165	374.7	0.039	6.06	111.7	1.5	0.29	0.2	0.02	0.06	0.70	0.17	10	219
20		13.49	13.49	33.372	D	25.035	292.0	0.072	6.12	103.3	2.6	0.70	5.4	0.37	0.12	0.64	0.22	20	218
30		12.61	12.61	33.362		25.202	276.4	0.101	5.50	91.1	5.5	0.93	8.3	0.54	0.38	0.60	0.25	30	217
40		11.66	11.65	33.313		25.344	263.0	0.128	5.12	83.1	8.9	1.07	11.4	0.22	0.07	0.43	0.20	40	216
50	ISL	11.13	D 11.12	33.364	D	25.480	250.3	0.153	4.86	78.0	11.5	1.24	13.9	0.09	0.04	0.31	0.21	50	
51		11.12	11.11	33.363		25.481	250.2	0.156	4.83	77.5	11.8	1.26	14.2	0.08	0.04	0.30	0.21	51	215
60		10.50	10.49	33.427		25.640	235.2	0.178	4.46	70.6	15.4	1.43	17.2	0.02	0.00	0.11	0.10	60	214
70		10.15	10.14	33.487		25.747	225.2	0.201	4.23	66.5	17.6	1.53	18.9	0.02	0.05	0.06	0.10	70	213
75	ISL	9.98	D 9.97	33.517	D	25.799	220.4	0.212	4.12	64.6	18.9	1.58	19.7	0.02	0.05	0.05	0.09	75	
85		9.70	9.69	33.582		25.897	211.3	0.233	3.88	60.4	21.3	1.67	21.3	0.02	0.05	0.03	0.07	85	212
100		9.48	9.47	33.680		26.010	200.8	0.264	3.48	54.0	24.1	1.79	23.1	0.01	0.05	0.02	0.06	100	211
120		9.39	9.38	33.850		26.158	187.2	0.303	2.85	44.2	28.0	1.97	25.4	0.01	0.05	0.01	0.06	121	210
125	ISL	9.38	D 9.37	33.884	D	26.186	184.6	0.312	2.76	42.8	28.8	2.00	25.7	0.01	0.05	0.01	0.06	126	
140		9.18	9.16	33.962		26.279	176.0	0.340	2.58	D 39.8	30.7	2.05	26.5	0.01	0.05	0.01	0.04	141	209
150	ISL	9.02	D 9.00	33.975	D	26.315	172.8	0.357	2.52	38.8	31.7	2.08	26.9	0.01	0.05	0.01	0.04	151	
170		8.91	8.89	34.033		26.378	167.2	0.391	2.38	36.5	33.7	2.14	27.7	0.01	0.05	0.00	0.04	171	208
200		8.74	8.72	34.139		26.489	157.3	0.440	1.87	28.6	38.5	2.34	29.4	0.01	0.05	0.01	0.05	201	207
230		8.79	8.77	34.211		26.538	153.2	0.486	1.41	21.6	41.7	2.48	30.3	0.02	0.00			231	206
250	ISL	8.66	D 8.63	34.235	D	26.577	149.9	0.517	1.21	18.5	44.4	2.57	31.3	0.03	0.00			251	
270		8.40	8.37	34.250		26.629	145.2	0.546	1.06	16.1	47.1	2.65	32.2	0.03	0.00			272	205
300	ISL	8.36	D 8.33	34.294	D	26.670	141.8	0.589	0.87	13.2	49.8	2.73	32.8	0.03	0.03			302	
321		8.16	8.13	34.286		26.694	139.8	0.619	0.78	11.8	51.4	2.77	33.2	0.03	0.05			323	204
380		7.55	7.51	34.252		26.758	134.4	0.700	0.74	11.0	57.1	2.85	35.1	0.00	0.00			382	203
400	ISL	7.27	D 7.23	34.255	D	26.800	130.5	0.726	0.69	10.2	59.8	2.89	35.8	0.00	0.00			403	
441		6.89	6.85	34.263		26.859	125.2	0.778	0.58	8.5	65.5	2.98	37.2	0.00	0.00			444	202
500	ISL	6.43	D 6.38	34.281	D	26.935	118.5	0.850	0.45	6.5	72.4	3.08	38.7	0.00	0.00			503	
515		6.35	6.30	34.289		26.952	117.0	0.868	0.42	6.1	74.1	3.11	39.1	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 41.0 N	117 52.4 W	31/07/10	1150 UTC	629 m	160 04 kn			1013.1 mb	16.9 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.96		16.96		33.422		24.314	360.1	0.000	5.95	107.7	1.0	0.33	0.0	0.00	0.06	0.38	0.06	0	
2		16.96		16.96		33.422		24.314	360.2	0.007	5.95	107.7	1.0	0.33	0.0	0.00	0.06	0.38	0.06	2	220
10		16.62		16.62		33.420		24.392	353.0	0.036	6.05	108.8	1.0	0.35	0.2	0.02	0.05	0.47	0.07	10	219
20		15.22		15.22		33.370		24.669	326.9	0.070	6.21	108.6	1.3	0.46	1.3	0.11	0.16	0.61	0.14	20	218
30		13.24		13.24		33.324		25.048	291.0	0.101	5.81	97.5	3.8	0.78	5.6	0.43	0.49	0.78	0.25	30	217
40		12.87		12.86		33.333		25.129	283.6	0.129	5.57	92.8	5.5	0.89	7.4	0.58	0.23	0.69	0.20	40	216
50	ISL	11.85	D	11.84		33.314	D	25.310	266.6	0.157	5.27	85.9	8.3	1.06	10.8	0.19	0.09	0.36	0.15	50	
51		11.84		11.83		33.315		25.312	266.3	0.160	5.24	85.4	8.6	1.08	11.1	0.15	0.08	0.33	0.15	51	215
60		11.27		11.26		33.325		25.425	255.8	0.183	4.94	79.5	10.8	1.18	12.9	0.07	0.00	0.21	0.12	60	214
70		10.61		10.60		33.375		25.581	241.1	0.208	4.59	72.9	14.2	1.36	15.7	0.04	0.04	0.12	0.09	70	213
75	ISL	10.47	D	10.46		33.390	D	25.617	237.8	0.220	4.49	71.1	15.0	1.41	16.5	0.03	0.05	0.10	0.09	75	
85		10.32		10.31		33.456		25.694	230.6	0.243	4.30	67.9	16.7	1.49	18.0	0.03	0.06	0.07	0.08	85	212
100		9.62		9.61		33.624		25.943	207.2	0.276	3.74	58.2	22.2	1.71	21.8	0.01	0.00	0.03	0.05	100	211
120		9.30		9.29		33.750		26.094	193.2	0.316	3.37	52.1	25.4	1.83	23.9	0.01	0.00	0.01	0.05	121	210
125	ISL	9.21	D	9.20		33.782	D	26.133	189.6	0.326	3.29	50.8	26.2	1.86	24.4	0.01	0.00	0.01	0.05	126	
141		9.06		9.04		33.849		26.210	182.6	0.355	3.02	46.5	28.7	1.95	25.8	0.01	0.00	0.01	0.06	142	209
150	ISL	8.97	D	8.95		33.899	D	26.264	177.7	0.372	2.86	43.9	30.2	2.00	26.5	0.01	0.00	0.01	0.05	151	
171		8.81		8.79		33.994		26.364	168.6	0.408	2.48	38.0	33.9	2.12	27.9	0.01	0.00	0.00	0.04	172	208
200	ISL	8.51	D	8.49		34.078	D	26.476	158.3	0.455	2.05	31.2	39.1	2.30	29.8	0.01	0.00	0.00	0.05	201	
201		8.51		8.49		34.075		26.474	158.6	0.457	2.04	31.0	39.3	2.30	29.9	0.01	0.00	0.00	0.05	202	207
231		7.99		7.97		34.065		26.545	152.2	0.504	2.01	30.2	42.8	2.34	31.1	0.01	0.00			232	206
250	ISL	7.83	D	7.81		34.110	D	26.604	146.8	0.532	1.75	26.2	46.3	2.45	32.3	0.01	0.00			251	
270		7.71		7.68		34.146		26.650	142.8	0.561	1.41	21.1	50.1	2.58	33.5	0.00	0.00			272	205
300	ISL	7.45	D	7.42		34.154	D	26.694	139.0	0.603	1.06	15.7	53.4	2.71	34.4	0.00	0.00			302	
321		7.59		7.56		34.234		26.737	135.4	0.632	0.88	13.1	55.2	2.78	34.8	0.00	0.00			323	204
380		7.24		7.20		34.274		26.819	128.4	0.710	0.62	9.2	61.6	2.95	36.3	0.00	0.13			382	203
400	ISL	7.12	D	7.08		34.290	D	26.848	125.8	0.735	0.56	8.3	64.9	3.00	37.1	0.00	0.09			403	
440		6.52		6.48		34.279		26.921	119.0	0.784	0.46	6.7	71.4	3.07	38.7	0.00	0.00			443	202
500	ISL	6.21	D	6.17		34.295	D	26.975	114.5	0.854	0.37	5.3	76.1	3.12	39.6	0.00	0.00			503	
515		6.18		6.13		34.300		26.983	113.9	0.871	0.35	5.0	77.3	3.13	39.8	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
32 31.2 N	118 12.7 W	31/07/10	1652 UTC	1664 m	210 03 kn	260 02 06	2	1014.2 mb	17.3 C	15.4 C	21m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.37		17.37		33.308		24.129	377.7	0.000	5.71	104.1	1.1	0.32	0.0	0.00	0.11	0.23	0.03	0	
2		17.37		17.37		33.308		24.130	377.8	0.008	5.71	104.1	1.1	0.32	0.0	0.00	0.11	0.23	0.03	2	222
10	ISL	17.30	D	17.30		33.302	D	24.142	376.9	0.038	6.01	109.4	1.0	0.34	0.0	0.00	0.18	0.29	0.05	10	
14		16.58		16.58		33.291		24.302	361.7	0.053	6.26	112.4	1.0	0.35	0.0	0.00	0.21	0.32	0.06	14	220
14		16.69		16.69		33.294		24.279	363.9	0.053										14	221
20	ISL	14.77	D	14.77		33.293	D	24.707	323.2	0.073	6.66	115.3	0.9	0.38	0.2	0.02	0.14	0.68	0.13	20	
22		14.52		14.52		33.297		24.764	317.9	0.080	6.72	115.8	0.8	0.39	0.2	0.03	0.11	0.80	0.15	22	219
29		13.77		13.77		33.291		24.916	303.6	0.101	6.10	103.5	2.7	0.64	3.6	0.25	0.13	0.94	0.20	29	218
30	ISL	13.29	D	13.29		33.271	D	24.997	295.8	0.104	6.03	101.3	3.0	0.66	4.0	0.27	0.14	0.93	0.20	30	
36		13.08		13.08		33.275		25.042	291.7	0.122	5.69	95.1	4.6	0.77	5.9	0.35	0.17	0.79	0.18	36	217
43		12.57		12.56		33.275		25.143	282.3	0.142	5.46	90.3	6.2	0.88	7.7	0.35	0.15	0.66	A 0.18	A 43	216
50	ISL	12.36	D	12.35		33.306	D	25.207	276.4	0.162	5.32	87.6	7.1	0.97	9.2	0.45	0.09	0.56	0.17	50	
55		12.14		12.13		33.337		25.273	270.2	0.175	5.24	85.9	7.6	1.03	10.1	0.49	0.07	0.49	0.16	55	215
66		11.45		11.44		33.346		25.409	257.5	0.204	4.98	80.5	9.6	1.12	12.0	0.18	0.17	0.24	0.11	66	214
75	ISL	10.78	D	10.77		33.309	D	25.500	248.9	0.227	4.73	75.3	11.8	1.20	13.4	0.09	0.11	0.17	0.10	75	
77		10.73		10.72		33.317		25.515	247.6	0.232	4.67	74.3	12.4	1.23	13.8	0.08	0.09	0.16	0.10	77	213
88		10.26		10.25		33.406		25.666	233.4	0.258	4.40	69.3	15.5	1.56	16.8	0.04	0.00	0.08	0.07	88	212
100		9.94		9.93		33.517		25.806	220.2	0.286	4.07	63.7	18.6	1.56	19.4	0.03	0.00	0.04	0.07	100	211
120		9.40		9.39		33.745		26.074	195.2	0.327	3.36	52.0	24.8	1.81	23.4	0.02	0.04	0.01	0.05	121	210
125	ISL	9.22	D	9.21		33.764	D	26.118	191.0	0.337	3.26	50.3	25.8	1.84	24.0	0.02	0.03	0.01	0.05	126	
140		9.09		9.07		33.846		26.203	183.2	0.365	3.04	46.8	28.4	1.92	25.4	0.02	0.00	0.01	0.04	141	209
150	ISL	9.01	D	8.99		33.871	D	26.235	180.3	0.383	2.84	43.6	30.4	1.99	26.4	0.02	0.01	0.01	0.04	151	
170		8.73		8.71		33.965		26.353	169.5	0.418	2.44	37.3	34.3	2.13	28.1	0.01	0.04	0.01	0.05	171	208
200	ISL	8.43	D	8.41		34.076	D	26.487	157.3	0.467	1.95	29.6	39.6	2.31	30.0	0.00	0.00	0.01	0.06	201	
201		8.44		8.42		34.079		26.488	157.2	0.469	1.93	29.3	39.8	2.32	30.1	0.00	0.00	0.01	0.06	202	207
232		8.27		8.25		34.171		26.586	148.4	0.516	1.34	20.3	45.5	2.53	32.0	0.01	0.00			233	206
250	ISL	8.12	D	8.09		34.196	D	26.629	144.7	0.542	1.16	17.5	47.3	2.60	32.7	0.01	0.00			251	
271		8.04		8.01		34.206		26.649	143.1	0.573	1.03	15.5	49.2	2.67	33.3	0.01	0.00			273	205
300	ISL	7.69	D	7.66		34.224	D	26.714	137.2	0.613	0.87	13.0	53.2	2.75	34.4	0.01	0.00			302	
322		7.51		7.48		34.232		26.747	134.4	0.643	0.77	11.5	56.5	2.81	35.2	0.01	0.00			324	204
381		6.94		6.90		34.256		26.846	125.6	0.720	0.59	8.7	63.9	2.94	37.0	0.00	0.00			383	203
400	ISL	6.76	D	6.72		34.251	D	26.867	123.7	0.744	0.54	7.9	66.0	2.98	37.5	0.00	0.00			403	
442		6.49		6.45		34.277		26.923	118.8	0.794	0.44	6.4	70.6	3.06	38.6	0.00	0.00			445	202
500	ISL	6.14	D	6.10		34.300	D	26.988	113.2	0.862	0.34	4.9	77.2	3.14	39.9	0.00	0.00			503	
515		6.03		5.98		34.311		27.010	111.1	0.879	0.32	4.6	78.9	3.16	40.2	0.00	0.00			519	201

A) FIRST FLUOROMETER READING NOT RECORDED, CHLOROPHYLL AND PHAEOPIGMENT
CALCULATED WITH ASSUMED ACID RATIO INTERPOLATED FROM ADJACENT LEVELS.
D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 33.3 W	31/07/10	2021 UTC	142 m	190 08 kn	300 02 08	2	1014.1 mb	17.9 C	16.1 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.74		17.74		33.506		24.192	371.7	0.000	5.78	106.3	1.8	0.27	0.0	0.00	0.07	0.37	0.14	0	
1		17.74		17.74		33.506		24.192	371.7	0.004	5.78	106.3	1.8	0.27	0.0	0.00	0.07	0.37	0.14	1	220
10		17.64		17.64		33.519		24.227	368.8	0.037	5.79	106.3	1.7	0.26	0.0	0.00	0.00	0.39	0.16	10	219
20	ISL	15.11	D	15.11		33.548	D	24.830	311.6	0.071	6.08	106.2	2.3	0.45	2.5	0.09	0.20	1.00	0.37	20	
21		15.13		15.13		33.558		24.833	311.3	0.074	6.10	106.6	2.4	0.47	2.8	0.10	0.22	1.06	0.39	21	218
30	ISL	13.24	D	13.24		33.486	D	25.174	279.1	0.101	5.89	99.0	3.3	0.63	4.8	0.22	0.17	1.17	0.51	30	
31		13.22		13.22		33.499	D	25.188	277.7	0.104	5.84	98.1	3.4	0.65	5.1	0.23	0.17	1.18	0.51	31	217
41		11.85		11.84		33.447		25.413	256.5	0.130	5.11	83.3	8.2	0.97	9.2	0.34	0.38	0.76	0.36	41	216
50		10.93		10.92		33.500		25.622	236.8	0.152	4.24	67.8	15.2	1.44	16.9	0.20	0.11	0.50	0.31	50	215
61		10.51		10.50		33.628		25.795	220.5	0.178	3.79	60.1	19.5	1.67	21.0	0.04	0.00	0.23	0.15	61	214
71		10.14		10.13		33.741		25.947	206.3	0.199	3.16	49.8	23.5	1.84	23.5	0.02	0.00	0.16	0.14	71	213
75	ISL	10.02	D	10.01		33.776	D	25.995	201.8	0.207	2.96	46.5	24.8	1.90	24.3	0.02	0.00	0.13	0.13	75	
85		9.73		9.72		33.846		26.098	192.2	0.227	2.63	41.1	27.7	2.02	25.8	0.02	0.00	0.07	0.10	85	212
100		9.09		9.08		33.929		26.267	176.3	0.254	2.56	39.4	30.9	2.07	27.0	0.02	0.00	0.01	0.06	101	211
121		8.83		8.82		33.982		26.350	168.8	0.291	2.39	36.6	33.6	2.13	28.0	0.01	0.00	0.01	0.06	122	210
125	ISL	8.81	D	8.80		33.984	D	26.355	168.5	0.297	2.42	37.0	33.6	2.12	28.0	0.01	0.00	0.01	0.06	126	
141		8.65		8.64		34.002		26.394	165.0	0.324	2.49	38.0	33.9	2.11	28.0	0.03	0.00	0.01	0.05	142	209
150	ISL	8.59	D	8.57		34.022	D	26.419	162.8	0.339	2.30	35.0	35.3	2.17	28.6	0.03	0.00	0.01	0.05	151	
171		8.57		8.55		34.089		26.475	157.9	0.373	1.80	27.4	39.3	2.34	30.3	0.01	0.00	0.01	0.05	172	208
200	ISL	8.02	D	8.00		34.089	D	26.559	150.3	0.417	1.75	26.3	43.8	2.41	31.6	0.00	0.00	0.00	0.04	201	
201		8.02		8.00		34.093		26.562	150.0	0.419	1.75	26.3	43.9	2.41	31.6	0.00	0.00	0.00	0.04	202	207
232		7.96		7.94		34.180		26.640	143.2	0.464	1.16	17.4	48.6	2.62	33.3	0.00	0.00			233	206
250	ISL	7.92	D	7.89		34.203	D	26.664	141.2	0.490	0.99	14.9	50.6	2.69	33.9	0.00	0.00			251	
269		7.78		7.75		34.222		26.699	138.1	0.516	0.89	13.3	52.5	2.75	34.3	0.00	0.00			271	205
300	ISL	7.42	D	7.39		34.237	D	26.763	132.4	0.558	0.77	11.4	56.2	2.82	35.2	0.00	0.00			302	
320		7.33		7.30		34.243		26.781	131.0	0.585	0.72	10.7	58.6	2.86	35.7	0.00	0.00			322	204
380		6.89		6.85		34.275		26.868	123.5	0.661	0.51	7.5	65.2	2.99	37.3	0.00	0.00			382	203
400	ISL	6.71	D	6.67		34.271	D	26.889	121.6	0.685	0.47	6.9	67.4	3.02	37.8	0.00	0.00			403	
440		6.40		6.36		34.285		26.942	116.9	0.733	0.40	5.8	71.9	3.08	38.8	0.00	0.00			443	202
500	ISL	5.95	D	5.91		34.319	D	27.026	109.3	0.801	0.30	4.3	79.8	3.17	40.2	0.00	0.00			503	
516		5.89		5.85		34.328		27.041	108.1	0.818	0.27	3.9	81.9	3.19	40.6	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 53.6 W	01/08/10	0043 UTC	1471 m	200 06 kn	300 02 07	2	1012.9 mb	17.1 C	15.0 C	11m	8/8	SC

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.44		17.44		33.585		24.325	359.1	0.000	5.85	107.0	1.9	0.30	0.0	0.00	0.09	0.57	0.12	0	
2		17.44		17.44		33.585		24.325	359.1	0.007	5.85	107.0	1.9	0.30	0.0	0.00	0.09	0.57	0.12	2	220
10		17.39		17.39		33.581		24.334	358.5	0.036	5.83	106.5	1.9	0.32	0.0	0.00	0.06	0.54	0.15	10	219
20	ISL	14.55	D	14.55		33.607	D	24.996	295.7	0.069	5.64	97.4	4.7	0.65	4.7	0.21	0.18	0.67	0.24	20	
21		14.49		14.49		33.611		25.012	294.2	0.072	5.62	97.0	5.0	0.70	5.5	0.24	0.19	0.68	0.25	21	218
30		11.83		11.83		33.669		25.589	239.5	0.096	4.37	71.3	14.2	1.37	15.5	0.53	0.06	0.69	0.34	30	217
40		10.66		10.66		33.731		25.849	215.0	0.118	3.43	54.6	21.1	1.75	21.8	0.10	0.04	0.40	0.23	40	216
50	ISL	9.97	D	9.96		33.774	D	26.001	200.7	0.139	2.98	46.8	25.3	1.90	24.4	0.04	0.00	0.21	0.14	50	
51		9.97		9.96		33.774		26.001	200.7	0.141	2.96	46.4	25.5	1.91	24.5	0.03	0.00	0.20	0.13	51	215
60		9.92		9.91		33.779		26.014	199.7	0.159	2.91	45.6	25.8	1.92	24.7	0.02	0.00	0.19	0.12	60	214
70		9.66		9.65		33.831		26.098	191.9	0.179	2.70	42.1	27.7	2.00	25.7	0.02	0.00	0.08	0.08	70	213
75	ISL	9.63	D	9.62		33.839	D	26.109	190.9	0.188	2.65	41.3	28.7	2.03	26.2	0.02	0.00	0.05	0.08	75	
86		9.17		9.16		33.881		26.217	180.9	0.209	2.60	40.1	30.9	2.07	27.0	0.01	0.00	0.02	0.07	86	212
100	ISL	8.89	D	8.88		33.938	D	26.306	172.6	0.233	2.51	38.5	33.0	2.11	27.7	0.01	0.00	0.01	0.07	101	
101		8.89		8.88		33.937		26.305	172.7	0.235	2.50	38.3	33.1	2.11	27.7	0.01	0.00	0.01	0.07	102	211
120		8.76		8.75		34.014		26.386	165.4	0.267	2.27	34.7	35.5	2.19	28.6	0.01	0.00	0.00	0.06	121	210
125	ISL	8.74	D	8.73		34.024	D	26.397	164.4	0.276	2.18	33.3	36.1	2.22	28.9	0.01	0.00	0.00	0.06	126	
141		8.75		8.74		34.086		26.444	160.3	0.302	1.87	28.6	37.9	2.31	29.7	0.01	0.00	0.00	0.06	142	209
150	ISL	8.75	D	8.73		34.103	D	26.458	159.2	0.316	1.73	26.5	39.2	2.36	30.1	0.01	0.00	0.00	0.06	151	
171		8.57		8.55		34.150		26.523	153.4	0.349	1.49	22.7	42.2	2.46	31.0	0.02	0.00	0.00	0.05	172	208
200	ISL	8.22	D	8.20		34.158	D	26.583	148.1	0.392	1.39	21.0	45.3	2.53	32.1	0.04	0.00	0.00	0.04	201	
201		8.23		8.21		34.155		26.579	148.5	0.394	1.39	21.0	45.4	2.53	32.1	0.04	0.00	0.00	0.04	202	207
231		7.74		7.72		34.153		26.650	142.1	0.437	1.29	19.3	49.8	2.61	33.5	0.02	0.06			232	206
250	ISL	7.52	D	7.50		34.167	D	26.693	138.2	0.464	1.14	17.0	52.4	2.68	34.2	0.01	0.09			252	
270		7.48		7.45		34.194		26.721	136.0	0.492	0.97	14.4	55.0	2.75	34.8	0.01	0.10			272	205
300	ISL	7.25	D	7.22		34.220	D	26.774	131.3	0.532	0.80	11.8	58.4	2.83	35.7	0.02	0.08			302	
321		7.15		7.12		34.228		26.794	129.6	0.559	0.70	10.3	60.8	2.88	36.3	0.02	0.06			323	204
381		6.57		6.54		34.260		26.899	120.3	0.634	0.50	7.3	69.6	3.03	38.3	0.00	0.00			384	203
400	ISL	6.50	D	6.46		34.266	D	26.913	119.1	0.657	0.46	6.7	71.0	3.05	38.5	0.00	0.00			403	
441		6.37		6.33		34.280		26.942	116.9	0.705	0.39	5.7	73.4	3.09	38.9	0.00	0.00			444	202
500	ISL	6.04	D	6.00		34.309	D	27.007	111.2	0.772	0.30	4.3	79.4	3.16	40.0	0.00	0.00			503	
518		5.97		5.92		34.318		27.023	109.9	0.792	0.27	3.9	81.2	3.18	40.3	0.00	0.00			522	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 0.8 N	119 14.2 W	01/08/10	0447 UTC	1592 m	250 07 kn			1014.1 mb	16.2 C	14.1 C			

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.41		16.41		33.573		24.557	336.9	0.000	5.93	106.3	1.5	0.41	1.6	0.06	0.41	0.41	0.15	0	
2		16.41		16.41		33.573		24.557	337.0	0.007	5.93	106.3	1.5	0.41	1.6	0.06	0.41	0.41	0.15	2	221
10		15.94		15.94		33.512		24.618	331.5	0.033	6.02	106.9	1.2	0.40	1.4	0.07	0.42	0.50	0.20	10	219
10		16.05		16.05		33.518		24.598	333.4	0.033										10	220
20		14.70		14.70		33.421		24.821	312.4	0.066	6.48	112.1	0.0	0.30	0.3	0.05	0.18	2.62	0.07	20	218
30	ISL	13.13	D	13.13		33.401	D	25.130	283.2	0.096	5.63	94.3	2.9	0.76	5.2	0.37	1.54	1.37	0.51	30	
31		13.14		13.14		33.409		25.134	282.8	0.098	5.52	92.5	3.3	0.82	5.8	0.40	1.67	1.16	0.55	31	217
40		12.47		12.46		33.463		25.307	266.6	0.123	5.10	84.3	6.3	1.09	9.6	0.48	1.50	0.17	0.28	40	216
50		11.02		11.01		33.406		25.532	245.3	0.149	4.74	75.9	11.0	1.31	14.5	0.39	0.37	0.06	0.15	50	215
60		10.24		10.23		33.414		25.675	231.9	0.173	4.29	67.6	16.1	1.51	18.2	0.08	0.05	0.06	0.13	60	214
70		10.11		10.10		33.464		25.736	226.3	0.195	4.13	64.9	18.5	1.62	19.9	0.06	0.05	0.05	0.14	70	213
75	ISL	9.98	D	9.97		33.499	D	25.785	221.7	0.207	4.01	62.8	19.5	1.66	20.7	0.05	0.05	0.05	0.14	75	
85		9.78		9.77		33.571		25.875	213.4	0.228	3.75	58.5	21.3	1.73	22.0	0.05	0.05	0.05	0.12	85	212
100		9.59		9.58		33.655		25.972	204.4	0.260	3.45	53.6	23.5	1.84	23.7	0.05	0.05	0.03	0.11	100	211
120		9.20		9.19		33.829		26.172	185.8	0.299	3.04	46.9	27.5	1.94	25.2	0.04	0.05	0.05	0.20	121	210
125	ISL	9.11	D	9.10		33.863	D	26.213	182.0	0.308	3.04	46.8	28.1	1.94	25.4	0.04	0.04	0.04	0.17	126	
140		8.78		8.77		33.919		26.309	173.1	0.335	2.99	45.7	30.2	1.97	26.2	0.04	0.00	0.01	0.07	141	209
150	ISL	8.58	D	8.56		33.990	D	26.396	165.0	0.352	2.66	40.5	33.1	2.08	27.5	0.03	0.00	0.02	0.08	151	
170		8.43		8.41		34.092		26.499	155.6	0.384	1.89	28.7	39.6	2.34	30.2	0.02	0.00	0.05	0.10	171	208
200		8.08		8.06		34.149		26.597	146.7	0.429	1.40	21.1	46.1	2.54	32.4	0.02	0.00	0.02	0.05	201	207
230		7.83		7.81		34.190		26.666	140.6	0.472	1.07	16.0	50.6	2.69	33.8	0.02	0.00			231	206
250	ISL	7.74	D	7.72		34.199	D	26.687	139.0	0.500	0.94	14.1	52.7	2.75	34.4	0.02	0.00			251	
273		7.57		7.54		34.223		26.731	135.1	0.531	0.83	12.4	55.2	2.81	35.1	0.02	0.00			275	205
300	ISL	7.27	D	7.24		34.243	D	26.789	129.8	0.567	0.70	10.4	59.4	2.89	36.0	0.01	0.00			302	
320		7.08		7.05		34.250		26.821	127.0	0.593	0.61	9.0	62.6	2.94	36.7	0.01	0.00			322	204
380		6.65		6.62		34.280		26.904	119.8	0.667	0.42	6.1	69.9	3.07	38.1	0.01	0.00			382	203
400	ISL	6.56	D	6.52		34.287	D	26.922	118.4	0.691	0.38	5.5	71.9	3.10	38.4	0.01	0.00			403	
441		6.36		6.32		34.307		26.964	114.8	0.739	0.32	4.6	75.4	3.14	38.9	0.00	0.00			444	202
500	ISL	6.15	D	6.11		34.322	D	27.004	111.7	0.805	0.26	3.7	79.7	3.19	39.5	0.00	0.00			503	
517		6.07		6.02		34.331		27.021	110.2	0.824	0.24	3.5	81.0	3.20	39.7	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 34.4 W	01/08/10	1008 UTC	1901 m	270 10 kn			1013.4 mb	15.5 C	13.9 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	16.07		16.07		33.145		24.306	360.9	0.000	5.95	105.7	0.8	0.35	0.0	0.01	0.06	0.25	0.05	0	
1		16.07		16.07		33.145		24.306	360.9	0.004	5.95	105.7	0.8	0.35	0.0	0.01	0.06	0.25	0.05	1	220
10		15.88		15.88		33.144		24.349	357.1	0.036	6.06	107.2	0.7	0.36	0.1	0.01	0.05	0.29	0.08	10	219
20		15.65		15.65		33.154		24.408	351.8	0.071	6.10	107.4	0.7	0.36	0.1	0.02	0.07	0.37	0.12	20	218
30		14.83		14.83		33.114		24.557	337.9	0.106	6.22	107.7	1.7	0.38	0.1	0.02	0.04	0.60	0.23	30	217
41		13.82		13.81		33.120		24.774	317.5	0.142	5.98	101.4	3.3	0.54	1.7	0.27	0.12	0.64	0.37	41	216
50		13.15		13.14		33.165		24.944	301.5	0.170	5.64	94.4	4.8	0.68	4.5	0.23	0.07	0.50	0.33	50	215
60		12.08		12.07		33.190		25.170	280.0	0.199	5.34	87.4	6.5	0.84	7.4	0.08	0.00	0.41	0.28	60	214
70		11.63		11.62		33.222		25.279	269.9	0.226	5.20	84.3	8.5	1.03	10.2	0.05	0.00	0.19	0.17	70	213
75	ISL	11.54	D	11.53		33.370	D	25.411	257.5	0.240	5.06	81.9	9.6	1.13	11.9	0.08	0.00	0.14	0.15	75	
85		10.73		10.72		33.328		25.524	246.9	0.265	4.74	75.4	12.1	1.31	15.1	0.12	0.00	0.09	0.13	85	212
100		10.17		10.16		33.403		25.679	232.4	0.301	4.29	67.4	16.5	1.54	18.8	0.01	0.00	0.05	0.08	100	211
120		9.85		9.84		33.550		25.848	216.7	0.346	3.83	59.8	20.1	1.68	21.2	0.02	0.00	0.02	0.07	121	210
125	ISL	9.76	D	9.75		33.574	D	25.881	213.6	0.356	3.67	57.2	21.4	1.73	22.0	0.02	0.00	0.02	0.07	126	
140		9.52		9.50		33.704		26.023	200.5	0.387	3.25	50.5	25.0	1.88	24.4	0.02	0.00	0.03	0.07	141	209
150	ISL	9.29	D	9.27		33.797	D	26.133	190.2	0.407	3.16	48.8	26.5	1.91	25.1	0.02	0.00	0.02	0.06	151	
171		8.87		8.85		33.870		26.257	178.7	0.446	3.07	47.0	28.9	1.94	25.9	0.03	0.00	0.01	0.05	172	208
200	ISL	8.59	D	8.57		33.993	D	26.397	165.8	0.496	2.67	40.7	33.0	2.06	27.5	0.02	0.00	0.01	0.04	201	
201		8.60		8.58		33.993		26.396	166.0	0.497	2.65	40.4	33.2	2.07	27.6	0.02	0.00	0.01	0.04	202	207
230		8.30		8.28		34.069		26.502	156.4	0.544	2.03	30.7	39.5	2.32	30.1	0.00	0.00			231	206
250	ISL	8.13	D	8.10		34.117	D	26.565	150.7	0.575	1.77	26.7	43.2	2.42	31.4	0.00	0.00			251	
270		7.75		7.72		34.118		26.622	145.4	0.604	1.59	23.8	46.7	2.49	32.6	0.00	0.00			272	205
300	ISL	7.29	D	7.26		34.108	D	26.680	140.2	0.647	1.39	20.6	51.8	2.60	34.2	0.00	0.00			302	
320		7.12		7.09		34.129		26.720	136.5	0.675	1.27	18.7	55.0	2.67	35.1	0.00	0.00			322	204
380		6.64		6.61		34.181		26.827	127.0	0.754	0.81	11.8	64.1	2.89	37.5	0.00	0.00			382	203
400	ISL	6.48	D	6.44		34.189	D	26.855	124.6	0.779	0.70	10.2	66.4	2.94	38.0	0.00	0.00			403	
440		6.36		6.32		34.235		26.907	120.1	0.828	0.54	7.8	70.6	3.03	38.7	0.00	0.00			443	202
500	ISL	5.93	D	5.89		34.257	D	26.980	113.6	0.898	0.42	6.0	76.8	3.11	39.9	0.00	0.00			503	
517		5.88		5.84		34.261		26.990	112.9	0.917	0.38	5.4	78.6	3.13	40.2	0.00	0.00			520	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 31.1 N	120 14.4 W	01/08/10	1702 UTC	3939 m	290 07 kn	320 05 08	2	1014.8 mb	16.5 C	14.3 C	23m	8/8	ST

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.00		17.00		33.141		24.089	381.6	0.000	5.65	102.2	2.4	0.35	0.0	0.00	0.00	0.15	0.03	0	
2		17.00		17.00		33.141		24.089	381.6	0.008	5.65	102.2	2.4	0.35	0.0	0.00	0.00	0.15	0.03	2	222
10	ISL	17.00	D	17.00		33.132	D	24.082	382.5	0.038	5.65	102.2	2.4	0.35	0.0	0.00	0.00	0.16	0.02	10	
15		16.99		16.99		33.139		24.090	381.9	0.057	5.65	102.2	2.4	0.35	0.0	0.00	0.00	0.16	0.02	15	221
20	CSL	16.00		16.00		33.094		24.283	363.7	0.076	5.79	102.6	2.4	0.36	0.0	0.00	0.00	0.19	0.03	20	200
30	CSL	15.31		15.31		33.044		24.399	353.0	0.112	6.03	105.4	2.4	0.37	0.0	0.00	0.00	0.27	0.08	30	200
31		15.30		15.30		33.051		24.406	352.3	0.115	5.99	104.7	2.4	0.37	0.0	0.00	0.00	0.28	0.09	31	220
39		14.79		14.78		33.054		24.519	341.7	0.143	6.01	104.0	2.5	0.36	0.0	0.00	0.00	0.36	0.18	39	219
47		14.80		14.79		33.175		24.611	333.2	0.170	5.94	102.8	2.3	0.30	0.0	0.00	0.00	0.33	0.22	47	218
50	ISL	14.82	D	14.81		33.192	D	24.620	332.5	0.180	5.94	102.9	2.3	0.30	0.0	0.00	0.00	0.32	0.22	50	
54		14.87		14.86		33.237	D	24.644	330.3	0.193	5.94	103.0	2.4	0.30	0.0	0.00	0.00	0.31	0.21	54	217
59		14.54		14.53		33.182		24.672	327.8	0.210	5.85	100.7	2.4	0.31	0.0	0.00	0.00	0.30	0.39	59	216
68		13.85		13.84		33.086		24.742	321.3	0.239	5.84	99.1	2.3	0.36	0.1	0.11	0.00	0.30	0.36	68	215
75		13.62		13.61		33.058		24.767	319.0	0.261	5.80	97.9	2.6	0.39	0.3	0.14	0.00	0.24	0.34	75	214
85		13.00		12.99		33.154		24.966	300.3	0.292	5.57	92.9	3.9	0.53	2.5	0.05	0.00	0.13	0.19	85	213
94		11.84		11.83		33.197		25.222	276.0	0.318	5.37	87.4						0.07	0.13	94	212
100	ISL	11.44	D	11.43		33.182	D	25.284	270.2	0.335	5.33	86.0	5.9	0.72	6.0	0.03	0.00	0.06	0.11	100	
110		11.02		11.01		33.212		25.383	260.9	0.361	5.22	83.5	8.1	0.90	9.0	0.01	0.00	0.05	0.10	110	211
124		10.57		10.56		33.350		25.569	243.4	0.397	4.69	74.4	13.8	1.30	15.1	0.00	0.00	0.02	0.05	125	210
125	ISL	10.49	D	10.48		33.370	D	25.599	240.6	0.399	4.65	73.6	14.1	1.32	15.4	0.00	0.00	0.02	0.05	126	
145		9.69		9.67		33.530		25.859	216.1	0.445	3.99	62.1	19.6	1.58	19.9	0.01	0.00	0.00	0.02	146	209
150	ISL	9.50	D	9.48		33.529	D	25.889	213.3	0.455	3.89	60.3	20.5	1.62	20.6	0.01	0.00	0.00	0.02	151	
170		9.38		9.36		33.737		26.072	196.4	0.496	3.52	54.5	23.6	1.75	22.8	0.00	0.00	0.00	0.02	171	208
199		9.06		9.04		33.941		26.283	176.8	0.550	2.78	42.8	29.9	1.99	26.3	0.00	0.00	0.00	0.02	200	207
200	ISL	9.03	D	9.01		33.943	D	26.289	176.2	0.552	2.77	42.6	30.0	1.99	26.4	0.00	0.00			201	
230		8.66		8.64		33.996		26.389	167.2	0.604	2.58	39.4	33.3	2.07	27.7	0.00	0.00			231	206
250	ISL	8.07	D	8.04		34.024	D	26.501	156.7	0.636	2.41	36.3	37.4	2.17	29.3	0.00	0.00			251	
271		7.81		7.78		34.038		26.550	152.2	0.669	2.19	32.8	42.3	2.29	31.1	0.00	0.00			272	205
300	ISL	7.42	D	7.39		34.062	D	26.626	145.4	0.712	1.78	26.4	48.9	2.47	33.4	0.00	0.00			302	
320		7.15		7.12		34.092		26.687	139.7	0.740	1.50	22.1	53.2	2.59	34.8	0.00	0.00			322	204
380		6.57		6.54		34.123		26.791	130.4	0.821	1.05	15.3	63.0	2.81	37.5	0.00	0.00			382	203
400	ISL	6.42	D	6.38		34.132	D	26.818	128.0	0.847	0.96	13.9	66.3	2.87	38.2	0.00	0.00			402	
441		5.99		5.95		34.146		26.884	121.9	0.898	0.79	11.3	72.7	2.98	39.5	0.00	0.00			444	202
500	ISL	5.83	D	5.79		34.233	D	26.973	114.2	0.968	0.50	7.2	79.2	3.09	40.6	0.00	0.00			503	
515		5.72		5.68		34.237		26.990	112.6	0.985	0.42	6.0	80.8	3.12	40.9	0.00	0.00			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 11.2 N	120 56.0 W	02/08/10	0014 UTC	3878 m	290 12 kn	320 03 08	2	1013.3 mb	17.3 C	15.0 C	19m	8/8	SC

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	17.82		17.82		33.246		23.974	392.5	0.000	5.57	102.4	2.2	0.32	0.0	0.00	0.05	0.17	0.03	0	
2		17.82		17.82		33.246		23.974	392.6	0.008	5.57	102.4	2.2	0.32	0.0	0.00	0.05	0.17	0.03	2	220
10	ISL	17.81	D	17.81		33.243	D	23.974	392.8	0.039	5.56	102.2	2.3	0.32	0.0	0.00	0.05	0.16	0.03	10	
11		17.81		17.81		33.245		23.976	392.7	0.043	5.56	102.2	2.3	0.32	0.0	0.00	0.05	0.16	0.03	11	219
20	ISL	16.73	D	16.73		33.179	D	24.182	373.4	0.078	5.73	103.1	2.4	0.33	0.0	0.00	0.07	0.18	0.04	20	
25		16.46		16.46		33.165		24.234	368.6	0.096	5.84	104.5	2.4	0.33	0.0	0.00	0.08	0.20	0.05	25	218
30	ISL	16.27	D	16.27		33.152	D	24.267	365.5	0.115	5.86	104.5	2.4	0.33	0.0	0.00	0.05	0.24	0.07	30	
40		15.72		15.71		33.143		24.385	354.6	0.151	5.90	104.0	2.3	0.34	0.0	0.00	0.00	0.31	0.13	40	217
50		15.31		15.30		33.137		24.471	346.7	0.186	5.91	103.3	2.3	0.35	0.0	0.00	0.00	0.35	0.24	50	216
62		14.75		14.74		33.134		24.590	335.6	0.227	5.84	101.0	2.6	0.42	0.2	0.11	0.16	0.42	0.41	62	215
75		14.23		14.22		33.128		24.696	325.9	0.270	5.66	96.8	3.0	0.50	1.2	0.58	0.04	0.18	0.20	75	214
88		13.83		13.82		33.150		24.796	316.7	0.311	5.60	95.0	3.4	0.57	2.8	0.02	0.00	0.10	0.12	88	213
100	ISL	13.42	D	13.41		33.185	D	24.907	306.4	0.349	5.58	93.9	4.2	0.64	4.0	0.01	0.00	0.07	0.07	100	
101		13.47		13.46		33.173		24.887	308.3	0.352	5.58	94.0	4.3	0.65	4.1	0.01	0.00	0.07	0.07	101	212
112		12.50		12.49		33.165		25.073	290.8	0.385	5.43	89.6	5.7	0.77	6.2	0.01	0.00	0.04	0.05	112	211
125		11.91		11.89		33.221		25.228	276.2	0.422	5.28	86.1	7.4	0.92	8.6	0.01	0.00	0.03	0.05	126	210
141		11.30		11.28		33.261		25.371	262.8	0.465	5.08	81.8	9.8	1.09	11.4	0.01	0.00	0.01	0.03	142	209
150	ISL	10.68	D	10.66		33.345	D	25.547	246.1	0.488	4.83	76.7	12.1	1.21	13.6	0.01	0.00	0.01	0.03	151	
171		9.82		9.80		33.472		25.793	223.0	0.537	4.17	65.1	17.9	1.50	18.6	0.00	0.00	0.01	0.03	172	208
200		9.25		9.23		33.769		26.118	192.5	0.597	3.50	54.0	24.3	1.76	23.2	0.00	0.00	0.00	0.02	201	207
231		8.92		8.90		33.950		26.313	174.6	0.654	2.78	42.6	30.6	2.01	26.5	0.00	0.00			232	206
250	ISL	8.72	D	8.69		33.973	D	26.362	170.2	0.687	2.43	37.1	34.2	2.13	28.0	0.00	0.00			251	
271		8.51		8.48		34.077		26.477	159.7	0.721	2.09	31.8	38.0	2.25	29.4	0.00	0.00			272	205
300	ISL	8.10	D	8.07		34.111	D	26.566	151.5	0.767	1.69	25.5	42.6	2.42	31.2	0.00	0.00			302	
320		7.99		7.96		34.146		26.610	147.7	0.796	1.46	22.0	45.7	2.53	32.4	0.00	0.00			322	204
381		7.39		7.35		34.216		26.752	134.8	0.883	0.86	12.8	56.6	2.80	35.3	0.00	0.00			383	203
400	ISL	7.13	D	7.09		34.228	D	26.798	130.5	0.908	0.76	11.2	59.4	2.86	36.1	0.00	0.00			402	
440		6.76		6.72		34.227		26.848	126.1	0.959	0.63	9.2	65.1	2.97	37.5	0.00	0.00			443	202
500	ISL	5.94	D	5.90		34.190	D	26.926	118.8	1.033	0.58	8.3	74.7	3.05	39.5	0.00	0.00			503	
516		5.84		5.80		34.199		26.945	117.0	1.051	0.57	8.2	77.2	3.07	40.0	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
30 50.9 N	121 35.4 W	02/08/10	0607 UTC	4091 m	260 10 kn			1015.3 mb	16.9 C	14.4 C			

DEPTH m		TEMP DEG C		POT TEMP DEG C		SALINITY		SIGMA THETA	SVA	DYN HT	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.54		18.54		33.319		23.853	404.1	0.000	5.48	102.2	2.2	0.33	0.0	0.00	0.00	0.11	0.02	0	
2		18.54		18.54		33.319		23.853	404.1	0.008	5.48	102.2	2.2	0.33	0.0	0.00	0.00	0.11	0.02	2	220
10		18.54		18.54		33.319		23.854	404.4	0.040	5.47	102.0	2.1	0.33	0.0	0.00	0.05	0.10	0.02	10	219
20	ISL	18.19	D	18.19		33.273	D	23.905	399.8	0.081	5.58	103.3	2.2	0.33	0.0	0.00	0.05	0.13	0.03	20	
25		17.89		17.89		33.265		23.973	393.5	0.100	5.65	104.0	2.3	0.33	0.0	0.00	0.05	0.15	0.03	25	218
30	ISL	17.44	D	17.44		33.223	D	24.049	386.4	0.120	5.69	103.8	2.2	0.33	0.0	0.00	0.05	0.13	0.03	30	
40		16.69		16.68		33.172	D	24.186	373.6	0.158	5.85	D105.2	2.1	0.33	0.0	0.00	0.04	0.11	0.03	40	217
50		16.43		16.42		33.180		24.253	367.6	0.195	5.82	104.1	2.2	0.32	0.0	0.00	0.05	0.19	0.06	50	216
62		15.59		15.58		33.159		24.427	351.3	0.238	5.95	104.6	2.2	0.34	0.0	0.00	0.06	0.31	0.15	62	215
75		14.89		14.88		33.205		24.615	333.6	0.283	5.83	101.1	2.5	0.36	0.0	0.01	0.04	0.26	0.20	75	214
88		13.83		13.82		33.168	D	24.810	315.3	0.325	5.70	96.7	3.6	0.58	2.3	0.51	0.07	0.29	0.27	88	213
100		12.73		12.72		33.182		25.041	293.5	0.361	5.40	89.6	5.0	0.66	4.1	0.16	0.05	0.16	0.22	100	212
113		11.62		11.61		33.198		25.263	272.4	0.398	5.05	81.8	7.9	0.93	8.8	0.04	0.08	0.11	0.18	113	211
125	ISL	10.73	D	10.72		33.256	D	25.468	253.1	0.430	4.96	78.9	10.1	1.07	11.5	0.01	0.04	0.07	0.14	126	
126		10.81		10.79		33.249		25.449	254.9	0.432	4.95	78.8	10.3	1.08	11.7	0.01	0.04	0.07	0.14	127	210
140		10.22		10.20		33.325		25.610	239.8	0.467	4.64	73.0	13.6	1.29	15.1	0.00	0.06	0.04	0.06	141	209
150	ISL	10.00	D	9.98		33.447	D	25.743	227.4	0.490	4.38	68.6	15.9	1.41	17.2	0.00	0.04	0.03	0.05	151	
170		9.66		9.64		33.581		25.904	212.4	0.534	3.86	60.1	20.3	1.62	20.6	0.00	0.00	0.01	0.03	171	208
200	ISL	9.31	D	9.29		33.854	D	26.175	187.2	0.594	3.16	48.9	26.4	1.85	24.3	0.00	0.00	0.00	0.03	201	
201		9.32		9.30		33.848		26.169	187.8	0.596	3.14	48.6	26.6	1.86	24.4	0.00	0.00	0.00	0.03	202	207
230		8.81		8.79		33.971		26.347	171.3	0.648	2.77	42.4	31.4	2.00	26.7	0.00	0.00			231	206
250	ISL	8.50	D	8.47		34.011	D	26.426	164.0	0.682	2.57	39.1	35.4	2.10	28.1	0.00	0.00			251	
271		8.15		8.12		34.038		26.500	157.2	0.715	2.37	35.7	39.7	2.20	29.5	0.00	0.00			272	205
300	ISL	7.72	D	7.69		34.066	D	26.586	149.3	0.760	1.99	29.7	45.3	2.36	31.5	0.00	0.00			302	
321		7.56		7.53		34.084		26.623	146.1	0.791	1.72	25.6	49.2	2.48	32.9	0.00	0.00			323	204
380		6.91		6.87		34.111		26.736	135.9	0.874	1.21	17.7	58.6	2.73	36.0	0.00	0.00			382	203
400	ISL	6.64	D	6.60		34.126	D	26.784	131.4	0.901	1.06	15.4	62.7	2.81	37.0	0.00	0.00			402	
441		6.21		6.17		34.148		26.858	124.6	0.953	0.81	11.7	70.8	2.95	38.8	0.00	0.00			444	202
500	ISL	5.81	D	5.77		34.190	D	26.942	117.1	1.025	0.57	8.1	78.5	3.06	40.1	0.00	0.00			503	
516		5.75		5.71		34.207		26.963	115.3	1.043	0.51	7.3	80.6	3.09	40.4	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 15.2 W	02/08/10	1217 UTC	4244 m	270 09 kn			1015.5 mb	17.1 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.64		18.64		33.329		23.836	405.7	0.000	5.48	102.4	2.2	0.33	0.0	0.00	0.00	0.13	0.03	0	
2		18.64		18.64		33.329		23.836	405.8	0.008	5.48	102.4	2.2	0.33	0.0	0.00	0.00	0.13	0.03	2	220
10		18.63		18.63		33.327		23.837	405.9	0.041	5.47	102.2	2.2	0.33	0.0	0.00	0.00	0.14	0.03	10	219
20		16.42		16.42		33.193		24.264	365.5	0.079	6.06	108.4	2.0	0.34	0.0	0.00	0.00	0.21	0.06	20	218
30		15.06		15.06		33.168		24.549	338.7	0.114	6.02	104.8								30	217
40		14.04		14.03		33.171		24.767	318.0	0.147	6.01	102.4	3.0	0.44	0.3	0.08	0.00	0.64	0.50	40	216
50	ISL	13.23	D	13.22		33.168	D	24.930	302.8	0.178	5.68	95.2	4.2	0.61	3.2	0.15	0.00	0.52	0.45	50	
51		13.25		13.24		33.174		24.931	302.7	0.181	5.64	94.6	4.3	0.63	3.5	0.15	0.00	0.50	0.45	51	215
60		12.57		12.56		33.187		25.075	289.2	0.208	5.44	89.9	5.5	0.78	6.1	0.07	0.00	0.35	0.31	60	214
70		12.20		12.19		33.194		25.151	282.2	0.236	5.37	88.1	6.4	0.85	7.3	0.03	0.00	0.23	0.29	70	213
75	ISL	11.86	D	11.85		33.188	D	25.210	276.6	0.250	5.31	86.5	6.9	0.89	7.9	0.03	0.00	0.18	0.25	75	
85		11.45		11.44		33.200		25.295	268.7	0.278	5.16	83.3	8.3	0.98	9.5	0.02	0.00	0.10	0.15	85	212
100	ISL	10.63	D	10.62		33.280	D	25.504	249.1	0.317	4.93	78.2	11.4	1.19	13.0	0.00	0.00	0.04	0.08	100	
101		10.66		10.65		33.275		25.495	250.0	0.319	4.91	78.0	11.6	1.20	13.2	0.00	0.00	0.04	0.08	101	211
120		10.08		10.07		33.381		25.677	232.9	0.365	4.59	72.0	14.4	1.31	15.6	0.00	0.00	0.04	0.06	121	210
125	ISL	10.01	D	10.00		33.473	D	25.761	225.1	0.376	4.43	69.4	15.7	1.38	16.7	0.00	0.00	0.03	0.05	126	
139		9.72		9.70		33.575		25.889	213.2	0.407	3.97	61.9	19.7	1.60	20.0	0.00	0.00	0.01	0.03	140	209
150	ISL	9.51	D	9.49		33.671	D	25.999	202.9	0.430	3.73	57.9	22.1	1.70	21.7	0.00	0.00	0.01	0.03	151	
170		9.16		9.14		33.806		26.161	187.8	0.469	3.40	52.4	25.7	1.82	23.8	0.00	0.00	0.00	0.04	171	208
200	ISL	8.71	D	8.69		33.947	D	26.343	171.1	0.523	3.03	46.3	30.5	1.96	26.0	0.00	0.00	0.00	0.02	201	
201		8.72		8.70		33.951		26.344	170.9	0.525	3.02	46.1	30.7	1.96	26.1	0.00	0.00	0.00	0.02	202	207
231		8.43		8.41		34.043		26.462	160.3	0.574	2.46	37.3	36.4	2.16	28.6	0.00	0.00			232	206
250	ISL	8.05	D	8.02		34.042	D	26.518	155.1	0.604	2.22	33.4	40.3	2.27	30.1	0.00	0.00			251	
270		7.78		7.75		34.065		26.576	149.8	0.635	2.00	29.9	44.5	2.38	31.7	0.00	0.00			271	205
300	ISL	7.37	D	7.34		34.095	D	26.659	142.2	0.678	1.58	23.4	50.7	2.56	33.8	0.00	0.00			302	
320		7.16		7.13		34.114		26.703	138.2	0.707	1.32	19.5	54.5	2.66	35.0	0.00	0.00			322	204
380		6.68		6.65		34.148		26.796	130.0	0.787	0.98	14.3	62.7	2.84	37.2	0.00	0.00			382	203
400	ISL	6.40	D	6.36		34.152	D	26.836	126.3	0.813	0.88	12.8	65.9	2.90	37.9	0.00	0.00			402	
441		6.14		6.10		34.185		26.896	121.0	0.863	0.69	9.9	72.3	3.01	39.1	0.00	0.00			444	202
500	ISL	5.77	D	5.73		34.233	D	26.981	113.4	0.932	0.46	6.6	79.8	3.13	40.4	0.00	0.00			503	
516		5.73		5.69		34.251		27.000	111.7	0.950	0.40	5.7	81.8	3.16	40.7	0.00	0.00			519	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 11.0 N	122 55.3 W	02/08/10	1810 UTC	3983 m	280 12 kn	330 03 08	2	1017.2 mb	18.0 C	15.6 C	23m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.56	18.56		33.291	23.827	406.6	0.000	5.48	102.2	2.2	0.32	0.0	0.00	0.07	0.12	0.02	0	
2		18.56	18.56		33.291	23.827	406.6	0.008	5.48	102.2	2.2	0.32	0.0	0.00	0.07	0.12	0.02	2	222
10	ISL	18.52	18.52	D	33.285	D 23.833	406.4	0.041	5.50	102.5	2.1	0.32	0.0	0.00	0.07	0.13	0.02	10	
15		18.50	18.50		33.288	23.840	405.8	0.061	5.52	102.8	2.1	0.32	0.0	0.00	0.07	0.13	0.02	15	221
20	CSL	18.13	18.13		33.242	23.896	400.6	0.081	5.54	102.5	2.1	0.32	0.0	0.00	0.07	0.14	0.03	20	200
30	CSL	16.97	16.97		33.192	24.136	378.1	0.120	5.85	105.8	2.1	0.32	0.0	0.00	0.07	0.18	0.05	30	200
31		16.84	16.83		33.198	24.171	374.7	0.124	5.87	105.9	2.1	0.32	0.0	0.00	0.06	0.18	0.05	31	220
39		15.92	15.91		33.151	24.346	358.3	0.153	5.97	105.7	2.2	0.33	0.0	0.00	0.06	0.23	0.07	39	219
47		15.58	15.57		33.168	24.435	350.0	0.181	6.00	105.5	2.1	0.34	0.0	0.00	0.05	0.26	0.11	47	218
50	ISL	15.47	15.46	D	33.143	D 24.440	349.6	0.192	6.00	105.3	2.2	0.34	0.0	0.00	0.06	0.29	0.12	50	
54		15.36	15.35		33.153	24.472	346.7	0.206	5.99	104.9	2.3	0.35	0.0	0.00	0.07	0.32	0.13	54	223
60		15.09	15.08		33.172	24.546	339.8	0.226	5.97	104.0	2.2	0.35	0.0	0.00	0.06	0.28	0.20	60	216
68		14.52	14.51		33.155	24.656	329.5	0.253	5.84	100.5	2.5	0.41	0.2	0.09	0.13	0.28	0.23	68	215
75	ISL	14.19	14.18	D	33.184	D 24.747	321.0	0.276	5.76	98.5	2.8	0.41	0.3	0.08	0.10	0.26	0.27	75	
77		14.10	14.09		33.184	24.766	319.2	0.282	5.74	98.0	2.9	0.41	0.3	0.07	0.09	0.25	0.28	77	214
85		13.42	13.41		33.206	24.922	304.5	0.307	5.56	93.6	3.9	0.55	1.8	0.14	0.08	0.21	0.28	85	213
95		12.63	12.62		33.227	25.095	288.2	0.337	5.38	89.1	5.2	0.66	4.4	0.09	0.08	0.20	0.20	95	212
100	ISL	12.05	12.04	D	33.242	D 25.217	276.6	0.351	5.32	87.0	5.8	0.72	5.6	0.06	0.07	0.18	0.20	100	
110		11.50	11.49		33.250	25.326	266.4	0.378	5.21	84.2	7.1	0.83	7.7	0.02	0.05	0.14	0.19	110	211
125		10.69	10.68		33.341	25.542	246.1	0.417	5.03	79.9	9.7	0.99	10.7	0.01	0.04	0.08	0.12	126	210
146		9.78	9.76		33.480	25.805	221.3	0.466	4.43	69.1	16.2	1.37	16.9	0.00	0.00	0.03	0.05	147	209
150	ISL	9.58	9.56	D	33.578	D 25.915	210.9	0.474	4.31	66.9	17.6	1.43	17.9	0.00	0.00	0.02	0.04	151	
170		9.10	9.08		33.800	26.166	187.3	0.514	3.70	56.9	24.1	1.68	22.3	0.00	0.00	0.00	0.02	171	208
200		8.60	8.58		33.968	26.376	167.8	0.568	2.93	44.6	31.9	1.96	26.4	0.00	0.00	0.00	0.01	201	207
231		8.34	8.32		34.043	26.475	158.9	0.618	2.28	34.5	37.7	2.20	29.2	0.00	0.00			232	206
250	ISL	8.09	8.06	D	34.077	D 26.540	153.1	0.648	1.98	29.8	41.2	2.32	30.6	0.00	0.00			251	
270		7.97	7.94		34.108	26.582	149.4	0.678	1.70	25.5	44.8	2.43	31.8	0.00	0.00			271	205
300	ISL	7.80	7.77	D	34.166	D 26.653	143.1	0.722	1.28	19.2	49.6	2.60	33.4	0.00	0.00			302	
319		7.62	7.59		34.188	26.697	139.2	0.749	1.06	15.8	52.4	2.69	34.2	0.00	0.00			321	204
381		7.01	6.97		34.219	26.807	129.3	0.832	0.74	10.9	61.1	2.86	36.5	0.00	0.00			383	203
400	ISL	6.89	6.85	D	34.222	D 26.826	127.7	0.856	0.66	9.7	63.4	2.91	37.0	0.00	0.00			402	
440		6.66	6.62		34.260	26.888	122.3	0.906	0.52	7.6	68.1	3.01	37.8	0.00	0.00			443	202
500	ISL	6.17	6.13	D	34.283	D 26.970	114.9	0.978	0.38	5.5	75.7	3.10	39.3	0.00	0.00			503	
515		6.08	6.03		34.287	26.985	113.6	0.995	0.35	5.0	77.6	3.12	39.7	0.00	0.00			518	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD AMT	TYPE
29 50.8 N	123 35.3 W	03/08/10	0016 UTC	4065 m	300 07 kn	330 02 06	2	1015.8 mb	18.4 C	16.1 C	25m	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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.85	18.85		33.291	23.754	413.5	0.000	5.45	102.2	2.3	0.32	0.0	0.00	0.08	0.10	0.02	0	
2		18.85	18.85		33.291	23.754	413.5	0.008	5.45	102.2	2.3	0.32	0.0	0.00	0.08	0.10	0.02	2	220
10		18.83	18.83		33.291	23.760	413.3	0.041	5.46	102.4	2.2	0.33	0.0	0.00	0.09	0.10	0.02	10	219
20	ISL	18.72	18.72	D	33.290	D 23.787	411.1	0.083	5.49	102.7	2.3	0.32	0.0	0.00	0.09	0.11	0.03	20	
25		18.37	18.37		33.262	23.853	405.0	0.103	5.53	102.8	2.4	0.31	0.0	0.00	0.08	0.12	0.03	25	218
30	ISL	18.08	18.07	D	33.247	D 23.913	399.4	0.123	5.62	103.8	2.4	0.31	0.0	0.00	0.08	0.12	0.03	30	
40		16.96	16.95		33.211	24.153	376.7	0.162	5.79	104.7	2.3	0.31	0.0	0.00	0.07	0.12	0.03	40	217
50	ISL	16.30	16.29	D	33.191	D 24.291	363.9	0.199	5.83	104.0	2.3	0.32	0.0	0.00	0.06	0.18	0.07	50	
51		16.25	16.24		33.195	24.306	362.6	0.203	5.83	103.9	2.3	0.32	0.0	0.00	0.06	0.19	0.07	51	216
62		15.85	15.84		33.172	24.379	355.9	0.242	5.84	103.3	2.4	0.33	0.0	0.00	0.09	0.26	0.10	62	215
75	ISL	15.49	15.48	D	33.193	D 24.475	347.0	0.288	5.87	103.0	2.2	0.32	0.0	0.00	0.09	0.27	0.13	75	
76		15.51	15.50		33.182	24.462	348.3	0.291	5.87	103.1	2.2	0.32	0.0	0.00	0.09	0.27	0.13	76	214
87		15.48	15.47		33.352	24.600	335.5	0.329	5.81	102.1	2.2	0.28	0.0	0.00	0.07	0.25	0.22	87	213
100		14.31	14.30		33.185	24.724	324.0	0.372	5.73	98.2	2.7	0.39	0.2	0.27	0.09	0.26	0.21	100	212
113		13.18	13.16		33.201	24.967	300.9	0.412	5.50	92.1	4.5	0.59	2.7	0.21	0.10	0.16	0.20	113	211
125	ISL	11.87	11.85	D	33.197	D 25.217	277.2	0.447	5.18	84.4	6.8	0.83	7.1	0.05	0.06	0.13	0.16	125	
126		11.86	11.84		33.200	25.221	276.8	0.450	5.15	83.9	7.0	0.85	7.5	0.04	0.06	0.13	0.16	126	210
142		10.68	10.66		33.244	25.468	253.4	0.492	4.90	77.8	10.7	1.09	11.9	0.01	0.04	0.08	0.13	143	209
150	ISL	10.42	10.40	D	33.305	D 25.561	244.7	0.512	4.64	73.3	13.0	1.23	14.2	0.01	0.04	0.06	0.10	151	
169		9.90	9.88		33.537	25.830	219.4	0.556	4.02	62.9	18.2	1.51	18.9	0.00	0.04	0.02	0.04	170	208
200		9.19	9.17		33.774	26.132	191.2	0.620	3.69	56.9	23.8	1.70	22.4	0.00	0.04	0.00	0.03	201	207
232		8.64	8.62		33.934	26.344	171.5	0.678	3.29	50.1	30.0	1.85	25.1	0.00	0.00			233	206
250	ISL	8.27	8.24	D	33.977	D 26.434	163.1	0.708	3.05	46.1	33.7	1.96	26.7	0.00	0.00			251	
271		7.95	7.92		33.996	26.497	157.4	0.742	2.73	41.0	37.9	2.09	28.6	0.00	0.00			272	205
300	ISL	7.72	7.69	D	34.042	D 26.567	151.1	0.786	2.19	32.7	43.0	2.29	31.0	0.00	0.00			302	
321		7.61	7.58		34.069	26.604	147.9	0.818	1.81	27.0	46.6	2.43	32.5	0.00	0.00			323	204
383		6.94	6.90		34.127	26.744	135.2	0.906	1.12	16.4	58.1	2.74	36.0	0.00	0.00			385	203
400	ISL	6.62	6.58	D	34.117	D 26.780	131.8	0.928	1.01	14.7	61.1	2.80	36.8	0.00	0.00			402	
442		6.31	6.27		34.152	26.848	125.7	0.982	0.82	11.9	68.2	2.92	38.4	0.00	0.00			445	202
500	ISL	5.76	5.72	D	34.208	D 26.962	115.1	1.052	0.55	7.9	77.8	3.06	40.1	0.00	0.00			503	
518		5.68	5.64		34.215	26.978	113.8	1.073	0.46	6.6	80.8	3.10	40.6	0.00	0.00			521	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

RV NEW HORIZON CALCOFI CRUISE 1008 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 16.8 W	30/07/10	2228 UTC	21 m	210 05 kn	250 01 08	4	1013.4 mb	19.0 C	17.2 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	NH4 uM/l	CHL-A ug/l	PHAEO ug/l	PRES db	SAMP
0	ISL	18.00	18.00		33.502	24.126	378.0	0.000	6.38	117.9	3.8	0.26	0.1	0.02	0.06	2.09	0.50	0	
1		18.00	18.00		33.502	24.126	378.0	0.004	6.38	117.9	3.8	0.26	0.1	0.02	0.06	2.09	0.50	1	204
5		16.20	16.20		33.492	24.543	338.4	0.018	6.11	109.0	5.0	0.39	0.5	0.06	0.20	2.54	0.69	5	203
10		12.47	12.47		33.484	25.323	264.3	0.033	5.29	87.5	8.1	0.95	8.1	0.48	1.31	1.39	0.42	10	202
15		12.08	12.08		33.476	25.391	257.9	0.046	4.84	79.4	10.8	1.13	10.9	0.60	1.37	1.34	0.41	15	201

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS;PRIMARY T; PRIMARY CORRECTED S; CRUISE CORRECTED 1° O2;

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 43.3 N	121 33.0 W	15/08/10	1903 UTC	9 m	1215 - 1920 PST	1211 PST	1919 PST	375.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.26	33.474	24.954	5.93	101.7	2.6	0.63	4.7	0.28	0.93	0.17	71. A	23.4	22.1	22.8	0.22
6	14.25	33.470	24.953	5.93	101.7	2.6	0.63	4.7	0.28	0.80	0.27	36.	26.5	26.2	26.3	0.22
12	14.24	33.472	24.957	5.94	101.9	2.6	0.63	4.7	0.28	0.92	0.30	13.	15.9	15.6	15.8	0.21
19	14.23	33.477	24.964	5.93	101.7	2.4	0.62	4.6	0.28	0.90	0.29	3.9	7.1	5.4	6.2	0.20
23	14.22	33.473	24.963	5.93	101.7	2.4	0.62	4.6	0.28	0.84	0.37	2.0	2.4	2.1	2.2	0.29
33	12.60	33.432	25.258	5.28	87.5	6.7	1.00	9.9	0.42	0.74	0.29	0.36	0.08	0.08	0.08	0.08

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 76.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 23.3 N	124 19.3 W	14/08/10	1738 UTC	20 m	1225 - 1926 PST	1222 PST	1926 PST	246.2 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	16.30	32.949	24.103	5.77	102.8	2.7	0.35	0.0	0.00	0.18	0.04	86. A	3.4	3.0	3.2	0.05
12	16.00	32.948	24.171	5.85	103.6	2.7	0.34	0.0	0.00	0.21	0.06	40.	5.0	5.0	5.0	0.08
20	15.81	32.960	24.223	5.83	102.9	2.7	0.34	0.0	0.00	0.26	0.07					
27	15.71	32.960	24.246	5.84	102.8	2.6	0.35	0.0	0.00	0.30	0.10	13.	3.7	3.9	3.8	0.12
34	15.40	32.965	24.318	5.90	103.3	2.6	0.34	0.0	0.00	0.41	0.11					
42	14.33	32.927	24.519	6.09	104.3	2.8	0.37	0.0	0.01	0.62	0.32	4.0	4.3	3.9	4.1	0.06
53	13.10	32.854	24.713	6.04	100.8	3.6	0.47	1.0	0.25	0.89	0.37	1.7	2.9	3.3	3.1	0.03
63	13.17	32.996	24.809	5.74	96.0	4.2	0.57	2.7	0.26	0.44	0.39					
74	12.34	33.025	24.994	5.58	91.7	5.8	0.72	5.7	0.04	0.20	0.17	0.34	0.15	0.11	0.13	0.01

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 80.0 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
34 27.0 N	120 31.4 W	12/08/10	1903 UTC	7 m	1210 - 1920 PST	1207 PST	1920 PST	1198.4 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	12.78	33.639	25.383	5.38	89.6	9.8	0.98	9.1	0.30	8.81	0.19	80. A	119.0	143.6	131.3	0.44
5	12.82	33.635	25.372	5.40	90.0	9.7	1.01	9.0	0.30	7.46	1.11	33.	142.6	148.3	145.5	0.59
10	11.73	33.631	25.577	3.93	64.0	15.0	1.44	15.6	0.39	3.11	0.60	11.	28.8	27.2	28.0	0.23
14	11.22	33.646	25.682	3.36	54.1	18.9	1.69	18.9	0.41	1.02	0.47	4.6	4.6	4.4	4.5	0.12
18	10.87	33.682	25.773	3.03	48.5	21.9	1.81	20.8	0.36	0.57	0.44	1.9	0.87	0.90	0.89	0.09
26	10.30	33.734	25.913	2.66	42.0	24.8	1.96	23.8	0.18	0.19	0.33	0.33	0.12	0.09	0.11	0.02

RV NEW HORIZON CALCOFI CRUISE 1008 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 31.9 W	13/08/10	1856 UTC	15 m	1215 - 1929 PST	1215 PST	1927 PST	468.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	14.87	32.982	24.445	6.17	106.9	3.2	0.45	0.9	0.06	0.43	0.08	81. A	14.8	13.8	14.3	0.10
10	14.70	32.991	24.489	6.15	106.1	3.4	0.45	0.9	0.06	0.63	0.11	36.	22.0	18.5	20.2	0.14
20	14.55	33.088	24.596	6.20	106.7	3.4	0.52	2.1	0.12	0.83	0.17	13.	12.4	12.6	12.5	0.12
31	12.86	32.907	24.801	6.08	101.0	4.8	0.63	3.1	0.28	0.65	0.29	4.2	6.0	5.0	5.5	0.08
39	12.01	32.864	24.930	5.88	95.9	5.6	0.74	4.5	0.38	0.37	0.24	1.8	1.1	1.4	1.3	0.03
47	11.86	32.912	24.995	5.73	93.2	6.2	0.76	5.5	0.27	0.29	0.21					
55	11.45	33.059	25.185	5.40	87.1	8.5	0.96	9.2	0.05	0.18	0.17	0.36	0.21	0.14	0.18	0.05

A) INCUBATION LIGHT INTENSITIES WERE 89, 37, 12 4.3, 1.9, 0.35 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON | CALCOFI CRUISE 1008 | 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 24.6 W	11/08/10	1830 UTC	9 m	1210 - 1916 PST	1207 PST	1916 PST	1086.0 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	15.70	33.528	24.684	5.81	102.7	2.2	0.44	2.1	0.10	1.33	0.42	71. A	39.3	37.0	38.2	0.23
6	15.22	33.527	24.789	5.78	101.1	2.6	0.48	2.8	0.11	1.57	0.46	36.	59.9	54.4	57.2	0.27
12	14.57	33.537	24.938	5.71	98.6	3.8	0.58	4.1	0.13	3.09	0.37	13.	63.8	67.1	65.5	0.26
19	14.15	33.539	25.028	5.49	94.0	5.2	0.70	5.7	0.15	2.33	0.82	3.9	25.6	22.8	24.2	0.19
23	13.76	33.536	25.107	5.28	89.7	6.5	0.78	7.1	0.17	2.18	0.70	2.0	12.3	12.7	12.5	0.20
33	10.92	33.591	25.694	3.67	58.7	17.7	1.56	19.1	0.18	0.79	0.52	0.36	0.20	0.12	0.16	0.06

RV NEW HORIZON | CALCOFI CRUISE 1008 | STATION 83.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 34.7 N	122 48.9 W	10/08/10	1743 UTC	27 m	1250 - 1925 PST	1214 PST	1925 PST	99.4 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	16.95	33.184	24.134	5.62	101.6	2.4	0.32	0.1	0.00	0.11	0.03	89. A	2.1	2.0	2.0	0.02
10	16.95	33.182	24.132	5.61	101.4	2.4	0.32	0.0	0.00	0.12	0.03					
17	16.95	33.182	24.133	5.60	101.2	2.4	0.32	0.0	0.00	0.12	0.03	38.	2.4	2.4	2.4	0.02
27	16.95	33.181	24.132	5.61	101.4	2.4	0.32	0.0	0.00	0.14	0.03					
37	16.70	33.178	24.189	5.66	101.8	2.4	0.31	0.0	0.00	0.19	0.05	12.	1.9	0.02	0.97	0.02
45	15.47	33.180	24.469	5.96	104.6	2.5	0.28	0.0	0.00	0.20	0.06					
55	15.25	33.245	24.567	5.96	104.2	2.4	0.26	0.0	0.00	0.21	0.05	4.4	0.70	0.63	0.66	0.05
63	15.17	33.290	24.620	5.91	103.2	2.5	0.25	0.0	0.00	0.21	0.07					
70	14.86	33.301	24.696	5.85	101.5	2.6	0.26	0.0	0.00	0.19	0.10	1.9	0.34	0.40	0.37	0.03
80	14.54	33.316	24.776	5.82	100.3	2.7	0.25	0.0	0.00	0.25	0.18					
90	13.89	33.280	24.884	5.74	97.6	3.1	0.30	0.2	0.10	0.31	0.16					
100	13.41	33.266	24.971	5.64	94.9	3.6	0.37	1.1	0.15	0.25	0.17	0.34	0.05	0.04	0.05	0.00

RV NEW HORIZON | CALCOFI CRUISE 1008 | STATION 86.7 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 49.5 N	118 37.6 W	06/08/10	1739 UTC	8 m	1205 - 1917 PST	1200 PST	1914 PST	659.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	16.39	33.455	24.471	6.54	117.1	2.2	0.31	0.0	0.00	1.12	0.26	83. A	25.0	25.2	25.1	0.35
5	16.32	33.461	24.492	6.55	117.1	2.2	0.31	0.0	0.00	1.22	0.32	38.	42.0	41.2	41.6	0.37
10	15.61	33.457	24.650	6.72	118.5	1.9	0.30	0.0	0.01	2.06	0.57	15.	45.4	45.8	45.6	0.39
16	13.71	33.452	25.052	6.41	108.7	2.6	0.37	0.3	0.03	1.93	0.48	4.6	20.8	17.9	19.4	0.27
21	12.01	33.412	25.355	4.93	80.7	9.5	1.08	9.9	0.42	1.08	0.56	1.8	5.6	6.2	5.9	0.12
29	11.27	33.452	25.523	4.31	69.4	13.3	1.33	14.6	0.37	0.62	0.39	0.38	0.23	0.13	0.18	0.05

RV NEW HORIZON | CALCOFI CRUISE 1008 | STATION 86.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 39.6 N	121 1.9 W	08/08/10	1831 UTC	18 m	1215 - 1930 PST	1210 PST	1924 PST	507.5 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	15.79	33.005	24.262	5.90	104.1	2.9	0.40	0.5	0.04	0.37	0.11	84. A	12.9	9.1	11.0	0.08
12	15.64	33.032	24.316	5.88	103.5	2.5	0.41	0.5	0.05	0.37	0.08	36.	13.0	10.4	11.7	0.09
24	13.15	32.917	24.751	6.13	102.4	5.2	0.56	2.3	0.31	0.57	0.28	13.	13.1	14.0	13.6	0.11
30	13.38	33.045	24.805	6.17	103.7	7.1	0.67	4.3	0.18	0.73	0.24					
37	13.46	33.178	24.891	5.94	100.1	9.7	0.85	6.9	0.26	0.75	0.39	4.3	8.1	7.2	7.6	0.06
47	12.24	33.038	25.022	5.67	93.0	7.5	0.84	6.7	0.45	0.55	0.31	1.8	2.9	3.0	3.0	0.03
56	11.43	33.082	25.207	5.47	88.2	10.0	1.04	10.3	0.17	0.30	0.19					
66	10.91	33.171	25.369	5.27	84.1	12.9	1.21	13.4	0.12	0.19	0.12	0.36	0.11	0.07	0.09	0.04

A) INCUBATION LIGHT INTENSITIES WERE 89, 37, 12 4.3, 1.9, 0.35 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 86.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 39.4 N	123 4.7 W	09/08/10	1724 UTC	33 m	1220 - 1934 PST	1218 PST	1932 PST	120.7 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
3	17.64	33.268	24.034	5.55	101.7	2.3	0.30	0.1	0.00	0.11	0.00	87. A	1.8	1.7	1.7	0.05
10	17.62	33.266	24.038	5.57	102.0	2.3	0.30	0.0	0.00	0.08	0.02					
21	17.59	33.263	24.043	5.54	101.4	2.3	0.29	0.0	0.00	0.08	0.02	38.	1.9	1.9	1.9	0.05
33	17.59	33.270	24.049	5.54	101.4	2.3	0.29	0.0	0.00	0.08	0.02	22.	1.4	1.4	1.4	0.06
45	16.92	33.249D	24.192	5.73	103.5											
56	16.71	33.269	24.257	5.69	102.4	2.3	0.28	0.0	0.00	0.13	0.04					
67	15.88	33.197	24.391	5.83	103.1	2.3	0.30	0.0	0.00	0.17	0.06	4.4	0.82	0.73	0.77	0.03
86	15.37	33.275	24.565	5.86	102.7	2.3	0.27	0.0	0.00	0.24	0.13	1.8	0.60	0.69	0.64	0.01
95	14.72	33.220	24.664	5.85	101.1	2.6	0.29	0.0	0.01	0.23	0.16					
104	14.14	33.197	24.769	5.68	97.0	3.0	0.40	0.4	0.17	0.23	0.18					
113	13.20	33.175	24.943	5.53	92.6	4.0	0.53	2.2	0.19	0.20	0.14					
122	12.94	33.248	25.052	5.48	91.3	4.5	0.54	3.2	0.09	0.16	0.15	0.34	0.12	0.07	0.09	0.02

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 90.0 37.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
33 11.2 N	118 23.1 W	05/08/10	1811 UTC	13 m	1203 - 1915 PST	1200 PST	1913 PST	671.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	18.71	33.534	23.975	5.90	110.5	1.5	0.23	0.0	0.00	0.53	0.14	79. A	17.4	17.2	17.3	0.29
8	18.61	33.534	24.000	5.88	109.9	1.3	0.24	0.0	0.00	0.57	0.14	39.	23.9	23.2	23.5	0.39
18	15.68	33.437	24.619	6.45	113.8	2.5	0.36	0.3	0.01	0.93	0.30	12.	21.6	23.3	22.4	0.23
27	13.39	33.434	25.103	5.96	100.4	3.8	0.75	5.8	0.37	1.11	0.42	4.1	16.0	13.1	14.6	0.09
34	13.02	33.423	25.169	5.58	93.3	5.2	0.91	8.3	0.59	0.51	0.26	1.8	6.2	6.5	6.4	0.08
41	11.60	33.346	25.380	4.90	79.4	10.1	1.19	13.1	0.22	0.36	0.20					
48	11.42	33.397	25.453	4.71	76.1	11.8	1.28	14.7	0.12	0.21	0.13	0.35	0.09	0.06	0.08	0.04

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 90.0 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 55.4 N	118 56.0 W	07/08/10	1849 UTC	13 m	1204 - 1921 PST	1201 PST	1919 PST	785.4 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	16.67	33.472	24.420	5.97	107.5	1.5	0.33	0.0	0.01	0.55	0.08	79. A	44.2	41.5	42.8	0.70
8	16.56	33.474	24.447	5.98	107.4	1.3	0.32	0.0	0.00	0.57	0.12	39.	32.7	34.2	33.4	0.68
18	13.41	33.414	25.083	6.46	108.9	0.5	0.49	2.3	0.11	2.77	0.43	12.	22.5	21.6	22.0	0.74
27	11.40	33.480	25.521	4.50	72.7	13.2	1.28	13.7	0.24	1.64	0.63	4.1	7.6	9.9	8.7	0.60
34	11.08	33.496	25.591	4.17	66.9	15.1	1.42	15.9	0.29	1.01	0.56	1.8	1.9	2.9	2.4	0.33
41	10.97	33.520	25.630	4.02	64.4	16.2	1.47	16.8	0.29	0.79	0.51					
48	10.55	33.584	25.754	3.56	56.5	19.1	1.64	19.7	0.14	0.38	0.31	0.35	0.04	0.07	0.05	0.08

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 90.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 5.2 N	120 38.4 W	04/08/10	1837 UTC	21 m	1212 - 1921 PST	1209 PST	1921 PST	278.7 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
3	16.70	33.075	24.108	5.73	103.0	2.8	0.34	0.0	0.00	0.19	0.05	80. A	4.2	4.0	4.1	0.07
10	16.70	33.076	24.109	5.73	103.0	2.8	0.34	0.0	0.00	0.19	0.04					
14	16.69	33.076	24.112	5.73	103.0	2.8	0.35	0.0	0.00	0.20	0.05	36.	4.6	4.5	4.5	0.08
22	16.59	33.065	24.127	5.77	103.5	2.8	0.33	0.0	0.00	0.23	0.06					
29	15.39	32.977	24.329	6.03	105.5	3.1	0.35	0.0	0.00	0.39	0.11	12.	5.7	5.9	5.8	0.09
36	15.06	32.967	24.394	6.08	105.7	3.6	0.38	0.2	0.01	0.62	0.15					
44	15.05	33.043	24.455	5.90	102.6	3.4	0.40	0.5	0.02	0.68	0.23	4.0	5.2	5.7	5.4	0.04
55	14.49	33.059	24.587	5.84	100.4	2.8	0.39	0.2	0.08	0.38	0.25	1.8	1.7	1.8	1.7	0.03
65	13.76	33.058	24.739	5.78	97.9	3.7	0.55	2.1	0.50	0.21	0.19					
76	13.75	33.229	24.873	5.64	95.6	3.5	0.41	0.9	0.23	0.17	0.26	0.39	0.07	0.11	0.09	0.00

A) INCUBATION LIGHT INTENSITIES WERE 89, 37, 12 4.3, 1.9, 0.35 PERCENT RESPECTIVELY.

PRIMARY PRODUCTIVITY CASTS

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 5.3 N	122 39.9 W	03/08/10	2041 UTC	21 m	1345 - 1930 PST	1217 PST	1928 PST	88.8 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	17.72	33.247	23.999	5.55	101.8	2.8	0.33	0.0	0.00	0.14	0.02	86. A	2.6	2.6	2.6	0.08
15	17.67	33.243	24.008	5.56	101.9	2.6	0.33	0.0	0.00	0.14	0.03	33.	2.3	2.2	2.2	0.08
29	16.73	33.161	24.168	5.81	104.5	2.8	0.32	0.0	0.00	0.19	0.04	12.	1.1	1.2	1.2	0.14
43	15.79	33.148	24.373	5.91	104.4	2.8	0.34	0.0	0.00	0.28	0.09	4.3	0.67	0.53	0.60	0.09
49	15.50	33.148	24.438	5.91	103.8	2.6	0.34	0.0	0.00	0.30	0.19					
56	15.09	33.145	24.525	5.89	102.5	2.7	0.37	0.0	0.00	0.40	0.37	1.7	0.65	0.73	0.69	0.08
67	14.71	33.133	24.598	5.82	100.5	2.9	0.42	0.2	0.11	0.50	0.45					
77	14.36	33.139	24.677	5.68	97.4	3.1	0.48	0.7	0.75	0.24	0.25	0.36	0.03	0.05	0.04	0.01

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 57.1 N	117 18.9 W	30/07/10	2121 UTC	5 m	1400 - 1917 PST	1156 PST	1917 PST	286.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
1	17.34	33.466	24.258	6.53	119.1	4.4	0.27	0.0	0.01	1.74	0.54	74. A	44.2	41.5	42.8	0.70
3	17.35	33.467	24.256	6.53	119.1	4.4	0.29	0.0	0.01	1.78	0.57	40.	32.7	34.2	33.4	0.68
6	15.62	33.459	24.649	6.74	118.8	4.6	0.31	0.0	0.02	2.95	0.81	16.	22.5	21.6	22.0	0.74
10	13.70	33.382	25.000	6.78	114.9	4.3	0.42	0.0	0.02	4.03	0.69	4.6	7.6	9.9	8.7	0.60
13	13.06	33.467	25.194	6.09	101.9	6.4	0.61	3.1	0.16	3.46	0.64	1.8	1.9	2.9	2.4	0.33
18	11.74	33.400	25.396	5.05	82.2	9.2	1.10	12.0	0.57	1.04	0.38	0.40	0.04	0.07	0.05	0.08

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32 31.2 N	118 12.7 W	31/07/10	1652 UTC	21 m	1158 - 1921 PST	1159 PST	1920 PST	519.9 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.37	33.308	24.130	5.71	104.1	1.1	0.32	0.0	0.00	0.23	0.03	86. A	9.0	8.2	8.6	0.08
14	16.58	33.291	24.302	6.26	112.4	1.0	0.35	0.0	0.00	0.32	0.06	36.	10.6	9.6	10.1	0.09
22	14.52	33.297	24.764	6.72	115.8	0.8	0.39	0.2	0.03	0.80	0.15					
29	13.77	33.291	24.916	6.10	103.5	2.7	0.64	3.6	0.25	0.94	0.20	12.	15.4	15.7	15.6	0.11
36	13.08	33.275	25.042	5.69	95.1	4.6	0.77	5.9	0.35	0.79	0.18					
43	12.57	33.275	25.143	5.46	90.3	6.2	0.88	7.7	0.35	0.66 B	0.18 B	4.3	4.7	4.2	4.5	0.03
55	12.14	33.337	25.273	5.24	85.9	7.6	1.03	10.1	0.49	0.49	0.16	1.8	1.5	1.9	1.7	0.05
66	11.45	33.346	25.409	4.98	80.5	9.6	1.12	12.0	0.18	0.24	0.11					
77	10.73	33.317	25.515	4.67	74.3	12.4	1.23	13.8	0.08	0.16	0.10	0.36	0.12	0.07	0.10	0.01

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

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31 31.1 N	120 14.4 W	01/08/10	1702 UTC	23 m	1207 - 1925 PST	1207 PST	1925 PST	230.3 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	17.00	33.141	24.089	5.65	102.2	2.4	0.35	0.0	0.00	0.15	0.03	88. A	3.8	3.9	3.9	0.06
15	16.99	33.139	24.090	5.65	102.2	2.4	0.35	0.0	0.00	0.16	0.02	37.	4.6	4.3	4.4	0.05
31	15.30	33.051	24.406	5.99	104.7	2.4	0.37	0.0	0.00	0.28	0.09	13.	4.1	4.2	4.2	0.07
39	14.79	33.054	24.519	6.01	104.0	2.5	0.36	0.0	0.00	0.36	0.18					
47	14.80	33.175	24.611	5.94	102.8	2.3	0.30	0.0	0.00	0.33	0.22	4.3	2.3	2.6	2.5	0.02
54	14.87	33.237D	24.644	5.94	103.0	2.4	0.30	0.0	0.00	0.31	0.21					
59	14.54	33.182	24.672	5.85	100.7	2.4	0.31	0.0	0.00	0.30	0.39	1.9	1.5	1.7	1.6	0.01
68	13.85	33.086	24.742	5.84	99.1	2.3	0.36	0.1	0.11	0.30	0.36					
75	13.62	33.058	24.767	5.80	97.9	2.6	0.39	0.3	0.14	0.24	0.34					
85	13.00	33.154	24.966	5.57	92.9	3.9	0.53	2.5	0.05	0.13	0.19	0.34	0.08	0.04	0.06	0.00

RV NEW HORIZON CALCOFI CRUISE 1008 STATION 93.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
30 11.0 N	122 55.3 W	02/08/10	1810 UTC	23 m	1217 - 1938 PST	1218 PST	1932 PST	174.1 mg C/m2

DEPTH m	TEMP DEG C	SALINITY	SIGMA THETA	OXYGEN ml/l	OXY PCT	SIO3 uM/l	PO4 uM/l	NO3 uM/l	NO2 uM/l	CHL-A ug/l	PHAEO ug/l	LIGHT PCT	UPTAKE (mg C/m3) 1	2	MEAN	DARK
2	18.56	33.291	23.827	5.48	102.2	2.2	0.32	0.0	0.00	0.12	0.02	88. A	3.3	3.1	3.2	0.08
15	18.50	33.288	23.840	5.52	102.8	2.1	0.32	0.0	0.00	0.13	0.02	37.	3.5	3.5	3.5	0.08
31	16.84	33.198	24.171	5.87	105.9	2.1	0.32	0.0	0.00	0.18	0.05	13.	2.7	2.9	2.8	0.08
39	15.92	33.151	24.346	5.97	105.7	2.2	0.33	0.0	0.00	0.23	0.07					
47	15.58	33.168	24.435	6.00	105.5	2.1	0.34	0.0	0.00	0.26	0.11	4.3	2.0	1.8	1.9	0.03
54	15.36	33.153	24.472	5.99	104.9	2.3	0.35	0.0	0.00	0.32	0.13					
60	15.09	33.172	24.546	5.97	104.0	2.2	0.35	0.0	0.00	0.28	0.20	1.8	1.1	1.2	1.2	0.02
68	14.52	33.155	24.656	5.84	100.5	2.5	0.41	0.2	0.09	0.28	0.23					
77	14.10	33.184	24.766	5.74	98.0	2.9	0.41	0.3	0.07	0.25	0.28					
85	13.42	33.206	24.922	5.56	93.6	3.9	0.55	1.8	0.14	0.21	0.28	0.34	0.09	0.07	0.08	0.00

A) INCUBATION LIGHT INTENSITIES WERE 89, 37, 12 4.3, 1.9, 0.35 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 05.2	120 46.6	08/15	2232	2238	124	53	282	129
76.7	51.0	35 01.2	120 55.0	08/15	2007	2028	407	209	101	101
76.7	55.0	34 53.4	121 12.0	08/15	1633	1655	432	212	39	39
76.7	60.0	34 43.3	121 33.0	08/15	1212	1234	440	211	397	354
76.7	70.0	34 23.3	122 14.8	08/15	0548	0609	420	214	90	90
76.7	80.0	34 03.2	122 56.4	08/14	2355	0018	431	210	209	209
76.7	90.0	33 43.3	123 38.0	08/14	1644	1706	421	213	38	38
76.7	100.0	33 23.4	124 19.4	08/14	1046	1108	442	172	32	32
80.0	50.5	34 27.7	120 29.2	08/12	1304	1306	44	15	45	45
80.0	51.0	34 26.9	120 31.2	08/12	1204	1211	160	71	62	62
80.0	55.0	34 18.9	120 48.1	08/12	1701	1722	422	214	74	74
80.0	60.0	34 09.0	121 08.9	08/12	2254	2315	422	210	78	78
80.0	70.0	33 48.9	121 50.6	08/13	0550	0612	429	222	75	75
80.0	80.0	33 28.9	122 31.9	08/13	1226	1248	440	212	73	73
80.0	90.0	33 09.0	123 13.2	08/13	2043	2104	417	211	53	53
80.0	100.0	32 48.9	123 54.3	08/14	0328	0351	434	212	18	18
81.7	43.5	34 24.3	119 48.0	08/12	0340	0342	45	13	66	66
81.8	46.9	34 16.6	120 01.6	08/12	0653	0714	415	208	60	60
83.3	39.4	34 15.5	119 19.4	08/12	0041	0043	52	12	19	19
83.3	40.6	34 13.5	119 24.7	08/11	2335	2338	73	28	137	137
83.3	42.0	34 10.7	119 30.4	08/11	2137	2150	247	126	150	150
83.3	51.0	33 52.7	120 08.1	08/11	1540	1552	238	106	38	38
83.3	55.0	33 44.7	120 24.6	08/11	1206	1227	416	211	55	55
83.3	60.0	33 34.9	120 45.2	08/11	0721	0743	433	215	97	97
83.3	70.0	33 14.8	121 26.8	08/11	0100	0122	425	212	122	122
83.3	80.0	32 54.7	122 07.8	08/10	1719	1741	426	220	155	155
83.3	90.0	32 34.7	122 48.7	08/10	1054	1115	443	207	34	34
83.3	100.0	32 14.7	123 29.5	08/10	0425	0447	447	216	40	40
83.3	110.0	31 54.6	124 10.1	08/09	2144	2205	430	213	28	28
85.4	35.8	34 00.5	118 49.6	08/06	0731	0733	45	14	22	22
86.7	33.0	33 53.6	118 29.3	08/06	0512	0517	97	43	103	103
86.7	35.0	33 49.5	118 37.7	08/06	1108	1129	439	202	41	41
86.7	40.0	33 39.4	118 58.5	08/07	0347	0409	413	210	109	109
86.7	45.0	33 29.4	119 19.1	08/07	1653	1714	422	214	38	38
86.7	50.0	33 19.4	119 39.5	08/07	2028	2035	151	66	246	246
86.7	55.0	33 09.3	120 00.5	08/08	0024	0046	435	207	94	94
86.7	60.0	32 59.3	120 20.9	08/08	0518	0540	354	221	130	130
86.7	70.0	32 39.5	121 01.9	08/08	1206	1229	463	213	76	76
86.7	80.0	32 19.5	121 43.0	08/08	2039	2100	444	208	142	142
86.7	90.0	31 59.4	122 23.5	08/09	0239	0300	415	210	55	55
86.7	100.0	31 39.4	123 04.6	08/09	0819	0840	450	213	22	22
86.7	110.0	31 19.4	123 44.6	08/09	1536	1557	443	214	38	38
86.8	32.5	33 53.4	118 26.7	08/06	0345	0347	57	11	142	142
88.5	30.1	33 40.5	118 05.0	08/06	0006	0008	57	8	105	105
90.0	27.7	33 29.7	117 44.9	08/05	1949	1951	40	14	323	323
90.0	28.0	33 29.1	117 46.1	08/05	2119	2126	132	61	395	395
90.0	30.0	33 24.9	117 54.4	08/05	1800	1821	461	201	121	93
90.0	35.0	33 15.1	118 15.0	08/06	1926	1947	414	214	82	82
90.0	37.0	33 11.2	118 23.2	08/05	1145	1206	418	209	33	33
90.0	45.0	32 55.2	118 56.2	08/05	0548	0609	429	207	47	47
90.0	53.0	32 39.1	119 28.9	08/05	0006	0028	428	211	164	164
90.0	60.0	32 24.9	119 57.4	08/04	1848	1910	432	214	86	86
90.0	70.0	32 05.1	120 38.4	08/04	1214	1236	461	213	41	41
90.0	80.0	31 44.9	121 18.9	08/04	0530	0552	420	218	36	36
90.0	90.0	31 25.1	121 59.3	08/03	2230	2251	433	214	67	67
90.0	100.0	31 05.3	122 39.8	08/03	1404	1426	456	210	70	70
90.0	110.0	30 45.3	123 20.4	08/03	0622	0644	432	216	35	35
90.0	120.0	30 25.1	123 59.8	08/03	0035	0057	439	210	41	41
91.7	26.4	33 14.4	117 27.5	07/30	1743	1745	49	13	20	20
93.3	26.7	32 57.3	117 18.3	07/30	1235	1242	153	63	52	52
93.3	28.0	32 54.7	117 23.8	07/30	2155	2217	440	206	89	89
93.3	30.0	32 50.9	117 31.8	07/31	0051	0113	423	210	113	113
93.3	35.0	32 40.9	117 52.4	07/31	0452	0514	440	207	134	86
93.3	40.0	32 31.2	118 12.8	07/31	0744	0807	434	215	41	41
93.3	45.0	32 20.8	118 33.3	07/31	1343	1405	437	218	89	89
93.3	50.0	32 10.8	118 53.4	07/31	1757	1819	440	215	157	157
93.3	55.0	32 00.8	119 13.9	07/31	2209	2231	425	214	165	165
93.3	60.0	31 50.8	119 34.3	08/01	0313	0335	434	212	97	97
93.3	70.0	31 31.1	120 14.5	08/01	0759	0823	489	207	43	43
93.3	80.0	31 11.3	120 56.0	08/01	1721	1743	415	219	89	89
93.3	90.0	30 50.8	121 35.3	08/01	2312	2333	457	206	44	44
93.3	100.0	30 30.9	122 15.2	08/02	0512	0534	445	214	49	49
93.3	110.0	30 10.7	122 53.9	08/02	1125	1146	437	209	46	46
93.3	120.0	29 50.9	123 35.1	08/02	1726	1748	435	214	90	90
93.4	26.4	32 57.2	117 16.8	07/30	1446	1448	52	13	58	58