

data report

CalCOFI Cruise 1207
3-26 July 2012

CC Reference 14 -03
28 May 2014

UNIVERSITY OF CALIFORNIA, SAN DIEGO
SCRIPPS INSTITUTION OF OCEANOGRAPHY
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PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 1207
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INTRODUCTION

The data presented in this report were collected during cruise 1207* of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the Stabbert Maritime ship RV *Ocean Starr*. 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. 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 3161-936) 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 P152. Salinity values were calculated using the algorithms for the Practical Salinity Scale, 1978 (UNESCO, 1981a) and are reported to three decimal places, provided that accepted standards were met.

Dissolved oxygen analyses were performed with an Ocean Data Facility of Scripps Institution of Oceanography designed automated oxygen titrator using photometric end-point detection based on the absorption of 365nm wavelength ultra-violet light. A computer using PC software controlled the titration of the samples and the data logging. The method used a modified Winkler titration following the technique of Carpenter (1965) with modifications by Culberson (1991), but with higher concentrations of thiosulfate solution (50 g/l). Standard KIO3 solutions prepared ashore were run at the beginning of each run. Reagent and sea water blanks were determined to account for presence of oxidizing or reducing materials.

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

Nutrient samples were analyzed at sea using a QuAAtro continuous flow analyzer (SEAL Analytical). Dissolved silicate, nitrate, and nitrite were analyzed using a modification of the method described by Armstrong et al. (1967) and Gordon et al. (1992). Phosphate was measured with a modification of the *Murphy and Riley* (1962) protocol and ammonium was analyzed using a modified fluorometric method described by Kerouel and Aminot (1997). Samples were collected in 45ml high-density polypropylene screw top tubes which were acid washed and rinsed with sample three times prior to filling. Standardizations and cadmium-reduction coil efficiency determinations were performed at the beginning of every run. Drift corrections were performed in each run using a high standard inserted before and after sample sets. Samples not analyzed immediately after collection were refrigerated and run the following day.

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 27.68 μCi stations 6-46 and 12.95 μCi stations 60-72 of ^{14}C as NaHCO_3 (40 μl 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.

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 and salinity 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 Micro Thermosalinograph.
- 2) *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 with a Planktonic Rate Processes in Oligotrophic Ocean Systems (PRPOOS) net. (M. Ohman, SIO)
- 3) *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)
- 4) *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 pCO₂. 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)
- 5) *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)
- 6) *Nitrate isotope*: Seawater samples are acquired using the CTD-rosette and shipped frozen to Princeton University. The nitrogen and oxygen isotopic composition of nitrate is measured using strains of denitrifying bacteria that reduce nitrate to N₂O. (P. Rafter, Princeton University)

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 (cm³/1000m³ strained) and as the total volume minus the volume of larger organisms under the heading "Small." Tow times are given in local PST (+8) time.

FOOTNOTES

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

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

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FIGURES

Cruise 1207

1. CalCOFI Cruise 1207 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.

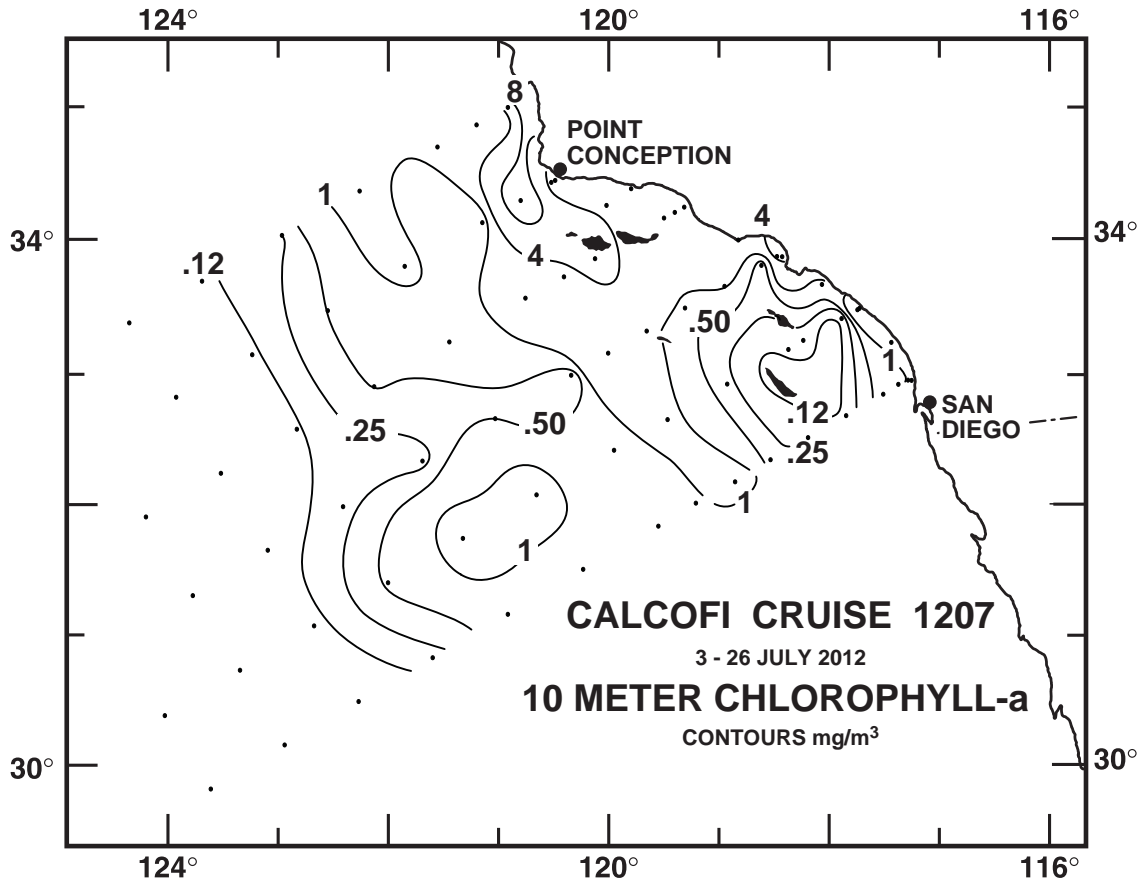


FIGURE 3A

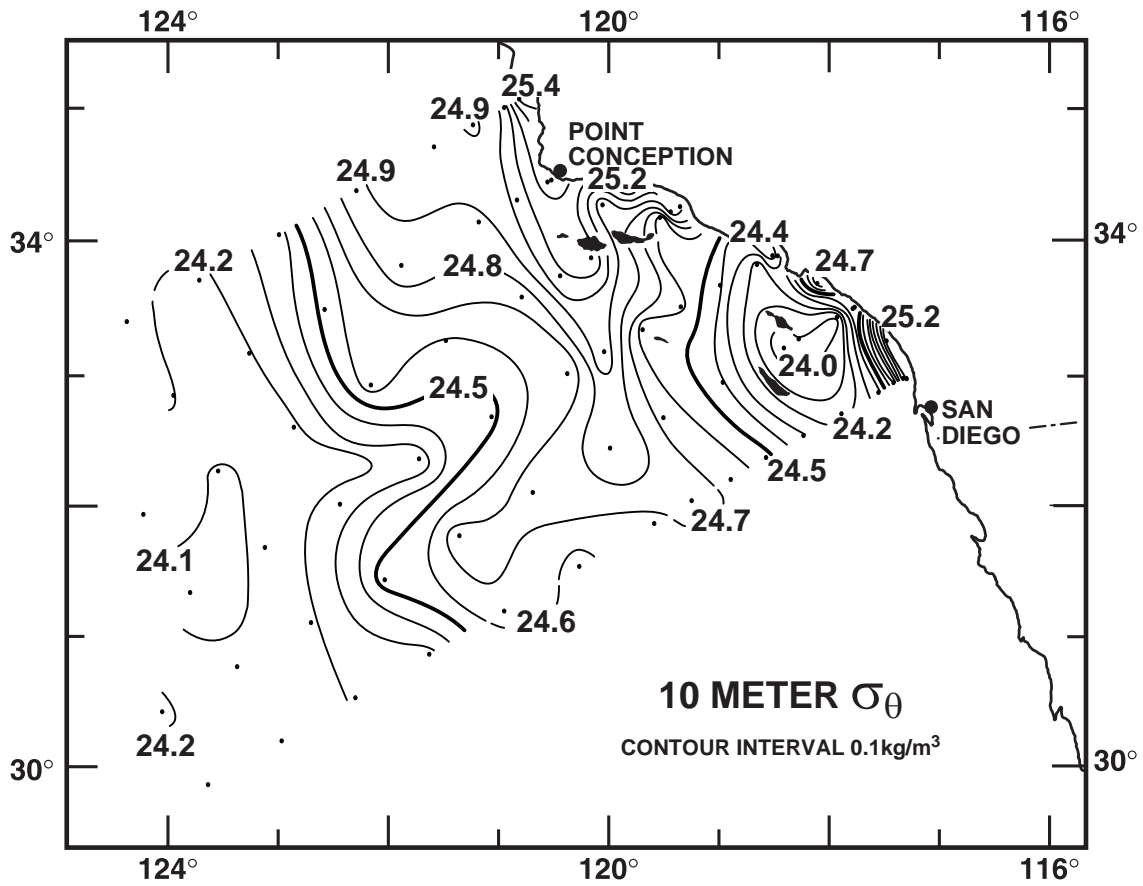


FIGURE 3B

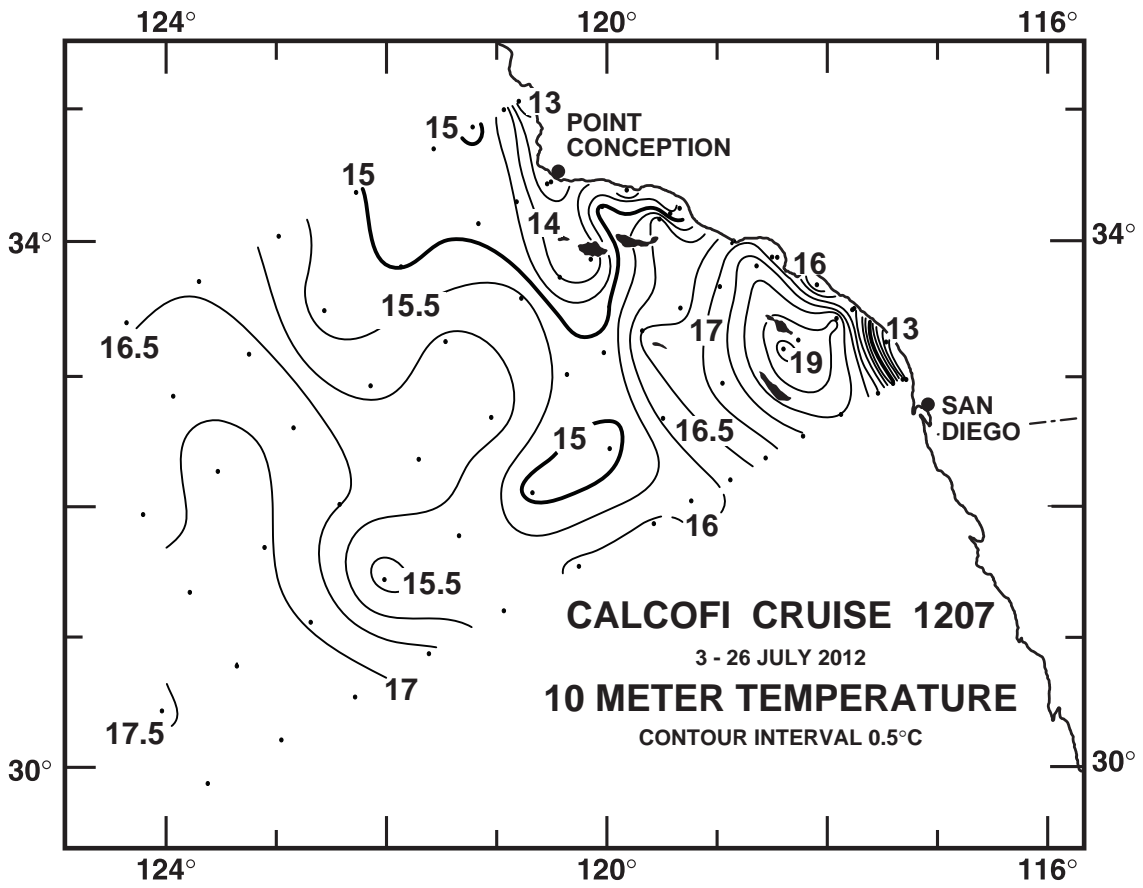


FIGURE 3C

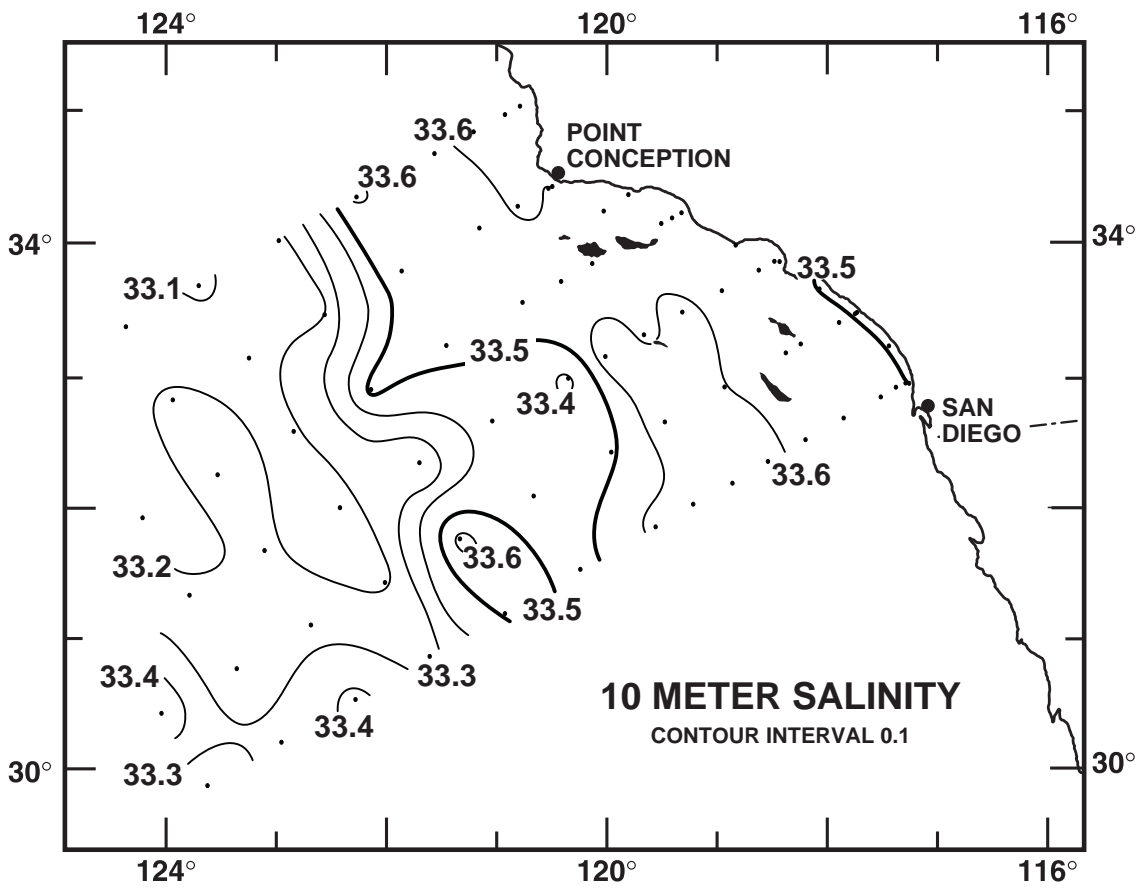


FIGURE 3D

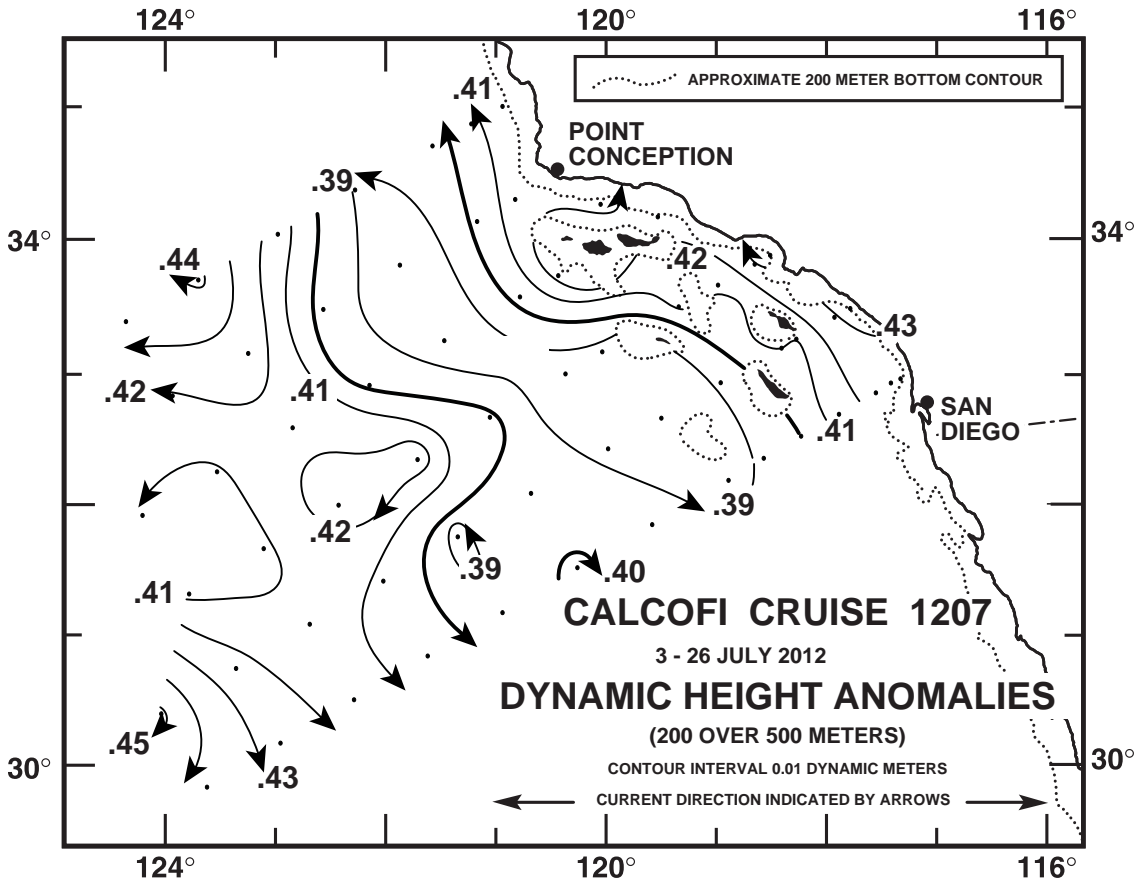


FIGURE 4A

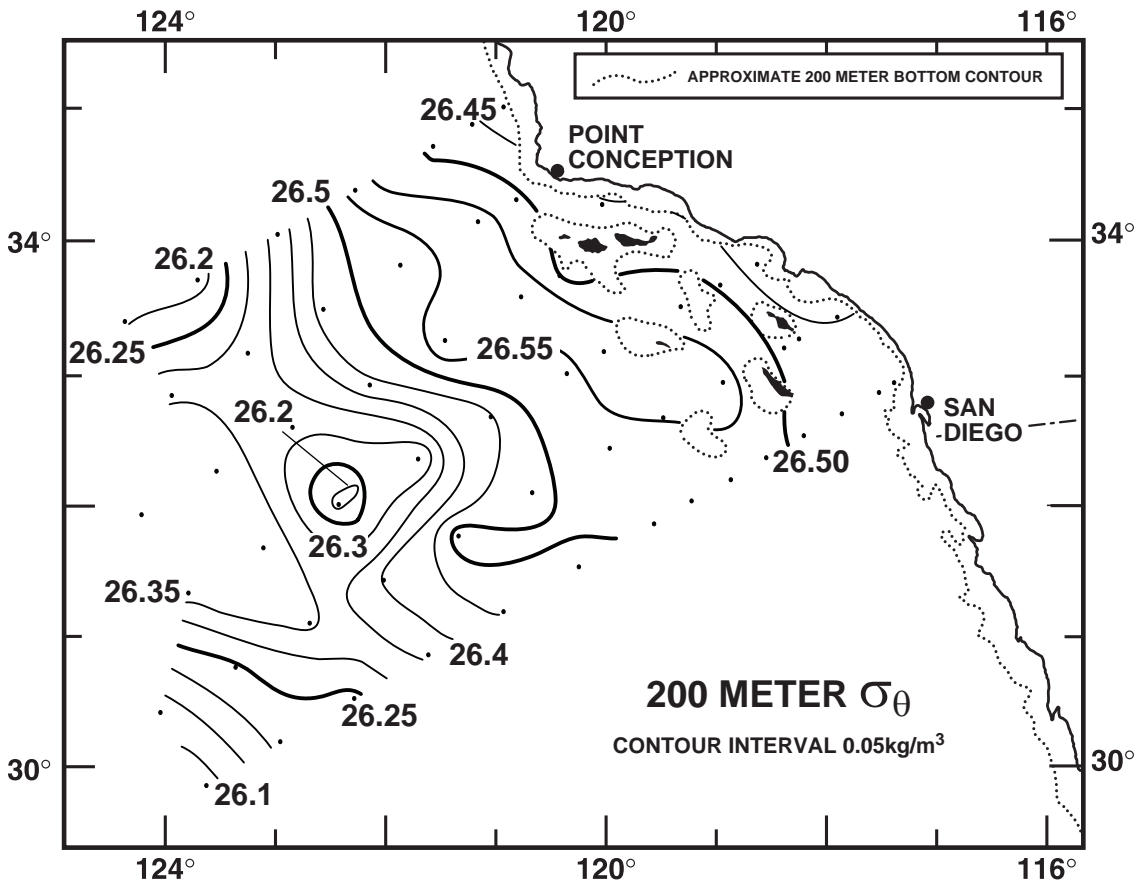


FIGURE 4B

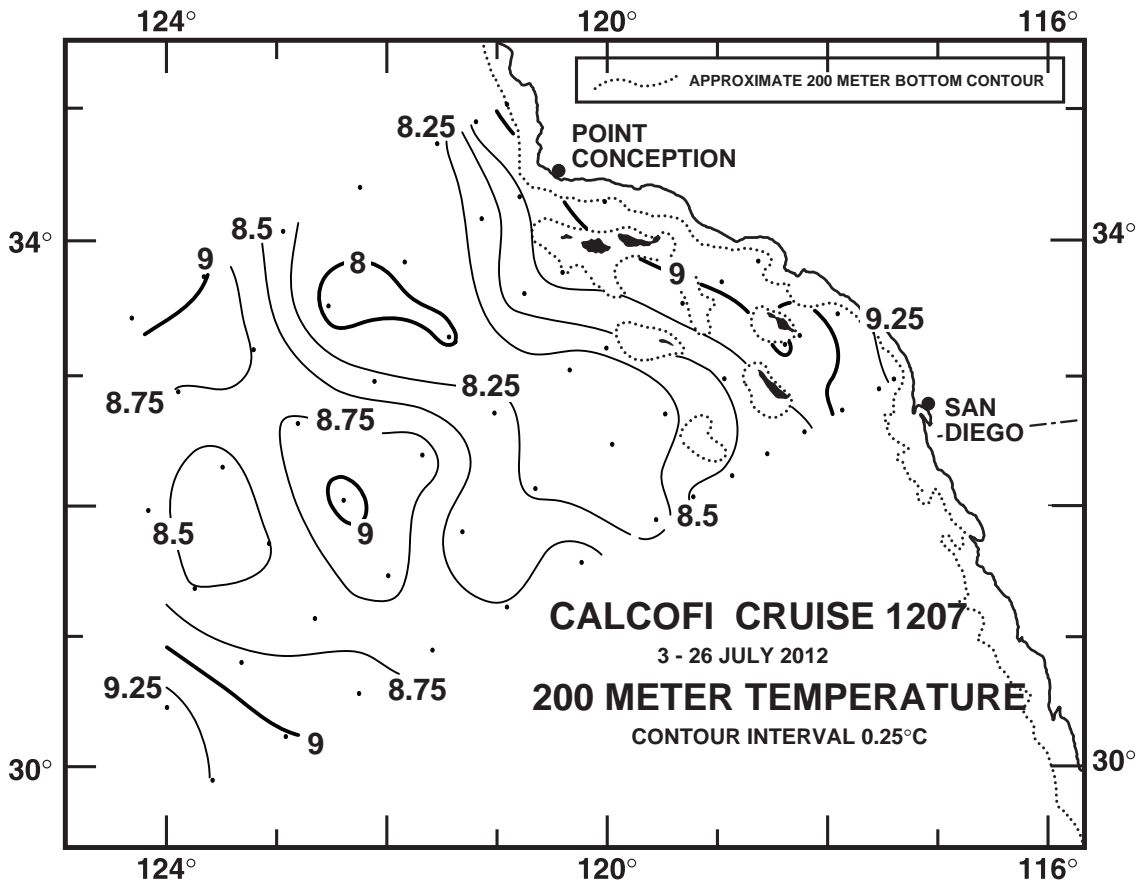


FIGURE 4C

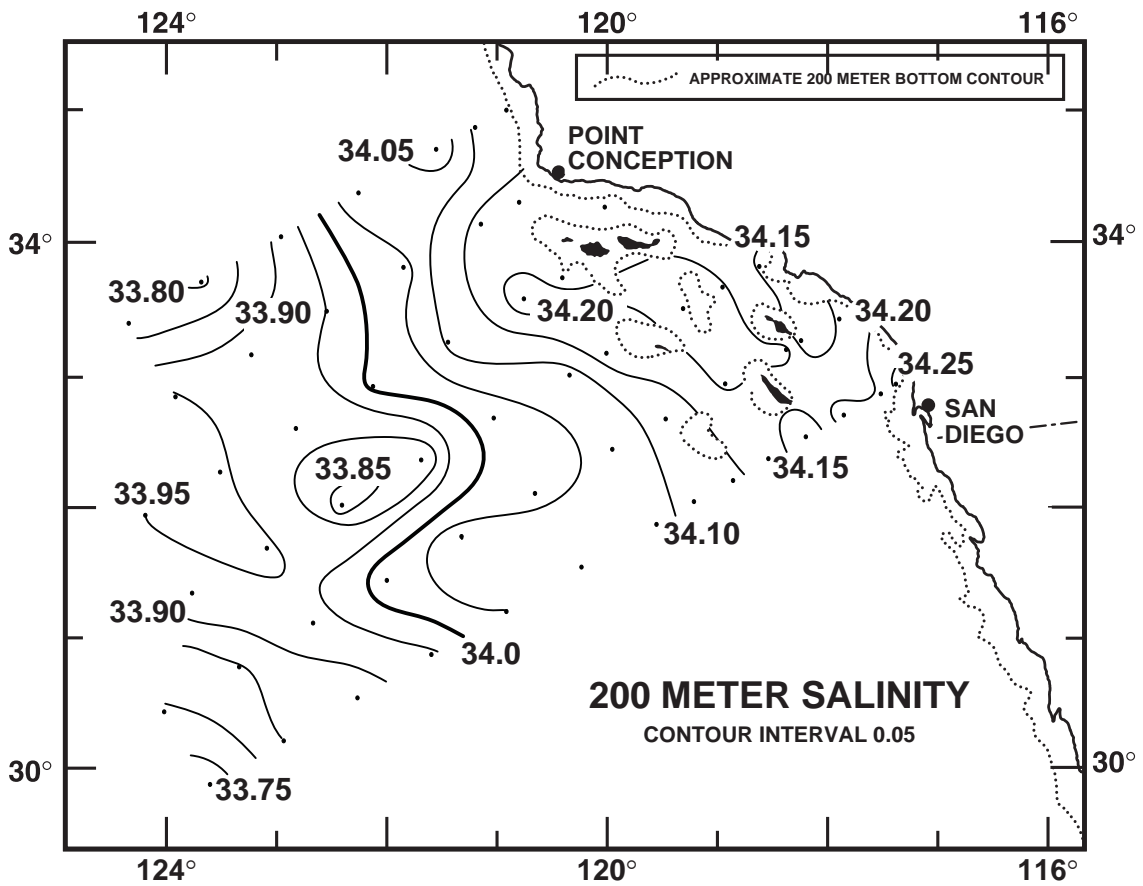


FIGURE 4D

CALCOFI CRUISE 1207

14 - 17 July 2012

POTENTIAL DENSITY (σ_θ) ALONG CALCOFI LINE 90

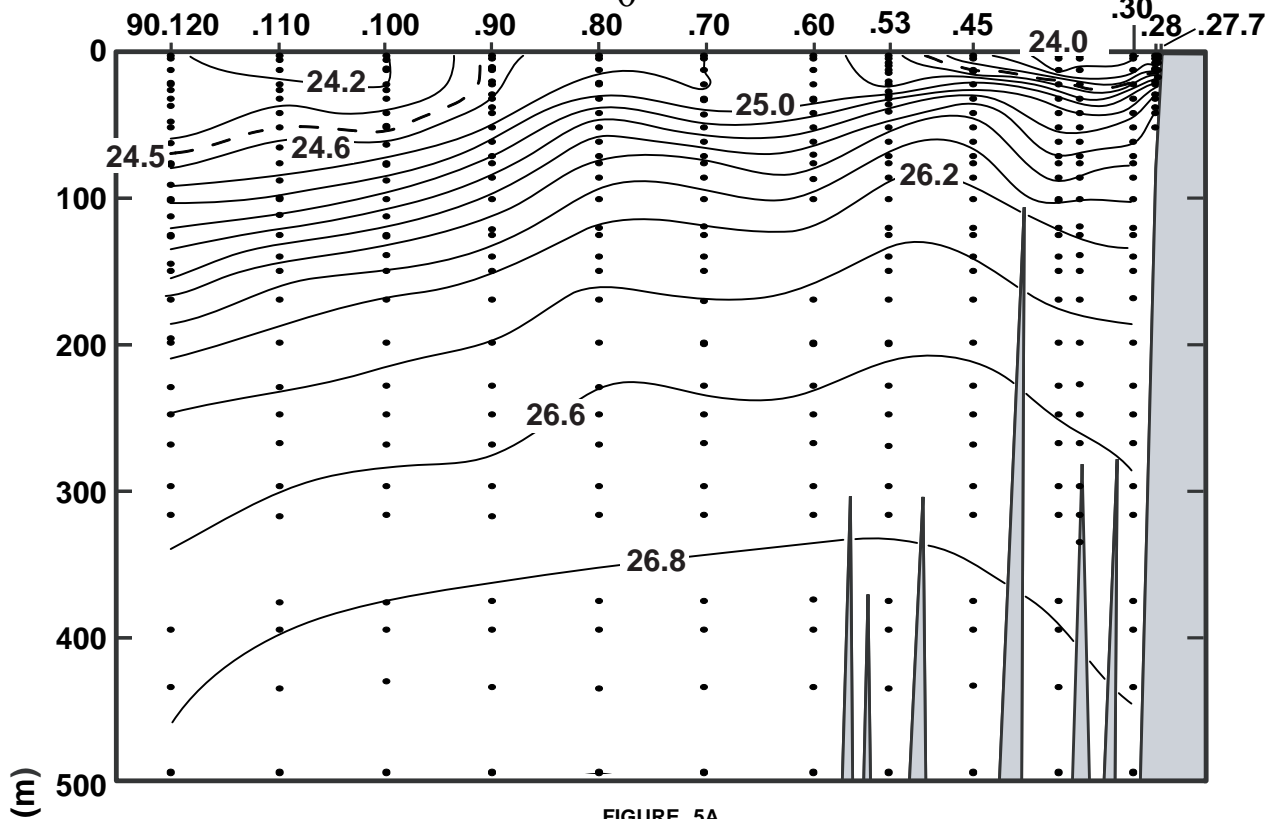


FIGURE 5A

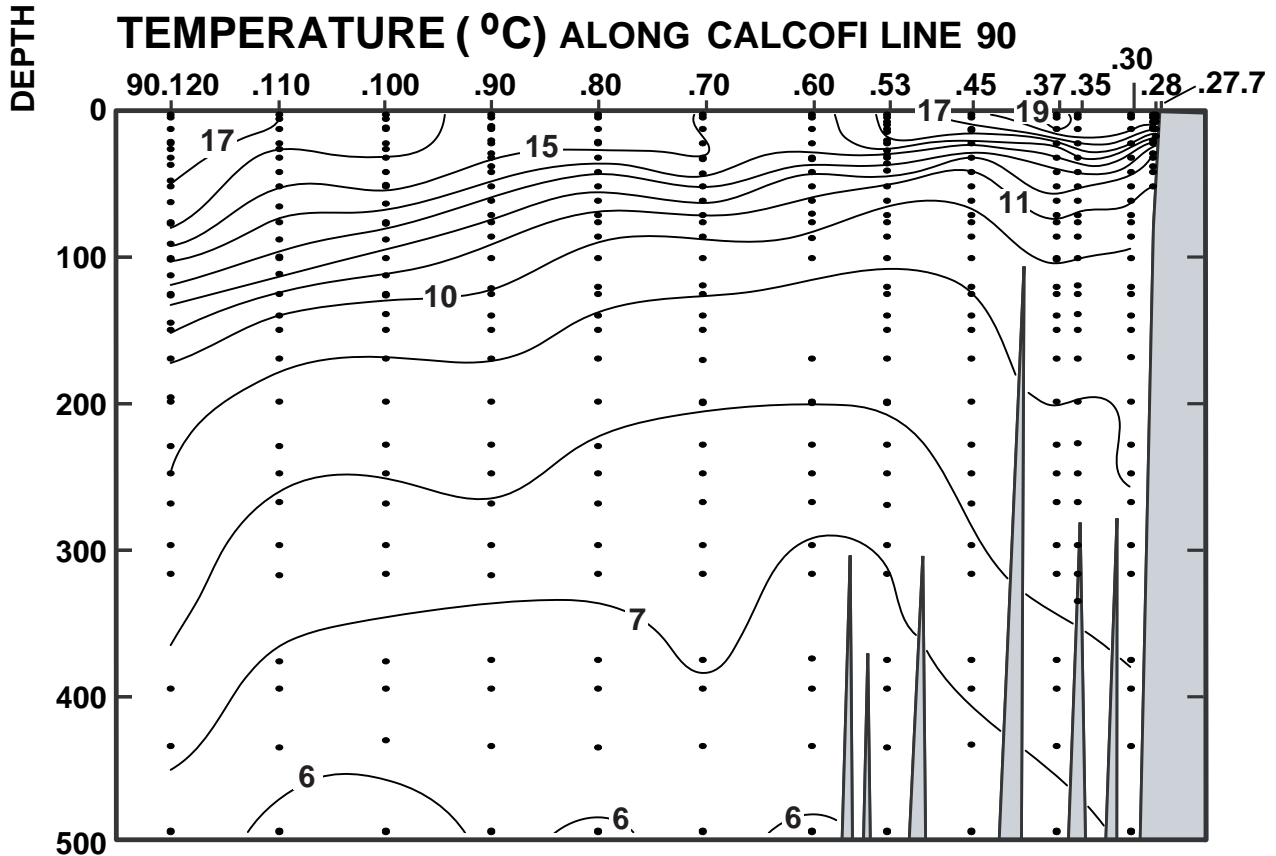


FIGURE 5B

CALCOFI CRUISE 1207

14 - 17 July 2012

SALINITY ALONG CALCOFI LINE 90

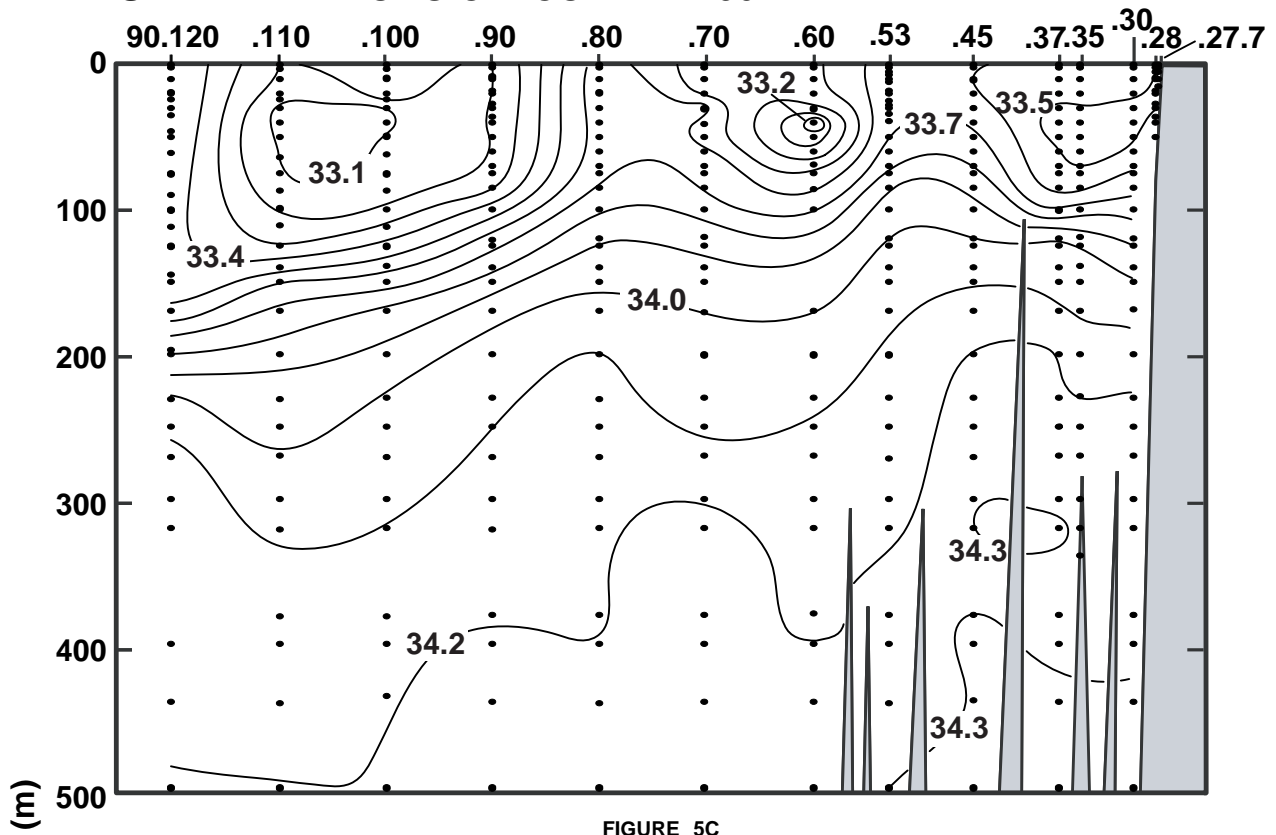


FIGURE 5C

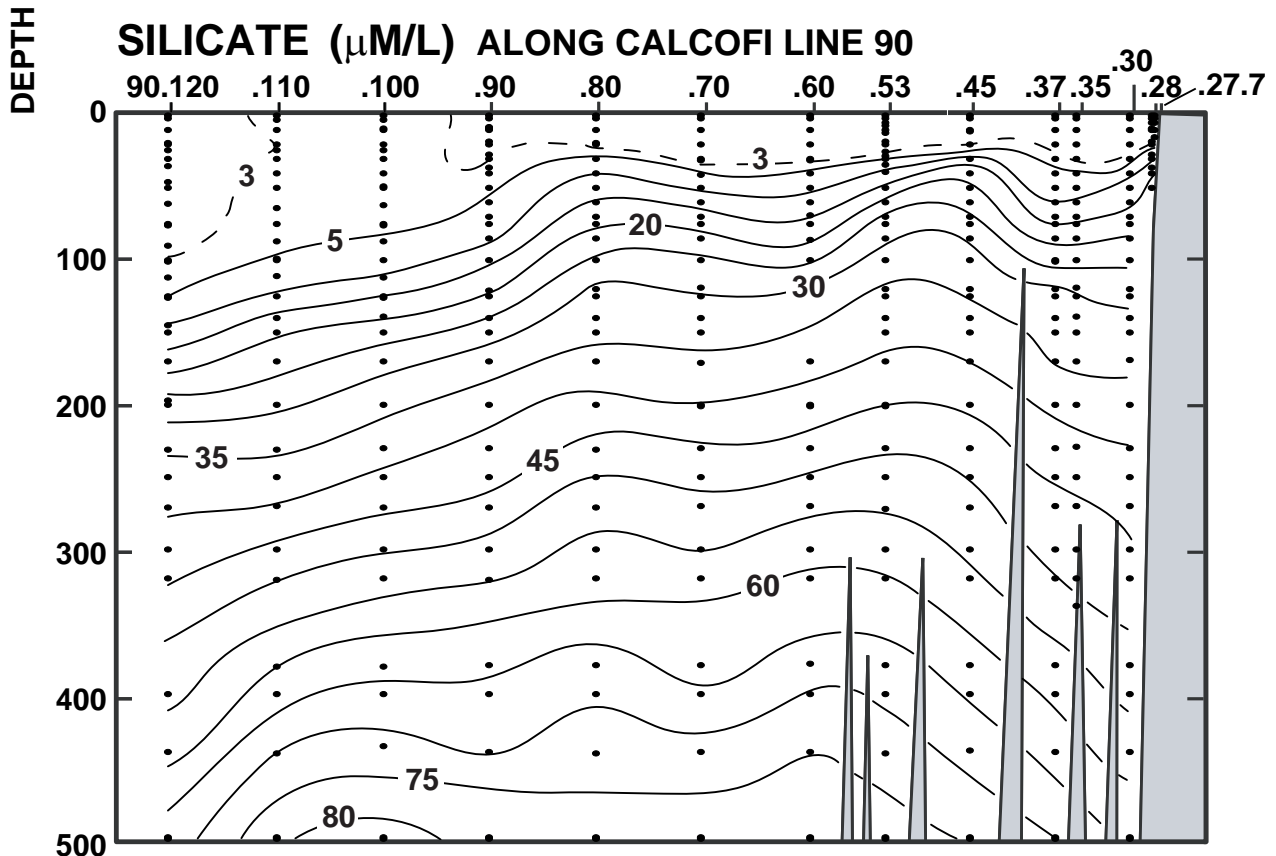


FIGURE 5D

CALCOFI CRUISE 1207

14 - 17 July 2012

NITRATE ($\mu\text{M/L}$) ALONG CALCOFI LINE 90

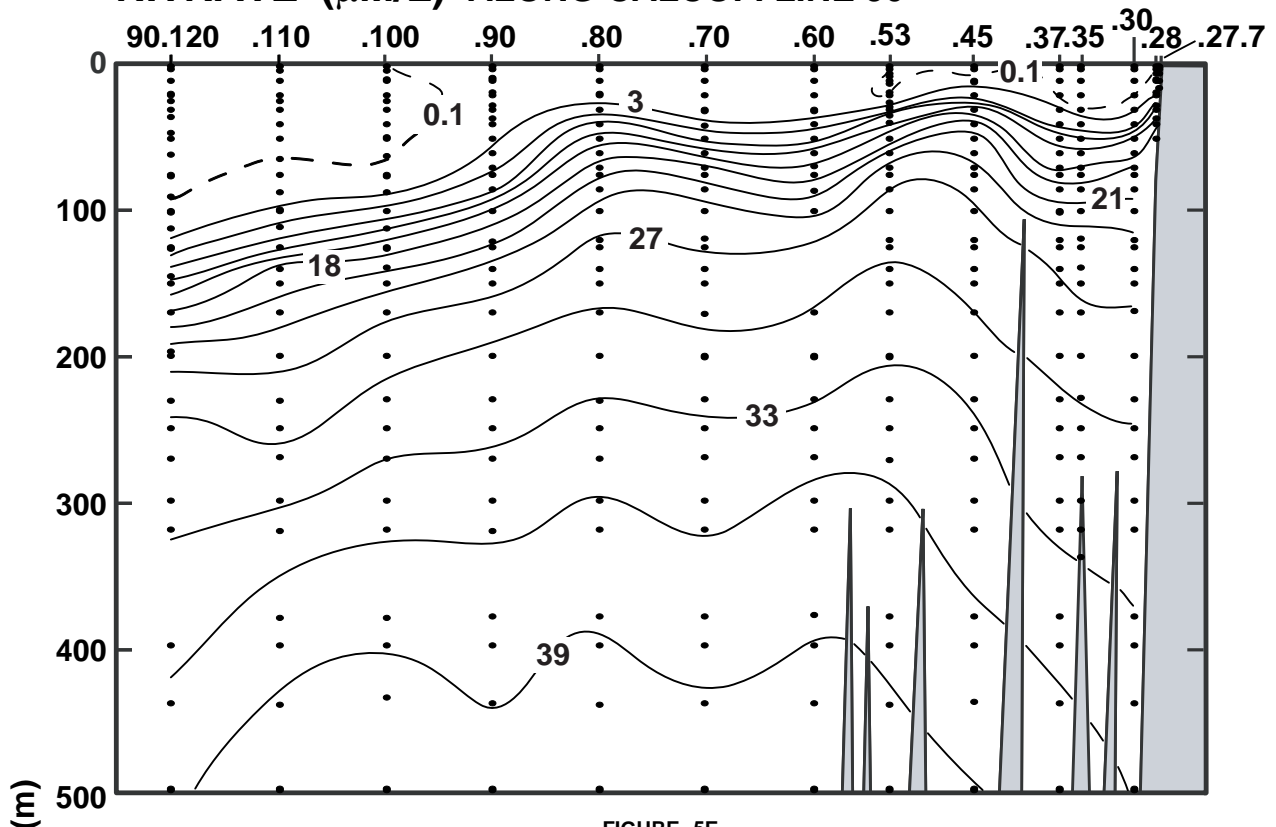


FIGURE 5E

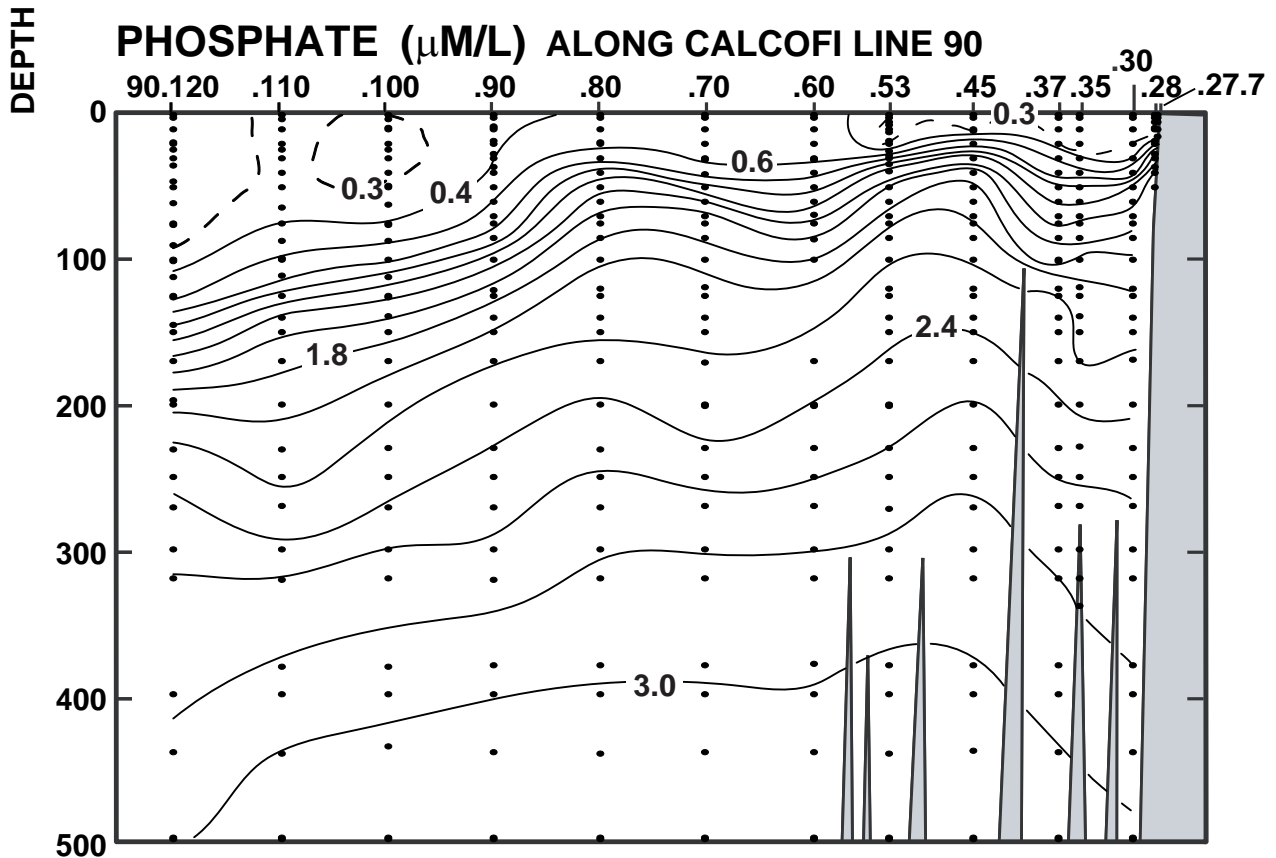


FIGURE 5F

CALCOFI CRUISE 1207

14 - 17 July 2012

CHLOROPHYLL-a ($\mu\text{g/L}$) ALONG CALCOFI LINE 90

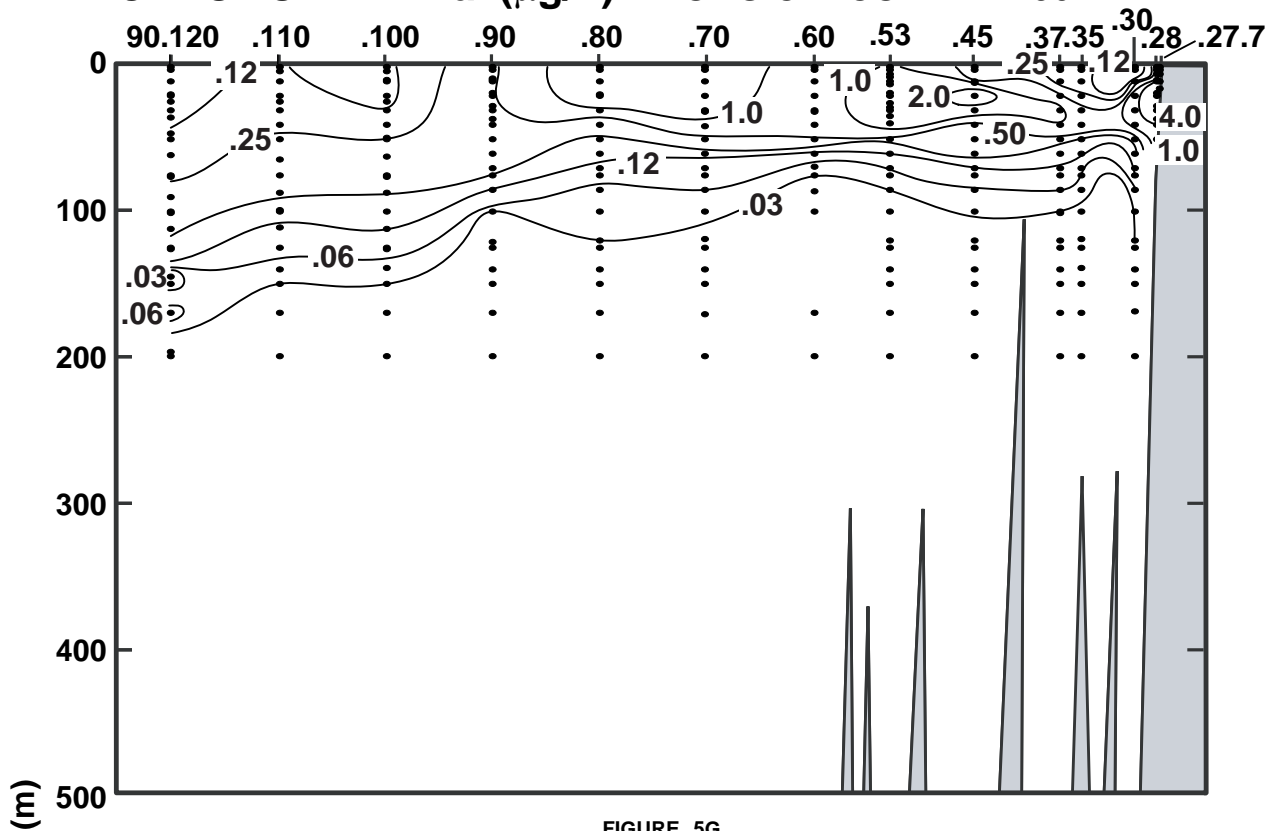


FIGURE 5G

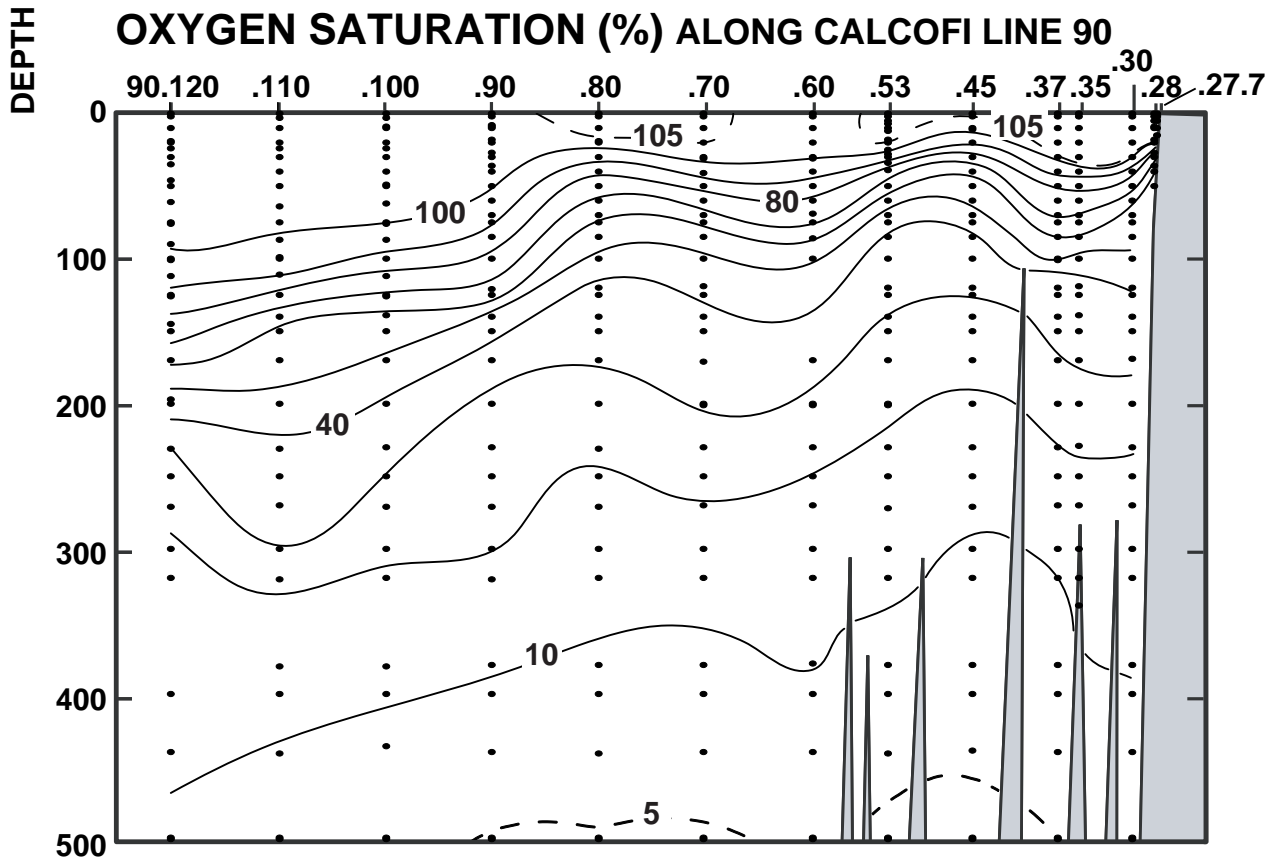


FIGURE 5H

CALCOFI CRUISE 1207

14 - 17 July 2012

OXYGEN (mL/L) ALONG CALCOFI LINE 90

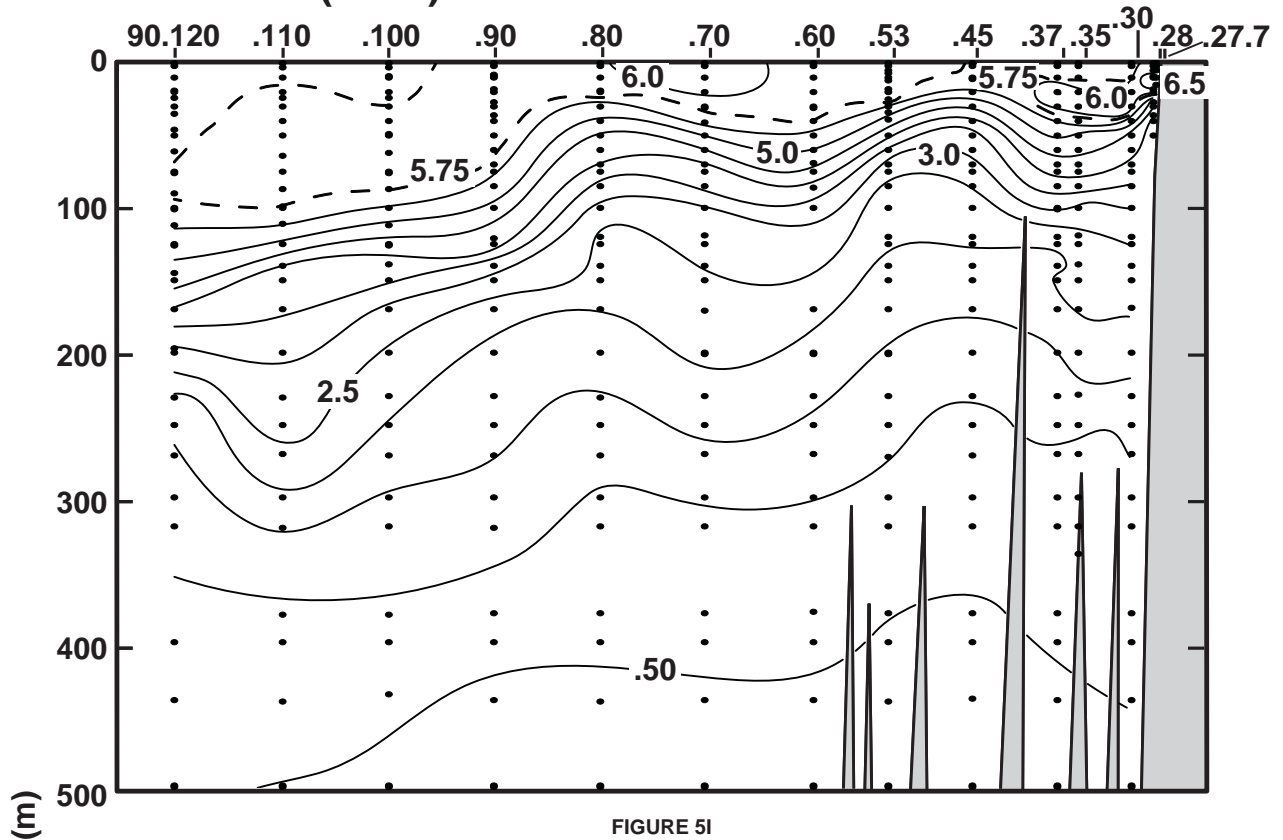


FIGURE 5I

NITRITE ($\mu\text{M/L}$) ALONG CALCOFI LINE 90

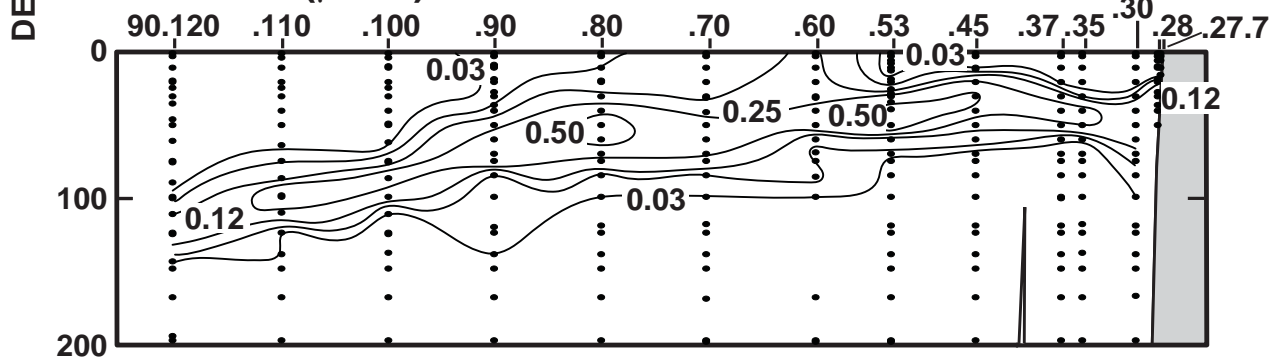


FIGURE 5J

PHAEOPIGMENTS ($\mu\text{g/L}$) ALONG CALCOFI LINE 90

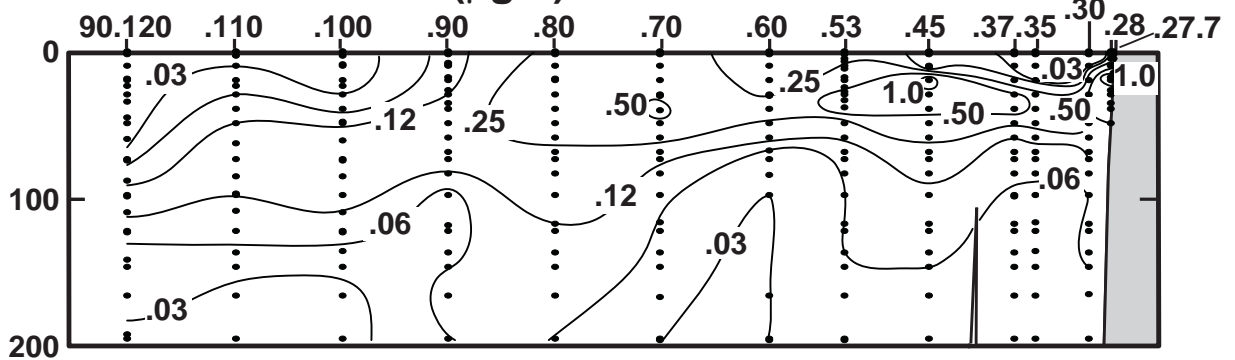


FIGURE 5K

PERSONNEL

CalCOFI Cruise 1207

SHIP'S CAPTAIN

Hanson, Bud, F/V *Ocean Starr*

PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

Hays, Amy (Chief Scientist)	Fishery Biologist, NMFS
Bendin, Andrea	Marine Mammal Observer, MPL
Breese, Dawn	Bird Observer, FIAER
Dovel, Shonna	Staff Research Associate, SIO
Faber, David	Staff Research Associate, SIO
Glick, Adam	Volunteer, SIO
Griffith, David	Fishery Biologist, NMFS
Jiorle, Ralph	Staff Research Associate, SIO
Lam, Liz	Volunteer, SIO
Miller, Melissa	Staff Research Associate, SIO
Overcash, Brian	Fishery Biologist, NMFS
Roche, Lauren	Marine Mammal Acoustician
Renfree, Josiah	NOAA Acoustician
Rodgers-Wolgast, Jennifer	Staff Research Associate, SIO
Wang, Michael	Volunteer, SIO
Whitaker, Katherine	Marine Mammal Observer, MPL
Wilkinson, James	Programmer Analyst, SIO

San Diego to San Diego, California, 2 – 27 July, 2012

CALCOFI CRUISE 1207

STATION 76.7 49.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
35 5.3 N	120 46.7 W	26/07/2012	0259 UTC	71 m	290	09 kn	280 02 07	1	1013.2 mb	16.2 C	14.8 C				CS	075	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	13.98	13.98	33.663	25.159	279.7	0.000	7.26	123.8	0.2	0.17	0.1	0.02	0.00	15.29	0.22	0	
2	13.98	13.98	33.663	25.159	279.7	0.006	7.26	123.9	0.2	0.17	0.1	0.02	0.00	15.29	0.22	2	09
5	13.46	13.46	33.662	25.266	269.6	0.014	7.21	121.7	0.2	0.13	0.1	0.03	0.00	15.82	0.23	5	08
10	12.70	12.70	33.675	25.427	254.5	0.026										10	07
10	12.70	12.70	33.676	25.427	254.4	0.027	5.67	94.2	3.0	0.36	5.1	0.10	0.70	13.32	0.71	10	06
20	11.95	11.94	33.696	25.588	239.4	0.052	4.61	75.5	9.9	0.92	10.1	0.15	1.99	7.02	0.99	20	05
30	11.59	11.59	33.702	25.659	232.9	0.075	4.17	67.7	13.5	1.18	11.9	0.18	2.27	4.44	1.13	30	04
40	11.14	11.14	33.715	25.751	224.4	0.098	3.63	58.4	17.4	1.49	15.1	0.20	2.75	1.98	1.15	40	03
50	10.95	10.94	33.720	25.791	220.8	0.120	3.29	52.7	20.8	1.69	17.1	0.22	2.81	0.90	1.36	50	02
60	10.87	10.86	33.723	25.808	219.5	0.142	3.23	51.7	21.7	1.76	17.7	0.23	2.79	0.71	1.19	60	01

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

CALCOFI CRUISE 1207

STATION 76.7 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
35 1.4 N	120 54.8 W	26/07/2012	0044 UTC	236 m	300	06 kn	320 02 07	1	1013.0 mb	19.0 C	16.0 C	11 m		4/8	CS	074	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.49	16.49	33.628	24.581	334.7	0.000	6.08	109.0	0.3	0.20	0.1	0.01	0.02	0.73	0.14	0	
2	16.49	16.49	33.628	24.581	334.7	0.007	6.08	109.1	0.3	0.20	0.1	0.01	0.02	0.73	0.14	2	16
10	14.45	14.45	33.614	25.023	293.0	0.032	6.89	118.8	0.1	0.09	0.0	0.01	0.00	3.60	0.43	10	14
11	14.38	14.37	33.614	25.039	291.5	0.034										11	15
20	13.95	13.95	33.615	25.128	283.2	0.061	6.33	107.9	0.1	0.15	0.1	0.02	0.00	14.44	0.53	20	
21	13.93	13.93	33.614	25.133	282.8	0.063	6.25	106.6	0.1	0.16	0.1	0.02	0.00	15.53	0.54	21	13
30	12.84	12.83	33.599	25.343	263.0	0.089	5.28	87.9	4.1	0.84	5.5	0.41	2.44	3.19	0.77	30	
31	12.65	12.65	33.597	25.377	259.8	0.091	5.17	85.9	4.5	0.91	6.1	0.45	2.71	1.82	0.79	31	12
40	12.12	12.11	33.576	25.463	251.8	0.114	5.04	82.8	7.5	1.10	9.8	0.57	1.72	0.60	0.57	40	11
50	11.28	11.27	33.639	25.668	232.5	0.138	4.72	76.1	13.8	1.46	17.2	0.14	0.00	0.14	0.50	50	10
60	11.09	11.08	33.641	25.704	229.4	0.161	4.67	75.1	14.4	1.49	17.7	0.05	0.00	0.12	0.38	60	09
70	10.69	10.68	33.632	25.768	223.5	0.183	4.38	69.8	16.4	1.57	19.2	0.07	0.00	0.07	0.33	71	08
75	10.03	10.02	33.626	25.877	213.1	0.196	4.12	64.7	20.0	1.70	21.1	0.14	0.02	0.10	0.32	76	
85	9.87	9.86	33.857	26.084	193.7	0.215	2.52	39.5	27.2	1.95	25.0	0.27	0.05	0.14	0.31	86	07
100	9.59	9.57	33.951	26.206	182.4	0.245	2.15	33.4	30.1	2.15	26.8	0.18	0.03	0.16	0.32	101	
101	9.56	9.55	33.950	26.210	182.1	0.245	2.13	33.2	30.3	2.16	26.9	0.17	0.03	0.16	0.32	102	06
119	9.40	9.38	34.011	26.284	175.4	0.277	1.93	29.9	32.9	2.23	27.8	0.09	0.00	0.08	0.20	120	05
125	9.37	9.36	34.029	26.302	173.8	0.290	1.91	29.6	33.4	2.24	27.9	0.08	0.00	0.08	0.23	126	
140	9.28	9.27	34.055	26.338	170.7	0.313	1.79	27.7	34.6	2.28	28.2	0.06	0.00	0.09	0.30	141	04
150	9.22	9.21	34.075	26.363	168.5	0.333	1.80	27.9	35.5	2.31	28.6	0.06	0.01	0.08	0.30	151	
170	9.16	9.14	34.102	26.395	166.0	0.364	1.58	24.4	37.2	2.37	29.5	0.06	0.04	0.06	0.28	171	03
200	9.11	9.08	34.114	26.415	164.8	0.413	1.52	23.4	38.0	2.39	29.8	0.07	0.06	0.05	0.29	202	02
220	9.06	9.03	34.117	26.426	164.1	0.446	1.41	21.8	40.0	2.46	30.0	0.10	0.25			222	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 76.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 53.4 N	121 11.7 W	25/07/2012	2126 UTC	571 m	250	02 kn	310 02 06	1	1017.0 mb	19.3 C	16.7 C	11 m		6/8	CS	073	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.84	16.83	33.628	24.502	342.3	0.000	6.56	118.7	0.1	0.18	0.0	0.02	0.05	1.43	0.13	0	
2	16.84	16.83	33.628	24.502	342.3	0.007	6.56	118.7	0.1	0.18	0.0	0.02	0.05	1.43	0.13	2	21
10	15.22	15.22	33.627	24.867	307.8	0.035	6.57	115.1	0.1	0.18	0.0	0.02	0.01	1.34	0.12	10	19
10	15.22	15.22	33.624	24.864	308.0	0.034										10	20
20	14.08	14.08	33.608	25.096	286.3	0.063	6.56	112.2	0.1	0.22	0.1	0.04	0.00	8.33	0.61	20	18
30	13.37	13.37	33.614	25.247	272.2	0.090	5.49	92.6	2.4	0.61	4.7	0.14	1.67	6.81	1.58	30	17
40	11.93	11.92	33.587	25.508	247.6	0.116	4.88	79.8	9.2	1.13	11.3	0.33	1.17	2.17	0.99	40	16
50	11.01	11.00	33.573	25.665	232.8	0.140	4.64	74.4	13.7	1.41	16.5	0.27	0.14	0.64	0.74	50	15
60	10.71	10.70	33.675	25.799	220.3	0.163	4.24	67.6	17.4	1.65	20.1	0.13	0.00	0.12	0.24	60	14
70	10.36	10.35	33.697	25.876	213.2	0.185	3.96	62.6	19.4	1.72	21.4	0.16	0.00	0.08	0.18	71	13
75	10.28	10.27	33.715	25.904	210.6	0.197	3.79	59.9	20.4	1.76	21.9	0.17	0.00	0.09	0.18	76	
84	10.14	10.13	33.729	25.940	207.4	0.214	3.52	55.4	22.1	1.82	22.9	0.18	0.00	0.10	0.18	85	12
100	9.82	9.80	33.838	26.080	194.5	0.246	2.68	41.9	26.8	2.00	25.3	0.20	0.05	0.15	0.39	101	11
120	9.46	9.45	33.919	26.202	183.2	0.284	2.30	35.7	30.5	2.13	27.5	0.09	0.07	0.10	0.22	121	10
125	9.42	9.40	33.942	26.228	180.9	0.295	2.28	35.4	31.1	2.16	27.4	0.09	0.06	0.09	0.21	126	
140	9.35	9.33	34.007	26.290	175.3	0.320	1.98	30.7	32.7	2.24	27.2	0.10	0.03	0.08	0.19	141	09
150	9.28	9.26	34.064	26.346	170.2	0.339	1.77	27.4	34.4	2.33	28.4	0.09	0.02	0.07	0.18	151	
170	9.23	9.21	34.142	26.416	164.0	0.371	1.25	19.3	37.6	2.51	30.9	0.07	0.00	0.07	0.15	171	08
200	8.80	8.77	34.113	26.463	160.1	0.419	1.55	23.7	39.0	2.42	30.7	0.04	0.00	0.04	0.18	202	07
230	8.49	8.47	34.139	26.531	154.1	0.466	1.39	21.2	42.3	2.51	32.2	0.06	0.00			232	06
250	7.70	7.67	34.035	26.567	150.6	0.500	1.90	28.3	44.8	2.49	33.0	0.05	0.00			252	
271	7.39	7.37	34.048	26.622													

CALCOFI CRUISE 1207

STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 43.3 N	121 32.8 W	25/07/2012	1813 UTC	920 m	000	00 kn	320 02 06	2	1019.0 mb	17.0 C	14.8 C	09 m	8/8		ST	072	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.50	15.50	33.605	24.788	315.1	0.000	6.11	107.7	0.7	0.28	0.5	0.05	0.14	1.01	0.24	0	
2 A	15.50	15.50	33.605	24.787	315.1	0.006	6.11	107.6	0.7	0.28	0.5	0.05	0.14	1.01	0.24	2	24
5 A	15.08	15.08	33.598	24.875	306.9	0.016	6.17	107.8	0.7	0.29	0.6	0.07	0.06	1.16	0.32	5	23
7 A	14.93	14.93	33.598	24.908	303.8	0.022	6.13	106.7	0.7	0.30	0.8	0.07	0.04	1.09	0.34	7	22
10 ISL	14.60 D	14.24	33.583 D	25.043	291.0	0.030	6.08	104.3	0.9	0.36	1.4	0.11	0.45	1.26	0.42	10	
12 A	14.38	14.38	33.579	25.010	294.2	0.037	5.94	102.2	1.1	0.40	1.8	0.13	0.73	1.37	0.47	12	21
18	12.73	12.73	33.598	25.361	260.9	0.053	5.50	91.5	3.2	0.69	5.0	0.42	2.27	3.18	0.87	18	20
20 ISL	12.70 D	12.17	33.588 D	25.461	251.5	0.056	5.37	88.2	4.5	0.81	6.6	0.46	1.98	2.44	0.77	20	
25 A	12.07	12.06	33.577	25.473	250.4	0.071	5.14	84.3	8.0	1.11	10.5	0.55	1.24	0.57	0.52	25	19
28 A	11.78	11.78	33.576	25.526	245.5	0.079	5.00	81.4	10.0	1.23	12.8	0.51	0.57	0.35	0.42	28	18
30 ISL	11.56 D	11.20	33.563 D	25.622	236.4	0.081	5.04	81.2	11.1	1.30	14.0	0.38	0.39	0.26	0.36	30	
34	11.15	11.14	33.570	25.638	235.0	0.093	4.73	76.0	13.5	1.43	16.5	0.11	0.04	0.09	0.24	34	17
40	10.95	10.94	33.608	25.703	228.9	0.107	4.31	69.1	15.7	1.51	17.7	0.37	0.10	0.08	0.23	40	16
49	10.40	10.39	33.655	25.836	216.4	0.127	4.15	65.6	18.8	1.67	20.7	0.08	0.00	0.05	0.13	49	15
50 ISL	10.34 D	10.33	33.666 D	25.856	214.6	0.127	4.11	64.9	19.2	1.69	21.0	0.08	0.00	0.04	0.12	50	
60	9.88	9.87	33.714	25.972	203.8	0.150	3.57	55.9	22.9	1.85	23.7	0.06	0.00	0.03	0.12	60	14
70	9.81	9.80	33.773	26.030	198.5	0.170	3.08	48.1	25.5	1.96	25.2	0.09	0.00	0.06	0.14	71	13
75 ISL	9.84 D	9.83	33.827 D	26.066	195.2	0.178	2.81	43.9	26.5	2.00	25.4	0.13	0.06	0.11	0.18	76	
84	9.78	9.77	33.887	26.123	189.9	0.197	2.43	38.0	28.1	2.08	25.8	0.20	0.17	0.20	0.27	85	12
100	9.08	9.07	33.930	26.272	176.1	0.227	2.27	35.0	32.3	2.18	28.6	0.06	0.00	0.03	0.18	101	11
119	8.80	8.79	33.957	26.337	170.2	0.260	2.24	34.3	34.0	2.20	29.3	0.06	0.00	0.01	0.09	120	10
125 ISL	8.79 D	8.78	33.960 D	26.341	170.0	0.268	2.26	34.6	34.3	2.20	29.4	0.06	0.00	0.01	0.09	126	
139	8.68	8.67	33.971	26.367	167.8	0.293	2.21	33.7	35.0	2.21	29.5	0.06	0.00	0.01	0.09	140	09
150 ISL	8.57 D	8.55	34.002 D	26.410	165.9	0.310	2.09	31.8	36.0	2.23	29.8	0.06	0.00	0.01	0.10	151	
170	8.32	8.30	33.999	26.446	160.8	0.344	2.17	32.8	37.9	2.26	30.4	0.06	0.00	0.01	0.11	171	08
200	8.10	8.08	34.012	26.490	157.1	0.392	2.13	32.1	39.9	2.29	31.0	0.07	0.00	0.02	0.11	202	07
230	7.73	7.71	34.025	26.555	151.4	0.438	2.06	30.8	43.8	2.34	32.0	0.07	0.00	0.00	0.00	232	06
250 ISL	7.64 D	7.62	34.073 D	26.606	146.9	0.467	1.71	25.5	47.0	2.47	33.4	0.08	0.00	0.00	0.00	252	05
270	7.49	7.47	34.086	26.637	144.2	0.497	1.41	20.9	50.1	2.59	34.7	0.08	0.00	0.00	0.00	272	05
300 ISL	7.10 D	7.08	34.090 D	26.696	138.9	0.540	1.28	18.9	55.0	2.69	36.2	0.07	0.00	0.00	0.00	302	
319	6.92	6.89	34.109	26.737	135.2	0.566	1.04	15.3	58.0	2.76	37.1	0.07	0.00	0.00	0.00	322	04
380	6.58	6.55	34.167	26.828	127.3	0.646	0.69	10.0	65.9	2.94	38.9	0.07	0.00	0.00	0.00	383	03
400 ISL	6.35 D	6.31	34.184 D	26.873	123.2	0.672	0.60	8.7	69.2	2.99	39.5	0.06	0.00	0.00	0.00	403	
441	5.92	5.88	34.203	26.943	116.8	0.720	0.47	6.7	76.0	3.09	40.6	0.05	0.00	0.00	0.00	445	02
500 ISL	5.66 D	5.61	34.260 D	27.021	110.0	0.789	0.33	4.7	81.9	3.16	41.5	0.03	0.00	0.00	0.00	504	
516	5.63	5.59	34.262	27.027	109.6	0.804	0.31	4.5	83.5	3.18	41.7	0.03	0.00	0.00	0.00	520	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 76.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 23.2 N	122 14.9 W	25/07/2012	0941 UTC	4005 m	310	04 kn			1017.0 mb	16.0 C	14.2 C					071	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.47	15.47	33.345	24.595	333.5	0.000	6.03	105.7	2.0	0.36	1.1	0.06	0.06	0.89	0.11	0	
2	15.47	15.47	33.345	24.594	333.5	0.007	6.03	106.0	2.0	0.36	1.1	0.06	0.06	0.89	0.11	2	20
10	15.05	15.05	33.603	24.886	306.0	0.032	6.11	106.5	0.6	0.32	0.7	0.06	0.14	1.36	0.18	10	19
20	14.70	14.70	33.600	24.959	299.3	0.063	5.89	102.1	0.6	0.38	1.3	0.10	0.99	1.58	0.19	20	18
30 ISL	13.72 D	13.71	33.585 D	25.154	281.1	0.092	5.57	94.5	1.7	0.53	2.9	0.25	1.89	1.34	0.32	30	
31	13.62	13.62	33.581	25.171	279.5	0.094	5.63	95.4	1.8	0.54	3.1	0.26	1.98	1.31	0.33	31	17
40	12.86	12.85	33.551	25.301	267.3	0.119	5.46	91.0	3.8	0.82	5.1	0.37	2.71	0.53	0.30	40	16
50	11.87	11.87	33.525	25.470	251.4	0.145	5.30	86.5	11.5	1.30	11.5	0.48	2.58	0.15	0.24	50	15
60	11.28	11.28	33.575	25.618	237.5	0.169	4.97	80.2	16.3	1.55	16.5	0.43	1.60	0.09	0.24	60	14
70	10.47	10.46	33.598	25.780	222.3	0.192	4.67	74.0	19.1	1.64	20.2	0.13	0.00	0.06	0.19	71	13
75 ISL	9.89 D	9.88	33.535 D	25.830	217.6	0.205	4.56	71.3	20.0	1.65	20.6	0.10	0.00	0.05	0.16	76	
85	9.75	9.74	33.590	25.897	211.4	0.225	4.09	63.8	21.8	1.66	21.5	0.03	0.00	0.04	0.11	86	12
100 ISL	9.55 D	9.54	33.816 D	26.106	191.9	0.256	2.81	43.8	27.3	2.04	26.6	0.02	0.00	0.02	0.11	101	
101	9.52	9.51	33.810	26.106	191.9	0.257	2.84	44.2	27.7	2.07	26.9	0.02	0.00	0.02	0.11	102	11
121	9.00	8.99	33.892	26.255	178.1	0.294	2.50	38.5	31.2	2.12	28.0	0.00	0.00	0.03	0.09	122	10
125 ISL	8.86 D	8.87	33.951 D	26.320	172.0	0.302	2.40	36.7	32.1	2.15	28.4	0.00	0.00	0.02	0.10	126	
141	8.50	8.49	33.983	26.404	164.2	0.328	2.10	32.0	35.7	2.25	30.0	0.00	0.00	0.01	0.10	142	09
150 ISL	8.40 D	8.39	34.007 D	26.439	161.1	0.344	2.07	31.5	37.1	2.28	30.5	0.00	0.00	0.01	0.09	151	
170	8.23	8.21	34.032	26.485	157.0	0.374	1.86	28.2	40.3	2.35	31.6	0.00	0.00	0.01	0.08	171	08
200	8.05	8.03	34.104	26.569	149.6	0.420	1.48	22.2	44.7	2.50	32.6	0.00	0.00	0.01	0.07	202	07
230	7.88	7.86	34.139	26.622	145.1	0.464	1.23	18.5	48.3	2.60	33.7	0.00	0.00	0.00	0.00	232	06
250 ISL	8.08 D	8.05	34.227 D	26.663	141.8	0.495	0.79	11.9	50.6	2.70	34.3	0.00	0.00	0.00	0.00	252	
270	7.91	7.88	34.229	26.690	139.5	0.521	0.71	10.7	52.9	2.79	34.8	0.00	0.00	0.00	0.00	272	05
300 ISL	7.68 D	7.65	34.244 D	26.736	135.6	0.565	0.63	9.4	56.6	2.85	35.4	0.00	0.00	0.00	0.00	302	
321	7.50	7.47	34.240	26.759	133.7	0.591	0.56	8.3	59.1	2.89	35.8	0.00	0.00	0.00	0.00	324	04
379	6.48	6.45	34.179	26.852	125.0	0.666	0.66	9.5	67.1	2.95	38.6	0.00	0.00	0.00	0.00	382	03
400 ISL	6.39 D	6.35	34.196 D	26.878	122.8	0.696	0.56	8.0	69.9	2.99	39.3	0.00	0.00	0.00	0.00	403	
440	5.99	5.95	34.201	26.932	117.8	0.740	0.47	6.8	75.4	3.06	40.5	0.00	0.00	0.00	0.00	444	02
500 IS																	

CALCOFI CRUISE 1207

STATION 76.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34	3.0 N	122 56.8 W	25/07/2012 0258 UTC	4227 m	290	16 kn	340 10 11	2	1017.0 mb	17.0 c	15.3 c			8/8	ST	070	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µg/L	µg/L	db		
0	16.25	16.25	33.175	24.288	362.6	0.000	5.81	103.3	2.9	0.36	0.6	0.03	0.11	0.17	0.03	0	
2	16.25	16.25	33.175	24.288	362.7	0.007	5.81	103.6	2.9	0.36	0.6	0.03	0.11	0.17	0.03	2	20
10	15.95	15.95	33.171	24.354	356.6	0.036	5.87	104.1	2.9	0.36	0.7	0.03	0.10	0.23	0.06	10	19
20	ISL 15.93 D	15.93	33.165 D	24.354	357.0	0.072	5.89	D104.4	2.9	0.36	0.6	0.03	0.10	0.25	0.06	20	
25	15.87	15.87	33.159	24.363	356.3	0.090	5.88	104.1	3.0	0.36	0.5	0.03	0.10	0.26	0.07	25	18
30	ISL 15.44 D	15.43	33.092 D	24.408	352.1	0.108	5.96	D104.5	3.0	0.35	0.4	0.03	0.09	0.30	0.08	30	
40	14.22	14.22	33.112	24.685	326.0	0.141	6.05	103.4	3.0	0.32	0.3	0.02	0.07	0.37	0.10	40	17
50	13.97	13.96	33.116	24.742	320.9	0.174	6.12	104.1	3.0	0.29	0.0	0.01	0.01	0.29	0.10	50	16
62	12.25	12.24	32.891	24.908	305.2	0.211	6.22	101.9	3.6	0.36	0.0	0.04	0.02	0.58	0.30	63	15
75	ISL 11.32 D	11.31	32.933 D	25.112	286.0	0.252	5.83	D 93.7	5.2	0.56	3.3	0.10	0.00	0.28	0.17	76	
76	11.30	11.29	32.915	25.102	287.0	0.252	5.82	93.5	5.3	0.57	3.5	0.10	0.00	0.26	0.16	77	14
85	11.39	11.37	33.125	25.251	273.1	0.278	5.69	91.7	6.9	0.69	5.7	0.19	0.00	0.32	0.20	86	13
100	10.80	10.78	33.149	25.375	261.6	0.318	5.62	89.4	12.3	1.08	11.6	0.48	0.05	0.21	0.07	101	12
112	10.39	10.37	33.264	25.536	246.5	0.348	5.35	84.4	14.6	1.23	14.6	0.11	0.00	0.10	0.08	113	11
125	10.14	10.13	33.340	25.637	237.1	0.380	5.14	80.7	16.4	1.34	16.5	0.13	0.00	0.07	0.08	126	10
140	9.54	9.52	33.477	25.845	217.6	0.414	4.49	69.6	18.1	1.42	18.1	0.05	0.00	0.03	0.05	141	09
150	ISL 9.25 D	9.23	33.590 D	25.981	204.8	0.438	4.20	D 64.8	21.9	1.63	21.1	0.04	0.00	0.02	0.06	151	
170	9.17	9.15	33.810	26.167	187.6	0.474	2.99	46.1	29.3	2.05	27.1	0.03	0.00	0.01	0.07	171	08
200	8.39	8.37	33.913	26.368	168.8	0.528	2.54	38.5	35.1	2.15	29.5	0.00	0.00	0.01	0.07	202	07
231	8.09	8.06	33.961	26.452	161.3	0.579	2.41	36.3	38.1	2.20	30.3	0.00	0.04			233	06
250	ISL 7.88 D	7.86	33.991 D	26.507	156.4	0.613	2.26	D 33.8	40.8	2.25	31.1	0.00	0.00			252	
270	7.59	7.56	33.990	26.548	152.7	0.640	2.20	32.8	43.6	2.31	32.0	0.00	0.00			272	05
300	ISL 7.01 D	6.99	33.980 D	26.621	145.9	0.689	2.15	D 31.6	49.1	2.42	33.6	0.00	0.00			302	
320	6.90	6.87	34.004	26.657	142.8	0.714	1.88	27.5	52.7	2.50	34.7	0.00	0.00			323	04
381	6.46	6.42	34.078	26.775	132.3	0.797	1.10	15.9	62.9	2.80	38.2	0.00	0.00			384	03
400	ISL 6.28 D	6.24	34.084 D	26.803	129.7	0.828	1.04	D 15.0	66.0	2.85	38.8	0.00	0.00			403	
440	5.91	5.87	34.107	26.868	123.8	0.873	0.83	11.9	72.5	2.96	40.2	0.00	0.00			444	02
500	ISL 5.50 D	5.46	34.173 D	26.971	114.4	0.951	0.53	D 7.6	81.7	3.09	41.6	0.00	0.00			504	
516	5.44	5.39	34.184	26.988	113.0	0.963	0.47	6.6	84.1	3.12	42.0	0.00	0.03			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 76.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33	42.1 N	123 40.0 W	24/07/2012 2017 UTC	4192 m	330	15 kn	340 06 10	2	1019.8 mb	17.2 c	16.0 c	23 m		8/8	ST	069	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µg/L	µg/L	db		
0	16.45	16.44	33.096	24.184	372.6	0.000	5.70	102.0	3.2	0.33	0.1	0.02	0.16	0.11	0.02	0	
2	A 16.45	16.44	33.096	24.183	372.6	0.008	5.70	101.9	3.2	0.33	0.1	0.02	0.16	0.11	0.02	2	22
10	ISL 16.43 D	16.43	33.084 D	24.177	373.5	0.038	5.70	D102.0	3.2	0.31	0.0	0.01	0.04	0.11	0.02	10	
13	A 16.42	16.42	33.098	24.192	372.2	0.049	5.73	102.4	3.2	0.30	0.0	0.01	0.00	0.11	0.02	13	21
16	A 16.41	16.40	33.083	24.183	373.2	0.060	5.70	101.8	3.2	0.31	0.0	0.01	0.05	0.11	0.02	16	20
20	ISL 16.41 D	16.40	33.083 D	24.183	373.3	0.075	5.70	D101.9	3.2	0.31	0.0	0.01	0.04	0.11	0.03	20	
30	ISL 16.40 D	16.40	33.082 D	24.185	373.5	0.113	5.69	D101.7	3.2	0.30	0.0	0.01	0.01	0.11	0.03	30	
32	A 16.40	16.40	33.085	24.187	373.4	0.119	5.70	101.9	3.2	0.30	0.0	0.01	0.00	0.11	0.03	32	19
42	16.22	16.22	33.084	24.227	369.9	0.157	5.70	101.5	3.2	0.31	0.0	0.01	0.02	0.12	0.02	42	18
50	ISL 14.98 D	14.97	32.998 D	24.438	349.9	0.187	6.05	D105.0	3.5	0.32	0.0	0.02	0.00	0.20	0.08	50	
52	14.81	14.80	33.003	24.477	346.3	0.192	6.01	104.0	3.5	0.32	0.0	0.02	0.00	0.22	0.10	52	17
62	A 14.47	14.46	33.003	24.551	339.5	0.227	6.04	103.7	3.7	0.33	0.0	0.01	0.00	0.35	0.22	63	16
70	A 14.68	14.67	33.169	24.635	331.8	0.254	6.02	104.0	3.3	0.31	0.0	0.01	0.00	0.31	0.20	71	15
75	ISL 14.42 D	14.41	33.173 D	24.693	326.4	0.272	6.04	D103.8	3.4	0.32	0.2	0.04	0.05	0.34	0.24	76	
78	14.53	14.51	33.187	24.682	327.6	0.280	6.01	103.4	3.5	0.33	0.3	0.05	0.08	0.35	0.26	79	14
84	14.89	14.88	33.428	24.790	317.6	0.299	5.88	102.2	2.8	0.27	0.1	0.03	0.03	0.29	0.20	85	13
95	14.88	14.87	33.557	24.892	308.2	0.334	5.82	101.1	2.7	0.25	0.1	0.03	0.02	0.23	0.20	96	12
100	ISL 14.59 D	14.58	33.564 D	24.960	301.9	0.351	5.75	D 99.3	3.3	0.33	0.8	0.08	0.01	0.21	0.19	101	
110	12.68	12.67	33.343	25.178	281.0	0.378	5.69	94.3	4.3	0.48	2.3	0.17	0.00	0.16	0.18	111	11
125	11.63	11.62	33.273	25.323	267.4	0.419	5.44	88.2	6.1	0.69	5.8	0.06	0.06	0.12	0.13	126	10
140	10.83	10.81	33.326	25.510	249.8	0.458	5.24	83.5	7.3	0.78	7.8	0.04	0.00	0.08	0.10	141	09
150	ISL 10.48 D	10.46	33.364 D	25.599	241.4	0.486	5.04	D 79.8	10.6	1.00	11.3	0.03	0.00	0.06	0.08	151	
170	9.71	9.69	33.534	25.862	216.7	0.528	4.15	64.6	17.3	1.43	18.4	0.02	0.00	0.02	0.02	171	08
200	9.01	8.99	33.785	26.172	187.7	0.589	3.61	55.4	24.5	1.71	23.2	0.00	0.03	0.00	0.01	202	07
230	8.67	8.65	33.899 D	26.315	174.6	0.648	3.11	47.5	30.0	1.91	26.3	0.00	0.00			232	06
250	ISL 8.48 D	8.46	33.956 D	26.389	167.9	0.683	2.63	D 39.9	33.7	2.05	28.1	0.00	0.00			252	
269	8.24	8.21	33.992	26.455	161.9	0.709	2.42	36.6	37.2	2.18	29.8	0.00	0.00			271	05
300	ISL 7.96 D	7.94	34.049 D	26.541	154.2	0.764	1.94	D 29.2	41.9	2.37	31.7	0.00	0.00			302	
320	8.00	7.97	34.097	26.575	151.4	0.788	1.54	D 23.2	44.9	2.49	33.0	0.00	0.00			323	04
380	7.02	6.98	34.085	26.706	139.3	0.876	1.32	19.3	54.8	2.67	36.1	0.00	0.00			383	03
400	ISL 6.80 D	6.76	34.098 D	26.746	135.6	0.910	1.15	D 16.8	58.3	2.75	37.0	0.00	0.00			403	
440	6.46	6.42	34.140	26.825	128.4	0.956	0.83	12.0	65.1	2.90	38.7	0.00	0.00			444	02
500	ISL 5.91 D	5.87	34.169 D	26.918	120.0	1.038	0.64	D 9.1	73.8	3.04	40.3	0.00	0.00			504	
515	5.93	5.89	34.205	26.944	117.7	1.048	0.49	7.0	75.9	3.07	40.7	0.00	0.00			519	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 76.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 23.1 N	124 19.3 W	24/07/2012	1347 UTC	4549 m	320	16 kn			1020.0 mb	17.0 C	15.3 C					068	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.45	16.45	33.148	24.222	369.0	0.000	5.67	101.4	3.2	0.33	0.2	0.01	0.03	0.12	0.03	0	
3	16.45	16.45	33.148	24.221	369.1	0.011	5.67	101.5	3.2	0.33	0.2	0.01	0.03	0.12	0.03	3	20
10	16.46	16.45	33.147	24.221	369.4	0.037	5.67	101.4	3.2	0.32	0.0	0.01	0.02	0.12	0.03	10	19
20 ISL	16.46 D	16.45	33.148 D	24.221	369.7	0.074	5.69	D101.9	3.2	0.32	0.0	0.01	0.01	0.13	0.03	20	
25	16.46	16.45	33.149	24.223	369.7	0.092	5.67	101.4	3.2	0.32	0.0	0.01	0.00	0.13	0.03	25	18
30 ISL	16.46 D	16.45	33.148 D	24.223	369.9	0.112	5.68	D101.6	3.2	0.32	0.0	0.01	0.01	0.13	0.03	30	
40	16.46	16.45	33.147	24.222	370.3	0.148	5.67	101.4	3.2	0.32	0.0	0.01	0.02	0.13	0.03	40	17
50	16.24	16.24	33.145	24.270	366.1	0.185	5.70	101.5	3.2	0.34	0.0	0.01	0.00	0.17	0.04	50	16
62	14.67	14.66	33.215	24.673	328.0	0.226	6.04	104.2	2.9	0.31	0.0	0.01	0.00	0.34	0.12	63	15
75	14.29	14.28	33.160	24.710	324.8	0.269	6.10	104.4	3.4	0.33	0.2	0.02	0.00	0.67	0.35	76	14
86	13.65	13.63	33.188	24.866	310.2	0.304	5.93	100.2	3.8	0.42	1.0	0.08	0.30	0.40	0.36	87	13
100	12.69	12.68	33.146	25.023	295.4	0.346	5.80	96.0	5.8	0.60	3.5	0.55	0.00	0.21	0.18	101	12
112	12.18	12.16	33.263	25.213	277.6	0.380	5.63	92.3	5.4	0.58	3.6	0.22	0.00	0.13	0.17	113	11
125 ISL	11.09 D	11.04	33.222 D	25.387	261.1	0.418	5.43	D 87.0	7.8	0.81	7.7	0.04	0.00	0.08	0.11	126	
126	10.96	10.95	33.214	25.397	260.1	0.418	5.41	86.4	8.0	0.83	8.0	0.03	0.00	0.08	0.10	127	10
141	10.20	10.18	33.294	25.593	241.7	0.456	4.98	78.3	12.4	1.16	13.7	0.02	0.00	0.03	0.04	142	09
150 ISL	10.02 D	10.00	33.473 D	25.762	225.8	0.480	4.64	D 72.7	15.9	1.36	16.8	0.01	0.00	0.03	0.04	151	
171	9.40	9.38	33.655	26.007	202.8	0.522	3.63	56.2	24.0	1.82	24.0	0.00	0.00	0.01	0.03	172	08
200	9.07	9.05	33.826	26.195	185.5	0.578	2.75	42.3	29.9	2.06	27.6	0.00	0.00	0.00	0.02	202	07
230	8.61	8.58	33.913	26.337	172.5	0.632	2.58	39.3	33.1	2.11	28.7	0.00	0.00			232	06
250 ISL	8.33 D	8.30	33.971 D	26.424	164.5	0.670	2.47	D 37.4	36.4	2.22	30.0	0.00	0.00			252	
274	8.08	8.05	34.037	26.514	156.3	0.704	1.93	29.0	40.4	2.35	31.5	0.00	0.00			276	05
300 ISL	7.93 D	7.90	34.059 D	26.554	153.0	0.750	1.74	D 26.1	44.2	2.42	32.7	0.00	0.00			302	
320	7.44	7.41	34.053	26.621	146.6	0.774	1.72	25.5	47.2	2.48	33.7	0.00	0.00			323	04
380	7.17	7.14	34.151	26.737	136.5	0.859	0.90	13.2	57.4	2.81	37.0	0.00	0.00			383	03
400 ISL	7.09 D	7.05	34.189 D	26.778	132.9	0.893	0.78	D 11.5	60.1	2.85	37.6	0.00	0.00			403	
440	6.51	6.47	34.165	26.838	127.3	0.938	0.74	10.8	65.6	2.92	38.7	0.00	0.00			444	02
500 ISL	5.78 D	5.74	34.128 D	26.902	121.3	1.021	0.71	D 10.2	75.5	3.02	40.9	0.00	0.00			504	
515	5.65	5.61	34.143	26.930	118.7	1.031	0.63	8.9	78.0	3.05	41.4	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 80.0 50.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 28.1 N	120 29.2 W	22/07/2012	2107 UTC	24 m	330	20 kn	330 04 05	1	1016.3 mb	15.9 C	15.0 C					061	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	14.45	14.45	33.601	25.014	293.6	0.000	5.61	96.7	3.7	0.57	2.7	0.11	0.89	4.05	0.20	0	
2	14.45	14.45	33.601	25.013	293.6	0.006	5.61	96.8	3.7	0.57	2.7	0.11	0.89	4.05	0.20	2	05
5	14.03	14.03	33.600	25.100	285.4	0.015	5.64	96.3	3.6	0.53	2.5	0.10	0.83	4.21	0.00	5	04
10	12.98	12.97	33.602	25.316	265.0	0.028							0.00			10	03
10	12.98	12.97	33.600	25.315	265.1	0.028	4.89	81.7	7.3	0.86	6.1	0.17	1.65	1.39	2.93	10	02
15	12.80	12.80	33.604	25.353	261.7	0.042	4.61	76.7	9.1	1.01	7.8	0.19	1.82	3.00	0.89	15	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 80.0 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 27.2 N	120 31.3 W	22/07/2012	1925 UTC	74 m	330	10 kn	330 03 05	1	1016.0 mb	16.0 C	15.9 C					060	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	13.60	13.60	33.596	25.186	277.1	0.000	5.24	88.6	5.8	0.70	5.3	0.18	0.91	3.74	0.46	0	
2 A	13.60	13.60	33.596	25.186	277.2	0.006	5.24	88.7	5.8	0.70	5.3	0.18	0.91	3.74	0.46	2	12
5 A	13.60	13.60	33.595	25.185	277.3	0.014	5.21	88.3	5.8	0.71	5.3	0.17	0.92	3.58	0.47	5	11
7 A	13.30	13.30	33.597	25.248	271.4	0.019	5.17	87.0	5.9	0.76	5.5	0.17	1.01	3.73	0.45	7	10
10 ISL	13.23 D	13.23	33.596 D	25.261	270.3	0.028	5.14	D 86.3	6.2	0.78	5.7	0.18	1.12	3.86	0.43	10	
11	13.23	13.23	33.595	25.259	270.4	0.031										11	09
12 A	13.19	13.19	33.596	25.268	269.6	0.033	5.06	85.0	6.3	0.80	5.9	0.18	1.19	3.94	0.42	12	08
18	12.95	12.94	33.600	25.321	264.8	0.049	4.98	83.2	6.6	0.84	6.3	0.18	1.60	3.78	0.50	18	07
20 ISL	12.94 D	12.94	33.608 D	25.329	264.1	0.054	4.97	D 83.0	6.9	0.87	6.6	0.18	1.73	3.56	0.53	20	
25 A	12.45	12.44	33.613	25.429	254.7	0.067	4.87	80.6	7.7	0.93	7.5	0.19	2.05	2.99	0.60	25	06
28 A	12.30	12.30	33.600	25.447	253.1	0.075	4.31	71.1	10.6	1.14	9.4	0.23	2.29	2.05	0.62	28	05
30 ISL	12.18 D	12.18	33.594 D	25.464	251.5	0.080	4.11	D 67.6	11.8	1.23	10.2	0.25	2.36	1.66	0.59	30	
34	11.73	11.72	33.584	25.542	244.1	0.090	3.72	60.6	14.3	1.41	11.9	0.28	2.51	0.90	0.53	34	04
40	11.46	11.45	33.573	25.583	240.3	0.104	3.52	56.9	16.5	1.53	14.3	0.30	2.01	0.21	0.42	40	03
50	11.35	11.34	33.592	25.619	237.2	0.128	3.41	55.0	18.2	1.61	15.5	0.30	1.80	0.22	0.30	50	02
60	11.04	11.03	33.631	25.706	229.2	0.151	3.44	55.2	18.6	1.63	17.3	0.24	1.08	0.19	0.30	60	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 18.9 N	120 47.9 W	22/07/2012	2354 UTC	791 m	310	20 kn	330 06 07	2	1018.1 mb	16.0 C	14.9 C	04 m	8/8		ST	062	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	14.54	14.54	33.618	25.007	294.2	0.000	6.80	117.4	0.3	0.21	0.1	0.02	0.03	13.35	0.39	0	
2	14.54	14.54	33.618	25.007	294.2	0.006	6.80	117.5	0.3	0.21	0.1	0.02	0.03	13.35	0.39	2	21
9	14.50	14.49	33.617	25.015	293.6	0.027										9	20
10	14.50	14.50	33.619	25.015	293.6	0.029	6.79	117.2	0.3	0.23	0.0	0.03	0.03	12.61	0.76	10	19
20	14.15	14.14	33.616	25.089	286.9	0.058	6.64	113.8	0.3	0.19	0.1	0.04	0.00	15.92	0.75	20	18
30	13.74	13.73	33.619	25.177	278.9	0.087	5.34	90.7	4.0	0.77	5.8	0.18	1.08	3.06	1.03	30	17
40	10.67	10.66	33.647	25.783	221.3	0.112	4.28	68.2	17.9	1.64	17.9	0.68	0.82	0.27	0.41	40	16
50	10.09	10.08	33.752	25.965	204.2	0.133	3.38	53.1	23.5	1.88	23.2	0.52	0.11	0.13	0.32	50	15
60	9.85	9.84	33.770	26.020	199.2	0.153	3.27	51.2	25.0	1.95	24.4	0.51	0.00	0.09	0.32	60	14
70	9.70	9.70	33.843	26.101	191.7	0.173	2.66	41.5	27.7	2.02	25.5	0.10	0.00	0.10	0.31	71	13
75 ISL	9.65 D	9.64	33.889 D	26.145	187.6	0.183	2.53 D	39.5	28.6	2.06	26.0	0.09	0.00	0.09	0.29	76	
85	9.58	9.57	33.934	26.193	183.3	0.201	2.32	36.2	30.5	2.13	26.9	0.06	0.00	0.06	0.23	86	12
100	9.44	9.42	34.006	26.273	176.0	0.228	2.07	32.1	32.8	2.23	28.0	0.05	0.00	0.06	0.22	101	11
120	9.25	9.23	34.069	26.355	168.7	0.262	1.91	29.6	34.7	2.30	28.9	0.04	0.00	0.03	0.17	121	10
125 ISL	9.23 D	9.21	34.075 D	26.362	168.1	0.272	1.87 D	28.9	35.4	2.32	29.1	0.04	0.00	0.03	0.17	126	
141	9.10	9.08	34.115	26.415	163.4	0.297	1.64	25.3	37.6	2.40	29.7	0.03	0.00	0.03	0.16	142	09
150 ISL	9.06 D	9.05	34.137 D	26.438	161.4	0.314	1.57 D	24.2	38.1	2.42	29.9	0.03	0.00	0.03	0.16	151	
170	8.94	8.92	34.146	26.465	159.3	0.344	1.50	23.1	39.4	2.46	30.4	0.03	0.00	0.03	0.16	171	08
200 ISL	8.71 D	8.69	34.168 D	26.520	154.6	0.393	1.35 D	20.6	42.0	2.53	31.7	0.04	0.00	0.02	0.12	202	
203	8.71	8.69	34.175	26.524	154.3	0.396	1.32	20.2	42.3	2.54	31.8	0.04	0.00	0.02	0.12	205	07
230	8.59	8.57	34.220	26.580	149.5	0.437	1.02	15.6	45.3	2.66	32.7	0.00	0.00			232	06
250 ISL	8.47 D	8.45	34.233 D	26.608	147.2	0.469	0.96 D	14.5	46.5	2.69	33.0	0.00	0.00			252	
270	8.43	8.41	34.248	26.627	145.8	0.496	0.89	13.6	47.6	2.72	33.2	0.00	0.00			272	05
300 ISL	8.31 D	8.28	34.264 D	26.659	143.3	0.543	0.80 D	12.1	49.8	2.77	33.8	0.00	0.00			302	
320	8.14	8.11	34.264	26.685	141.2	0.567	0.75	11.4	51.2	2.81	34.2	0.00	0.00			323	04
380	7.69	7.66	34.269	26.756	135.2	0.650	0.60	9.0	56.7	2.91	35.8	0.00	0.00			383	03
400 ISL	7.60 D	7.56	34.272 D	26.511	158.6	0.680	0.56	8.4	58.4	2.94	36.3	0.00	0.00			403	
440	7.24	7.20	34.277	26.827	129.1	0.737	0.49	7.3	61.9	3.00	37.2	0.00	0.00			444	02
500 ISL	6.79 D	6.74	34.293 D	26.904	122.4	0.819	0.38 D	5.6	68.0	3.06	38.5	0.00	0.00			504	
516	6.76	6.72	34.292	26.907	122.4	0.832	0.36	5.3	69.6	3.08	38.8	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 8.8 N	121 8.6 W	23/07/2012	0429 UTC	2190 m	320	20 kn			1018.0 mb	15.0 C	14.2 C					063	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	14.74	14.74	33.507	24.879	306.4	0.000	5.93	102.5	1.4	0.43	1.9	0.10	0.57	0.74	0.17	0	
4	14.74	14.74	33.507	24.878	306.5	0.012	5.93	102.7	1.4	0.43	1.9	0.10	0.57	0.74	0.17	4	21
8	14.73	14.73	33.507	24.880	306.4	0.026										8	20
10	14.73	14.73	33.507	24.881	306.4	0.031	5.92	102.6	1.4	0.45	1.8	0.10	0.54	0.67	0.18	10	19
20 ISL	14.12 D	14.00	33.516 D	25.042	291.4	0.061	5.92	101.3	1.3	0.44	1.7	0.10	0.69	0.72	0.21	20	
21	13.80	13.80	33.517	25.083	287.5	0.064	5.92	100.6	1.3	0.44	1.7	0.10	0.70	0.73	0.22	21	18
30 ISL	11.80 D	11.80	33.520 D	25.479	250.0	0.088	5.02 D	81.9	9.2	1.16	10.0	0.48	1.98	0.28	0.24	30	
31	11.80	11.80	33.515	25.476	250.4	0.090	5.01	81.7	10.1	1.24	10.9	0.52	2.12	0.23	0.25	31	17
41	10.97	10.96	33.574	25.673	231.8	0.114	4.42	70.8	15.6	1.54	18.0	0.28	0.23	0.07	0.19	41	16
50	10.65	10.65	33.637	25.778	222.0	0.135	3.72	59.2	18.6	1.71	20.7	0.30	0.24	0.06	0.16	50	15
60	10.57	10.56	33.641	25.796	220.6	0.157	3.68	58.4	18.9	1.72	20.9	0.29	0.15	0.06	0.15	60	14
70	10.34	10.33	33.707	25.888	212.1	0.178	3.25	51.3	22.2	1.84	23.0	0.21	0.00	0.05	0.18	71	13
75 ISL	10.24 D	10.23	33.741 D	25.932	208.0	0.190	3.11 D	49.0	23.0	1.87	23.5	0.21	0.00	0.04	0.18	76	
86	10.07	10.06	33.781	25.992	202.5	0.212	2.87	45.1	24.9	1.95	24.5	0.21	0.00	0.04	0.19	87	12
100	9.52	9.51	33.901	26.177	185.2	0.239	2.32	36.1	30.2	2.14	27.5	0.09	0.00	0.03	0.14	101	11
121	8.85	8.84	33.979	26.347	169.3	0.276	2.13	32.6	34.9	2.26	29.6	0.06	0.00	0.02	0.17	122	10
125 ISL	8.72 D	8.70	33.973 D	26.363	167.8	0.284	2.16 D	33.0	35.4	2.28	29.7	0.06	0.00	0.02	0.16	126	
141	9.08	9.06	34.084	26.393	165.5	0.309	1.69	26.1	37.1	2.37	30.1	0.04	0.00	0.02	0.12	142	09
150 ISL	9.07 D	9.06	34.101 D	26.408	164.3	0.325	1.64 D	25.2	38.0	2.39	30.5	0.04	0.00	0.02	0.12	151	
171	8.60	8.58	34.095	26.478	157.9	0.358	1.64	25.0	39.9	2.42	31.3	0.05	0.00	0.02	0.12	172	08
200	8.35	8.33	34.168 D	26.575	149.3	0.402	1.23 D	18.6								202	07
231	8.20	8.18	34.174	26.602	147.2	0.448	1.15	17.3	46.8	2.62	33.4	0.00	0.00			233	06
250 ISL	8.22 D	8.19	34.199 D	26.620	145.9	0.479	1.05 D	15.9	47.7	2.66	33.5	0.00	0.00			252	
270	8.22	8.19	34.212	26.631	145.2	0.505	0.97	14.7	48.7	2.71	33.7	0.00	0.00			272	05
300 ISL	8.02 D	7.99	34.216 D	26.664	142.6	0.552	0.93 D	14.0	50.6	2.73	34.3	0.00	0.00			302	
322	7.90	7.87	34.209	26.677	141.8	0.580	0.89	13.4	51.9	2.75	34.8	0.00	0.00			325	04
381	7.59	7.56	34.270	26.771	133.7	0.661	0.57	8.5	58.5	2.91	36.1	0.00	0.00			384	03
400 ISL	7.20 D	7.15	34.280 D	26.836	127.5	0.690	0.50 D	7.3	62.6	2.97	36.9	0.00	0.00			403	
441	6.62	6.58	34.288	26.920	119.7	0.737	0.43	6.2	71.6	3.09	38.7	0.00	0.01			445	02

CALCOFI CRUISE 1207

STATION 80.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 48.9 N	121 50.5 W	23/07/2012	1114 UTC	3614 m	320	10 kn			1018.5 mb	16.0 C	14.2 C					064	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	14.93	14.93	33.563	24.880	306.3	0.000	6.00	104.2	0.3	0.26	0.5	0.04	0.42	1.12	0.30	0	
2	14.93	14.93	33.563	24.880	306.3	0.006	6.00	104.4	0.3	0.26	0.5	0.04	0.42	1.12	0.30	2	20
10	14.94	14.94	33.563	24.879	306.6	0.031	6.01	104.6	0.3	0.27	0.4	0.04	0.39	1.21	0.10	10	19
20	14.46	14.46	33.553	24.974	297.9	0.061	5.99	103.2	0.5	0.32	0.7	0.05	0.53	1.01	0.31	20	18
30	13.57	13.56	33.525	25.139	282.5	0.090	5.75	97.3	1.9	0.60	2.1	0.18	2.23	0.44	0.33	30	17
39	13.35	13.34	33.528	25.186	278.2	0.115	5.70	95.9	2.3	0.64	2.5	0.20	2.42	0.35	0.34	39	16
48	12.38	12.37	33.513	25.365	261.4	0.139	5.41	89.3	6.7	1.01	7.1	0.43	2.55	0.19	0.43	48	15
50 ISL	12.29 D	12.29	33.510 D	25.378	260.2	0.146	5.40 D	88.9	7.2	1.05	7.8	0.46	2.42	0.17	0.41	50	
60	11.70	11.69	33.508	25.490	249.8	0.170	5.13	83.4	9.8	1.22	11.2	0.60	1.78	0.10	0.32	60	14
70	10.90	10.89	33.611	25.715	228.5	0.194	4.89	78.3	13.1	1.46	15.8	0.87	0.57	0.07	0.25	71	13
75 ISL	10.64 D	10.63	33.611 D	25.762	224.2	0.207	4.73 D	75.2	15.0	1.54	17.5	0.80	0.38	0.06	0.23	76	
85	10.41	10.40	33.647	25.829	218.0	0.227	4.30	68.1	18.8	1.71	20.9	0.65	0.00	0.05	0.20	86	12
100	9.76	9.74	33.690	25.974	204.5	0.259	3.67	57.3	23.0	1.86	24.5	0.04	0.00	0.04	0.13	101	11
121	9.15	9.13	33.765	26.133	189.7	0.300	3.07	47.3	27.5	2.01	27.2	0.03	0.00	0.02	0.10	122	10
125 ISL	9.07 D	9.06	33.811 D	26.181	185.3	0.310	2.95 D	45.4	28.6	2.06	27.8	0.03	0.00	0.02	0.10	126	
141	9.19	9.17	33.970	26.287	175.6	0.337	2.08	32.1	33.2	2.26	30.0	0.03	0.00	0.02	0.12	142	09
150 ISL	9.09 D	9.07	34.026 D	26.347	170.0	0.354	1.90 D	29.2	34.4	2.28	30.5	0.04	0.00	0.02	0.12	151	
170	8.60	8.58	34.025	26.423	163.1	0.386	2.02	30.7	37.1	2.32	31.5	0.05	0.00	0.02	0.12	171	08
199	8.06	8.04	34.033	26.511	155.1	0.432	1.90	28.6	41.7	2.41	33.3	0.00	0.00	0.01	0.09	201	07
200 ISL	8.06 D	8.04	34.031 D	26.510	155.2	0.436	1.95 D	29.3	41.9	2.42	33.4	0.00	0.00	0.01	0.09	202	
230	7.85	7.83	34.098	26.595	147.7	0.479	1.41	21.2	47.0	2.59	35.2	0.00	0.00			232	06
250 ISL	7.71 D	7.68	34.130 D	26.641	143.6	0.511	1.23 D	18.3	50.1	2.67	36.1	0.00	0.00			252	
270	7.46	7.43	34.135	26.681	140.0	0.536	1.09	16.2	53.1	2.74	36.9	0.00	0.00			272	05
300 ISL	6.79 D	6.76	34.103 D	26.748	135.8	0.581	1.08 D	15.8	59.0	2.83	38.7	0.00	0.00			302	
320	6.60	6.57	34.116	26.785	130.4	0.604	0.93	13.6	62.9	2.89	39.9	0.00	0.00			323	04
379	6.23	6.20	34.158	26.867	123.3	0.679	0.66	9.5	70.3	3.03	41.4	0.00	0.00			382	03
400 ISL	6.13 D	6.09	34.184 D	26.901	120.3	0.709	0.58 D	8.3	72.7	3.07	41.8	0.00	0.00			403	
440	5.97	5.93	34.221	26.951	116.0	0.752	0.42	6.0	77.2	3.14	42.5	0.00	0.00			444	02
500 ISL	5.59 D	5.54	34.249 D	27.021	109.8	0.825	0.35 D	4.9	84.1	3.24	43.6	0.00	0.00			504	
516	5.53	5.48	34.255 D	27.033	108.8	0.842	0.32 D	4.6								520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 80.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 28.7 N	122 32.1 W	23/07/2012	1742 UTC	3995 m	320	12 kn	320 06 07	2	1021.0 mb	16.0 C	14.8 C	09 m		8/8	ST	065	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.22	15.22	33.187	24.528	339.8	0.000	5.99	104.5	2.7	0.39	1.5	0.06	0.16	0.49	0.07	0	
3 A	15.22	15.22	33.187	24.527	339.9	0.010	5.99	104.5	2.7	0.39	1.5	0.06	0.16	0.49	0.07	3	24
4 A	15.21	15.21	33.186	24.528	339.8	0.014	6.02	105.1	2.7	0.39	1.5	0.07	0.14	0.48	0.08	4	23
6 A	15.21	15.21	33.188	24.531	339.6	0.020	6.01	104.8	2.7	0.40	1.5	0.06	0.07	0.47	0.07	6	22
10 ISL	15.20 D	15.20	33.187 D	24.532	339.7	0.034	6.00 D	104.8	2.7	0.40	1.5	0.06	0.06	0.51	0.07	10	
12 A	15.11	15.11	33.191	24.555	337.5	0.041	6.00	104.5	2.7	0.40	1.5	0.06	0.06	0.53	0.07	12	21
19	14.78	14.78	33.250	24.672	326.6	0.064	6.09	105.5	2.6	0.43	2.3	0.09	0.13	0.83	0.14	19	20
20 ISL	14.75 D	14.74	33.251 D	24.682	325.7	0.068	6.10 D	105.5	2.6	0.43	2.2	0.09	0.13	0.79	0.14	20	
25 A	14.13	14.12	33.185	24.761	318.3	0.083	6.17	105.4	2.9	0.43	1.9	0.08	0.13	0.61	0.16	25	19
29 A	13.19	13.19	33.123	24.904	304.8	0.096	6.21	104.0	3.3	0.43	1.9	0.08	0.17	0.66	0.17	29	18
30 ISL	13.05 D	13.00	33.035 D	24.873	307.7	0.100	6.26 D	104.4	3.5	0.44	2.0	0.09	0.22	0.64	0.17	30	
34	12.52	12.51	33.027	24.961	299.4	0.111	6.27	103.5	4.4	0.50	2.5	0.13	0.41	0.54	0.18	34	17
40	11.91	11.91	32.988	25.046	291.5	0.129	6.19	100.7	5.6	0.59	3.3	0.23	0.27	0.62	0.32	40	16
49	11.31	11.30	33.044	25.200	277.0	0.155	6.02	96.8	8.1	0.85	6.9	0.30	0.89	0.49	0.25	49	15
50 ISL	11.22 D	11.21	33.061 D	25.231	274.1	0.159	5.98 D	96.0	8.1	0.85	7.0	0.31	0.80	0.46	0.24	50	
59	11.14	11.14	33.123	25.292	268.5	0.182	5.63	90.3	8.8	0.85	8.0	0.38	0.02	0.22	0.18	59	14
71	10.54	10.53	33.203	25.460	252.7	0.213	5.39	85.4	8.8	0.87	8.9	0.06	0.00	0.13	0.13	72	13
75 ISL	10.44 D	10.44	33.275 D	25.532	246.0	0.225	5.15 D	81.5	10.1	0.97	10.5	0.05	0.00	0.10	0.10	76	
82	10.06	10.05	33.290	25.611	238.5	0.240	5.01	78.5	12.4	1.15	13.4	0.03	0.00	0.05	0.07	83	12
100	9.72	9.71	33.414	25.764	224.4	0.282	4.60	71.5	15.8	1.34	16.8	0.02	0.00	0.02	0.04	101	11
122	9.44	9.43	33.667	26.009	201.6	0.329	3.50	54.3	23.9	1.81	24.0	0.03	0.00	0.01	0.04	123	10
125 ISL	9.41 D	9.39	33.689 D	26.032	199.5	0.337	3.31 D	51.3	24.2	1.81	24.1	0.03	0.00	0.01	0.04	126	
140	8.92	8.90	33.772	26.175	186.1	0.364	3.42	52.4	26.1	1.81	24.7	0.00	0.00	0.00	0.02	141	09
150 ISL	8.65 D	8.64	33.809 D	26.245	179.6	0.384	3.37 D	51.3	27.6	1.82	25.1	0.00	0.00	0.00	0.02	151	
172	8.26	8.24	33.911	26.385	166.6	0.420	3.39	51.3	30.9	1.85	26.0	0.00	0.00	0.00	0.01	173	08
200	7.87	7.85	33.949	26.473	158.6	0.465	3.22	48.2	35.1	1.94	27.4	0.00	0.00	0.00	0.01	202	07
230	7.50	7.47	34.011	26.577	149.2	0.512	2.18	32.4	43.9	2.31	32.3	0.00	0.00			232	06
250 ISL	7.28 D	7.26	34.031 D	26.624	144.9	0.544	1.90 D	28.1	48.0	2.43	33.8	0.00	0.00			252	
270	7.05	7.03	34.043	26.665	141.3	0.570	1.63	23.9	52.0	2.55	35.3	0.00	0.00			272	05
300 ISL	6.75 D	6.73	34.063 D	26.722	136.2	0.615	1.38 D	20.1	57.1	2.66	36.7	0.00	0.00			302	
319	6.53	6.50	34.064	26.753	135.3	0.637	1.28	18.7	60.4	2.73	37.6	0.00	0.00			322	04
380	5.96	5.94	34.086	26.843	125.3	0.720	1.00	14.3								383	03
400 ISL	5.86 D	5.82	34.100 D	26.868	123.1	0.745	0.91 D	13.1	71.2	2.90	39.9	0.00	0.00			403	
440	5.64	5.60	34.118	26.909	119.6	0.789	0.76	10.9	76.5	2.99	41.1	0.00	0.00			444	02
500 ISL	5.62 D	5.57	34.231 D	27.003	111.6	0.864	0.42 D	6.0	82.0	3.13	41.8	0.00	0.00			504	
518	5.62	5.57	34.261	27.027	109.6	0.878	0.33	4.7	83.7	3.1							

CALCOFI CRUISE 1207

STATION 80.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 8.6 N	123 12.9 W	24/07/2012	0019 UTC	4221 m	320	17 kn	320 06 09	2	1019.0 mb	17.5 c	15.1 c	23 m	8/8		ST	066	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.68	16.68	33.176	24.191	371.9	0.000	5.66	101.7	3.1	0.31	0.1	0.03	0.01	0.10	0.02	0	
4	16.68	16.68	33.176	24.191	372.0	0.015	5.66	101.7	3.1	0.31	0.1	0.03	0.01	0.10	0.02	4	21
10	16.68	16.68	33.176	24.190	372.3	0.037	5.65	101.6	3.1	0.30	0.0	0.02	0.00	0.11	0.02	10	20
20	ISL 16.66 D	16.66	33.175 D	24.195	372.1	0.075	5.66	D101.7	3.1	0.29	0.0	0.03	0.00	0.11	0.02	20	
25	16.65	16.65	33.174	24.198	372.1	0.093	5.66	101.7	3.1	0.29	0.0	0.03	0.00	0.10	0.02	25	19
30	ISL 16.62 D	16.61	33.172 D	24.204	371.7	0.112	5.67	D101.8	3.1	0.29	0.0	0.02	0.00	0.11	0.02	30	
40	16.60	16.59	33.168	24.206	371.8	0.149	5.66	101.5	3.1	0.30	0.0	0.01	0.00	0.12	0.03	40	18
50	16.28	16.27	33.150	24.266	366.4	0.186	5.70	101.6	3.2	0.31	0.0	0.03	0.00	0.18	0.02	50	17
63	14.44	14.43	33.168	24.684	326.9	0.231	6.11	105.0	3.0	0.30	0.0	0.02	0.00	0.42	0.13	64	16
75	ISL 13.27 D	13.22	33.127 D	24.902	306.3	0.270	6.00	D100.5	5.0	0.50	2.1	0.16	0.44	0.45	0.36	76	
76	12.89	12.88	33.114	24.959	300.9	0.272	5.95	99.1	5.1	0.52	2.3	0.17	0.48	0.45	0.38	77	15
88	12.32	12.31	33.125	25.077	289.9	0.307	5.79	95.2	7.5	0.73	5.8	0.53	0.00	0.15	0.14	89	14
100	11.86	11.85	33.160	25.191	279.2	0.341	5.67	92.3	8.7	0.83	7.9	0.53	0.00	0.09	0.09	101	13
111	11.08	11.07	33.164	25.337	265.5	0.371	5.49	87.8	9.4	0.92	9.4	0.03	0.00	0.06	0.07	112	12
125	ISL 10.46 D	10.44	33.315 D	25.564	244.1	0.410	5.10	D 80.7	12.9	1.16	13.5	0.03	0.00	0.03	0.05	126	
126	10.42	10.41	33.310	25.566	243.9	0.409	5.08	80.2	13.2	1.18	13.8	0.03	0.00	0.03	0.05	127	11
140	9.87	9.85	33.471	25.787	223.2	0.442	4.43	69.2	17.9	1.48	18.6	0.04	0.00	0.01	0.04	141	10
150	ISL 9.45 D	9.43	33.669 D	26.010	202.1	0.466	3.71	D 57.5	21.2	1.65	21.2	0.03	0.00	0.01	0.04	151	
171	9.08	9.06	33.797	26.170	187.3	0.504	2.99	45.9	28.3	2.00	26.6	0.00	0.00	0.00	0.02	172	09
200	8.74	8.72	33.945	26.340	171.7	0.556	2.32	35.4	34.0	2.20	29.3	0.00	0.00	0.00	0.02	202	08
230	8.26	8.24	33.988	26.447	161.9	0.606	2.34	35.3	37.2	2.22	30.1	0.00	0.00	0.00	0.00	232	07
250	ISL 8.20 D	8.17	34.039 D	26.498	157.4	0.642	1.97	D 29.8	40.0	2.31	31.2	0.00	0.00	0.00	0.00	252	
271	7.99	7.96	34.054	26.541	153.7	0.671	1.82	27.3	42.9	2.41	32.3	0.00	0.00	0.00	0.00	273	05
300	ISL 7.79 D	7.76	34.098 D	26.606	147.9	0.719	1.47	D 22.0	47.4	2.55	33.9	0.00	0.00	0.00	0.00	302	
321	7.61	7.58	34.124	26.653	143.8	0.745	1.19	17.8	50.6	2.65	35.0	0.00	0.00	0.00	0.00	324	04
381	7.15	7.12	34.174	26.757	134.6	0.829	0.80	11.8	58.6	2.85	37.1	0.00	0.00	0.02	0.00	384	03
400	ISL 7.00 D	6.96	34.187 D	26.789	131.8	0.860	0.73	D 10.8	60.9	2.89	37.6	0.00	0.00	0.00	0.00	403	
440	6.68	6.64	34.195	26.839	127.4	0.906	0.61	8.9	65.7	2.97	38.7	0.00	0.00	0.00	0.00	444	02
500	ISL 6.21 D	6.16	34.225 D	26.926	119.6	0.987	0.47	D 6.7	73.1	3.08	40.1	0.00	0.00	0.00	0.00	504	
516	6.09	6.04	34.229	26.944	118.0	0.999	0.43	6.2	75.1	3.11	40.5	0.00	0.00	0.00	0.00	520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 80.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 49.2 N	123 54.0 W	24/07/2012	0636 UTC	4342 m	310	10 kn			1021.0 mb	17.0 c	14.7 c					067	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.77	16.77	33.218	24.203	370.8	0.000	5.69	102.3	2.7	0.32	0.1	0.01	0.06	0.18	0.01	0	
2	16.77	16.77	33.218	24.203	370.8	0.007	5.69	102.4	2.7	0.32	0.1	0.01	0.06	0.18	0.01	2	20
9	16.76	16.76	33.217	24.204	370.9	0.033	5.68	102.3	2.6	0.31	0.0	0.01	0.13	0.13	0.02	9	19
10	ISL 16.76 D	16.76	33.218 D	24.204	371.0	0.037	5.69	D102.4	2.6	0.31	0.0	0.01	0.12	0.13	0.02	10	
20	ISL 16.77 D	16.76	33.217 D	24.203	371.4	0.075	5.69	D102.5	2.6	0.30	0.0	0.01	0.04	0.16	0.02	20	
25	16.73	16.73	33.215	24.210	371.0	0.093	5.67	102.1	2.6	0.30	0.0	0.01	0.00	0.17	0.02	25	18
30	ISL 16.49 D	16.46	33.220 D	24.277	364.7	0.112	5.71	D102.1	2.7	0.31	0.0	0.01	0.00	0.25	0.03	30	
40	15.13	15.13	33.159	24.528	341.1	0.147	6.14	D106.9	3.0	0.33	0.0	0.01	0.00	0.41	0.05	40	17
50	ISL 14.23 D	14.20	33.158 D	24.724	322.6	0.181	6.23	D106.6	3.2	0.35	0.2	0.03	0.01	0.70	0.16	50	
51	14.13	14.12	33.170	24.749	320.2	0.183	6.23	106.3	3.2	0.35	0.2	0.03	0.01	0.73	0.17	51	16
63	13.34	13.33	33.192	24.929	303.4	0.220	6.02	101.1	4.6	0.45	1.2	0.13	0.07	0.66	0.23	64	15
75	ISL 13.06 D	13.05	33.309 D	25.075	289.8	0.257	5.66	D 94.6	5.2	0.69	4.3	0.88	0.19	0.48	0.17	76	
76	13.05	13.04	33.290	25.063	291.0	0.259	5.67	94.8	5.3	0.71	4.6	0.94	0.20	0.47	0.16	77	14
87	12.48	12.47	33.360	25.228	275.5	0.290	5.41	89.3	6.4	0.87	8.4	0.04	0.00	0.20	0.07	88	13
100	11.68	11.67	33.428	25.433	256.3	0.325	4.94	80.2	10.0	1.11	12.2	0.03	0.00	0.06	0.06	101	12
112	11.17	11.15	33.460	25.552	245.2	0.355	4.72	75.8	11.6	1.20	13.9	0.02	0.00	0.05	0.07	113	11
125	ISL 10.47 D	10.45	33.522 D	25.724	228.9	0.388	4.23	D 67.0	15.4	1.40	17.1	0.00	0.00	0.03	0.05	126	
126	10.45	10.44	33.494	25.705	230.8	0.388	4.23	66.9	15.7	1.41	17.3	0.00	0.00	0.03	0.05	127	10
140	9.68	9.66	33.644	25.953	207.4	0.419	3.50	54.5	22.0	1.71	22.3	0.00	0.00	0.01	0.04	141	09
150	ISL 9.43 D	9.41	33.721 D	26.053	198.0	0.441	3.34	D 51.8	24.4	1.80	23.7	0.00	0.00	0.01	0.04	151	
169	9.19	9.17	33.841	26.186	185.7	0.475	2.79	43.1	28.8	1.98	26.5	0.00	0.00	0.01	0.03	170	08
200	8.74	8.72	33.957	26.349	170.8	0.531	2.43	37.2	33.5	2.13	28.8	0.00	0.00	0.00	0.00	202	07
230	8.44	8.42	34.025	26.449	161.8	0.581	2.11	32.1	38.0	2.25	30.5	0.00	0.00	0.00	0.00	232	06
250	ISL 8.24 D	8.22	34.072 D	26.517	155.6	0.615	1.83	D 27.7	41.4	2.35	31.7	0.00	0.00	0.00	0.00	252	
271	7.93	7.90	34.079	26.569	150.9	0.644	1.67	25.0	44.9	2.45	33.0	0.00	0.00	0.00	0.00	273	05
300	ISL 7.79 D	7.76	34.132 D	26.631	145.6	0.691	1.32	D 19.7	49.0	2.57	34.2	0.00	0.00	0.00	0.00	302	
320	7.61	7.58	34.143	26.667	142.4	0.716	1.18	17.5	51.8	2.65	35.0	0.00	0.00	0.00	0.00	323	04
381	7.07	7.03	34.177	26.771	133.2	0.800	0.83	12.2	59.9	2.84	37.3	0.00	0.00	0.00	0.00	384	03
400	ISL 6.92 D	6.88	34.190 D	26.802	130.4	0.830	0.74	D 10.8	62.1	2.88	37.8	0.00	0.00	0.00	0.00	403	
440	6.70	6.66	34.222	26.858	125.7	0.876	0.56	8.1	66.9	2.97	38.8	0.00	0.00	0.00	0.00	444	02
500	ISL 6.16 D	6.11	34.249 D	26.951	117.2	0.955	0.42	D 6.1	74.7	3.09	40.3	0.00	0.00	0.00	0.00	504	
516	6.15	6.10	34.269	26.968	115.8	0.968	0.35	5.1	76.8	3.12	40.7	0.00	0.00	0.00	0.00	520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 81.7 43.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
34 24.3 N	119 48.2 W	22/07/2012	1135 UTC	21 m	300 06 kn			1015.0 mb	16.0 C	14.8 C					059		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.89	15.89	33.583	24.685	324.8	0.000	6.37	112.9	2.3	0.26	0.0	0.04	0.03	5.45	0.37	0	
2	15.89	15.89	33.583	24.685	324.8	0.007	6.37	112.9	2.3	0.26	0.0	0.04	0.03	5.45	0.37	2	04
4	16.37	16.37	33.581	24.573	335.6	0.013	6.32	113.2	2.3	0.27	0.0	0.05	0.00	5.94	0.52	4	03
9	13.57	13.57	33.550	25.156	280.2	0.029	6.14	104.0	2.0	0.28	0.4	0.06	0.10	3.81	0.49	9	02
10 ISL	13.35 D	13.33	33.559 D	25.211	275.0	0.032	5.53 D	93.1	2.8	0.35	0.8	0.08	0.24	3.94	0.53	10	
14	13.30	13.30	33.562	25.219	274.3	0.042	5.05	85.1	6.2	0.63	2.6	0.16	0.80	4.46	0.70	14	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 81.8 46.9

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
34 16.7 N	120 1.5 W	22/07/2012	0600 UTC	584 m	280 19 kn			1016.5 mb	15.4 C	14.8 C					058		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.78	15.78	33.574	24.702	323.3	0.000	6.35	112.3	0.5	0.28	0.3	0.03	0.10	2.38	0.20	0	
3	15.78	15.78	33.574	24.701	323.3	0.010	6.35	112.4	0.5	0.28	0.3	0.03	0.10	2.38	0.20	3	24
10	15.26	15.26	33.573	24.816	312.6	0.032	6.22	109.0	1.1	0.36	0.7	0.06	0.14	3.87	0.29	10	23
20	12.88	12.87	33.570	25.311	265.8	0.061	4.80	80.1	8.0	0.96	7.9	0.27	1.31	1.72	0.41	20	22
30	11.87	11.87	33.585	25.517	246.5	0.087	4.27	69.7	12.0	1.29	12.1	0.27	1.38	0.31	0.27	30	21
40	10.86	10.85	33.688	25.782	221.5	0.110	3.46	55.3	18.7	1.69	17.9	0.20	1.14	0.27	0.31	40	20
50	10.45	10.45	33.748	25.899	210.5	0.132	3.08	48.8	22.9	1.85	20.3	0.20	0.89	0.24	0.22	50	19
60	10.03	10.02	33.782	25.998	201.3	0.152	2.77	43.5	25.8	1.95	22.8	0.19	0.24	0.12	0.24	60	18
70	10.02	10.01	33.823	26.033	198.3	0.172	2.56	40.2	27.8	2.07	23.3	0.19	0.82	0.09	0.34	71	17
75 ISL	9.78 D	9.76	33.883 D	26.121	190.0	0.183	2.43 D	38.0	29.0	2.10	24.1	0.17	0.62	0.09	0.31	76	
85	9.62	9.61	33.929	26.183	184.2	0.201	2.24	34.9	31.4	2.17	25.7	0.12	0.23	0.10	0.26	86	16
100 ISL	9.51 D	9.50	33.981 D	26.242	179.0	0.229	2.18 D	33.8	31.7	2.17	26.5	0.11	0.01	0.06	0.18	101	
101	9.51	9.49	33.971	26.235	179.7	0.230	2.17	33.8	31.7	2.17	26.5	0.11	0.00	0.05	0.18	102	15
120	9.38	9.37	34.068	26.331	171.0	0.263	1.72	26.7	34.9	2.32	27.7	0.11	0.01	0.05	0.17	121	14
125 ISL	9.33 D	9.32	34.059 D	26.334	170.9	0.273	1.77 D	27.5	35.1	2.33	27.9	0.10	0.01	0.05	0.17	126	
140	9.31	9.29	34.074	26.349	169.7	0.297	1.70	26.3	35.8	2.35	28.3	0.05	0.00	0.04	0.17	141	13
150 ISL	9.35 D	9.33	34.110 D	26.371	167.9	0.316	1.52 D	23.6	36.4	2.38	28.5	0.05	0.00	0.04	0.18	151	
171	9.29	9.27	34.122	26.391	166.5	0.349	1.41	21.8	37.6	2.45	29.0	0.05	0.00	0.04	0.18	172	12
200	9.16	9.14	34.177	26.455	161.0	0.396	1.13	17.5	40.3	2.54	29.8	0.05	0.00	0.04	0.17	202	11
230	9.05	9.03	34.203	26.494	157.9	0.444	0.94	14.5	42.6	2.62	30.7	0.04	0.00			232	10
250 ISL	8.93 D	8.90	34.221 D	26.528	155.0	0.479	0.85 D	13.1	45.2	2.69	31.2	0.05	0.00			252	
270	8.70	8.67	34.225	26.568	151.5	0.506	0.69	10.6	47.8	2.75	31.6	0.05	0.00			272	09
300 ISL	8.23 D	8.20	34.219 D	26.636	145.4	0.554	0.54 D	8.2	53.9	2.86	32.9	0.04	0.00			302	
319	7.94	7.91	34.214	26.675	141.9	0.578	0.47	7.1	57.8	2.93	33.8	0.03	0.00			322	08
380	7.33	7.29	34.227	26.775	133.1	0.662	0.30	4.4	69.5	3.13	33.5	0.03	0.00			383	07
400 ISL	7.10 D	7.06	34.238 D	26.816	129.4	0.693	0.24 D	3.5	73.6	3.20	32.9	0.03	0.00			403	
440	6.91	6.86	34.240	26.845	127.1	0.739	0.16	2.4	81.7	3.33	31.8	0.03	0.00			444	06
480	6.59	6.55	34.234	26.883	123.9	0.790	0.05	0.8	94.0	3.57	28.6	0.03	0.00			484	05
500 ISL	6.54 D	6.49	34.238 D	26.893	123.1	0.820	0.03 D	0.5	99.1	3.69	25.9	0.20	0.00			504	
515	6.51	6.46	34.236	26.896	123.1	0.833	0.02	0.2	102.9	3.78	23.9	0.32	0.00			519	04
540	6.47	6.42	34.237	26.903	122.8	0.863	0.03	0.5	113.6	4.11	15.2	2.75	0.00			545	03
560	6.46	6.41	34.237	26.904	123.0	0.888	0.05	0.8	115.6	4.20	13.5	3.34	0.00			565	02
566	6.46	6.41	34.237	26.904	123.0	0.895	0.03	0.4	116.0	4.21	13.1	3.43	0.00			571	01

A) SANTA BARBARA BASIN STATION.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 83.3 39.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
34 15.9 N	119 19.5 W	22/07/2012	0106 UTC	18 m	270 20 kn	270 02 05	1	1010.0 mb	18.3 C	17.1 C			1/8	SC	057		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.37	17.37	33.544	24.311	360.5	0.000	6.50	117.8	3.4	0.25	0.1	0.07	0.00	1.86	0.31	0	
2	17.37	17.37	33.544	24.310	360.6	0.007	6.50	118.7	3.4	0.25	0.1	0.07	0.00	1.86	0.31	2	04
5	17.05	17.04	33.544	24.388	353.3	0.018	6.53	118.5	3.3	0.23	0.0	0.06	0.00	1.89	0.38	5	03
10	14.63	14.63	33.525	24.916	303.1	0.033	6.37	110.1	2.6	0.21	0.0	0.05	0.04	3.94	0.69	10	02
10	14.63	14.63	33.524	24.915	303.2	0.034	6.37	110.1	2.6	0.21	0.0	0.05	0.04	3.94	0.69	10	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 83.3 40.6

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
34 13.5 N	119 24.6 W	21/07/2012	2333 UTC	33 m	260 17 kn	260 02 07	1	1012.0 mb	19.5 C	17.8 C	07 m		1/8	SC	056		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.65	17.65	33.580	24.271	364.2	0.000	6.36	116.8	0.7	0.15	0.1	0.02	0.05	1.26	0.04	0	
2	17.65	17.65	33.580	24.271	364.3	0.007	6.36	116.9	0.7	0.15	0.1	0.02	0.05	1.26	0.04	2	06
5	17.65	17.65	33.579	24.270	364.5	0.018	6.44	118.2	0.6	0.15	0.0	0.01	0.00	1.29	0.04	5	05
9	16.41	16.41	33.566	24.552	337.7	0.034	6.77	116.5	0.5	0.20	0.0	0.02	0.00	2.88	0.05	9	04
10	14.38	14.38	33.564	24.999	295.2	0.036	6.77	116.5	0.5	0.20	0.0	0.02	0.00	2.88	0.05	10	03
20	12.99	12.98	33.518	25.250	271.6	0.064	5.75	96.2	2.4	0.33	1.6	0.08	0.06	17.38			

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 10.9 N	119 30.4 W	21/07/2012	2104 UTC	113 m	290	18 kn	340 03 05	1	1013.0 mb	19.0 c	17.9 c	10 m	1/8	sc	055		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.26	17.26	33.584	24.369	355.0	0.000	6.11	111.3	0.8	0.22	0.1	0.02	0.00	1.20	0.17	0	
2	17.26	17.26	33.584	24.368	355.0	0.007	6.11	111.4	0.8	0.22	0.1	0.02	0.00	1.20	0.17	2	11
10	16.42	16.42	33.576	24.559	337.1	0.035	6.22	111.5	1.0	0.26	0.1	0.03	0.00	2.08	0.30	10	09
10	16.42	16.42	33.577	24.560	337.1	0.036										10	10
20	14.97	14.96	33.554	24.867	308.1	0.067	6.02	104.8	2.1	0.35	1.6	0.07	0.12	4.46	0.38	20	08
30	14.27	14.27	33.556	25.018	294.1	0.097	5.73	98.4	3.2	0.45	3.4	0.10	0.09	4.67	0.41	30	07
41	12.44	12.44	33.513	25.353	262.4	0.128	4.86	80.3	6.6	0.86	6.5	0.24	1.19	4.18	0.62	41	06
50	11.30	11.30	33.498	25.554	243.4	0.151	4.01	64.6	12.4	1.28	12.0	0.30	2.17	1.11	0.39	50	05
60	10.89	10.88	33.560	25.678	231.9	0.174	3.63	58.1	16.2	1.47	17.1	0.26	0.41	0.26	0.20	60	04
71	10.33	10.33	33.649	25.844	216.3	0.199	3.20	50.5	20.2	1.66	20.3	0.16	0.00	0.10	0.15	72	03
75 ISL	10.15 D	10.13	33.730 D	25.940	207.2	0.209	3.01 D	47.4	22.1	1.75	21.4	0.13	0.00	0.08	0.15	76	
85	9.96	9.95	33.836	26.054	196.6	0.228	2.38	37.4	27.0	1.98	24.1	0.05	0.00	0.05	0.16	86	02
100	9.83	9.82	33.874	26.106	192.0	0.257	2.33	36.4	28.0	2.02	24.5	0.06	0.06	0.04	0.10	101	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 52.4 N	120 7.7 W	21/07/2012	1427 UTC	101 m	320	18 kn	320 03 06	1	1017.0 mb	14.9 c	14.0 c			5/8	sc	054	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	13.54	13.53	33.585	25.191	276.7	0.000	5.40	91.3	5.8	0.66	5.8	0.14	0.08	6.05	0.61	0	
2	13.54	13.53	33.585	25.190	276.7	0.006	5.40	91.3	5.8	0.66	5.8	0.14	0.08	6.05	0.61	2	11
10	13.45	13.45	33.577	25.202	275.9	0.027										10	10
10	13.45	13.45	33.581	25.205	275.6	0.028	5.37	90.7	5.8	0.67	5.8	0.15	0.10	5.97	0.62	10	09
20	11.23	11.23	33.537	25.596	238.6	0.053	4.16	66.9	12.1	1.23	12.8	0.25	0.37	1.63	0.31	20	08
30	10.19	10.18	33.686	25.896	210.3	0.076	3.07	48.4	21.6	1.73	21.4	0.09	0.00	0.16	0.16	30	07
41	10.09	10.09	33.717	25.937	206.7	0.099	3.00	47.3	22.6	1.77	21.8	0.09	0.01	0.15	0.17	41	06
50	9.94	9.93	33.782	26.014	199.5	0.117	2.87	45.0	24.7	1.83	22.6	0.10	0.02	0.11	0.19	50	05
60	9.79	9.78	33.835	26.081	193.4	0.137	2.62	41.0	26.6	1.93	23.9	0.07	0.01	0.08	0.14	60	04
70	9.75	9.74	33.883	26.125	189.5	0.156	2.40	37.5	28.0	2.01	24.5	0.06	0.02	0.06	0.14	71	03
75 ISL	9.49 D	9.50	33.976 D	26.236	179.0	0.166	2.28 D	35.4	30.1	2.09	25.5	0.06	0.02	0.04	0.13	76	
80	9.41	9.40	34.017	26.286	174.3	0.174	2.04	31.7	32.2	2.16	26.5	0.05	0.01	0.03	0.12	81	02
91	9.36	9.35	34.047	26.319	171.5	0.193	1.93	30.0	33.3	2.20	26.9	0.06	0.00	0.03	0.13	92	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 44.1 N	120 24.5 W	21/07/2012	1002 UTC	988 m	320	26 kn			1018.0 mb	15.5 c	14.0 c					053	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	14.32	14.32	33.550	25.001	294.7	0.000	5.67	97.1	4.1	0.62	4.3	0.14	0.15	2.27	0.28	0	
2	14.32	14.32	33.550	25.001	294.8	0.006	5.67	97.5	4.1	0.62	4.3	0.14	0.15	2.27	0.28	2	20
10	13.96	13.95	33.552	25.079	287.6	0.029	5.62	95.8	4.4	0.63	4.7	0.14	0.05	2.01	0.41	10	19
20 ISL	11.19 D	11.19	33.615 D	25.664	232.1	0.055	3.99 D	64.2	13.6	1.37	15.2	0.10	0.04	0.72	0.28	20	
21	11.18	11.18	33.604	25.658	232.8	0.058	4.07	65.6	14.5	1.44	16.3	0.10	0.04	0.59	0.27	21	18
29	10.49	10.49	33.643	25.810	218.5	0.076	3.52	55.8	18.7	1.62	19.2	0.06	0.02	0.34	0.19	29	17
30 ISL	10.47 D	10.46	33.660 D	25.828	216.8	0.078	3.43 D	54.4	18.9	1.63	19.4	0.06	0.02	0.33	0.18	30	
40	10.18	10.18	33.703	25.910	209.2	0.099	3.22	50.7	21.3	1.72	21.0	0.05	0.00	0.18	0.13	40	16
50 ISL	10.01 D	10.00	33.756 D	25.982	202.6	0.120	2.99 D	47.0	23.2	1.79	22.0	0.04	0.03	0.11	0.11	50	
51	9.99	9.99	33.759	25.987	202.2	0.122	2.98	46.8	23.4	1.80	22.1	0.04	0.03	0.10	0.11	51	15
60	9.81	9.81	33.792	26.043	197.0	0.140	2.87	44.9	24.6	1.84	22.7	0.04	0.00	0.07	0.08	60	14
69	9.57	9.56	33.920	26.183	183.9	0.157	2.47	38.4	28.5	2.00	24.5	0.04	0.02	0.03	0.07	70	13
75 ISL	9.54 D	9.53	33.931 D	26.197	182.7	0.169	2.44 D	37.9	29.0	2.03	24.8	0.04	0.01	0.03	0.07	76	
85	9.50	9.49	33.960 D	26.226	180.2	0.187	2.32 D	36.0								86	12
100	9.41	9.40	34.003	26.275	175.8	0.213	2.13	33.1	31.3	2.13	25.9	0.04	0.00	0.02	0.07	101	11
123	9.32	9.31	34.061	26.336	170.5	0.252	1.89	29.3	33.6	2.21	26.9	0.04	0.00	0.02	0.08	124	10
125 ISL	9.32 D	9.30	34.060 D	26.336	170.6	0.257	1.91 D	29.5	33.7	2.21	26.9	0.04	0.00	0.02	0.08	126	
140	9.25	9.23	34.092	26.372	167.5	0.281	1.79	27.7	34.6	2.24	27.3	0.04	0.00	0.02	0.09	141	09
150 ISL	9.12 D	9.10	34.128 D	26.422	163.0	0.299	1.62 D	25.0	35.5	2.27	27.6	0.04	0.00	0.01	0.08	151	
169	9.06	9.04	34.142	26.443	161.3	0.328	1.53	23.6	37.3	2.34	28.3	0.03	0.00	0.01	0.08	170	08
200	8.85	8.82	34.176	26.504	156.1	0.378	1.32	20.2	39.9	2.44	29.4	0.00	0.00	0.01	0.06	202	07
229	8.76	8.74	34.202	26.539	153.5	0.423	1.19	18.2	41.2	2.48	29.7	0.00	0.00			231	06
250 ISL	8.61 D	8.59	34.220 D	26.577	150.3	0.457	1.08 D	16.5	42.9	2.54	30.4	0.00	0.00			252	
271	8.53	8.50	34.232	26.599	148.6	0.486	0.98	14.9	44.6	2.59	31.0	0.00	0.00			273	05
300 ISL	8.34 D	8.31	34.255 D	26.647	144.4	0.532	0.84 D	12.7	46.2	2.63	31.3	0.00	0.00			302	
324	8.32	8.28	34.255	26.651	144.5	0.563	0.83	12.6	47.5	2.66	31.6	0.00	0.00			327	04
379	7.99	7.95	34.271	26.715	139.4	0.641	0.64	9.7	51.5	2.75	32.8	0.00	0.00			382	03
400 ISL	7.80 D	7.76	34.278 D	26.748	136.4	0.675	0.61 D	9.1	53.2	2.78	33.2	0.00	0.00			403	
440	7.55	7.50	34.270	26.780	134.0	0.724	0.58	8.6	56.4	2.83	34.1	0.00	0.00			444	02
500 ISL	6.95 D	6.90	34.290 D	26.880	124.9	0.808	0.41 D	6.0	64.6	2.95	35.8	0.00	0.00			504	
514	6.83	6.78	34.290	26.897	123.4	0.819	0.40 D	5.8	66.5	2.98	36.2	0.00	0.00			518	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 83.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 34.4 N	120 45.3 W	21/07/2012	0611 UTC	1434 m	320	25 kn			1020.2 mb	16.0 C	14.9 C					052	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µg/L	µg/L	db		
0	15.76	15.76	33.601	24.728	320.8	0.000	5.98	105.4	1.7	0.42	1.6	0.08	0.24	2.25	0.43	0	
3	15.76	15.76	33.601	24.728	320.8	0.010	5.98	105.9	1.7	0.42	1.6	0.08	0.24	2.25	0.43	3	21
10	15.74	15.73	33.601	24.733	320.6	0.031										10	20
10 ISL	15.74 D	15.73	33.604 D	24.735	320.3	0.032	5.93	104.9	1.7	0.44	1.4	0.09	0.21	2.25	0.41	10	20
11	15.73	15.73	33.602	24.735	320.4	0.035	5.96	105.4	1.7	0.44	1.4	0.09	0.21	2.25	0.41	11	19
20 ISL	14.89 D	14.76	33.623 D	24.964	298.9	0.063	5.84	101.3	1.5	0.45	1.9	0.11	0.31	2.75	0.45	20	20
21	14.04	14.04	33.609	25.105	285.4	0.066	5.89	100.6	1.5	0.45	2.0	0.11	0.32	2.81	0.45	21	18
30	13.50	13.50	33.617	25.223	274.5	0.091	5.05	85.3	5.8	0.89	8.2	0.15	0.72	1.30	1.02	30	17
41	10.78	10.78	33.663	25.776	222.0	0.119	3.65	58.2	17.2	1.52	17.6	0.21	0.28	1.47	0.96	41	16
50 ISL	10.23 D	10.19	33.729 D	25.928	207.7	0.139	3.15	49.7	20.8	1.68	20.2	0.16	0.31	0.69	0.70	50	16
51	10.12	10.11	33.712	25.928	207.7	0.140	3.20	50.3	21.2	1.70	20.5	0.15	0.31	0.60	0.67	51	15
60	9.85	9.84	33.756	26.008	200.3	0.159	2.99	46.8	23.6	1.80	22.3	0.09	0.18	0.22	0.38	60	14
71	9.66	9.66	33.883	26.139	188.1	0.180	2.52	39.3	27.7	1.99	24.3	0.05	0.09	0.08	0.24	72	13
75 ISL	9.63 D	9.62	33.891 D	26.152	187.0	0.188	2.60	40.6	28.4	2.02	24.7	0.05	0.09	0.07	0.22	76	12
86	9.42	9.41	33.971	26.248	178.1	0.208	2.24	34.8	30.3	2.09	25.9	0.04	0.09	0.04	0.17	87	12
100	9.20	9.18	34.070	26.362	167.5	0.232	1.84	28.4	34.4	2.23	27.4	0.03	0.09	0.02	0.11	101	11
120	9.01	9.00	34.107	26.422	162.3	0.265	1.66	25.5	36.5	2.31	28.5	0.04	0.01	0.01	0.13	121	10
125 ISL	9.01 D	8.99	34.113 D	26.427	161.9	0.274	1.65	25.4	36.9	2.33	28.6	0.04	0.04	0.01	0.12	126	9
140	8.92	8.91	34.140	26.462	158.9	0.297	1.50	23.1	38.0	2.38	28.8	0.03	0.12	0.01	0.09	141	09
150 ISL	8.92 D	8.90	34.186 D	26.499	155.6	0.314	1.36	20.9	39.0	2.41	29.1	0.02	0.09	0.01	0.08	151	08
170	8.88	8.86	34.207	26.523	153.7	0.344	1.18	18.2	40.8	2.48	29.6	0.00	0.03	0.01	0.08	171	08
200 ISL	8.71 D	8.69	34.226 D	26.564	150.4	0.391	1.07	16.4	42.6	2.54	30.4	0.00	0.02	0.01	0.09	202	07
201	8.72	8.70	34.226	26.562	150.6	0.391	1.05	16.0	42.7	2.54	30.4	0.00	0.00	0.01	0.09	203	07
230	8.53	8.51	34.254	26.615	146.2	0.434	0.86	13.0	45.3	2.62	31.1	0.00	0.00	0.00	0.00	232	06
250 ISL	8.39 D	8.36	34.260 D	26.642	143.9	0.465	0.83	12.6	46.9	2.66	31.6	0.00	0.00	0.00	0.00	252	05
270	8.25	8.23	34.274	26.674	141.2	0.491	0.71	10.8	48.5	2.70	32.0	0.00	0.00	0.00	0.00	272	05
300 ISL	8.01 D	7.98	34.276 D	26.714	137.9	0.536	0.65	9.8	51.3	2.75	32.9	0.00	0.00	0.00	0.00	302	04
319	7.87	7.83	34.270	26.730	136.6	0.559	0.63	9.4	53.0	2.78	33.4	0.00	0.00	0.00	0.00	322	04
381	7.44	7.40	34.276	26.798	131.0	0.642	0.53	7.8	58.1	2.86	34.6	0.00	0.00	0.00	0.00	384	03
400 ISL	7.34 D	7.30	34.282 D	26.818	129.4	0.671	0.50	7.4	60.0	2.89	35.0	0.00	0.00	0.00	0.00	403	03
441	7.02	6.98	34.288	26.867	125.1	0.719	0.41	6.1	63.9	2.95	36.0	0.00	0.00	0.00	0.00	445	02
500 ISL	6.62 D	6.57	34.298 D	26.930	119.8	0.797	0.34	5.0	69.3	3.03	37.1	0.00	0.00	0.00	0.00	504	01
513	6.54	6.49	34.301	26.943	118.6	0.807	0.32	4.6	70.5	3.05	37.3	0.00	0.00	0.00	0.00	517	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 83.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 14.4 N	121 26.4 W	20/07/2012	2301 UTC	3782 m	320	22 kn	340 05 05	2	1022.0 mb	17.1 C	15.9 C	10 m		8/8	ST	051	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µg/L	µg/L	db		
0	16.11	16.11	33.533	24.597	333.2	0.000	5.93	105.7	1.3	0.36	0.9	0.06	0.06	0.63	0.12	0	
3	16.11	16.11	33.533	24.597	333.3	0.010	5.93	105.7	1.3	0.36	0.9	0.06	0.06	0.63	0.12	3	21
9	16.11	16.10	33.533	24.597	333.5	0.029										9	20
10	16.11	16.11	33.532	24.596	333.6	0.033	5.94	105.8	1.3	0.36	0.9	0.05	0.08	0.62	0.13	10	19
20	16.04	16.04	33.532	24.612	332.4	0.067	5.95	105.8	1.3	0.36	0.9	0.05	0.00	0.65	0.13	20	18
30	15.31	15.31	33.532	24.774	317.3	0.099	6.03	105.8	1.3	0.38	1.1	0.05	0.03	0.90	0.26	30	17
40	14.44	14.44	33.646	25.051	291.2	0.130	5.57	96.1	1.8	0.66	2.7	0.10	2.38	0.68	0.30	40	16
49	12.80	12.79	33.779	25.490	249.6	0.154	5.02	83.7	4.6	1.10	5.4	0.15	5.16	0.27	0.14	49	15
50 ISL	12.63 D	12.56	33.793 D	25.546	244.3	0.157	4.99	82.8	5.3	1.15	6.0	0.18	5.17	0.25	0.13	50	14
59	11.73	11.72	33.812	25.721	227.9	0.178	4.26	69.5	12.4	1.60	11.5	0.44	5.24	0.10	0.07	59	14
70	11.23	11.22	33.858	25.849	215.9	0.202	3.72	59.9	17.1	1.81	15.0	0.64	4.59	0.06	0.06	71	13
75 ISL	10.74 D	10.76	33.912 D	25.972	204.2	0.213	3.45	55.2	20.2	1.92	17.7	0.74	3.47	0.06	0.06	76	12
85	10.30	10.29	33.945	26.082	194.0	0.232	2.54	40.2	26.4	2.14	23.0	0.94	1.24	0.05	0.06	86	12
100	9.06	9.05	33.955	26.294	174.0	0.260	2.17	33.3	32.4	2.23	27.4	0.04	0.06	0.02	0.05	101	11
120	8.80	8.79	34.008	26.377	166.5	0.294	1.97	30.2	35.4	2.28	28.3	0.01	0.01	0.02	0.06	121	10
125 ISL	8.79 D	8.77	34.023 D	26.391	165.2	0.303	1.95	29.9	36.1	2.31	28.5	0.01	0.01	0.01	0.06	126	9
140	8.64	8.62	34.066	26.449	160.0	0.327	1.69	25.7	38.2	2.38	29.1	0.02	0.00	0.01	0.07	141	09
150 ISL	8.31 D	8.29	34.029 D	26.470	158.1	0.344	2.06	31.2	39.3	2.39	29.4	0.02	0.00	0.01	0.06	151	08
170	8.20	8.19	34.079	26.526	153.2	0.374	1.70	25.7	41.6	2.42	30.0	0.02	0.00	0.00	0.03	171	08
200 ISL	7.95 D	7.92	34.120 D	26.598	146.9	0.421	1.33	20.0	46.3	2.57	31.5	0.04	0.00	0.00	0.07	202	07
201	7.94	7.92	34.119	26.597	146.9	0.420	1.32	19.8	46.4	2.58	31.5	0.04	0.00	0.00	0.07	203	07
231	7.62	7.59	34.098	26.628	144.4	0.464	1.38	20.6	48.6	2.59	32.3	0.03	0.00	0.00	0.00	233	06
250 ISL	7.39 D	7.36	34.100 D	26.663	141.3	0.494	1.34	19.9	51.3	2.65	33.0	0.03	0.00	0.00	0.00	252	05
272	7.17	7.14	34.119	26.709	137.2	0.522	1.10	16.3	54.4	2.72	33.8	0.03	0.00	0.00	0.00	274	05
300 ISL	6.94 D	6.91	34.123 D	26.744	134.2	0.563	1.00	14.7	57.9	2.82	34.7	0.04	0.00	0.00	0.00	302	04
320	6.96	6.93	34.174	26.782	131.0	0.586	0.75	11.1	60.4	2.89	35.3	0.05	0.00	0.00	0.00	323	04
381	6.14	6.10	34.164	26.884	121.7	0.663	0.65	9.3	70.8	3.00	37.6	0.00	0.00	0.00	0.00	384	03
400 ISL	6.08 D	6.04	34.183 D	26.906	119.8	0.690	0.59	8.5	72.9	3.03	37.9	0.00	0.00	0.00	0.00	403	03
440	5.80	5.76	34.200	26.955	115.5	0.733	0.48	6.8	77.2	3.10	38.6	0.00	0.00	0.00	0.00	444	02
500 ISL	5.43 D	5.38	34.251 D	27.042	107.7	0.805	0.33	4.6	86.0	3.19	39.7	0.00	0.00	0.00	0.00	504	01
515	5.28	5.24	34.260	27.066	105.4	0.816	0.29	4.0	88.2	3.21	40.0	0.00	0.00	0.00	0.00	519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 83.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 54.0 N	122 7.0 W	20/07/2012	1656 UTC	4171 m	330	20 kn	330 05 06	2	1023.0 mb	17.0 C	15.5 C	10 m	8/8		ST	050	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.86	15.86	33.534	24.652	327.9	0.000	6.03	106.8	0.8	0.32	0.6	0.05	0.22	0.52	0.11	0	
2 A	15.86	15.86	33.534	24.652	328.0	0.007	6.03	106.8	0.8	0.32	0.6	0.05	0.22	0.52	0.11	2	24
6 A	15.85	15.85	33.529	24.651	328.2	0.020	6.03	106.8	0.8	0.32	0.6	0.05	0.25	0.50	0.11	6	23
7 A	15.85	15.84	33.528	24.652	328.2	0.023	6.01	106.5	0.8	0.32	0.6	0.05	0.20	0.52	0.10	7	22
10 ISL	15.85 D	15.85	33.531 D	24.653	328.2	0.033	5.99	106.1	0.8	0.32	0.6	0.05	0.19	0.52	0.11	10	
14 A	15.81	15.80	33.528	24.662	327.5	0.046	6.05	107.1	0.8	0.32	0.6	0.05	0.18	0.52	0.11	14	20
14	15.81	15.80	33.526	24.660	327.7	0.046										14	21
20	14.83	14.83	33.485	24.843	310.4	0.065	6.28	109.0	0.9	0.35	1.0	0.08	0.29	0.67	0.18	20	19
26 A	14.53	14.53	33.544	24.953	300.1	0.083	5.89	101.6	1.0	0.43	1.8	0.11	0.77	1.19	0.52	26	18
30 ISL	13.80 D	13.71	33.422 D	25.029	293.0	0.096	5.78	98.1	2.3	0.50	2.5	0.17	0.97	1.03	0.47	30	
31 A	12.61	12.65	33.201 D	25.070	289.0	0.099	5.90	96.4	2.6	0.52	2.7	0.19	1.02	0.99	0.46	31	17
40	12.78	12.78	33.306	25.126	284.0	0.124	5.69	94.5	5.0	0.74	5.0	0.32	1.74	0.43	0.24	40	16
49	12.50	12.49	33.466	25.306	267.1	0.149	5.59	92.4	4.7	0.78	4.8	0.31	2.56	0.34	0.24	49	15
50 ISL	12.60 D	12.52	33.401 D	25.250	272.4	0.153	5.62	92.9	5.2	0.81	5.3	0.35	2.38	0.32	0.24	50	
59	11.34	11.33	33.250	25.356	262.4	0.176	5.54	89.2	10.2	1.05	9.8	0.67	0.78	0.19	0.17	59	14
70	10.92	10.98	33.446 D	25.572	242.2	0.205	5.17	83.6	12.8	1.23	12.8	0.50	0.62	0.10	0.15	71	13
75 ISL	10.43 D	10.42	33.518 D	25.725	227.6	0.216	4.99	78.9	15.4	1.36	15.2	0.35	0.41	0.09	0.15	76	
85	10.22	10.21	33.535	25.774	223.2	0.237	4.66	73.4	20.8	1.63	20.1	0.04	0.00	0.07	0.15	86	12
100	9.81	9.79	33.683	25.961	205.8	0.270	4.06	63.4	23.2	1.78	22.4	0.04	0.00	0.03	0.11	101	11
120	9.52	9.51	33.799	26.099	193.0	0.310	2.97	46.1	27.2	2.05	26.1	0.03	0.00	0.02	0.11	121	10
125 ISL	9.43 D	9.42	33.868 D	26.168	186.6	0.321	2.79	43.3	28.3	2.08	26.6	0.03	0.01	0.02	0.11	126	
143	9.07	9.05	33.910	26.260	178.2	0.352	2.35	36.2	31.9	2.19	28.2	0.03	0.05	0.01	0.09	144	09
150 ISL	8.97 D	8.95	33.938 D	26.298	174.6	0.367	2.29	35.2	32.7	2.19	28.4	0.03	0.04	0.01	0.09	151	
170	8.65	8.63	33.952	26.359	169.2	0.399	2.31	35.2	35.0	2.20	29.0	0.04	0.00	0.01	0.09	171	08
200 ISL	8.34 D	8.32	34.005 D	26.447	161.3	0.451	2.14	32.4	39.2	2.55	30.6	0.04	0.00	0.01	0.06	202	
202	8.38	8.36	34.043	26.472	159.0	0.451	1.81	27.4	39.4	2.36	30.7	0.04	0.00	0.01	0.06	204	07
230	8.07	8.05	34.053	26.527	154.2	0.495	1.81	27.3	42.6	2.40	31.3	0.01	0.00	0.00	0.00	232	06
250 ISL	7.89 D	7.86	34.068 D	26.566	150.8	0.529	1.66	24.8	45.4	2.47	32.3	0.01	0.00	0.00	0.00	252	05
272	7.62	7.60	34.081	26.615	146.4	0.559	1.48	22.0	48.5	2.55	33.5	0.00	0.00	0.00	0.00	274	05
300 ISL	7.47 D	7.43	34.147 D	26.691	139.6	0.602	1.02	15.2	54.0	2.70	35.0	0.00	0.00	0.00	0.00	304	
322	7.12	7.09	34.159	26.748	134.4	0.629	0.85	12.5	58.3	2.82	36.2	0.00	0.00	0.00	0.00	325	04
380	6.62	6.59	34.173	26.828	127.4	0.705	0.67	9.8	65.6	2.94	37.8	0.00	0.00	0.00	0.00	383	03
400 ISL	6.47 D	6.43	34.197 D	26.868	123.8	0.734	0.57	8.3	68.5	2.99	38.3	0.00	0.00	0.00	0.00	403	
442	6.08	6.04	34.213	26.931	118.1	0.781	0.46	6.6	74.6	3.08	39.5	0.00	0.00	0.00	0.00	446	02
500 ISL	5.64 D	5.59	34.225 D	26.996	112.2	0.853	0.40	5.7	81.9	3.14	40.7	0.00	0.00	0.00	0.00	504	
514	5.55	5.50	34.223	27.006	111.4	0.863	0.39	5.5	83.7	3.15	41.0	0.00	0.00	0.00	0.00	518	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 83.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 34.6 N	122 48.8 W	20/07/2012	0912 UTC	4239 m	320	16 kn			1019.0 mb	17.0 C	15.0 C					049	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.78	16.78	33.183	24.173	373.7	0.000	5.71	103.0	2.9	0.31	0.0	0.02	0.08	0.11	0.02	0	
2	16.78	16.78	33.183	24.172	373.7	0.008	5.71	102.9	2.9	0.31	0.0	0.02	0.08	0.11	0.02	2	21
9	16.78	16.78	33.181	24.171	374.1	0.034										9	20
10	16.78	16.77	33.183	24.174	373.8	0.037	5.69	102.5	2.9	0.30	0.0	0.02	0.03	0.11	0.02	10	19
20 ISL	16.12 D	16.11	33.181 D	24.324	359.8	0.074	5.78	102.7	2.6	0.31	0.0	0.02	0.04	0.18	0.05	20	
21	16.10	16.10	33.176	24.325	359.8	0.078	5.79	102.9	2.6	0.31	0.0	0.02	0.04	0.18	0.05	21	18
30	15.26	15.26	33.224	24.549	338.8	0.109	5.92	103.5	2.7	0.36	0.6	0.04	0.20	0.27	0.09	30	17
40	14.87	14.86	33.250	24.655	328.9	0.143	5.98	103.7	2.9	0.41	1.2	0.06	0.32	0.27	0.10	40	16
49	13.95	13.94	33.204	24.814	314.0	0.171	5.98	101.7	4.0	0.47	1.7	0.09	0.61	0.28	0.16	49	15
50 ISL	13.75 D	13.72	33.199 D	24.856	310.0	0.176	6.01	101.8	4.1	0.49	1.8	0.10	0.70	0.28	0.16	50	
60	13.66	13.66	33.375	25.005	296.2	0.205	5.79	98.0	4.6	0.69	3.3	0.25	1.63	0.27	0.13	60	14
69	12.80	12.79	33.255	25.086	288.6	0.231	5.73	95.1	6.1	0.73	5.0	0.84	0.53	0.19	0.12	70	13
75 ISL	12.69 D	12.68	33.282 D	25.127	284.8	0.250	5.68	94.2	7.0	0.81	6.6	0.63	0.37	0.15	0.10	76	
84	12.57	12.56	33.294	25.161	281.9	0.276	5.62	93.0								85	12
100	11.81	11.79	33.383 D	25.376	261.7	0.317	5.43	88.5	8.4	0.93	8.9	0.39	0.12	0.08	0.06	101	11
120	10.71	10.70	33.444	25.621	238.7	0.367	4.71	74.9	13.7	1.29	15.0	0.02	0.00	0.02	0.04	121	10
125 ISL	10.66 D	10.64	33.479 D	25.658	235.3	0.382	4.70	74.8	15.3	1.38	16.4	0.02	0.00	0.01	0.04	126	
140	10.22	10.20	33.632	25.853	217.1	0.413	3.77	59.4	20.0	1.66	20.5	0.03	0.00	0.01	0.04	141	09
150 ISL	9.64 D	9.61	33.691 D	25.997	203.4	0.437	3.53	54.9	22.7	1.76	22.2	0.02	0.00	0.01	0.04	151	
170	9.08	9.06	33.807	26.178	186.5	0.473	2.92	44.9	28.2	1.95	25.5	0.00	0.00	0.01	0.03	171	08
200	8.77	8.74	33.928	26.323	173.3	0.527	2.57	39.2	32.3	2.08	27.4	0.00	0.00	0.00	0.03	202	07
231	8.46	8.43	34.028	26.449	161.8	0.579	2.03	30.8	37.9	2.28	29.7	0.00	0.00	0.00	0.00	233	06
250 ISL	8.18 D	8.16	34.089 D	26.539	153.5	0.613	1.78	26.9	41.3	2.36	30.9	0.00	0.00	0.00	0.00	252	
270	7.84	7.81	34.065	26.571	150.7	0.640	1.68	25.2	44.9	2.45	32.2	0.00	0.00	0.00	0.00	272	05
300 ISL	7.64 D	7.61	34.107 D	26.635	145.1	0.688	1.38	20.6	49.4	2.59	33.5	0.00	0.00	0.00	0.00	302	
320	7.63	7.60	34.142	26.663	142.8	0.713	1.12	16.7	52.3	2.68	34.4	0.00	0.00	0.00	0.00	323	04
381	7.27	7.24	34.220	26.777	132.9	0.797	0.70	10.4	58.8	2.85	35.6	0.00	0.00	0.00	0.00	384	03
400 ISL	7.06 D	7.02	34.224 D	26.811	129.8	0.826	0.67	9.9	61.9	2.89	36.4	0.00	0.00	0.00	0.00	403	
441	6.44	6.40	34.198	26.873	123.9	0.874	0.60	8.7	68.5	2.98	38.2	0.00					

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 14.5 N	123 29.8 W	20/07/2012	0305 UTC	4135 m	320	14 kn	340 04 07	1	1019.8 mb	17.9 C	15.9 C			7/8	SC	048	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µg/L	µg/L	db		
0	17.43	17.43	33.245	24.068	383.6	0.000	5.62	102.8	3.0	0.30	0.0	0.02	0.01	0.08	0.01	0	
2	17.43	17.43	33.245	24.068	383.7	0.008	5.62	102.6	3.0	0.30	0.0	0.02	0.01	0.08	0.01	2	
9	17.34	17.34	33.241	24.086	382.2	0.036										9	
10	17.33	17.33	33.244	24.090	381.9	0.038	5.62	102.3	3.0	0.30	0.0	0.01	0.00	0.08	0.02	10	
20	17.09	17.08	33.238	24.145	377.0	0.076	5.64	102.2	3.1	0.30	0.0	0.01	0.02	0.11	0.02	20	
30	15.42	15.41	33.133	24.444	348.7	0.113	6.00	105.2	3.3	0.32	0.0	0.01	0.00	0.13	0.03	30	
40	14.55	14.54	33.104	24.610	333.2	0.147	6.10	105.1	3.8	0.35	0.1	0.03	0.02	0.28	0.07	40	
50	13.84	13.84	33.147	24.791	316.2	0.179	6.02	102.2	4.6	0.44	1.1	0.07	0.28	0.34	0.11	50	
60	13.47	13.46	33.208	24.916	304.6	0.210	5.95	100.3	5.2	0.56	2.6	0.16	0.60	0.38	0.11	60	
70	12.84	12.83	33.290	25.105	286.8	0.240	5.77	95.9	5.6	0.71	4.1	0.55	0.97	0.27	0.13	71	
75 ISL	12.51 D	12.49	33.287 D	25.169	280.9	0.256	5.63 D	95.0	6.6	0.78	5.7	0.40	0.62	0.20	0.10	76	
84	11.97	11.96	33.301	25.279	270.5	0.279	5.54	90.6	8.2	0.90	8.5	0.14	0.00	0.07	0.06	85	
100	11.54	11.53	33.388	25.428	256.7	0.321	5.15	83.4	9.7	1.07	11.3	0.03	0.01	0.05	0.06	101	
120	10.50	10.49	33.453	25.664	234.6	0.370	4.43	70.1	14.6	1.35	15.9	0.02	0.00	0.03	0.05	121	
125 ISL	10.07 D	10.04	33.525 D	25.796	222.0	0.384	4.21 D	66.1	16.5	1.45	17.5	0.02	0.00	0.03	0.05	126	
140	9.42	9.41	33.650	25.998	203.0	0.413	3.52	54.5	22.4	1.74	22.1	0.03	0.00	0.01	0.04	141	
150 ISL	9.23 D	9.21	33.717 D	26.084	195.0	0.436	3.26 D	50.3	24.5	1.82	23.4	0.02	0.00	0.01	0.04	151	
170	8.94	8.92	33.812	26.204	184.0	0.471	2.93	44.9	28.5	1.99	26.1	0.00	0.00	0.00	0.03	171	
200	8.40	8.38	33.953	26.398	165.9	0.524	2.66	40.3	34.3	2.11	28.1	0.00	0.00	0.01	0.04	202	
230	8.02	7.99	33.990	26.485	158.1	0.572	2.60	39.1	38.0	2.16	29.0	0.00	0.00			232	
250 ISL	7.83 D	7.80	34.005 D	26.526	154.6	0.608	2.43 D	36.3	41.4	2.25	30.2	0.00	0.00			252	
272	7.52	7.49	34.018	26.580	149.6	0.637	2.18	32.4	45.0	2.35	31.5	0.00	0.00			274	
300 ISL	7.19 D	7.16	34.057 D	26.657	142.6	0.683	1.78 D	26.3	49.9	2.51	33.4	0.00	0.00			302	
320	7.10	7.07	34.066	26.678	140.9	0.706	1.52	22.3	53.5	2.62	34.7	0.00	0.00			323	
380	6.49	6.46	34.127	26.809	129.0	0.787	0.90	13.1	64.7	2.90	37.8	0.00	0.00			383	
400 ISL	6.45 D	6.41	34.158 D	26.839	126.5	0.818	0.77 D	11.2	67.6	2.95	38.4	0.00	0.00			403	
441	6.01	5.97	34.160	26.898	121.1	0.864	0.67	9.6	73.5	3.04	39.7	0.00	0.00			445	
500 ISL	5.93 D	5.89	34.251 D	26.981	114.1	0.939	0.39 D	5.6	80.0	3.15	40.6	0.00	0.00			504	
518	5.71	5.67	34.246	27.004	111.9	0.953	0.36	5.1	82.0	3.19	40.9	0.00	0.00			522	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 54.6 N	124 10.3 W	19/07/2012	2048 UTC	4153 m	340	10 kn	340 04 09	1	1021.0 mb	19.8 C	17.2 C			28 m	3/8	SC	047
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µg/L	µg/L	db		
0	16.86	16.86	33.131	24.114	379.3	0.000	5.77	104.3	2.8	0.31	0.0	0.01	0.07	0.14	0.00	0	
2	16.86	16.86	33.131	24.113	379.3	0.008	5.77	104.1	2.8	0.31	0.0	0.01	0.07	0.14	0.00	2	
10	16.51	16.50	33.114	24.184	372.9	0.037										10	
10	16.51	16.50	33.113	24.183	373.0	0.038	5.79	103.6	2.8	0.31	0.0	0.01	0.04	0.13	0.02	10	
20	16.33	16.33	33.090	24.206	371.1	0.075	5.79	103.4	3.1	0.31	0.0	0.01	0.03	0.16	0.02	20	
30	16.13	16.13	33.097	24.258	366.6	0.112	5.82	103.4	3.2	0.31	0.0	0.01	0.02	0.19	0.02	30	
40	15.37	15.37	33.120	24.445	349.0	0.148	6.04	105.7	3.1	0.32	0.0	0.01	0.03	0.32	0.07	40	
50	13.84	13.83	33.025	24.697	325.1	0.181	6.25	106.0	4.3	0.42	0.9	0.05	0.39	0.39	0.16	50	
60	13.38	13.37	33.064	24.823	313.4	0.213	6.13	102.9	4.4	0.51	1.9	0.11	0.82	0.45	0.10	60	
70	12.41	12.40	33.052	25.004	296.4	0.244	6.03	99.3	4.8	0.58	2.6	0.21	1.00	0.44	0.13	71	
75 ISL	12.41 D	12.40	33.011 D	24.971	299.6	0.260	5.97 D	98.3	5.3	0.61	3.1	0.28	0.86	0.37	0.13	76	
85	11.93	11.92	33.014	25.065	290.9	0.288	5.86	95.4	6.2	0.67	4.1	0.42	0.57	0.23	0.13	86	
100	11.67	11.66	33.196	25.254	273.2	0.330	5.62	91.1	8.0	0.86	8.0	0.17	0.00	0.12	0.07	101	
120	11.25	11.24	33.355	25.455	254.6	0.383	4.99	80.3	10.3	1.06	11.5	0.03	0.00	0.05	0.05	121	
125 ISL	10.82 D	10.81	33.390 D	25.558	244.8	0.398	4.79 D	76.3	12.3	1.18	13.5	0.03	0.01	0.05	0.05	126	
140	9.75	9.73	33.509	25.835	218.5	0.430	3.91	60.9	18.3	1.55	19.4	0.02	0.02	0.03	0.05	141	
150 ISL	9.47 D	9.45	33.647 D	25.990	204.0	0.454	3.46 D	53.6	21.6	1.69	21.6	0.01	0.02	0.02	0.04	151	
169	9.03	9.01	33.790	26.172	187.0	0.489	2.98	45.7	27.8	1.96	25.8	0.00	0.01	0.01	0.02	170	
200	8.55	8.53	33.952	26.375	168.2	0.544	2.63	40.0	33.8	2.10	28.2	0.00	0.00	0.00	0.02	202	
230	8.10	8.07	34.009	26.489	157.8	0.593	2.25	34.0	38.8	2.25	30.2	0.00	0.00			232	
250 ISL	7.88 D	7.86	34.024 D	26.532	154.0	0.628	2.13 D	32.0	42.5	2.37	31.7	0.00	0.00			252	
270	7.70	7.67	34.062	26.589	148.9	0.654	1.69	25.2	46.2	2.49	33.1	0.00	0.00			272	
300 ISL	7.44 D	7.41	34.095 D	26.653	143.2	0.703	1.35 D	20.0	50.8	2.62	34.6	0.00	0.00			302	
320	7.26	7.23	34.110	26.690	139.9	0.726	1.17	17.3	53.9	2.71	35.6	0.00	0.00			323	
381	6.69	6.66	34.157	26.806	129.5	0.808	0.74	10.8	64.2	2.93	38.0	0.00	0.00			384	
400 ISL	6.54 D	6.50	34.171 D	26.838	126.7	0.839	0.67 D	9.8	67.1	2.97	38.6	0.00	0.00			403	
440	6.17	6.14	34.187	26.898	121.2	0.882	0.54	7.8	73.0	3.06	39.8	0.00	0.00			444	
500 ISL	5.76 D	5.72	34.228 D	26.983	113.7	0.960	0.41 D	5.8	80.3	3.15	40.8	0.00	0.00			504	
516	5.69	5.65	34.234	26.996	112.5	0.971	0.36	5.2	82.3	3.17	41.1	0.00	0.00			520	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 85.4 35.8

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
34 0.9 N	118 50.3 W	17/07/2012	0746 UTC	21 m	270	04 kn			1015.0 mb	18.2 c	16.0 c					036	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.87	18.87	33.566	23.961	393.8	0.000	6.60	123.9	1.5	0.17	0.1	0.02	0.13	1.36	0.03	0	
2	18.87	18.87	33.566	23.961	393.9	0.008	6.60	124.1	1.5	0.17	0.1	0.02	0.13	1.36	0.03	2	04
5	17.49	17.49	33.547	24.284	363.2	0.019	7.26	132.9	1.9	0.14	0.0	0.02	0.13	3.19	0.39	5	03
9	16.99	16.98	33.539	24.399	352.4	0.034	7.23	131.1	2.4	0.15	0.0	0.02	0.16	2.76	0.39	9	02
10 ISL	17.00 D	17.00	33.545 D	24.399	352.4	0.038	7.33	132.9	2.4	0.16	0.0	0.02	0.16	2.78	0.40	10	
16	16.12	16.12	33.537	24.597	333.8	0.058	7.03	125.2	2.7	0.20	0.0	0.02	0.18	2.93	0.46	16	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 86.7 33.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 53.4 N	118 29.4 W	17/07/2012	0156 UTC	59 m	260	08 kn	260 01 06	1	1012.9 mb	18.9 c	15.8 c			4/8		034	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	19.04	19.04	33.556	23.909	398.8	0.000	8.07	152.2	1.6	0.08	0.0	0.02	0.13	5.06	0.26	0	
2	19.04	19.04	33.556	23.909	398.8	0.008	8.07	152.2	1.6	0.08	0.0	0.02	0.13	5.06	0.26	2	08
6	18.85	18.85	33.554	23.956	394.5	0.024	8.05	151.2	1.6	0.09	0.0	0.02	0.01	4.66	0.21	6	07
10	16.70	16.70	33.530	24.458	346.8	0.039	6.91	124.5	2.7	0.16	0.0	0.02	0.01	4.02	0.09	10	05
10	16.70	16.70	33.527	24.455	347.0	0.040										10	06
20	12.97	12.97	33.497	25.237	272.8	0.070	5.15	86.0	4.4	0.42	0.0	0.02	0.14	1.65	0.27	20	04
30	11.43	11.43	33.502	25.533	244.8	0.096	3.62	58.6	13.5	1.42	10.8	0.25	2.61	2.46	0.40	30	03
40	10.90	10.90	33.524	25.646	234.4	0.120	3.52	56.3	17.6	1.59	18.4	0.36	5.45	0.27	0.25	40	02
49	10.85	10.85	33.535	25.663	232.9	0.141	3.46	55.2	18.4	1.60	18.9	0.38	5.54	0.22	0.20	49	01
50 ISL	10.84 D	10.86	33.538 D	25.663	232.9	0.144	3.48	55.6								50	

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 86.7 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 49.3 N	118 37.8 W	17/07/2012	0356 UTC	682 m	270	05 kn			1014.5 mb	18.2 c	15.3 c					035	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	19.39	19.39	33.594	23.849	404.5	0.000	5.76	109.3	1.1	0.22	0.0	0.01	0.01	0.23	0.05	0	
2	19.39	19.39	33.594	23.849	404.6	0.008	5.76	109.4	1.1	0.22	0.0	0.01	0.01	0.23	0.05	2	21
10	17.95	17.95	33.561	24.184	372.9	0.039	6.12	113.1	1.1	0.24	0.0	0.01	0.00	0.33	0.07	10	19
10	17.95	17.95	33.569	24.190	372.3	0.040										10	20
20	13.59	13.59	33.498	25.112	284.7	0.072	6.54	110.7	1.4	0.42	1.0	0.09	0.00	1.10	0.30	20	18
30	12.89	12.89	33.517	25.267	270.2	0.100	5.52	92.0	5.3	0.83	7.1	0.50	0.16	1.79	0.76	30	17
40	12.16	12.16	33.529	25.419	256.1	0.126	4.92	80.9	8.4	1.07	11.1	0.35	0.06	0.93	0.54	40	16
50	11.69	11.68	33.541	25.516	247.0	0.151	4.55	74.1	10.9	1.22	14.0	0.06	0.00	0.43	0.27	50	15
60	10.92	10.91	33.534	25.651	234.4	0.176	3.98	63.7	15.1	1.38	17.0	0.06	0.00	0.23	0.19	60	14
70	10.54	10.53	33.599	25.768	223.4	0.198	3.63	57.6	17.8	1.52	19.1	0.03	0.00	0.13	0.10	70	13
75 ISL	10.37 D	10.35	33.637 D	25.830	217.6	0.211	3.39	53.7	19.2	1.60	20.3	0.03	0.00	0.11	0.10	76	
85	10.02	10.01	33.702	25.939	207.5	0.231	3.14	49.3	22.2	1.75	22.6	0.03	0.00	0.07	0.11	86	12
100 ISL	9.84 D	9.83	33.831 D	26.070	195.4	0.263	2.61	40.9	26.0	1.92	24.8	0.03	0.00	0.03	0.07	101	
101	9.84	9.83	33.822	26.064	196.0	0.263	2.66	41.6	26.2	1.93	24.9	0.03	0.00	0.03	0.06	102	11
120	9.75	9.74	33.943	26.173	186.0	0.299	2.18	34.1	29.9	2.12	26.8	0.03	0.00	0.03	0.07	121	10
125 ISL	9.76 D	9.74	33.978 D	26.200	183.6	0.311	2.10	32.8	30.3	2.13	27.0	0.03	0.00	0.03	0.07	126	
140	9.49	9.48	33.987	26.251	179.1	0.336	2.13	33.1	31.5	2.14	27.7	0.03	0.00	0.03	0.07	141	09
150 ISL	9.46 D	9.44	34.041 D	26.299	174.8	0.356	2.03	31.5	32.6	2.19	28.1	0.02	0.00	0.02	0.08	151	
170	9.36	9.34	34.094	26.358	169.5	0.388	1.72	26.7	34.7	2.28	29.0	0.00	0.00	0.02	0.09	171	08
200	9.18	9.16	34.147	26.428	163.5	0.438	1.58	24.4	37.0	2.34	29.7	0.00	0.00	0.01	0.07	202	07
230	8.98	8.95	34.193	26.498	157.5	0.486	1.41	21.7	39.4	2.42	30.3	0.00	0.00			232	06
250 ISL	8.91 D	8.88	34.223 D	26.533	154.6	0.521	1.26	19.3	40.9	2.50	30.9	0.00	0.00			252	
270	8.91	8.88	34.249	26.554	153.0	0.548	1.05	16.2	42.4	2.57	31.4	0.00	0.00			272	05
300 ISL	8.81 D	8.78	34.300 D	26.611	148.3	0.597	0.84	12.9	45.2	2.63	32.2	0.00	0.00			302	
320	8.48	8.44	34.266	26.636	146.1	0.622	0.88	13.4	47.0	2.67	32.8	0.00	0.00			323	04
380	7.75	7.71	34.259	26.739	136.9	0.707	0.69	10.3	54.0	2.76	35.0	0.00	0.00			383	03
400 ISL	7.63 D	7.59	34.264 D	26.761	135.0	0.740	0.67	10.1	55.7	2.81	35.4	0.00	0.00			403	
440	7.44	7.40	34.278	26.801	131.9	0.788	0.54	8.0	58.9	2.90	36.3	0.00	0.00			444	02
500 ISL	7.12 D	7.07	34.298 D	26.863	126.8	0.872	0.43	6.4	63.7	2.97	37.6	0.00	0.00			504	
515	7.02	6.97	34.293	26.873	125.9	0.885	0.39	5.8	64.9	2.99	37.9	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 39.8 N	118 57.7 W	17/07/2012	1116 UTC	817 m	270	06 kn			1015.0 mb	17.0 C	15.5 C					037	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.74	17.79	33.585	24.242	367.1	0.000	6.14	112.9	0.9	0.24	0.0	0.01	0.06	0.42	0.08	0	
2	17.74	17.74	33.585	24.252	366.1	0.007	6.14	113.0	0.9	0.24	0.0	0.01	0.06	0.42	0.08	2	24
9	16.95	16.94	33.569	24.430	349.4	0.032	6.41	116.0	0.7	0.22	0.0	0.01	0.00	1.07	0.01	9	23
10 ISL	16.90 D	16.92	33.555 D	24.425	349.9	0.036	6.59	D119.4	0.6	0.22	0.0	0.01	0.00	1.05	0.02	10	
19	15.38	15.38	33.541	24.765	317.8	0.066	6.74	118.4	0.2	0.21	0.0	0.01	0.00	0.85	0.16	19	22
20 ISL	15.20 D	15.27	33.521 D	24.774	317.0	0.070	6.83	D119.6	0.4	0.24	0.0	0.01	0.01	1.14	0.16	20	
29	14.01	14.01	33.481	25.013	294.4	0.096	6.29	107.4	2.1	0.48	0.2	0.03	0.07	3.76	0.19	29	21
30 ISL	13.63 D	13.74	33.482 D	25.069	289.1	0.101	5.82	D 98.8	2.8	0.54	1.2	0.07	0.07	3.53	0.23	30	
40	12.12	12.11	33.488	25.394	258.4	0.127	4.71	77.2	9.3	1.10	11.1	0.49	0.08	1.29	0.64	40	20
50	11.26	11.25	33.533	25.589	240.0	0.152	3.95	63.7	14.9	1.40	16.7	0.11	0.00	0.20	0.25	50	19
59	10.67	10.66	33.559	25.715	228.2	0.173	3.76	59.8	16.8	1.49	18.5	0.06	0.00	0.15	0.24	59	18
70	10.33	10.32	33.625	25.826	217.9	0.197	3.40	53.7	19.3	1.65	20.2	0.06	0.00	0.13	0.16	71	17
75 ISL	10.19 D	10.19	33.677 D	25.889	212.1	0.210	3.16	D 49.8	20.6	1.70	21.1	0.06	0.00	0.12	0.15	76	
86	10.00	9.99	33.730	25.965	205.1	0.231	3.01	47.2	23.4	1.81	23.0	0.05	0.00	0.09	0.14	87	16
100	9.75	9.74	33.841	26.094	193.1	0.259	2.73	42.6	26.7	1.96	25.0	0.04	0.00	0.10	0.15	101	15
120	9.41	9.40	33.951	26.235	180.1	0.296	2.38	36.9	30.1	2.11	26.6	0.03	0.00	0.10	0.16	121	14
125 ISL	9.36 D	9.35	33.985 D	26.271	176.8	0.307	2.30	D 35.7	30.8	2.14	26.9	0.03	0.00	0.10	0.15	126	
140	9.25	9.24	34.041	26.332	171.3	0.331	2.10	32.5	32.8	2.21	27.9	0.03	0.00	0.09	0.13	141	13
150 ISL	9.22 D	9.20	34.078 D	26.367	168.2	0.350	1.95	D 30.1	34.2	2.26	28.5	0.03	0.00	0.09	0.14	151	
169	9.29	9.27	34.137	26.402	165.4	0.380	1.68	26.1	36.7	2.36	29.6	0.02	0.00	0.09	0.14	170	12
200 ISL	9.03 D	9.01	34.205 D	26.498	156.8	0.432	1.40	D 21.6	39.9	2.49	30.6	0.02	0.00	0.06	0.13	202	
201	9.02	9.00	34.199	26.495	157.2	0.431	1.37	21.1	40.0	2.49	30.6	0.02	0.00	0.06	0.13	203	11
230	8.86	8.84	34.215	26.533	154.1	0.476	1.24	19.0	41.9	2.55	31.3	0.02	0.00	0.06	0.13	232	10
250 ISL	8.65 D	8.63	34.253 D	26.596	148.5	0.509	1.01	D 15.5	44.2	2.61	32.1	0.03	0.00	0.06	0.13	252	
270	8.53	8.50	34.246	26.611	147.4	0.536	0.95	14.5	46.4	2.67	32.8	0.03	0.00	0.06	0.13	272	09
300 ISL	8.36 D	8.33	34.278 D	26.663	143.0	0.583	0.79	D 12.1	48.8	2.74	33.5	0.02	0.00	0.06	0.13	302	
319	8.27	8.24	34.270	26.671	142.6	0.607	0.76	11.6	50.4	2.78	33.9	0.02	0.00	0.06	0.13	322	08
380	7.58	7.54	34.292	26.790	131.9	0.691	0.52	7.8	57.7	2.92	35.8	0.02	0.00	0.06	0.13	383	07
400 ISL	7.47 D	7.43	34.297 D	26.810	130.3	0.721	0.49	D 7.4	60.0	2.96	36.4	0.02	0.00	0.06	0.13	403	
439	7.12	7.08	34.291	26.856	126.3	0.767	0.43	6.4	64.4	3.04	37.6	0.02	0.00	0.06	0.13	443	06
479	6.86	6.82	34.304	26.902	122.4	0.816	0.33	4.8	68.9	3.11	38.4	0.02	0.00	0.06	0.13	483	05
500 ISL	6.66 D	6.62	34.307 D	26.931	119.8	0.847	0.33	D 4.7	71.8	3.13	39.0	0.01	0.01	0.06	0.13	504	
515	6.59	6.54	34.312	26.946	118.5	0.860	0.27	3.9	73.8	3.14	39.4	0.01	0.01	0.06	0.13	519	04
600 ISL	6.15 D	6.10	34.329 D	27.018	112.5	0.965	0.23	D 3.2	81.9	3.21	40.0	0.01	0.01	0.06	0.13	605	
667	5.82	5.76	34.353	27.079	107.2	1.032	0.15	2.1	88.2	3.27	40.4	0.01	0.00	0.06	0.13	673	03
700 ISL	5.56 D	5.50	34.365 D	27.120	103.3	1.074	0.13	D 1.8	92.9	3.35	39.0	0.02	0.01	0.06	0.13	706	
800 ISL	5.29 D	5.22	34.386 D	27.170	99.5	1.177	0.06	D 0.9	107.1	3.57	34.9	0.06	0.02	0.06	0.13	807	
834	5.24	5.17	34.393	27.182	98.7	1.201	0.03	0.4	111.9	3.65	33.5	0.07	0.03	0.06	0.13	842	02
839	5.24	5.17	34.389	27.124	104.2	1.216	0.03	0.4								847	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 29.9 N	119 19.1 W	17/07/2012	1749 UTC	1626 m	140	10 kn	140 02 06	1	1018.0 mb	18.5 C	17.0 C	12 m		2/8	SC	038	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.81	17.81	33.596	24.246	366.7	0.000	5.79	106.6	0.9	0.29	0.1	0.01	0.00	0.35	0.11	0	
2 A	17.81	17.81	33.596	24.245	366.8	0.007	5.79	106.6	0.9	0.29	0.1	0.01	0.00	0.35	0.11	2	24
7 A	17.05	17.05	33.599	24.428	349.5	0.025	6.05	109.8	0.3	0.27	0.1	0.02	0.00	0.53	0.22	7	23
9	16.48	16.48	33.593	24.557	337.3	0.031										9	22
9 A	16.48	16.48	33.596	24.559	337.1	0.032	6.19	111.1	0.4	0.25	0.0	0.02	0.00	0.53	0.21	9	21
10 ISL	16.28 D	16.27	33.615 D	24.622	331.1	0.036	6.24	D111.6	0.3	0.24	0.0	0.02	0.00	0.73	0.39	10	
17 A	15.05	15.05	33.665	24.933	301.7	0.058	6.52	113.8	0.2	0.19	0.0	0.03	0.00	2.13	1.61	17	20
20 ISL	14.94 D	14.94	33.681 D	24.971	298.2	0.067	6.26	D109.0	1.2	0.38	2.0	0.10	0.16	4.18	1.94	20	
25	13.45	13.44	33.637	25.250	271.8	0.081	5.41	91.4	3.0	0.69	5.3	0.22	0.43	7.60	2.49	25	19
30 ISL	12.27 D	12.26	33.559 D	25.423	255.4	0.095	4.93	D 81.2	8.7	1.08	10.9	0.31	0.17	3.92	1.62	30	
32 A	11.86	11.86	33.546	25.488	249.3	0.099	4.48	73.1	11.0	1.23	13.2	0.35	0.06	2.45	1.27	32	18
37 A	11.39	11.39	33.563	25.588	239.8	0.111	4.12	66.7	13.9	1.38	15.8	0.26	0.10	1.71	1.08	37	17
44	10.79	10.79	33.577	25.707	228.7	0.128	3.77	60.2	16.7	1.52	18.3	0.14	0.06	0.66	0.52	44	16
49	10.66	10.65	33.611	25.757	224.0	0.139	3.61	57.5	18.3	1.59	19.5	0.13	0.00	0.62	0.52	49	15
50 ISL	10.57 D	10.58	33.637 D	25.790	220.9	0.142	3.52	D 55.9	18.7	1.61	19.8	0.12	0.00	0.60	0.50	50	
60	10.12	10.11	33.720	25.935	207.3	0.163	3.10	48.8	22.7	1.79	22.5	0.07	0.00	0.33	0.39	60	14
69	9.83	9.82	33.798	26.045	197.1	0.181	2.84	44.4	25.7	1.94	24.4	0.05	0.00	0.13	0.20	70	13
75 ISL	9.72 D	9.71	33.832 D	26.090	192.9	0.194	2.75	D 43.0	26.4	1.96	24.9	0.04	0.00	0.10	0.17	76	
85	9.40	9.39	33.845	26.152	187.2	0.211	2.79	43.2	27.8	1.99	25.8	0.03	0.00	0.04	0.12	86	12
99	9.38	9.37	33.942	26.233	179.8	0.237	2.45	38.0	30.1	2.10	26.8	0.03	0.00	0.03	0.07	100	11
100 ISL	9.37 D	9.36	33.944 D	26.236	179.6	0.240	2.43	D 37.6	30.3	2.11	26.9	0.03	0.00	0.03	0.07	101	
119	9.24	9.23	34.048	26.339	170.2	0.272	2.07	32.0	33.3	2.24	28.3	0.02	0.00	0.01	0.04	120	10
125 ISL	9.23 D	9.21	34.064 D	26.354	168.9	0.284	2.00	D 30.9	33.8	2.26	28.5	0.02	0.00	0.01	0.04	126	
141	9.17	9.15	34.091	26.385	166.3	0.309	1.89	29.1	35.3	2.31	29.0	0.02	0.00	0.01	0.06	142	09
150 ISL	9.16 D	9.14	34.097 D	26.391	165.9	0.326	1.86	D 28.8	35.9	2.33	29.2	0.02	0.01	0.01	0.06	151	
170	9.03	9.01	34.136	26.443	161.4	0.357	1.67	25.8	37.1	2.39	29.8						

CALCOFI CRUISE 1207

STATION 86.7 50.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 19.4 N	119 39.8 W	17/07/2012	2117 UTC	81 m	180	08 kn	200 02 06	1	1019.0 mb	18.9 C	16.8 C	08 m	6/8	SC	039		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.45	17.45	33.576	24.317	359.9	0.000	6.16	112.6	0.1	0.26	0.0	0.03	0.03	1.00	0.29	0	
2	17.45	17.45	33.576	24.317	359.9	0.007	6.16	112.6	0.1	0.26	0.0	0.03	0.03	1.00	0.29	2	10
5	17.39	17.39	33.574	24.329	358.9	0.018	6.17	112.7	0.1	0.26	0.0	0.02	0.00	1.04	0.22	5	09
10	16.63	16.62	33.589	24.521	340.8	0.036	6.41	115.3	0.1	0.24	0.0	0.04	0.00	1.20	0.30	10	07
10	16.63	16.62	33.588	24.520	340.8	0.037										10	08
20	12.42	12.41	33.625	25.443	253.2	0.065	5.89	97.4	2.4	0.65	4.5	0.32	0.06	5.96	2.22	20	06
30	11.44	11.44	33.641	25.639	234.8	0.090	4.17	67.5	14.2	1.42	16.2	0.35	0.08	1.76	0.76	30	05
40	10.74	10.74	33.646	25.769	222.6	0.113	3.97	63.3	15.8	1.55	17.9	0.33	0.09	0.89	0.49	40	11
50	10.46	10.45	33.741	25.893	211.1	0.134	3.25	51.6	22.7	1.75	21.4	0.14	0.20	0.51	0.41	50	03
60	9.91	9.91	33.798	26.030	198.2	0.155	2.89	45.3	26.0	1.91	23.8	0.11	0.12	0.15	0.24	60	02
70	9.69	9.68	33.850	26.109	191.0	0.174	2.68	41.8	27.9	2.00	25.1	0.06	0.07	0.05	0.14	71	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 86.7 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 9.3 N	120 0.6 W	18/07/2012	0222 UTC	1188 m	290	10 kn	300 04 10	2	1015.0 mb	16.5 C	15.0 C		7/8	SC	040		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.79	15.78	33.642	24.753	318.4	0.000	6.63	117.3	0.0	0.22	0.2	0.06	0.00	2.17	0.69	0	
2	15.79	15.78	33.642	24.752	318.4	0.006	6.63	117.4	0.0	0.22	0.2	0.06	0.00	2.17	0.69	2	21
10	14.98	14.97	33.650	24.938	301.0	0.030										10	20
10	14.98	14.97	33.668	24.952	299.7	0.031	6.53	113.8	0.0	0.29	1.0	0.10	0.02	3.06	1.48	10	19
20	13.44	13.43	33.675	25.281	268.7	0.060	5.16	87.1	5.4	0.85	7.8	0.24	0.57	3.73	1.13	20	18
30	11.04	11.04	33.744	25.792	220.2	0.084	3.64	58.5	19.2	1.66	19.5	0.49	0.12	1.16	1.05	30	17
40	10.37	10.36	33.766	25.928	207.5	0.105	3.23	51.2	22.7	1.80	22.6	0.10	0.00	0.25	0.37	40	16
50	9.77	9.76	33.824	26.075	193.8	0.125	2.73	42.7	27.0	1.98	25.3	0.04	0.00	0.07	0.14	50	15
60	9.59	9.58	33.872	26.143	187.5	0.145	2.57	40.0	28.5	2.05	26.0	0.03	0.00	0.04	0.10	60	14
71	9.53	9.52	33.898	26.173	184.9	0.165	2.50	38.9	29.2	2.05	26.2	0.04	0.00	0.04	0.11	72	13
75 ISL	9.51 D	9.50	33.908 D	26.184	183.9	0.173	2.47 D	38.4	29.4	2.06	26.3	0.04	0.00	0.03	0.10	76	
85	9.42	9.41	33.938	26.223	180.5	0.191	2.42	37.5	30.0	2.08	26.5	0.03	0.00	0.03	0.08	86	12
100	9.31	9.30	33.987	26.278	175.5	0.217	2.31	35.7	31.4	2.12	27.0	0.04	0.02	0.01	0.07	101	11
120	9.15	9.13	34.081	26.380	166.3	0.252	1.93	29.7	35.0	2.26	28.5	0.03	0.00	0.01	0.05	121	10
125 ISL	9.13 D	9.12	34.094 D	26.392	165.2	0.261	1.92 D	29.7	35.7	2.28	28.8	0.03	0.00	0.01	0.05	126	
140	8.87	8.86	34.119	26.453	159.7	0.284	1.75	26.8	37.9	2.33	29.5	0.04	0.00	0.01	0.05	141	09
150 ISL	8.82 D	8.81	34.154 D	26.489	156.5	0.302	1.62 D	24.9	39.4	2.39	30.1	0.04	0.00	0.01	0.05	151	
170	8.59	8.57	34.167	26.536	152.4	0.331	1.35	20.6	42.5	2.51	31.3	0.03	0.00	0.01	0.05	171	08
200	8.30	8.28	34.178	26.590	147.8	0.376	1.18	17.8	45.7	2.60	32.5	0.00	0.00	0.01	0.05	202	07
231	8.05	8.02	34.215 D	26.658	141.8	0.423	0.92 D	13.9								233	06
250 ISL	8.01 D	7.99	34.230 D	26.675	140.6	0.450	0.88 D	13.2	51.9	2.78	34.1	0.00	0.00			252	
270	7.87	7.84	34.247	26.710	137.6	0.475	0.76	11.4	52.1	2.77	34.3	0.00	0.00			272	05
300 ISL	7.62 D	7.59	34.274 D	26.769	132.4	0.519	0.59 D	8.9	56.8	2.87	35.2	0.00	0.00			302	
320	7.41	7.38	34.283	26.805	129.2	0.542	0.51	7.5	60.0	2.94	35.8	0.00	0.00			323	04
380	7.14	7.11	34.289	26.850	125.9	0.618	0.43	6.4	63.8	3.01	36.7	0.00	0.00			383	03
400 ISL	7.03 D	6.99	34.291 D	26.867	124.5	0.648	0.43 D	6.3	65.6	3.03	37.0	0.00	0.00			403	
440	6.77	6.73	34.299	26.910	120.9	0.692	0.35	5.1	69.0	3.06	37.7	0.00	0.00			444	02
500 ISL	6.22 D	6.18	34.306 D	26.987	113.9	0.769	0.30 D	4.4	75.9	3.13	39.5	0.00	0.00			504	
516	6.13	6.08	34.312	27.004	112.4	0.781	0.26	3.8	77.8	3.15	40.0	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 86.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 59.2 N	120 20.6 W	18/07/2012	0632 UTC	735 m	290	10 kn			1016.5 mb	16.8 C	15.2 C					041	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.78	15.78	33.382	24.554	337.3	0.000	5.89	104.0	2.4	0.45	1.9	0.08	0.04	0.39	0.08	0	
2	15.78	15.78	33.382	24.554	337.4	0.007	5.89	104.1	2.4	0.45	1.9	0.08	0.04	0.39	0.08	2	21
9	15.47	15.47	33.378	24.620	331.3	0.029										9	20
10	15.44	15.44	33.379	24.627	330.6	0.033	5.93	104.2	2.4	0.43	1.9	0.08	0.01	0.38	0.10	10	19
20	14.88	14.88	33.410	24.775	316.9	0.066	5.98	103.8	2.3	0.45	2.3	0.10	0.03	0.58	0.18	20	18
29	14.11	14.11	33.415	24.942	301.2	0.094	6.04	103.3	2.1	0.48	2.4	0.12	0.10	0.77	0.25	29	17
30 ISL	13.89 D	13.89	33.353 D	24.939	301.5	0.097	5.89 D	100.2	2.5	0.51	2.7	0.15	0.18	0.76	0.25	30	
40	11.99	11.98	33.221	25.212	275.6	0.126	5.73	93.6	6.7	0.78	5.9	0.41	0.98	0.61	0.26	40	16
49	11.21	11.20	33.124	25.281	269.3	0.150	5.54	88.9	8.6	0.87	8.2	0.38	1.0	0.57	0.26	49	15
50 ISL	11.12 D	11.11	33.126 D	25.298	267.7	0.154	5.49 D	88.0	8.7	0.88	8.4	0.37	0.09	0.56	0.26	50	
60	10.69	10.68	33.178	25.414	256.8	0.179	5.37	85.3	9.7	0.96	9.9	0.30	0.00	0.40	0.19	60	14
70	10.80	10.79	33.368	25.544	244.8	0.204	5.23	83.4	12.9	1.19	13.6	0.21	0.00	0.16	0.12	71	13
75 ISL	10.81 D	10.80	33.560 D	25.692	230.9	0.217	5.04 D	80.5	14.9	1.37	15.3	0.35	0.60	0.11	0.10	76	
84	10.44	10.43	33.736	25.894	211.8	0.236	4.20	66.6	18.6	1.70	18.3	0.60	1.69	0.03	0.06	85	12
99	9.43	9.42	33.725	26.055	196.7	0.266	3.33	51.6	23.6	1.78	22.8	0.09	0.03	0.01	0.05	100	11
100 ISL	9.41 D	9.40	33.728 D	26.060	196.3	0.270	3.29 D	51.0	23.8	1.79	22.9	0.09	0.03	0.01	0.05	101	
120	8.96	8.94	33.840	26.221	181.2	0.306	2.72	41.7	28.2	1.94	25.6	0.00	0.00	0.01	0.04	121	10
125 ISL	8.93 D	8.92	33.862 D	26.242	179.4	0.317	2.67 D	41.0	28.9	1.97	26.0	0.00	0.00	0.01	0.04	126	
140	8.59	8.58	33.915	26.337	170.6	0.341	2.53	38.5	31.2	2.06	27.2	0.00	0.00	0.01	0.04	141	09
150 ISL	8.57 D	8.55	33.970 D	26.385	166.3	0.361	2.35 D	35.8	33.0	2.10	27.8	0.00	0.00	0.01	0.05	151	
170	8.23	8.22	34.007	26.465	159.0	0.391	2.12	32.0	36.6	2.19	29.0	0.00	0.00	0.01	0.05	171	08
200	8.0																

CALCOFI CRUISE 1207

STATION 86.7 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 39.4 N	121 1.6 W	18/07/2012	1320 UTC	3756 m	290	05 kn	290 02 06	2	1020.0 mb	17.0 c	14.0 c		8/8		ST	042	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.46	16.46	33.425	24.433	348.8	0.000	5.94	106.5	1.8	0.38	1.2	0.05	0.21	0.52	0.09	0	
1	16.46	16.46	33.425	24.432	348.9	0.004	5.94	106.4	1.8	0.38	1.2	0.05	0.21	0.52	0.09	1	21
10	16.35	16.35	33.428	24.461	346.4	0.035										10	20
10	16.35	16.35	33.421	24.456	346.9	0.035	5.93	106.1	1.9	0.37	1.0	0.05	0.09	0.50	0.09	10	19
20	15.15	15.15	33.266	24.605	333.0	0.069	6.12	106.8	2.3	0.33	0.4	0.03	0.02	0.62	0.19	20	18
30	15.46	15.46	33.496	24.714	323.1	0.102	6.01	105.6	1.4	0.37	1.1	0.05	0.05	0.75	0.26	30	17
39	14.31	14.30	33.325	24.832	312.0	0.130	5.95	102.2	2.4	0.43	1.4	0.08	0.80	0.71	0.36	39	16
50	13.08	13.07	33.245	25.022	294.2	0.164	5.87	98.1	4.5	0.55	2.4	0.23	0.63	0.36	0.27	50	15
60	12.32	12.31	33.227	25.156	281.6	0.192	5.71	95.9	5.7	0.62	3.6	0.25	0.31	0.23	0.17	60	14
70	11.87	11.86	33.298	25.296	268.5	0.220	5.37	87.6	7.4	0.85	7.8	0.18	0.00	0.12	0.11	71	13
75 ISL	11.54 D	11.53	33.300 D	25.359	262.6	0.234	5.26 D	85.1	8.0	0.91	8.8	0.13	0.00	0.11	0.11	76	
84	11.51	11.50	33.374	25.422	256.8	0.257	4.99	80.7	9.1	1.02	10.7	0.05	0.00	0.08	0.09	85	12
99	11.07	11.06	33.457	25.566	243.5	0.294	4.63	74.2	12.0	1.21	13.7	0.03	0.00	0.03	0.07	100	11
100 ISL	10.91 D	10.90	33.469 D	25.604	239.8	0.298	4.52 D	72.2	12.3	1.23	14.0	0.03	0.00	0.03	0.07	101	
120	9.79	9.77	33.583	25.887	213.2	0.342	3.73	58.2	18.9	1.53	19.5	0.03	0.00	0.02	0.04	121	10
125 ISL	9.67 D	9.65	33.626 D	25.940	208.2	0.354	3.62 D	56.3	19.9	1.58	20.2	0.02	0.00	0.01	0.04	126	
140	9.33	9.31	33.717	26.067	196.4	0.383	3.35	51.7	22.9	1.71	22.3	0.00	0.00	0.01	0.03	141	09
150 ISL	9.01 D	8.99	33.847 D	26.220	182.1	0.403	2.95 D	45.2	25.8	1.82	23.9	0.00	0.00	0.00	0.03	151	
169	8.82	8.80	33.943	26.325	172.5	0.435	2.46	37.6	31.3	2.03	26.8	0.00	0.00	0.00	0.03	170	08
200	8.37	8.34	34.011	26.449	161.2	0.487	2.21	33.6	35.4	2.10	28.4	0.00	0.00	0.00	0.03	202	07
229	8.15	8.13	34.053	26.514	155.4	0.533	1.91	28.9	39.5	2.28	29.8	0.00	0.00	0.00	0.00	231	06
250 ISL	8.03 D	8.01	34.090 D	26.562	151.3	0.568	1.64 D	24.7	41.8	2.36	30.6	0.00	0.00	0.00	0.00	252	
270	7.82	7.80	34.107	26.607	147.3	0.595	1.48	22.2	43.9	2.43	31.4	0.00	0.00	0.00	0.00	272	05
300 ISL	7.16 D	7.14	34.061 D	26.665	141.9	0.641	1.61 D	23.8	49.1	2.50	32.8	0.00	0.00	0.00	0.00	302	
320	6.97	6.94	34.074	26.701	138.6	0.666	1.42	20.9	52.5	2.55	33.8	0.00	0.00	0.00	0.00	323	04
380	6.88	6.85	34.242	26.848	125.8	0.746	0.50	7.4	61.8	2.89	35.9	0.00	0.00	0.00	0.00	383	03
400 ISL	6.65 D	6.62	34.245 D	26.881	122.7	0.775	0.49 D	7.1	64.1	2.89	36.4	0.00	0.00	0.00	0.00	403	
440	6.31	6.27	34.248	26.928	118.6	0.819	0.44	6.4	68.6	2.90	37.3	0.00	0.00	0.00	0.00	444	02
500 ISL	6.00 D	5.96	34.281 D	26.996	112.8	0.893	0.33 D	4.8	74.7	3.01	38.3	0.00	0.00	0.00	0.00	504	
516	5.90	5.86	34.282	27.009	111.6	0.906	0.31	4.4	76.3	3.04	38.6	0.00	0.00	0.00	0.00	520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 86.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 20.1 N	121 40.9 W	18/07/2012	1956 UTC	4029 m	320	10 kn	300 04 10	1	1020.0 mb	17.3 c	15.0 c	23 m	7/8		SC	043	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.60	16.60	33.182	24.215	369.6	0.000	5.74	103.1	3.0	0.31	0.0	0.02	0.06	0.14	0.02	0	
2 A	16.60	16.60	33.182	24.214	369.7	0.007	5.74	103.0	3.0	0.31	0.0	0.02	0.06	0.14	0.02	2	23
10 ISL	16.56 D	16.55	33.181 D	24.224	369.1	0.037	5.70 D	102.3	3.0	0.30	0.0	0.01	0.04	0.13	0.03	10	
14	16.42	16.41	33.175	24.252	366.5	0.050										14	22
14 A	16.42	16.41	33.174	24.251	366.6	0.052	5.73	102.5	3.0	0.30	0.0	0.01	0.03	0.13	0.03	14	21
16 A	16.30	16.30	33.166	24.270	364.8	0.059	5.76	102.7	3.1	0.31	0.0	0.01	0.03	0.14	0.04	16	20
20 ISL	16.17 D	16.17	33.168 D	24.303	361.9	0.074	5.76 D	102.5	3.1	0.31	0.0	0.01	0.02	0.14	0.04	20	
25	16.14	16.13	33.165	24.308	361.6	0.092	5.78	102.8	3.2	0.30	0.0	0.01	0.00	0.14	0.04	25	19
30 ISL	16.10 D	16.10	33.168 D	24.319	360.7	0.110	5.75 D	102.1	3.2	0.30	0.0	0.01	0.00	0.17	0.05	30	
32 A	16.09	16.09	33.166	24.320	360.7	0.117	5.78	102.6	3.2	0.30	0.0	0.01	0.00	0.18	0.06	32	18
42	15.39	15.38	33.156	24.470	346.7	0.152	5.84	102.3	3.1	0.31	0.0	0.01	0.00	0.28	0.12	42	17
50 ISL	14.31 D	14.31	33.129 D	24.680	326.9	0.181	6.13 D	105.1	3.7	0.38	0.8	0.05	0.10	0.61	0.33	50	
51	14.31	14.30	33.125	24.678	327.1	0.182	6.07	104.0	3.8	0.39	0.9	0.06	0.11	0.66	0.35	51	16
60 A	13.84	13.83	33.144	24.791	316.5	0.211	5.92	100.5	4.5	0.50	1.8	0.12	0.74	0.46	0.42	60	15
68 A	13.76	13.75	33.152	24.814	314.6	0.237	5.85	99.2	4.7	0.52	2.2	0.14	0.90	0.34	0.35	69	14
75 ISL	13.44 D	13.42	33.185 D	24.905	306.0	0.260	5.83 D	98.1	5.1	0.57	2.8	0.28	0.97	0.21	0.21	76	
77	13.38	13.37	33.180	24.912	305.4	0.264	5.87	98.7	5.2	0.59	3.0	0.32	0.99	0.17	0.17	78	13
86	13.10	13.08	33.185	24.974	299.8	0.292	5.80	96.9	5.5	0.63	3.5	0.68	0.69	0.11	0.10	87	12
100	12.56	12.55	33.280	25.152	283.2	0.332	5.64	93.2	6.6	0.76	6.9	0.04	0.00	0.04	0.04	101	11
120	11.48	11.47	33.327	25.392	260.6	0.387	5.28	85.4	8.8	0.93	9.6	0.03	0.00	0.02	0.04	121	10
125 ISL	11.38 D	11.36	33.389 D	25.459	254.4	0.402	5.07 D	81.8	9.8	1.01	10.8	0.03	0.00	0.02	0.05	126	
140	10.71	10.69	33.460	25.634	237.9	0.437	4.57	72.8	12.9	1.24	14.5	0.02	0.00	0.01	0.06	141	09
150 ISL	10.53 D	10.51	33.568 D	25.750	227.1	0.462	4.15 D	65.7	15.7	1.37	16.7	0.01	0.00	0.01	0.05	151	
169	9.57	9.55	33.638	25.967	206.7	0.501	3.53	54.8	21.0	1.62	20.9	0.00	0.00	0.01	0.03	170	08
199	8.89	8.87	33.858	26.248	180.4	0.559	2.79	42.7	28.7	1.92	25.4	0.00	0.00	0.00	0.03	201	07
200 ISL	8.92 D	8.90	33.867 D	26.251	180.1	0.564	2.76 D	42.2	28.8	1.92	25.4	0.00	0.00	0.00	0.03	202	
231	8.60	8.57	33.930	26.352	171.1	0.615	2.56	38.9	32.0	2.01	26.9	0.00	0.00	0.00	0.00	233	06
250 ISL	8.28 D	8.26	34.045 D	26.489	158.3	0.650	2.24	33.8	36.2	2.14	28.6	0.00	0				

CALCOFI CRUISE 1207

STATION 86.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 59.3 N	122 23.8 W	19/07/2012	0153 UTC	4093 m	330	19 kn	340 04 08	1	1016.0 mb	17.4 c	15.3 c	18 m	6/8	AS	044		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.60	16.60	33.185	24.217	369.4	0.000	5.75	103.2	2.7	0.29	0.0	0.02	0.08	0.15	0.02	0	
2	16.60	16.60	33.185	24.216	369.5	0.007	5.75	103.2	2.7	0.29	0.0	0.02	0.08	0.15	0.02	2	21
10	16.52	16.52	33.187	24.236	367.9	0.035										10	20
10	16.52	16.52	33.186	24.235	368.0	0.037	5.75	103.1	2.7	0.29	0.0	0.01	0.06	0.15	0.03	10	19
20	15.93	15.92	33.178	24.365	356.0	0.073	5.83	103.3	2.5	0.29	0.0	0.02	0.04	0.17	0.04	20	18
30	15.87	15.86	33.170	24.374	355.5	0.109	5.86	103.6	2.5	0.29	0.0	0.01	0.04	0.22	0.07	30	17
40	15.18	15.17	33.158	24.517	342.1	0.144	5.92	103.3	2.9	0.30	0.0	0.02	0.03	0.33	0.14	40	16
50	14.00	13.99	33.128	24.744	320.7	0.177	6.10	103.9	3.9	0.41	1.3	0.08	0.20	0.56	0.32	50	15
61	13.59	13.58	33.149	24.845	311.4	0.212	5.92	99.9	4.6	0.51	2.2	0.18	0.78	0.49	0.36	61	14
70	13.27	13.26	33.202	24.951	301.5	0.239	5.81	97.6	5.2	0.61	3.4	0.55	0.81	0.23	0.20	71	13
75 ISL	13.24 D	13.23	33.242 D	24.988	298.2	0.255	5.81 D	97.4	5.5	0.64	3.9	0.71	0.59	0.20	0.17	76	
85	12.92	12.91	33.246	25.056	292.0	0.284	5.73	95.4	5.9	0.69	4.8	1.03	0.16	0.12	0.11	86	12
100	12.42	12.40	33.309	25.203	278.3	0.326	5.58	92.1	7.3	0.83	8.0	0.08	0.00	0.06	0.06	101	11
120	12.11	12.09	33.371	25.310	268.6	0.381	5.45	89.3	7.4	0.91	9.1	0.03	0.00	0.04	0.05	121	10
125 ISL	11.93 D	11.91	33.393 D	25.361	263.8	0.397	5.38 D	87.9	8.3	0.97	10.0	0.03	0.00	0.03	0.05	126	
140	11.13	11.12	33.438	25.542	246.8	0.433	4.80	77.1	10.8	1.13	12.7	0.03	0.01	0.02	0.06	141	09
150 ISL	10.40 D	10.38	33.509 D	25.727	229.2	0.459	4.47 D	70.7	14.0	1.29	15.4	0.02	0.01	0.02	0.05	151	
170	9.76	9.74	33.622	25.923	211.0	0.501	3.62	56.5	20.4	1.62	20.7	0.00	0.00	0.01	0.04	171	08
200	9.11	9.09	33.823	26.185	186.4	0.560	2.80	43.1	27.2	1.89	25.0	0.00	0.00	0.01	0.04	202	07
230	8.71	8.69	33.996	26.385	168.0	0.613	2.06	31.4	34.2	2.15	28.3	0.00	0.00			232	06
250 ISL	8.56 D	8.54	34.089 D	26.481	159.2	0.649	1.62 D	24.7	37.1	2.26	29.2	0.00	0.00			252	
271	8.51	8.48	34.121	26.515	156.4	0.679	1.41	21.4	40.1	2.37	30.2	0.00	0.00			273	05
300 ISL	8.19 D	8.16	34.159 D	26.595	149.2	0.727	1.25 D	18.9	44.0	2.46	31.4	0.00	0.00			302	
320	7.93	7.90	34.165	26.638	145.4	0.753	1.08	16.2	46.7	2.53	32.2	0.00	0.00			323	04
380	7.13	7.09	34.167	26.756	134.7	0.837	0.86	12.7	55.8	2.69	34.8	0.00	0.00			383	03
400 ISL	6.75 D	6.71	34.172 D	26.811	129.4	0.867	0.80 D	11.6	58.4	2.75	35.3	0.00	0.00			403	
441	6.78	6.74	34.252	26.871	124.6	0.915	0.47	6.8	63.5	2.87	36.2	0.00	0.00			445	02
500 ISL	6.39 D	6.35	34.281 D	26.946	118.0	0.992	0.37 D	5.3	70.5	2.96	37.5	0.00	0.00			504	
519	6.24	6.20	34.290	26.972	115.6	1.009	0.29	4.2	72.8	2.99	37.9	0.00	0.00			523	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 86.7 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 39.4 N	123 4.5 W	19/07/2012	0745 UTC	4141 m	320	10 kn			1015.0 mb	16.5 c	15.0 c					045	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.08	17.08	33.200	24.116	379.0	0.000	5.63	101.9	3.3	0.31	0.0	0.02	0.05	0.10	0.02	0	
2	17.08	17.08	33.200	24.116	379.1	0.008	5.63	101.9	3.3	0.31	0.0	0.02	0.05	0.10	0.02	2	20
10	17.07	17.07	33.200	24.117	379.2	0.036										10	21
10	17.07	17.07	33.201	24.119	379.1	0.038	5.62	101.9	3.4	0.30	0.0	0.01	0.00	0.09	0.02	10	19
20 ISL	16.89 D	16.89	33.232 D	24.185	373.1	0.076	5.62 D	101.5	3.2	0.31	0.0	0.02	0.07	0.10	0.02	20	
25	16.68	16.68	33.233	24.236	368.5	0.094	5.67	101.9	3.2	0.31	0.0	0.02	0.11	0.10	0.02	25	18
30 ISL	16.63 D	16.62	33.232 D	24.248	367.5	0.113	5.68 D	102.0	3.2	0.31	0.0	0.02	0.08	0.11	0.03	30	
39	15.20	15.20	33.131	24.491	344.6	0.144	5.88	102.7	3.4	0.31	0.0	0.01	0.02	0.14	0.03	39	17
49	14.46	14.46	33.103	24.629	331.7	0.178	6.10	104.8	3.6	0.33	0.1	0.03	0.01	0.32	0.09	49	16
50 ISL	14.42 D	14.41	33.115 D	24.648	329.9	0.183	6.11 D	104.8	3.7	0.34	0.2	0.03	0.06	0.32	0.09	50	
62	13.94	13.93	33.197	24.810	314.8	0.220	5.95	101.2	4.4	0.51	1.8	0.09	0.71	0.35	0.13	62	15
74	13.24	13.23	33.262	25.003	296.7	0.257	5.76	96.6	5.3	0.67	3.8	0.42	0.97	0.31	0.11	75	14
75 ISL	12.94 D	12.94	33.273 D	25.070	290.3	0.262	5.74 D	95.7	5.4	0.68	4.0	0.41	0.90	0.30	0.11	76	
87	11.60	11.58	33.235	25.298	268.7	0.293	5.43	87.9	7.1	0.78	6.3	0.34	0.09	0.17	0.13	88	13
100 ISL	10.80 D	10.78	33.313 D	25.504	249.3	0.329	4.75 D	75.6	10.8	1.10	12.1	0.07	0.01	0.11	0.11	101	
101	10.63	10.62	33.312	25.532	246.7	0.330	4.73	75.1	11.1	1.12	12.5	0.05	0.00	0.10	0.11	102	12
111	10.27	10.26	33.396	25.658	234.8	0.354	4.31	67.9	14.3	1.32	15.9	0.04	0.00	0.07	0.09	112	11
125	9.72	9.70	33.511	25.841	217.6	0.385	3.88	60.5	18.7	1.57	19.7	0.02	0.01	0.04	0.06	126	10
140	9.29	9.27	33.639	26.012	201.6	0.417	3.46	53.4	22.8	1.76	22.8	0.00	0.00	0.02	0.03	141	09
150 ISL	9.19 D	9.17	33.737 D	26.105	193.0	0.439	3.19 D	49.1	25.3	1.85	24.2	0.00	0.01	0.01	0.03	151	
170	8.78	8.76	33.859	26.265	178.1	0.474	2.80	42.8	30.2	2.04	27.0	0.00	0.02	0.00	0.02	171	08
199	8.51	8.49	33.942	26.373	168.4	0.524	2.60	39.6	33.9	2.10	28.3	0.00	0.00	0.00	0.03	201	07
200 ISL	8.49 D	8.46	33.956 D	26.388	167.0	0.528	2.60 D	39.4	34.1	2.11	28.4	0.00	0.00	0.00	0.03	202	
229	8.16	8.13	34.010	26.480	158.7	0.573	2.23	33.7	39.0	2.25	30.2	0.00	0.00			231	06
250 ISL	7.92 D	7.89	34.032 D	26.534	153.9	0.609	2.07 D	31.0	42.2	2.36	31.5	0.00	0.00			252	
270	7.74	7.71	34.055	26.578	149.9	0.636	1.77	26.4	45.3	2.46	32.8	0.00	0.00			272	05
300 ISL	7.36 D	7.33	34.082 D	26.654	143.0	0.683	1.46 D	21.6	51.3	2.60	34.5	0.00	0.00			302	
320	7.05	7.02	34.086	26.701	138.7	0.708	1.29	19.0	55.3	2.69	35.7	0.00	0.00			323	04
380	6.36	6.32	34.088	26.795	130.2	0.789	1.07	15.5	64.8	2.85	38.2	0.00	0.00			383	03
400 ISL	6.18 D	6.14	34.098 D	26.827	127.3	0.819	1.01 D	14.5	67.8	2.89	38.8	0.00	0.00			403	
440	5.81	5.77	34.116	26.887	121.9	0.864	0.81	11.6	73.8	2.98	39.9	0.00	0.00			444	02
500 ISL	5.49 D	5.45	34.176 D	26.974	114.1	0.941	0.55 D	7.8	82.5	3.11	41.2	0.00	0.00			504	
516	5.43	5.38	34.197	26.999	111.9	0.953	0.45	6.4	84.7	3.15	41.6	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 86.7 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 18.7 N	123 45.0 W	19/07/2012	1454 UTC	3942 m	320	10 kn	320 03 06	2	1021.0 mb	17.2 C	15.0 C	23 m	8/8		ST	046	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.57	17.57	33.234	24.025	387.8	0.000	5.61	102.3	3.1	0.30	0.0	0.01	0.04	0.12	0.02		0
3 A	17.57	17.57	33.234	24.024	387.8	0.012	5.61	102.7	3.1	0.30	0.0	0.01	0.04	0.12	0.02		3 23
10 ISL	17.55 D	17.55	33.234 D	24.031	387.5	0.039	5.61	102.6	3.1	0.30	0.0	0.01	0.03	0.11	0.02		10
13 A	17.30	17.30	33.235	24.091	381.9	0.050	5.61	102.1	3.1	0.30	0.0	0.01	0.02	0.11	0.02		13 21
14	17.29	17.29	33.225	24.085	382.5	0.053											14 22
17 A	17.26	17.26	33.212	24.082	382.8	0.066	5.61	102.1	3.2	0.31	0.0	0.00	0.01	0.12	0.03		17 20
20 ISL	17.25 D	17.25	33.216 D	24.089	382.3	0.078	5.58	D101.5	3.2	0.31	0.0	0.00	0.01	0.14	0.04		20
30 ISL	16.06 D	16.04	33.163 D	24.328	359.9	0.115	5.75	D102.1	3.0	0.31	0.0	0.00	0.00	0.19	0.06		30
32 A	15.55	15.55	33.152	24.429	350.2	0.121	6.05	106.3	3.0	0.31	0.0	0.00	0.00	0.20	0.07		32 19
42	14.90	14.89	33.140	24.563	337.7	0.156	6.06	105.1	3.2	0.33	0.0	0.00	0.00	0.31	0.22		42 18
50 ISL	14.00 D	13.99	33.086 D	24.712	323.8	0.184	6.09	D103.7	3.9	0.39	0.5	0.03	0.29	0.37	0.24		50
51	13.94	13.93	33.084	24.724	322.7	0.185	6.14	104.3	4.0	0.40	0.6	0.03	0.33	0.38	0.24		51 17
62 A	13.59	13.58	33.049	24.767	318.8	0.221	6.11	103.1	4.3	0.44	1.2	0.05	0.59	0.25	0.20		62 16
71 A	13.41	13.40	33.075	24.825	313.5	0.249	6.08	102.2	4.8	0.51	1.9	0.09	0.68	0.25	0.19		72 15
75 ISL	13.25 D	13.24	33.155 D	24.919	304.7	0.263	5.95	D 99.7	5.0	0.54	2.2	0.16	0.69	0.25	0.17		76
77	13.12	13.11	33.144	24.937	303.0	0.268	5.91	98.8	5.1	0.55	2.4	0.19	0.70	0.25	0.17		78 14
85	12.38	12.37	33.116	25.059	291.5	0.291	5.80	95.4	5.3	0.57	2.8	0.48	0.03	0.24	0.21		86 13
94	12.06	12.05	33.224	25.203	278.0	0.317	5.58	91.3	6.6	0.71	5.7	0.14	0.03	0.14	0.14		95 12
100 ISL	11.67 D	11.65	33.289 D	25.328	266.2	0.335	5.53	D 89.7	7.9	0.83	7.8	0.10	0.02	0.10	0.11		101
110	10.90	10.89	33.325	25.494	250.5	0.359	4.98	79.5	10.1	1.04	11.3	0.02	0.00	0.05	0.07		111 11
125 ISL	10.41 D	10.40	33.437 D	25.668	234.3	0.398	4.40	69.6	14.5	1.33	15.9	0.00	0.00	0.03	0.05		126
127	10.37	10.36	33.439	25.675	233.6	0.400	4.32	68.3	15.0	1.37	16.5	0.00	0.00	0.03	0.05		128 10
146	9.75	9.73	33.593	25.902	212.4	0.443	3.65	56.9	20.5	1.66	21.1	0.00	0.00	0.01	0.03		147 09
150 ISL	9.60 D	9.57	33.661 D	25.981	204.9	0.454	3.62	D 56.2	21.5	1.69	21.6	0.00	0.00	0.01	0.03		151
169	9.05	9.03	33.795	26.174	186.9	0.488	3.36	51.6	26.3	1.82	24.2	0.00	0.00	0.00	0.02		170 08
200 ISL	8.51 D	8.49	33.939 D	26.370	168.7	0.547	2.90	D 44.1	32.5	2.00	27.0	0.00	0.00	0.00	0.02		202
202	8.48	8.46	33.943	26.378	167.9	0.547	2.92	44.3	32.9	2.01	27.2	0.00	0.00	0.00	0.02		204 07
231	8.00	7.98	33.987	26.485	158.2	0.594	2.62	39.4	38.2	2.15	29.2	0.00	0.00	0.00	0.02		233 06
250 ISL	7.82 D	7.80	34.020 D	26.538	153.4	0.628	2.22	D 33.3	42.0	2.28	30.8	0.00	0.00	0.00	0.00		252
270	7.52	7.49	34.034	26.592	148.4	0.654	1.99	29.6	46.1	2.41	32.4	0.00	0.00	0.00	0.00		272 05
300 ISL	7.32 D	7.29	34.087 D	26.663	142.2	0.702	1.43	D 21.2	51.3	2.59	34.4	0.00	0.00	0.00	0.00		302
323	7.16	7.13	34.114	26.707	138.3	0.730	1.16	17.1	55.3	2.73	35.9	0.00	0.00	0.00	0.00		326 04
382	6.62	6.59	34.152	26.811	129.0	0.808	0.76	11.1	64.7	2.94	38.3	0.00	0.00	0.00	0.00		385 03
400 ISL	6.50 D	6.46	34.175 D	26.847	125.8	0.837	0.66	D 9.6	67.0	2.98	38.7	0.00	0.00	0.00	0.00		403
442	6.16	6.12	34.187	26.900	121.1	0.883	0.56	8.1	72.4	3.06	39.7	0.00	0.00	0.00	0.00		446 02
500 ISL	5.80 D	5.75	34.226 D	26.977	114.2	0.958	0.42	D 6.0	79.9	3.16	40.8	0.00	0.00	0.00	0.00		504
515	5.71	5.67	34.233	26.993	112.8	0.968	0.38	5.4	81.8	3.18	41.1	0.00	0.00	0.00	0.00		519 01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 86.8 32.5

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 53.3 N	118 26.6 W	17/07/2012	0049 UTC	27 m	240	10 kn	260 02 07	1	1012.8 mb	18.8 C	16.4 C			3/8	ST	033	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	20.12	20.12	33.576	23.646	423.9	0.000	9.44	181.7	1.7	0.11	0.2	0.02	0.02	16.45	0.66		0
2	20.12	20.12	33.576	23.646	423.9	0.009	9.44	181.6	1.7	0.11	0.2	0.02	0.02	16.45	0.66		2 04
4	19.89	19.89	33.572	23.704	418.5	0.017	9.16	175.5	1.7	0.10	0.3	0.03	0.01	13.00	0.34		4 03
10	17.64	17.64	33.543	24.245	367.1	0.041	8.21	150.8	1.4	0.07	0.1	0.02	0.01	4.65	0.45		10 02
20	13.80	13.79	33.498	25.071	288.7	0.073	5.49	93.3	5.2	0.33	0.1	0.02	0.19	2.68	0.30		20 01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 88.5 30.1

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 40.6 N	118 5.1 W	16/07/2012	2105 UTC	20 m	210	10 kn	200 02 10	0	1011.0 mb	21.2 C	17.8 C			0/8	SC	032	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.03	18.03	33.503	24.122	378.5	0.000	6.72	124.2	0.2	0.09	0.0	0.01	0.00	7.27	0.55		0
2	18.03	18.03	33.503	24.121	378.6	0.008	6.72	124.1	0.2	0.09	0.0	0.01	0.00	7.27	0.55		2 04
5	17.87	17.87	33.502	24.158	375.2	0.019	6.78	124.9	0.2	0.10	0.0	0.01	0.00	1.79	0.30		5 03
10	15.26	15.26	33.489	24.752	318.7	0.036	7.28	127.5	0.2	0.11	0.0	0.02	0.00	0.71	0.05		10 02
15	13.92	13.92	33.489	25.038	291.7	0.052	6.82	116.2	0.3	0.24	0.7	0.02	0.00	0.54	0.27		15 01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 90.0 27.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 29.7 N	117 44.9 W	16/07/2012	1834 UTC	20 m	190	10 kn	210 02 04	1	1015.0 mb	21.0 C	17.5 C			3/8	SC	031	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.98	18.97	33.496	23.880	401.5	0.000	6.36	119.7	0.2	0.09	0.1	0.02	0.00	0.97	0.16		0
2	18.98	18.97	33.496	23.880	401.6	0.008	6.36	119.6	0.2	0.09	0.1	0.02	0.00</				

CALCOFI CRUISE 1207

STATION 90.0 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 29.1 N	117 45.9 W	16/07/2012	1740 UTC	58 m	190	10 kn	210 02 04	1	1015.0 mb	21.0 c	17.5 c			3/8	sc	030	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.48	18.48	33.562	24.055	384.9	0.000	6.37	118.8	1.0	0.13	0.1	0.01	0.01	0.37	0.07	0	
2 A	18.48	18.48	33.562	24.055	384.9	0.008	6.37	118.8	1.0	0.13	0.1	0.01	0.01	0.37	0.07	2	09
5	17.64	17.64	33.557	24.255	365.9	0.019	6.43	118.1	0.9	0.12	0.0	0.01	0.00	0.52	0.09	5	08
8 A	17.05	17.05	33.509	24.361	356.0	0.030	7.14	129.6					0.00	0.93	0.11	8	07
9 A	16.65	16.65	33.506	24.452	347.3	0.033	7.25	130.6	0.3	0.08	0.0	0.01	0.00	0.94	0.15	9	06
10 ISL	16.25 D	16.17	33.523 D	24.575	335.6	0.037	7.44	D132.7	0.3	0.12	0.0	0.01	0.01	1.61	0.34	10	
18 A	13.48	13.48	33.460	25.105	285.3	0.062	6.71	113.2	0.6	0.45	0.0	0.03	0.08	7.01	1.94	18	05
20 ISL	13.43 D	13.43	33.473 D	25.124	283.6	0.068	6.15	D103.8	2.5	0.59	2.2	0.08	0.26	6.15	1.64	20	
27	11.79	11.79	33.486	25.454	252.3	0.086	4.55	74.2	9.3	1.07	9.9	0.27	0.87	3.11	0.60	27	04
30 ISL	11.78 D	11.76	33.504 D	25.473	250.6	0.094	4.39	D 71.6	10.0	1.14	10.7	0.28	1.15	3.06	0.75	30	
36 A	11.44	11.43	33.512	25.940	244.3	0.109	4.05	65.5	11.5	1.28	12.3	0.30	1.70	2.96	1.04	36	03
40 A	11.18	11.17	33.547	25.614	237.4	0.118	3.58	57.6	15.0	1.52	15.2	0.33	2.06	1.81	0.70	40	02
50	11.02	11.01	33.562	25.655	233.7	0.142	3.33	53.4	16.8	1.61	16.7	0.33	2.20	1.52	0.72	50	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 90.0 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 25.1 N	117 54.5 W	16/07/2012	1331 UTC	613 m	190	05 kn	190 02 05	2	1015.0 mb	20.0 c	16.0 c			8/8	sc	029	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.87	18.87	33.570	23.963	393.7	0.000	5.70	107.1	2.1	0.27	0.0	0.01	0.05	0.17	0.04	0	
2	18.87	18.87	33.570	23.962	393.7	0.008	5.70	107.1	2.1	0.27	0.0	0.01	0.05	0.17	0.04	2	21
9	18.81	18.81	33.568	23.976	392.7	0.037										9	20
10	18.72	18.72	33.568	24.000	390.5	0.039	5.68	106.5	2.1	0.27	0.0	0.02	0.00	0.18	0.05	10	19
20	16.14	16.14	33.522	24.580	335.5	0.076	6.10	108.8	2.1	0.31	0.0	0.01	0.00	0.30	0.10	20	18
30	13.80	13.79	33.457	25.039	292.0	0.107	6.31	107.3	3.0	0.42	0.7	0.04	0.05	1.64	0.50	30	17
40	12.37	12.36	33.461	25.327	264.8	0.135	5.49	90.5	6.1	0.76	5.9	0.15	0.33	1.19	0.52	40	16
50	11.37	11.36	33.495	25.540	244.8	0.160	4.36	70.5	12.1	1.25	13.9	0.14	0.00	0.23	0.29	50	15
60	11.17	11.16	33.511	25.589	240.3	0.185	4.18	67.2	13.2	1.31	14.8	0.19	0.09	0.19	0.19	60	14
70	10.54	10.54	33.585	25.757	224.5	0.208	3.60	57.2	17.8	1.54	18.6	0.08	0.00	0.11	0.12	71	13
75 ISL	10.43 D	10.42	33.614 D	25.800	220.6	0.220	3.57	D 56.5	18.6	1.57	19.0	0.07	0.00	0.09	0.12	76	
85	10.06	10.05	33.665	25.903	210.9	0.241	3.50	55.0	20.3	1.63	19.9	0.04	0.00	0.05	0.10	86	12
100	9.97	9.96	33.759	25.992	202.8	0.272	3.01	47.2	23.9	1.82	22.3	0.03	0.00	0.03	0.06	101	11
120	9.73	9.71	33.857	26.111	192.0	0.311	2.61	40.7	27.3	1.98	24.5	0.03	0.00	0.03	0.07	121	10
125 ISL	9.63 D	9.62	33.904 D	26.162	187.2	0.323	2.54	D 39.6	28.3	2.03	24.9	0.03	0.00	0.02	0.07	126	
140	9.61	9.59	33.991	26.236	180.5	0.348	2.14	33.4	31.2	2.16	26.2	0.03	0.00	0.02	0.07	141	09
150 ISL	9.29 D	9.27	34.000 D	26.294	175.1	0.368	2.37	D 36.6	32.1	2.18	26.5	0.03	0.00	0.02	0.06	151	
169	9.25	9.23	34.066	26.352	170.0	0.399	2.06	31.8	33.8	2.22	27.2	0.02	0.00	0.02	0.05	170	08
200	9.09	9.07	34.158	26.452	161.2	0.450	1.64	25.2	37.6	2.38	28.6	0.02	0.00	0.01	0.05	202	07
230	9.03	9.00	34.209	26.503	157.1	0.498	1.33	20.5	40.2	2.49	29.6	0.02	0.00			232	06
250 ISL	9.16 D	9.13	34.298 D	26.552	152.9	0.532	1.02	D 15.8	41.9	2.55	30.1	0.02	0.00			252	
270	8.81	8.78	34.267	26.583	150.2	0.559	1.02	15.6	43.6	2.61	30.5	0.02	0.00			272	05
300 ISL	8.73 D	8.70	34.288 D	26.613	148.0	0.608	0.89	D 13.6	45.4	2.66	31.1	0.02	0.00			302	
320	8.57	8.53	34.280	26.634	146.3	0.633	0.85	D 13.0	46.7	2.69	31.5	0.02	0.00			323	04
380	8.06	8.02	34.289	26.718	139.1	0.719	0.69	10.4	51.9	2.80	33.1	0.01	0.00			383	03
400 ISL	7.87 D	7.83	34.293 D	26.749	136.4	0.752	0.63	D 9.5	53.6	2.83	33.5	0.01	0.00			403	
440	7.71	7.66	34.305	26.784	133.7	0.800	0.52	7.8	56.9	2.90	34.4	0.01	0.00			444	02
500 ISL	7.16 D	7.11	34.306 D	26.864	126.7	0.885	0.40	D 5.9	63.9	3.03	35.8	0.07	0.02			504	
516	7.06	7.01	34.306	26.878	125.5	0.899	0.36	5.2	65.8	3.07	36.2	0.09	0.02			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 90.0 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 15.1 N	118 15.2 W	16/07/2012	0924 UTC	349 m	260	04 kn			1019.0 mb	18.1 c	15.5 c					028	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.71	18.71	33.576	24.008	389.3	0.000	5.67	106.2	1.0	0.25	0.0	0.01	0.04	0.22	0.06	0	
2	18.71	18.71	33.576	24.008	389.4	0.008	5.67	106.2	1.0	0.25	0.0	0.01	0.04	0.22	0.06	2	19
9	18.70	18.69	33.576	24.012	389.3	0.036										9	18
10	18.71	18.71	33.575	24.007	389.8	0.039	5.67	106.3	1.0	0.26	0.0	0.01	0.07	0.24	0.06	10	17
20	17.04	17.03	33.554	24.398	352.8	0.076	5.99	108.6	0.5	0.24	0.0	0.01	0.01	0.34	0.05	20	16
30	15.19	15.19	33.490	24.769	317.8	0.110	6.37	111.3	1.7	0.38	0.7	0.06	0.02	0.87	0.36	30	15
40	12.95	12.94	33.485	25.232	273.8	0.139	5.48	91.4	5.1	0.77	5.9	0.41	0.50	0.67	0.45	40	14
50	11.97	11.96	33.439	25.385	259.5	0.166	4.91	80.2	8.4	0.98	9.8	0.27	0.04	0.31	0.31	50	13
60	11.36	11.35	33.457	25.512	247.6	0.191	4.56	73.5	11.4	1.17	13.1	0.03	0.00	0.13	0.16	60	12
70	10.80	10.79	33.507	25.651	234.6	0.215	4.16	66.4	14.5	1.37	16.1	0.02	0.00	0.06	0.10	71	11
75 ISL	10.57 D	10.57	33.533 D	25.710	229.1	0.228	4.16	D 66.0	15.9	1.44	17.2	0.02	0.00	0.06	0.10	76	
85	10.18	10.17	33.589	25.824	218.4	0.249	3.63	57.1	18.8	1.58	19.3	0.03	0.00	0.05	0.09	86	10
100	10																

CALCOFI CRUISE 1207

STATION 90.0 37.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
33 11.0 N	118 23.2 W	16/07/2012	0625 UTC	1186 m	260	06 kn			1019.0 mb	16.7 C	15.0 C					027	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	19.33	19.33	33.602	23.871	402.4	0.000	5.58	105.8	2.2	0.27	0.1	0.01	0.07	0.17	0.04	0	
2	19.33	19.33	33.602	23.871	402.5	0.008	5.58	105.8	2.2	0.27	0.1	0.01	0.07	0.17	0.04	2	20
10	19.23	19.23	33.602	23.896	400.4	0.040	5.59	105.8	2.2	0.26	0.0	0.01	0.06	0.16	0.04	10	19
20	15.32	15.31	33.496	24.746	319.6	0.076	6.61	115.9	2.0	0.29	0.0	0.01	0.06	0.44	0.14	20	18
30	13.48	13.47	33.499	25.136	282.7	0.106	6.00	101.4	3.5	0.61	3.5	0.20	0.02	1.10	0.50	30	17
40	12.75	12.74	33.439	25.236	273.5	0.134	5.56	92.4	5.4	0.71	5.2	0.30	0.08	0.95	0.64	40	16
50	12.36	12.35	33.468	25.335	264.4	0.161	5.08	83.8	7.7	0.99	9.8	0.22	0.00	0.42	0.26	50	15
60	11.74	11.73	33.511	25.486	250.2	0.187	4.76	77.4	9.8	1.17	12.6	0.04	0.00	0.15	0.12	60	14
70	11.07	11.06	33.503	25.601	239.4	0.211	4.37	70.1	12.9	1.29	14.9	0.03	0.00	0.09	0.10	71	13
75 ISL	10.72 D	10.72	33.510 D	25.666	233.3	0.225	4.18	66.5	14.5	1.36	16.1	0.03	0.00	0.08	0.09	76	
85	10.35	10.34	33.551	25.765	224.0	0.246	3.80	60.0	17.5	1.50	18.4	0.03	0.00	0.06	0.07	86	12
100 ISL	10.02 D	10.00	33.694 D	26.014	200.7	0.278	3.25	51.1	22.0	1.74	21.4	0.03	0.01	0.03	0.05	101	
101	10.07	10.06	33.703	25.932	208.6	0.280	3.22	50.6	22.3	1.76	21.6	0.03	0.01	0.03	0.05	102	11
120	9.83	9.82	33.994	26.200	183.6	0.317	2.07	32.5	30.9	2.19	26.0	0.00	0.00	0.01	0.04	121	10
125 ISL	9.84 D	9.82	34.023 D	26.222	181.6	0.328	2.05 D	32.2	31.4	2.20	26.2	0.00	0.00	0.01	0.04	126	
140	9.58	9.57	34.060	26.293	175.1	0.353	1.95	30.5	32.7	2.22	26.8	0.00	0.00	0.00	0.04	141	09
150 ISL	9.47 D	9.45	34.067 D	26.318	172.9	0.373	2.05 D	31.9	33.4	2.24	27.1	0.00	0.00	0.00	0.03	151	
170	9.42	9.40	34.127	26.374	168.1	0.404	1.80	28.0	34.7	2.29	27.7	0.00	0.00	0.00	0.03	171	08
200	9.09	9.06	34.210	26.493	157.3	0.453	1.41	21.8	38.8	2.44	29.2	0.00	0.00	0.00	0.03	202	07
230	8.71	8.68	34.223	26.564	151.1	0.500	1.27	19.4	42.0	2.52	30.3	0.00	0.00			232	06
250 ISL	8.35 D	8.32	34.189 D	26.593	148.6	0.533	1.33 D	20.2	43.8	2.59	30.9	0.00	0.00			252	
270	8.53	8.50	34.265	26.625	146.1	0.559	0.98	15.0	45.7	2.65	31.5	0.00	0.00			272	05
300 ISL	8.31 D	8.28	34.278 D	26.669	142.4	0.607	0.77 D	11.7	48.4	2.74	32.2	0.00	0.00			302	
320	8.30	8.26	34.312	26.699	139.9	0.631	0.66	10.1	50.2	2.80	32.6	0.00	0.00			323	04
380	7.56	7.52	34.265	26.772	133.6	0.713	0.64	9.6	57.1	2.89	35.0	0.00	0.00			383	03
400 ISL	7.43 D	7.40	34.289 D	26.809	130.3	0.744	0.55 D	8.1	59.2	2.93	35.5	0.00	0.03			403	
440	7.15	7.11	34.303	26.861	125.9	0.790	0.42	6.2	63.5	3.01	36.5	0.00	0.08			444	02
500 ISL	6.62 D	6.58	34.315 D	26.942	118.6	0.870	0.34 D	4.9	70.1	3.11	38.1	0.00	0.02			504	
515	6.53	6.48	34.315	26.955	117.5	0.881	0.31	4.5	71.7	3.13	38.5	0.00	0.00			519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 90.0 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 55.2 N	118 56.3 W	16/07/2012	0052 UTC	1676 m	290	15 kn	300 04 08	2	1014.0 mb	17.0 C	15.2 C	12 m	8/8		ST	026	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.65	17.65	33.602	24.288	362.6	0.000	5.72	105.2	1.0	0.29	0.0	0.01	0.01	0.30	0.06	0	
2	17.65	17.65	33.602	24.288	362.7	0.007	5.72	105.1	1.0	0.29	0.0	0.01	0.01	0.30	0.06	2	21
9	17.39	17.39	33.592	24.342	357.8	0.034										9	20
10 ISL	17.15 D	17.12	33.599 D	24.412	351.2	0.036	5.74	104.4	1.1	0.29	0.0	0.01	0.00	0.31	0.07	10	
11	16.30	16.30	33.593	24.598	333.4	0.040	5.73	102.6	1.1	0.29	0.0	0.01	0.00	0.31	0.07	11	19
20	14.25	14.25	33.615	25.066	289.2	0.068	5.55	95.2	1.5	0.67	5.2	0.25	0.22	3.74	1.28	20	18
30	11.84	11.83	33.630	25.558	242.5	0.094	4.49	73.3	12.6	1.35	14.4	0.64	0.32	1.05	0.59	30	17
40	10.88	10.88	33.679	25.771	222.5	0.117	3.81	60.9	19.0	1.62	19.4	0.29	0.00	0.47	0.53	40	16
50	10.38	10.38	33.738	25.903	210.1	0.139	3.25	51.4	22.6	1.82	22.0	0.13	0.00	0.39	0.41	50	15
60	10.11	10.10	33.749	25.960	205.0	0.160	3.24	51.0	23.2	1.83	22.3	0.09	0.00	0.32	0.33	60	14
70	9.82	9.81	33.805	26.052	196.4	0.180	2.81	44.0	26.5	1.99	24.7	0.02	0.00	0.09	0.17	71	13
75 ISL	9.76 D	9.75	33.825 D	26.078	194.0	0.190	2.79 D	43.5	27.5	2.02	25.2	0.01	0.00	0.08	0.16	76	
85	9.53	9.52	33.880	26.159	186.5	0.209	2.52	39.1	29.4	2.09	26.2	0.00	0.00	0.04	0.14	86	12
100	9.29	9.28	33.935	26.242	178.9	0.236	2.26	35.0	31.6	2.19	27.5	0.00	0.00	0.05	0.11	101	11
120	9.09	9.08	33.993	26.320	172.0	0.271	2.10	32.3	33.9	2.29	28.5	0.00	0.00	0.02	0.09	121	10
125 ISL	8.99 D	8.98	34.024 D	26.360	168.3	0.281	2.00 D	30.7	34.6	2.31	28.7	0.00	0.00	0.02	0.08	126	
140	8.89	8.88	34.049	26.396	165.2	0.305	1.86	28.5	36.7	2.36	29.3	0.00	0.00	0.02	0.07	141	09
150 ISL	8.79 D	8.78	34.082 D	26.438	161.4	0.322	1.79 D	27.4	37.7	2.40	29.5	0.00	0.00	0.02	0.06	151	
170	8.81	8.79	34.153	26.491	156.8	0.353	1.57	24.1	39.9	2.47	30.0	0.00	0.00	0.01	0.05	171	08
200	8.51	8.48	34.206	26.581	148.8	0.399	1.20	18.3	44.2	2.62	31.4	0.00	0.00	0.01	0.06	202	07
230	8.15	8.13	34.210	26.639	143.7	0.443	1.07	16.1	48.2	2.70	32.7	0.00	0.00			232	06
250 ISL	8.38 D	8.35	34.295 D	26.672	141.1	0.474	0.74 D	11.3	49.9	2.77	33.1	0.00	0.00			252	
271	8.08	8.05	34.272	26.699	138.8	0.500	0.71	10.7	51.7	2.84	33.5	0.00	0.00			273	05
300 ISL	7.95 D	7.92	34.298 D	26.739	135.5	0.543	0.60 D	9.0	54.1	2.89	34.1	0.00	0.00			302	
320	7.77	7.74	34.304	26.770	132.8	0.567	0.53	8.0	55.8	2.93	34.5	0.00	0.00			323	04
380	7.30	7.26	34.303	26.839	127.0	0.645	0.44	6.5	61.9	3.02	36.3	0.00	0.00			383	03
400 ISL	7.14 D	7.11	34.313 D	26.868	124.5	0.674	0.40 D	5.9	64.0	3.05	36.8	0.00	0.01			403	
439	6.80	6.76	34.303	26.908	121.0	0.718	0.36	5.3	68.1	3.10	37.7	0.00	0.02			443	02
500 ISL	6.41 D	6.37	34.337 D	26.987	114.1	0.795	0.26 D	3.7	74.4	3.18	39.1	0.00	0.00			504	
516	6.33	6.28	34.338	26.999	113.1	0.808	0.22	3.2	76.0	3.20	39.5	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 39.0 N	119 28.5 W	15/07/2012	1851 UTC	1336 m	010	08 kn	350 05 06	2	1017.0 mb	16.0 C	14.5 C	09 m	8/8		ST	025	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.18	16.18	33.649	24.670	326.3	0.000	5.93	105.9	0.1	0.30	0.1	0.02	0.21	1.05	0.23	0	
2 A	16.18	16.18	33.649	24.669	326.3	0.007	5.93	105.8	0.1	0.30	0.1	0.02	0.21	1.05	0.23	2	24
5 A	16.17	16.17	33.649	24.672	326.2	0.016	5.96	106.3	0.1	0.30	0.1	0.03	0.13	1.11	0.25	5	23
7 A	16.15	16.15	33.649	24.677	325.8	0.023	5.96	106.3	0.1	0.28	0.0	0.02	0.01	1.07	0.24	7	22
10 ISL	16.13 D	16.13	33.649 D	24.680	325.6	0.033	5.93	105.7	0.1	0.27	0.0	0.02	0.00	1.12	0.25	10	
12 A	16.13	16.12	33.649	24.682	325.5	0.039	5.93	105.8	0.1	0.27	0.0	0.02	0.00	1.16	0.26	12	21
18	15.96	15.96	33.642	24.714	322.7	0.059	5.95	105.7	0.1	0.28	0.0	0.03	0.07	1.34	0.33	18	20
20 ISL	15.93 D	15.93	33.638 D	24.718	322.3	0.065	5.95	105.6	0.1	0.29	0.1	0.04	0.10	1.35	0.33	20	
25 A	15.21	15.20	33.625	24.869	308.1	0.081	5.94	103.9	0.2	0.33	0.3	0.06	0.18	1.38	0.35	25	19
28 A	14.50	14.50	33.628	25.024	293.4	0.090	5.65	97.6	1.5	0.56	2.3	0.12	0.99	1.53	0.57	28	18
30 ISL	13.84 D	13.82	33.655 D	25.187	277.9	0.096	5.74	97.6	4.2	0.76	5.0	0.23	1.17	1.56	0.64	30	
34	12.82	12.81	33.645	25.382	259.5	0.106	4.81	80.2	9.4	1.15	10.3	0.46	1.54	1.63	0.78	34	17
39	12.70	12.70	33.652	25.410	256.9	0.119	4.74	78.8	10.2	1.22	11.2	0.55	1.61	1.35	0.67	39	16
50	10.94	10.93	33.714	25.788	221.1	0.145	4.02	64.4	16.3	1.61	17.6	0.72	1.23	0.27	0.22	50	15
60	10.16	10.16	33.701	25.913	209.4	0.167	3.47	54.7	20.9	1.76	21.9	0.07	0.00	0.10	0.13	60	14
70	9.69	9.68	33.772	26.048	196.7	0.187	2.94	45.9	25.7	1.91	24.6	0.03	0.02	0.06	0.07	71	13
75 ISL	9.64 D	9.63	33.804 D	26.082	193.6	0.198	2.92	45.4	27.1	1.98	25.4	0.03	0.01	0.05	0.07	76	
85	9.44	9.43	33.895	26.187	183.9	0.216	2.39	37.1	30.0	2.11	27.0	0.03	0.00	0.03	0.06	86	12
100	9.08	9.07	33.963	26.297	173.7	0.243	2.19	33.7	33.3	2.19	28.3	0.03	0.00	0.01	0.06	101	11
120	8.85	8.84	34.000	26.363	167.8	0.277	2.08	31.8	35.4	2.25	29.3	0.00	0.00	0.01	0.06	121	10
125 ISL	8.77 D	8.75	34.026 D	26.397	164.6	0.287	2.03	31.0	35.9	2.27	29.5	0.00	0.00	0.01	0.06	126	
140	8.72	8.71	34.041	26.416	163.2	0.310	1.89	28.8	37.5	2.32	30.1	0.00	0.00	0.01	0.06	141	09
150 ISL	8.68 D	8.67	34.053 D	26.432	161.8	0.328	1.88	28.7	38.7	2.36	30.5	0.00	0.03	0.01	0.05	151	
170	8.34	8.32	34.073	26.501	155.6	0.358	1.72	26.1	41.1	2.43	31.4	0.00	0.08	0.01	0.05	171	08
200 ISL	8.16 D	8.13	34.104 D	26.553	151.2	0.407	1.42	21.4	45.1	2.52	32.7	0.00	0.00	0.01	0.04	202	
201	8.15	8.13	34.123	26.569	149.7	0.405	1.38	20.9	45.2	2.52	32.7	0.00	0.00	0.01	0.04	203	07
230	7.76	7.74	34.130	26.632	144.1	0.448	1.25	18.7	49.4	2.60	34.0	0.00	0.00	0.00	0.00	232	06
250 ISL	7.62 D	7.60	34.143 D	26.664	141.4	0.480	1.14	17.0	51.9	2.66	34.8	0.00	0.00	0.00	0.00	252	
272	7.41	7.38	34.145	26.696	138.6	0.507	1.05	15.5	54.6	2.73	35.6	0.00	0.00	0.00	0.00	274	05
300 ISL	7.07 D	7.04	34.168 D	26.762	132.6	0.549	0.88	13.0	58.0	2.82	36.4	0.00	0.00	0.00	0.00	302	
320	6.95	6.92	34.170	26.780	131.2	0.572	0.83	12.3	60.5	2.88	37.0	0.00	0.00	0.00	0.00	323	04
380	6.66	6.62	34.245	26.880	122.6	0.648	0.51	7.4	68.0	3.02	38.4	0.00	0.00	0.00	0.00	383	03
400 ISL	6.57 D	6.53	34.252 D	26.898	121.1	0.677	0.47	6.8	69.6	3.04	38.7	0.00	0.00	0.00	0.00	403	
441	6.38	6.34	34.267	26.936	118.0	0.721	0.38	5.5	72.8	3.08	39.2	0.00	0.00	0.00	0.00	445	02
500 ISL	6.16 D	6.11	34.302 D	26.992	113.3	0.795	0.30	4.3	77.7	3.15	40.1	0.00	0.00	0.00	0.00	504	
516	6.08	6.04	34.315	27.012	111.6	0.807	0.28	4.0	79.1	3.17	40.3	0.00	0.00	0.00	0.00	520	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 25.0 N	119 57.4 W	15/07/2012	1309 UTC	888 m	320	10 kn			1019.0 mb	15.5 C	14.0 C					024	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	14.42	14.41	33.478	24.926	301.9	0.000	5.89	101.3	1.6	0.53	2.2	0.13	1.04	0.81	0.19	0	
2	14.42	14.41	33.478	24.925	302.0	0.006	5.89	101.3	1.6	0.53	2.2	0.13	1.04	0.81	0.19	2	20
10	14.41	14.41	33.482	24.930	301.8	0.030	5.89	101.4	1.6	0.51	2.2	0.13	1.00	0.77	0.19	10	19
20	14.37	14.37	33.477	24.936	301.6	0.060	5.88	101.2	1.6	0.52	2.2	0.13	1.05	0.80	0.20	20	18
30 ISL	13.88 D	13.87	33.373 D	24.959	299.6	0.091	5.93	100.9	2.2	0.55	2.4	0.17	1.03	0.75	0.25	30	
31	13.92	13.92	33.395	24.966	299.0	0.093	5.90	100.4	2.2	0.55	2.4	0.17	1.03	0.74	0.26	31	17
40	11.96	11.95	33.141	25.156	281.0	0.120	5.77	94.1	5.9	0.71	4.8	0.37	0.81	0.63	0.33	40	16
50	11.49	11.49	33.276	25.347	263.0	0.147	5.47	88.4	9.3	0.96	9.2	0.38	0.25	0.31	0.24	50	15
60	10.65	10.65	33.318	25.530	245.9	0.172	4.99	79.3	11.4	1.09	12.2	0.07	0.00	0.11	0.12	60	14
69	10.55	10.54	33.461	25.659	233.8	0.194	4.53	71.9	14.1	1.33	15.7	0.05	0.00	0.04	0.06	70	13
75 ISL	10.30 D	10.29	33.527 D	25.756	224.7	0.209	4.61	72.8	16.0	1.43	17.2	0.06	0.00	0.03	0.05	76	
86	9.95	9.94	33.577	25.853	215.7	0.232	3.86	60.4	19.4	1.61	20.0	0.07	0.00	0.02	0.04	87	12
100	9.42	9.41	33.686	26.025	199.5	0.261	3.36	52.0	23.9	1.80	23.3	0.03	0.00	0.01	0.03	101	11
120	8.93	8.92	33.816	26.206	182.7	0.299	2.93	44.9						0.01	0.03	121	10
125 ISL	8.86 D	8.86	33.871 D	26.259	177.7	0.310	2.81	43.0						0.01	0.03	126	
141	8.70	8.68	33.910	26.318	172.5	0.336	2.54	38.8						0.01	0.03	142	09
150 ISL	8.51 D	8.50	33.944 D	26.372	167.4	0.353	2.52	38.3						0.01	0.03	151	
170	8.30	8.28	33.993	26.444	160.9	0.384	2.27	34.4	37.5	2.25	30.1	0.00	0.00	0.01	0.03	171	08
200 ISL	8.02 D	8.00	34.064 D	26.541	152.2	0.434	1.79	26.9	42.8	2.41	32.0	0.00	0.00	0.00	0.03	202	
201	8.00	7.98	34.062	26.543	152.1	0.433	1.80	27.0	43.0	2.42	32.1	0.00	0.00	0.00	0.03	203	07
230	7.74	7.72	34.078	26.594	147.7	0.476	1.66	24.8	46.4	2.50	32.9	0.00	0.00	0.00	0.00	232	06
250 ISL	7.57 D	7.54	34.128 D	26.660	141.7	0.508	1.26	18.8	50.3	2.60	34.2	0.00	0.00	0.00	0.00	252	
270	7.18	7.16	34.103	26.694	138.6	0.533	1.26	18.6	54.3	2.69	35.4	0.00	0.00	0.00	0.00	272	05
300 ISL	6.94 D	6.91	34.141 D	26.759	132.8	0.577	0.97	14.2	58.3	2.80	36.6	0.00	0.00	0.00	0.00	302	
320	6.92	6.89	34.159	26.775	131.6	0.600	0.85	12.4	61.1	2.87	37.4	0.00	0.00	0.00	0.00	323	04
379	6.44	6.41	34.168	26.848	125.4	0.676	0.72	10.4	67.6	2.97	38.7	0.00	0.00	0.00	0.00	382	03
400 ISL	6.36 D	6.32	34.203 D	26.886	122.0	0.706	0.57	8.2	70.1	3.01	39.1	0.00	0.00	0.00	0.00	403	
440	6.09	6.05	34.215	26.931	118.1	0.750	0.48	6.9	75.0	3.08	40.0	0.00	0.00	0.00	0.00	444	02
500 ISL	5.88 D	5.84	34.246 D	26.983	113.9	0.825	0.40	5.7	79.4	3.1							

CALCOFI CRUISE 1207

STATION 90.0 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 4.7 N	120 39.3 W	15/07/2012	0543 UTC	3791 m	320	20 kn			1019.0 mb	16.0 c	14.8 c					023	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	14.89	14.89	33.443	24.797	314.2	0.000	6.07	105.4	1.3	0.45	1.5	0.09	0.26	1.32	0.33	0	
2	14.89	14.89	33.443	24.796	314.2	0.006	6.07	105.4	1.3	0.45	1.5	0.09	0.26	1.32	0.33	2	20
10	14.88	14.87	33.441	24.799	314.2	0.031	6.07	105.4	1.3	0.43	1.5	0.09	0.23	1.37	0.34	10	19
20	15.08	15.08	33.473	24.778	316.6	0.063	6.05	105.5	1.1	0.45	1.4	0.10	0.32	1.42	0.33	20	18
30 ISL	15.10 D	15.09	33.607 D	24.880	307.2	0.094	5.81 D	101.5	1.5	0.55	2.0	0.11	1.12	1.14	0.36	30	
31	15.06	15.06	33.608	24.889	306.4	0.097	5.80	101.2	1.5	0.56	2.1	0.11	1.20	1.11	0.36	31	17
41	14.29	14.29	33.563	25.018	294.4	0.127	5.59	96.0	4.2	0.71	3.2	0.15	1.96	0.90	0.55	41	16
50	12.98	12.97	33.535	25.266	271.0	0.153	5.04	84.2	9.8	1.06	8.4	0.40	1.84	0.31	0.47	50	15
60	12.13	12.12	33.676	25.540	245.1	0.178	4.35	71.5	13.5	1.39	13.8	0.54	1.49	0.15	0.27	60	14
70	10.88	10.87	33.662	25.759	224.4	0.202	3.91	62.5	17.3	1.63	19.5	0.20	0.00	0.08	0.14	71	13
75 ISL	10.46 D	10.45	33.668 D	25.837	217.1	0.213	3.85 D	61.1	18.6	1.67	20.3	0.15	0.00	0.07	0.13	76	
85	10.25	10.24	33.679	25.882	213.0	0.234	3.65	57.5	21.1	1.76	21.9	0.06	0.00	0.06	0.11	86	12
100	9.50	9.49	33.763	26.073	195.0	0.265	2.98	46.3	26.0	1.94	25.0	0.03	0.00	0.04	0.07	101	11
119	9.15	9.14	33.854	26.202	183.2	0.301	2.70	41.6	29.3	2.03	26.6	0.03	0.00	0.01	0.06	120	10
125 ISL	9.08 D	9.06	33.882 D	26.235	180.1	0.313	2.71 D	41.6	30.0	2.05	26.9	0.03	0.00	0.01	0.06	126	
140	8.93	8.92	33.918	26.287	175.5	0.339	2.53	38.9	31.7	2.11	27.8	0.03	0.00	0.01	0.05	141	09
150 ISL	8.79 D	8.77	33.953 D	26.338	170.8	0.357	2.46 D	37.7	33.2	2.15	28.3	0.02	0.00	0.01	0.05	151	
171	8.55	8.53	33.998	26.410	164.3	0.391	2.29	34.9	36.1	2.22	29.4	0.00	0.00	0.01	0.04	172	08
200 ISL	8.18 D	8.15	34.040 D	26.500	156.2	0.440	2.11 D	31.9	40.0	2.31	30.8	0.00	0.00	0.00	0.03	202	
201	8.17	8.15	34.036	26.497	156.5	0.439	2.09	31.6	40.2	2.31	30.8	0.00	0.00	0.00	0.03	203	07
230	7.69	7.67	34.053	26.582	148.8	0.483	1.91	28.5	45.5	2.42	32.4	0.00	0.00			232	06
250 ISL	7.55 D	7.53	34.079 D	26.623	145.2	0.515	1.71 D	25.4	48.2	2.53	33.4	0.00	0.00			252	
270	7.57	7.54	34.121	26.654	142.7	0.542	1.33	19.9	50.8	2.64	34.4	0.00	0.00			272	05
300 ISL	7.49 D	7.47	34.185 D	26.715	137.4	0.587	1.13 D	16.8	54.8	2.78	35.2	0.00	0.00			302	
320	7.46	7.43	34.237	26.763	133.2	0.611	0.74	11.0	57.5	2.87	35.7	0.00	0.00			323	04
380	7.10	7.07	34.263	26.834	127.3	0.689	0.55	8.2	62.6	2.98	36.9	0.00	0.00			383	03
400 ISL	6.94 D	6.90	34.261 D	26.856	125.4	0.718	0.54 D	7.9	65.4	3.02	37.7	0.00	0.00			403	
440	6.50	6.46	34.263	26.916	119.9	0.763	0.41	6.0	71.1	3.09	39.2	0.00	0.00			444	02
500 ISL	6.23 D	6.19	34.304 D	26.984	114.1	0.839	0.32 D	4.6	76.8	3.18	40.1	0.00	0.00			504	
516	6.12	6.08	34.310	27.004	112.4	0.852	0.27	3.9	78.3	3.20	40.4	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 90.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 44.8 N	121 19.1 W	14/07/2012	2226 UTC	3678 m	320	14 kn	360 05 06	2	1019.0 mb	17.9 c	15.9 c	07 m	8/8		ST	022	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.80	15.80	33.640	24.749	318.8	0.000	5.98	106.1	1.8	0.44	1.1	0.06	0.12	1.45	0.29	0	
2	15.80	15.80	33.640	24.748	318.8	0.006	5.98	106.0	1.8	0.44	1.1	0.06	0.12	1.45	0.29	2	20
10	15.72	15.72	33.640	24.766	317.4	0.032	5.99	106.0	1.8	0.44	1.1	0.06	0.11	1.49	0.28	10	19
19	15.49	15.49	33.633	24.812	313.3	0.060	5.94	104.6	2.0	0.48	1.4	0.07	0.28	1.81	0.41	19	18
20 ISL	15.49 D	15.49	33.633 D	24.813	313.3	0.064	5.94 D	104.5	2.2	0.50	1.6	0.08	0.41	1.71	0.41	20	
30	14.46	14.46	33.647	25.047	291.3	0.094	5.43	93.7	4.6	0.71	3.6	0.13	1.72	0.71	0.38	30	17
40	13.07	13.06	33.628	25.319	265.6	0.121	4.80	80.4	10.4	1.12	9.3	0.47	1.94	0.33	0.37	40	16
50	12.16	12.15	33.647	25.512	247.5	0.147	4.38	72.0	13.4	1.35	13.7	0.60	1.12	0.19	0.31	50	15
60	11.40	11.39	33.641	25.649	234.6	0.171	4.27	69.0	15.6	1.49	16.6	0.64	0.42	0.14	0.26	60	14
70	10.67	10.66	33.658	25.793	221.1	0.194	3.93	62.6	18.5	1.63	19.8	0.30	0.00	0.08	0.20	71	13
75 ISL	10.26 D	10.24	33.676 D	25.879	213.0	0.206	3.69 D	58.2	19.8	1.69	20.8	0.21	0.00	0.07	0.19	76	
85	10.07	10.06	33.714	25.939	207.5	0.226	3.39	53.3	22.4	1.80	22.9	0.04	0.00	0.05	0.15	86	12
100	9.68	9.66	33.791	26.067	195.7	0.256	2.85	44.5	26.1	1.97	25.2	0.03	0.00	0.05	0.24	101	11
120	9.20	9.19	33.885	26.218	181.7	0.294	2.46	37.9	30.8	2.13	27.6	0.03	0.00	0.03	0.12	121	10
125 ISL	9.15 D	9.13	33.911 D	26.247	179.0	0.304	2.42 D	37.3	31.2	2.13	27.7	0.02	0.00	0.02	0.11	126	
140	8.94	8.92	33.941	26.304	173.8	0.329	2.47	37.9	32.4	2.12	28.0	0.00	0.00	0.01	0.09	141	09
150 ISL	8.80 D	8.79	33.977 D	26.353	169.3	0.348	2.38 D	36.4	34.0	2.17	28.7	0.00	0.00	0.01	0.09	151	
170	8.55	8.53	34.033	26.437	161.7	0.380	2.04	31.1	37.3	2.28	30.1	0.00	0.00	0.01	0.08	171	08
200	8.30	8.28	34.102	26.530	153.4	0.427	1.61	24.4	42.3	2.44	31.9	0.00	0.00	0.01	0.06	202	07
231	7.89	7.86	34.120	26.607	146.6	0.473	1.47	22.1	46.8	2.54	33.1	0.00	0.03			233	06
250 ISL	7.77 D	7.74	34.160 D	26.655	142.3	0.503	1.20 D	17.9	50.1	2.63	34.1	0.00	0.00			252	
271	7.39	7.36	34.155	26.707	137.5	0.530	1.09	16.1	53.8	2.72	35.3	0.00	0.00			273	05
300 ISL	7.32 D	7.29	34.185 D	26.740	134.9	0.573	0.94 D	14.0	56.6	2.79	36.1	0.00	0.00			302	
320	7.16	7.13	34.186	26.764	132.8	0.596	0.87	12.8	58.6	2.84	36.6	0.00	0.03			323	04
380	6.43	6.40	34.194	26.870	123.3	0.673	0.65	9.4	68.2	2.98	38.9	0.00	0.00			383	03
400 ISL	6.32 D	6.28	34.202 D	26.891	121.5	0.702	0.61 D	8.8	69.9	3.01	39.3	0.00	0.00			403	
441	6.18	6.14	34.241	26.940	117.3	0.747	0.44	6.4	73.6	3.08	40.0	0.00	0.00			445	02
500 ISL	5.88 D	5.83	34.274 D	27.006	111.7	0.820	0.34 D	4.8	79.5	3.17	40.9	0.00	0.00			504	
516	5.87	5.83	34.294	27.023	110.3	0.832	0.29	4.1	81.1	3.19	41.2	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 90.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 24.6 N	121 59.5 W	14/07/2012	1616 UTC	3869 m	350	16 kn	350 06 05	2	1022.0 mb	16.0 C	14.1 C	13 m	8/8		ST	021	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.18	15.18	33.196	24.544	338.2	0.000	5.92	103.4	2.8	0.37	0.6	0.05	0.05	0.44	0.08	0	
2 A	15.18	15.18	33.196	24.544	338.3	0.007	5.92	103.3	2.8	0.37	0.6	0.05	0.05	0.44	0.08	2	22
2	15.18	15.18	33.196	24.544	338.3	0.008										2	23
8 A	15.17	15.17	33.195	24.544	338.5	0.027	5.98	104.3	2.8	0.37	0.6	0.04	0.08	0.43	0.08	8	21
9 A	15.17	15.17	33.195	24.545	338.4	0.031	5.96	104.1	2.8	0.37	0.6	0.04	0.02	0.54	0.09	9	20
10 ISL	15.17 D	15.17	33.194 D	24.543	338.6	0.034	5.99	D104.4	2.8	0.37	0.6	0.04	0.02	0.53	0.09	10	
18 A	15.17	15.17	33.196	24.546	338.6	0.061	5.94	103.6	2.8	0.37	0.6	0.04	0.04	0.43	0.09	18	19
20 ISL	15.17 D	15.17	33.194 D	24.545	338.8	0.068	5.98	D104.4	2.8	0.37	0.6	0.04	0.09	0.43	0.09	20	
27	15.05	15.04	33.208	24.582	335.4	0.091	5.98	104.0	2.8	0.39	0.8	0.04	0.28	0.42	0.11	27	18
30 ISL	14.98 D	14.97	33.217 D	24.606	333.3	0.102	6.01	D104.5	2.9	0.40	0.9	0.05	0.25	0.43	0.12	30	
36 A	14.82	14.81	33.222	24.644	329.9	0.121	5.98	103.6	3.1	0.41	1.1	0.06	0.18	0.45	0.14	36	17
40 A	14.75	14.75	33.225	24.660	328.4	0.135	5.99	103.7	3.1	0.41	1.2	0.06	0.27	0.48	0.14	40	16
50	13.72	13.71	33.203	24.860	309.6	0.166	5.93	100.4	4.4	0.53	2.3	0.16	0.57	0.50	0.24	50	15
60	12.98	12.97	33.207	25.012	295.4	0.197	5.82	97.1	5.4	0.61	3.4	0.43	0.52	0.43	0.25	60	14
70	12.19	12.18	33.224	25.178	279.8	0.226	5.67	93.0	5.7	0.66	4.3	0.47	0.26	0.30	0.22	71	13
75 ISL	11.97 D	11.95	33.246 D	25.238	274.1	0.241	5.63	D 92.0	6.6	0.73	5.8	0.33	0.17	0.24	0.18	76	
85	11.06	11.05	33.276	25.427	256.3	0.266	5.32	85.3	8.4	0.88	8.8	0.05	0.00	0.11	0.10	86	12
100	10.58	10.57	33.464	25.658	234.6	0.303	4.86	77.1	14.3	1.34	15.9	0.05	0.00	0.03	0.04	101	11
121	10.17	10.16	33.662	25.883	213.7	0.350	4.27	67.2	19.3	1.70	20.8	0.04	0.55	0.02	0.04	122	10
125 ISL	9.92 D	9.88	33.668 D	25.935	208.8	0.360	4.15	D 64.9	20.6	1.75	21.6	0.04	0.48	0.02	0.04	126	
140	9.47	9.45	33.763	26.080	195.3	0.389	3.17	49.2	25.9	1.92	24.8	0.03	0.22	0.01	0.05	141	09
150 ISL	9.37 D	9.35	33.888 D	26.195	184.6	0.410	2.92	D 45.2	28.1	2.01	26.0	0.02	0.21	0.01	0.06	151	
170	9.05	9.03	33.958	26.301	174.8	0.444	2.23	34.3	32.6	2.18	28.4	0.00	0.20	0.02	0.07	171	08
200	8.83	8.81	34.049	26.408	165.3	0.495	1.87	28.7	37.2	2.35	30.3	0.00	0.00	0.01	0.06	202	07
230	8.40	8.37	34.080	26.499	157.1	0.543	1.77	26.9	40.8	2.40	31.3	0.00	0.00	0.00	0.00	232	06
250 ISL	8.27 D	8.25	34.101 D	26.535	154.0	0.578	1.66	D 25.1	43.4	2.46	32.2	0.00	0.00	0.00	0.00	252	
271	7.94	7.91	34.105	26.589	149.1	0.606	1.55	23.2	46.1	2.53	33.2	0.00	0.00	0.00	0.00	273	05
300 ISL	7.54 D	7.51	34.114 D	26.655	143.1	0.653	1.38	D 20.5	50.9	2.62	34.6	0.00	0.00	0.00	0.00	302	
321	7.26	7.23	34.120	26.698	139.2	0.678	1.24	18.3	54.3	2.69	35.6	0.00	0.00	0.00	0.00	324	04
380	6.76	6.73	34.184	26.818	128.5	0.757	0.77	11.2	63.8	2.93	38.0	0.00	0.00	0.00	0.00	383	03
400 ISL	6.78 D	6.74	34.221 D	26.845	126.2	0.788	0.59	D 8.7	65.6	2.98	38.3	0.00	0.00	0.00	0.00	403	
440	6.65	6.61	34.273	26.905	121.2	0.832	0.42	6.1	69.1	3.09	38.8	0.00	0.00	0.00	0.00	444	02
500 ISL	6.17 D	6.13	34.295 D	26.985	114.0	0.909	0.33	D 4.7	76.9	3.16	40.5	0.00	0.00	0.00	0.00	504	
516	5.99	5.94	34.294	27.008	111.8	0.921	0.29	4.2	78.9	3.18	40.9	0.00	0.00	0.00	0.00	520	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 90.0 100.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 4.9 N	122 39.5 W	14/07/2012	0729 UTC	3989 m	350	16 kn			1017.0 mb	17.5 C	15.0 C					020	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.94	16.94	33.257	24.192	371.9	0.000	5.61	101.4	3.4	0.30	0.1	0.01	0.01	0.10	0.02	0	
3	16.94	16.94	33.257	24.191	371.9	0.011	5.61	101.3	3.4	0.30	0.1	0.01	0.01	0.10	0.02	3	20
9	16.94	16.94	33.258	24.193	372.0	0.034	5.61	101.3	3.4	0.28	0.0	0.01	0.00	0.10	0.02	9	19
10 ISL	16.94 D	16.94	33.255 D	24.191	372.2	0.038	5.64	D102.0	3.4	0.28	0.0	0.01	0.00	0.10	0.02	10	
20 ISL	16.95 D	16.94	33.255 D	24.191	372.6	0.075	5.64	D101.9	3.4	0.29	0.0	0.01	0.00	0.10	0.02	20	
24	16.95	16.94	33.257	24.192	372.6	0.089	5.60	101.2	3.4	0.29	0.0	0.01	0.00	0.10	0.02	24	18
30 ISL	15.67 D	15.66	33.084 D	24.352	357.5	0.112	5.79	D102.0	3.4	0.29	0.0	0.01	0.00	0.13	0.03	30	
40	15.40	15.39	33.090	24.416	351.7	0.147	5.91	103.5	3.4	0.29	0.0	0.01	0.00	0.18	0.05	40	17
49	15.29	15.28	33.112	24.458	348.0	0.178	5.92	103.4	3.4	0.31	0.0	0.01	0.00	0.24	0.09	49	16
50 ISL	15.28 D	15.26	33.119 D	24.468	347.1	0.183	5.95	D104.0	3.4	0.31	0.0	0.01	0.00	0.24	0.10	50	
62	14.51	14.50	33.111	24.626	332.4	0.223	5.95	102.3	3.4	0.30	0.0	0.01	0.00	0.31	0.17	62	15
75 ISL	13.36 D	13.33	33.133 D	24.883	308.1	0.266	5.97	D100.2	4.3	0.41	0.7	0.08	0.14	0.32	0.22	76	
76	13.18	13.17	33.144	24.924	304.2	0.267	5.96	99.8	4.4	0.42	0.7	0.08	0.15	0.32	0.22	77	14
87	12.66	12.64	33.189	25.062	291.3	0.300	5.78	95.7	5.4	0.56	2.7	0.37	0.22	0.28	0.21	88	13
100	11.71	11.70	33.245	25.285	270.3	0.337	5.33	86.6	7.2	0.79	7.2	0.13	0.00	0.16	0.13	101	12
112	10.83	10.81	33.311	25.496	250.4	0.368	4.79	76.4	10.4	1.07	11.9	0.03	0.00	0.12	0.12	113	11
125 ISL	10.10 D	10.08	33.424 D	25.711	230.0	0.401	4.26	D 66.8	15.2	1.37	16.8	0.02	0.00	0.08	0.08	126	
126	10.07	10.05	33.427	25.717	229.5	0.401	4.21	66.1	15.6	1.39	17.2	0.02	0.00	0.07	0.08	127	10
139	9.67	9.65	33.531	25.865	215.7	0.430	3.80	59.1	19.2	1.59	20.4	0.00	0.00	0.05	0.05	140	09
150 ISL	9.40 D	9.38	33.651 D	26.003	202.7	0.456	3.65	D 56.6	22.6	1.72	22.5	0.00	0.00	0.03	0.04	151	
170	8.92	8.90	33.825	26.217	182.8	0.492	2.96	45.4	28.7	1.96	26.4	0.00	0.00	0.00	0.02	171	08
200	8.61	8.59	33.942	26.358	169.9	0.545	2.45	37.3	33.8	2.14	29.0	0.00	0.00	0.00	0.02	202	07
230	8.20	8.18	34.011	26.475	159.2	0.594	2.12	32.0	38.9	2.29	30.9	0.00	0.00	0.00	0.00	232	06
250 ISL	8.01 D	7.99	34.040 D	26.526	154.7	0.629	1.94	D 29.1	41.6	2.36	31.9	0.00	0.00	0.00	0.00	252	
271	7.84	7.81	34.056	26.565	151.3	0.658	1.74	26.0	44.5	2.44	33.0	0.00	0.00	0.00	0.00	273	05
300 ISL	7.51 D	7.48	34.090 D	26.639	144.5	0.704	1.41	D 21.0	49.7	2.59	34.7	0.00	0.00	0.00	0.00	302	
320	7.35	7.32	34.113	26.681	140.9	0.729	1.17	17.3	53.2	2.69	35.8	0.00	0.00	0.00	0.00	323	04
381	6.74	6.70	34.162	26.804	129.8	0.811	0.76	11.1	63.6	2.91	38.3	0.00	0.00	0.00	0.00	384	03
400 ISL	6.62 D	6.58	34.165 D	26.823	128.2	0.841	0.73	D 10.6	66.4	2.95	38.9	0.00	0.00	0.00	0.00	403	
436	6.26	6.22	34.184	26.885	122.5	0.881	0.57	8.3	71.8	3.03	39.9	0.00	0.00	0.00	0.00	440	02
500 ISL	5.51 D	5.47	34.														

CALCOFI CRUISE 1207

STATION 90.0 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
30 44.7 N	123 19.5 W	14/07/2012	0021 UTC	4009 m	350	17 kn	350 05 07	2	1017.0 mb	17.2 c	16.0 c	22 m	8/8		ST	019	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.99	16.99	33.195	24.133	377.4	0.000	5.64	102.1	3.2	0.31	0.0	0.01	0.01	0.13	0.02	0	
3	16.99	16.99	33.195	24.133	377.5	0.011	5.64	102.0	3.2	0.31	0.0	0.01	0.01	0.13	0.02	3	20
10	16.98	16.98	33.194	24.134	377.7	0.038	5.65	102.1	3.1	0.31	0.0	0.01	0.01	0.13	0.03	10	19
20	16.12 D	16.11	33.167 D	24.314	360.9	0.075	5.86	D104.1	3.0	0.31	0.0	0.01	0.02	0.17	0.04	20	
24	15.87	15.87	33.142	24.350	357.5	0.089	5.85	103.5	3.0	0.31	0.0	0.01	0.03	0.18	0.05	24	18
30	15.52 D	15.51	33.076 D	24.380	354.9	0.111	5.93	D104.1	3.1	0.31	0.0	0.01	0.02	0.20	0.06	30	
40	15.27	15.26	33.071	24.431	350.3	0.146	5.91	103.2	3.4	0.31	0.0	0.01	0.00	0.22	0.07	40	17
50	15.07	15.06	33.098	24.496	344.5	0.180	5.94	103.4	3.3	0.31	0.0	0.01	0.00	0.28	0.12	50	16
64	14.23	14.22	33.092	24.670	328.2	0.228	5.99	102.5	3.6	0.35	0.1	0.02	0.05	0.36	0.19	65	15
75	13.84	13.83	33.104	24.760	319.9	0.263	5.95	101.0	4.0	0.41	0.7	0.05	0.32	0.32	0.21	76	14
87	13.44	13.43	33.125	24.859	310.8	0.301	5.86	98.7	4.4	0.49	1.3	0.13	0.59	0.27	0.17	88	13
99	12.84	12.83	33.192	25.030	294.8	0.337	5.73	95.2	5.2	0.63	3.5	0.64	0.22	0.18	0.13	100	12
100	12.84 D	12.79	33.196 D	25.040	293.9	0.342	5.77	D 95.8	5.4	0.64	3.8	0.60	0.20	0.18	0.12	101	
111	12.09	12.07	33.222	25.198	279.0	0.372	5.56	91.0	7.1	0.77	6.5	0.16	0.01	0.11	0.09	112	11
125	10.81	10.80	33.302	25.493	251.0	0.409	4.90	78.0	10.2	1.06	11.4	0.03	0.00	0.08	0.07	126	10
140	10.02	10.01	33.459	25.751	226.6	0.445	3.97	62.3	16.9	1.50	18.6	0.03	0.00	0.04	0.05	141	09
150	ISL 9.57 D	9.55	33.594 D	25.932	209.6	0.469	3.68	D 57.2	19.3	1.59	20.1	0.02	0.04	0.03	0.04	151	
170	9.18	9.16	33.732	26.103	193.6	0.507	3.53	54.3	24.1	1.77	23.1	0.00	0.11	0.01	0.02	171	08
200	8.84	8.82	33.848	26.249	180.3	0.563	3.18	48.7	28.3	1.89	25.4	0.00	0.00	0.00	0.03	202	07
231	8.54	8.52	33.966	26.388	167.7	0.617	2.57	39.1	34.2	2.12	28.4	0.00	0.01			233	06
250	ISL 8.22 D	8.19	33.982 D	26.450	162.0	0.652	2.74	D 41.4	37.1	2.17	29.3	0.00	0.00			252	
270	7.88	7.85	34.005	26.519	155.7	0.680	2.40	36.0	40.1	2.23	30.2	0.00	0.00			272	05
300	ISL 7.50 D	7.47	34.037 D	26.599	148.3	0.730	2.01	D 29.9	45.6	2.43	32.6	0.00	0.00			302	
321	7.47	7.43	34.077	26.636	145.2	0.756	1.53	22.7	49.4	2.57	34.2	0.00	0.04			324	04
381	6.82	6.79	34.126	26.764	133.6	0.840	0.98	14.3	60.1	2.82	37.3	0.00	0.00			384	03
400	ISL 6.60 D	6.56	34.138 D	26.804	129.9	0.870	0.89	D 12.9	63.4	2.88	38.0	0.00	0.00			403	
441	6.21	6.17	34.166	26.878	123.2	0.917	0.66	9.5	70.5	3.01	39.4	0.00	0.00			445	02
500	ISL 5.80 D	5.75	34.206 D	26.962	115.7	0.994	0.48	D 6.9	78.7	3.13	40.8	0.00	0.00			504	
516	5.70	5.65	34.219	26.984	113.7	1.006	0.41	5.9	80.9	3.16	41.2	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 90.0 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
30 24.0 N	124 0.1 W	13/07/2012	1821 UTC	4135 m	360	16 kn	360 05 05	2	1011.0 mb	17.7 c	16.0 c	33 m	8/8		ST	018	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.62	17.62	33.508	24.223	368.8	0.000	5.52	101.3	2.5	0.27	0.1	0.01	0.00	0.09	0.00	0	
2	A 17.62	17.62	33.508	24.223	368.9	0.007	5.52	101.2	2.5	0.27	0.1	0.01	0.00	0.09	0.00	2	22
2	17.62	17.62	33.507	24.222	368.9	0.007		99.2								2	23
10	17.61	17.61	33.505	24.223	369.2	0.037	5.57	102.1	2.5	0.26	0.0	0.01	0.00	0.07	0.02	10	21
19	A 17.61	17.61	33.505	24.225	369.4	0.070	5.53	101.4	2.5	0.27	0.0	0.01	0.01	0.08	0.02	19	20
20	ISL 17.61 D	17.61	33.503 D	24.223	369.6	0.074	5.56	D101.9	2.5	0.27	0.0	0.01	0.01	0.08	0.02	20	
24	A 17.61	17.61	33.506	24.226	369.5	0.089	5.54	101.5	2.5	0.26	0.0	0.01	0.00	0.08	0.01	24	19
30	ISL 17.61 D	17.60	33.503 D	24.224	369.8	0.112	5.56	D102.0	2.5	0.26	0.0	0.01	0.00	0.09	0.01	30	
35	17.60	17.60	33.506	24.228	369.7	0.129	5.53	101.4	2.5	0.26	0.0	0.01	0.00	0.10	0.01	35	18
46	A 17.05	17.04	33.432	24.305	362.7	0.170	5.67	102.8	2.6	0.27	0.0	0.01	0.00	0.13	0.01	46	17
50	ISL 16.99 D	16.97	33.438 D	24.326	360.8	0.186	5.68	D102.8	2.6	0.27	0.0	0.01	0.00	0.14	0.01	50	
61	16.62	16.61	33.468	24.433	351.0	0.223	5.72	102.9	2.5	0.26	0.0	0.01	0.00	0.14	0.02	61	16
75	ISL 16.22 D	16.22	33.520 D	24.563	339.1	0.274	5.77	D102.9	2.4	0.26	0.0	0.01	0.00	0.22	0.04	76	
76	16.22	16.20	33.521	24.567	338.7	0.275	5.74	102.4	2.4	0.26	0.0	0.01	0.00	0.22	0.05	77	15
90	A 15.22	15.20	33.457	24.742	322.4	0.321	5.82	101.7	2.6	0.29	0.0	0.01	0.00	0.35	0.09	91	14
100	ISL 14.06 D	14.05	33.450 D	24.983	299.6	0.354	5.65	D 96.4	3.2	0.34	0.5	0.04	0.02	0.29	0.18	101	
101	A 14.05	14.03	33.461	24.995	298.5	0.355	5.67	96.9	3.2	0.35	0.6	0.04	0.02	0.29	0.19	102	12
101	14.05	14.03	33.468	25.000	298.0	0.357		93.9								102	13
112	13.52	13.50	33.431	25.081	290.5	0.388	5.54	93.5	4.0	0.43	1.9	0.12	0.01	0.27	0.13	113	11
125	ISL 12.53 D	12.61	33.426 D	25.254	274.2	0.427	5.31	D 88.0	5.0	0.55	4.0	0.18	0.00	0.22	0.09	126	
126	12.50	12.49	33.436	25.285	271.2	0.427	5.34	88.3	5.1	0.56	4.2	0.18	0.00	0.22	0.09	127	10
145	11.14	11.12	33.419	25.527	248.4	0.477	4.71	75.7	10.3	1.00	11.3	0.03	0.00	0.01	0.02	146	09
150	ISL 11.12 D	11.09	33.419 D	25.532	248.0	0.492	4.74	D 76.0	11.7	1.09	12.7	0.02	0.00	0.02	0.03	151	
170	10.09	10.07	33.526	25.794	223.3	0.536	3.95	62.1	17.1	1.46	18.3	0.00	0.00	0.07	0.05	171	08
197	9.38	9.35	33.789	26.117	193.0	0.592	2.94	45.6	26.5	1.92	25.3	0.00	0.00	0.01	0.02	199	07
200	ISL 9.37 D	9.35	33.794 D	26.122	192.6	0.602	2.92	D 45.3	27.2	1.95	25.7	0.00	0.00	0.01	0.02	202	
231	9.08	9.05	34.018	26.345	172.0	0.655	1.91	29.5	34.5	2.25	29.5	0.00	0.00			233	06
250	ISL 9.02 D	8.98	34.085 D	26.410	166.3	0.691	1.56	D 24.0	36.8	2.35	30.4	0.00	0.01			252	
271	8.82	8.79	34.124	26.470	160.9	0.721	1.43	21.9	39.4	2.46	31.4	0.00	0.03			273	05
300	ISL 8.69 D	8.66	34.182 D	26.536	155.2	0.772	1.17	D 17.9	42.3	2.55	32.2	0.00	0.01			302	
320	8.54	8.50	34.186	26.564	152.9	0.798	1.08	16.5	44.3	2.61	32.7	0.00	0.00			323	04
382	7.95	7.91	34.121	26.604	149.9	0.892	0.90	13.5								385	03
400	ISL 7.75 D	7.73	34.201 D	26.692	141.7	0.922	0.85	D 12.8	53.3	2.76	35.2	0.00	0.00			403	
440	7.30	7.26	34.192	26.753	136.2	0.973	0.78	11.6	57.8	2.84	36.4	0.00	0.00			444	02
500	ISL 6.50 D	6.46	34.205 D	26.871	125.1	1.057	0.60	D 8.7	66.8	2.97	38.5	0.00	0.01			504	
516	6.47	6.42	34.210	26.881	124.5	1.072	0.57	8.2	69.3	3.01	39.0	0.00	0.01			520	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 0

CALCOFI CRUISE 1207

STATION 91.7 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
33 14.2 N	117 27.6 W	10/07/2012	1152 UTC	19 m		340 02 00									005		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.94	16.94	33.545	24.413	350.7	0.000	6.63	120.0	1.1	0.30	0.1	0.02	0.24	0.93	0.16	0	
2	16.94	16.94	33.545	24.413	350.8	0.007	6.63	120.1	1.1	0.30	0.1	0.02	0.24	0.93	0.16	2	05
4	16.13	16.13	33.533	24.591	333.9	0.017	6.80	121.1	1.1	0.32	0.0	0.02	0.23	1.12	0.16	5	06
10	12.70	12.70	33.493	25.286	267.8	0.032										10	03
10	12.70	12.70	33.492	25.285	267.9	0.032	6.27	104.1	2.1	0.59	1.7	0.09	0.55	1.62	0.20	10	02
15	12.24	12.23	33.503	25.383	258.7	0.045	5.62	92.5	4.4	0.83	5.3	0.17	1.61	1.30	0.31	15	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
32 57.0 N	117 18.6 W	10/07/2012	0706 UTC	78 m	340 01 kn			1014.0 mb	18.3 C	17.1 C					003		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.11	18.11	33.558	24.143	376.5	0.000	6.50	120.3	1.1	0.28	0.1	0.02	0.15	0.37	0.12	0	
2	18.11	18.11	33.558	24.142	376.6	0.008	6.50	120.4	1.1	0.28	0.1	0.02	0.15	0.37	0.12	2	09
4	17.49	17.49	33.551	24.288	362.8	0.015	6.67	122.1	1.0	0.30	0.2	0.02	0.41	0.42	0.11	4	08
9	13.97	13.96	33.477	25.019	293.3	0.031	6.69	114.0	1.3	0.38	0.3	0.03	0.08	0.93	0.18	9	07
10 ISL	13.40 D	13.38	33.488 D	25.147	281.1	0.035	6.54	D110.2	2.2	0.46	1.4	0.05	0.12	1.00	0.23	10	
20	11.39	11.39	33.516	25.551	242.8	0.060	4.48	72.4	11.0	1.27	12.8	0.29	0.54	1.75	0.67	20	06
29	11.01	11.01	33.559	25.653	235.4	0.082	3.83	61.4	14.8	1.53	16.4	0.29	1.28	1.08	0.61	29	05
30 ISL	11.01 D	11.01	33.560 D	25.654	235.4	0.085	3.85 D	61.8	15.2	1.55	16.7	0.29	1.25	1.03	0.59	30	
39	10.53	10.52	33.609	25.778	221.8	0.105	3.45	54.7	19.0	1.68	19.2	0.25	1.02	0.56	0.45	39	04
50	10.11	10.10	33.656	25.887	211.7	0.128	3.34	52.5	21.2	1.74	20.7	0.16	1.26	0.34	0.32	50	03
60	10.03	10.02	33.727	25.956	205.3	0.149	2.99	46.9	24.3	1.84	22.4	0.13	1.71	0.09	0.22	60	02
70	10.01	10.01	33.748	25.975	203.7	0.170	2.91	45.6	24.9	1.88	22.9	0.12	1.64	0.08	0.18	71	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
32 55.1 N	117 23.8 W	03/07/2012	1506 UTC	610 m	160 05 kn	260 02 05	2	1013.0 mb	12.6 C	12.0 C					002		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0 ISL	18.05 D	18.10	33.586 D	24.161	374.7	0.001	6.40	D118.7									0
2	18.05	18.10	33.586 D	24.161	374.7	0.001	6.40	D118.7									2
10 ISL	15.69 D	15.72	33.536 D	24.687	324.9	0.004	6.85	D121.0									10
20 ISL	12.74 D	12.72	33.493 D	25.283	268.5		6.82	D113.4									20
30 ISL	11.84 D	11.82	33.502 D	25.462	251.7		4.97	D 81.1									30
50 ISL	10.49 D	10.48	33.625 D	25.798	220.1	0.030	3.49	D 55.4									50
75 ISL	9.82 D	9.80	33.778 D	26.033	198.3	0.083	2.99	D 46.8									76
100 ISL	9.55 D	9.54	33.907 D	26.178	185.1	0.131	2.55	D 39.7									101
125 ISL	9.23 D	9.22	33.960 D	26.271	176.8	0.177	2.40	D 37.2									126
150 ISL	9.37 D	9.35	34.091 D	26.353	169.6	0.220	1.85	D 28.8									151
200 ISL	9.38 D	9.36	34.268 D	26.491	157.7	0.303	0.99	D 15.4									202
250 ISL	9.21 D	9.18	34.308 D	26.551	153.0	0.381	0.85	D 13.2									252
300 ISL	8.58 D	8.54	34.255 D	26.613	147.9	0.457	0.90	D 13.8									302
400 ISL	7.77 D	7.72	34.286 D	26.760	135.3	0.600	0.60	D 9.0									403
500 ISL	6.82 D	6.77	34.316 D	26.918	121.2	0.729	0.32	D 4.6									504
516	6.71	6.66	34.320	26.936	119.6	0.749	0.33	D 4.9									520 01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 30.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD		
32 50.6 N	117 32.0 W	03/07/2012	1059 UTC	837 m				1012.5 mb							001		
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.76	18.75	33.586	24.004	389.8	0.000	6.08	114.4	0.7	0.21	0.0	0.03	0.03	0.33	0.09	0	
3	18.76	18.75	33.586	24.004	389.8	0.012	6.08	113.9	0.7	0.21	0.0	0.03	0.03	0.33	0.09	3	20
10	17.11	17.11	33.546	24.375	354.7	0.038	7.09	128.8	1.4	0.35	0.0	0.04	0.40	0.72	0.14	10	19
20 ISL	13.93 D	13.92	33.449 D	25.006	294.8	0.071	6.47	D110.3	1.7	0.34	0.1	0.07	0.24	1.33	0.35	20	
21	13.76	13.76	33.468	25.055	290.2	0.073	6.53	110.9	1.7	0.34	0.1	0.07	0.22	1.40	0.37	21	18
30 ISL	12.34 D	12.34	33.458 D	25.329	264.3	0.099	5.30	D 87.4	6.2	0.84	6.2	0.23	0.47	1.91	0.70	30	
31	12.24	12.24	33.468	25.355	261.8	0.101	5.35	88.0	6.7	0.90	6.9	0.25	0.50	1.96	0.73	31	17
40	11.23	11.22	33.507	25.574	241.2	0.123	4.26	68.5	13.4	1.35	15.1	0.48	0.90	0.49	0.33	40	16
49	10.60	10.59	33.609	25.765	223.2	0.144	3.47	55.2	18.5	1.64	20.0	0.17	1.19	0.29	0.41	49	15
50 ISL	10.54 D	10.54	33.609 D	25.775	222.3	0.148	3.48	D 55.2	18.7	1.65	20.2	0.17	1.18	0.28	0.38	50	
59	10.27	10.27	33.666	25.867	215.8	0.166	3.29	52.0	20.7	1.73	21.5	0.14	0.06	0.16	0.15	59	14
70	10.02	10.01	33.733	25.963	204.9	0.189	3.12	49.0	23.2	1.83	23.1	0.12	0.12	0.10	0.14	71	13
75 ISL	9.98 D	9.98	33.748 D	25.979	203.5	0.201	3.04	47.7	25.1	1.93	24.1	0.11	0.12	0.08	0.13	76	
85	10.02	10.01	33.881	26.079	194.2	0.219	2.23	35.1	29.0	2.12	26.0	0.10	0.13	0.04	0.12	86	12
100	9.69	9.68	33.944	26.183	184.6	0.248	2.22	34.7	30.2	2.15	26.6	0.11	0.18	0.02	0.10	101	11
120	9.70	9.69	34.022	26.243	179.4	0.284	1.96	30.6	32.2	2.24	27.5	0.10	0.15	0.02	0.09	121	10
125 ISL	9.63 D	9.62	34.030 D	26.261	177.8	0.295	1.91	D 29.7	32.8	2.27	27.8	0.10	0.27	0.02	0.09	126	
140	9.64	9.63	34.113	26.325	172.1	0.319	1.71	26.6	34.6	2.37	28.6	0.11	0.61	0.03	0.10	141	09
150 ISL	9.42 D	9.40	34.096 D	26.349	170.0	0.339	1.75	D 27.2	35.1	2.37	28.8	0.1					

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STATION 93.3 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 40.8 N	117 52.0 W	10/07/2012	1731 UTC	629 m	260	08 kn	260 02 05	1	1014.0 mb	20.0 C	18.3 C	22 m	6/8		AS	006	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	18.65	18.65	33.576	24.024	387.8	0.000	5.55	103.8	2.4	0.29	0.0	0.02	0.13	0.13	0.02	0	
2 A	18.65	18.65	33.576	24.024	387.9	0.008	5.55	103.9	2.4	0.29	0.0	0.02	0.13	0.13	0.02	2	22
10 ISL	18.03 D	18.06	33.558 D	24.156	375.6	0.039	5.58	D103.3	2.4	0.30	0.1	0.02	0.22	0.15	0.03	10	
13 A	17.82	17.81	33.555	24.212	370.3	0.050	5.64	103.8	2.5	0.31	0.1	0.02	0.25	0.15	0.03	13	21
16 A	17.39	17.39	33.533	24.299	362.2	0.061	5.78	105.5	2.4	0.33	0.1	0.01	0.30	0.17	0.04	16	20
20 ISL	16.36 D	16.35	33.508 D	24.523	341.0	0.075	5.95	D106.5	2.6	0.34	0.1	0.01	0.27	0.18	0.04	20	
24	15.29	15.29	33.434	24.704	323.8	0.088	6.23	109.1	2.8	0.35	0.0	0.01	0.23	0.18	0.05	24	19
30 ISL	13.36 D	13.36	33.368 D	25.059	290.1	0.107	6.17	D103.8	4.3	0.43	0.9	0.04	0.07	0.73	0.31	30	
31 A	13.35	13.35	33.372	25.064	289.6	0.109	6.10	102.7	4.6	0.44	1.0	0.05	0.04	0.83	0.36	31	18
41	12.22	12.21	33.366	25.281	269.2	0.137	5.29	86.9	6.9	0.75	6.4	0.19	0.14	0.33	0.34	41	17
50 ISL	11.87 D	11.88	33.414 D	25.381	259.9	0.162	4.88	D 79.6	8.5	0.92	9.4	0.23	0.42	0.31	0.22	50	
51	11.77	11.77	33.417	25.407	257.5	0.164	4.87	79.3	8.7	0.94	9.7	0.23	0.45	0.30	0.20	51	16
60 A	11.32	11.31	33.448	25.513	247.5	0.186	4.53	73.0	11.2	1.09	12.4	0.19	0.04	0.25	0.21	60	15
68 A	11.16	11.15	33.457	25.549	244.3	0.206	4.45	71.5	11.7	1.13	12.9	0.19	0.11	0.21	0.20	68	14
75	10.70	10.69	33.539	25.694	230.6	0.223	3.95	62.9	15.6	1.39	16.8	0.09	0.16	0.15	0.13	76	13
85	10.45	10.44	33.605	25.790	221.7	0.245	3.60	56.9	18.5	1.55	19.2	0.05	0.13	0.10	0.12	86	12
100	10.12	10.11	33.736	25.949	207.0	0.277	3.06	48.2	22.7	1.79	22.4	0.04	0.03	0.04	0.06	101	11
120	9.81	9.80	33.911	26.138	189.4	0.317	2.46	38.5	28.0	2.04	25.5	0.03	0.00	0.01	0.03	121	10
125 ISL	9.78 D	9.77	33.936 D	26.163	187.2	0.329	2.43	D 37.9	29.1	2.08	26.0	0.02	0.03	0.01	0.03	126	
141	9.62	9.60	34.054	26.282	176.2	0.355	2.01	31.4	32.7	2.22	27.4	0.00	0.13	0.01	0.04	142	09
150 ISL	9.79 D	9.76	34.173 D	26.349	170.1	0.374	1.79	D 28.0	33.6	2.25	27.8	0.00	0.10	0.01	0.04	151	
172	9.30	9.28	34.146	26.408	164.9	0.408	1.74	27.0	35.8	2.33	28.7	0.00	0.02	0.01	0.03	173	08
200	9.10	9.07	34.227	26.505	156.2	0.453	1.35	20.8	39.6	2.48	30.1	0.00	0.06	0.00	0.04	202	07
229	9.03	9.00	34.254	26.537	153.8	0.498	1.19	18.4	41.1	2.54	30.5	0.00	0.00			231	06
250 ISL	8.59 D	8.58	34.215 D	26.574	150.5	0.534	1.28	D 19.5	43.4	2.58	31.5	0.00	0.02			252	
271	8.43	8.41	34.234	26.616	146.9	0.561	1.13	17.2	45.7	2.62	32.4	0.00	0.03			273	05
300 ISL	8.53 D	8.49	34.336 D	26.683	141.2	0.607	0.56	D 8.5	49.1	2.72	33.3	0.00	0.15			302	
318	8.11	8.08	34.273	26.697	140.0	0.628	0.75	11.4	51.3	2.78	33.9	0.00	0.23			321	04
380	7.70	7.66	34.290	26.771	133.8	0.713	0.58	8.7	56.5	2.89	35.5	0.00	0.01			383	03
400 ISL	7.66 D	7.62	34.287 D	26.775	133.7	0.746	0.58	D 8.7	57.9	2.92	35.9	0.00	0.05			403	
442	7.35	7.31	34.299	26.830	129.0	0.795	0.49	7.2	60.9	2.97	36.7	0.00	0.13			446	02
500 ISL	6.89 D	6.84	34.317 D	26.909	122.1	0.875	0.35	D 5.2	68.2	3.07	38.3	0.00	0.08			504	
517	6.69	6.64	34.326	26.943	118.9	0.888	0.34	5.0	70.3	3.10	38.8	0.00	0.07			521	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 40.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 30.8 N	118 12.6 W	10/07/2012	2221 UTC	1686 m	250	17 kn	140 03 06	1	1010.0 mb	18.8 C	17.1 C	15 m	6/8		AS	007	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.78	17.78	33.567	24.230	368.2	0.000	5.64	104.2	1.9	0.31	0.0	0.02	0.02	0.21	0.04	0	
2	17.78	17.78	33.567	24.229	368.3	0.007	5.64	103.8	1.9	0.31	0.0	0.02	0.02	0.21	0.04	2	21
10	17.42	17.42	33.564	24.314	360.5	0.037										10	20
10	17.42	17.42	33.564	24.314	360.5	0.037	5.68	103.7	1.8	0.33	0.0	0.01	0.03	0.24	0.04	10	19
20 ISL	14.91 D	14.92	33.604 D	24.915	303.6	0.070	5.85	D101.8	3.8	0.59	3.6	0.13	0.37	0.68	0.22	20	
21	14.92	14.92	33.604	24.915	303.6	0.073	5.67	98.6	4.0	0.62	4.0	0.14	0.40	0.73	0.24	21	18
30 ISL	12.78 D	12.78	33.508 D	25.282	268.8	0.099	5.48	D 91.1	5.3	0.93	7.3	0.62	1.08	0.66	0.27	30	
31	12.77	12.77	33.513	25.289	268.2	0.101	5.45	90.6	5.4	0.96	7.7	0.67	1.16	0.65	0.27	31	17
40	12.61	12.60	33.612	25.397	258.2	0.125	5.18	85.9	6.0	1.11	9.3	0.95	1.45	0.32	0.21	40	16
49	11.93	11.92	33.569	25.494	249.1	0.148	4.77	77.9	9.1	1.20	12.3	0.68	0.33	0.20	0.18	49	15
50 ISL	11.83 D	11.82	33.533 D	25.485	250.0	0.151	4.72	D 77.0	9.4	1.21	12.6	0.63	0.30	0.19	0.17	50	
61	10.72	10.72	33.468	25.635	235.9	0.177	4.34	69.1	13.7	1.28	15.6	0.04	0.00	0.09	0.08	61	14
69	10.21	10.21	33.531	25.772	223.0	0.195	3.99	62.8	16.7	1.45	18.3	0.03	0.00	0.05	0.06	70	13
75 ISL	10.09 D	10.08	33.562 D	25.817	218.8	0.210	3.96	D 62.3	18.1	1.52	19.4	0.03	0.00	0.04	0.06	76	
85	9.75	9.74	33.622	25.922	209.1	0.230	3.64	56.7	20.5	1.63	21.1	0.03	0.00	0.03	0.05	86	12
100	9.49	9.48	33.714	26.037	198.4	0.261	3.26	50.6	23.8	1.80	23.6	0.00	0.00	0.02	0.03	101	11
120	9.21	9.20	33.831	26.173	185.9	0.299	2.87	44.3	28.0	1.97	26.0	0.00	0.00	0.01	0.04	121	10
125 ISL	9.17 D	9.15	33.860 D	26.205	183.0	0.310	2.86	D 44.1	29.1	2.01	26.5	0.00	0.00	0.01	0.04	126	
140	8.86	8.85	33.960	26.330	171.3	0.335	2.45	37.6	32.5	2.11	28.0	0.00	0.00	0.00	0.04	141	09
150 ISL	8.75 D	8.74	33.980 D	26.364	168.3	0.354	2.70	D 41.3	33.5	2.12	28.2	0.00	0.00	0.00	0.03	151	
170	8.62	8.61	34.034	26.427	162.8	0.385	2.39	36.4	35.6	2.14	28.7	0.00	0.00	0.00	0.02	171	08
200	8.66	8.64	34.097	26.471	159.2	0.433	1.99	30.3	38.5	2.28	29.9	0.00	0.00	0.00	0.03	202	07
230	8.73	8.71	34.234	26.569	150.6	0.480	1.19	18.2	43.2	2.55	31.4	0.00	0.00			232	06
250 ISL	8.44 D	8.41	34.237 D	26.616	146.4	0.512	1.11	D 16.9	45.7	2.61	32.3	0.00	0.00			252	
270	8.21	8.19	34.251	26.662	142.4	0.538	0.96	14.5	48.2	2.66	33.1	0.00	0.00			272	05
300 ISL	8.12 D	8.09	34.289 D	26.707	138.6	0.584	0.75	D 11.4	52.3	2.74	34.5	0.00	0.00			302	
320	7.51	7.48	34.226	26.747	134.8	0.608	0.82	12.2	55.1	2.79	35.5	0.00	0.00			323	04
380	7.09	7.06	34.248	26.824	128.3	0.687	0.61	8.9	61.9	2.93	37.4	0.00	0.00			383	03
400 ISL	6.87 D	6.83	34.242 D	26.850	125.9	0.717	0.56	D 8.1	64.0	2.96	37.9	0.00	0.00			403	
440	6.62	6.58	34.252	26.891	122.4	0.762	0.49	7.1	68.3	3.02	38.9	0.00	0.00			444	02
500 ISL	6.37 D	6.32	34.319 D	26.980	114.8	0.839	0.31	D 4.5	73.8	3.13	39.8	0.00	0.00			504	
516	6.35	6.30	34.340	26.998	113.3	0.851	0.23	3.4	75.3	3.16	40.1	0.00	0.00			520	01

D) CTD DATA USED

CALCOFI CRUISE 1207

STATION 93.3 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 20.7 N	118 32.9 W	11/07/2012	0259 UTC	1394 m	290	18 kn	270 05 07	2	1012.5 mb	15.9 c	15.2 c		8/8		ST	008	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.75	16.75	33.631	24.524	340.1	0.000	5.78	104.4	1.6	0.36	0.6	0.05	0.13	0.35	0.07	0	
2	16.75	16.75	33.631	24.524	340.2	0.007	5.78	104.4	1.6	0.36	0.6	0.05	0.13	0.35	0.07	2	21
10	16.70	16.69	33.632	24.538	339.2	0.033										10	20
10 ISL	16.70 D	16.68	33.637 D	24.544	338.5	0.034	5.83	105.1	1.6	0.36	0.6	0.05	0.11	0.34	0.07	10	
11	16.60	16.59	33.633	24.562	336.9	0.037	5.88	105.7	1.6	0.36	0.6	0.05	0.11	0.34	0.07	11	19
20	16.54	16.53	33.650	24.588	334.7	0.068	5.87	105.5	0.8	0.35	0.6	0.06	0.08	0.53	0.08	20	18
30	15.10	15.10	33.650	24.912	304.2	0.100	5.95	104.0	0.2	0.32	0.3	0.05	0.04	0.87	0.18	30	17
40	12.76	12.76	33.589	25.349	262.7	0.128	5.39	89.8	5.5	1.00	8.2	0.82	1.15	0.83	0.35	40	16
50 ISL	12.23 D	12.22	33.626 D	25.481	250.4	0.155	4.80	79.1	8.4	1.22	11.9	0.92	0.92	0.62	0.33	50	
51	12.21	12.21	33.624	25.483	250.3	0.156	4.84	79.7	8.6	1.24	12.3	0.93	0.90	0.60	0.33	51	15
60	10.96	10.96	33.605	25.699	229.9	0.178	4.06	65.0	15.1	1.48	17.9	0.06	0.00	0.16	0.12	60	14
70	10.72	10.71	33.625	25.759	224.3	0.200	3.82	60.8	17.2	1.59	19.5	0.05	0.17	0.11	0.11	71	13
75 ISL	10.40 D	10.39	33.689 D	25.864	214.5	0.212	3.68	58.3	19.5	1.67	20.9	0.05	0.13	0.09	0.10	76	
85	9.93	9.92	33.768	26.006	201.1	0.232	3.00	47.0	24.0	1.83	23.6	0.05	0.04	0.05	0.07	86	12
100	9.82	9.80	33.802	26.052	197.1	0.262	2.86	44.8	25.3	1.89	24.2	0.04	0.00	0.03	0.06	101	11
120	9.53	9.52	33.873	26.154	187.8	0.301	2.65	41.2	27.7	1.98	25.5	0.03	0.05	0.02	0.05	121	10
125 ISL	9.29 D	9.27	33.958 D	26.261	177.7	0.311	2.44	37.8	28.9	2.05	26.1	0.02	0.07	0.02	0.05	126	
140	9.14	9.12	33.988	26.309	173.4	0.336	2.31	35.6	32.4	2.27	27.8	0.00	0.12	0.01	0.04	141	09
150 ISL	8.84 D	8.82	34.029 D	26.389	166.0	0.355	2.17	33.3	34.3	2.33	28.6	0.00	0.12	0.01	0.04	151	
170	8.74	8.72	34.094	26.456	160.0	0.386	1.80	27.6	38.2	2.46	30.2	0.00	0.11	0.01	0.04	171	08
200	8.67	8.65	34.187	26.540	152.7	0.432	1.38	21.1	41.8	2.48	31.3	0.00	0.00	0.00	0.03	202	07
230	8.58	8.55	34.250	26.605	147.1	0.477	0.99	15.2	45.3	2.62	32.3	0.00	0.10			232	06
250 ISL	8.32 D	8.29	34.253 D	26.648	143.3	0.510	0.93	14.1	48.0	2.70	33.1	0.00	0.09			252	
271	8.14	8.11	34.280	26.696	139.1	0.536	0.74	11.2	50.9	2.78	33.9	0.00	0.08			273	05
300 ISL	7.87 D	7.84	34.284 D	26.740	135.3	0.580	0.66	9.9	53.7	2.82	34.7	0.00	0.03			302	
320	7.74	7.70	34.287	26.762	133.6	0.603	0.62	9.2	55.6	2.85	35.2	0.00	0.00			323	04
380	7.23	7.19	34.295	26.842	126.6	0.681	0.48	7.1	61.9	2.97	36.9	0.00	0.00			383	03
400 ISL	7.05 D	7.01	34.296 D	26.867	124.5	0.711	0.44	6.5	64.4	3.01	37.5	0.00	0.00			403	
441	6.76	6.72	34.334	26.938	118.2	0.756	0.30	4.3	69.6	3.10	38.6	0.00	0.00			445	02
500 ISL	6.38 D	6.33	34.340 D	26.995	113.3	0.830	0.25	3.6	74.5	3.15	39.8	0.00	0.00			504	
517	6.30	6.25	34.344	27.008	112.3	0.843	0.23	3.4	75.9	3.16	40.1	0.00	0.00			521	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 50.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 10.6 N	118 52.0 W	11/07/2012	0732 UTC	1429 m	290	16 kn			1013.0 mb	16.0 c	15.0 c					009	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.12	16.12	33.634	24.672	326.1	0.000	5.94	105.8	0.6	0.36	0.6	0.05	0.08	1.46	0.15	0	
2	16.12	16.12	33.634	24.671	326.2	0.007	5.94	105.8	0.6	0.36	0.6	0.05	0.08	1.46	0.15	2	20
10	16.12	16.11	33.632	24.670	326.5	0.033	5.93	105.8	0.5	0.34	0.5	0.05	0.03	1.41	0.16	10	19
20	14.77	14.77	33.624	24.963	299.0	0.064	5.89	102.1	1.5	0.42	1.5	0.09	0.06	1.10	0.15	20	18
29	13.12	13.12	33.403	25.134	282.9	0.090	5.66	94.8	4.9	0.74	5.6	0.43	0.23	0.62	0.20	29	17
30 ISL	12.78 D	12.76	33.387 D	25.192	277.4	0.094	5.68	94.4	5.2	0.77	6.0	0.45	0.22	0.60	0.20	30	
38	12.00	12.00	33.387	25.338	263.6	0.115	5.33	87.2	7.3	0.98	9.3	0.61	0.12	0.40	0.16	38	16
48	11.70	11.70	33.460	25.452	253.1	0.140	5.09	82.7	9.3	1.12	11.7	0.54	0.00	0.17	0.10	48	15
50 ISL	11.63 D	11.63	33.487 D	25.485	249.9	0.147	5.08	82.5	9.5	1.15	11.9	0.52	0.17	0.16	0.10	50	
60	11.38	11.38	33.543	25.575	241.7	0.170	4.82	77.8	11.0	1.28	13.0	0.40	1.02	0.10	0.09	60	14
69	11.38	11.37	33.609	25.627	237.0	0.191	4.60	74.3	13.4	1.43	14.8	0.47	1.42	0.08	0.10	70	13
75 ISL	11.27 D	11.26	33.633 D	25.666	233.4	0.207	4.55	73.3	14.8	1.48	16.2	0.42	0.99	0.07	0.09	76	
86	10.64	10.63	33.614	25.764	224.3	0.231	4.02	63.9	17.3	1.58	18.7	0.33	0.21	0.05	0.07	87	12
99	10.09	10.08	33.690	25.919	209.8	0.259	3.29	51.7	21.8	1.77	22.4	0.04	0.00	0.06	0.07	100	11
100 ISL	10.07 D	10.04	33.699 D	25.932	208.5	0.263	3.25	51.0	22.1	1.78	22.6	0.04	0.00	0.06	0.07	101	
120	9.61	9.59	33.852	26.126	190.5	0.301	2.64	41.1	27.7	2.04	26.0	0.00	0.09	0.02	0.04	121	10
125 ISL	9.54 D	9.52	33.897 D	26.173	186.1	0.313	2.63	40.9	28.9	2.07	26.4	0.00	0.07	0.02	0.04	126	
139	9.29	9.28	33.999	26.293	175.0	0.336	2.24	34.7	32.1	2.17	27.7	0.00	0.00	0.01	0.03	140	09
150 ISL	9.17 D	9.15	34.039 D	26.345	170.3	0.357	2.14	33.0	33.8	2.21	28.4	0.00	0.00	0.00	0.03	151	
170	8.76	8.75	34.060	26.425	162.9	0.388	2.01	30.8	36.7	2.27	29.6	0.00	0.00	0.00	0.04	171	08
200 ISL	8.53 D	8.50	34.131 D	26.519	154.6	0.439	1.48	22.5	41.9	2.47	31.8	0.00	0.00	0.00	0.05	202	
201	8.52	8.50	34.130	26.520	154.6	0.437	1.46	22.3	42.1	2.48	31.9	0.00	0.00	0.00	0.05	203	07
232	8.31	8.29	34.216	26.619	145.7	0.484	1.06	16.1	47.1	2.67	33.2	0.00	0.00			234	06
250 ISL	8.16 D	8.14	34.240 D	26.661	142.0	0.514	0.95	14.3	48.9	2.71	33.7	0.00	0.00			252	
273	8.02	7.99	34.245	26.687	139.9	0.542	0.86	13.0	51.2	2.76	34.3	0.00	0.00			275	05
300 ISL	7.65 D	7.62	34.266 D	26.757	133.6	0.583	0.69	10.3	55.3	2.85	35.4	0.00	0.00			302	
320	7.45	7.42	34.271	26.791	130.6	0.605	0.61	9.1	58.4	2.91	36.2	0.00	0.00			323	04
380	7.06	7.02	34.309	26.877	123.2	0.681	0.40	5.8	65.2	3.05	37.7	0.00	0.00			383	03
400 ISL	6.95 D	6.90	34.325 D	26.906	120.7	0.712	0.33	4.8	67.5	3.07	38.3	0.00	0.00			403	
439	6.54	6.50	34.305	26.944	117.3	0.752	0.34	5.0	71.9	3.11	39.4	0.00	0.00			443	02
500 ISL	6.32 D	6.27	34.332 D	26.996	113.2	0.830	0.27	3.9	76.2	3.16	40.3	0.00	0.00			504	
517	6.21	6.16	34.340	27.017	111.3	0.842	0.24	3.4	77.4	3.17	40.5	0.00	0.00			521	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 55.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
32 0.9 N	119 13.2 W	11/07/2012	1211 UTC	1578 m	290	10 kn			1013.5 mb	16.0 C	14.5 C					010	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.66	15.66	33.603	24.752	318.5	0.000	5.88	104.0	2.3	0.47	2.0	0.09	0.20	0.83	0.16	0	
2	15.66	15.66	33.603	24.751	318.5	0.006	5.88	103.9	2.3	0.47	2.0	0.09	0.20	0.83	0.16	2	21
10	15.66	15.65	33.612	24.759	318.1	0.032										10	20
10	15.66	15.65	33.603	24.752	318.7	0.032	5.84	103.2	2.3	0.47	1.9	0.09	0.35	0.85	0.17	10	19
20	15.64	15.64	33.601	24.754	318.9	0.064	5.84	103.2	2.3	0.46	1.8	0.09	0.14	0.90	0.17	20	18
29	15.35	15.35	33.594	24.814	313.4	0.092	5.81	101.9	2.6	0.52	2.6	0.12	0.37	0.85	0.17	29	17
30 ISL	15.32 D	15.32	33.604 D	24.829	312.1	0.096	5.65 D	99.2	2.8	0.56	3.0	0.13	0.53	0.84	0.18	30	
40	13.71	13.71	33.684	25.232	273.9	0.125	5.34	90.7	5.2	0.96	7.1	0.22	2.09	0.76	0.27	40	16
50	11.48	11.47	33.625	25.622	237.0	0.150	4.74	76.8	11.6	1.37	13.3	0.53	1.87	0.16	0.12	50	15
58	11.19	11.18	33.618	25.669	232.6	0.169	4.55	73.3	13.8	1.43	15.6	0.50	0.87	0.06	0.07	58	14
69	10.47	10.46	33.550	25.742	225.9	0.194	4.14	65.6	16.2	1.47	18.1	0.10	0.04	0.05	0.06	70	13
75 ISL	10.15 D	10.14	33.572 D	25.815	219.0	0.209	4.09 D	64.3	17.9	1.55	19.5	0.07	0.04	0.05	0.06	76	
84	9.95	9.94	33.633	25.897	211.4	0.227	3.55	55.6	20.5	1.67	21.6	0.03	0.03	0.03	0.05	85	12
100	9.44	9.43	33.797	26.109	191.6	0.259	2.96	45.9	26.6	1.97	25.5	0.03	0.00	0.02	0.06	101	11
121	9.10	9.08	33.930 D	26.270	176.7	0.298	2.72 D	45.4								122	10
125 ISL	8.96 D	8.94	33.920 D	26.283	175.5	0.307	2.65 D	40.6	31.4	2.14	27.6	0.01	0.00	0.01	0.05	126	
140	9.06	9.04	34.036	26.359	168.7	0.331	2.09	32.2	34.3	2.24	28.8	0.00	0.00	0.01	0.04	141	09
150 ISL	9.00 D	8.99	34.083 D	26.405	164.5	0.350	2.00 D	30.7	35.7	2.29	29.2	0.00	0.00	0.01	0.04	151	
170	8.90	8.88	34.140	26.467	159.1	0.380	1.69	25.9	38.4	2.38	30.0	0.00	0.00	0.01	0.03	171	08
200 ISL	8.56 D	8.54	34.139 D	26.520	154.6	0.430	1.57 D	24.0	41.4	2.46	31.3	0.00	0.03	0.00	0.04	202	
201	8.57	8.55	34.139	26.518	154.8	0.428	1.58	24.1	41.5	2.46	31.3	0.00	0.03	0.00	0.04	203	07
230	8.30	8.28	34.177	26.589	148.5	0.472	1.27	19.3	45.2	2.60	32.8	0.00	0.00			232	06
250 ISL	8.13 D	8.10	34.208 D	26.641	143.9	0.505	1.02 D	15.4	48.5	2.70	33.6	0.00	0.00			252	
270	8.03	8.00	34.265	26.700	138.6	0.530	0.72	10.9	51.8	2.79	34.4	0.00	0.00			272	05
300 ISL	7.61 D	7.58	34.241 D	26.743	134.9	0.575	0.76 D	11.4	54.8	2.84	35.2	0.00	0.00			302	
319	7.60	7.57	34.265	26.764	133.2	0.596	0.65	9.7	56.8	2.87	35.7	0.00	0.00			322	04
381	7.02	6.98	34.290	26.867	124.1	0.676	0.45	6.6	64.3	3.03	37.7	0.00	0.00			384	03
400 ISL	6.98 D	6.94	34.298 D	26.879	123.3	0.705	0.41 D	6.1	66.2	3.06	38.0	0.00	0.01			403	
442	6.75	6.71	34.337	26.941	117.9	0.750	0.27	4.0	70.3	3.14	38.8	0.00	0.03			446	02
500 ISL	6.22 D	6.18	34.337 D	27.012	111.6	0.823	0.25 D	3.6	76.7	3.20	40.2	0.00	0.07			504	
520	6.16	6.11	34.348	27.029	110.2	0.839	0.22	3.2	78.9	3.22	40.7	0.00	0.09			524	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 50.4 N	119 33.5 W	11/07/2012	1718 UTC	1974 m	290	18 kn	290 03 04	2	1014.0 mb	16.0 C	15.5 C	13 m		8/8	ST	011	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.22	16.22	33.631	24.646	328.6	0.000	5.81	104.9	2.2	0.43	1.6	0.06	0.13	0.62	0.10	0	
2 A	16.22	16.22	33.631	24.645	328.6	0.007	5.81	103.8	2.2	0.43	1.6	0.06	0.13	0.62	0.10	2	22
8 A	16.21	16.21	33.631	24.648	328.6	0.026	5.80	103.5	2.2	0.41	1.5	0.06	0.04	0.63	0.08	8	21
10 A	16.21	16.21	33.631	24.648	328.7	0.033	5.80	103.6	2.2	0.41	1.5	0.06	0.14	0.81	0.01	10	20
18 A	16.18	16.18	33.630	24.655	328.3	0.059	5.80	103.5	2.2	0.42	1.5	0.06	0.03	0.65	0.13	18	19
20 ISL	16.18 D	16.17	33.632 D	24.658	328.1	0.066	5.80 D	103.6	2.3	0.42	1.5	0.06	0.04	0.66	0.11	20	
26	16.11	16.10	33.650	24.689	325.4	0.085	5.79	103.1	2.4	0.42	1.5	0.06	0.06	0.66	0.07	26	18
30 ISL	15.54 D	15.52	33.650 D	24.819	313.0	0.099	5.81 D	102.4	3.1	0.52	2.6	0.09	0.40	0.74	0.16	30	
36 A	14.80	14.79	33.647	24.977	298.2	0.117	5.67	98.5	4.1	0.68	4.3	0.14	0.91	0.85	0.29	36	17
40 A	14.07	14.07	33.634	25.120	284.7	0.128	5.51	94.3	5.2	0.84	5.9	0.22	1.58	0.98	0.18	40	16
50	12.46	12.45	33.608	25.424	255.9	0.155	5.13	84.9	7.9	1.09	9.4	0.40	1.76	0.47	0.16	50	15
60	11.19	11.18	33.674	25.712	228.6	0.179	4.25	68.4	16.2	1.56	17.4	0.67	0.82	0.17	0.12	60	14
70	10.82	10.81	33.713	25.810	219.6	0.202	3.71	59.3	19.0	1.70	20.2	0.49	0.40	0.16	0.08	71	13
75 ISL	10.25 D	10.23	33.745 D	25.936	207.6	0.214	3.27 D	51.5	21.6	1.80	22.0	0.33	0.27	0.12	0.08	76	
85	9.70	9.69	33.812	26.077	194.3	0.233	2.81	43.8	26.7	1.99	25.6	0.00	0.00	0.04	0.07	86	12
100	9.60	9.59	33.858	26.131	189.5	0.261	2.55	39.7	28.9	2.07	26.8	0.00	0.00	0.03	0.08	101	11
120	9.27	9.26	33.913	26.229	180.7	0.298	2.32	35.9	31.6	2.16	28.0	0.00	0.00	0.02	0.08	121	10
125 ISL	9.18 D	9.15	33.921 D	26.251	178.6	0.309	2.28	35.1	32.3	2.18	28.4	0.00	0.01	0.01	0.08	126	
140	8.92	8.90	33.982	26.339	170.5	0.334	2.14	32.9	34.6	2.23	29.4	0.00	0.02	0.01	0.07	141	09
150 ISL	8.68 D	8.66	34.016 D	26.404	164.5	0.353	2.09 D	31.9	35.6	2.25	29.8	0.00	0.05	0.01	0.05	151	
171	8.45	8.43	34.025	26.447	160.8	0.385	2.10	31.8	37.7	2.28	30.5	0.00	0.10	0.01	0.03	172	08
200 ISL	8.10 D	8.08	34.068 D	26.533	153.1	0.433	1.83 D	27.6	42.0	2.38	32.0	0.00	0.00	0.00	0.02	202	
201	8.10	8.08	34.070	26.535	152.9	0.432	1.81	27.3	42.1	2.38	32.1	0.00	0.00	0.00	0.02	203	07
231	8.05	8.03	34.129	26.589	148.3	0.477	1.43	21.5	45.9	2.54	33.2	0.00	0.00			233	06
250 ISL	7.87 D	7.85	34.153 D	26.636	144.2	0.508	1.24 D	18.5	48.4	2.59	34.0	0.00	0.00			252	
270	7.61	7.59	34.146	26.667	141.4	0.533	1.20	17.8	51.1	2.64	34.8	0.00	0.00			272	05
300 ISL	7.65 D	7.62	34.229 D	26.729	136.2	0.579	0.82 D	12.2	54.4	2.80	35.3	0.00				302	
320	7.59	7.56	34.270	26.770	132.7	0.602	0.59	8.9	56.6	2.90	35.7	0.00	0.00			323	04
381	6.65	6.61	34.204	26.849	125.4	0.680	0.67	9.8	66.1	2.96	38.5	0.00	0.00			384	03
400 ISL	6.65 D	6.62	34.230 D	26.869	123.9	0.709	0.58 D	8.5	67.3	3.00	38.6	0.00	0.00			403	
440	6.69	6.65	34.302	26.922	119.6	0.753	0.34	5.0	69.8	3.09	38.8	0.00	0.00			444	02
500 ISL	6.12 D	6.07	34.278 D	26.979	114.5	0.829	0.36 D	5.2	76.9	3.15	40.5	0.00				504	
515	6.01	5.96	34.284	26.997	112.9	0.840	0.33	4.7	78.7	3.16	40.9	0.00	0.00			519	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 70.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 30.7 N	120 14.1 W	12/07/2012	0024 UTC	3918 m	300	18 kn	300 04 05	2	1013.0 mb	16.2 C	15.8 C	12 m	8/8		ST	012	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.18	16.18	33.467	24.529	339.7	0.000	5.94	105.9	0.8	0.36	0.5	0.04	0.10	0.58	0.10	0	
2	16.18	16.18	33.467	24.528	339.8	0.007	5.94	105.9	0.8	0.36	0.5	0.04	0.10	0.58	0.10	2	20
10	16.14	16.14	33.473	24.542	338.7	0.034	5.88	104.8	0.8	0.35	0.5	0.04	0.07	0.53	0.11	10	19
20	15.92	15.92	33.508	24.620	331.7	0.067	5.87	104.1	1.1	0.41	1.1	0.06	0.17	0.69	0.12	20	18
30	ISL 14.32 D	14.16	33.332 D	24.866	308.5	0.100	5.94	101.7	3.4	0.56	2.1	0.11	1.08	0.67	0.24	30	
31	13.70	13.59	33.270 D	24.936	301.8	0.103	5.86	99.4	3.6	0.57	2.2	0.11	1.17	0.66	0.26	31	17
40	12.86	12.86	33.229	25.051	291.1	0.129	5.86	97.6	7.4	0.78	5.4	0.33	1.06	0.36	0.23	40	16
50	12.31	12.30	33.265	25.187	278.4	0.158	5.65	93.0	7.3	0.85	6.9	0.50	1.00	0.26	0.19	50	15
60	12.31	12.30	33.485	25.357	262.5	0.185	5.36	88.2	5.6	0.97	8.4	0.77	0.90	0.27	0.25	60	14
70	11.49	11.48	33.501	25.524	246.8	0.210	4.95	80.1	10.4	1.21	13.0	0.55	0.00	0.09	0.12	71	13
75	ISL 11.22 D	11.20	33.525 D	25.593	240.4	0.224	4.89	D 78.7	11.7	1.28	14.2	0.39	0.00	0.07	0.11	76	
85	11.03	11.02	33.558	25.651	235.0	0.246	4.60	73.8	14.2	1.41	16.5	0.07	0.00	0.04	0.09	86	12
100	ISL 10.22 D	10.20	33.570 D	25.804	220.7	0.282	4.06	D 64.0	17.9	1.54	19.2	0.03	0.00	0.03	0.07	101	
101	10.19	10.18	33.568	25.806	220.5	0.283	4.01	63.1	18.2	1.55	19.4	0.03	0.00	0.03	0.07	102	11
122	9.35	9.33	33.647	26.008	201.6	0.327	3.55	54.9	22.8	1.73	22.8	0.02	0.00	0.02	0.03	123	10
125	ISL 9.28 D	9.24	33.671 D	26.042	198.4	0.335	3.53	D 54.4	23.3	1.74	23.0	0.02	0.00	0.01	0.03	126	
140	9.02	9.00	33.812	26.190	184.7	0.362	3.49	53.6	25.9	1.78	23.9	0.00	0.00	0.01	0.03	141	09
150	ISL 8.83 D	8.80	33.868 D	26.266	177.6	0.382	3.18	D 48.6	28.6	1.89	25.4	0.00	0.00	0.01	0.03	151	
170	8.58	8.56	33.973	26.386	166.6	0.414	2.57	39.1	34.1	2.10	28.5	0.00	0.00	0.00	0.04	171	08
199	8.69	8.67	34.091	26.462	160.0	0.462	1.83	28.0	38.7	2.35	30.4	0.00	0.00	0.00	0.03	201	07
200	ISL 8.67 D	8.65	34.091 D	26.465	159.8	0.466	1.83	D 27.9	38.8	2.35	30.4	0.00	0.00	0.00	0.03	202	
230	8.25	8.22	34.078	26.520	155.0	0.510	1.84	27.9	41.3	2.37	31.4	0.00	0.00			232	06
250	ISL 7.90 D	7.88	34.082 D	26.575	150.0	0.545	1.74	D 26.1	44.7	2.44	32.6	0.00	0.00			252	
271	7.60	7.57	34.088	26.624	145.5	0.572	1.59	23.7	48.2	2.52	33.8	0.00	0.00			273	05
300	ISL 7.32 D	7.29	34.124 D	26.693	139.3	0.618	1.22	D 18.1	53.2	2.66	35.3	0.00	0.00			302	
322	7.13	7.10	34.150	26.740	135.1	0.643	1.00	14.8	57.0	2.76	36.5	0.00	0.00			325	04
381	6.82	6.78	34.201	26.824	127.9	0.721	0.71	10.3	63.5	2.92	38.0	0.00	0.00			384	03
400	ISL 6.60 D	6.56	34.206 D	26.858	124.8	0.751	0.62	D 9.1	65.8	2.96	38.4	0.00	0.00			403	
441	6.48	6.44	34.250	26.908	120.7	0.795	0.44	6.5	70.6	3.05	39.3	0.00	0.00			445	02
500	ISL 6.10 D	6.06	34.294 D	26.993	113.2	0.871	0.31	D 4.5	76.9	3.13	40.4	0.00	0.00			504	
514	6.07	6.02	34.297	27.001	112.6	0.880	0.29	4.2	78.4	3.15	40.7	0.00	0.00			518	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
31 10.2 N	120 54.8 W	12/07/2012	0746 UTC	3884 m	300	14 kn				16.3 C	15.0 C					013	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	15.76	15.76	33.505	24.653	327.9	0.000	5.93	104.9	0.6	0.35	0.2	0.04	0.35	0.66	0.13	0	
2	15.76	15.76	33.505	24.652	328.0	0.007	5.93	104.9	0.6	0.35	0.2	0.04	0.35	0.66	0.13	2	20
10	15.74	15.74	33.506	24.659	327.6	0.033	5.93	104.9	0.6	0.34	0.2	0.03	0.26	0.58	0.11	10	19
19	15.58	15.58	33.473	24.669	326.9	0.062	5.94	104.6	0.8	0.37	0.4	0.04	0.46	0.66	0.15	19	18
20	ISL 15.50 D	15.50	33.453 D	24.670	326.9	0.066	5.95	D 104.7	0.9	0.38	0.4	0.04	0.47	0.65	0.15	20	
30	15.10	15.10	33.383	24.706	323.8	0.098	5.96	104.0	1.6	0.43	0.8	0.06	0.61	0.60	0.17	30	17
41	14.48	14.48	33.327	24.796	315.5	0.133	5.96	102.7	2.5	0.43	0.9	0.06	0.62	0.75	0.21	41	16
50	14.51	14.51	33.447	24.883	307.5	0.161	5.81	100.1	3.1	0.63	2.4	0.13	1.75	0.41	0.20	50	15
60	12.94	12.93	33.386	25.158	281.5	0.191	5.65	94.2	6.2	0.86	6.0	0.49	1.33	0.24	0.23	60	14
70	12.63	12.62	33.358	25.197	278.0	0.219	5.63	93.2	7.1	0.87	7.2	0.56	0.66	0.18	0.13	71	13
75	ISL 12.65 D	12.63	33.413 D	25.238	274.3	0.234	5.55	D 92.1	8.2	0.93	8.5	0.40	0.42	0.14	0.11	76	
84	11.47	11.46	33.341	25.404	258.6	0.257	5.28	85.4	10.0	1.03	10.9	0.10	0.00	0.07	0.09	85	12
100	ISL 10.78 D	10.77	33.553 D	25.692	231.4	0.298	4.48	D 71.4	15.5	1.43	17.2	0.12	0.00	0.03	0.08	101	
101	10.78	10.77	33.565	25.702	230.6	0.298	4.30	68.6	15.8	1.46	17.6	0.12	0.00	0.03	0.08	102	11
120	10.26	10.24	33.615	25.833	218.5	0.341	3.83	60.4	19.2	1.62	20.4	0.04	0.00	0.03	0.08	121	10
125	ISL 10.13 D	10.11	33.635 D	25.870	215.0	0.354	3.63	D 57.1	20.8	1.69	21.6	0.04	0.00	0.02	0.07	126	
140	9.26	9.24	33.722	26.082	195.0	0.382	3.11	48.0	25.6	1.88	25.0	0.02	0.00	0.01	0.03	141	09
150	ISL 9.04 D	9.02	33.814 D	26.189	185.0	0.404	2.94	D 45.3	27.9	1.98	26.0	0.01	0.00	0.01	0.03	151	
170	9.22	9.20	33.997	26.305	174.6	0.437	2.16	33.4	32.6	2.19	28.1	0.00	0.00	0.01	0.03	171	08
200	ISL 8.52 D	8.49	34.048 D	26.456	160.6	0.491	2.03	D 30.9	37.9	2.29	30.3	0.00	0.00	0.01	0.04	202	
202	8.50	8.48	34.049	26.459	160.3	0.491	1.99	30.3	38.3	2.30	30.4	0.00	0.00	0.01	0.04	204	07
232	8.14	8.12	34.082	26.539	153.1	0.538	1.75	26.4	42.9	2.42	31.9	0.00	0.00			234	06
250	ISL 7.91 D	7.88	34.103 D	26.590	148.5	0.569	1.59	D 23.9	45.9	2.51	33.0	0.00	0.00			252	
273	7.74	7.71	34.136	26.642	144.0	0.599	1.28	19.2	49.8	2.62	34.3	0.00	0.00			275	05
300	ISL 7.29 D	7.26	34.129 D	26.700	138.6	0.641	1.16	D 17.2	54.0	2.71	35.5	0.00	0.00			302	
321	7.11	7.08	34.144	26.738	135.3	0.666	1.02	15.0	57.2	2.78	36.5	0.00	0.00			324	04
381	6.66	6.62	34.187	26.834	126.8	0.744	0.71	10.4	65.3	2.94	38.3	0.00	0.00			384	03
400	ISL 6.42 D	6.38	34.197 D	26.873	123.2	0.773	0.64	D 9.2	68.1	2.99	38.8	0.00	0.00			403	
440	6.18	6.14	34.236	26.937	117.6	0.816	0.45	6.5	73.9	3.10	40.0	0.00	0.00			444	02
500	ISL 5.97 D	5.92	34.296 D	27.012	111.2	0.891	0.30	D 4.3	80.7	3.19	40.9	0.00	0.00			504	
516	5.81	5.77	34.308	27.041	108.5	0.902	0.27	3.8	82.5	3.22	41.2	0.00	0.00			520	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
30 50.4 N	121 35.4 W	12/07/2012	1546 UTC	4099 m	300	12 kn	300 04 08	2	1012.5 mb	16.5 C	15.5 C	22 m	8/8		ST	014	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	16.72	16.71	33.272	24.257	365.7	0.000	5.65	101.7	3.2	0.33	0.2	0.02	0.03	0.11	0.02	0	
3 A	16.72	16.71	33.272	24.256	365.8	0.011	5.65	101.6	3.2	0.33	0.2	0.02	0.03	0.11	0.02	3	22
10 A	16.71	16.71	33.271	24.257	365.9	0.037	5.69	102.4	3.2	0.29	0.0	0.01	0.00	0.12	0.02	10	21
13 A	16.71	16.71	33.271	24.256	366.1	0.048	5.65	101.7	3.2	0.31	0.0	0.02	0.00	0.11	0.02	13	20
20 ISL	16.71 D	16.71	33.269 D	24.256	366.4	0.074	5.67	102.0	3.2	0.30	0.0	0.01	0.00	0.12	0.02	20	
25 A	16.71	16.71	33.271	24.258	366.4	0.092	5.65	101.7	3.2	0.30	0.0	0.01	0.00	0.12	0.02	25	19
30 ISL	16.71 D	16.71	33.269 D	24.256	366.7	0.111	5.66	101.8	3.2	0.30	0.0	0.01	0.00	0.13	0.02	30	
36	16.69	16.69	33.271	24.263	366.2	0.132	5.66	101.8	3.2	0.29	0.0	0.01	0.00	0.13	0.02	36	18
49 A	16.43	16.42	33.251	24.309	362.3	0.179	5.71	102.2	3.1	0.30	0.0	0.02	0.00	0.16	0.03	49	17
50 ISL	16.45 D	16.44	33.274 D	24.324	361.0	0.184	5.74	102.7	3.1	0.30	0.0	0.02	0.01	0.16	0.03	50	
56 A	16.25	16.24	33.301	24.389	355.0	0.204	5.74	102.4	3.1	0.30	0.0	0.01	0.04	0.18	0.04	56	16
64	15.57	15.56	33.208	24.470	347.4	0.232	5.84	102.8	3.2	0.31	0.0	0.01	0.20	0.23	0.07	65	15
75	14.39	14.38	33.235	24.748	321.2	0.269	6.00	103.1	3.0	0.30	0.0	0.01	0.20	0.24	0.14	76	14
85	13.46	13.45	33.148	24.871	309.6	0.301	6.07	102.3	3.4	0.35	0.0	0.01	0.00	0.25	0.18	86	13
95	12.39	12.38	33.156	25.089	289.0	0.331	5.90	97.1	4.3	0.47	1.3	0.07	0.00	0.26	0.20	96	12
100 ISL	12.19 D	12.19	33.187 D	25.148	283.4	0.347	5.73	94.0	5.2	0.57	3.1	0.09	0.01	0.24	0.18	101	
111	11.38	11.37	33.236	25.339	265.4	0.375	5.33	85.9	7.0	0.79	7.2	0.14	0.02	0.21	0.13	112	11
125	10.23	10.22	33.372	25.647	236.2	0.410	4.50	70.8	13.2	1.24	14.7	0.03	0.00	0.09	0.07	126	10
144	9.64	9.62	33.569	25.901	212.4	0.453	3.99	62.0	18.5	1.50	19.3	0.02	0.00	0.03	0.03	145	09
150 ISL	9.41 D	9.39	33.659 D	26.008	202.2	0.468	3.77	58.3	20.3	1.59	20.6	0.02	0.00	0.02	0.03	151	
170	8.95	8.93	33.767	26.166	187.5	0.504	3.16	48.5	26.3	1.88	25.1	0.00	0.00	0.01	0.01	171	08
200 ISL	8.55 D	8.53	33.935 D	26.361	169.6	0.560	2.73	41.5	32.4	2.07	28.0	0.00	0.00	0.00	0.02	202	
201	8.56	8.54	33.926	26.353	170.4	0.559	2.72	41.3	32.6	2.08	28.1	0.00	0.00	0.00	0.02	203	07
231	8.03	8.01	34.015	26.503	156.5	0.608	2.18	32.8	40.1	2.31	31.1	0.00	0.00	0.00	0.00	233	06
250 ISL	7.73 D	7.70	34.028 D	26.558	151.5	0.641	2.11	31.5	43.4	2.37	32.0	0.00	0.00	0.00	0.00	252	
270	7.36	7.34	34.036	26.616	146.1	0.668	1.96	29.0	46.8	2.43	32.9	0.00	0.00	0.00	0.00	272	05
300 ISL	7.04 D	7.01	34.023 D	26.652	143.0	0.715	2.02	29.7	52.0	2.53	34.5	0.00	0.00	0.00	0.00	302	
320	6.84	6.81	34.059	26.707	138.0	0.739	1.59	23.3	55.4	2.60	35.5	0.00	0.00	0.00	0.00	323	04
381	6.32	6.29	34.120	26.825	127.4	0.820	0.95	13.7	66.3	2.90	38.6	0.00	0.00	0.00	0.00	384	03
400 ISL	6.18 D	6.15	34.140 D	26.859	124.4	0.849	0.82	11.9	69.0	2.94	39.2	0.00	0.00	0.00	0.00	403	
441	5.85	5.81	34.162	26.919	118.9	0.894	0.66	9.4	75.0	3.04	40.4	0.00	0.00	0.00	0.00	445	02
500 ISL	5.51 D	5.47	34.202 D	26.993	112.4	0.968	0.47	6.7	82.7	3.15	41.6	0.00	0.00	0.00	0.00	504	
519	5.42	5.37	34.222	27.020	110.0	0.983	0.40	5.7	85.2	3.18	42.0	0.00	0.00	0.00	0.00	523	01

A) PRIMARY PRODUCTIVITY SAMPLES WERE TAKEN FROM THESE LEVELS.

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

LATITUDE	LONGITUDE	DAY/MO/YR	CST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
30 30.4 N	122 15.4 W	12/07/2012	2125 UTC	4126 m	330	10 kn	340 04 07	2	1015.0 mb	18.0 C	16.8 C	29 m	8/8		ST	015	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.50	17.50	33.432	24.194	371.7	0.000	5.55	101.6	2.8	0.28	0.0	0.01	0.08	0.11	0.00	0	
2	17.50	17.50	33.432	24.193	371.7	0.007	5.55	101.5	2.8	0.28	0.0	0.01	0.08	0.11	0.00	2	20
10	17.45	17.45	33.435	24.208	370.6	0.037	5.56	101.5	2.8	0.28	0.0	0.01	0.02	0.10	0.01	10	19
20 ISL	17.42 D	17.42	33.438 D	24.219	369.9	0.075	5.57	101.8	2.8	0.28	0.0	0.01	0.08	0.11	0.01	20	
25	17.42	17.41	33.441	24.223	369.8	0.093	5.55	101.4	2.8	0.28	0.0	0.01	0.11	0.12	0.01	25	18
30 ISL	17.41 D	17.41	33.439 D	24.222	370.0	0.112	5.56	101.5	2.8	0.28	0.0	0.01	0.07	0.13	0.01	30	
40	17.42	17.41	33.442	24.223	370.3	0.148	5.55	101.4	2.7	0.28	0.0	0.01	0.00	0.14	0.00	40	17
50	16.58	16.57	33.343	24.346	358.9	0.185	5.73	102.9	3.1	0.29	0.0	0.01	0.00	0.16	0.00	50	16
62	16.17	16.16	33.317	24.421	352.1	0.227	5.80	103.3	3.0	0.28	0.0	0.01	0.00	0.21	0.02	62	15
75	14.08	14.07	33.297	24.860	310.5	0.270	6.11	104.3	3.7	0.34	0.0	0.01	0.13	0.35	0.05	76	14
88	13.33	13.32	33.350	25.054	292.3	0.310	5.81	97.7	4.2	0.42	0.9	0.11	0.14	0.38	0.13	89	13
100	12.20	12.19	33.328	25.258	273.0	0.344	5.31	87.1	6.7	0.76	6.5	0.19	0.00	0.33	0.08	101	12
112	12.00	11.99	33.344	25.309	268.4	0.376	5.19	84.9	7.2	0.81	7.5	0.11	0.00	0.23	0.15	113	11
125	11.34	11.32	33.378	25.458	254.4	0.410	4.92	79.4	9.1	0.96	10.1	0.04	0.02	0.14	0.11	126	10
141	10.46	10.44	33.443	25.665	234.9	0.449	4.52	71.5	12.8	1.19	14.2	0.02	0.00	0.07	0.08	142	09
150 ISL	9.96 D	9.94	33.575 D	25.853	217.2	0.472	4.07	63.7	15.5	1.33	16.3	0.01	0.03	0.05	0.06	151	
171	9.54	9.52	33.694	26.015	202.1	0.513	3.70	57.4	21.6	1.64	21.3	0.00	0.10	0.01	0.02	172	08
200	8.96	8.93	33.858	26.238	181.4	0.569	3.43	52.6	26.8	1.79	24.1	0.00	0.00	0.00	0.00	202	07
230	8.45	8.43	33.967	26.402	166.2	0.621	2.73	41.5	33.8	2.07	28.0	0.00	0.00	0.00	0.00	232	06
250 ISL	8.15 D	8.12	34.017 D	26.489	158.3	0.658	2.34	35.2	37.2	2.15	29.5	0.00	0.00	0.00	0.00	252	
270	7.91	7.88	34.024	26.529	154.7	0.685	2.25	33.8	40.7	2.22	31.0	0.00	0.00	0.00	0.00	272	05
300 ISL	7.37 D	7.33	34.046 D	26.626	145.7	0.735	1.81	26.9	47.7	2.44	33.3	0.00	0.00	0.00	0.00	302	
320	7.11	7.07	34.066	26.677	141.0	0.759	1.57	23.2	52.3	2.58	34.9	0.00	0.00	0.00	0.00	323	04
380	6.48	6.44	34.115	26.801	129.7	0.840	1.02	14.9	63.9	2.84	38.4	0.00	0.00	0.00	0.00	383	03
400 ISL	6.36 D	6.32	34.127 D	26.827	127.6	0.872	0.95	13.8	66.8	2.90	39.0	0.00	0.00	0.00	0.00	403	
441	6.01	5.97	34.160	26.898	121.1	0.917	0.69	10.0	72.9	3.01	40.1	0.00	0.00	0.00	0.00	445	02
500 ISL	5.70 D	5.66	34.208 D	26.975	114.4	0.993	0.48	6.8	80.6	3.12	41.4	0.00	0.00	0.00	0.00	504	
515	5.59	5.54	34.225	27.002	111.8	1.003	0.41	5.9	82.6	3.15	41.7	0.00	0.00	0.00	0.00	519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED O2;

CALCOFI CRUISE 1207

STATION 93.3 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
30 10.6 N	122 55.4 W	13/07/2012	0336 UTC	3858 m	360	18 kn	340 05 07	2	1015.0 mb	17.0 C	15.0 C			8/8	ST	016	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.33	17.33	33.354	24.176	373.4	0.000	5.56	101.4	3.0	0.28	0.0	0.01	0.00	0.08	0.02	0	
2	17.33	17.33	33.354	24.175	373.4	0.008	5.56	101.3	3.0	0.28	0.0	0.01	0.00	0.08	0.02	2	21
10	17.33	17.32	33.354	24.176	373.6	0.037	5.55	101.2	3.0	0.29	0.0	0.01	0.00	0.08	0.01	10	20
20	17.31	17.31	33.350	24.177	374.0	0.075	5.56	101.3	3.0	0.30	0.0	0.01	0.00	0.08	0.02	20	19
30 ISL	17.22 D	17.21	33.341 D	24.193	372.7	0.113	5.58	101.5	3.0	0.30	0.0	0.01	0.00	0.08	0.02	30	
40	17.07	17.06	33.323	24.215	371.0	0.149	5.59	101.3	3.0	0.30	0.0	0.01	0.00	0.09	0.02	40	18
50 ISL	16.52 D	16.49	33.202 D	24.256	367.4	0.188	5.72	102.5	3.1	0.30	0.0	0.01	0.00	0.10	0.03	50	
61	15.86	15.85	33.133	24.349	358.9	0.226	5.82	102.9	3.3	0.31	0.0	0.01	0.00	0.12	0.03	61	17
75 ISL	14.99 D	14.97	33.189 D	24.585	336.8	0.277	5.98	104.0	3.0	0.30	0.0	0.01	0.03	0.18	0.06	76	
80	14.89	14.88	33.192	24.608	334.7	0.292	5.98	103.7	2.8	0.30	0.0	0.01	0.04	0.20	0.07	81	16
100	13.56	13.55	33.167	24.867	310.5	0.356	6.07	102.5	3.2	0.34	0.0	0.01	0.00	0.23	0.12	101	15
110	12.70	12.68	33.191	25.057	292.5	0.386	5.84	96.8	4.0	0.45	1.1	0.08	0.00	0.26	0.16	111	14
120	12.26	12.24	33.247	25.185	280.5	0.415	5.67	93.1	4.5	0.53	2.6	0.15	0.01	0.24	0.14	121	13
125 ISL	11.74 D	11.72	33.261 D	25.294	270.2	0.432	5.59	90.9	5.3	0.61	4.2	0.12	0.01	0.22	0.13	126	
131	11.44	11.42	33.266	25.353	264.6	0.445	5.35	86.4	6.2	0.71	6.2	0.09	0.00	0.20	0.12	132	12
140	10.79	10.78	33.318	25.509	249.8	0.468	4.88	77.7	9.9	1.01	11.1	0.03	0.00	0.13	0.11	141	11
150 ISL	10.18 D	10.16	33.430 D	25.702	231.6	0.495	4.40	69.2	13.6	1.26	15.1	0.00	0.00	0.08	0.07	151	
151	10.17	10.15	33.414	25.692	232.5	0.494	4.39	69.0	14.0	1.28	15.5	0.00	0.00	0.08	0.06	152	10
161	9.90	9.88	33.536	25.832	219.4	0.517	4.17	65.2	16.7	1.40	17.7	0.00	0.00	0.03	0.03	162	09
175	9.41	9.39	33.658	26.007	202.9	0.547	3.75	58.1	21.4	1.61	21.3	0.00	0.00	0.01	0.02	176	08
196	9.03	9.01	33.834	26.207	184.3	0.587	3.27	50.3	26.9	1.83	24.6	0.00	0.00	0.00	0.02	197	07
200 ISL	9.02 D	8.99	33.850 D	26.222	182.9	0.598	3.27	50.3	27.7	1.86	25.0	0.00	0.00	0.00	0.01	202	
230	8.51	8.48	33.961	26.389	167.5	0.647	2.74	41.6	33.5	2.07	27.9	0.00	0.00	0.00	0.00	232	06
250 ISL	8.25 D	8.23	33.983 D	26.446	162.4	0.684	2.62	39.6	36.9	2.16	29.2	0.00	0.00	0.00	0.00	252	
270	7.92	7.89	34.012	26.518	155.7	0.712	2.33	34.9	40.4	2.25	30.5	0.00	0.00	0.00	0.00	272	05
300 ISL	7.57 D	7.54	34.039 D	26.590	149.3	0.762	2.01	29.9	46.0	2.41	32.7	0.00	0.00	0.00	0.00	302	
321	7.33	7.29	34.067	26.648	144.0	0.788	1.63	24.2	50.0	2.53	34.3	0.00	0.00	0.00	0.00	324	04
379	6.71	6.68	34.111	26.767	133.2	0.869	1.07	15.6	60.6	2.78	37.5	0.00	0.00	0.00	0.00	382	03
400 ISL	6.48 D	6.44	34.113 D	26.800	130.2	0.902	1.07	15.5	63.6	2.84	38.2	0.00	0.00	0.00	0.00	403	
440	6.14	6.10	34.131	26.858	125.0	0.948	0.86	12.4	69.4	2.94	39.4	0.00	0.00	0.00	0.00	444	02
500 ISL	5.76 D	5.72	34.194 D	26.956	116.2	1.027	0.55	7.9	77.7	3.08	40.8	0.00	0.00	0.00	0.00	504	
515	5.67	5.62	34.207	26.978	114.2	1.037	0.50	7.1	79.8	3.11	41.1	0.00	0.04	0.00	0.00	519	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 93.3 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD	
29 50.5 N	123 35.3 W	13/07/2012	0941 UTC	4054 m	350	10 kn			1015.0 mb	17.5 C	16.0 C					017	
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	PRES	SAMP
m	DEG C	DEG C		THETA			mL/L	PCT	µM	µM	µM	µM	µM	µg/L	µg/L	db	
0	17.13	17.13	33.195	24.101	380.5	0.000	5.59	101.5	3.4	0.32	0.1	0.01	0.01	0.08	0.02	0	
2	17.13	17.13	33.195	24.100	380.6	0.008	5.59	101.4	3.4	0.32	0.1	0.01	0.01	0.08	0.02	2	20
10	17.12	17.12	33.193	24.101	380.8	0.038	5.60	101.6	3.3	0.30	0.0	0.01	0.00	0.08	0.02	10	19
20 ISL	17.13 D	17.12	33.193 D	24.100	381.2	0.077	5.61	101.7	3.3	0.30	0.0	0.01	0.00	0.08	0.02	20	
24	17.12	17.12	33.194	24.102	381.2	0.091	5.58	101.2	3.3	0.30	0.0	0.01	0.00	0.08	0.02	24	18
30 ISL	17.12 D	17.12	33.195 D	24.104	381.2	0.115	5.60	101.6	3.2	0.30	0.0	0.01	0.00	0.09	0.02	30	
40	16.29	16.28	33.157	24.268	365.9	0.152	5.78	103.1	3.1	0.30	0.0	0.01	0.00	0.11	0.02	40	17
50	16.07	16.06	33.152	24.315	361.7	0.188	5.80	103.0	3.1	0.30	0.0	0.01	0.01	0.10	0.03	50	16
62	15.69	15.68	33.168	24.414	352.7	0.231	5.85	103.0	3.0	0.29	0.0	0.01	0.00	0.15	0.04	62	15
75	14.71	14.69	33.255	24.696	326.2	0.275	5.98	103.3	3.0	0.29	0.0	0.01	0.01	0.20	0.08	76	14
87	14.04	14.03	33.232	24.819	314.7	0.314	6.02	102.6	3.0	0.29	0.0	0.01	0.00	0.20	0.09	88	13
98	13.41	13.40	33.284	24.988	298.9	0.347	5.93	99.9	3.4	0.32	0.1	0.02	0.00	0.22	0.18	99	12
100 ISL	13.17 D	13.14	33.200 D	24.975	300.1	0.356	5.98	100.0	3.7	0.35	0.6	0.04	0.00	0.23	0.18	101	
113	12.16	12.14	33.199	25.167	282.0	0.391	5.68	93.0	5.3	0.57	3.5	0.15	0.00	0.24	0.17	114	11
125	11.86	11.85	33.297	25.299	269.7	0.424	5.47	89.1	5.7	0.63	5.0	0.07	0.00	0.17	0.11	126	10
139	11.38	11.36	33.316	25.403	260.1	0.462	5.30	85.6	6.6	0.72	6.7	0.04	0.00	0.13	0.10	140	09
150 ISL	10.89 D	10.87	33.333 D	25.505	250.5	0.495	5.09	81.3	9.6	0.93	10.1	0.03	0.00	0.10	0.08	151	
171	9.97	9.95	33.462	25.763	226.2	0.540	4.27	66.9	15.4	1.34	16.7	0.00	0.00	0.04	0.04	172	08
200	9.24	9.22	33.717	26.083	196.2	0.601	3.25	50.1	24.7	1.82	24.1	0.00	0.00	0.00	0.02	202	07
231	8.75	8.72	33.927	26.326	173.6	0.658	2.74	41.9	31.6	2.02	27.3	0.00	0.00	0.00	0.00	233	06
250 ISL	8.50 D	8.47	33.977 D	26.404	166.5	0.694	2.48	37.7	34.3	2.07	28.1	0.00	0.00	0.00	0.00	252	
270	8.21	8.18	33.994	26.461	161.3	0.723	2.57	38.8	37.1	2.13	29.0	0.00	0.00	0.00	0.00	272	05
300 ISL	7.72 D	7.68	34.015 D	26.551	153.1	0.775	2.33	34.8	43.5	2.31	31.3	0.00	0.00	0.00	0.00	302	
319	7.48	7.45	34.043	26.606	148.0	0.799	1.94	28.7	47.5	2.42	32.7	0.00	0.00	0.00	0.00	321	04
381	6.94	6.90	34.123	26.747	135.3	0.887	1.09	15.9	58.6	2.76	36.5	0.00	0.00	0.00	0.00	384	03
400 ISL	6.72 D	6.68	34.135 D	26.786	131.8	0.918	0.95	13.8	61.2	2.81	37.1	0.00	0.00	0.00	0.00	403	
440	6.49	6.45	34.173	26.847	126.4	0.964	0.72	10.5	66.8	2.90	38.3	0.00	0.00	0.00	0.00	444	02
500 ISL	5.83 D	5.78	34.182 D	26.939	117.9	1.044	0.59	8.5	76.3	3.04	40.2	0.00	0.00	0.00	0.00	504	
513	5.75	5.71	34.201	26.964	115.7	1.052	0.52	7.4	78.3	3.07	40.6	0.00	0.00	0.00	0.00	517	01

D) CTD DATA USED ON STANDARD LEVELS AND MISSING FIELDS; PRIMARY T; PRIMARY CORRECTED SALINITY; PRIMARY CRUISE-CORRECTED 02;

CALCOFI CRUISE 1207

STATION 93.4 26.4

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	BOTTOM	WIND	SPEED	WAVES	WEA	BAROMETER	DRY	WET	SECCHI	CLD	AMT	TYPE	ORD
32 56.9 N	117 16.7 W	10/07/2012	0852 UTC	m												004
DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN									

PRIMARY PRODUCTIVITY CASTS

CALCOFI CRUISE 1207

STATION 93.3 35.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
32 40.8 N	117 52.0 W	10/07/2012	1731 UTC	22 m	1147 - 1934 PST	1157 PST	1931 PST	447.8 mg C/m ²	006								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	18.65	33.576	24.024	5.55	103.8	2.4	0.29	0.0	0.02	0.13	0.13	0.02	88. A	4.8	4.8	4.8	0.11
13	17.82	33.555	24.213	5.64	103.8	2.5	0.31	0.1	0.02	0.25	0.15	0.03	40.	4.3	4.3	4.3	0.24
16	17.39	33.533	24.299	5.78	105.4	2.4	0.33	0.1	0.01	0.30	0.17	0.04	33.	4.9	5.0	4.9	0.23
24	15.29	33.434	24.704	6.23	109.1	2.8	0.35	0.0	0.01	0.23	0.18	0.05					
31	13.35	33.372	25.065	6.10	102.6	4.6	0.44	1.0	0.05	0.04	0.83	0.36	11.	15.0	13.9	14.5	0.25
41	12.22	33.366	25.282	5.29	86.9	6.9	0.75	6.4	0.19	0.14	0.33	0.34					
51	11.77	33.417	25.407	4.87	79.3	8.7	0.94	9.7	0.23	0.45	0.30	0.20					
60	11.32	33.448	25.514	4.53	73.0	11.2	1.09	12.4	0.19	0.04	0.25	0.21	1.5	1.0	1.0	1.0	0.10
68	11.16	33.457	25.549	4.45	71.5	11.7	1.13	12.9	0.19	0.11	0.21	0.20	0.88	0.11	0.35	0.23	0.12

CALCOFI CRUISE 1207

STATION 93.3 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
31 50.4 N	119 33.5 W	11/07/2012	1718 UTC	13 m	1213 - 1938 PST	1204 PST	1937 PST	397.6 mg C/m ²	011								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	16.22	33.631	24.646	5.81	104.9	2.2	0.43	1.6	0.06	0.13	0.63	0.11	75. A	15.7	15.4	15.6	0.45
8	16.21	33.631	24.649	5.80	103.6	2.2	0.41	1.5	0.06	0.04	0.64	0.10	40.	15.2	15.6	15.4	0.21
10	16.21	33.631	24.648	5.80	103.7	2.2	0.41	1.5	0.06	0.14	0.83	0.02	30.	14.9	14.3	14.6	0.23
18	16.18	33.630	24.655	5.80	103.6	2.2	0.42	1.5	0.06	0.03	0.67	0.14	12.	11.8	10.7	11.2	0.23
27	16.11	33.650	24.689	5.79	103.2	2.4	0.42	1.5	0.06	0.06	0.67	0.08					
36	14.80	33.647	24.977	5.67	98.5	4.1	0.68	4.3	0.14	0.01	0.87	0.31	1.4	3.3	2.9	3.1	0.12
40	14.07	33.634	25.120	5.51	94.4	5.2	0.84	5.9	0.22	1.58	1.00	0.20	0.87	0.34	1.4	0.86	0.11

CALCOFI CRUISE 1207

STATION 93.3 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
30 50.4 N	121 35.4 W	12/07/2012	1546 UTC	22 m	1218 - 1947 PST	1212 PST	1942 PST	77.7 mg C/m ²	014								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
3	16.72	33.272	24.257	5.65	101.7	3.2	0.33	0.2	0.02	0.03	0.11	0.02	81. A	2.6	2.5	2.5	0.08
10	16.71	33.271	24.257	5.69	102.5	3.2	0.29	0.0	0.01	0.00	0.12	0.02	50.	2.8	2.5	2.7	0.08
13	16.71	33.271	24.257	5.65	101.8	3.2	0.31	0.0	0.02	0.00	0.11	0.02	39.	2.5	2.5	2.5	0.09
25	16.71	33.271	24.258	5.65	101.8	3.2	0.30	0.0	0.01	0.00	0.12	0.02	17.	1.5	1.3	1.4	0.25
36	16.69	33.271	24.264	5.66	101.9	3.2	0.29	0.0	0.01	0.00	0.13	0.02					
49	16.43	33.251	24.310	5.71	102.3	3.1	0.30	0.0	0.02	0.00	0.16	0.03	3.3	0.24	0.21	0.23	0.08
56	16.25	33.301	24.389	5.74	102.5	3.1	0.30	0.0	0.01	0.04	0.18	0.04	2.1		0.04	0.02	0.08

CALCOFI CRUISE 1207

STATION 90.0 120.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
30 24.0 N	124 0.1 W	13/07/2012	1821 UTC	33 m	1233 - 1947 PST	1222 PST	1944 PST	109.9 mg C/m ²	018								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	17.62	33.508	24.223	5.52	101.3	2.5	0.27	0.1	0.01	0.00	0.09	0.00	91. A	1.4	1.2	1.3	0.41
10	17.61	33.505	24.224	5.57	102.2	2.5	0.26	0.0	0.01	0.00	0.07	0.02					
19	17.61	33.505	24.225	5.53	101.5	2.5	0.27	0.0	0.01	0.01	0.08	0.02	41.	1.5	1.7	1.6	0.10
24	17.61	33.506	24.226	5.54	101.6	2.5	0.26	0.0	0.01	0.00	0.08	0.01	32.	1.1	1.6	1.3	0.11
35	17.60	33.506	24.228	5.53	101.5	2.5	0.26	0.0	0.01	0.00	0.10	0.01					
46	17.05	33.432	24.305	5.67	102.9	2.6	0.27	0.0	0.01	0.00	0.13	0.01	12.	0.90	1.4	1.2	0.10
61	16.62	33.468	24.433	5.72	103.0	2.5	0.26	0.0	0.01	0.00	0.14	0.02					
77	16.22	33.521	24.568	5.74	102.5	2.4	0.26	0.0	0.01	0.00	0.22	0.05					
90	15.22	33.457	24.788	5.82	101.8	2.6	0.29	0.0	0.01	0.00	0.35	0.09	1.5	0.71	0.79	0.75	0.08
101	14.05	33.461	24.995	5.67	96.9	3.2	0.35	0.6	0.04	0.02	0.29	0.19	0.90	0.05	0.32	0.18	0.06

CALCOFI CRUISE 1207

STATION 90.0 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
31 24.6 N	121 59.5 W	14/07/2012	1616 UTC	13 m	1214 - 1237 PST	1214 PST	1938 PST	204.4 mg C/m ²	021								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	15.18	33.196	24.544	5.92	103.4	2.8	0.37	0.6	0.05	0.05	0.44	0.08	78. A	9.0	8.9	8.9	0.09
8	15.17	33.195	24.545	5.98	104.3	2.8	0.37	0.6	0.04	0.08	0.43	0.08	39.	8.6	8.8	8.7	0.19
9	15.17	33.195	24.546	5.96	104.1	2.8	0.37	0.6	0.04	0.02	0.54	0.09	33.	8.6	8.7	8.7	0.05
18	15.17	33.196	24.546	5.94	103.7	2.8	0.37	0.6	0.04	0.04	0.43	0.09	12.	5.5	5.3	5.4	0.13
27	15.05	33.208	24.583	5.98	104.1	2.8	0.39	0.8	0.04	0.28	0.42	0.11					
36	14.82	33.222	24.644	5.98	103.7	3.1	0.41	1.1	0.06	0.18	0.45	0.14	1.4	1.0	0.88	0.94	0.17
40	14.75	33.225	24.661	5.99	103.8	3.1	0.41	1.2	0.06	0.27	0.48	0.14	0.85	0.18	0.47	0.32	0.09

A) INCUBATION LIGHT INTENSITIES WERE 53.1 ,41.2 ,32.6 ,11.9 ,1.5 ,0.91 PERCENT RESPECTIVELY.

CALCOFI CRUISE 1207

STATION 90.0 53.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
32 39.0 N	119 28.5 W	15/07/2012	1851 UTC	09 m	1217 - 1931 PST	1204 PST	1931 PST	309.5 mg C/m2	025								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	16.18	33.649	24.670	5.93	105.9	0.1	0.30	0.1	0.02	0.21	1.07	0.25	75. A	19.4	19.7	19.5	0.39
5	16.17	33.649	24.672	5.96	106.4	0.1	0.30	0.1	0.03	0.13	1.14	0.28	40.	19.0	18.8	18.9	0.26
7	16.15	33.649	24.677	5.96	107.4	0.1	0.28	0.0	0.02	0.01	1.09	0.26	29.	17.3	18.3	17.8	0.34
12	16.13	33.649	24.682	5.93	105.9	0.1	0.27	0.0	0.02	0.00	1.18	0.29	13.	12.6	11.6	12.1	0.34
18	15.96	33.642	24.714	5.95	105.8	0.1	0.28	0.0	0.03	0.07	1.36	0.36					
25	15.21	33.625	24.870	5.94	104.0	0.2	0.33	0.3	0.06	0.18	1.41	0.38	1.4	2.7	2.8	2.7	0.23
28	14.50	33.628	25.025	5.65	97.6	1.5	0.56	2.3	0.12	0.99	1.56	0.61	0.81	0.23	0.81	0.52	0.22

CALCOFI CRUISE 1207

STATION 90.0 28.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
33 29.1 N	117 45.9 W	16/07/2012	1740 UTC		1158 - 1929 PST	1158 PST	1929 PST	1394.2 mg C/m2	030								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	18.48	33.562	24.055	6.37	118.8	1.0	0.13	0.1	0.01	0.01	0.37	0.07		11.5	12.3	11.9	0.19
5	17.64	33.557	24.256	6.43	118.2	0.9	0.12	0.0	0.01	0.00	0.52	0.09					
8	17.05	33.509	24.361	7.14	129.6					0.00	0.93	0.11		19.2	21.1	20.2	0.37
9	16.65	33.506	24.452	7.25	130.6	0.3	0.08	0.0	0.01	0.00	0.94	0.15		19.8	14.1	17.0	0.33
18	13.48	33.460	25.106	6.71	113.3	0.6	0.45	0.0	0.03	0.08	7.01	1.94		74.3	83.0	78.6	0.93
27	11.79	33.486	25.454	4.55	74.3	9.3	1.07	9.9	0.27	0.87	3.11	0.60					
36	11.44	33.512	25.541	4.05	65.6	11.5	1.28	12.3	0.30	1.70	2.96	1.04		9.8	9.8	9.8	0.49
40	11.18	33.547	25.615	3.58	57.6	15.0	1.52	15.2	0.33	2.06	1.81	0.70		1.7	0.30	1.0	0.28

CALCOFI CRUISE 1207

STATION 86.7 45.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
33 29.9 N	119 19.1 W	17/07/2012	1749 UTC	12 m	1205 - 1935 PST	1203 PST	1935 PST	422.3 mg C/m2	038								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	17.81	33.596	24.246	5.79	106.6	0.9	0.29	0.1	0.01	0.00	0.36	0.12	75. A	9.9	9.6	9.7	0.26
7	17.05	33.599	24.429	6.05	109.7	0.3	0.27	0.1	0.02	0.00	0.54	0.24	43.	13.8	11.6	12.7	0.43
9	16.48	33.596	24.560	6.19	111.1	0.4	0.25	0.0	0.02	0.00	0.54	0.23	33.	10.5	10.2	10.4	0.32
17	15.05	33.637	24.945	6.52	113.7	0.2	0.19	0.0	0.03	0.00	2.17	1.70	12.	19.3	20.3	19.8	0.65
25	13.45	33.665	25.238	5.41	91.4	3.0	0.69	5.3	0.22	0.43	7.74	2.67					
32	11.86	33.546	25.488	4.48	73.1	11.0	1.23	13.2	0.35	0.06	2.49	1.35	1.6	5.1	5.2	5.1	0.28
37	11.39	33.563	25.589	4.12	66.7	13.9	1.38	15.8	0.26	0.10	1.74	1.14	0.89	0.80	0.17	0.48	0.21

CALCOFI CRUISE 1207

STATION 86.7 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
32 20.1 N	121 40.9 W	18/07/2012	1956 UTC	23 m	1252 - 1941 PST	1213 PST	1941 PST	152.5 mg C/m2	043								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	16.60	33.182	24.215	5.74	103.1	3.0	0.31	0.0	0.02	0.06	0.14	0.02	87. A	3.0	3.1	3.1	0.10
14	16.42	33.174	24.252	5.73	102.6	3.0	0.30	0.0	0.01	0.03	0.13	0.03	40.	3.0	3.2	3.1	0.11
16	16.30	33.166	24.271	5.76	102.8	3.1	0.31	0.0	0.01	0.03	0.14	0.04	34.	2.7	2.8	2.7	0.14
25	16.14	33.165	24.309	5.78	102.8	3.2	0.30	0.0	0.01	0.00	0.14	0.04					
32	16.09	33.166	24.320	5.78	102.7	3.2	0.30	0.0	0.01	0.00	0.18	0.06	12.	2.1	2.3	2.2	0.10
42	15.39	33.156	24.471	5.84	102.4	3.1	0.31	0.0	0.01	0.00	0.28	0.12					
51	14.31	33.125	24.679	6.07	104.0	3.8	0.39	0.9	0.06	0.11	0.66	0.35					
61	13.84	33.144	24.791	5.92	100.2	4.5	0.50	1.8	0.12	0.74	0.46	0.42	1.8	1.8	1.8	1.8	0.05
68	13.76	33.152	24.814	5.85	99.2	4.7	0.52	2.2	0.14	0.90	0.34	0.35	1.1	0.28	0.10	0.19	0.14

CALCOFI CRUISE 1207

STATION 86.7 110.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
31 18.7 N	123 45.0 W	19/07/2012	1454 UTC	23 m	1222 - 1946 PST	1222 PST	1946 PST	124.3 mg C/m2	046								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m3)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
3	17.57	33.234	24.025	5.61	102.3	3.1	0.30	0.0	0.01	0.04	0.12	0.02	81. A	1.8	1.9	1.9	0.06
13	17.30	33.235	24.091	5.61	102.3	3.1	0.30	0.0	0.01	0.02	0.11	0.02	41.	2.2	2.4	2.3	0.02
17	17.26	33.212	24.083	5.61	102.2	3.2	0.31	0.0	0.00	0.01	0.12	0.03	33.	2.1	2.0	2.1	0.07
33	15.55	33.152	24.430	6.05	106.5	3.0	0.31	0.0	0.00	0.00	0.20	0.07	11.	2.3	2.7	2.5	0.13
43	14.90	33.140	24.564	6.06	105.3	3.2	0.33	0.0	0.00	0.00	0.31	0.22					
51	13.94	33.084	24.724	6.14	104.5	4.0	0.40	0.6	0.03	0.33	0.38	0.24					
63	13.59	33.049	24.768	6.11	103.3	4.3	0.44	1.2	0.05	0.59	0.25	0.20	1.5	0.76	0.88	0.82	0.13
71	13.41	33.075	24.826	6.08	102.1	4.8	0.51	1.9	0.09	0.68	0.25	0.19	0.89	0.30	0.05	0.18	0.11

A) INCUBATION LIGHT INTENSITIES WERE 53.1 ,41.2 ,32.6 ,11.9 ,1.5 ,0.91 PERCENT RESPECTIVELY.

CALCOFI CRUISE 1207

STATION 83.3 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
32 54.0 N	122 7.0 W	20/07/2012	1656 UTC	10 m	1215 - 1943 PST	1215 PST	1943 PST	190.6 mg C/m ²	050								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	15.86	33.534	24.652	6.03	106.8	0.8	0.32	0.6	0.05	0.22	0.52	0.11	70. A	11.5	12.0	11.8	0.12
6	15.85	33.529	24.652	6.03	106.8	0.8	0.32	0.6	0.05	0.25	0.50	0.11	41.	11.2	11.2	11.2	0.16
7	15.85	33.528	24.652	6.01	106.5	0.8	0.32	0.6	0.05	0.20	0.52	0.10	36.	9.2	9.6	9.4	0.23
14	15.81	33.528	24.662	6.05	107.2	0.8	0.32	0.6	0.05	0.18	0.52	0.11	11.	5.3	6.2	5.8	0.27
20	14.83	33.485	24.844	6.28	109.1	0.9	0.35	1.0	0.08	0.29	0.67	0.18					
27	14.53	33.544	24.953	5.89	101.6	1.0	0.43	1.8	0.11	0.77	1.19	0.52	1.7	2.6	2.6	2.6	0.20
31	12.61	33.388	25.075	5.72D	94.8	2.6	0.52	2.7	0.19	1.02	0.99	0.46	0.88	0.16	0.16	0.16	0.22

CALCOFI CRUISE 1207

STATION 80.0 51.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
34 27.2 N	120 31.3 W	22/07/2012	1925 UTC	09 m	1214 - 1939 PST	1209 PST	1939 PST	1403.1 mg C/m ²	060								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	13.60	33.596	25.186	5.24	88.6	5.8	0.70	5.3	0.18	0.91	3.74	0.46	72. A	86.2	99.1	92.7	1.0
5	13.60	33.595	25.185	5.21	88.2	5.8	0.71	5.3	0.17	0.92	3.58	0.47	43.	112.4	98.0	105.2	0.89
7	13.30	33.597	25.248	5.17	86.9	5.9	0.76	5.5	0.17	1.01	3.73	0.45	30.	94.5	76.7	85.6	0.92
12	13.19	33.596	25.269	5.06	84.9	6.3	0.80	5.9	0.18	1.19	3.94	0.42	14.	53.9	52.0	52.9	0.79
18	12.95	33.600	25.321	4.98	83.2	6.6	0.84	6.3	0.18	1.60	3.78	0.50					
25	12.45	33.613	25.429	4.87	80.5	7.7	0.93	7.5	0.19	2.05	2.99	0.60	1.5	7.8	6.3	7.0	0.13
28	12.30	33.600	25.447	4.31	71.0	10.6	1.14	9.4	0.23	2.29	2.05	0.62	0.89	1.3	0.43	0.89	0.07

CALCOFI CRUISE 1207

STATION 80.0 80.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
33 28.7 N	122 32.1 W	23/07/2012	1742 UTC	09 m	1218 - 1946 PST	1217 PST	1944 PST	217.6 mg C/m ²	065								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
3	15.22	33.187	24.528	5.99	104.5	2.7	0.39	1.5	0.06	0.16	0.49	0.07	60. A	14.9	13.5	14.2	0.19
4	15.21	33.186	24.529	6.02	105.1	2.7	0.39	1.5	0.07	0.14	0.48	0.08	47.	25.7	14.2	19.9	0.16
6	15.21	33.188	24.532	6.01	104.8	2.7	0.40	1.5	0.06	0.07	0.47	0.07	39.	11.7	13.4	12.6	0.18
12	15.11	33.191	24.556	6.00	104.5	2.7	0.40	1.5	0.06	0.06	0.53	0.07	13.	7.7	8.3	8.0	0.19
19	14.78	33.250	24.673	6.09	105.5	2.6	0.43	2.3	0.09	0.13	0.83	0.14					
25	14.13	33.185	24.762	6.17	105.4	2.9	0.43	1.9	0.08	0.13	0.61	0.16	1.4	1.7	1.8	1.7	0.13
29	13.19	33.123	24.875	6.21	103.9	3.3	0.43	1.9	0.08	0.17	0.66	0.17	0.76	0.56	0.13	0.34	0.13

CALCOFI CRUISE 1207

STATION 76.7 90.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
33 42.1 N	123 40.0 W	24/07/2012	2017 UTC	23 m	1314 - 1950 PST	1221 PST	1948 PST	76.2 mg C/m ²	069								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	16.45	33.096	24.184	5.70	102.0	3.2	0.33	0.1	0.02	0.16	0.11	0.02	86. A	2.0	2.1	2.0	0.09
13	16.42	33.098	24.192	5.73	102.4	3.2	0.30	0.0	0.01	0.00	0.11	0.02	42.	1.7	1.7	1.7	0.09
16	16.41	33.083	24.183	5.70	101.9	3.2	0.31	0.0	0.01	0.05	0.11	0.02	33.	1.7	1.6	1.6	0.10
32	16.40	33.085	24.187	5.70	101.9	3.2	0.30	0.0	0.01	0.00	0.11	0.03	12.	0.83	1.0	0.92	0.10
42	16.22	33.084	24.228	5.70	101.6	3.2	0.31	0.0	0.01	0.02	0.12	0.02					
52	14.81	33.003	24.477	6.01	104.1	3.5	0.32	0.0	0.02	0.00	0.22	0.10					
63	14.47	33.003	24.551	6.04	103.8	3.7	0.33	0.0	0.01	0.00	0.35	0.22	1.5	0.57	0.61	0.59	0.08
70	14.68	33.169	24.636	6.02	104.1	3.3	0.31	0.0	0.01	0.00	0.31	0.20	0.94	0.21	0.04	0.12	0.06

CALCOFI CRUISE 1207

STATION 76.7 60.0

LATITUDE	LONGITUDE	DAY/MO/YR	CAST TIME	SECCHI	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE	ORD								
34 43.3 N	121 32.8 W	25/07/2012	1813 UTC	09 m	1214 - 1943 PST	1213 PST	1942 PST	625.1 mg C/m ²	072								
DEPTH	TEMP	SALINITY	SIGMA	OXYGEN	OXY	SI03	P04	N03	N02	NH4	CHL-A	PHAE0	LIGHT	UPTAKE (mg C/m ³)			
m	DEG C		THETA	ml/L	PCT	uM/L	uM/L	uM/L	uM/L	uM/L	ug/L	ug/L	PCT	1	2	MEAN	DARK
2	15.50	33.605	24.788	6.11	107.7	0.7	0.28	0.5	0.05	0.14	1.01	0.24	72. A	32.5	32.6	32.5	0.31
5	15.08	33.598	24.875	6.17	107.8	0.7	0.29	0.6	0.07	0.06	1.16	0.32	43.	35.2	37.6	36.4	0.32
7	14.93	33.598	24.908	6.13	106.8	0.7	0.30	0.8	0.07	0.04	1.09	0.34	30.	34.5	34.2	34.4	0.36
12	14.38	33.579	25.010	5.94	102.3	1.1	0.40	1.8	0.13	0.73	1.37	0.47	12.	30.7	32.4	31.5	0.30
18	12.73	33.598	25.362	5.50	91.6	3.2	0.69	5.0	0.42	2.27	3.18	0.87					
25	12.07	33.577	25.474	5.14	84.4	8.0	1.11	10.5	0.55	1.24	0.57	0.52	1.4	1.3	1.3	1.3	0.22
28	11.78	33.576	25.526	5.00	81.5	10.0	1.23	12.8	0.51	0.57	0.35	0.42	0.79	0.08	0.24	0.16	0.20

A) INCUBATION LIGHT INTENSITIES WERE 53.1 ,41.2 ,32.6 ,11.9 ,1.5 ,0.91 PERCENT RESPECTIVELY.

CalCOFI Cruise 1207

MACROZOOPLANKTON BIOMASS

Net Mesh Size: 0.505mm

Line	Sta.	Latitude N	Longitude W	Date Mo/Day	Time (PST)		Water Volume Strained (m ³)	Max. Tow Depth (m)	Volume per 1000 m ³ Strained	
					Start	End			Total (cm ³)	Small (cm ³)
76.7	49.0	35 05.3	120 46.7	07/25	1939	1947	181	44	636	520
76.7	51.0	35 01.4	120 54.9	07/25	1736	1757	444	171	370	280
76.7	55.0	34 53.3	121 12.0	07/25	1434	1455	418	187	392	392
76.7	60.0	34 43.3	121 32.8	07/25	0814	0835	433	209	150	139
76.7	70.0	34 23.1	122 15.1	07/25	0247	0310	453	213	155	155
76.7	80.0	34 02.9	122 56.8	07/24	1956	2016	488	177	201	98
76.7	90.0	33 42.2	123 40.1	07/24	1312	1334	461	213	17	17
76.7	100.0	33 23.2	124 19.3	07/24	0650	0712	487	216	14	14
80.0	50.5	34 28.0	120 29.5	07/22	1320	1322	43	14	138	138
80.0	51.0	34 27.1	120 31.4	07/22	1220	1227	136	64	257	257
80.0	55.0	34 19.1	120 48.0	07/22	1722	1742	462	191	516	260
80.0	60.0	34 09.1	121 09.0	07/22	2158	2219	427	201	875	672
80.0	70.0	33 49.3	121 50.6	07/23	0438	0457	421	197	382	152
80.0	80.0	33 29.0	122 32.1	07/23	1106	1129	483	213	162	162
80.0	90.0	33 09.0	123 13.1	07/23	1741	1802	495	192	36	36
80.0	100.0	32 49.3	123 54.0	07/23	2352	0010	386	217	101	101
81.7	43.5	34 24.2	119 48.2	07/22	0345	0346	37	7	483	483
81.8	46.9	34 16.7	120 01.6	07/21	2326	2346	404	200	461	461
83.3	39.4	34 15.9	119 19.7	07/21	1717	1719	54	14	93	93
83.3	40.6	34 13.5	119 24.7	07/21	1616	1618	65	19	570	570
83.3	42.0	34 10.5	119 30.4	07/21	1432	1442	191	83	871	504
83.3	51.0	33 52.7	120 07.9	07/21	0730	0740	209	87	125	125
83.3	55.0	33 44.5	120 24.8	07/21	0332	0354	513	169	253	175
83.3	70.0	33 14.6	121 26.6	07/20	1630	1652	483	205	120	120
83.3	80.0	32 54.5	122 07.7	07/20	0749	0811	461	212	251	251
83.3	90.0	32 34.7	122 48.7	07/20	0213	0235	490	185	228	228
83.3	100.0	32 14.6	123 29.8	07/19	1957	2017	430	208	102	102
83.3	110.0	31 54.7	124 10.2	07/19	1351	1412	420	216	112	112
85.4	35.8	34 01.1	118 50.0	07/16	2356	0000	102	22	1311	558
86.7	33.0	33 53.4	118 29.4	07/16	1846	1850	108	33	739	739
86.7	35.0	33 49.3	118 37.8	07/16	2113	2134	410	206	591	347
86.7	40.0	33 39.5	118 58.2	07/17	0447	0508	436	204	388	227
86.7	45.0	33 29.4	119 19.1	07/17	0834	0855	428	194	211	211
86.7	50.0	33 19.3	119 39.8	07/17	1425	1434	171	57	351	351
86.7	55.0	33 09.3	120 00.6	07/17	1938	1959	440	193	451	451
86.7	60.0	32 59.3	120 20.6	07/17	2356	0015	419	215	396	265
86.7	70.0	32 39.4	121 01.9	07/18	0645	0706	409	220	156	156
86.7	80.0	32 20.3	121 40.9	07/18	1252	1313	429	208	98	98
86.7	90.0	31 59.4	122 23.7	07/18	1854	1915	435	197	76	76
86.7	100.0	31 39.5	123 04.5	07/19	0050	0112	481	195	112	112
86.7	110.0	31 19.4	123 44.6	07/19	0600	0621	423	217	76	76
86.8	32.5	33 53.0	118 26.7	07/16	1704	1706	51	13	391	391
88.5	30.1	33 40.4	118 05.0	07/16	1319	1321	61	11	198	198
90.0	27.7	33 29.6	117 44.4	07/16	1018	1020	56	20	215	215
90.0	28.0	33 29.1	117 46.0	07/16	0858	0904	114	41	1732	1172
90.0	30.0	33 25.0	117 54.3	07/16	0700	0721	393	226	856	153
90.0	35.0	33 15.0	118 15.3	07/16	0238	0257	398	181	261	261
90.0	37.0	33 11.0	118 23.1	07/15	2345	0007	421	207	304	304
90.0	45.0	32 54.9	118 56.6	07/15	1810	1831	416	212	289	228
90.0	53.0	32 39.1	119 29.9	07/15	1234	1255	427	220	136	136
90.0	60.0	32 25.2	119 57.5	07/15	0644	0706	461	210	729	96
90.0	70.0	32 04.9	120 39.3	07/14	2307	2327	440	205	234	234
90.0	80.0	31 45.0	121 19.0	07/14	1547	1610	478	214	228	147
90.0	90.0	31 25.1	121 59.5	07/14	0700	0724	499	212	40	40
90.0	100.0	31 05.2	122 39.7	07/14	0052	0112	421	205	48	48
90.0	110.0	30 45.1	123 19.8	07/13	1752	1813	480	189	25	25
90.0	120.0	30 24.3	124 00.3	07/13	0852	0914	463	224	13	13
91.7	26.4	33 14.2	117 27.7	07/10	0407	0409	65	13	922	922
93.3	26.7	32 57.0	117 18.6	07/10	0000	0008	149	71	1822	737
93.3	28.0	32 54.9	117 24.3	07/03	0922	0944	402	228	331	331
93.3	30.0	32 50.7	117 31.9	07/03	0448	0509	421	199	399	399
93.3	35.0	32 40.8	117 52.4	07/10	1057	1118	403	207	184	184
93.3	40.0	32 30.8	118 12.7	07/10	1546	1610	496	205	107	85
93.3	45.0	32 20.8	118 33.2	07/10	2007	2029	446	193	247	247
93.3	50.0	32 10.9	118 52.4	07/11	0050	0109	408	192	196	184
93.3	55.0	32 00.9	119 13.3	07/11	0532	0553	479	196	259	259
93.3	60.0	31 50.7	119 33.9	07/11	1041	1102	435	212	147	147
93.3	70.0	31 30.9	120 14.6	07/11	1753	1814	456	197	145	145
93.3	80.0	31 10.6	120 55.0	07/12	0049	0108	400	200	280	280
93.3	90.0	30 50.6	121 35.4	07/12	0636	0658	466	215	64	64
93.3	100.0	30 30.5	122 15.5	07/12	1432	1456	499	213	48	48
93.3	110.0	30 10.8	122 55.4	07/12	2036	2056	484	183	54	54
93.3	120.0	29 50.9	123 35.2	07/13	0245	0305	424	207	24	24
93.4	26.4	32 57.0	117 16.8	07/10	0100	0102	68	12	354	354