

UNIVERSITY OF CALIFORNIA SCRIPPS INSTITUTION OF OCEANOGRAPHY

# data report

PHYSICAL, CHEMICAL AND BIOLOGICAL DATA

CalCOFI Cruise 8407  
5-31 July 1984

SIO Reference 84-30  
31 October 1984

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Approved for distribution:

  
W. A. Nierenberg, Director

## CONTENTS

Introduction .....	3
Literature Cited .....	6
Cruise 8407	
List of Figures .....	9
Personnel .....	20
Tabulated Hydrographic Cast Data .....	21
Tabulated Primary Productivity Cast Data .....	101
Tabulated Macrozooplankton Data .....	109
Distribution List .....	114

## INTRODUCTION

The data in this report were collected during Cruise 8407\* of the California Cooperative Oceanic Fisheries Investigations (CalCOFI) program aboard the RV *David Starr Jordan* of the National Marine Fisheries Service and the RV *New Horizon* of the Scripps Institution of Oceanography. In addition to routine station sampling, 24-hour stations were occupied to make several Nansen casts and net tows in order to assess within-station hydrographic, chemical and biological variability. Primary productivity casts were taken daily near local noontime.

The data were collected and processed by personnel of the Marine Life Research Group (MLRG), the Southwest Fisheries Center, National Marine Fisheries Service (NMFS), the Physical and Chemical Oceanographic Data Facility (PACODF), and the Instituto Nacional de Pesca (INP). Many volunteers also assisted in the collection of data at sea.

## STANDARD PROCEDURES

### *Hydrographic Cast Data*

The hydrographic casts consisted of 20 or fewer Nansen bottles lowered to a maximum sampling depth of 600 meters, bottom depth permitting. Temperature, salinity, oxygen and nutrients were determined for all depths sampled. Chlorophyll-*a* and phaeopigments were usually determined from the top 12 depths.

Paired protected reversing thermometers were used to determine temperatures which are recorded to hundredths of a degree Celsius. Sampling bottles used below a depth of 100 meters were equipped with unprotected thermometers for determination of the depth of sampling.

Salinity samples were analyzed at sea using inductive-type salinometers. Salinometers were standardized with sub-standard seawater. The sub-standard water was prepared from filtered seawater collected in 30-liter Niskin bottles from a depth of 400 m, gently evaporated to increase the salinity to near 35‰. Periodic checks on the concentration of the substandard were made by comparison with Wormley Standard Seawater batch P-90. The salinity values are reported to three decimal places.

Dissolved oxygen was determined by the Winkler method as modified by Carpenter (1965), using the equipment and procedure outlined by Anderson (1971).

Silicate, phosphate, nitrate and nitrite nutrients were determined at sea using an automated analyzer. The procedures used are similar to those described in Atlas *et al.* (1971).

Chlorophyll was measured with a fluorometric technique (Yentsch and Menzel, 1963; Holm-Hansen *et al.*, 1965). Subsamples (65 or 140 ml) were drawn from the Nansen bottles and filtered onto GF/C filters. The filters were placed in scintillation vials containing 10 ml of 90% acetone and the pigments were extracted in the dark in a refrigerator for a period between one and four days. The samples were then brought to room temperature and the fluorescence of the sample was determined before and after acidification with a Turner 111 fluorometer. The potential biases in this technique are discussed in Venrick and Hayward (1984).

The observed data have been evaluated using the methodology described by Klein (1973). This involves consideration of their variation as functions of density or depth and their relations to each other, and comparisons with adjacent observations.

### *Primary Productivity Casts*

Primary production was estimated from <sup>14</sup>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). Six depths, corresponding to predetermined levels of light penetration, were sampled with 5 l Niskin bottles. Triplicate subsamples were drawn from each depth into 125 ml polycarbonate

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



incubation bottles which were inoculated with  $10 \mu\text{Ci}$  of  $^{14}\text{C}$  as  $\text{NaHCO}_3$ . Two light and one dark (control) bottle were then incubated approximately from local apparent noon to civil twilight in sea water cooled incubators with neutral density screens which simulate the *in situ* light levels. At the end of the incubation, the samples were filtered onto HA milipore filters and placed in scintillation vials. One-half ml of 10% HCl was added to each sample, which 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 fluor were added to each sample and the samples were returned to S.I.O. where the radioactivity was determined with a scintillation counter.

#### *Macrozooplankton Net Tows*

Macrozooplankton was sampled with a 71 cm mouth diameter paired net (bongo net) equipped with 0.505 mm plankton mesh. Bottom depth permitting, the nets were towed obliquely from 210 m 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 the 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).

#### *Conductivity/Temperature/Depth/Oxygen Recorder (CTDO) Data*

CTDO data were collected on some lines occupied by the *David Starr Jordan*, as shown by the station position map (Fig. 1). The CTDO data are not included in this report.

### TABULATED DATA

The tabulated data in this report have substantial changes in both content and appearance from data tabulations that have appeared in earlier CalCOFI data reports. The changes were noted in the 8401 cruise data report (SIO Ref. 84-18) and are repeated below:

1. Observed data and interpolated standard level data have been interspersed and are presented together in depth sequence.

2. Salinities have been calculated from the algorithms for the Practical Salinity Scale, 1978 (PSS78) as recommended by the Joint Panel on Oceanographic Tables and Standards (Lewis, 1980; UNESCO, 1981). Between 34 and 36 salinity, the differences between the new PSS78 and old UNESCO66 salinity scales are .001 or less. At practical salinity = 30, the new salinity is .005 higher than the old salinity scale. Parts per thousand or the symbol ‰ is not used for PSS78 salinities, so the new practical salinities are 1000 times larger than salinities based on previous scales.

3. Potential temperature has been added to the tabulation. The difference between *in situ* temperature and potential temperature is only .05° at 500 m, so potential temperature is not important for the shallow casts presented in this report. However, potential temperature is of interest for deeper casts that are typically taken on expeditions and occasionally on CalCOFI cruises, so it will be reported routinely. Potential temperature is calculated from the expressions given by Fofonoff (1977), based upon Bryden's (1973) results.

4. Density related parameters are calculated from the International Equation of State of Seawater 1980 (EOS80) algorithms published by Millero, Chen, Bradshaw and Schleicher (1980) and UNESCO (1981). Sigma-theta in this report is about .03 lower than the sigma-t that appeared in earlier reports. EOS80 is in terms of true density, while the older equations were in terms of specific gravity, treated as if they were density. That accounts for most of the difference between new and old equation of state densities. The newer experimental measurements on the density of seawater also show small differences that are variable over the temperature-salinity range of seawater. Sigma-theta is calculated from potential temperature instead of *in situ* temperature. The differences in sigmas would have been somewhat greater if *in situ* temperatures had been used to calculate sigma in the present data report.

Dynamic heights in this report are within one dynamic millimeter of the values calculated in previous CalCOFI reports. The different equations of state have little effect on the dynamic height calculation in the top 600 meters.

Specific volume anomaly (with pressure terms) is given in this data report. Previously, thermobaric anomaly (without pressure terms) was reported, although the dynamic heights were calculated from specific volume anomaly.

5. Pressure has been added to the data listing. Although depth remains as the primary key to the data for historical reasons and to facilitate comparisons with past cruises, pressure is required for the EOS80 density calculations.

6. Percent oxygen saturation has been added. The values are calculated from the equations of Weiss (1970) and UNESCO (1973). The solubility of oxygen varies primarily with temperature and secondarily with salinity. For convenience, an oxygen saturation is also given for levels where temperature or salinity is missing. Those values are based upon interpolated temperature or salinity and should be used with caution.

7. Chlorophyll-*a* and phaeopigments have been incorporated with the hydrographic and chemical data instead of being reported separately.

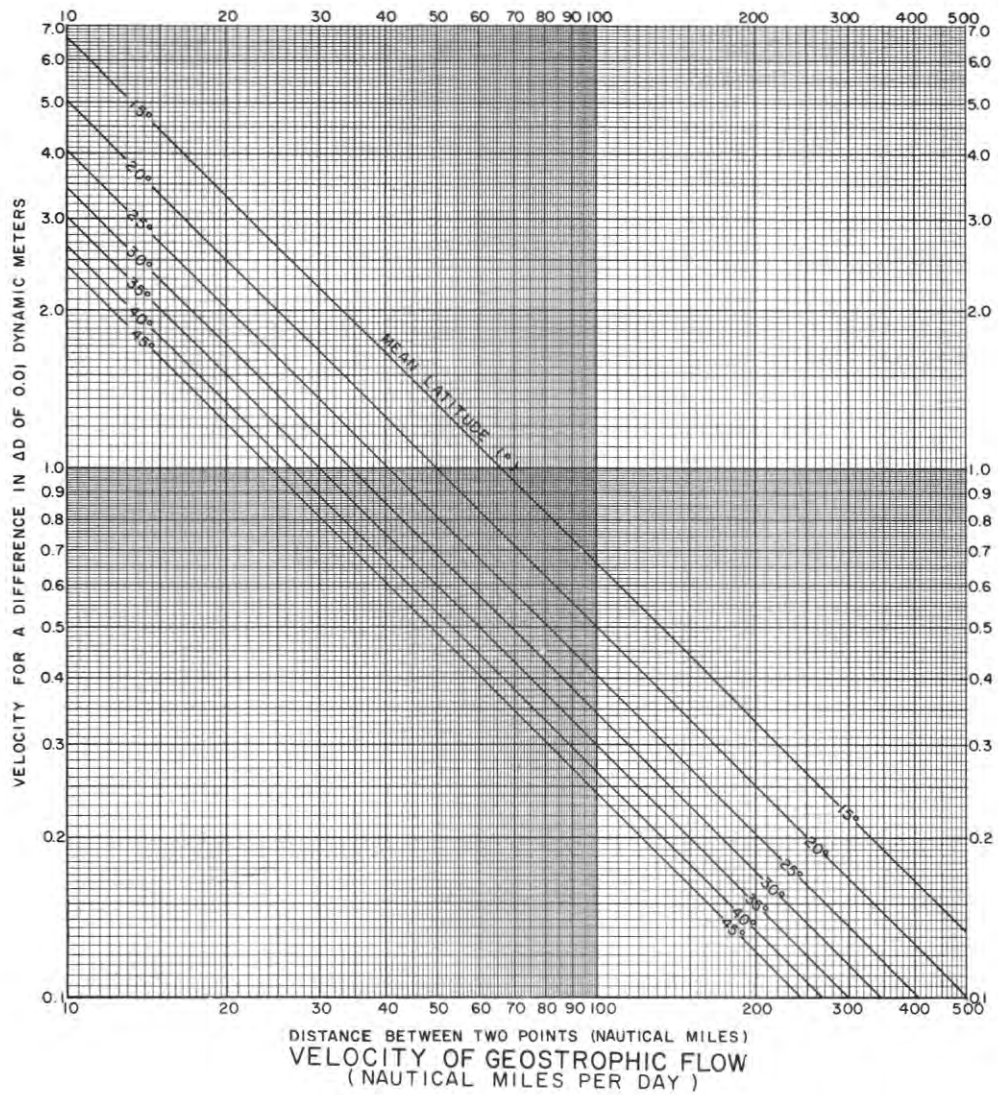
8. Heading information has been expanded to include more of the weather observations; most of the observations have been de-coded and are self-explanatory. Weather conditions are coded using WMO code 4501. Bottom depths, determined acoustically, have been corrected using Matthews (1939) tables.

9. CalCOFI line and station numbers are separated by a few blank spaces in order to leave room for finer resolution of line and station numbers when appropriate. Most CalCOFI cruises occupy stations on cardinal lines and on ordinal lines with 1/3 and 2/3 spacing between cardinal lines. For example, the desired lines between lines 90 and 100 are lines 93-1/3 and 96-2/3. As in previous reports, ordinal line numbers have been rounded to the nearest whole number (lines 93 and 97, respectively, in the previous example). Additional lines and more closely spaced stations are occupied on some cruises, then it is useful to list some line and station numbers to the nearest 0.1. Eber and Hewitt (1979) give conversion algorithms for conversion of latitude and longitude to CalCOFI station number. A few inshore stations have been listed to one decimal place in this report. It is not practical or desirable to list *all* stations to one decimal place because stations that occurred more than  $\pm 0.2$  n.m. along the station direction or  $\pm 0.6$  n.m. along the line direction from the desired position would require a different CalCOFI station number. For example, some of the repeat casts taken on the 24-hour stations would have different station numbers if listed to 0.1, although all casts were done within a very small area.

#### *Primary Productivity Casts*

The tabulated data include: sample depths, the light levels at which the samples were incubated, 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, the dark uptake, nutrients (when measured), chlorophyll and phaeophytin. The uptake values shown are the total for the incubation period. The times of local apparent noon (LAN), civil twilight, and the vertically integrated value of the mean uptake from the surface to the deepest sample depth (assuming that the shallowest measured value extends to the surface and that negative values are zero) are also shown for each experiment. The uptake data have been presented to two significant digits (values < 1.00) or one decimal (values > 1.00). The higher production values may not warrant all of the significant digits presented. Incubation time, LAN, and civil twilight are given in local Pacific Standard Time (PST); to convert to GMT, add eight hours to the PST time.

- UNESCO, 1973. International Oceanographic Tables, Vol. 2, National Institute of Oceanography of Great Britain; and UNESCO, Paris; p. 141.
- UNESCO, 1981,a. Background papers and supporting data on the Practical Salinity Scale 1978. *UNESCO Tech. Pap. in Mar. Sci., No. 37.*
- UNESCO, 1981,b. Background papers and supporting data on the International Equation of State 1980. *UNESCO Tech. Pap. in Mar. Sci., No. 38.*
- Venrick, E. L. and T. L. Hayward, 1984. Determination of chlorophyll on the 1984 CalCOFI surveys. *CalCOFI Rep., Vol. 25.*
- Weiss, R. F., 1970. The solubility of nitrogen, oxygen and argon in water and seawater. *Deep-Sea Res., 17: 721-735.*
- Yentsch, C. S. and D. W. Menzel, 1963. A method for the determination of phytoplankton chlorophyll and phaeophytin by fluorescence. *Deep-Sea Res., 10: 221-231.*



cm/sec	0	1	2	3	4	5	6	7	8	9
0	<i>KNOTS</i> 0.02	0.04	0.06	0.08	0.10	0.12	0.14	0.16	0.17	
	<i>NM/DAY</i>	0.47	0.93	1.40	1.86	2.33	2.80	3.26	3.73	4.20
10	0.19	0.21	0.23	0.25	0.27	0.29	0.31	0.33	0.35	0.37
	4.66	5.13	5.59	6.06	6.53	6.99	7.46	7.93	8.39	8.86
20	0.39	0.41	0.43	0.45	0.47	0.49	0.51	0.52	0.54	0.56
	9.32	9.79	10.26	10.72	11.19	11.66	12.12	12.59	13.05	13.52
30	0.58	0.60	0.62	0.64	0.66	0.68	0.70	0.72	0.74	0.76
	13.99	14.45	14.92	15.38	15.85	16.32	16.78	17.25	17.72	18.18
40	0.78	0.80	0.82	0.84	0.85	0.87	0.89	0.91	0.93	0.95
	18.65	19.11	19.58	20.05	20.51	20.98	21.45	21.91	22.38	22.84
50	0.97	0.99	1.01	1.03	1.05	1.07	1.09	1.11	1.13	1.15
	23.31	23.78	24.24	24.71	25.17	25.64	26.11	26.57	27.04	27.51
60	1.17	1.18	1.20	1.22	1.24	1.26	1.28	1.30	1.32	1.34
	27.98	28.44	28.90	29.37	29.84	30.30	30.77	31.24	31.70	32.17
70	1.36	1.38	1.40	1.42	1.44	1.46	1.48	1.50	1.52	1.53
	32.63	33.10	33.57	34.03	34.50	34.96	35.43	35.90	36.36	36.83
80	1.55	1.57	1.59	1.61	1.63	1.65	1.67	1.69	1.71	1.73
	37.30	37.76	38.23	38.69	39.16	39.63	40.09	40.56	41.03	41.49
90	1.75	1.77	1.79	1.81	1.83	1.85	1.86	1.88	1.90	1.92
	41.96	42.42	42.89	43.36	43.82	44.29	44.76	45.22	45.69	46.15
100	1.94	1.96	1.98	2.00	2.02	2.04	2.06	2.08	2.10	2.12
	46.62	47.09	47.55	48.02	48.48	48.95	49.42	49.88	50.35	50.82

CONVERSION TABLE  
(CENTIMETERS / SECOND - KNOTS - NAUTICAL MILES / DAY)

1 cm/sec = 0.019 kts = 0.466 NAUTICAL MILES / DAY  
 1 kt = 24 NAUTICAL MILES / DAY = 51.48 cm/sec  
 1 NAUTICAL MILE / DAY = 0.042 kts = 2.14 cm/sec

## FIGURES

### Cruise 8407

1. CalCOFI Cruise 8407, station positions.
2. Horizontal distribution of dynamic height anomaly (0 over 500 d-bar).
3. Horizontal distribution of dynamic height anomaly (200 over 500 d-bar).
4. Horizontal distribution of temperature at 10 meters
5. Horizontal distribution of salinity at 10 meters.
6. Horizontal distribution of sigma-theta at 10 meters.
7. Horizontal distribution of chlorophyll-*a* at 10 meters.
8. Horizontal distribution of temperature at 200 meters.
9. Horizontal distribution of salinity at 200 meters.
10. Horizontal distribution of sigma-theta at 200 meters.



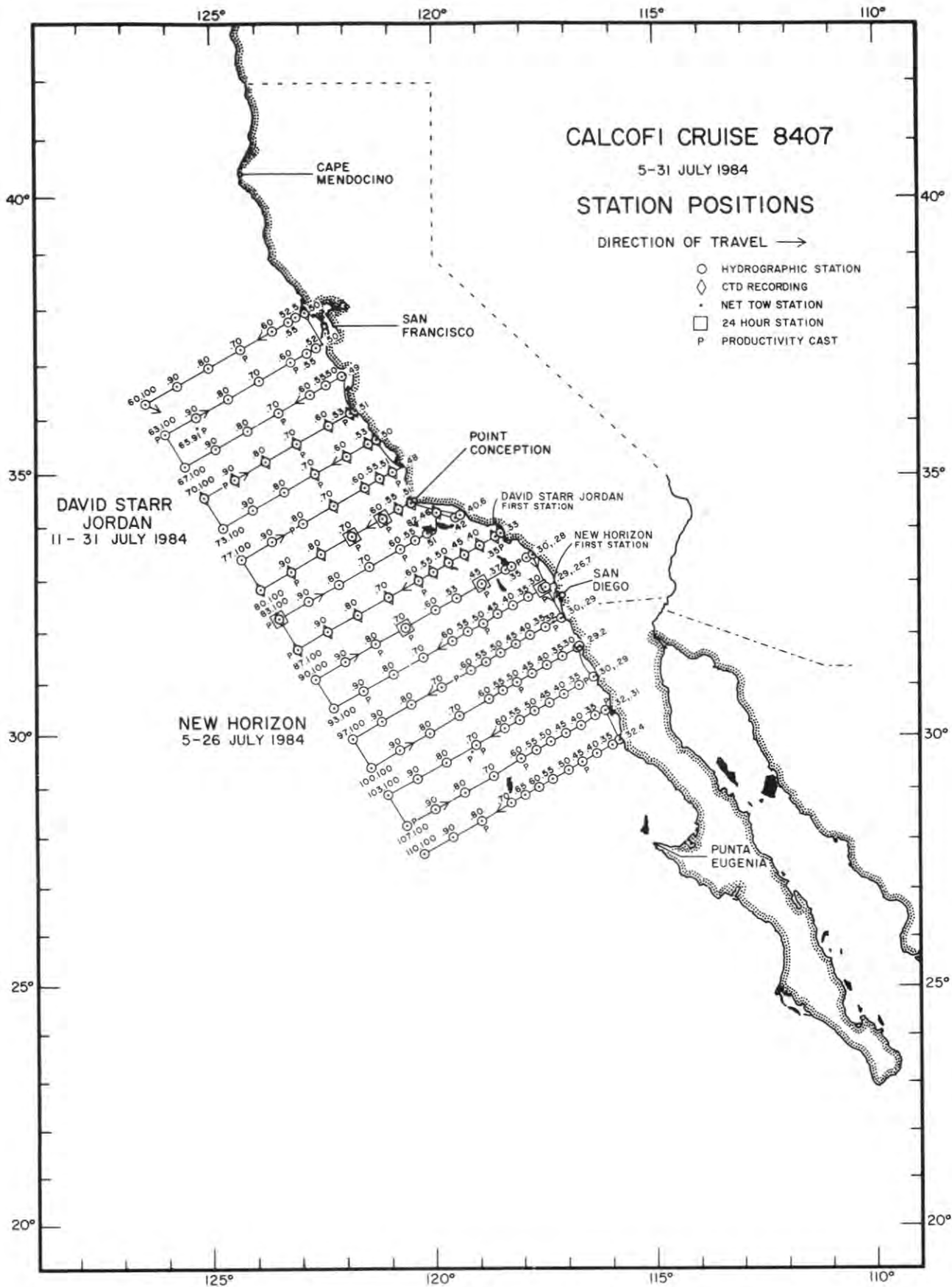


FIGURE 1



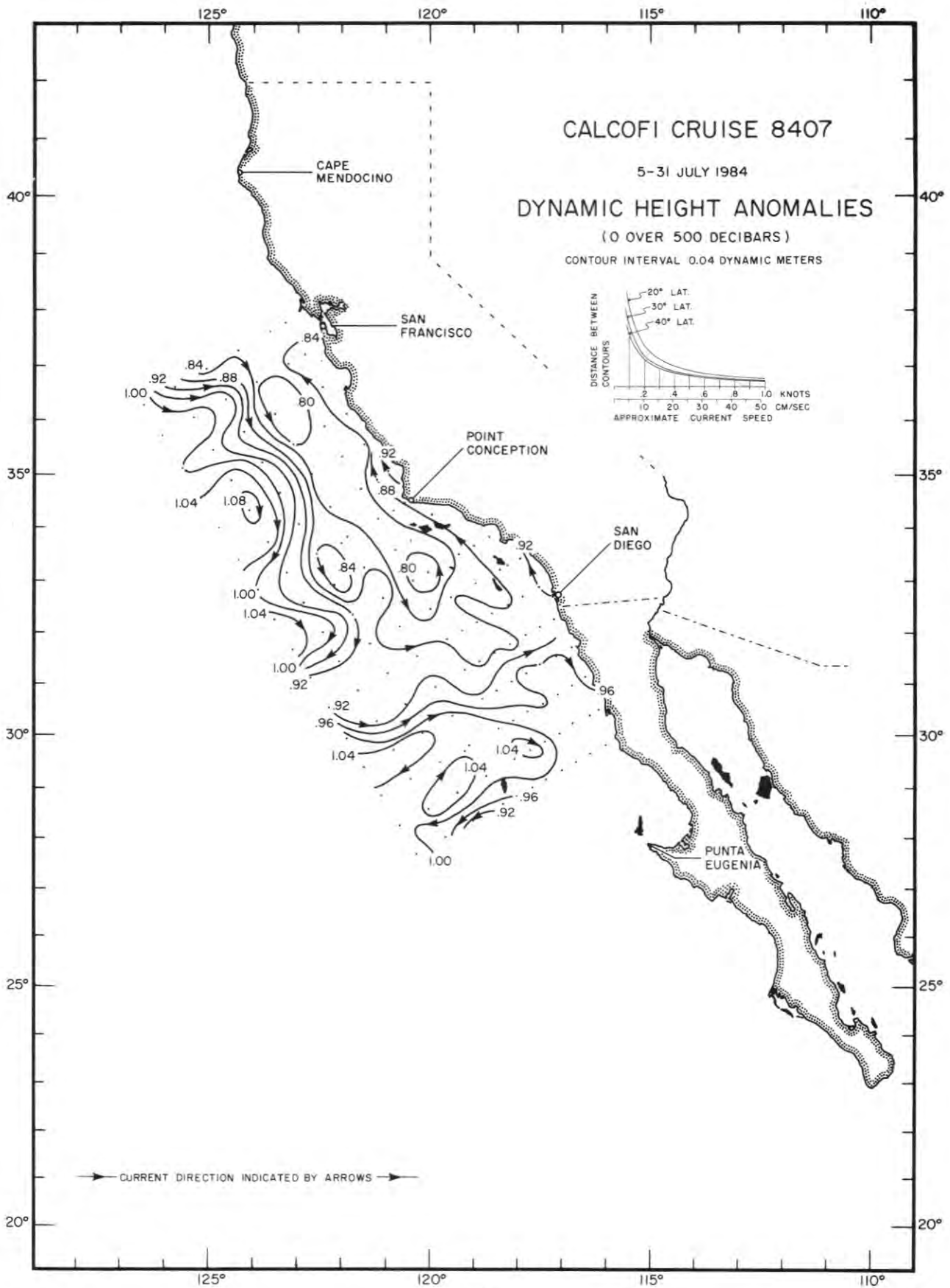


FIGURE 2

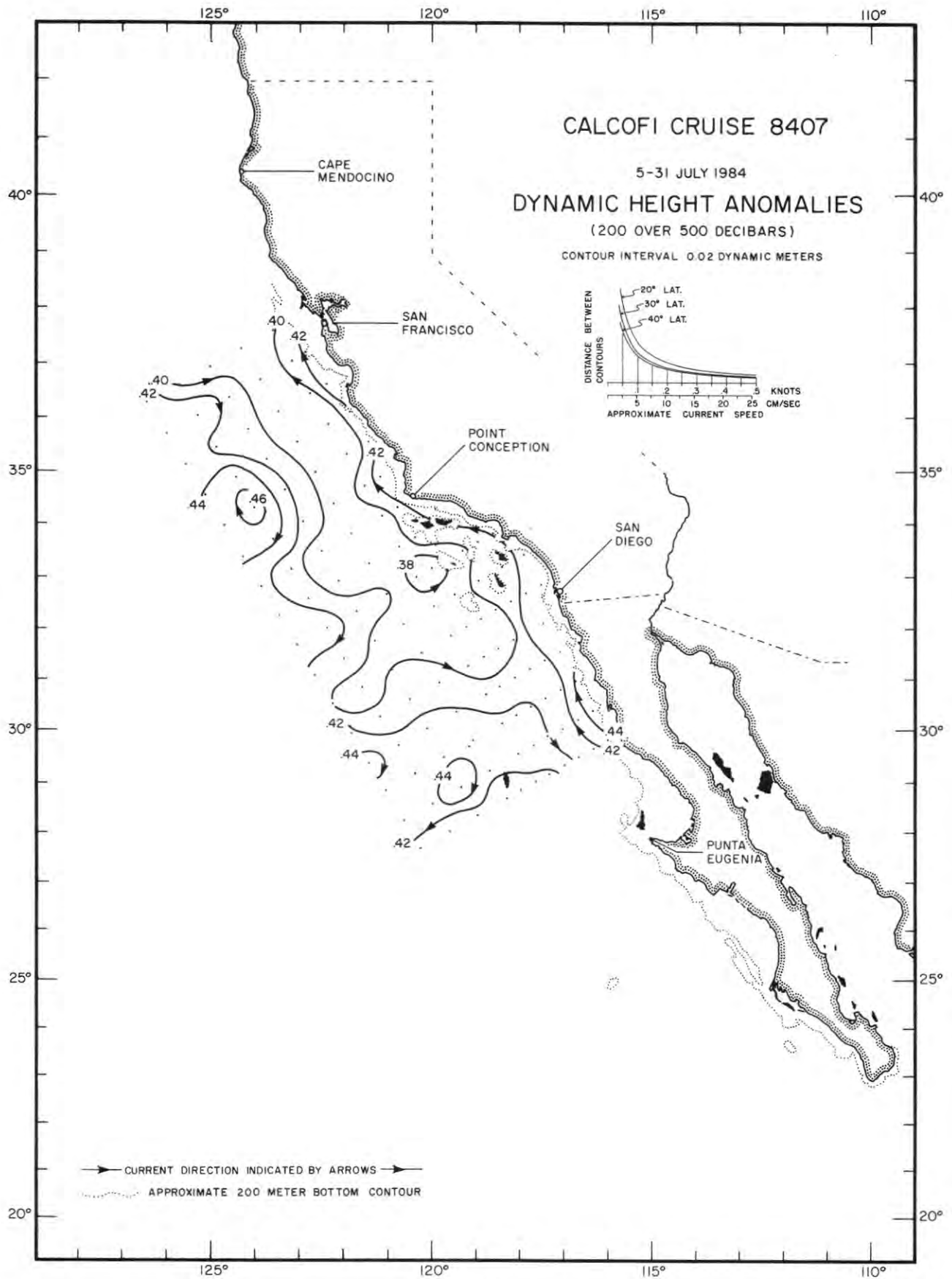


FIGURE 3

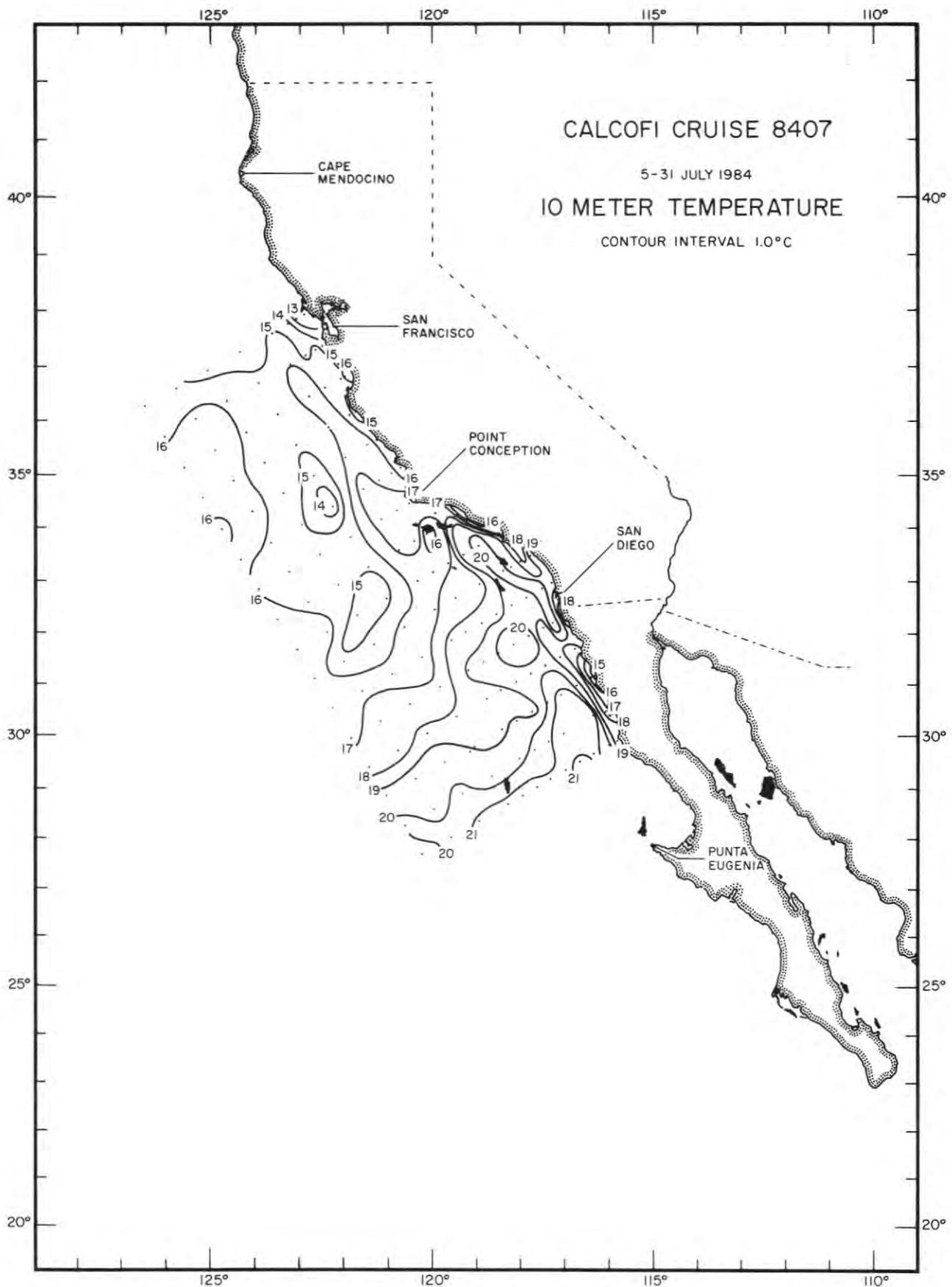


FIGURE 4

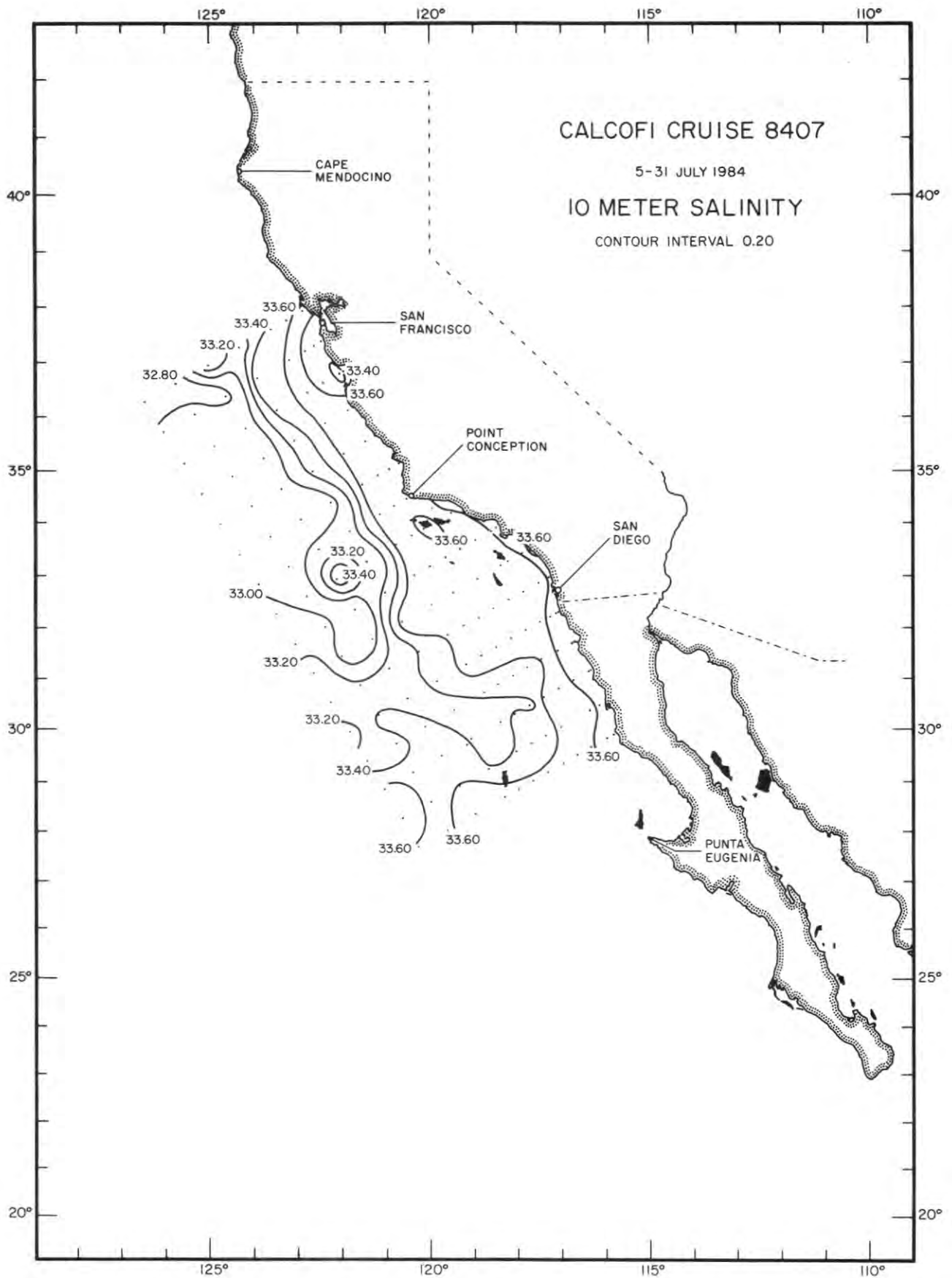


FIGURE 5



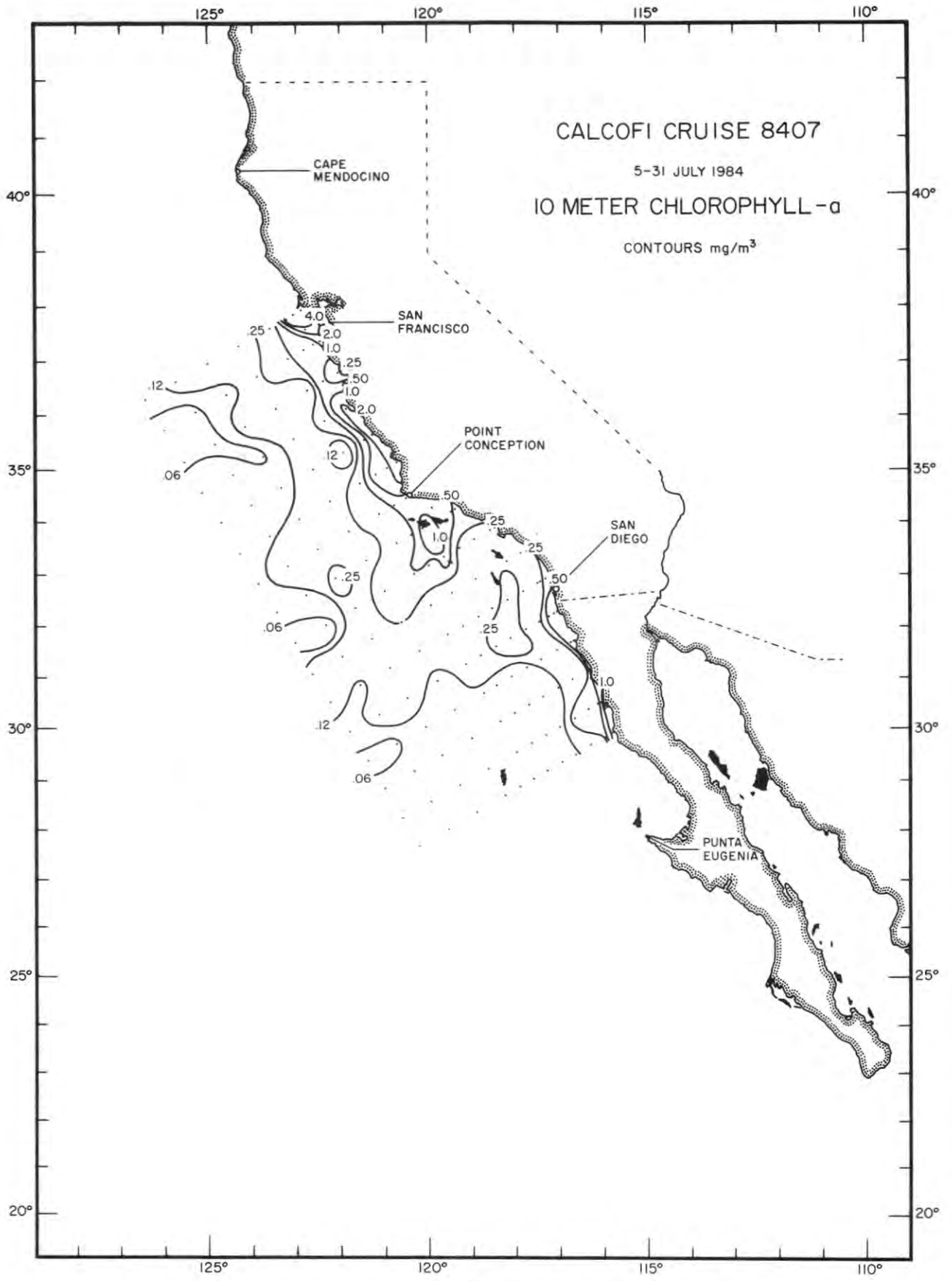


FIGURE 7



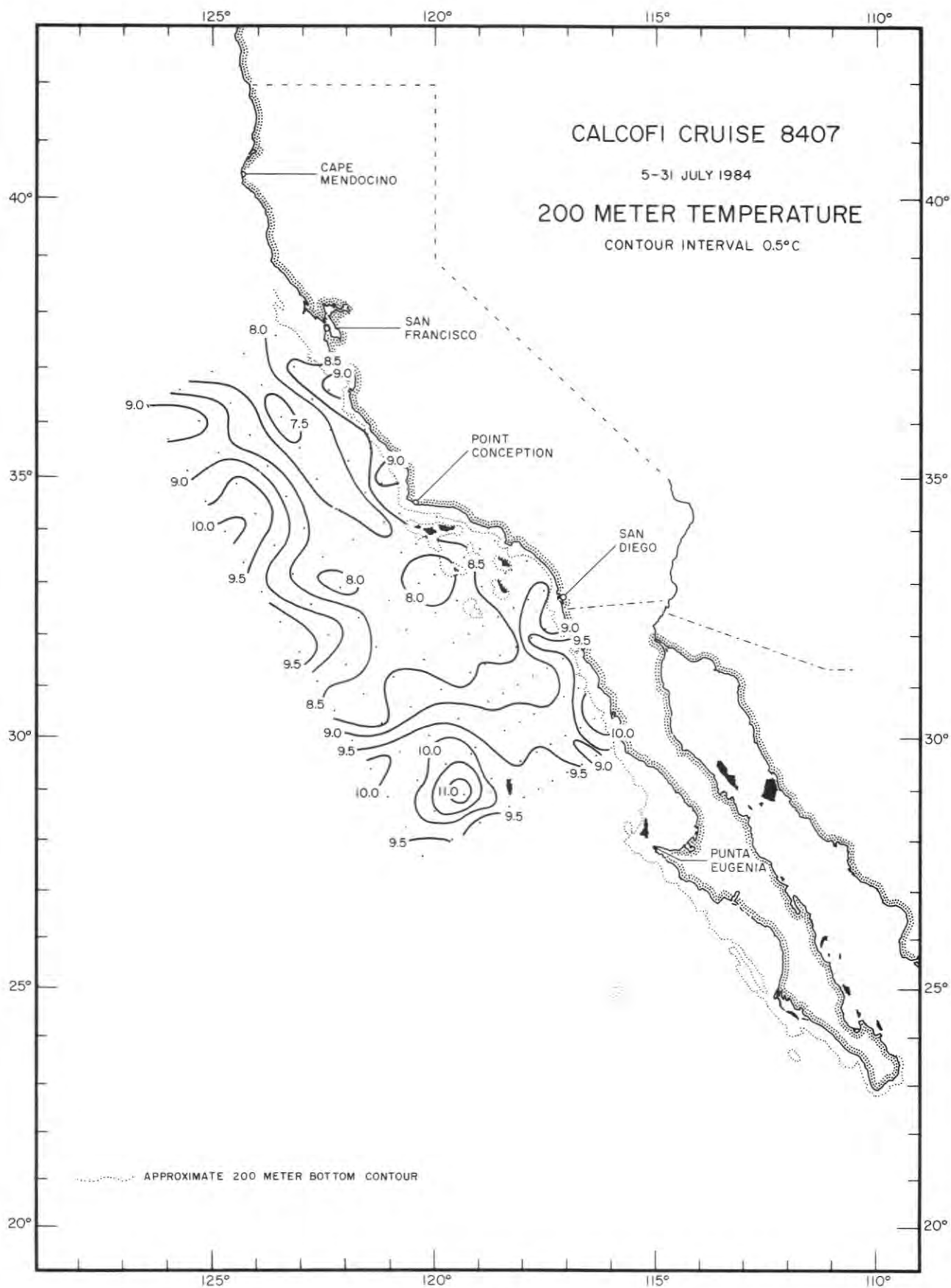


FIGURE 8

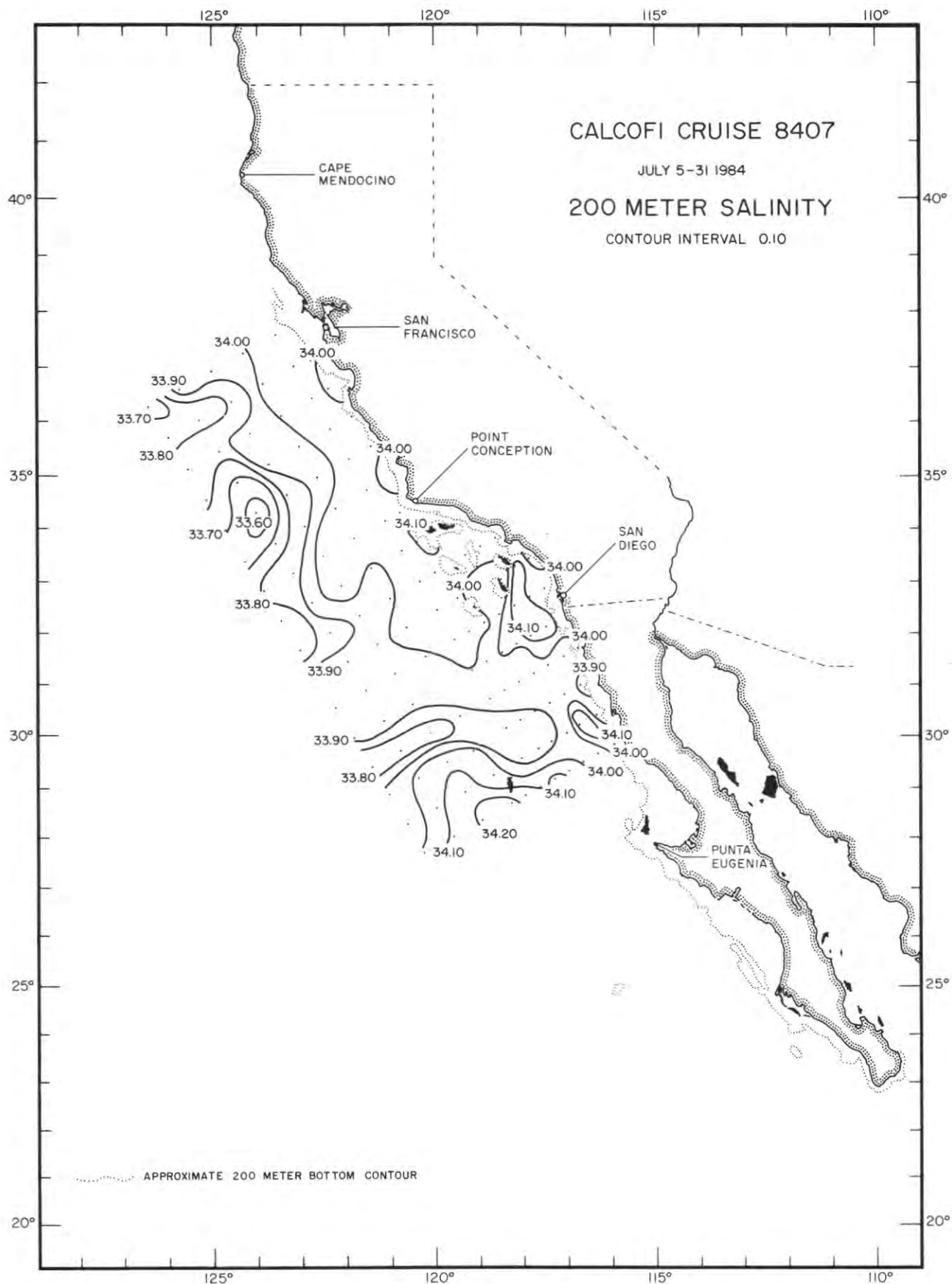


FIGURE 9

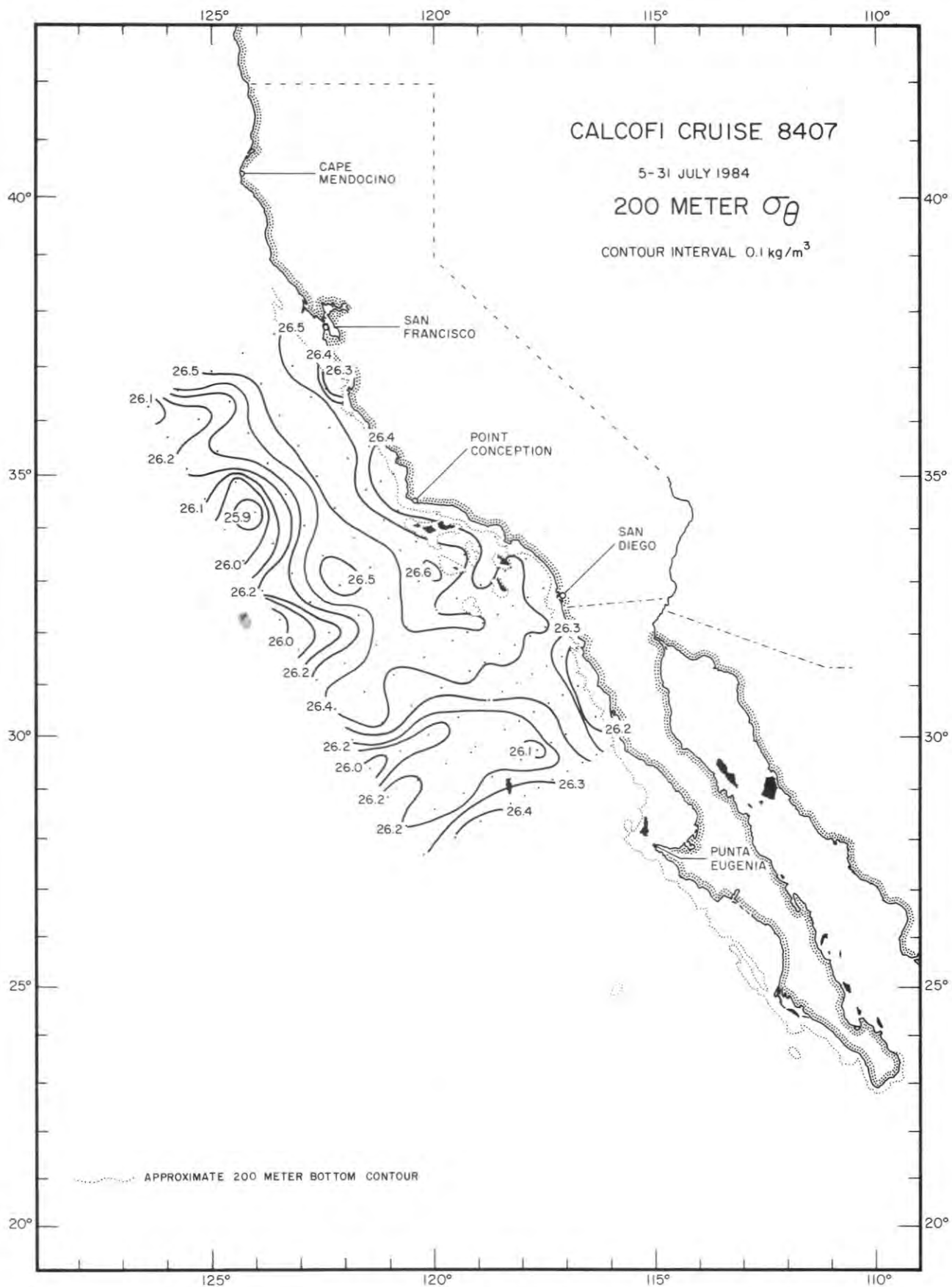


FIGURE 10

## PERSONNEL

Cruise 8407

### SHIPS' CAPTAINS

Roll, Milton, RV *David Starr Jordan*  
Desjardins, Thomas J., RV *New Horizon*

### PERSONNEL PARTICIPATING IN THE COLLECTION OF DATA

#### RV *David Starr Jordan*

Flerx, William C. (in charge)	Fishery Biologist, NMFS
Busby, Morgan S.	Biological Technician, NMFS
Cummings, Sherry L.	Staff Research Associate, SIO
Earhart, Bradley S.	Biological Aide, NMFS
Howe, Melanie	Student, SDSU
Jenson, John H.	Biological Aide, NMFS
Jones, Tami	Student, SDSU
Masten, Douglas M.	Marine Technician, SIO
Methot, Richard D.	Fishery Biologist, NMFS
Meyer, Cindy H.	Computer Programmer, NMFS
Santos, Celeste S.	Biological Aide, NMFS
Snow, Debra L.	Student, SDSU
Wells, James A.	Marine Technician, SIO

#### RV *New Horizon*

Bryan, Walter R. (in charge)	Marine Technician, SIO
Abramenkoff, Dimitry N.	Biological Technician, NMFS
Ambrose, David A.	Fishery Biologist, NMFS
Anderson, George C.	Staff Research Associate, SIO
Chen, Ya Qu	Visiting Scholar, SIO
Donath H., Eduardo	Graduate Student, CICESE
Gil H., Reyna	Graduate Student, CICESE
Granados G., Maria	Investigador Titular, INP
Hester, Arthur W.	Staff Research Associate, SIO
Kemper, Cecelia A.	Staff Research Associate, SIO
Montemayor, Gabriela	Graduate Student, CICESE
O'Brien, David J.	Staff Volunteer, SIO
Rusnak, Nicholas	Graduate Student, SDSU
Schmitt, James A.	Electronics Technician, SIO
Sleeper, Howard	Research Associate, SD Society of Natural History
Strong, Lisa C.	Student, UCSD
Suegliato, Michael E.	Student, San Jacinto College
Yang, Jae Sam	Graduate Student, SIO

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 60 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 56.6 N	122 52.9 W	28/07/84	0535 GMT	44 M	330	22 KT			1013.0 MB	13.8 C	12.2 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	12.66	12.66	33.634	25.403	256.8	.000	6.06	100.7							0
1	1	12.66	12.66	33.634	25.403	256.5	.003	6.06	100.7	4.8	.76	6.6	.36	4.99	.39	10
	10 ISL	12.42	12.42	33.618	25.435	253.6	.026	5.90	97.5							10
1	11	12.40	12.40	33.616	25.439	253.3	.028	5.88	97.1	6.7	.91	8.1	.44	4.90	.38	11
	20 ISL	11.17	11.17	33.614	25.667	231.9	.050	4.91	79.0							20
1	21	11.05	11.05	33.616	25.690	229.7	.052	4.81	77.2	13.6	1.33	14.6	.65	.37	.39	21
	30 ISL	10.74	10.74	33.643	25.766	222.6	.073	4.50	71.7							30
1	31	10.71	10.71	33.646	25.773	221.9	.074	4.47	71.2	16.2	1.51	16.9	.54	.19	.22	31

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 60 52.5

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 51.8 N	123 03.8 W	28/07/84	0722 GMT	84 M	320	30 KT			1013.0 MB	14.8 C	17.4 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	12.66	12.66	33.647	25.412	255.6	.000	5.82	96.7							0
1	1	12.66	12.66	33.647	25.412	255.6	.003	5.82	96.7	6.3	.97	7.1	.31	5.69	.63	1
	10 ISL	12.66	12.65	33.645	25.411	255.9	.026	5.85	97.2							10
1	11	12.66	12.65	33.644	25.411	255.9	.028	5.85	97.2	6.4	.97	7.3	.17	5.40	.81	11
	20 ISL	12.68	12.67	33.644	25.407	256.6	.051	5.84	97.1							20
1	21	12.68	12.68	33.644	25.407	256.6	.053	5.84	97.1	6.6	.95	7.1	.31	5.56	.74	21
	30 ISL	12.68	12.67	33.644	25.407	256.8	.077	5.81	96.6							30
1	31	12.68	12.67	33.644	25.408	256.8	.079	5.81	96.6	6.5	.97	7.1	.31	5.54	.76	31
	41	11.70	11.69	33.567	25.534	245.0	.104	5.10	83.0	10.4	1.20	12.2	.70	1.02	.76	41
1	50 ISL	10.90	10.90	33.622	25.722	227.3	.126	4.47	71.5							50
1	51	10.84	10.84	33.632	25.740	225.7	.127	4.42	70.6	16.2	1.50	16.9	.51	.74	.21	51

## RV DAVID STARR JORDAN

## 7 CALCOFI CRUISE 8407

STATION 60 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 46.8 N	123 14.7 W	28/07/84	0913 GMT	122 M	320	28 KT			1014.0 MB	14.5 C	13.0 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	13.88	13.88	33.542	25.086	286.5	.000	6.33	107.8							0
1	1	13.88	13.88	33.542	25.086	286.6	.003	6.33	107.8	1.6	.46	2.0	.17	4.29	1.07	1
	10 ISL	13.92	13.92	33.542	25.079	287.6	.029	6.45	109.9							10
1	11	13.92	13.92	33.542	25.078	287.7	.031	6.46	110.1	1.5	.46	2.0	.15	4.87	1.00	11
	20 ISL	13.76	13.76	33.538	25.108	285.1	.057	6.31	107.3							20
1	21	13.75	13.74	33.538	25.111	284.8	.060	6.30	107.0	1.7	.49	2.6	.19	4.01	1.26	21
	30 ISL	12.93	12.93	33.514	25.256	271.2	.085	5.67	94.7							30
1	31	12.82	12.82	33.513	25.278	269.2	.088	5.59	93.1	6.3	.85	7.7	.41	.74	1.43	31
	41	10.91	10.90	33.568	25.679	231.2	.112	4.25	68.0	15.9	1.59	17.9	.19	.19	.30	41
1	50 ISL	10.40	10.40	33.659	25.837	216.3	.133	3.80	60.1							50
1	51	10.39	10.39	33.665	25.844	215.6	.135	3.78	59.8	21.6	1.57	20.7	.10	.17	.23	51
	61	10.10	10.09	33.712	25.931	207.6	.156	3.52	55.4	23.9	1.68	22.2	.08	.16	.19	61
1	72	9.75	9.74	33.760	26.027	198.7	.178	3.23	50.4	27.4	1.79	23.8	.04	.08	.19	72
	75 ISL	9.72	9.71	33.776	26.045	197.0	.185	3.14	49.0							75
1	87	9.67	9.66	33.826	26.092	192.8	.207	2.86	44.6	28.4	1.90	24.6	.11	.06	.16	87
	100 ISL	9.47	9.45	33.852	26.146	187.9	.233	2.61	40.5							101
1	101	9.44	9.43	33.853	26.152	187.4	.235	2.59	40.2	30.5	2.00	25.5	.14	.05	.19	102

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 60 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 36.8 N	123 36.5 W	28/07/84	1216 GMT	3200 M	330	28 KT			1016.0 MB	14.9 C	13.2 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	15.08	15.08	33.567	24.852	309.0	.000	5.87	102.5							0
1	1	15.08	15.08	33.567	24.852	309.0	.003	5.87	102.5	3.5	.35	1.0	.09	.17	.27	1
	10 ISL	15.07	15.07	33.570	24.855	308.9	.031	6.19	108.0							10
1	11	15.07	15.07	33.571	24.856	308.9	.034	6.20	108.2	2.5	.35	1.0	.08	.28	.26	11
	20	15.06	15.06	33.566	24.855	309.2	.062	6.16	107.5	2.4	.35	1.1	.08	.43	.26	20
1	30 ISL	13.27	13.26	33.656	25.301	267.0	.091	5.44	91.6							30
1	32	12.90	12.90	33.677	25.388	258.7	.095	5.28	88.2	8.2	.93	8.4	.21	.48	.25	32
	41	12.33	12.32	33.658	25.486	249.6	.118	4.67	77.0	12.0	1.14	12.9	.53	.47	.33	41
1	50 ISL	11.81	11.80	33.666	25.591	239.8	.141	4.28	69.9							50
1	52	11.70	11.69	33.670	25.614	237.7	.145	4.23	68.9	15.6	1.33	16.8	.12	.26	.33	52
	62	10.78	10.77	33.689	25.795	220.6	.168	4.00	63.9	19.4	1.50	19.3	.28	.09	.15	62
1	72	10.14	10.13	33.733	25.940	207.0	.189	3.57	56.2	22.9	1.61	21.8	.01	.06	.07	72
	75 ISL	10.02	10.01	33.744	25.969	204.3	.196	3.53	55.4							75
1	86	9.76	9.75	33.779	26.040	197.7	.217	3.44	53.7	24.8	1.69	22.7	.01	.04	.10	86
1	100	9.35	9.34	33.854	26.166	196.0	.246	2.96	45.8	29.0	1.83	25.0	.01	.01	.09	101
1	121	9.03	9.01	33.925	26.274	176.1	.283	2.69	41.4	32.5	1.91	26.4	.01	.02	.09	122
	125 ISL	8.97	8.96	33.937	26.292	174.4	.290	2.65	40.8							126
1	146	8.70	8.68	33.992	26.379	166.6	.326	2.47	37.7	36.4	2.04	27.8	.01	.01	.09	147
	150 ISL	8.67	8.65	34.000	26.390	165.6	.332	2.44	37.2							151
1	175	8.48	8.46	34.042	26.452	160.1	.373	2.25	34.2	38.8	2.15	28.4	.01			176
	200 ISL	8.16	8.14	34.072	26.525	153.5	.412	2.07	31.3							201
1	205	8.08	8.06	34.075	26.539	152.3	.419	2.05	30.9	43.6	2.29	30.0	.01			206
1	234	7.52	7.49	34.064	26.613	145.6	.462	2.05	30.5	48.0	2.31	31.4	.02			235
	250 ISL	7.34	7.31	34.076	26.648	142.4	.486	1.90	28.2							

LATITUDE	LONGITUDE	DAY/MO/YR	MESSNGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 16.8 N	124 19.9 W	28/07/84	1803 GMT	3891 M	320	20 KT	340 9 8	2	1019.0 MB	16.5 C	13.8 C	8/8	SC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1	14.53	14.53	33.132	24.634	329.6	.000	6.01	103.5							0
	1	14.53	14.53	33.132	24.634	329.6	.003	6.01	103.5							1
	1	14.53	14.52	33.132	24.635	329.9	.033	6.07	104.5	4.6	.55	4.0	.09	.16	.05	10
	1	14.50	14.50	33.131	24.639	329.8	.066	6.05	104.1							20
	1	14.50	14.50	33.131	24.639	329.7	.069	6.05	104.1	4.4	.55	4.0	.09	.22	.06	21
	1	14.16	14.15	33.114	24.699	324.3	.099	6.11	104.4							30
	1	14.09	14.09	33.112	24.710	323.2	.101	6.12	104.4	4.9	.59	4.5	.09	.20	.08	31
	1	12.62	12.61	33.072	24.976	298.2	.132	6.17	102.1	7.0	.68	5.9	.11	.38	.20	41
	1	11.31	11.30	32.967	25.139	282.7	.159	5.71	91.8							50
	1	11.22	11.22	32.960	25.149	281.8	.161	5.67	91.0	7.2	.76	6.5	.27	.32	.30	51
	1	10.99	10.98	32.981	25.208	276.4	.189	5.50	87.8	8.3	.85	8.1	.17	.28	.22	61
	1	10.75	10.74	33.214	25.430	255.4	.215	5.30	84.3	10.7	.98	10.6	.23	.13	.14	71
	1	10.56	10.56	33.275	25.511	247.8	.226	5.22	82.8							75
	1	10.05	10.04	33.398	25.695	230.5	.252	4.99	78.2	15.5	1.30	15.1	.39	.05	.13	86
	1	9.43	9.42	33.631	25.979	203.8	.284	4.45	68.9	20.3	1.45	19.1	.21	.00	.08	101
	1	8.844	8.831	33.794	26.201	185.0	.322	4.23	64.7	23.8	1.46	20.3	.01	.00	.03	121
	1	8.71	8.70	33.820	26.242	179.1	.331	4.07	62.1							126
	1	8.24	8.23	33.904	26.379	166.3	.366	3.31	50.0	33.6	1.83	26.0	.00	.00	.06	146
	1	8.19	8.18	33.920	26.399	164.6	.374	3.20	48.4							151
	1	8.00	7.98	33.973	26.470	158.2	.414	2.85	42.8	37.6	2.00	28.1	.02			176
	1	7.62	7.60	33.998	26.545	151.4	.453	2.65	39.5							201
	1	7.56	7.54	34.000	26.555	150.5	.458	2.63	39.1	43.1	2.12	29.6	.02			205
	1	7.19	7.17	34.012	26.617	145.0	.502	2.43	35.9	48.1	2.21	31.2	.01			235
	1	7.00	6.98	34.024	26.652	141.8	.526	2.22	32.6							252
	1	6.76	6.74	34.043	26.701	137.4	.558	1.89	27.6	55.3	2.42	33.4	.04			275
	1	6.53	6.50	34.064	26.748	133.2	.595	1.56	22.6							302
	1	6.27	6.24	34.085	26.799	128.6	.636	1.23	17.8	65.2	2.67	36.6	.01			334
	1	5.57	5.54	34.107	26.905	119.1	.721	.90	12.7							403
	1	5.51	5.48	34.109	26.913	118.3	.728	.88	12.5	77.1	2.86	38.9	.00			409
	1	5.18	5.15	34.159	26.992	111.4	.813	.61	8.6	85.9	2.99	40.3	.00			484
	1	5.18	5.14	34.189	27.016	109.3	.835	.54	7.7							504
	1	5.18	5.13	34.278	27.088	103.3	.893	.37	5.2	92.2	3.11	40.4	.00			559

LATITUDE	LONGITUDE	DAY/MO/YR	MESSNGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
36 57.0 N	125 03.0 W	28/07/84	2340 GMT	4206 M	340	20 KT	320 8 8	2	1020.0 MB	16.8 C	14.0 C	8/8	SC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1	14.86	14.86	33.288	24.684	325.0	.000	6.03	104.6							0
	1	14.86	14.86	33.288	24.684	324.9	.003	6.03	104.6	5.5	.69	6.2	.11	.15	.07	1
	1	14.75	14.75	33.284	24.705	323.2	.032	6.07	105.0							10
	1	14.73	14.73	33.284	24.708	322.9	.035	6.07	105.0	5.4	.73	6.2	.11	.25	.04	11
	1	14.52	14.52	33.279	24.749	319.3	.065	6.09	104.9							20
	1	14.50	14.50	33.279	24.753	318.9	.067	6.09	104.9	5.4	.74	6.4	.12	.22	.06	21
	1	12.88	12.87	33.258	25.069	289.0	.095	6.22	103.6	7.0	.75	7.5	.14	.38	.06	30
	1	11.75	11.75	33.257	25.283	268.8	.125	6.01	97.7	9.0	.94	9.0	.15	.61	.24	41
	1	10.75	10.74	33.221	25.437	254.4	.149	5.46	86.8	11.7	1.07	11.2	.14	.52	.35	50
	1	10.48	10.48	33.369	25.598	239.3	.173	5.38	85.2	13.0	1.20	13.2	.24	.35	.35	60
	1	10.18	10.17	33.460	25.721	227.7	.196	5.47	86.1	15.1	1.32	14.7	.20	.27	.31	70
	1	9.94	9.93	33.464	25.765	223.6	.208	5.20	81.4							75
	1	9.58	9.57	33.474	25.832	217.4	.227	4.68	72.7	19.1	1.46	17.8	.27	.08	.09	84
	1	9.32	9.31	33.666	26.024	199.4	.260	4.43	68.5	23.2	1.63	21.1	.35	.02	.09	100
	1	9.31	9.30	33.669	26.078	199.1	.262	4.41	68.2							101
	1	8.99	8.98	33.735	26.131	189.6	.297	3.89	59.7	27.7	1.79	24.3	.01	.01	.09	119
	1	8.82	8.80	33.755	26.175	185.6	.310	3.85	58.9							126
	1	8.34	8.33	33.813	26.293	174.5	.342	3.74	56.6	29.7	1.72	24.0	.01	.00	.06	144
	1	8.23	8.21	33.845	26.335	170.6	.354	3.78	57.1							151
	1	7.94	7.92	33.931	26.446	160.4	.389	3.90	58.5	33.0	1.72	24.4	.00			172
	1	7.57	7.55	33.958	26.521	153.7	.434	3.67	54.6							201
	1	7.55	7.53	33.958	26.524	153.4	.437	3.65	54.3	37.9	1.83	26.2	.00			203
	1	7.27	7.25	33.981	26.582	148.3	.481	3.35	49.5	42.6	1.95	27.9	.00			232
	1	7.11	7.09	34.003	26.622	144.7	.509	2.84	41.9							252
	1	6.95	6.92	34.026	26.662	141.1	.538	2.28	33.4	51.7	2.28	32.6	.00			272
	1	6.66	6.63	34.039	26.712	136.7	.579	1.87	27.3							302
	1	6.39	6.36	34.050	26.756	132.7	.618	1.62	23.5	61.3	2.62	36.1	.00			331
	1	5.94	5.91	34.121	26.869	122.7	.709	.94	13.5							403
	1	5.94	5.90	34.122	26.871	122.5	.711	.93	13.3	72.4	2.82	39.3	.00			404
	1	5.36	5.32	34.154	26.967	113.9	.797	.65	9.2	83.7	2.98	41.3	.00			478
	1	5.13	5.09	34.155	26.995	111.2	.826	.63	8.8							504
	1	4.65	4.60	34.145	27.042	106.7	.878	.58	8.1	95.5	3.06	42.9	.00			552



LATITUDE		LONGITUDE		DAY/MO/YR		MESSENGER		BOTTOM		WIND SPEED		WAVES		WEATHER		BAROMETER		DRY		WET		CLOUD AMT		TYPE		
36	36.8 N	125	46.3 W	29	07/84	0620	GMT	4880	M	340	20 KT					1021.0	MB	15.4	C	13.0	C					
CAS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS										
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR										
	1	C ISL	15.19	15.19	32.625	24.101	380.4	.000	5.90	102.6															0	
	1	3	15.19	15.19	32.625	24.101	380.5	.011	5.90	102.6	2.3	.33	.00	.11	.02										3	
	1	10 ISL	15.19	15.19	32.623	24.101	380.7	.038	5.95	103.5															10	
	1	13	15.19	15.19	32.623	24.101	380.8	.049	5.98	104.0	2.3	.37	.00	.14	.00										13	
	1	20 ISL	14.80	14.80	32.634	24.192	372.3	.076	6.08	104.9															20	
	1	23	14.58	14.57	32.649	24.252	366.7	.087	6.13	105.3	2.3	.37	.00	.13	.08										23	
	1	30 ISL	13.99	13.99	32.757	24.457	347.3	.112	6.30	107.0															30	
	1	33	13.68	13.68	32.791	24.547	338.9	.122	6.35	107.2	2.4	.46	1.0	.05	.53	.15									33	
	1	43	12.11	12.10	32.694	24.780	316.8	.154	6.24	101.9	3.4	.50	1.3	.14	.43	.29									43	
	1	50 ISL	11.72	11.72	32.793	24.929	302.8	.177	6.11	99.0															50	
	1	53	11.67	11.66	32.843	24.978	298.2	.185	6.07	98.3	3.4	.50	1.7	.17	.32	.25									53	
	1	63	11.48	11.47	32.942	25.089	287.8	.214	6.14	99.0	5.7	.67	4.7	.13	.26	.29									63	
	1	73	11.51	11.50	33.087	25.196	277.8	.242	5.98	96.6	5.7	.78	6.8	.17	.23	.34									73	
	1	75 ISL	11.59	11.58	33.155	25.236	274.2	.249	5.97	96.7																75
	1	88	11.99	11.97	33.569	25.483	251.0	.282	5.93	97.1	7.7	1.13	11.8	.41	.27	.30									88	
	1	100 ISL	10.26	10.25	33.486	25.728	227.8	.311	5.09	80.1																101
	1	103	9.87	9.86	33.459	25.773	223.4	.317	4.90	76.6	16.6	1.37	16.4	.19	.09	.17									103	
	1	122	9.40	9.38	33.671	26.017	200.6	.359	4.53	70.1	22.4	1.58	20.7	.52	.03	.08									123	
	1	125 ISL	9.33	9.32	33.691	26.042	198.3	.364	4.44	68.6																126
	1	146	8.87	8.86	33.811	26.210	182.7	.405	3.63	55.6	30.8	1.85	25.9	.01	.02	.08									147	
	1	150 ISL	8.82	8.80	33.829	26.233	180.5	.412	3.49	53.5																151
	1	176	8.48	8.46	33.922	26.358	169.0	.457	2.93	44.5	35.9	2.09	28.3	.00											177	
	1	200 ISL	8.15	8.13	33.961	26.439	161.7	.497	3.31	49.9															201	
	1	206	8.06	8.04	33.965	26.455	160.2	.506	3.45	51.9	35.3	1.84	25.9	.00											207	
	1	236	7.50	7.47	33.970	26.547	152.3	.553	3.78	56.1	37.8	1.75	25.5	.00											237	
	1	250 ISL	7.27	7.24	33.972	26.575	149.2	.574	3.54	52.3															252	
	1	275	6.91	6.89	33.975	26.627	144.5	.612	2.93	42.9	47.6	2.09	30.2	.00											277	
	1	300 ISL	6.61	6.59	33.983	26.673	140.3	.647	2.63	38.3															302	
	1	335	6.23	6.20	33.997	26.735	134.7	.695	2.31	33.3	58.4	2.36	34.1	.00											337	
	1	400 ISL	5.53	5.50	34.030	26.848	124.3	.779	1.49	21.1															403	
	1	405	5.44	5.41	34.038	26.865	122.7	.791	1.38	19.5	73.6	2.71	39.0	.00											412	
	1	482	4.95	4.91	34.159	27.019	108.6	.874	.84	11.8	86.2	2.94	41.4	.00											485	
	1	500 ISL	4.86	4.82	34.154	27.025	108.1	.894	.75	10.4																504
	1	554	4.68	4.64	34.155	27.046	106.5	.952	.57	7.9	95.9	3.06	42.9	.00											558	

LATITUDE		LONGITUDE		DAY/MO/YR		MESSENGER		BOTTOM		WIND SPEED		WAVES		WEATHER		BAROMETER		DRY		WET		CLOUD AMT		TYPE		
36	17.0 N	126	29.0 W	29	07/84	1223	GMT	4305	M	340	16 KT					1022.0	MB	15.4	C	13.0	C					
CAS	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS										
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR										
	1	1 ISL	15.17	15.16	32.627	24.108	380.0	.000	5.90	102.6															0	
	1	1	15.17	15.16	32.627	24.108	379.8	.004	5.90	102.6	2.5	.34	.00	.06	.02										3	
	1	11 ISL	15.09	15.09	32.626	24.124	378.5	.038	6.04	104.9															10	
	1	11	15.06	15.09	32.626	24.125	378.4	.042	6.05	105.0	2.3	.34	.00	.08	.02										11	
	1	20 ISL	15.08	15.08	32.627	24.128	378.5	.076	6.03	104.7																20
	1	21	15.08	15.06	32.627	24.128	378.5	.079	6.03	104.6	2.2	.35	.00	.08	.02										21	
	1	30 ISL	14.63	14.63	32.634	24.229	369.1	.113	6.05	104.0															30	
	1	31	14.58	14.58	32.635	24.240	368.0	.116	6.05	103.9	2.0	.34	.00	.10	.03										31	
	1	40	14.31	14.30	32.638	24.301	362.5	.149	6.09	104.0	2.5	.35	.00	.13	.04										40	
	1	50 ISL	13.71	13.71	32.657	24.438	349.7	.185	6.15	103.9															50	
	1	51	13.67	13.66	32.659	24.448	348.7	.188	6.16	103.9	2.4	.35	.00	.15	.10										51	
	1	61	13.46	13.45	32.669	24.498	344.2	.223	6.28	105.4	2.4	.35	.00	.18	.13										61	
	1	72	13.04	13.03	32.727	24.623	332.1	.260	6.13	102.1	3.0	.47	.00	.28	.22										72	
	1	75 ISL	13.01	13.00	32.730	24.636	331.4	.271	6.13	102.0															75	
	1	87	12.90	12.89	32.760	24.640	327.5	.309	6.12	101.6	3.1	.48	1.3	.08	.19										87	
	1	100 ISL	11.74	11.73	32.783	24.919	304.9	.351	6.07	98.4															101	
	1	101	11.69	11.68	32.785	24.930	303.8	.353	6.07	98.2	3.6	.51	1.6	.21	.14	.21									101	
	1	121	11.06	11.04	32.988	25.203	278.3	.414	5.61	89.7	7.1	.73	6.1	.14	.06	.14									122	
	1	125 ISL	10.96	10.94	33.036	25.258	273.1	.423	5.53	88.3															126	
	1	145	10.43	10.42	33.303	25.557	245.0	.476	5.14	81.2	10.8	.97	10.7	.14	.03	.08									146	
	1	150 ISL	10.34	10.33	33.348	25.607	240.3	.487	5.08	80.2																151
	1	175	9.82	9.80	33.533	25.841	218.5	.545	4.78	74.6	14.0	1.09	13.7	.01											176	
	1	200 ISL	9.00	8.98	33.670	26.081	196.0	.597	4.23	65.0															201	
	1	204	8.88	8.85	33.692	26.117	192.5	.604	4.16	63.7	23.5	1.49	20.2	.00											205	
	1	233	8.45	8.42	33.900	26.346	171.2	.657	4.15	63.0	27.4	1.60	22.1	.00											234	
	1	250 ISL	8.21	8.18	33.956	26.427	163.8	.686	3.74	56.4															252	
	1	271	7.90	7.88	33.987	26.497	157.4	.720	3.14	47.1	36.9	1.93	27.3	.00											273	
	1	300 ISL	7.47	7.																						

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 63 52

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 18.6 N	122 37.1 W	27/07/84	2310 GMT	88 M	330	16 KT	320 6 7	1	1015.0 MB	17.4 C	14.8 C	7/8	SC			
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	15.65	15.65	33.547	24.710	322.6	.000	6.68	117.9						0	
1	1	15.65	15.65	33.547	24.710	322.4	.003	6.68	117.9	.9	.21	.0	.00	.73	.25	1
1	10	15.55	15.55	33.545	24.730	320.7	.032	6.79	119.6	.8	.22	.0	.00	.73	.31	10
1	20 ISL	13.14	13.14	33.556	25.248	271.7	.062	6.15	103.2							20
1	21	12.90	12.90	33.562	25.300	266.8	.064	6.06	101.1	5.8	.73	4.8	.27	2.08	.67	21
1	30 ISL	11.91	11.90	33.607	25.526	245.5	.088	4.91	80.3							30
1	31	11.86	11.85	33.611	25.539	244.3	.090	4.81	78.5	12.2	1.20	11.5	.53	.53	.58	31
1	41	11.37	11.37	33.669	25.673	231.7	.113	4.26	68.9	16.7	1.37	15.6	.63	.30	.24	41
1	50 ISL	11.04	11.04	33.660	25.726	226.9	.134	4.17	66.9							50
1	51	11.02	11.01	33.658	25.729	226.7	.136	4.16	66.7	20.4	1.54	16.4	.80	.16	.46	51
1	61	10.85	10.84	33.650	25.753	224.6	.158	4.11	65.7	21.8	1.59	16.9	.86	.21	.31	61
1	75 ISL	10.24	10.23	33.669	25.875	213.3	.190	3.70	58.4							75
1	77	10.15	10.14	33.674	25.894	211.4	.193	3.63	57.1	29.6	1.79	20.9	.68	.24	.66	77

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 63 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 12.6 N	122 50.1 W	27/07/84	2045 GMT	290 M	340	20 KT	330 9 6	1	1016.0 MB	17.0 C	14.5 C	6/8	SC			
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	14.58	14.58	33.484	24.895	304.8	.000	6.40	110.5						0	
1	1	14.58	14.58	33.484	24.895	304.8	.003	6.40	110.5	1.6	.40	1.4	.12	.71	.09	1
1	10 ISL	14.56	14.56	33.484	24.898	304.7	.030	6.50	112.2							10
1	11	14.56	14.56	33.484	24.898	304.7	.033	6.50	112.2	1.5	.40	1.4	.12	.73	.08	11
1	20 ISL	14.37	14.37	33.480	24.936	301.5	.061	6.45	110.8							20
1	21	14.35	14.35	33.480	24.940	301.2	.064	6.44	110.7	1.6	.40	1.8	.14	.69	.15	21
1	30 ISL	12.66	12.66	33.442	25.254	271.4	.090	5.82	96.5							30
1	31	12.49	12.48	33.440	25.286	268.4	.092	5.75	95.1	5.7	.82	7.2	.48	.67	.24	31
1	41	11.73	11.72	33.455	25.442	253.5	.118	5.20	84.6	8.9	1.07	10.9	.72	.53	.32	41
1	50 ISL	11.19	11.19	33.510	25.583	240.6	.141	4.72	75.9							50
1	51	11.16	11.15	33.515	25.593	239.6	.142	4.68	75.2	13.3	1.29	15.4	.42	.15	.18	51
1	62	10.83	10.82	33.590	25.710	228.7	.168	4.29	68.5	16.3	1.43	17.9	.30	.13	.19	62
1	72	10.52	10.52	33.649	25.810	219.4	.190	3.96	62.8	19.5	1.54	19.6	.13	.07	.24	72
1	75 ISL	10.44	10.43	33.664	25.836	216.9	.198	3.87	61.3							75
1	87	10.21	10.20	33.709	25.911	210.0	.222	3.62	57.1	22.4	1.70	21.5	.06	.11	.15	87
1	100 ISL	10.07	10.06	33.760	25.975	206.3	.250	3.37	52.9							101
1	101	10.06	10.05	33.766	25.981	203.8	.253	3.34	52.5	24.5	1.74	22.7	.01	.06	.17	102
1	122	9.73	9.72	33.821	26.080	194.8	.293	3.00	46.8	27.0	1.82	24.4	.01	.06	.16	123
1	125 ISL	9.67	9.66	33.831	26.097	193.2	.300	2.96	46.1							126
1	147	9.19	9.17	33.916	26.242	179.8	.341	2.66	41.1	31.0	1.98	26.3	.05	.06	.15	148
1	150 ISL	9.15	9.13	33.926	26.257	178.4	.346	2.63	40.5							151
1	182	8.65	8.63	34.011	26.402	165.1	.401	2.37	36.2	36.3	2.11	28.3	.01			183
1	200 ISL	8.22	8.20	34.019	26.474	158.4	.430	2.32	35.0							201
1	217	7.84	7.82	34.019	26.530	153.3	.456			40.3	2.11	28.9	.01			218
1	250 ISL	7.50	7.49	34.045	26.601	147.0	.506	2.21	32.9							252
1	255	7.45	7.46	34.051	26.607	146.4	.514	2.20	32.7	45.8	2.29	31.6	.01			257

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 63 60

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
37 02.6 N	123 11.7 W	27/07/84	1703 GMT	2560 M	360	26 KT	340 9 8	2	1016.0 MB	16.3 C	14.4 C	8/8	SC			
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	15.98	15.98	33.614	24.688	324.5	.000	6.02	107.0						0	
1	1	15.98	15.98	33.614	24.688	324.5	.003	6.02	107.0	2.0	.23	.2	.00	.52	.14	1
1	10	15.98	15.98	33.615	24.688	324.7	.032	6.11	108.6	2.0	.23	.2	.00	.48	.18	10
1	20	15.98	15.97	33.619	24.693	324.6	.065	6.10	108.4	1.7	.22	.2	.00	.51	.18	20
1	30 ISL	14.18	14.18	33.616	25.082	287.8	.096	5.19	88.9							30
1	31	13.99	13.99	33.618	25.123	284.0	.098	5.09	86.9	5.6	.71	5.1	.37	1.13	.40	31
1	42	12.20	12.19	33.652	25.506	247.7	.127	4.23	69.6	12.9	1.18	14.0	.22	.22	.24	42
1	50	10.80	10.79	33.672	25.779	221.9	.146	3.86	61.6	18.9	1.46	18.7	.14	.09	.24	50
1	60	10.46	10.45	33.733	25.885	212.0	.167	3.49	55.3	24.3	1.69	21.5	.20	.09	.23	60
1	69	10.25	10.27	33.747	25.928	208.1	.186	3.43	54.2	24.6	1.75	22.4	.14	.06	.22	69
1	75 ISL	10.17	10.16	33.760	25.957	205.4	.199	3.37	53.1							75
1	85	9.99	9.98	33.786	26.007	200.9	.219	3.23	50.7	26.4	1.78	23.5	.02	.06	.15	85
1	98	9.66	9.65	33.840	26.105	191.6	.246	2.88	44.9	29.4	1.88	25.0	.02	.05	.12	99
1	100 ISL	9.64	9.63	33.844	26.112	191.2	.249	2.86	44.6							101
1	118	9.44	9.43	33.877	26.170	186.0	.283	2.74	42.5	30.7	1.95	25.9	.02	.05	.16	119
1	125 ISL	9.39	9.38	33.883	26.183	184.9	.296	2.73	42.3							126
1	143	9.25	9.23	33.901	26.221	181.6	.329	2.70	41.7	31.7	1.99	26.4	.02	.03	.13	144
1	150 ISL	9.17	9.15	33.916	26.246	179.4	.341	2.65	40.9							151
1	171	8.90	8.88	33.969	26.337	171.8	.378	2.48	38.0	34.9	2.09	27.8	.02			172
1	200 ISL	8.54	8.52	34.023	26.433	162.5	.427	2.33	35.4							201
1	202	8.52	8.50	34.031	26.438	162.0	.430	2.32	35.3	38.3	2.18	28.9	.02			203
1	232	8.28	8.26	34.047	26.487	157.8	.477	2.28	34.5	40.4	2.26	29.6	.02			233
1	250 ISL	8.18	8.15	34.068	26.519	155.0	.506	2.15	32.5							252
1	269	8.07	8.04	34.090	26.553	152.1	.536	2.00	30.1	44.4	2.31	31.2	.01			271
1	300 ISL	7.78	7.75	34.103	26.605	147.6	.582	1.85	27.7							302
1	330	7.45	7.42	34.109	26.658	142.9	.625	1.70	25.2	51.7	2.48	33.6	.01			332
1	400 ISL	6.82	6.58	34.157	26.811	128.8	.720	1.07	15.6							403
1	405	6.58	6.52	34.160	26.822	127.8	.727	1.03	15.0	65.6	2.77	37.6	.00			408
1	475	5.62	5.58	34.133	26.920	118.7	.818	.82	11.7	77.6	2.95	41.1	.00			482
1	500 ISL	5.45	5.41	34.139	26.945	116.4	.843	.75	10.7							504
1	553	5.26	5.21	34.175	26.997	111.9	.903	.58	8.2	87.0	3.06	42.1	.00			557

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE
36 42.6 N		123 54.8 W		27/07/84	1102 GMT	3840 M	340	25 KT			1016.0 MB	15.2 C	13.8 C			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	15.36	15.36	33.521	24.755	318.1	.000	6.16	108.1							0
1	1	15.36	15.36	33.521	24.755	318.2	.003	6.16	108.1	2.1	.32	1.0	.07	.23	.07	1
1	10 ISL	15.36	15.36	33.520	24.754	318.5	.032	6.39	112.2							10
1	11	15.36	15.36	33.520	24.754	318.6	.035	6.40	112.3	2.0	.37	1.0	.07	.23	.07	11
1	20	15.38	15.37	33.525	24.754	318.8	.063	6.32	110.9	2.0	.33	1.1	.07	.23	.10	20
1	30	14.26	14.26	33.445	24.933	302.0	.094	6.19	106.2	2.0	.54	2.8	.12	.21	.11	30
1	41	11.60	11.60	33.390	25.414	256.4	.125	5.84	94.7	6.1	.88	7.9	.41	.35	.35	41
1	50 ISL	11.45	11.44	33.482	25.514	247.1	.148	5.46	88.3							50
1	51	11.43	11.43	33.483	25.518	246.8	.150	5.43	87.8	9.1	1.18	10.4	.74	.43	.29	51
1	61	10.72	10.71	33.538	25.689	230.7	.174	5.05	80.4	13.3	1.40	14.4	1.61	.31	.15	61
1	71	9.97	9.96	33.542	25.821	218.3	.196	4.60	72.1	18.7	1.59	18.7	.05	1.37	.49	71
1	75 ISL	9.81	9.80	33.550	25.854	215.1	.205	4.48	69.9							75
1	85	9.55	9.54	33.586	25.925	208.6	.226	4.25	66.0	22.7	1.72	21.1	.03	.96	.64	85
1	99	8.91	8.90	33.696	26.113	190.9	.255	3.82	58.5	28.1	1.86	24.1	.03	.24	.19	100
1	100 ISL	8.90	8.89	33.700	26.118	190.5	.256	3.81	58.3							101
1	120	8.64	8.63	33.832	26.262	177.1	.294	3.31	50.4	32.0	1.99	26.4	.03	.06	.16	121
1	125 ISL	8.57	8.56	33.853	26.288	174.7	.302	3.22	49.0							126
1	144	8.32	8.30	33.920	26.381	166.2	.335	2.91	44.0	35.2	2.13	27.9	.03	.04	.12	145
1	150 ISL	8.26	8.24	33.942	26.407	163.9	.344	2.80	42.4							151
1	174	8.05	8.04	34.009	26.490	156.3	.383	2.49	37.5	40.0	2.29	29.8	.01			175
1	200 ISL	7.79	7.77	34.012	26.531	152.8	.423	2.59	38.7							201
1	203	7.76	7.74	34.011	26.535	152.5	.427	2.60	38.9	42.4	2.26	30.1	.02			204
1	234	7.39	7.36	34.044	26.615	145.2	.473	2.25	33.4	47.8	2.46	32.0	.01			235
1	250 ISL	7.19	7.17	34.052	26.649	142.2	.497	2.08	30.7							252
1	272	6.93	6.90	34.062	26.693	138.2	.529	1.84	27.0	54.2	2.60	34.7	.01			275
1	300 ISL	6.63	6.61	34.081	26.748	133.3	.566	1.53	22.2							302
1	332	6.33	6.30	34.107	26.809	127.7	.607	1.18	17.1	65.7	2.86	38.2	.01			334
1	400 ISL	5.93	5.89	34.164	26.906	119.2	.691	.75	10.8							403
1	405	5.90	5.86	34.168	26.913	118.7	.697	.73	10.5	75.3	3.07	40.6	.00			408
1	480	5.21	5.17	34.183	27.008	109.9	.782	.53	7.5	87.9	3.20	42.7	.00			483
1	500 ISL	5.08	5.04	34.193	27.031	107.8	.805	.49	6.8							504
1	553	4.87	4.83	34.230	27.084	103.1	.860	.39	5.5	96.0	3.28	43.7	.00			557

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE
36 22.6 N		124 37.7 W		27/07/84	0456 GMT	3908 M	330	22 KT			1018.0 MB	16.1 C	14.1 C			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	15.76	15.76	32.781	24.095	381.0	.000	6.13	108.0							0
1	1	15.76	15.76	32.781	24.095	381.0	.004	6.13	108.0	2.5	.35	.0	.00	.08	.02	1
1	10	15.77	15.77	32.783	24.096	381.2	.038	6.22	109.5	2.5	.35	.0	.00	.08	.02	10
1	20	15.73	15.73	32.778	24.100	381.1	.076	6.24	109.8	2.4	.35	.0	.00	.08	.02	20
1	30 ISL	15.46	15.46	32.744	24.134	378.1	.114	6.12	107.1							30
1	31	15.43	15.42	32.741	24.140	377.7	.118	6.11	106.8	2.4	.35	.0	.00	.08	.03	31
1	40	14.94	14.94	32.714	24.224	369.9	.151	6.13	106.1	2.4	.35	.0	.00	.11	.02	40
1	48	14.84	14.84	32.714	24.246	368.0	.180	6.24	107.8	2.4	.35	.0	.00	.13	.04	48
1	50 ISL	14.82	14.81	32.712	24.250	367.7	.188	6.23	107.7							50
1	60	14.34	14.33	32.707	24.348	358.5	.224	6.21	106.2	2.2	.35	.0	.00	.21	.07	60
1	69	13.05	13.04	32.778	24.626	332.2	.255	6.53	108.7	3.1	.40	.4	.04	.45	.25	69
1	75 ISL	12.56	12.55	32.745	24.734	322.0	.275	6.46	106.4							75
1	84	12.23	12.22	32.797	24.838	312.3	.303	6.22	101.9	4.2	.52	2.2	.18	.39	.48	84
1	99	12.13	12.12	33.038	25.043	293.1	.348	6.02	98.5	3.8	.52	2.2	.23	.16	.18	99
1	100 ISL	12.09	12.08	33.064	25.071	290.5	.352	5.99	97.9							101
1	119	11.28	11.26	33.362	25.453	254.5	.405	5.47	88.1	7.4	.74	7.2	.04	.05	.09	120
1	125 ISL	10.96	10.95	33.390	25.532	247.1	.419	5.33	85.2							126
1	143	9.96	9.95	33.444	25.747	226.8	.462	4.92	77.0	12.5	1.00	12.4	.02	.01	.04	144
1	150 ISL	9.75	9.73	33.496	25.823	219.7	.477	4.86	75.8							151
1	174	9.16	9.14	33.689	26.069	196.6	.528	4.62	71.2	19.7	1.30	17.7	.02			175
1	200 ISL	8.42	8.40	33.808	26.278	177.1	.576	3.88	58.8							201
1	202	8.37	8.35	33.815	26.291	175.8	.579	3.83	58.0	28.7	1.66	23.9	.01			203
1	230	7.75	7.73	33.912	26.459	160.1	.626	3.80	58.8	34.1	1.75	25.4	.00			231
1	250 ISL	7.38	7.35	33.939	26.535	153.1	.658	3.60	53.4							252
1	266	7.07	7.05	33.950	26.585	148.5	.687	3.37	49.6	43.5	1.96	28.8	.00			271
1	300 ISL	6.74	6.71	33.968	26.645	143.1	.732	3.14	45.8							302
1	328	6.49	6.46	33.981	26.688	139.2	.771	2.91	42.2	54.2	2.26	33.2	.00			330
1	400 ISL	5.77	5.74	34.031	26.820	127.2	.867	1.85	26.4							403
1	401	5.76	5.72	34.032	26.822	127.0	.869	1.83	26.1	69.2	2.68	38.5	.00			404
1	474	5.48	5.44	34.110	26.918	118.6	.958	.98	13.9	79.1	2.93	41.1	.00			477
1	500 ISL	5.32	5.28	34.131	26.953	115.4	.988	.89	12.5							504
1	547	4.97	4.92	34.157	27.016	109.7	1.041	.72	10.1	91.2	3.03	42.8	.00			551

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
36 02.6 N	125 20.5 W	26/07/84	2313 GMT	4508 M	340	17 KT	340 5 8	1	1020.0 MB	18.2 C	15.5 C	3/8	SC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS
	#	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	C ISL	16.41	16.41	32.943	24.073	383.3	.000	5.85	104.5							0
1	2	16.41	16.41	32.943	24.073	383.1	.008	5.85	104.5	2.4	.30	.1	.00	.06	.01	2
	10 ISL	16.35	16.35	32.939	24.084	382.3	.038	6.14	109.5							10
1	12	16.34	16.34	32.939	24.087	382.1	.046	6.16	109.8	2.4	.30	.1	.00	.06	.01	12
	20 ISL	15.92	15.92	32.946	24.187	372.9	.076	6.03	106.6							20
1	22	15.83	15.82	32.948	24.210	370.7	.083	5.98	105.5	2.3	.30	.1	.00	.08	.02	22
	30 ISL	15.78	15.78	32.946	24.219	370.1	.113	5.98	105.5							30
1	32	15.77	15.77	32.946	24.221	370.0	.120	5.98	105.4	2.2	.30	.1	.00	.09	.01	32
	41	15.73	15.72	32.948	24.233	369.1	.153	5.99	105.5	2.2	.30	.1	.00	.11	.01	41
	50 ISL	15.71	15.70	32.944	24.234	369.3	.187	6.00	105.6							50
1	51	15.71	15.70	32.943	24.234	369.3	.190	6.00	105.6	2.1	.30	.1	.00	.13	.02	51
	61	15.65	15.64	32.938	24.242	368.8	.227	5.96	104.8	2.1	.30	.1	.00	.16	.04	61
1	72	13.87	13.86	32.836	24.546	340.0	.266	6.19	104.9	2.2	.30	.1	.01	.15	.11	72
	75 ISL	13.62	13.61	32.848	24.604	334.5	.277	6.25	105.4							75
1	85	13.25	13.24	32.914	24.730	322.8	.308	6.32	105.8	2.1	.34	.1	.01	.19	.15	85
	100	12.78	12.76	32.980	24.875	309.3	.356	6.03	100.0	3.0	.42	.8	.09	.38	.32	100
1	119	12.21	12.19	33.082	25.064	291.7	.415	5.63	92.3	5.0	.58	3.9	.03	.22	.20	119
	125 ISL	11.91	11.89	33.131	25.159	282.8	.431	5.50	89.6							126
1	143	10.83	10.81	33.316	25.498	250.6	.480	5.06	80.7	10.2	.91	10.2	.01	.06	.07	144
	150 ISL	10.50	10.48	33.378	25.604	240.7	.497	4.95	78.3							151
1	172	9.62	9.60	33.570	25.902	212.6	.547	4.54	70.6	18.6	1.32	17.9	.01			173
	200 ISL	9.09	9.07	33.787	26.157	188.8	.603	3.68	56.6							201
1	202	9.07	9.05	33.800	26.172	187.4	.606	3.62	55.7	26.0	1.65	23.3	.01			203
	231	8.53	8.51	33.940	26.365	169.5	.658	3.26	49.6	32.0	1.85	26.1	.01			232
1	250 ISL	8.22	8.19	33.978	26.443	162.3	.690	3.04	45.9							252
	270	7.91	7.88	33.995	26.502	156.9	.722	2.83	42.4	39.3	2.02	28.7	.01			272
1	300 ISL	7.53	7.50	34.021	26.578	150.0	.768	2.63	39.2							302
	329	7.18	7.15	34.037	26.640	144.4	.810	2.45	36.1	48.6	2.24	32.0	.00			331
1	400 ISL	6.21	6.18	34.039	26.771	132.3	.908	1.68	24.2							403
	402	6.18	6.15	34.038	26.774	131.9	.912	1.65	23.8	62.0	2.54	36.8	.00			405
1	476	5.52	5.49	34.084	26.892	121.1	1.005	1.02	14.5	75.1	2.91	40.4	.00			479
	500 ISL	5.32	5.28	34.101	26.930	117.6	1.033	.87	12.2							504
1	549	4.94	4.90	34.139	27.005	110.7	1.090	.63	8.8	89.0	3.00	42.5	.00			553

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 42.6 N	126 03.1 W	26/07/84	1703 GMT	4572 M	350	17 KT	350 4 7	1	1020.0 MB	17.9 C	15.2 C	6/8	SC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS
	#	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	C ISL	16.48	16.48	32.905	24.029	389.3	.000	5.79	103.5							0
1	1	16.48	16.48	32.905	24.029	387.4	.004	5.79	103.5	2.3	.31	.0	.00	.05	.03	1
	10 ISL	15.88	15.88	32.893	24.156	375.5	.038	5.88	103.9							10
1	11	15.84	15.84	32.892	24.164	374.7	.042	5.89	104.0	2.2	.31	.0	.00	.04	.03	11
	20 ISL	15.73	15.73	32.888	24.185	373.1	.076	5.89	103.7							20
1	21	15.72	15.72	32.887	24.187	372.9	.079	5.89	103.7	2.2	.31	.0	.00	.04	.03	21
	30 ISL	15.63	15.63	32.886	24.195	372.3	.113	5.86	103.1							30
1	31	15.66	15.67	32.887	24.197	372.3	.116	5.86	103.1	2.2	.31	.0	.00	.05	.03	31
	40	15.63	15.63	32.888	24.208	371.5	.149	5.85	102.8	2.2	.31	.0	.00	.06	.05	40
1	50	15.61	15.60	32.887	24.212	371.3	.186	5.85	102.8	2.1	.31	.0	.00	.08	.03	50
	60	14.74	14.73	32.876	24.394	354.3	.223	6.11	105.4	2.1	.34	.0	.00	.12	.05	60
1	70	13.40	13.39	32.835	24.639	331.0	.257	6.26	105.1	2.1	.34	.0	.00	.14	.13	70
	75 ISL	13.25	13.24	32.878	24.703	325.1	.274	6.23	104.2							75
1	84	12.99	12.98	32.893	24.766	319.3	.302	6.17	102.7	2.2	.39	.4	.24	.53	.37	84
	95	12.75	12.74	32.986	24.884	308.3	.349	5.87	97.3	3.3	.54	2.9	.26	.21	.40	99
1	100 ISL	12.73	12.72	32.995	24.896	307.3	.353	5.85	96.9							101
	118	12.25	12.23	33.132	25.095	288.7	.408	5.55	91.1	5.1	.59	4.1	.04	.15	.20	119
1	125 ISL	11.91	11.90	33.204	25.214	277.5	.427	5.38	87.7							126
	142	10.92	10.90	33.396	25.545	246.2	.472	4.88	78.0	11.3	1.04	12.3	.02	.02	.09	143
1	150 ISL	10.54	10.52	33.449	25.653	236.1	.491	4.68	74.1							151
	172	9.64	9.62	33.580	25.907	212.1	.540	4.10	63.8	20.8	1.47	20.0	.02			173
1	200 ISL	9.03	9.01	33.780	26.162	188.3	.596	3.40	52.2							201
	201	8.01	8.00	33.787	26.170	187.6	.598	3.38	51.9	27.9	1.74	24.4	.02			202
1	230	8.30	8.28	33.913	26.379	168.0	.649	3.52	53.2	32.1	1.78	25.4	.02			231
	250 ISL	7.96	7.94	33.967	26.472	159.4	.682	3.43	51.5							252
1	270	7.69	7.67	33.998	26.536	155.5	.713	3.25	48.5	38.4	1.90	27.4	.02			271
	300 ISL	7.25	7.22	34.018	26.615	146.3	.758	2.84	42.0							302
1	328	6.89	6.86	34.022	26.668	141.4	.799	2.42	35.4	50.7	2.24	32.6	.02			330
	400 ISL	6.30	6.27	34.060	26.776	131.8	.897	1.60	23.2							403
1	401	6.29	6.26	34.060	26.778	131.7	.899	1.59	23.0	62.3	2.56	36.7	.02			404
	475	5.64	5.60	34.096	26.888	121.6	.992	1.00	14.2	75.1	2.83	40.5	.02			478
1	500 ISL	5.45	5.41	34.111	26.923	118.5	1.022	.86	12.1							504
	548	5.12	5.08	34.141	26.985	112.7	1.078	.67	9.4	86.9	3.00	42.1	.00			552



## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 67 49

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
36 49.2 N	121 59.1 W	25/07/84	0413 GMT	462 M	310	21 KT			1020.0 MB	16.1 C	14.0 C					
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	10	16.37	16.37	33.419	24.449	347.6	.035	6.55	117.2	.6	.17	.0	.01	.24	.08	10

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 67 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
36 47.2 N	122 03.4 W	25/07/84	0636 GMT	209 M	310	18 KT			1021.0 MB	16.1 C	13.0 C					
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
	C ISL	15.78	15.78	33.393	24.563	336.4	.000	6.54	115.6							0
1	2	15.78	15.78	33.393	24.563	336.4	.007	6.54	115.6							2
	10 ISL	15.78	15.78	33.399	24.566	336.4	.034	6.66	117.8	.5	.17	.0	.01	.29	.07	10
1	12	15.78	15.78	33.399	24.567	336.4	.040	6.68	118.1	.5	.16	.0	.01	.31	.08	12
	20 ISL	15.00	15.00	33.322	24.679	325.9	.067	6.72	116.9							20
1	22	14.75	14.75	33.302	24.719	322.2	.073	6.73	116.5	.6	.37	.0	.01	.46	.13	22
	30 ISL	13.62	13.61	33.278	24.937	301.6	.098	6.40	108.1							30
1	32	13.37	13.36	33.280	24.989	296.7	.104	6.30	106.0	1.6	.48	2.7	.15	1.29	.28	32
	42	12.57	12.56	33.320	25.178	278.9	.132	5.95	98.5	3.2	.71	5.4	.33	1.22	.48	42
	50 ISL	11.72	11.71	33.357	25.368	261.0	.155	5.49	89.2							50
1	52	11.57	11.57	33.376	25.409	257.1	.159	5.36	86.9	7.7	.99	9.6	.74	.44	.21	52
	62	11.70	11.69	33.665	25.611	238.2	.184	4.35	70.8	15.7	1.31	15.2	.43	.21	.23	62
1	72	11.18	11.17	33.696	25.730	227.1	.207	3.84	61.8	18.9	1.45	17.8	.41	.09	.27	72
	75 ISL	11.07	11.06	33.692	25.747	225.5	.215	3.87	62.2							75
1	87	10.80	10.79	33.674	25.781	222.5	.240	3.98	63.6	18.8	1.47	18.7	.04	.08	.26	87
	100 ISL	10.69	10.67	33.712	25.831	218.1	.270	3.63	57.8							101
1	105	10.65	10.64	33.732	25.852	216.2	.282	3.45	54.9	22.3	1.60	20.3	.08	.07	.36	106
	125 ISL	10.30	10.28	33.766	25.940	208.2	.323	3.24	51.2							126
1	130	10.18	10.17	33.774	25.967	205.7	.334	3.20	50.4	25.4	1.71	22.4	.08	.04	.28	131
	150 ISL	9.75	9.73	33.833	26.087	194.7	.374	2.90	45.2							151
1	155	9.62	9.61	33.853	26.122	191.4	.384	2.80	43.6	29.6	1.89	25.1	.05	.00	.27	156

## RV DAVID STARR JORDAN

## CALCOFI CRUISE 8407

STATION 67 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
36 37.2 N	122 24.9 W	25/07/84	1007 GMT	2560 M	360	12 KT			1021.0 MB	15.7 C	11.6 C					
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
	C ISL	15.40	15.40	33.436	24.679	325.3	.000	6.36	111.6							0
1	1	15.40	15.40	33.436	24.679	325.4	.003	6.36	111.6	1.9	.24	.1	.02	.65	.10	1
	10 ISL	15.44	15.43	33.435	24.672	326.3	.033	6.50	114.1							10
1	11	15.44	15.44	33.435	24.671	326.5	.036	6.51	114.4	2.4	.28	.1	.02	.52	.26	11
	20 ISL	13.58	13.58	33.509	25.122	283.8	.063	6.32	106.9							20
1	21	13.36	13.36	33.521	25.176	278.7	.066	6.30	106.1	2.6	.52	3.1	.25	.60	.37	21
	30 ISL	11.98	11.98	33.640	25.537	244.4	.090	4.29	70.3							30
1	31	11.89	11.88	33.650	25.564	241.9	.092	4.10	67.0	15.5	1.15	13.7	.49	.25	.24	31
	41	11.11	11.10	33.683	25.732	226.1	.115	3.73	60.0	19.0	1.36	17.3	.15	.13	.25	41
	50 ISL	11.06	11.06	33.719	25.768	222.9	.136	3.54	56.8							50
1	51	11.06	11.05	33.719	25.769	222.9	.137	3.53	56.7	20.9	1.47	18.8	.06	.08	.22	51
	61	10.88	10.87	33.729	25.809	219.2	.159	3.62	57.9	21.9	1.53	19.4	.02	.07	.27	61
1	71	10.73	10.72	33.732	25.838	216.7	.181	3.38	53.9	22.1	1.51	19.8	.02	.08	.26	71
	75 ISL	10.64	10.64	33.737	25.857	215.0	.190	3.34	53.2							75
1	86	10.46	10.45	33.751	25.900	211.1	.213	3.29	52.2	23.8	1.59	20.8	.02	.04	.24	86
	100	10.37	10.36	33.770	25.931	208.5	.244	3.14	49.7	24.3	1.66	21.7	.00	.04	.23	101
1	120	9.96	9.95	33.812	26.034	199.1	.285	3.00	47.1	26.5	1.70	23.1	.02	.05	.18	121
	125 ISL	9.90	9.89	33.818	26.049	197.8	.294	2.99	46.8							126
1	144	9.73	9.71	33.839	26.094	193.8	.331	2.93	45.7	28.3	1.77	23.6	.04	.04	.17	145
	150 ISL	9.68	9.66	33.846	26.107	192.7	.343	2.89	45.1							151
1	174	9.46	9.44	33.886	26.175	186.8	.388	2.72	42.2	30.5	1.86	25.1	.02			175
	200 ISL	9.08	9.06	33.956	26.292	176.1	.435	2.53	38.9							201
1	204	9.03	9.00	33.966	26.308	174.5	.442	2.50	38.4	33.9	1.98	27.0	.00			205
	233	8.75	8.72	34.016	26.391	167.1	.491	2.35	35.9	36.9	2.06	27.9	.00			234
1	250 ISL	8.60	8.57	34.042	26.436	163.2	.520	2.24	34.1							252
	272	8.41	8.38	34.071	26.488	158.6	.556	2.09	31.7	41.1	2.20	29.4	.00			274
1	300 ISL	8.17	8.14	34.095	26.543	153.7	.599	1.94	29.3							302
	331	7.88	7.85	34.115	26.601	148.6	.646	1.77	26.5	47.7	2.37	31.5	.00			333
1	400 ISL	7.13	7.09	34.161	26.745	135.5	.744	1.28	18.9							403
	404	7.08	7.04	34.162	26.753	134.8	.750	1.25	18.4	59.3	2.62	35.1	.00			407
1	479	6.55	6.51	34.193	26.850	126.3	.847	.90	13.1	66.9	2.80	37.5	.00			482
	500 ISL	6.32	6.27	34.194	26.882	123.3	.874	.81	11.7							504
1	554	5.56	5.51	34.188	26.971	114.7	.938	.60	8.5	82.2	2.96	40.6	.00			558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
36 27.2 N	122 46.4 W	25/07/84	1344 GMT	2926 M	350	13 KT	320 3 5	0	1021.0 MB	16.8 C	13.9 C		0/8		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C	16.63	33.661	24.573	335.4	.000	5.92	106.6	1.2	.18	.1	.01	.20	.07	0
1	1	16.23	33.661	24.667	326.8	.033	6.15	110.0							10
1	11	16.19	33.661	24.676	326.0	.036	6.16	110.0	1.9	.23	.2	.03	.20	.07	11
1	20	14.96	33.658	24.947	300.5	.064	6.09	106.1	2.8	.35	1.0	.07	.45	.10	20
1	30	14.04	33.614	25.110	285.1	.094	5.81	99.3							30
1	31	13.94	33.610	25.127	283.6	.096	5.77	98.4	3.2	.57	3.1	.35	.69	.37	31
1	41	11.80	33.590	25.533	245.1	.123	4.94	80.6	10.7	1.16	11.2	.86	.27	.17	41
1	50	10.87	33.644	25.744	225.2	.144	4.14	66.2							50
1	51	10.83	33.649	25.756	224.1	.146	4.08	65.2	18.1	1.45	18.5	.11	.14	.16	51
1	61	10.47	33.714	25.868	215.7	.168	3.55	56.3	22.2	1.61	20.9	.03	.09	.13	61
1	71	10.10	33.774	25.979	205.2	.188	3.25	51.1	25.2	1.70	22.6	.02	.02	.21	71
1	75	9.95	33.786	26.014	200.0	.197	3.22	50.5							75
1	85	9.64	33.809	26.084	193.5	.218	3.18	49.5	26.8	1.78	23.8	.02	.02	.13	85
1	100	9.37	33.868	26.175	185.2	.245	2.86	44.2							101
1	101	9.34	33.874	26.184	184.4	.248	2.82	43.7	30.7	1.94	25.7	.03	.01	.13	102
1	121	8.99	33.945	26.296	174.0	.284	2.61	40.1	33.0	2.02	26.8	.02	.01	.10	122
1	125	8.92	33.956	26.315	172.3	.290	2.58	39.6							126
1	146	8.60	34.005	26.405	164.1	.325	2.43	37.0	37.1	2.10	28.2	.02	.01	.08	147
1	150	8.55	34.012	26.417	163.0	.332	2.41	36.6							151
1	176	8.31	34.048	26.483	157.2	.373	2.25	34.1	40.3	2.19	29.4	.02			177
1	200	8.10	34.075	26.536	152.5	.411	2.08	31.3							201
1	205	8.06	34.080	26.546	151.6	.418	2.04	30.7	43.6	2.30	30.5	.02			206
1	236	7.76	34.106	26.611	145.9	.464	1.82	27.2	47.8	2.42	31.9	.02			237
1	250	7.64	34.116	26.635	143.7	.485	1.71	25.5							252
1	273	7.45	34.129	26.673	140.5	.518	1.54	22.9	52.2	2.51	33.3	.02			275
1	300	7.19	34.143	26.721	136.2	.555	1.36	20.0							302
1	331	6.90	34.159	26.774	131.5	.596	1.17	17.2	60.8	2.70	35.7	.01			333
1	400	6.47	34.191	26.857	124.4	.684	.88	12.7							403
1	404	6.45	34.192	26.861	124.0	.690	.86	12.5	68.6	2.87	37.8	.00			407
1	478	6.06	34.242	26.951	116.2	.778	.57	8.2	77.0	3.00	39.6	.00			491
1	500	5.95	34.255	26.976	114.0	.804	.50	7.2							504
1	553	5.70	34.283	27.030	109.4	.863	.38	5.4	83.9	3.11	40.7	.00			557

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
36 07.2 N	123 29.1 W	25/07/84	1850 GMT	3475 M	340	10 KT	340 1 2	0	1022.0 MB	19.6 C	15.3 C		0/8		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	16.19	33.615	24.641	329.9	.000	5.99	106.9							0
1	1	16.19	33.615	24.641	329.0	.003	5.99	106.9	.9	.33	1.4	.07	.15	.03	1
1	11	15.28	33.542	24.788	315.2	.032	6.32	110.8							10
1	11	15.16	33.538	24.811	313.2	.035	6.34	110.8	.9	.37	1.5	.08	.18	.03	11
1	21	13.84	33.541	25.093	286.5	.062	6.35	108.0							20
1	21	13.72	33.543	25.120	284.0	.065	6.35	107.8	.8	.48	2.4	.15	.57	.16	21
1	30	13.26	33.556	25.224	274.3	.090	5.90	99.2							30
1	31	13.22	33.559	25.235	273.3	.093	5.83	97.9	1.9	.70	4.5	.23	.38	.25	31
1	41	11.92	33.666	25.569	241.7	.118	4.68	76.6	11.1	1.14	11.7	.74	.41	.25	41
1	50	10.60	33.779	25.897	210.6	.139	3.46	55.1							50
1	51	10.50	33.788	25.921	208.4	.141	3.38	53.7	21.3	1.57	20.6	.33	.19	.11	51
1	61	9.72	33.829	26.086	192.8	.161	3.13	48.9	26.6	1.77	24.2	.05	.18	.19	61
1	71	9.49	33.856	26.145	187.4	.180	2.82	43.8	28.5	1.89	25.3	.03	.14	.19	71
1	75	9.36	33.856	26.166	185.5	.188	2.88	44.7							75
1	87	8.99	33.849	26.220	180.5	.209	3.05	46.8	29.7	1.95	25.6	.03	.04	.11	87
1	100	8.57	33.869	26.301	173.1	.233	3.39	51.5							101
1	101	8.53	33.872	26.309	172.3	.235	3.42	52.0	30.6	1.82	25.1	.04	.02	.09	102
1	121	8.18	33.917	26.396	164.1	.268	3.57	53.9	31.9	1.76	25.1	.05	.01	.03	122
1	125	8.13	33.922	26.409	163.1	.275	3.56	53.6							126
1	146	7.89	33.942	26.461	158.5	.309	3.37	50.5	35.8	1.88	26.5	.06	.01	.07	147
1	150	7.85	33.947	26.471	157.6	.315	3.33	49.9							151
1	176	7.59	33.980	26.536	151.9	.355	3.02	45.0	40.2	2.00	28.4	.02			177
1	200	7.32	34.003	26.591	146.9	.391	2.66	39.4							201
1	206	7.27	34.007	26.603	145.9	.399	2.58	38.1	45.6	2.16	30.8	.02			207
1	236	7.07	34.024	26.643	142.4	.442	2.30	33.8	49.8		32.3	.03			237
1	250	6.99	34.042	26.669	140.2	.463	2.07	30.4							252
1	275	6.82	34.072	26.716	136.1	.497	1.67	24.4	56.3	2.47	34.7	.02			277
1	300	6.55	34.077	26.756	132.5	.531	1.47	21.4							302
1	335	6.16	34.079	26.808	127.8	.576	1.28	18.4	66.0	2.70	37.7	.02			337
1	400	5.74	34.132	26.904	119.2	.656	.82	11.6							403
1	405	5.69	34.141	26.917	118.1	.667	.76	10.8	77.9	2.90	40.5	.01			412
1	483	5.21	34.168	26.996	111.0	.752	.58	8.2	86.6	3.06	41.9	.01			487
1	500	5.12	34.179	27.015	109.4	.771	.53	7.5							504
1	558	4.89	34.231	27.083	103.3	.832	.36	5.0	95.7	3.09	43.0	.00			562



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 47.1 N	124 11.8 W	26/07/84	G009 GMT	3840 M	330	15 KT	330 1 7	1	1020.0 MB	18.5 C	15.3 C	1/8	AC			
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	16.85	16.85	33.026	24.035	390.9	.000	5.90	106.3						0	
1	1	16.85	16.85	33.026	24.035	386.8	.004	5.90	106.3						1	
1	1C ISL	15.24	15.24	32.964	24.351	356.9	.037	6.12	106.7						10	
1	11	15.11	15.11	32.959	24.376	354.5	.041	6.13	106.7	2.9	.40	.5	.01	.19	.05	11
1	2C ISL	14.17	14.17	32.915	24.542	339.0	.072	6.16	105.1						.20	20
1	21	14.11	14.11	32.917	24.555	337.7	.075			2.9	.40	.9	.04	.24	.06	21
1	3C ISL	14.06	14.06	33.134	24.734	320.9	.105	6.19	105.5						.30	30
1	31	14.06	14.05	33.156	24.752	319.3	.108	6.19	105.5	2.9	.49	3.0	.09	.20	.07	31
1	41	13.57	13.57	33.254	24.927	302.8	.139	6.16	104.1	2.6	.53	4.1	.13	.35	.10	41
1	5C ISL	13.41	13.40	33.251	24.959	300.1	.167	6.14	103.4						.50	50
1	51	13.38	13.37	33.245	24.960	300.0	.169	6.14	103.3	2.5	.55	3.8	.13	.40	.20	51
1	61	12.29	12.28	33.072	25.040	292.6	.198	6.04	99.2	2.8	.45	.5	.07	.36	.24	61
1	72	12.49	12.48	33.243	25.134	283.9	.230	5.68	93.8	3.8	.47	1.8	.07	.34	.30	72
1	75 ISL	12.27	12.26	33.252	25.182	279.4	.239	5.69	93.5						.75	75
1	86	11.33	11.32	33.241	25.349	263.6	.268	5.71	92.0	8.2	.92	9.0	.23	.20	.18	86
1	10C ISL	10.47	10.45	33.267	25.522	247.4	.305	5.18	81.9						.101	101
1	101	10.44	10.43	33.269	25.528	246.8	.306	5.16	81.5	10.2	.92	9.9	.03	.07	.11	101
1	12C	9.57	9.55	33.489	25.846	216.8	.352	4.69	72.8	16.9	1.29	16.2	.27	.02	.06	121
1	125 ISL	9.44	9.43	33.538	25.905	211.3	.362	4.52	70.0						.126	126
1	144	9.07	9.05	33.716	26.106	192.5	.401	3.78	58.1	27.5	1.73	23.9	.01	.03	.10	145
1	15C ISL	8.99	8.97	33.760	26.153	188.2	.412	3.57	54.8						.151	151
1	174	8.65	8.66	33.887	26.301	174.5	.456	2.94	44.8	32.5	1.94	27.0	.01		.175	175
1	20C ISL	8.30	8.28	33.923	26.386	166.8	.500	3.03	45.8						.201	201
1	206	8.22	8.20	33.925	26.401	165.5	.509	3.05	46.0	34.8	1.97	27.5	.01		.207	207
1	235	7.86	7.83	33.978	26.496	156.8	.556	2.80	41.9	39.2	2.06	28.9	.01		.236	236
1	25C ISL	7.66	7.64	33.996	26.538	152.9	.580	2.66	39.6						.252	252
1	274	7.36	7.33	34.016	26.598	147.6	.616	2.43	36.0	46.0	2.22	31.3	.01		.276	276
1	30C ISL	7.02	6.99	34.028	26.654	142.5	.653	2.19	32.2						.302	302
1	333	6.62	6.59	34.038	26.716	136.7	.699	1.89	27.5	55.8	2.47	34.7	.00		.335	335
1	40C ISL	6.05	6.02	34.074	26.819	127.6	.788	1.29	18.5						.403	403
1	407	6.00	5.97	34.078	26.829	126.7	.797	1.23	17.6	67.3	2.75	38.5	.00		.410	410
1	481	5.47	5.43	34.137	26.941	116.5	.887	.75	10.6	79.8	3.03	41.0	.00		.484	484
1	50C ISL	5.35	5.31	34.157	26.971	113.8	.909	.65	9.2						.504	504
1	554	5.06	5.01	34.218	27.054	106.2	.968	.43	6.0	90.2	3.12	42.5	.00		.558	558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 27.2 N	124 54.2 W	26/07/84	O546 GMT	4298 M	330	17 KT			1020.0 MB	17.5 C	15.2 C					
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	17.04	17.04	32.990	23.965	395.3	.000	5.75	104.0						0	
1	1	17.04	17.04	32.990	23.965	395.5	.004	5.75	104.0	2.2	.29	.0	.00	.08	.02	1
1	1C ISL	16.47	16.47	32.980	24.088	382.0	.039	5.84	104.4						.10	10
1	11	16.44	16.44	32.979	24.095	381.3	.043	5.84	104.4	1.9	.30	.0	.00	.06	.02	11
1	2C ISL	16.35	16.34	32.978	24.115	379.7	.077	5.83	104.0						.20	20
1	21	16.34	16.34	32.978	24.118	379.5	.080	5.83	104.0	1.9	.29	.0	.00	.07	.03	21
1	3C ISL	16.29	16.28	32.976	24.128	378.8	.115	5.81	103.5						.30	30
1	31	16.28	16.28	32.976	24.129	378.7	.118	5.81	103.5	1.7	.29	.0	.00	.08	.03	31
1	41	16.22	16.21	32.971	24.140	378.0	.156	5.80	103.2	1.6	.29	.0	.00	.11	.03	41
1	50	15.55	15.54	32.907	24.242	368.5	.189	5.90	103.5	2.5	.32	.0	.00	.15	.04	50
1	6C	14.82	14.81	32.923	24.412	352.5	.225	6.09	105.3	2.4	.30	.0	.00	.13	.08	60
1	7C	13.12	13.11	32.954	24.786	317.0	.259	6.25	104.4	3.7	.40	.1	.03	.68	.14	70
1	75 ISL	12.60	12.59	33.005	24.928	303.6	.275	6.05	100.1						.75	75
1	84	12.07	12.06	33.100	25.103	287.1	.300	5.62	91.9	4.9	.65	5.5	.02	.31	.23	84
1	10C	11.54	11.53	33.236	25.308	267.9	.345	5.23	84.6	8.0	.82	8.3	.02	.11	.13	100
1	119	10.63	10.61	33.360	25.567	243.5	.396	4.78	75.9	12.3	1.06	12.8	.02	.07	.08	120
1	125 ISL	10.40	10.39	33.401	25.638	236.9	.409	4.64	73.4						.126	126
1	143	9.78	9.76	33.537	25.850	217.0	.450	4.22	65.8	19.8	1.43	19.0	.01	.00	.144	144
1	15C ISL	9.62	9.61	33.582	25.910	211.4	.465	4.11	63.9						.151	151
1	173	9.19	9.17	33.724	26.092	194.4	.512	3.74	57.6	24.2	1.59	22.0	.01		.174	174
1	20C ISL	8.65	8.63	33.889	26.306	174.5	.561	3.08	47.0						.201	201
1	204	8.58	8.55	33.909	26.334	171.9	.568	2.99	45.5	32.7	1.88	26.9	.01		.205	205
1	233	8.06	8.04	33.989	26.474	158.9	.616	2.69	40.5	38.9	2.07	28.9	.01		.234	234
1	25C ISL	7.82	7.79	34.007	26.525	154.3	.643	2.63	39.3						.252	252
1	272	7.54	7.51	34.017	26.573	150.0	.677	2.57	38.2	43.8	2.16	30.6	.01		.274	274
1	30C ISL	7.27	7.24	34.038	26.627	145.1	.717	2.36	35.0						.302	302
1	331	6.96	6.93	34.052	26.682	140.2	.762	2.11	31.0	51.9	2.36	33.4	.01		.333	333
1	40C ISL	5.91	5.87	34.019	26.793	129.8	.855	1.78	25.4						.403	403
1	403	5.86	5.82	34.018	26.799	129.3	.859	1.76	25.2	65.2	2.56	37.4	.01		.406	406
1	475	5.32	5.29	34.075	26.909	119.2	.948	1.08	15.2	78.2	2.91	40.9	.00		.478	478
1	50C ISL	5.20	5.16	34.102	26.944	116.1	.978	.89	12.5						.504	504
1	544	5.08	5.04	34.154	27.000	111.2	1.028	.62	8.7	87.1	2.99	42.4	.00		.548	548

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 07.3 N	125 36.3 W	26/07/84	1113 GMT	4572 M	330	17 KT			1020.0 MB	17.2 C	14.5 C					
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	16.89	16.89	32.954	23.971	393.9	.000	5.76	103.8						0	
1	1	16.89	16.89	32.954	23.971	392.9	.004	5.76	103.8						1	
1	10 ISL	16.48	16.48	32.941	24.056	385.0	.039	6.00	107.2						10	
1	11	16.45	16.45	32.941	24.064	384.3	.043	6.01	107.4	2.3	.31	.1	.00	.06	.01	11
1	20	16.18	16.18	32.949	24.131	378.2	.077	6.00	106.7	1.8	.31	.1	.00	.05	.02	20
1	30 ISL	16.11	16.11	32.942	24.142	377.4	.115	5.82	103.2							30
1	31	16.11	16.11	32.944	24.144	377.3	.118	5.80	102.9	1.8	.31	.0	.00	.07	.02	31
1	40	16.06	16.05	32.941	24.154	376.6	.152	5.81	103.0	1.7	.31	.0	.00	.08	.02	40
1	50 ISL	15.42	15.42	32.912	24.273	365.5	.190	5.90	103.2							50
1	51	15.35	15.34	32.909	24.286	364.3	.193	5.91	103.3	2.0	.31	.0	.00	.12	.03	51
1	60	14.45	14.44	32.875	24.454	348.5	.225	6.15	105.5	2.1	.34	.0	.00	.13	.04	60
1	71	13.23	13.22	32.899	24.722	323.1	.261	6.19	103.6	2.5	.36	.0	.00	.29	.13	71
1	75 ISL	12.91	12.90	32.924	24.805	315.3	.275	6.11	101.6							75
1	84	12.38	12.37	33.014	24.977	299.1	.308	5.84	96.1	4.3	.56	3.2	.10	.66	.27	84
1	100 ISL	12.06	12.05	33.181	25.169	281.2	.349	5.50	90.0							101
1	101	12.05	12.04	33.187	25.175	280.6	.351	5.49	89.8	5.4	.75	7.0	.02	.16	.16	101
1	120	11.18	11.17	33.295	25.419	257.8	.405	5.07	81.4	9.5	.97	10.8	.02	.05	.03	121
1	125 ISL	11.01	11.00	33.323	25.470	253.0	.416	4.96	79.5							126
1	145	10.31	10.29	33.461	25.701	231.2	.465	4.46	70.3	15.6	1.26	15.8	.02	.00	.07	146
1	150 ISL	10.12	10.10	33.499	25.764	225.4	.476	4.33	68.0							151
1	174	9.23	9.21	33.693	26.062	197.4	.527	3.69	56.9	25.0	1.67	22.6	.02			175
1	200 ISL	8.74	8.72	33.857	26.268	178.2	.576	3.28	50.0							201
1	203	8.70	8.68	33.872	26.285	176.6	.581	3.26	49.7	30.4	1.93	25.6	.02			204
1	233	8.30	8.28	33.957	26.414	164.7	.632	3.70	56.0	31.4	1.75	24.6	.02			234
1	250 ISL	8.02	7.99	33.973	26.469	159.7	.660	3.82	57.4							252
1	271	7.65	7.63	33.978	26.526	154.4	.693	3.97	59.2	35.4	1.73	24.7	.01			273
1	300 ISL	7.20	7.17	33.984	26.595	148.1	.736	3.50	51.6							302
1	329	6.76	6.73	33.985	26.656	142.5	.779	2.84	41.5	49.4	2.16	31.4	.01			331
1	400 ISL	5.84	5.80	33.994	26.783	130.8	.876	2.07	29.6							403
1	402	5.81	5.77	33.995	26.787	130.4	.879	2.05	29.3	64.3	2.50	36.6	.01			405
1	478	5.19	5.15	34.041	26.898	120.2	.973	1.23	17.3	79.0	2.81	41.0	.01			481
1	500 ISL	5.05	5.01	34.061	26.930	117.2	1.000	1.04	14.6							504
1	554	4.79	4.74	34.125	27.011	109.9	1.061	.69	9.6	92.1	3.03	43.2	.00			558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
36 10.6 N	121 44.3 W	24/07/84	2255 GMT	237 M	300	13 KT	280 2 5	1	1021.0 MB	17.7 C	14.9 C		2/8	AC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	15.23	15.23	33.641	24.875	309.1	.000	6.00	105.1						0	
1	1	15.23	15.23	33.641	24.875	306.7	.003	6.00	105.1	8.7	.54	3.5	.24	.89	1.28	1
1	10 ISL	14.33	14.33	33.625	25.057	289.6	.030	5.65	97.2							10
1	11	14.26	14.26	33.624	25.071	288.4	.033	5.62	96.5	7.9	.63	4.4	.28	1.69	.59	11
1	20 ISL	13.88	13.88	33.621	25.148	281.3	.058	5.41	92.2							20
1	21	13.86	13.85	33.621	25.153	280.9	.061	5.39	91.8	8.8	.71	5.8	.35	1.58	.53	21
1	30 ISL	13.50	13.49	33.625	25.229	273.8	.086	4.96	83.8							30
1	31	13.47	13.46	33.626	25.236	273.2	.089	4.92	83.1	10.3	.86	7.4	.48	.93	.51	31
1	41	13.22	13.21	33.645	25.302	267.2	.115	4.89	82.2	12.1	.98	8.8	.58	.38	.70	41
1	50	13.02	13.02	33.669	25.359	262.0	.139	4.57	76.5	13.3	1.02	9.6	.58	.17	.36	50
1	60	12.22	12.21	33.668	25.515	247.3	.164	4.28	70.5	16.4	1.22	13.1	.60	.10	.38	60
1	69	11.63	11.62	33.682	25.636	235.9	.186	3.79	61.6	18.6	1.35	15.5	.54	.12	.35	69
1	75 ISL	11.30	11.29	33.696	25.708	229.2	.201	3.64	58.7							75
1	84	10.95	10.94	33.716	25.787	221.9	.220	3.53	56.6	21.8	1.50	18.3	.46	.08	.27	84
1	100 ISL	10.61	10.60	33.753	25.875	213.8	.256	3.26	51.8							101
1	103	10.57	10.56	33.760	25.888	212.7	.263	3.21	51.0	24.0	1.63	20.4	.43	.05	.27	104
1	125 ISL	10.18	10.16	33.785	25.977	204.7	.308	3.18	50.0							126
1	128	10.13	10.11	33.788	25.987	203.8	.315	3.17	49.9	25.9	1.69	21.9	.17	.03	.21	129
1	150 ISL	10.02	10.00	33.796	26.012	201.8	.359	3.10	48.7							151
1	153	10.00	9.98	33.797	26.016	201.5	.365	3.09	48.5	26.2	1.73	22.4	.12	.01	.22	154

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
36 06.8 N	121 52.4 W	24/07/84	1945 GMT	1355 M	320	12 KT	320 2 9	1	1021.0 MB	19.4 C	15.8 C	6/8		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	15.96	15.96	33.625	24.701	324.4	.000	6.16	109.5							0
1	1	15.96	15.96	33.625	24.701	323.3	.003	6.16	109.5	2.4	.22	.4	.05	1.35	.67	1
1	10 ISL	15.60	15.60	33.627	24.783	315.8	.032	6.23	110.0							10
1	11	15.57	15.57	33.627	24.789	315.2	.035	6.24	110.0	2.4	.25	.4	.05	2.20	.35	11
1	20 ISL	15.39	15.39	33.620	24.824	312.1	.065	6.15	108.0							20
1	21	15.36	15.36	33.619	24.829	311.7	.066	6.13	107.6	2.9	.29	.9	.09	2.49	.26	21
1	30 ISL	14.72	14.71	33.611	24.965	299.0	.094	5.93	102.8							30
1	31	14.64	14.64	33.611	24.980	297.6	.097	5.90	102.1	3.2	.41	1.8	.07	1.63	.61	31
1	41	13.84	13.83	33.613	25.151	281.6	.125	5.24	89.2	6.8	.69	5.4	.31	.86	.36	41
1	50	12.54	12.53	33.631	25.424	255.7	.149	4.47	74.1	11.0	1.04	11.8	.41	.28	.29	50
1	60	11.95	11.94	33.648	25.551	243.9	.174	4.16	68.1	14.3	1.21	14.8	.19	.21	.23	60
1	70	11.40	11.39	33.668	25.668	233.0	.198	3.90	63.1	17.3	1.36	17.4	.05	.12	.24	70
1	75 ISL	11.15	11.14	33.681	25.723	227.8	.210	3.72	59.8							75
1	85	10.75	10.74	33.702	25.812	219.5	.232	3.48	55.5	20.5	1.49	19.3	.03	.07	.14	85
1	98	10.19	10.18	33.718	25.921	209.4	.262	3.61	56.9	22.1	1.57	20.8	.02	.04	.11	99
1	100 ISL	10.17	10.16	33.722	25.928	208.8	.265	3.59	56.5							101
1	118	9.95	9.94	33.785	26.014	201.0	.302	3.20	50.2	25.2	1.68	22.6	.02	.03	.10	119
1	125 ISL	9.76	9.74	33.814	26.069	195.8	.315	3.09	48.2							126
1	142	9.23	9.22	33.889	26.214	182.3	.348	2.85	44.0	30.4	1.83	25.2	.01	.02	.08	143
1	150 ISL	9.11	9.09	33.914	26.254	178.6	.362	2.78	42.8							151
1	172	8.87	8.85	33.972	26.377	171.2	.401	2.61	40.0	33.7	1.95	26.7	.01			173
1	200 ISL	8.54	8.52	34.036	26.438	162.0	.447	2.33	35.4							201
1	201	8.53	8.51	34.037	26.440	161.7	.449	2.32	35.3	38.8	2.08	28.4	.04			202
1	231	8.40	8.38	34.066	26.484	158.1	.496	2.14	32.5	40.3	2.17	29.3	.04			232
1	250 ISL	8.29	8.27	34.092	26.521	155.0	.527	2.02	30.5							252
1	269	8.15	8.12	34.114	26.560	151.5	.556	1.89	28.5	44.1	2.30	30.3	.03			271
1	300 ISL	7.77	7.74	34.129	26.628	145.4	.602	1.69	25.3							302
1	328	7.41	7.38	34.137	26.687	140.1	.641	1.51	22.4	53.0	2.46	33.6	.02			330
1	400 ISL	6.90	6.86	34.182	26.794	130.8	.739	1.06	15.5							403
1	401	6.90	6.86	34.183	26.795	130.7	.741	1.05	15.4	62.0	2.66	36.1	.00			404
1	475	6.43	6.39	34.213	26.861	123.2	.834	.76	11.0	70.7	2.83	37.7	.00			478
1	500 ISL	6.25	6.20	34.221	26.912	120.5	.865	.68	9.9							504
1	549	5.85	5.81	34.234	26.972	115.0	.923	.57	8.2	80.1	2.97	40.0	.00			553

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 52.9 N	122 21.9 W	24/07/84	1520 GMT	3017 M	320	11 KT	320 3 9	1	1020.0 MB	16.2 C	13.7 C	7/8		AC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	16.01	16.01	33.625	24.688	324.5	.000	6.05	107.6	2.0	.30	.6	.05	.31	.07	0
1	9	15.99	15.99	33.623	24.692	324.4	.029	6.22	110.6	2.1	.30	.5	.04	.32	.05	9
1	10 ISL	15.98	15.97	33.622	24.695	324.1	.032	6.22	110.5							10
1	20 ISL	15.82	15.82	33.620	24.728	321.3	.065	6.19	109.7							20
1	21	15.81	15.80	33.620	24.731	321.1	.068	6.19	109.7	2.1	.30	.8	.05	.30	.11	21
1	30 ISL	13.81	13.81	33.535	25.095	286.5	.095	5.95	101.3							30
1	31	13.60	13.59	33.530	25.136	282.8	.098	5.92	100.2	2.2	.57	3.5	.18	.36	.23	31
1	41	12.07	12.07	33.532	25.437	254.3	.124	5.33	87.4	7.4	1.01	8.9	.50	.50	.23	41
1	50 ISL	11.41	11.40	33.590	25.606	238.3	.147	4.60	74.4							50
1	51	11.38	11.37	33.597	25.617	237.3	.149	4.54	73.4	13.6	1.22	14.2	.54	.24	.19	51
1	61	11.06	11.05	33.698	25.754	224.6	.172	3.89	62.5	18.8	1.47	18.8	.07	.11	.18	61
1	72	9.92	9.91	33.747	25.989	202.3	.195	3.42	53.6	24.1	1.64	22.1	.02	.05	.11	72
1	75 ISL	9.77	9.76	33.762	26.025	198.9	.202	3.37	52.6							75
1	87	9.55	9.54	33.805	26.096	192.4	.225	3.25	50.5	26.3	1.73	23.6	.01	.00	.11	87
1	100	9.32	9.31	33.849	26.168	185.8	.251	2.91	45.0	29.5	1.85	25.4	.01	.01	.14	101
1	120	8.97	8.95	33.908	26.271	176.4	.287	2.67	41.0	32.4	1.94	26.9	.01	.01	.13	121
1	125 ISL	8.93	8.92	33.922	26.288	174.9	.295	2.64	40.6							126
1	145	8.78	8.77	33.977	26.354	168.9	.330	2.55	39.0	34.5	2.00	27.4	.01	.00	.17	146
1	150 ISL	8.70	8.68	33.989	26.376	166.9	.338	2.51	38.3							151
1	174	8.27	8.25	34.038	26.482	157.3	.377	2.28	34.5	39.7	2.13	29.3	.02			175
1	200 ISL	7.99	7.97	34.066	26.545	151.6	.417	2.07	31.2							201
1	205	7.95	7.93	34.069	26.554	150.8	.424	2.04	30.6	43.9	2.25	30.8	.03			206
1	233	7.65	7.63	34.086	26.611	145.8	.465	1.86	27.7	47.2	2.33	32.0	.05			234
1	250 ISL	7.48	7.45	34.104	26.650	142.3	.490	1.69	25.1							252
1	272	7.28	7.25	34.129	26.698	138.0	.522	1.47	21.7	53.5	2.52	34.0	.05			274
1	300 ISL	7.08	7.05	34.149	26.743	134.1	.559	1.28	18.9							302
1	331	6.88	6.85	34.168	26.784	130.6	.600	1.12	16.4	60.7	2.66	36.0	.02			333
1	400 ISL	6.46	6.42	34.211	26.875	122.7	.688	.79	11.4							403
1	406	6.42	6.38	34.214	26.883	122.0	.695	.76	11.0	69.2	2.84	38.0	.01			409
1	481	5.91	5.87	34.234	26.964	114.9	.783	.52	7.5	77.7	2.97	40.0	.01			484
1	500 ISL	5.82	5.78	34.246	26.984	113.1	.805	.47	6.8							504
1	556	5.69	5.65	34.295	27.040	108.4	.867	.38	5.4	84.3	3.06	40.5	.00			560

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 32.9 N	123 04.5 W	24/07/84	0918 GMT	4114 M	330	7 KT			1020.0 MB	15.6 C	12.3 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	15.67	15.67	33.267	24.490	344.1	.000	6.06	106.8							0
1	1	15.67	15.67	33.267	24.490	343.3	.003	6.06	106.8	1.6	.35	1.8	.09	.15	.01	1
	10	15.10	15.10	33.255	24.607	332.5	.034	6.20	108.1							10
1	11	15.03	15.03	33.257	24.624	330.9	.037	6.22	108.2	1.5	.35	1.8	.09	.16	.07	11
	20	14.29	14.29	33.310	24.823	312.3	.066	6.44	110.4							20
1	21	14.21	14.20	33.317	24.845	310.2	.069	6.46	110.6	1.6	.35	1.7	.09	.31	.11	21
	30	13.38	13.37	33.389	25.071	288.9	.096	5.56	93.7							30
1	31	13.28	13.28	33.397	25.096	286.5	.099	5.48	92.1	1.5	.55	3.6	.13	.54	.15	31
	40	11.90	11.89	33.483	25.432	254.6	.123	5.73	93.6	5.1	.94	7.6	.37	.42	.19	40
1	50	11.11	11.10	33.549	25.628	236.2	.147	5.19	83.4	11.2	1.25	11.6	.94	.37	.33	50
	60	10.16	10.16	33.499	25.754	224.3	.170	5.06	79.6	14.4	1.31	14.3	.76	.46	.26	60
1	70	10.05	10.05	33.665	25.902	210.5	.192	4.21	66.1	21.5	1.57	21.1	.07	.21	.17	70
	75	9.96	9.95	33.704	25.948	206.2	.203	3.90	61.2							75
1	85	9.71	9.70	33.727	26.008	200.7	.222	3.62	56.5	25.1	1.69	23.1	.04	.12	.19	85
	98	9.08	9.07	33.750	26.113	190.9	.250	3.82	58.7	26.7	1.69	23.3	.03	.05	.21	99
1	100	9.02	9.01	33.754	26.126	189.7	.253	3.81	58.6							101
	118	8.48	8.47	33.807	26.267	176.6	.286	3.74	56.8	28.6	1.67	23.5	.03	.01	.08	119
	125	8.37	8.36	33.842	26.311	172.5	.298	3.72	56.4							126
1	143	8.16	8.15	33.928	26.411	163.4	.328	3.68	55.5	32.0	1.72	24.6	.04	.01	.09	144
	150	8.09	8.08	33.947	26.435	161.1	.339	3.51	52.8							151
1	173	7.86	7.84	33.982	26.497	155.6	.376	2.88	43.1	38.4	1.97	28.2	.02			174
	200	7.51	7.49	33.991	26.556	150.4	.417	2.67	39.7							204
1	203	7.48	7.46	33.992	26.562	149.9	.421	2.66	39.5	43.7	2.11	30.2	.03			234
	233	7.12	7.10	34.022	26.635	143.2	.465	2.41	35.5	49.0	2.25	31.8	.02			252
1	250	6.93	6.91	34.032	26.669	140.1	.490	2.20	32.2							274
	272	6.69	6.66	34.037	26.707	136.8	.520	1.95	28.4	55.4	2.40	34.2	.02			302
1	300	6.30	6.27	34.025	26.748	133.1	.558	1.89	27.3							334
	332	5.90	5.88	34.016	26.791	129.1	.600	1.84	26.3	63.8	2.49	36.5	.02			403
1	400	5.70	5.67	34.102	26.884	121.1	.685	1.02	14.5							482
	405	5.70	5.66	34.110	26.891	120.5	.691	.95	13.5	74.7	2.80	39.9	.02			488
1	479	5.31	5.27	34.175	26.990	111.7	.776	.58	8.2							504
	500	5.19	5.15	34.191	27.017	109.3	.800	.51	7.1							555
1	551	4.90	4.86	34.225	27.077	103.9	.854	.40	5.6	95.0	3.07	42.9	.00			

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 12.8 N	123 46.4 W	24/07/84	0320 GMT	4023 M	340	4 KT	350 1 6	1	1018.0 MB	18.0 C	13.5 C		6/8	CU		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	17.28	17.28	32.937	23.866	407.4	.000	5.80	105.3							0
1	1	17.28	17.28	32.937	23.866	402.9	.004	5.80	105.3	1.9	.28	.0	.00	.06	.01	1
	10	15.90	15.90	32.898	24.155	375.6	.039	5.94	105.0							10
1	11	15.82	15.82	32.897	24.171	374.0	.043	5.95	105.0	2.0	.29	.0	.00	.06	.01	11
	20	15.74	15.74	32.900	24.193	372.3	.076	5.93	104.5	2.3	.29	.0	.00	.06	.02	20
1	30	15.70	15.69	32.897	24.201	371.8	.114	5.87	103.4							30
	31	15.69	15.69	32.897	24.202	371.8	.117	5.87	103.3	2.3	.29	.0	.00	.08	.02	31
1	41	15.55	15.54	32.892	24.230	369.3	.154	5.89	103.3	2.3	.29	.0	.00	.11	.02	41
	50	14.73	14.72	32.869	24.390	354.3	.187	6.03	104.1							50
1	51	14.65	14.64	32.869	24.408	352.6	.190	6.05	104.2	2.2	.31	.0	.00	.15	.03	51
	60	13.84	13.83	32.909	24.607	333.9	.221	6.20	105.1	2.1	.32	.0	.00	.13	.07	60
1	70	13.26	13.25	32.988	24.786	317.1	.253	6.11	102.4	1.9	.31	.0	.00	.16	.11	70
	75	13.22	13.21	33.031	24.827	313.2	.270	6.07	101.6							75
1	85	13.12	13.11	33.090	24.893	307.2	.300	5.95	99.5	2.1	.32	.3	.08	.38	.13	85
	100	11.95	11.94	33.105	25.129	284.9	.344	5.54	90.4	5.7	.63	5.3	.04	.20	.13	100
1	119	10.81	10.79	33.342	25.521	247.9	.397	4.86	77.4	11.9	1.05	12.6	.02	.06	.08	120
	125	10.63	10.61	33.404	25.602	240.4	.410	4.67	74.2							126
1	143	10.14	10.12	33.582	25.825	219.5	.452	4.13	65.0	17.3	1.33	17.7	.00	.01	.04	144
	150	9.88	9.86	33.631	25.907	211.7	.467	3.98	62.3							151
1	173	9.03	9.01	33.775	26.158	188.2	.513	3.60	55.3	25.9	1.61	22.9	.00			174
	200	8.55	8.53	33.921	26.348	170.5	.561	3.34	50.8							201
1	202	8.52	8.50	33.929	26.358	169.6	.564	3.33	50.6	31.3	1.76	25.4	.00			203
	232	8.07	8.05	33.976	26.463	160.0	.614	3.22	48.5	34.8	1.84	26.6	.00			233
1	250	7.84	7.81	33.998	26.515	155.3	.642	3.03	45.4							252
	270	7.57	7.55	34.015	26.567	150.6	.674	2.79	41.5	42.2	2.03	29.3	.00			272
1	300	7.08	7.05	34.019	26.639	143.9	.717	2.51	36.9							302
	328	6.63	6.60	34.020	26.701	138.1	.757	2.24	32.6	55.3	2.30	33.5	.00			330
1	400	6.02	5.98	34.077	26.826	126.9	.852	1.32	19.0							403
	402	6.00	5.97	34.079	26.829	126.6	.855	1.29	18.5	68.3		38.0	.00			405
1	476	5.55	5.51	34.148	26.940	116.6	.944	.72	10.2	80.7	2.90	40.6	.00			479
	500	5.39	5.35	34.166	26.974	113.6	.972	.61	8.6							504
1	550	5.05	5.01	34.194	27.036	107.9	1.028	.51	7.2	90.7	3.01	42.3	.00			554

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
34 52.7 N	124 29.0 W	23/07/84	2156 GMT	4133 M	170	3 KT	350 1 8	1	1019.0 MB	19.9 C	14.9 C	6/8		CU	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	16.39	32.893	24.041	387.2	.000	5.83	104.0							0
1	1	16.39	32.893	24.041	386.2	.004	5.83	104.0							1
1	10	16.05	32.888	24.115	379.4	.038	5.94	105.2	2.0	.31	.0	.00	.07	.02	10
1	11	16.02	32.888	24.120	378.9	.042	5.94	105.2	2.0	.33	.0	.00	.07	.02	11
1	20	15.89	32.884	24.148	376.6	.076	5.88	103.9							20
1	21	15.88	32.884	24.149	376.5	.080	5.87	103.7	2.0	.33	.0	.00	.08	.01	21
1	30	15.85	32.885	24.156	376.1	.113	5.83	102.9	2.0	.34	.0	.00	.08	.02	30
1	40	15.81	32.885	24.167	375.3	.151	5.84	103.0	2.0	.34	.0	.00	.10	.01	40
1	50	14.42	32.814	24.412	352.2	.187	6.09	104.4	2.2	.33	.0	.00	.14	.02	50
1	60	13.74	32.800	24.543	340.0	.221	6.24	105.5	2.2	.31	.0	.00	.17	.12	60
1	70	13.41	32.813	24.620	332.8	.255	6.14	103.1	2.1	.34	.0	.00	.44	.14	70
1	75	13.25	32.824	24.661	329.1	.272	6.08	101.8							75
1	84	13.02	32.849	24.726	323.0	.301	5.99	99.8	2.1	.41	.3	.66	.26	.18	84
1	95	12.71	32.905	24.830	313.5	.348	5.85	96.8	2.9	.49	2.3	.03	.09	.11	95
1	100	12.69	32.911	24.839	312.7	.353	5.84	96.7							100
1	118	12.40	33.010	24.972	300.4	.409	5.76	94.8	4.2	.58	4.1	.02	.05	.07	118
1	125	12.27	33.058	25.034	294.8	.429	5.69	93.4							125
1	142	11.82	33.194	25.224	277.0	.478	5.40	87.9	7.3	.81	7.4	.02	.01	.06	142
1	150	11.50	33.245	25.324	267.5	.499	5.22	84.3							150
1	172	10.48	33.405	25.628	238.8	.555	4.62	73.1	14.3	1.13	13.6	.02			172
1	200	9.54	33.652	25.981	205.7	.617	3.93	61.0							200
1	202	9.48	33.670	26.003	203.6	.621	3.88	60.2	22.1	1.49	20.1	.01			202
1	232	9.09	33.877	26.229	182.6	.679	3.11	47.9	28.7	1.78	22.3	.01			232
1	250	8.72	33.945	26.341	172.2	.711	2.84	43.4							250
1	271	8.29	33.991	26.443	162.7	.745	2.67	40.4	37.0	2.01	28.0	.01			271
1	300	7.88	34.019	26.526	155.1	.792	2.66	39.8							300
1	330	7.55	34.024	26.578	150.5	.838	2.64	39.3	43.4	2.11	29.6	.01			330
1	400	6.87	34.059	26.700	139.6	.940	1.98	28.9							400
1	405	6.83	34.061	26.707	138.9	.946	1.92	28.1	54.2	2.41	33.7	.00			405
1	478	6.23	34.115	26.829	127.9	1.044	1.13	16.3	66.0	2.73	37.9	.00			478
1	500	6.05	34.128	26.863	124.8	1.072	.97	13.9							500
1	551	5.62	34.153	26.936	118.1	1.134	.72	10.2	78.8	2.93	40.4	.00			555

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
34 32.8 N	125 10.9 W	23/07/84	1533 GMT	4309 M	80	2 KT	350 4 8	2	1017.0 MB	17.0 C	13.0 C	7/8		SC	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	16.24	32.929	24.102	380.5	.000	5.79	103.0							0
1	1	16.24	32.929	24.102	380.3	.004	5.79	103.0	2.1	.32	.0	.01	.09	.02	1
1	10	16.15	32.920	24.117	379.2	.038	5.92	105.1							10
1	12	16.13	32.920	24.119	379.0	.045	5.92	105.1	2.1	.33	.0	.00	.08	.04	12
1	20	16.10	32.923	24.129	378.4	.076	5.85	103.8							20
1	21	16.10	32.923	24.130	378.3	.079	5.84	103.6	2.1	.32	.0	.00	.08	.03	21
1	30	15.43	32.884	24.248	367.3	.113	5.94	104.0	2.1	.32	.0	.00	.10	.05	30
1	40	15.41	32.896	24.263	366.2	.149	5.90	103.2	2.0	.33	.0	.00	.15	.03	40
1	50	14.86	32.870	24.364	356.9	.185	5.96	103.1	2.1	.33	.0	.00	.16	.12	50
1	60	13.75	32.828	24.562	338.1	.220	6.16	104.2	2.1	.36	.0	.00	.28	.17	60
1	70	13.32	32.849	24.667	328.4	.253	6.13	102.7	2.1	.37	.0	.05	.49	.26	70
1	75	13.17	32.861	24.706	324.8	.270	6.10	101.9							75
1	84	12.99	32.886	24.760	319.8	.298	6.03	100.4	2.1	.43	.3	.36	.28	.19	84
1	99	12.76	32.949	24.854	311.2	.345	5.90	97.8	2.9	.44	1.2	.13	.12	.19	99
1	100	12.72	32.958	24.870	309.8	.350	5.88	97.4							100
1	118	12.08	33.108	25.108	287.4	.405	5.58	91.3	4.6	.65	5.7	.01	.04	.10	118
1	125	11.94	33.181	25.192	279.6	.423	5.45	88.9							125
1	142	11.54	33.372	25.414	258.8	.470	5.07	82.1	8.6	.92	10.3	.01	.02	.10	142
1	150	11.24	33.430	25.514	249.4	.490	4.92	79.2							150
1	172	10.30	33.583	25.799	222.6	.542	4.35	68.7	17.8	1.39	17.9	.01			172
1	200	9.46	33.821	26.125	192.1	.600	3.07	47.6							200
1	202	9.41	33.835	26.144	190.2	.603	2.99	46.3	28.6	1.83	25.1	.01			202
1	231	8.67	33.897	26.311	174.6	.656	3.04	46.4	31.6	1.91	26.1	.01			231
1	250	8.47	33.954	26.386	167.8	.689	2.79	42.3							250
1	271	8.33	34.008	26.449	162.1	.723	2.47	37.4	38.6	2.12	28.7	.01			271
1	300	7.88	34.032	26.536	154.2	.769	2.42	36.2							300
1	330	7.40	34.042	26.613	147.1	.815	2.39	35.4	46.2	2.34	30.9	.00			330
1	400	6.81	34.120	26.756	134.2	.913	1.38	20.2							400
1	405	6.78	34.124	26.764	133.5	.919	1.31	19.2	59.7	2.76	34.1	.00			405
1	479	6.02	34.144	26.879	123.0	1.014	.90	12.9	71.5	3.01	36.7	.00			479
1	500	5.97	34.174	26.910	120.3	1.040	.79	11.3							500
1	553	5.83	34.242	26.981	114.2	1.102	.52	7.4	79.5	3.12	39.0	.00			557

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
35 38.6 N	121 15.3 W	22/07/84	0250 GMT	37 M	320	15 KT	280 2 7	1	1012.0 MB	16.0 C	11.9 C	6/8		ST	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	15.98	33.609	24.683	325.0	.000	6.44	114.5							0
1	1	15.98	33.609	24.683	325.0	.003	6.44	114.5	2.0	.26	.1	.03	2.75	.13	1
1	10	15.90	33.616	24.706	323.1	.032	6.49	115.1							10
1	11	15.90	33.618	24.710	322.7	.035	6.49	115.2	2.0	.26	.1	.03	2.85	.20	11
1	20	15.64	33.610	24.762	318.1	.064	6.29	111.0							20
1	21	15.61	33.609	24.767	317.6	.067	6.27	110.6	4.2	.37	1.0	.10	2.33	.22	21
1	30	14.20	33.593	25.060	289.9	.095	5.40	92.7							30
1	31	14.01	33.593	25.100	286.1	.097	5.29	90.4	8.4	.71	5.3	.32	1.71	.60	31



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 32.6 N	121 28.1 W	22/07/84	0438 GMT	669 M	320	18 KT			1013.0 MB	16.0 C	14.0 C					
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
F	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	16.78	16.78	33.648	24.530	340.7	.000	5.90	106.6						0	
1	2	16.78	16.78	33.648	24.530	339.6	.007	5.90	106.6						2	
1	1C ISL	16.53	16.53	33.638	24.579	335.2	.034	6.18	111.1						10	
1	11	16.51	16.50	33.637	24.585	334.6	.037	6.19	111.2	1.0	.25	.0	.00	.55	.06	11
1	20	15.04	15.04	33.625	24.905	304.5	.066	6.03	105.2	4.1	.37	.9	.04	2.65	.56	20
1	30	13.77	13.76	33.614	25.166	279.9	.095	5.05	85.8	7.4	.78	6.1	.47	.79	.40	30
1	41	12.53	12.52	33.628	25.424	255.5	.124	4.74	78.5	10.9	1.09	11.5	.73	.32	.43	41
1	50	11.78	11.78	33.666	25.595	239.4	.146	4.01	65.4	15.0	1.28	14.7	.53	.23	.22	50
1	61	10.97	10.97	33.703	25.772	222.8	.171	3.65	58.5	19.2	1.45	18.3	.11	.10	.21	61
1	70	10.52	10.52	33.730	25.872	213.4	.191	3.43	54.5	21.4	1.54	19.9	.04	.05	.19	70
1	75 ISL	10.34	10.33	33.746	25.917	209.3	.202	3.35	53.0						75	
1	86	10.02	10.02	33.780	25.997	201.8	.224	3.22	50.6	24.5	1.69	22.1	.02	.04	.14	86
1	100	9.53	9.52	33.852	26.135	189.0	.253	2.98	46.3	28.0	1.81	24.1	.02	.03	.14	101
1	115	9.28	9.27	33.896	26.211	182.1	.288	2.84	43.9	30.0	1.86	25.1	.02	.03	.11	120
1	125 ISL	9.22	9.21	33.906	26.229	180.6	.298	2.81	43.3						126	
1	144	9.02	9.01	33.934	26.282	175.8	.333	2.70	41.5	32.2	1.98	26.4	.02	.02	.11	145
1	150 ISL	8.96	8.94	33.944	26.301	174.1	.343	2.67	41.0						151	
1	174	8.68	8.66	33.983	26.375	167.5	.384	2.54	38.8	35.2	2.06	27.5	.02		175	
1	200 ISL	8.43	8.41	34.016	26.439	161.8	.427	2.43	36.9						201	
1	204	8.39	8.38				.433	2.41	36.6	37.8	2.10	28.8	.02		205	
1	234	7.86	7.84	34.057	26.557	151.0	.479	2.19	32.8	43.2	2.21	30.7	.04		235	
1	250 ISL	7.82	7.80	34.100	26.597	147.5	.504	1.95	29.3						252	
1	272	7.77	7.74	34.144	26.640	143.8	.536	1.64	24.5	48.4	2.41	32.3	.02		274	
1	300 ISL	7.48	7.45	34.146	26.684	140.0	.575	1.52	22.6						302	
1	332	7.09	7.06	34.131	26.726	136.2	.619	1.46	21.5	55.5	2.54	34.7	.02		334	
1	400 ISL	6.71	6.67	34.178	26.817	128.4	.710	.95	13.9						403	
1	405	6.68	6.65	34.183	26.823	127.8	.716	.91	13.3	64.3	2.71	37.1	.01		408	
1	480	6.21	6.17	34.238	26.929	118.5	.808	.62	8.9	74.2	2.91	39.1	.00		483	
1	500 ISL	6.10	6.06	34.249	26.953	116.4	.832	.57	8.1						504	
1	554	5.83	5.79	34.270	27.003	112.1	.893	.47	6.7	82.0	2.99	40.1	.00		558	

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 18.6 N	121 57.7 W	22/07/84	1120 GMT	2468 M	340	13 KT			1013.0 MB	15.1 C	12.2 C					
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
F	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	16.19	16.18	33.620	24.645	328.5	.000	5.96	106.4						0	
1	2	16.19	16.18	33.620	24.645	328.6	.007	5.96	106.4	1.7	.29	.4	.04	.20	.10	2
1	1C ISL	16.18	16.18	33.618	24.646	328.8	.033	6.12	109.2						10	
1	11	16.18	16.17	33.618	24.646	328.8	.036	6.13	109.4	1.7	.32	.4	.04	.08	.30	11
1	20 ISL	15.84	15.83	33.602	24.711	322.9	.065	6.15	109.0						20	
1	21	15.77	15.77	33.600	24.724	321.7	.068	6.15	108.9	1.6	.33	.6	.04	.21	.09	21
1	30	14.63	14.63	33.584	24.961	299.4	.097	5.99	103.6						30	
1	31	14.51	14.51	33.584	24.987	296.9	.099	5.97	103.0	2.2	.42	1.8	.12	.33	.13	31
1	40	13.65	13.64	33.628	25.201	276.8	.125	5.79	98.2	2.9	.58	3.3	.44	.37	.25	40
1	50	12.31	12.31	33.611	25.453	252.9	.151	4.80	79.1	11.0	1.03	12.4	.31	.18	.16	50
1	61	10.99	10.99	33.624	25.707	229.0	.178	4.28	68.6	16.5	1.32	17.4	.02	.08	.09	61
1	71	10.39	10.38	33.675	25.853	215.3	.200	4.00	63.3	19.6	1.48	19.8	.02	.05	.09	71
1	75 ISL	10.24	10.23	33.703	25.901	210.7	.209	3.86	60.9						75	
1	85	9.98	9.97	33.762	25.991	202.4	.229	3.57	56.0	23.0	1.62	22.2	.01	.02	.09	85
1	100	9.45	9.44	33.806	26.113	191.1	.260	3.27	50.7	26.0	1.69	23.4	.01	.01	.09	101
1	115	9.09	9.08	33.885	26.233	180.0	.295	2.94	45.3	30.2	1.82	25.5	.01	.01	.08	120
1	125 ISL	9.00	8.99	33.903	26.262	177.3	.305	2.93	45.0						126	
1	144	8.73	8.71	33.952	26.343	170.0	.338	2.90	44.3	32.6	1.88	26.4	.01	.00	.06	145
1	150 ISL	8.65	8.64	33.962	26.363	168.1	.348	2.88	44.0						151	
1	173	8.36	8.35	33.999	26.436	161.5	.386	2.73	41.4	35.9	1.97	27.5	.01		174	
1	200 ISL	8.02	8.00	34.050	26.529	153.2	.429	2.27	34.2						201	
1	202	7.99	7.97	34.053	26.534	152.6	.431	2.24	33.7	42.3	2.14	30.3	.01		203	
1	233	7.62	7.60	34.080	26.610	145.9	.477	1.97	29.4	47.4	2.27	31.8	.01		234	
1	250 ISL	7.46	7.43	34.088	26.640	143.2	.503	1.85	27.5						252	
1	271	7.26	7.24	34.101	26.678	139.9	.533	1.69	25.0	52.2	2.42	33.7	.01		273	
1	300 ISL	6.95	6.92	34.145	26.757	132.7	.572	1.30	19.2						302	
1	330	6.65	6.62	34.193	26.835	125.5	.610	.92	13.4	64.7	2.71	37.1	.01		332	
1	400 ISL	6.30	6.27	34.214	26.897	120.4	.697	.74	10.7						403	
1	403	6.29	6.26	34.214	26.899	120.3	.701	.73	10.6	71.0	2.83	38.6	.01		406	
1	478	5.94	5.90	34.279	26.996	111.9	.787	.47	6.7	78.9	2.96	40.0	.01		481	
1	500 ISL	5.83	5.79	34.293	27.021	109.7	.812	.42	6.1						504	
1	552	5.56	5.51	34.316	27.072	105.2	.868	.37	5.3	86.7	3.05	41.1	.00		556	

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE
34 58.6 N		122 39.9 W		22/07/84	1729 GMT	3931 M	340	12 KT	320	6 8	2	1015.0 MB	15.7 C	12.6 C	8/8		ST
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0	14.91	14.91	33.282	24.669	326.3	.000	6.04	104.9	1.7	.44	2.3	.09	.23	.08	0	10
	10	14.86	14.86	33.286	24.682	325.4	.033	6.14	106.6							11	11
1	11	14.86	14.86	33.286	24.683	325.3	.036	6.15	106.7	1.2	.44	2.3	.09	.19	.08	20	20
1	20	14.66	14.65	33.292	24.731	321.0	.065	6.16	106.4	.9	.44	2.2	.09	.20	.08	30	30
	30	14.07	14.07	33.360	24.907	304.5	.096	6.18	105.6							34	34
1	34	13.80	13.79	33.382	24.981	297.6	.108	6.19	105.1	.7	.48	2.3	.13	.23	.15	44	44
1	44	13.13	13.12	33.344	25.086	287.8	.137	6.00	100.5	1.7	.55	3.6	.18	.28	.14	50	50
	50	12.59	12.58	33.331	25.183	278.7	.154	5.91	97.9							55	55
1	55	12.20	12.19	33.339	25.264	271.0	.168	5.85	96.1	3.8	.76	5.4	.27	.28	.15	66	66
1	66	11.71	11.70	33.456	25.446	253.9	.196	5.69	92.5	6.0	.97	8.5	.37	.22	.25	75	75
	75	10.66	10.65	33.427	25.612	238.2	.219	5.17	82.2							77	77
1	77	10.47	10.46	33.420	25.640	235.6	.223	5.07	80.2	11.1	1.06	11.9	.38	.18	.09	93	93
1	93	9.57	9.55	33.504	25.858	215.1	.259	4.42	68.6	17.6	1.27	16.8	.08	.05	.11	101	101
	100	9.32	9.31	33.597	25.971	204.5	.275	4.28	66.1							108	108
1	107	9.14	9.13	33.693	26.074	194.8	.289	4.18	64.4	25.1	1.63	22.2	.01	.02	.09	126	126
	125	8.88	8.87	33.802	26.201	183.1	.323	3.80	58.3							130	130
1	129	8.83	8.82	33.818	26.221	181.2	.330	3.72	56.9	30.2	1.76	25.0	.01	.01	.08	151	151
	150	8.46	8.45	33.891	26.336	170.6	.367	3.62	54.9							158	158
1	157	8.33	8.32	33.908	26.369	167.6	.379	3.58	54.2	30.7	1.72	24.6	.02	.00	.07	191	191
1	190	7.83	7.81	33.945	26.473	158.1	.432	3.55	53.1	35.2	1.79	25.6	.01			201	201
	200	7.65	7.63	33.953	26.506	155.1	.448	3.52	52.4							223	223
1	222	7.32	7.29	33.973	26.569	149.4	.481	3.44	50.9	41.0	1.92	28.0	.02			252	252
	250	7.12	7.10	34.009	26.625	144.4	.523	2.60	38.3							256	256
1	254	7.10	7.07	34.014	26.632	143.8	.529	2.45	36.1	48.4	2.18	31.4	.00			300	300
1	298	6.70	6.67	34.046	26.712	136.7	.590	1.85	27.0	56.0	2.41	34.5	.00			302	302
	300	6.68	6.65	34.048	26.716	136.3	.593	1.83	26.6							365	365
1	363	6.06	6.03	34.092	26.832	125.8	.675	1.17	16.8	67.6	2.69	38.2	.00			403	403
	400	5.72	5.69	34.113	26.891	120.5	.721	.93	13.2							446	446
1	443	5.40	5.36	34.137	26.949	115.1	.772	.73	10.3	80.8	2.90	41.1	.00			504	504
	500	5.12	5.08	34.182	27.018	109.1	.836	.52	7.3							528	528
1	524	5.03	4.99	34.203	27.045	106.7	.862	.45	6.3	89.9	3.02	42.1	.00			604	604
	600	4.72	4.68	34.269	27.132	98.9	.940	.32	4.5							609	609
1	605	4.71	4.66	34.273	27.138	98.5	.944	.32	4.5	100.1	3.10	43.5	.00				

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE
34 58.6 N		123 21.9 W		22/07/84	2309 GMT	3931 M	350	10 KT	350	2 6	1	1015.0 MB	18.5 C	12.8 C	2/3		ST
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
	0	16.14	16.14	32.908	24.109	381.5	.000	5.84	103.7							0	10
1	2	16.14	16.14	32.908	24.109	379.7	.008	5.84	103.7	2.2	.28	.0	.00	.06	.02	12	12
	10	15.84	15.84	32.915	24.183	372.9	.038	6.12	107.9							20	20
1	12	15.75	15.74	32.911	24.199	371.4	.045	6.15	108.4	2.2	.30	.0	.00	.08	.02	22	22
	20	15.31	15.30	32.862	24.259	366.0	.075	6.13	107.1							30	30
1	22	15.18	15.17	32.847	24.276	364.4	.082	6.13	106.7	2.2	.30	.0	.00	.14	.02	32	32
	30	14.43	14.43	32.793	24.393	353.4	.111	6.16	105.6							43	43
1	32	14.28	14.27	32.785	24.420	351.0	.117	6.17	105.4	2.2	.31	.0	.00	.20	.03	50	50
1	43	14.09	14.08	32.796	24.469	346.6	.155	6.16	104.9	2.1	.34	.0	.00	.55	.11	52	52
	50	13.86	13.85	32.790	24.511	342.7	.180	6.17	104.6							62	62
1	52	13.80	13.79	32.790	24.523	341.6	.186	6.18	104.6	2.2	.35	.2	.02	.49	.21	71	71
1	62	13.62	13.61	32.831	24.592	335.3	.220	6.22	104.9	2.2	.39	.5	.03	.34	.20	75	75
1	71	13.45	13.44	32.868	24.656	329.5	.250	6.13	103.0	2.1	.39	.5	.04	.29	.22	86	86
	75	13.34	13.33	32.885	24.689	326.4	.264	6.12	102.6							101	101
1	86	13.10	13.09	32.931	24.773	318.7	.298	6.10	101.8	2.2	.45	1.8	.08	.14	.16	101	101
	100	12.93	12.92	33.013	24.870	309.8	.343	6.00	99.9							121	121
1	101	12.92	12.91	33.017	24.875	309.3	.345	6.00	99.8	2.3	.48	2.3	.14	.11	.13	126	126
1	120	11.48	11.46	33.216	25.304	268.7	.403	5.21	84.2	7.6	.73	7.4	.03	.09	.10	146	146
	125	11.21	11.20	33.254	25.381	261.5	.415	5.14	82.6							151	151
1	145	10.22	10.21	33.418	25.682	233.0	.465	4.85	76.3	12.7	1.02	12.4	.02	.02	.05	175	175
	150	10.03	10.01	33.467	25.754	226.3	.476	4.66	73.0							201	201
1	174	9.21	9.19	33.701	26.071	196.5	.527	3.67	56.6	24.7	1.64	22.3	.01			206	206
	200	8.75	8.73	33.845	26.256	179.3	.575	3.36	51.4							235	235
1	205	8.69	8.67	33.863	26.280	177.0	.584	3.35	51.1	29.4	1.73	24.6	.01			252	252
1	234	8.24	8.21	33.954	26.421	164.1	.633	3.19	48.2	34.1	1.85	26.2	.01			274	274
	250	8.01	7.99	33.981	26.475	159.1	.659	3.04	45.7							302	302
1	272	7.71	7.69	34.002	26.536	153.6	.695	2.82	42.1	40.6	2.02	28.8	.01			334	334
	300	7.29	7.26	34.007	26.601	147.7	.736	2.64	39.1							403	403
1	332	6.83	6.80	34.009	26.665	141.7	.782	2.41	35.3	51.3	2.23	32.3	.01			409	409
	400	6.20	6.16	34.067	26.794	130.0	.875	1.41	20.3							484	484
1	406	6.15	6.12	34.073	26.805	129.0	.883	1.31	18.9	65.7	2.64	37.6	.00			504	504
1	481	5.66	5.62	34.135	26.917	119.0	.975	.79	11.2	77.2	2.89	40.2	.00			560	560
	500	5.53	5.49	34.151	26.945	116.4	.998	.70	9.9								
1	556	5.14	5.10	34.197	27.027	108.9	1.061	.51	7.2	88.7	3.02	42.0	.00				

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
34 18.6 N	124 03.7 W	23/07/84	0417 GMT	3109 M	330	10 KT	350 2 6	1	1016.0 MB	16.1 C	12.1 C	2/8		ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	C ISL	16.16	16.16	32.895	24.094	381.1	.000	5.84	103.7							0
1	1	16.16	16.16	32.895	24.094	381.1	.004	5.84	103.7	2.0	.37	.0	.00	.06	.02	1
	1C ISL	16.10	16.10	32.893	24.107	380.2	-.038	6.01	106.7							10
1	11	16.09	16.09	32.893	24.109	380.0	-.042	6.02	106.8	2.0	.33	.0	.00	.07	.02	11
	2C ISL	15.95	15.94	32.887	24.137	377.6	-.076	5.97	105.5							20
1	21	15.93	15.93	32.887	24.140	377.4	-.079	5.96	105.4	1.9	.32	.0	.00	.07	.03	21
	3C ISL	15.89	15.89	32.884	24.146	377.0	-.114	5.82	102.9							30
1	31	15.89	15.89	32.884	24.147	377.0	-.117	5.82	102.8	2.0	.32	.0	.00	.09	.02	31
	41	14.13	14.12	32.789	24.454	348.0	-.153	6.14	104.6	2.2	.35	.0	.00	.15	.08	41
1	5C ISL	13.79	13.79	32.795	24.528	341.1	-.185	6.15	104.1							50
	51	13.76	13.76	32.789	24.530	341.0	-.187	6.15	104.0	2.5	.35	.0	.00	.19	.09	51
1	61	13.48	13.47	32.797	24.594	335.1	-.221	6.20	104.2	1.9	.35	.0	.00	.23	.13	61
	71	13.36	13.36	32.811	24.627	332.1	-.254	6.16	103.3	1.8	.36	.0	.00	.34	.15	71
1	75 ISL	13.24	13.23	32.816	24.657	329.4	-.268	6.10	102.1							75
	86	12.89	12.87	32.833	24.740	321.8	-.303	5.96	99.0	2.4	.45	1.3	.22	.23	.16	86
1	10C ISL	12.61	12.59	32.887	24.836	312.9	-.349	5.89	97.3							101
	101	12.60	12.58	32.889	24.840	312.6	-.350	5.89	97.3	2.7	.52	2.7	.02	.09	.11	101
1	120	12.24	12.22	32.947	24.954	302.2	-.412	5.81	95.2	3.7	.60	4.0	.02	.04	.08	121
	125 ISL	12.19	12.17	32.977	24.986	299.2	-.425	5.77	94.5							126
1	145	11.86	11.84	33.140	25.175	281.7	-.484	5.49	89.4	7.0	.76	7.1	.01	.02	.07	146
	150 ISL	11.68	11.66	33.176	25.237	275.9	-.497	5.40	87.5							151
1	174	10.63	10.61	33.369	25.575	244.0	-.560	4.83	76.7	13.7	1.17	14.1	.01			175
	200 ISL	9.91	9.88	33.577	25.860	217.3	-.620	4.17	65.2							201
1	204	9.82	9.79	33.607	25.899	213.6	-.628	4.05	63.2	21.2	1.53	20.0	.01			205
	234	9.19	9.16	33.802	26.155	189.7	-.688	3.00	46.3	28.3	1.77	24.6	.01			235
1	25C ISL	8.96	8.93	33.880	26.252	180.7	-.718	2.78	42.7							252
	274	8.69	8.66	33.965	26.362	170.7	-.760	2.65	40.4	34.1	1.96	27.4	.01			275
1	300 ISL	8.35	8.32	34.017	26.455	162.2	-.804	2.49	37.7							302
	333	7.93	7.90	34.052	26.544	154.0	-.856	2.28	34.2	42.5	2.18	30.2	.00			335
1	40C ISL	7.18	7.15	34.115	26.702	139.7	-.954	1.60	23.6							403
	407	7.12	7.08	34.119	26.714	138.5	-.964	1.53	22.5	55.5	2.50	34.5	.00			409
1	481	6.52	6.47	34.157	26.826	128.5	1.063	1.00	14.5	66.2	2.70	37.4	.00			484
	500 ISL	6.39	6.34	34.169	26.852	126.2	1.087	.89	13.0							504
1	554	6.07	6.02	34.205	26.922	120.1	1.154	.66	9.5	75.1	2.87	39.5	.00			558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 58.5 N	124 45.4 W	23/07/84	0930 GMT	4261 M	240	4 KT			1017.0 MB	16.0 C	13.0 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	C ISL	16.17	16.17	32.916	24.107	380.2	.000	5.81	103.2							0
1	1	16.17	16.17	32.916	24.107	379.9	.004	5.81	103.2	1.9	.34	.0	.00	.07	.03	1
	1C ISL	15.97	15.97	32.908	24.147	376.3	-.038	5.87	103.9							10
1	11	15.94	15.94	32.907	24.153	375.8	-.041	5.88	104.0	1.9	.34	.0	.00	.07	.03	11
	2C ISL	15.69	15.69	32.897	24.201	371.5	-.075	5.93	104.4							20
1	21	15.65	15.65	32.896	24.209	370.8	-.079	5.94	104.4	1.8	.34	.0	.00	.07	.03	21
	3C ISL	14.76	14.76	32.871	24.384	354.4	-.112	6.03	104.1							30
1	31	14.68	14.67	32.869	24.401	352.7	-.115	6.04	104.1	1.8	.34	.0	.00	.08	.03	31
	41	14.40	14.40	32.876	24.464	347.0	-.150	6.14	105.3	1.7	.34	.0	.00	.18	.06	41
1	5C ISL	14.35	14.34	32.884	24.482	345.5	-.181	6.07	103.9							50
	51	14.35	14.34	32.885	24.483	345.4	-.184	6.06	103.8	1.7	.35	.0	.02	.26	.08	51
1	61	14.24	14.23	32.888	24.508	343.3	-.218	6.07	103.7	1.7	.38	.1	.02	.33	.11	61
	71	14.04	14.03	32.934	24.586	336.2	-.252	6.03	102.6	1.6	.42	.6	.04	.28	.15	71
1	75 ISL	13.84	13.83	32.932	24.625	332.5	-.266	6.02	102.1							75
	86	13.29	13.28	32.928	24.733	322.4	-.301	6.01	100.7	1.7	.42	.2	.34	.24	.17	86
1	100 ISL	12.79	12.77	33.009	24.896	307.5	-.347	5.81	96.4							101
	101	12.77	12.76	33.013	24.903	306.7	-.348	5.80	96.2	2.7	.54	3.2	.04	.09	.12	101
1	120	12.38	12.37	33.103	25.047	293.5	-.408	5.68	93.5	4.0	.63	5.1	.02	.06	.08	121
	125 ISL	12.24	12.22	33.139	25.103	288.1	-.421	5.60	92.0							126
1	144	11.57	11.55	33.312	25.362	263.9	-.475	5.19	84.1	8.1	.91	9.5	.02	.01	.09	145
	150 ISL	11.43	11.41	33.362	25.427	257.8	-.489	5.07	81.9							151
1	174	10.85	10.83	33.556	25.681	234.0	-.549	4.52	72.2	14.2	1.27	15.5	.02			175
	200 ISL	10.10	10.07	33.704	25.928	210.9	-.606	3.86	60.7							201
1	204	9.97	9.95	33.724	25.965	207.5	-.615	3.75	58.8	21.9	1.62	21.6	.01			205
	234	9.12	9.10	33.883	26.229	182.7	-.673	2.79	43.0	30.2	1.91	26.0	.00			235
1	25C ISL	8.74	8.71	33.934	26.330	173.2	-.702	2.80	42.7							252
	273	8.28	8.25	33.982	26.438	163.3	-.739	2.81	42.5	35.3	2.00	27.5	.00			274
1	30C ISL	7.86	7.83	34.012	26.524	155.3	-.783	2.76	41.4							302
	331	7.47	7.44	34.028	26.592	149.1	-.831	2.71	40.2	43.4	2.12	29.7	.00			333
1	40C ISL	6.67	6.63	34.069	26.735	136.0	-.929	1.79	26.0							403
	406	6.61	6.58	34.072	26.745	135.1	-.936	1.70	24.7	57.8	2.49	35.1	.00			408
1	479	6.01	5.97	34.117	26.859	124.8	1.032	1.04	14.9	70.3	2.77	38.6	.00			482
	500 ISL	5.86	5.82	34.132	26.890	122.1	1.058	.89	12.8							504
1	554	5.55	5.50	34.177	26.964	115.4	1.122	.61	8.7	81.4	2.97	40.9	.00			558



RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 77 48

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 07.3 N	120 42.4 W	21/07/84	2129 GMT	27 M	280	14 KT	280 2 6	1	1014.0 MB	19.0 C	15.3 C	4/8		ST		
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	1C	15.56	15.56	33.612	24.781	316.0	.032	6.29	110.9	3.2	.35	.3	.03	3.09	.34	10

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 77 51

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
35 01.3 N	120 55.1 W	21/07/84	1851 GMT	227 M	320	10 KT	300 3 7	2	1014.0 MB	18.2 C	15.0 C	8/8		ST		
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
0 ISL	17.38	17.38	33.642	24.382	355.0	.000	6.08	111.1								0
1	1	17.38	33.642	24.382	353.7	.004	6.08	111.1	.3	.16	.0	.00	.55	.16		1
1	1C ISL	16.62	33.625	24.548	338.1	.035	6.34	114.1								10
1	11	16.52	33.624	24.571	336.0	.038	6.35	114.1	.4	.15	.0	.00	1.41	.15		11
1	2C ISL	15.38	33.617	24.823	312.2	.067	6.34	111.4								20
1	21	15.26	33.617	24.851	309.6	.070	6.34	111.1	1.3	.23	.1	.00	1.05	.66		21
1	3C ISL	14.06	33.616	25.106	285.6	.097	5.42	92.7								30
1	31	13.95	33.616	25.129	283.4	.100	5.32	90.8	6.4	.69	5.3	.20	.59	.43		31
1	41	12.84	33.621	25.358	261.8	.127	4.64	77.4	10.9	.96	9.9	.41	.27	.60		41
1	5C ISL	11.96	33.623	25.530	245.7	.150	4.29	70.2								50
1	51	11.90	33.623	25.541	244.6	.152	4.27	69.8	13.4	1.17	13.2	.53	.25	.41		51
1	61	11.54	33.632	25.615	237.8	.176	4.01	65.0	15.3	1.28	14.9	.33	.23	.48		61
1	72	11.33	33.644	25.662	233.5	.202	3.88	62.7	16.5	1.33	16.5	.19	.15	.30		72
1	75 ISL	11.26	33.649	25.678	232.1	.209	3.85	62.0								75
1	87	11.01	33.668	25.738	226.6	.236	3.74	60.0	18.3	1.41	17.5	.07	.06	.30		87
1	100 ISL	10.70	33.697	25.817	219.5	.266	3.59	57.3								101
1	106	10.55	33.712	25.855	215.9	.280	3.52	55.9	20.6	1.54	19.5	.04	.04	.19		107
1	125 ISL	10.15	33.760	25.961	206.2	.319	3.31	52.2								126
1	126	10.12	33.763	25.968	205.5	.322	3.30	51.9	23.1	1.65	21.4	.05	.01	.25		127
1	146	9.82	33.819	26.064	196.8	.362	3.09	48.3	26.0	1.74	23.0	.05				147
1	15C ISL	9.73	33.834	26.090	194.3	.369	3.04	47.5								151
1	175	9.19	33.929	26.252	179.3	.416	2.77	42.8	31.0	1.92	25.8	.03				176
1	20C ISL	9.03	33.970	26.310	174.3	.460	2.60	40.0								201
1	203	9.02	33.975	26.317	173.7	.465	2.59	39.8	33.6	2.02	26.8	.03				204

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 77 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
34 53.5 N	121 11.9 W	21/07/84	1517 GMT	562 M	330	12 KT	320 5 8	2	1013.0 MB	16.7 C	14.5 C	8/8		ST		
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
0 ISL	16.63	16.63	33.607	24.534	339.2	.000	6.18	111.3								0
1	1	16.63	33.607	24.534	339.2	.003	6.18	111.3	2.3	.28	.0	.02	1.29	.35		1
1	1C ISL	16.61	33.605	24.536	339.3	.034	6.27	112.8								10
1	11	16.61	33.605	24.537	339.3	.037	6.27	112.8	1.5	.28	.0	.01	1.16	.40		11
1	2C	16.24	33.599	24.617	331.9	.067	6.27	112.0	1.9	.31	.0	.02	1.61	.65		20
1	3C ISL	15.55	33.590	24.765	318.1	.100	6.07	107.0								30
1	31	15.48	33.589	24.780	316.7	.103	6.04	106.3	2.7	.39	.5	.08	2.78	.71		31
1	4C	14.68	33.574	24.944	301.3	.130	5.59	96.8	5.2	.53	2.5	.25	1.44	1.00		40
1	5C ISL	13.91	33.559	25.094	287.3	.160	5.29	90.1								50
1	51	13.83	33.558	25.111	285.6	.163	5.25	89.3	6.8	.66	4.4	.31	.80	.43		51
1	6C	11.74	33.594	25.547	244.3	.186	4.20	68.4	13.7	1.11	13.2	.06	.18	.41		60
1	7C	10.64	33.681	25.815	218.9	.209	3.58	57.0	19.4	1.44	18.5	.02	.05	.21		70
1	75 ISL	10.55	33.693	25.840	216.6	.221	3.54	56.3								75
1	86	10.37	33.717	25.889	212.2	.244	3.47	54.9	21.2	1.53	19.6	.02	.06	.17		86
1	99	10.27	33.733	25.920	209.5	.271	3.43	54.2	21.5	1.58	20.3	.02	.05	.16		99
1	100 ISL	10.25	33.736	25.926	209.0	.274	3.42	53.9								101
1	119	9.96	33.785	26.013	201.0	.314	3.23	50.7	24.2	1.66	22.0	.02	.04	.14		120
1	125 ISL	9.90	33.797	26.032	199.4	.325	3.20	50.1								126
1	143	9.71	33.833	26.092	194.1	.361	3.11	48.5	26.4	1.74	23.3	.00	.01	.12		144
1	15C ISL	9.62	33.851	26.121	191.4	.374	3.07	47.8								151
1	174	9.28	33.914	26.226	181.9	.419	2.89	44.7	29.6	1.86	24.9	.00				175
1	20C ISL	9.03	33.965	26.307	174.6	.465	2.67	41.1								201
1	202	9.01	33.968	26.312	174.1	.468	2.66	40.9	32.6	1.98	26.8	.00				203
1	232	8.83	34.004	26.370	169.2	.519	2.55	39.0	34.7	2.04	27.7	.00				233
1	25C ISL	8.63	34.035	26.426	164.2	.550	2.41	36.7								252
1	271	8.37	34.073	26.495	157.9	.584	2.21	33.5	40.0	2.19	29.7	.00				273
1	30C ISL	8.07	34.111	26.570	151.1	.629	1.92	29.0								302
1	32C	7.89	34.132	26.614	147.2	.658	1.74	26.1	46.5	2.40	32.2	.00				322
1	381	7.54	34.154	26.682	141.5	.746	1.49	22.2	51.7	2.52	33.7	.00				383
1	40C ISL	7.33	34.167	26.722	137.9	.773	1.33	19.7								403
1	439	6.91	34.196	26.803	130.5	.826	1.00	14.7	61.4	2.73	37.0	.00				442
1	50C ISL	6.51	34.226	26.882	123.6	.903	.76	11.0								504
1	504	6.49	34.227	26.885	123.3	.907	.75	10.9	68.3	2.94	38.6	.00				507

LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD AMT		TYPE
34 43.3 N		121 33.0 W		21/07/84	1027 GMT	921 M	340	15 KT			1013.0 MB		17.0 C	15.0 C			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
	0 ISL	17.63	17.63	33.628	24.313	360.3	.000	6.03	110.7								0
1	1	17.63	17.63	33.628	24.313	360.3	.004	6.03	110.7	.5	.21	.0	.00	.46	.11		1
	10 ISL	17.61	17.61	33.623	24.313	360.6	.036	6.18	113.5								10
1	11	17.61	17.61	33.622	24.313	360.6	.039	6.20	113.8	.5	.21	.0	.00	.35	.21		11
	20 ISL	14.41	14.41	33.580	25.004	295.0	.069	5.72	98.5								20
1	21	14.07	14.07	33.582	25.078	288.0	.072	5.65	96.6	5.5	.55	3.0	.14	1.38	.37		21
	30 ISL	13.28	13.28	33.573	25.233	273.4	.097	5.01	84.4								30
1	31	13.25	13.24	33.572	25.239	272.9	.100			7.7	.72	5.4	.22	.81	.71		31
	41	11.56	11.55	33.603	25.589	239.8	.125	4.31	69.9	13.9	1.14	13.4	.16	.43	.48		41
	50 ISL	11.10	11.09	33.626	25.689	230.4	.147	3.95	63.5								50
1	51	11.08	11.08	33.628	25.694	230.0	.149	3.93	63.1	16.1	1.30	15.9	.08	.24	.52		51
	61	10.59	10.58	33.690	25.829	217.3	.171	3.67	58.3	19.2	1.46	18.4	.04	.08	.26		61
1	71	10.22	10.21	33.737	25.931	207.9	.192	3.49	55.1	21.3	1.56	20.3	.02	.04	.20		71
	75 ISL	10.18	10.17	33.741	25.941	207.0	.201	3.47	54.7								75
1	86	10.10	10.09	33.753	25.964	205.0	.223	3.43	54.0	22.3	1.60	20.9	.02	.06	.14		86
	100	9.54	9.53	33.849	26.132	189.3	.252	3.13	48.7	26.6	1.80	23.7	.02	.02	.11		101
1	119	9.35	9.34	33.907	26.208	182.4	.287	2.94	45.5	28.6	1.84	24.8	.02	.01	.09		120
	125 ISL	9.24	9.22	33.920	26.237	179.8	.297	2.90	44.7								126
1	144	8.81	8.80	33.956	26.333	170.9	.331	2.77	42.4	32.9	1.97	26.7	.01	.00	.11		145
	150 ISL	8.72	8.71	33.968	26.356	168.8	.341	2.74	41.8								151
1	174	8.45	8.43	34.007	26.430	162.2	.381	2.61	39.6	36.0	2.05	28.2	.01				175
	200 ISL	8.26	8.24	34.023	26.472	158.7	.422	2.50	37.8								201
1	204	8.24	8.22	34.027	26.477	158.2	.428	2.47	37.3	39.0	2.13	29.2	.01				205
	233	8.25	8.22	34.129	26.557	151.2	.473	1.90	28.7	43.3	2.30	31.0	.01				234
1	250 ISL	8.11	8.08	34.141	26.587	148.6	.499	1.78	26.8								252
	272	7.85	7.82	34.135	26.621	145.7	.532	1.71	25.6	47.4	2.40	32.5	.01				274
1	300 ISL	7.49	7.46	34.146	26.682	140.1	.571	1.50	22.2								302
	332	7.11	7.08	34.162	26.748	134.1	.615	1.26	18.6	58.1	2.64	35.5	.01				334
1	400 ISL	6.88	6.84	34.183	26.798	130.4	.705	1.08	15.8								403
	405	6.87	6.83	34.184	26.799	130.2	.712	1.07	15.7	62.4	2.74	36.9	.01				408
1	479	6.41	6.37	34.220	26.889	122.5	.805	.72	10.4	69.8	2.91	39.0	.01				482
	500 ISL	6.25	6.20	34.239	26.926	119.1	.831	.62	9.0								504
1	552	5.77	5.72	34.301	27.035	109.0	.890	.40	5.7	82.3	3.09	41.4	.00				556

LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD AMT		TYPE
34 23.4 N		122 14.8 W		21/07/84	0349 GMT	3940 M	330	13 KT	340	5 B	2	1015.0 MB		15.6 C	14.0 C	S/8 ST	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
	0 ISL	14.85	14.85	32.993	24.458	350.4	.000	6.14	106.3								0
1	1	14.85	14.85	32.993	24.458	346.5	.003	6.14	106.3	2.7	.39	.6	.02	.22	.03		1
	10 ISL	13.39	13.39	32.964	24.739	319.8	.033	6.34	106.6								10
1	11	13.31	13.31	32.970	24.759	318.0	.037	6.35	106.5	2.8	.37	.4	.00	.18	.06		11
	20 ISL	13.39	13.39	33.103	24.846	310.0	.065	6.26	105.3								20
1	21	13.40	13.40	33.110	24.850	309.7	.068	6.25	105.1	2.8	.48	2.3	.07	.49	.12		21
	30 ISL	12.88	12.87	33.051	24.909	304.2	.096	6.03	100.2								30
1	31	12.80	12.80	33.045	24.919	303.3	.098	6.00	99.6	3.7	.52	2.2	.11	.49	.27		31
	41	11.67	11.67	33.123	25.194	277.3	.127	5.62	91.1	6.4	.72	5.8	.26	1.47	.13		41
	50 ISL	11.23	11.22	33.248	25.372	260.5	.152	5.26	84.6								50
1	51	11.21	11.20	33.258	25.384	259.4	.154	5.24	84.2	7.9	.78	7.5	.05	.34	.15		51
	61	10.88	10.87	33.322	25.492	249.4	.179	5.24	83.6	9.4	.89	9.3	.04	.25	.11		61
1	71	10.75	10.75	33.490	25.645	235.0	.203	5.52	88.0	8.8	1.11	11.5	.01	.10	.06		71
	75 ISL	10.48	10.47	33.503	25.704	229.5	.213	5.30	83.9								75
1	86	9.74	9.73	33.511	25.835	217.1	.237	4.53	70.6	17.2	1.30	16.3	.24	.02	.07		86
	100	9.38	9.37	33.651	26.003	201.5	.268	3.93	60.8	22.9	1.55	21.2	.01	.01	.04		101
1	120	8.83	8.82	33.776	26.188	184.2	.306	3.67	56.1	28.1	1.71	24.1	.01	.00	.07		121
	125 ISL	8.73	8.72	33.790	26.216	181.7	.315	3.60	55.0								126
1	145	8.41	8.39	33.846	26.309	173.1	.351	3.24	49.1	33.5	1.85	26.6	.01	.01	.07		146
	150 ISL	8.40	8.38	33.878	26.335	170.7	.359	3.08	46.6								151
1	175	8.38	8.36	34.025	26.455	159.8	.400	2.37	35.9	38.9	2.13	29.4	.01				176
	200 ISL	8.00	7.98	34.029	26.514	154.5	.440	2.55	38.3								201
1	204	7.93	7.91	34.024	26.521	153.9	.446	2.60	39.0	40.9	2.13	29.5	.01				205
	234	7.46	7.44	34.039	26.601	146.7	.490	2.43	36.1	45.9	2.18	30.9	.01				235
1	250 ISL	7.27	7.24	34.047	26.635	143.6	.514	2.26	33.4								252
	274	7.02	7.00	34.061	26.680	139.6	.549	1.96	28.8	52.7	2.39	33.8	.01				276
1	300 ISL	6.78	6.75	34.084	26.731	135.0	.584	1.64	24.0								302
	333	6.49	6.46	34.113	26.792	129.5	.627	1.27	18.4	63.4	2.71	37.4	.01				335
1	400 ISL	5.91	5.88	34.136	26.886	121.1	.711	.87	12.4								403
	406	5.87	5.83	34.139	26.894	120.4	.719	.84	12.0	73.9	2.87	40.1	.00				409
1	479	5.65	5.61	34.232	26.994	111.7	.803	.47	6.7	82.3	3.06	41.2	.00				482
	500 ISL	5.60	5.56	34.260	27.023	109.2	.827	.42	6.0								504
1	552			34.308			1.568	.33	4.7	89.5	3.14	42.2	.00				555

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
34 03.1 N	122 56.7 W	20/07/84	2127 GMT	4206 M	330 12 KT	340 2 8	2	1018.0 MB	17.2 C	14.8 C	8/8		ST			
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	15.85	15.85	32.830	24.114	380.9	.000	5.90	104.1						0	
1	1	15.85	15.85	32.830	24.114	379.3	.004	5.90	104.1						1	
1	10 ISL	15.07	15.07	32.825	24.281	363.5	.037	6.00	104.2				.14	.00	10	
1	11	15.01	15.01	32.834	24.301	361.7	.041	6.01	104.3	2.0	.32	.0	.00	.15	.02	11
1	20 ISL	14.75	14.75	33.025	24.504	342.6	.073	6.18	106.7							20
1	21	14.72	14.71	33.040	24.524	340.8	.076	6.19	106.9	2.0	.41	1.4	.05	.32	.07	21
1	30	13.66	13.66	32.904	24.638	330.0	.106	6.22	105.0	2.2	.40	.8	.03	.30	.14	30
1	40	13.08	13.07	32.947	24.790	315.9	.138	6.22	103.8	2.2	.32	.1	.01	.38	.11	40
1	50	13.08	13.08	33.018	24.843	311.1	.169	6.19	103.4	2.2	.41	1.4	.07	.52	.10	50
1	59	12.98	12.98	33.071	24.904	305.4	.197	5.98	99.7	2.5	.46	1.9	.14	.42	.20	59
1	69	12.69	12.68	33.076	24.967	299.7	.227	5.93	98.2	3.3	.57	3.5	.19	.23	.11	69
1	75 ISL	12.56	12.55	33.097	25.007	296.1	.246	5.92	97.7							75
1	84	12.33	12.31	33.124	25.073	289.9	.271	5.86	96.3	3.5	.62	4.1	.24	.22	.17	84
1	98	11.45	11.44	33.117	25.231	275.2	.310	5.56	89.7	6.2	.70	5.9	.28	.26	.13	98
1	100 ISL	11.31	11.30	33.141	25.275	271.0	.317	5.47	88.0							101
1	116	10.48	10.47	33.340	25.577	242.5	.359	4.85	76.7	11.9	1.00	11.8	.03	.10	.09	117
1	125 ISL	10.15	10.14	33.388	25.671	233.7	.379	4.69	73.6							126
1	141	9.64	9.62	33.468	25.819	219.8	.416	4.43	68.9	17.1	1.27	16.2	.01	.02	.03	142
1	150 ISL	9.40	9.38	33.561	25.931	209.3	.435	4.18	64.7							151
1	168	8.98	8.97	33.751	26.146	189.2	.471	3.70	56.8	25.8	1.64	22.9	.01			169
1	198	8.60	8.58	33.862	26.293	175.6	.526	3.46	52.7	30.0	1.79	24.8	.01			199
1	200 ISL	8.56	8.54	33.871	26.306	174.5	.529	3.43	52.2							201
1	227	8.07	8.04	33.970	26.459	160.2	.574	3.13	47.1	36.2	1.93	27.3	.00			228
1	250 ISL	7.68	7.65	33.992	26.533	153.4	.610	3.09	46.1							252
1	265	7.45	7.43	33.993	26.566	150.4	.634	3.06	45.4	41.8	2.01	28.7	.00			267
1	300 ISL	7.13	7.10	34.019	26.633	144.5	.685	2.55	37.6							302
1	322	6.95	6.92	34.035	26.669	141.3	.716	2.17	31.8	51.6	2.35	33.1	.00			324
1	394	6.16	6.13	34.062	26.795	129.8	.813	1.52	21.9	63.6	2.62	37.0	.00			396
1	400 ISL	6.11	6.07	34.068	26.807	128.7	.822	1.45	20.9							403
1	466	5.63	5.59	34.133	26.918	118.6	.903	.85	12.1	76.4	2.91	40.5	.00			469
1	500 ISL	5.38	5.34	34.163	26.972	113.7	.943	.66	9.3							504
1	538	5.11	5.07	34.193	27.028	108.6	.985	.54	7.6	87.8	3.08	42.4	.00			542

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
33 43.3 N	123 38.0 W	20/07/84	1441 GMT	4114 M	330 10 KT	340 6 10		1018.0 MB	16.5 C	14.6 C						
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	16.51	16.51	32.895	24.013	390.9	.000	5.79	103.6						0	
1	1	16.51	16.51	32.895	24.013	388.9	.004	5.79	103.6	2.3	.32	.0	.00	.11	.03	1
1	10 ISL	15.94	15.94	32.910	24.154	375.6	.038	5.95	105.3							10
1	11	15.90	15.90	32.911	24.164	374.7	.042	5.96	105.3	2.3	.32	.0	.00	.11	.03	11
1	20 ISL	15.75	15.75	32.913	24.200	371.6	.076	5.89	103.8							20
1	22	15.74	15.74	32.912	24.202	371.5	.083	5.87	103.4	2.3	.32	.0	.00	.12	.03	22
1	30	15.59	15.59	32.908	24.232	368.8	.112	5.87	103.1	2.3	.32	.0	.00	.14	.04	30
1	39	15.48	15.48	32.907	24.255	366.9	.145	5.87	102.9	2.2	.32	.0	.00	.19	.05	39
1	50	14.71	14.70	32.876	24.400	353.4	.185	6.00	103.5	2.3	.32	.0	.00	.23	.15	50
1	58	14.02	14.01	32.859	24.532	340.9	.212	6.13	104.2	2.2	.33	.0	.00	.29	.11	58
1	68	13.48	13.47	32.890	24.666	328.4	.246	6.16	103.6	2.3	.36	.0	.03	.43	.18	68
1	75 ISL	13.16	13.15	32.907	24.743	321.3	.269	6.13	102.5							75
1	82	12.93	12.92	32.923	24.801	315.9	.291	6.11	101.6	2.3	.41	.6	.31	.28	.50	82
1	97	12.66	12.65	32.986	24.902	306.6	.337	5.90	97.6	3.2	.50	2.5	.37	.22	.32	97
1	100 ISL	12.60	12.59	32.998	24.923	304.7	.347	5.87	97.1							101
1	117	12.18	12.17	33.075	25.063	291.6	.397	5.70	93.4	4.4	.62	5.1	.07	.10	.17	117
1	125 ISL	11.79	11.78	33.151	25.196	279.2	.421	5.49	89.2							126
1	140	11.05	11.03	33.302	25.449	255.3	.462	5.04	80.7	10.9	1.00	11.3	.02	.02	.08	141
1	150 ISL	10.70	10.69	33.373	25.564	244.5	.486	4.81	76.6							151
1	165	10.14	10.12	33.503	25.763	225.9	.531	4.38	68.9	17.3	1.33	16.9	.01			170
1	197	9.44	9.42	33.711	26.042	199.7	.590	3.69	57.2	24.4	1.63	21.9	.01			198
1	200 ISL	9.40	9.38	33.731	26.064	197.8	.596	3.59	55.6							201
1	226	9.13	9.11	33.873	26.219	183.4	.646	2.91	44.8	30.1	1.88	25.8	.01			227
1	250 ISL	8.64	8.61	33.949	26.356	170.7	.688	3.05	46.5							252
1	263	8.37	8.34	33.974	26.418	165.0	.710	3.21	48.6	33.4	1.89	26.2	.01			264
1	300 ISL	7.82	7.79	34.014	26.531	154.6	.769	2.98	44.6							302
1	321	7.56	7.53	34.022	26.574	150.7	.802	2.85	42.4	43.0	2.10	29.1	.00			323
1	392	6.66	6.63	34.058	26.727	136.7	.903	1.84	26.8	56.8	2.47	34.9	.01			394
1	400 ISL	6.56	6.53	34.061	26.743	135.2	.914	1.75	25.4							403
1	466	5.87	5.83	34.097	26.861	124.3	1.000	1.14	16.3	69.9	2.77	39.2	.00			469
1	500 ISL	5.58	5.53	34.125	26.919	119.0	1.041	.90	12.8							504
1	540	5.29	5.25	34.164	26.984	113.0	1.088	.69	9.7	83.5	2.99	41.7	.00			544

RV DAVID STARR JORDAN			CALCOFI CRUISE 8407							STATION 77 1C0						
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
33 23.1 N	124 19.4 W	20/07/84	0911 GMT	4224 M	340 6 KT			1018.0 MB	16.2 C	14.6 C						
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	16.47	16.47	32.895	24.023	388.9	.000	5.81	103.8						0	
1	1	16.47	16.47	32.895	24.023	387.9	.004	5.81	103.8	2.3	.33	.0	.00	.09	.03	1
1	10	16.09	16.09	32.891	24.107	380.1	.038	5.94	105.3							10
1	11	16.06	16.05	32.891	24.115	379.4	.042	5.94	105.3	2.2	.34	.0	.00	.08	.02	11
1	20	15.85	15.85	32.897	24.165	375.0	.076	5.90	104.1							20
1	21	15.84	15.84	32.897	24.168	374.6	.080	5.89	103.9	2.2	.33	.0	.00	.08	.03	21
1	30	15.71	15.71	32.895	24.195	372.4	.114	5.88	103.5							30
1	31	15.69	15.69	32.895	24.199	372.0	.117	5.88	103.5	2.2	.33	.0	.00	.10	.04	31
1	40	15.19	15.19	32.895	24.310	361.7	.150	5.98	104.2	2.2	.33	.0	.00	.11	.03	40
1	50	14.67	14.66	32.855	24.393	354.1	.185	6.04	104.1	2.2	.33	.0	.00	.12	.05	50
1	60	14.43	14.42	32.888	24.468	347.2	.220	6.07	104.1	2.1	.33	.0	.00	.25	.08	60
1	70	14.02	14.01	32.857	24.529	341.6	.255	6.10	103.7	2.2	.33	.0	.00	.23	.10	70
1	75	13.87	13.86	32.874	24.574	337.4	.272	6.11	103.5							75
1	85	13.58	13.56	32.928	24.676	327.9	.305	6.12	103.2	2.1	.34	.0	.02	.33	.17	85
1	99	12.93	12.92	32.999	24.860	310.7	.349	5.86	97.5	3.0	.49	2.3	.12	.20	.16	99
1	100	12.88	12.87	33.009	24.877	309.2	.353	5.84	97.1							101
1	119	12.32	12.31	33.148	25.093	288.9	.409	5.60	92.1	5.4	.66	5.3	.02	.07	.10	119
1	125	12.08	12.07	33.197	25.177	281.1	.427	5.49	89.8							126
1	143	11.40	11.38	33.330	25.407	259.4	.477	5.04	81.3	9.6	.92	9.9	.02	.03	.13	144
1	150	11.20	11.18	33.373	25.476	253.0	.494	4.73	76.0							151
1	172	10.57	10.54	33.507	25.694	232.7	.548	3.81	60.5	15.7	1.25	15.6	.01			173
1	200	9.55	9.53	33.659	25.983	205.4	.609	3.92	60.9							201
1	202	9.48	9.46	33.670	26.004	203.5	.613	3.93	60.9	22.3	1.55	20.6	.01			203
1	231	8.71	8.69	33.851	26.268	178.8	.668	3.54	54.0	28.6	1.72	24.2	.01			232
1	250	8.39	8.36	33.928	26.378	168.5	.701	3.27	49.6							252
1	271	8.11	8.09	33.981	26.461	160.9	.735	3.01	45.3	36.4	1.94	27.6	.01			272
1	300	7.75	7.72	34.015	26.542	155.5	.781	2.74	40.9							302
1	330	7.38	7.35	34.022	26.601	148.2	.827	2.50	37.0	45.9	2.18	31.0	.01			332
1	400	6.34	6.30	34.031	26.749	134.4	.926	1.90	27.5							403
1	405	6.27	6.24	34.032	26.758	133.6	.932	1.86	26.9	60.5	2.51	35.9	.00			407
1	479	5.66	5.62	34.122	26.906	120.0	1.026	.90	12.8	76.0	2.86	40.3	.00			482
1	500	5.53	5.49	34.144	26.939	117.0	1.051	.74	10.5							504
1	554	5.29	5.24	34.193	27.007	111.0	1.113	.55	7.8	85.4	3.02	41.8	.00			558

RV DAVID STARR JORDAN			CALCOFI CRUISE 8407							STATION 80 51						
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
34 27.0 N	120 31.4 W	17/07/84	0358 GMT	69 M	310 22 KT	280 4 6	1	1013.0 MB	16.8 C	15.3 C		7/3	CC			
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	17.37	17.37	33.617	24.367	355.2	.000	6.21	113.4							0
1	2	17.37	17.37	33.617	24.367	355.2	.007	6.21	113.4	1.9	.26	.1	.00	.77	.16	2
1	10	17.35	17.35	33.613	24.369	355.2	.036	6.39	116.8							10
1	12	17.34	17.34	33.612	24.370	355.2	.042	6.44	117.6	1.8	.27	.1	.00	.78	.20	12
1	20	16.84	16.84	33.606	24.484	344.6	.071	6.26	113.1							20
1	22	16.63	16.63	33.604	24.530	340.2	.077	6.17	111.1	2.4	.32	.3	.02	1.46	.51	22
1	30	15.17	15.17	33.598	24.856	309.4	.103	5.60	98.0							30
1	32	14.81	14.81	33.599	24.935	301.9	.109	5.46	94.8	5.4	.60	3.0	.23	.61	.31	32
1	42	13.62	13.62	33.578	25.168	279.9	.138	4.97	84.2	8.7	.82	6.3	.48	.33	.41	42
1	50	12.78	12.77	33.581	25.339	263.9	.160	4.55	75.8							50
1	52	12.61	12.61	33.583	25.373	260.7	.165	4.46	74.0	12.0	1.02	10.0	.44	.21	.40	52

RV DAVID STARR JORDAN			CALCOFI CRUISE 8407							STATION 80 55						
LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
34 19.0 N	120 48.1 W	17/07/84	0705 GMT	751 M	340 14 KT			1014.0 MB	16.4 C	15.7 C						
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C ISL	17.38	17.38	33.614	24.361	355.9	.000	6.00	109.6							0
1	1	17.38	17.38	33.614	24.361	355.7	.004	6.00	109.6	1.8	.26	.1	.00	.62	.17	1
1	10	17.29	17.29	33.612	24.382	353.9	.035	6.14	112.0							10
1	11	17.28	17.28	33.612	24.385	353.8	.039	6.15	112.1	1.8	.27	.1	.00	.54	.25	11
1	20	16.99	16.98	33.605	24.449	348.0	.071	6.17	111.8							20
1	21	16.96	16.95	33.604	24.455	347.4	.074	6.17	111.8	1.9	.26	.0	.00	.84	.24	21
1	30	15.47	15.46	33.567	24.767	317.9	.104	6.10	107.3							30
1	31	15.29	15.29	33.564	24.803	314.5	.107	6.09	106.7	3.7	.35	.4	.02	1.07	.21	31
1	41	13.64	13.63	33.541	25.136	283.0	.137	5.83	98.8	6.3	.52	2.3	.08	1.02	.32	41
1	50	12.35	12.34	33.557	25.405	257.6	.161	4.90	80.7							50
1	51	12.26	12.26	33.559	25.422	256.0	.163	4.82	79.4	10.6	.89	9.2	.16	1.04	.27	51
1	61	12.08	12.07	33.568	25.464	252.2	.189	4.78	78.4	11.5	.98	10.3	.15	.83	.40	61
1	71	11.23	11.22	33.621	25.663	233.4	.213	3.96	63.8	15.3	1.27	15.6	.06	.33	.29	71
1	75	11.11	11.10	33.628	25.690	230.9	.223	3.92	62.9							75
1	85	10.97	10.96	33.643	25.726	227.7	.245	3.82	61.2	17.0	1.35	16.8	.04	.22	.34	85
1	100	10.27	10.26	33.734	25.920	209.5	.277	3.46	54.6	20.8	1.54	20.1	.02	.07	.22	100
1	119	9.62	9.61	33.842	26.114	191.4	.317	3.19	49.7	26.0	1.70	23.0	.01	.02	.11	120
1	125	9.50	9.49	33.869	26.155	187.6	.328	3.10	48.2							126
1	143	9.22	9.21	33.940	26.255	178.4	.361	2.84	43.9	30.3	1.85	25.4	.00	.02	.08	144
1	150	9.15	9.14	33.957	26.280	176.2	.373	2.78	42.9							151
1	173	8.97	8.95	33.996	26.340	170.9	.413	2.63	40.4	33.0	1.96	26.5	.02			174
1	200	8.80	8.78	34.035	26.398	165.9	.459	2.50	38.3							201
1	202	8.79	8.76	34.037	26.402	165.5	.462	2.49	38.1	35.0	2.05	27.8	.00			203
1	231	8.50	8.47	34.084	26.484	158.2	.508	2.27	34.5	38.6	2.13	28.9	.01			232
1	250	8.24	8.22	34.105	26.539	153.2	.538	2.09	31.6							252
1	269	7.98	7.95	34.122	26.592	148.4	.568	1.89	28.4	44.7	2.31	31.4	.02			271
1	300	7.61	7.58	34.150	26.667	141.6	.612	1.55	23.1							302
1	320	7.39	7.29	34.172	26.727	136.2	.651	1.27	18.8	55.5	2.59	34.3	.00			330
1	400	6.69	6.65	34.208	26.843	126.0	.745	.88	12.9							403
1	401	6.68	6.64	34.208	26.844	125.8	.747	.88	12.8	64.6	2.76	37.3	.00			404
1	476	6.32	6.28	34.238	26.915	119.9	.838	.67	9.7	70.6	2.92	39.1	.00			479
1	500	6.21	6.													

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
34 09.1 N	121 08.9 W	17/07/84	1143 GMT	2195 M	310	10 KT			1014.0 MB	16.9 C	15.0 C					
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	ST03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1 ISL	17.46	17.46	33.623	24.349	357.1	.000	5.88	107.6							0
1	1	17.46	17.46	33.623	24.349	356.9	.004	5.88	107.6	1.5	.24	.0	.00	.36	.08	1
1	1C	17.37	17.37	33.621	24.370	355.1	.035	6.10	111.4	1.6	.29	.0	.00	.40	.04	10
1	2C	16.67	16.67	33.613	24.528	340.4	.070	6.02	108.5	2.3	.29	.0	.00	.43	.22	20
	3C ISL	14.10	14.10	33.607	25.091	287.0	.102	5.54	94.8							30
1	3Z	13.56	13.56	33.614	25.208	275.9	.107	5.39	91.2	4.9	.67	5.9	.15	1.33	.55	32
1	41	11.74	11.73	33.630	25.576	241.0	.130	4.29	69.9	14.0	1.16	13.9	.27	.31	.46	41
	5C ISL	11.06	11.06	33.663	25.725	227.0	.152	3.97	63.8							50
1	51	11.04	11.03	33.666	25.731	226.5	.153	3.97	63.7	17.5	1.34	17.0	.08	.24	.36	51
1	61	10.77	10.76	33.686	25.795	220.6	.176	3.88	61.9	18.9	1.45	18.5	.04	.19	.24	61
1	71	10.12	10.11	33.748	25.956	205.5	.197	3.47	54.6	23.1	1.58	20.8	.02	.08	.23	71
	7S ISL	9.94	9.94	33.771	26.004	201.0	.206	3.37	52.8							75
1	8E	9.66	9.65	33.815	26.085	193.4	.226	3.22	50.2	26.4	1.71	22.9	.02	.04	.12	86
1	10C	9.47	9.46	33.847	26.142	188.3	.255	3.13	48.6	27.7	1.78	23.9	.01	.04	.16	101
1	12C	9.01	8.99	33.924	26.277	175.8	.291	2.88	44.3	31.8	1.87	25.9	.01	.02	.11	121
	12S ISL	8.93	8.92	33.936	26.298	173.9	.299	2.83	43.4							126
1	14S	8.67	8.66	33.976	26.370	167.4	.334	2.64	40.3	35.2	2.00	27.4	.01	.01	.10	146
	15C ISL	8.61	8.59	33.986	26.389	165.7	.342	2.61	39.8							151
1	17S	8.29	8.27	34.032	26.473	158.0	.382	2.46	37.2	39.1	2.11	28.9	.01			176
	20C ISL	8.09	8.07	34.058	26.525	153.6	.421	2.27	34.2							201
1	201	8.07	8.05	34.061	26.530	153.1	.425	2.25	33.9	42.5	2.21	30.3	.01			204
1	23Z	7.76	7.74	34.094	26.601	146.8	.470	2.05	30.9	46.6	2.32	31.8	.02			234
	25C ISL	7.63	7.60	34.112	26.635	143.8	.495	1.81	26.9							252
1	27Z	7.46	7.43	34.133	26.676	140.2	.527	1.59	23.6	51.8	2.46	33.7	.00			274
	30C ISL	7.19	7.16	34.153	26.730	135.4	.565	1.33	19.7							302
1	331	6.87	6.84	34.175	26.792	129.8	.606	1.07	15.7	61.6	2.70	36.6	.00			333
	40C ISL	6.22	6.18	34.237	26.927	117.5	.692	.65	9.4							403
1	404	6.18	6.15	34.241	26.935	116.8	.697	.63	9.1	74.5	2.92	39.6	.00			407
	480	5.74	5.70	34.292	27.031	108.4	.782	.42	6.0	82.0	3.05	41.2	.00			483
	50C ISL	5.66	5.62	34.302	27.049	106.9	.803	.41	5.8							504
1	556	5.52	5.48	34.324	27.083	104.2	.863	.37	5.3	86.9	3.09	41.7	.00			560

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
34 09.1 N	121 08.9 W	17/07/84	1810 GMT	2195 M	310	09 KT	310 3 6	2	1014.0 MB	17.1 C	15.1 C		8/3	ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	ST03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1 ISL	17.56	17.55	33.631	24.333	358.4	.000	5.81	106.5							0
1	1	17.56	17.55	33.631	24.333	358.4	.004	5.81	106.5	1.7	.26	.0	.00	.30	.04	1
	1C ISL	17.52	17.52	33.630	24.341	357.8	.036	5.88	107.7							10
1	11	17.51	17.51	33.630	24.342	357.8	.039	5.89	107.9	1.7	.29	.0	.00	.32	.05	11
1	2C	16.67	16.62	33.614	24.540	339.3	.070	6.01	108.2	1.2	.30	.0	.00	.68	.17	20
1	3C	16.25	16.25	33.610	24.623	331.6	.104	5.96	106.5	1.3	.37	.0	.00	1.32	.18	30
1	4C	13.80	13.80	33.619	25.162	280.5	.134	5.40	91.9	5.2	.72	5.9	.20	.90	.59	40
	5C ISL	12.27	12.26	33.635	25.481	250.4	.161	4.74	78.0							50
1	51	12.17	12.17	33.637	25.500	249.6	.163	4.68	77.0	10.7	1.09	12.0	.33	.75	.43	51
1	61	10.90	10.89	33.709	25.790	221.1	.187	3.81	61.0	19.0	1.46	18.6	.06	.25	.38	61
1	72	10.79	10.79	33.719	25.817	218.8	.211	3.71	59.3	19.9	1.49	19.2	.04	.20	.39	72
	7S ISL	10.66	10.65	33.724	25.844	216.3	.218	3.65	58.1							75
1	87	10.06	10.05	33.760	25.975	203.9	.242	3.39	53.3	23.3	1.62	21.4	.02	.04	.19	87
1	10C	9.39	9.37	33.863	26.168	185.8	.269	3.08	47.7	28.5	1.79	24.0	.01	.04	.19	101
1	12C	8.97	8.96	33.933	26.290	174.6	.305	2.81	43.2	32.4	1.91	26.3	.01	.02	.15	121
	12S ISL	8.88	8.86	33.942	26.312	172.6	.313	2.75	42.2							126
1	146	8.47	8.45	33.966	26.394	165.1	.349	2.53	38.4	37.0	2.06	28.3	.00	.00	.11	147
	150 ISL	8.40	8.39	33.970	26.407	163.9	.355	2.50	37.9							151
1	173	8.09	8.07	33.999	26.478	157.5	.392	2.31	34.8	41.2	2.15	29.8	.00			174
	20C ISL	7.94	7.92	34.049	26.539	152.2	.434	2.13	32.0							201
1	204	7.93	7.92				.440	2.10	31.5	43.5	2.23	30.8	.01			205
1	23Z	7.66	7.64	34.110	26.627	144.2	.482	1.81	27.0	47.5	2.35	32.3	.01			234
	25C ISL	7.50	7.47	34.131	26.668	140.6	.507	1.63	24.2							252
1	27C	7.31	7.29	34.147	26.707	137.1	.535	1.44	21.3	53.5	2.53	34.2	.00			272
	30C ISL	7.14	7.11	34.160	26.741	134.3	.576	1.28	18.9							302
1	329	7.00	6.97	34.168	26.768	132.2	.614	1.17	17.2	58.4	2.63	36.0	.00			331
	40C ISL	6.52	6.48	34.209	26.866	123.6	.705	.82	11.9							403
1	402	6.50	6.46	34.211	26.870	123.2	.708	.81	11.8	67.6	2.80	38.1	.00			405
	478	6.04	6.00	34.262	26.970	114.4	.798	.51	7.3	76.7	2.96	40.1	.00			481
	50C ISL	5.94	5.89	34.273	26.992	112.5	.823	.46	6.5							504
1	555	5.74	5.70	34.295	27.034	109.1	.884	.39	5.6	82.3	3.05	41.1	.00			559



LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE
34 09.1 N		121 08.9 W		18/07/84	D140 GMT	2195 M	290	9 KT	310 2 7	2	1012.0 MB	17.5 C	15.8 C	8/8		ST	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	17.89	17.89	33.649	24.264	364.9	.000	5.81	107.2							0	
1	1	17.89	17.89	33.649	24.264	364.9	.004	5.81	107.2	1.6	.22	.00	.00	.23	.05	1	
1	10 ISL	17.60	17.60	33.636	24.326	359.3	.036	5.96	109.4							10	
1	11	17.57	17.57	33.643	24.339	358.1	.040	5.98	109.7	1.0	.25	.00	.00	.28	.05	11	
1	20 ISL	16.68	16.67	33.614	24.528	340.4	.071	6.13	110.5							20	
1	21	16.58	16.58	33.611	24.548	338.5	.074	6.14	110.4	1.0	.25	.00	.00	.63	.21	21	
1	30 ISL	16.04	16.04	33.604	24.666	327.5	.105	6.01	107.0							30	
1	31	15.96	15.95	33.604	24.686	325.7	.107	6.00	106.6	1.8	.33	.4	.01	1.36	.32	31	
1	41	13.44	13.44	33.639	25.252	271.9	.137	5.25	88.7	5.9	.77	7.0	.22	.86	.33	41	
1	50 ISL	11.81	11.80	33.675	25.598	239.2	.161	4.38	71.5							50	
1	51	11.70	11.70	33.678	25.620	237.1	.163	4.31	70.2	13.8	1.20	14.6	.30	.54	.50	51	
1	61	10.77	10.77	33.718	25.819	218.3	.185	3.76	60.0	19.6	1.46	19.0	.06	.21	.35	61	
1	72	9.98	9.98	33.768	25.994	201.8	.208	3.34	52.4	23.8	1.60	21.8	.02	.04	.19	72	
1	75 ISL	9.94	9.93	33.784	26.014	200.0	.215	3.32	52.0							75	
1	87	9.79	9.78	33.796	26.049	197.0	.238	3.24	50.6	25.0	1.65	22.5	.01	.03	.20	87	
1	100 ISL	9.57	9.51	33.843	26.130	189.5	.264	3.12	48.6							101	
1	101	9.49	9.48	33.848	26.139	188.6	.267	3.11	48.3	27.2	1.73	23.7	.01	.04	.13	102	
1	121	9.07	9.06	33.919	26.263	177.2	.303	2.87	44.2	31.2	1.85	25.8	.01	.02	.14	122	
1	125 ISL	8.99	8.98	33.933	26.286	175.1	.309	2.83	43.5							126	
1	146	8.57	8.55	33.999	26.405	164.1	.345	2.61	39.7	36.4	2.04	27.9	.01	.01	.11	147	
1	150 ISL	8.50	8.49	34.007	26.420	162.6	.351	2.58	39.2							151	
1	175	8.16	8.14	34.044	26.502	155.2	.391	2.35	35.5	40.5	2.13	29.4	.01			176	
1	200 ISL	7.91	7.89	34.085	26.571	149.1	.429	2.08	31.2							201	
1	203	7.89	7.87	34.088	26.578	148.5	.433	2.05	30.8	43.8	2.29	31.2	.01			204	
1	232	7.64	7.62	34.107	26.629	144.0	.476	1.81	27.0	47.4	2.33	32.4	.01			233	
1	250 ISL	7.51	7.49	34.124	26.660	141.4	.502	1.66	24.7							252	
1	271	7.37	7.35	34.142	26.695	138.3	.532	1.49	22.1	52.1	2.46	33.9	.01			273	
1	300 ISL	7.13	7.10	34.159	26.742	134.2	.571	1.28	18.9							302	
1	330	6.87	6.84	34.175	26.792	129.8	.610	1.09	16.0	60.3	2.66	36.4	.00			332	
1	400 ISL	6.35	6.31	34.236	26.909	119.4	.698	.69	10.0							403	
1	404	6.32	6.28	34.239	26.915	118.8	.703	.67	9.7	70.9	2.85	38.8	.00			407	
1	482	5.89	5.85	34.284	27.006	110.9	.791	.45	6.4	79.0	2.98	40.3	.00			485	
1	500 ISL	5.81	5.77	34.292	27.023	109.5	.812	.42	6.0							504	
1	559	5.60	5.55	34.315	27.067	105.8	.875	.36	5.1	84.3	3.02	41.3	.00			563	

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE
34 09.1 N		121 08.9 W		18/07/84	D615 GMT	2195 M	230	6 KT			1013.0 MB	17.7 C	15.8 C				
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	17.86	17.86	33.652	24.276	363.8	.000	5.80	107.0							0	
1	2	17.86	17.86	33.652	24.276	363.8	.007	5.80	107.0	1.1	.26	.00	.00	.25	.10	2	
1	11 ISL	17.86	17.86	33.654	24.277	364.0	.036	6.00	110.6							10	
1	11	17.86	17.86	33.654	24.277	364.0	.040	6.01	110.9	1.0	.26	.00	.00	.26	.08	11	
1	20 ISL	17.69	17.68	33.650	24.317	360.6	.073	5.99	110.1							20	
1	21	17.67	17.67	33.650	24.321	360.2	.076	5.99	110.1	.9	.25	.00	.00	.35	.08	21	
1	30 ISL	16.32	16.31	33.608	24.607	333.2	.107	6.07	108.6							30	
1	31	16.16	16.16	33.605	24.640	330.1	.110	6.07	108.3	1.6	.30	.1	.00	.96	.21	31	
1	42	14.97	14.96	33.608	24.909	304.8	.145	5.73	99.8	3.2	.51	2.7	.09	1.13	.28	42	
1	50 ISL	13.26	13.26	33.627	25.278	269.7	.169	5.24	88.2							50	
1	51	13.10	13.09	33.630	25.314	266.3	.171	5.19	87.0	6.5	.91	8.3	.27	.99	.46	51	
1	61	11.84	11.83	33.657	25.578	241.3	.196	4.46	72.8	12.8	1.23	14.2	.30	.61	.51	61	
1	72	10.86	10.85	33.714	25.801	220.3	.221	3.75	60.0	19.0	1.46	19.2	.05	.25	.25	72	
1	75 ISL	10.62	10.61	33.726	25.853	215.4	.228	3.63	57.7							75	
1	86	10.03	10.02	33.765	25.984	203.1	.251	3.38	53.1	23.3	1.65	21.6	.02	.06	.22	86	
1	100	9.62	9.61	33.826	26.101	192.3	.278	3.16	49.2	26.5	1.76	23.6	.02	.05	.13	100	
1	120	9.20	9.19	33.899	26.226	180.7	.317	2.97	45.8	29.8	1.87	25.2	.01	.03	.14	121	
1	125 ISL	9.12	9.10	33.913	26.251	178.4	.325	2.92	45.0							126	
1	145	8.72	8.70	33.969	26.357	168.6	.360	2.69	41.1	34.8	2.01	27.3	.00	.01	.12	146	
1	150 ISL	8.60	8.59	33.985	26.388	165.7	.368	2.62	39.9							151	
1	174	8.09	8.07	34.056	26.523	153.3	.407	2.27	34.2	41.5	2.19	30.0	.00			175	
1	200 ISL	7.89	7.87	34.084	26.574	148.8	.446	2.07	31.0							201	
1	204	7.87	7.85	34.086	26.579	148.4	.452	2.04	30.6	44.7	2.30	31.5	.00			205	
1	234	7.56	7.54	34.120	26.650	142.0	.495	1.74	25.9	49.7	2.44	33.0	.01			235	
1	250 ISL	7.44	7.41	34.137	26.681	139.3	.518	1.58	23.5							252	
1	272	7.28	7.26	34.155	26.718	136.1	.549	1.39	20.6	54.5	2.61	34.7	.00			274	
1	300 ISL	7.08	7.05	34.165	26.754	133.0	.586	1.25	18.4							302	
1	332	6.85	6.82	34.174	26.793	129.7	.628	1.12	16.4	61.1	2.73	36.4	.00			334	
1	400 ISL	6.37	6.34	34.221	26.895	120.8	.713	.73	10.6							403	
1	407	6.35	6.29	34.227	26.905	119.8	.722	.69	10.0	71.9	2.90	38.5	.00			410	
1	479	5.98	5.94	34.272	26.986	112.9	.805	.51	7.3	78.4	3.00	40.0	.00			482	
1	500 ISL	5.88	5.84	34.283	27.006	111.1	.829	.47	6.7							504	
1	557	5.68	5.63	34.307	27.051	107.3	.887	.39	5.6	84.1	3.08	41.0	.00			557	

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	ROTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMI	TYPE		
33 49.0 N	121 50.6 W	18/07/84	1511 GMT	3566 M	310	5 KT	310 4 10	2	1014.0 MB	16.3 C	14.7 C	8/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C	15.77	15.77	33.143	24.371	354.7	.000	5.97	105.4	2.2	.32	.3	.02	.17	.04	0
1	10	15.75	15.75	33.139	24.374	354.7	.035	6.07	107.1	2.2	.34	.3	.02	.22	.04	10
1	20 ISL	15.34	15.37	33.331	24.604	333.1	.070	6.11	107.1							20
1	21	15.34	15.33	33.347	24.626	331.1	.073	6.11	107.1	2.3	.36	.8	.06	.25	.06	21
1	30 ISL	15.04	15.08	33.310	24.654	328.7	.103	6.09	106.2							30
1	31	15.05	15.05	33.306	24.656	328.4	.106	6.09	106.1	2.3	.36	.7	.06	.26	.07	31
1	41	14.50	14.50	33.241	24.725	322.2	.138	6.09	104.8	2.3	.36	.8	.07	.30	.11	41
1	50 ISL	13.36	13.36	33.165	24.901	305.6	.167	6.03	101.3							50
1	51	13.29	13.28	33.167	24.917	304.0	.169	6.02	101.0	3.4	.48	2.5	.21	.38	.23	51
1	61	14.03	14.02	33.525	25.043	292.5	.199	5.95	101.6	3.4	.56	3.0	.25	.33	.22	61
1	70	12.97	12.96	33.388	25.152	282.1	.225	5.71	95.3	4.4	.68	4.6	.68	.21	.12	70
1	75 ISL	12.32	12.31	33.391	25.281	269.9	.239	5.43	89.5							75
1	85	11.29	11.28	33.454	25.522	247.2	.264	4.93	79.5	11.6	1.08	13.0	.02	.07	.07	85
1	100	10.51	10.50	33.495	25.692	231.2	.300	4.64	73.5	15.0	1.23	15.4	.02	.04	.06	100
1	119	9.50	9.48	33.589	25.936	208.2	.344	4.08	63.3	22.6	1.56	20.8	.01	.02	.08	120
1	125 ISL	9.30	9.29	33.624	25.995	202.7	.355	3.94	60.9							126
1	144	8.82	8.81	33.754	26.173	186.1	.393	3.50	53.5	29.3	1.76	25.1	.01	.00	.08	145
1	150 ISL	8.75	8.73	33.801	26.221	181.6	.403	3.35	51.1							151
1	174	8.55	8.53	33.968	26.384	166.6	.445	2.81	42.8	34.7	1.97	27.5	.00			175
1	200 ISL	8.27	8.25	34.016	26.464	159.4	.487	2.67	40.4							201
1	204	8.22	8.20	34.017	26.472	158.7	.493	2.65	40.0	38.4	2.05	28.9	.01			205
1	234	7.84	7.82	34.033	26.542	152.4	.540	2.64	39.5	41.8	2.10	29.6	.02			235
1	250 ISL	7.59	7.56	34.043	26.586	148.3	.564	2.48	36.9							252
1	273	7.27	7.19	34.058	26.650	142.5	.598	2.18	32.2	50.0	2.30	32.6	.02			275
1	300 ISL	6.85	6.82	34.067	26.709	137.1	.635	1.87	27.4							302
1	333	6.46	6.43	34.080	26.771	131.5	.680	1.52	22.1	61.7	2.59	36.5	.01			335
1	400 ISL	5.98	5.95	34.137	26.877	122.0	.765	.94	13.5							403
1	402	5.93	5.90	34.144	26.889	120.9	.775	.88	12.6	73.0	2.83	39.9	.00			411
1	483	5.42	5.38	34.207	27.002	110.7	.861	.55	7.8	84.6	3.00	41.8	.00			484
1	500 ISL	5.40	5.35	34.231	27.024	108.8	.880	.50	7.0							504
1	558	5.31	5.26	34.290	27.082	104.0	.942	.37	5.2	90.1	3.09	42.3	.00			562

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	ROTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMI	TYPE		
33 49.0 N	121 50.6 W	18/07/84	1809 GMT	3566 M	190	3 KT	290 5 10	2	1016.0 MB	17.5 C	15.5 C	8/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C ISL	16.03	16.03	33.146	24.315	361.9	.000	6.03	107.0							0
1	1	16.07	16.03	33.146	24.315	360.0	.004	6.03	107.0	2.2	.31	.0	.02	.20	.01	1
1	10 ISL	15.35	15.35	33.166	24.482	344.4	.035	6.23	109.1							10
1	11	15.29	15.29	33.169	24.498	342.9	.039	6.24	109.1	2.2	.35	.4	.03	.22	.05	11
1	20 ISL	14.85	14.84	33.215	24.630	330.6	.069	6.23	108.0							20
1	21	14.80	14.80	33.222	24.646	329.2	.072	6.23	107.9	1.9	.35	.7	.05	.25	.06	21
1	30 ISL	14.16	14.15	33.360	24.889	306.2	.101	6.21	106.3							30
1	31	14.10	14.10	33.376	24.912	304.0	.104	6.21	106.1	2.3	.46	2.2	.15	.47	.09	31
1	42	14.10	14.10	33.528	25.031	293.1	.136	5.92	101.3	3.3	.55	3.0	.28	.39	.24	42
1	50 ISL	13.03	13.02	33.368	25.125	284.2	.160	5.82	97.2							50
1	51	12.92	12.91	33.351	25.135	283.4	.162	5.81	96.9	3.3	.67	4.5	.67	.33	.29	51
1	62	12.42	12.41	33.368	25.245	273.1	.193	5.66	93.4	4.3	.80	6.2	.87	.18	.17	62
1	71	12.00	11.99	33.344	25.306	267.4	.217	5.49	89.8	5.7	.84	8.1	.95	.10	.11	71
1	75 ISL	11.63	11.62	33.344	25.373	261.1	.228	5.29	85.8							75
1	86	10.75	10.73	33.397	25.575	242.1	.255	4.76	75.8	12.8	1.09	13.4	.02	.06	.07	86
1	100 ISL	10.21	10.20	33.604	25.829	218.2	.288	4.39	69.2							101
1	101	10.20	10.19	33.612	25.837	217.4	.289	4.38	69.0	18.5	1.45	19.2	.03	.01	.08	101
1	120	9.62	9.60	33.680	25.988	203.4	.331	3.76	58.5	23.8	1.63	22.3	.01	.01	.03	121
1	125 ISL	9.49	9.47	33.711	26.034	199.1	.340	3.62	56.2							126
1	145	8.96	8.94	33.855	26.231	180.7	.379	3.11	47.7	29.4	1.83	25.7	.01	.00	.06	146
1	150 ISL	8.86	8.84	33.879	26.266	177.4	.387	3.04	46.6							151
1	174	8.44	8.42	33.968	26.401	164.9	.428	2.81	42.6	34.7	1.95	27.7	.00			175
1	200 ISL	8.16	8.14	34.024	26.488	157.1	.470	2.54	38.4							201
1	204	8.12	8.10	34.028	26.496	156.3	.476	2.51	37.8	39.8	2.08	29.6	.00			205
1	235	7.69	7.66	34.026	26.558	150.8	.523	2.42	36.1	41.1	2.04	29.1	.02			236
1	250 ISL	7.48	7.45	34.036	26.596	147.4	.546	2.36	35.1							252
1	273	7.17	7.14	34.054	26.654	142.1	.580	2.22	32.7	49.2	2.29	32.6	.01			275
1	300 ISL	6.85	6.83	34.071	26.711	137.0	.617	1.89	27.6							302
1	333	6.50	6.47	34.093	26.776	131.1	.661	1.43	20.8	60.5	2.57	37.0	.00			335
1	400 ISL	5.87	5.83	34.153	26.904	119.3	.745	.84	12.1							403
1	405	5.82	5.79	34.157	26.913	118.5	.752	.81	11.6	74.4	2.86	40.6	.00			408
1	481	5.28	5.25	34.199	27.012	109.6	.838	.55	7.8	85.0	2.99	42.1	.00			484
1	500 ISL	5.29	5.24	34.228	27.035	107.7	.859	.49	7.0							504
1	555	5.29	5.24	34.297	27.090	103.2	.917	.36	5.1	89.3	3.07	42.5	.00			559



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 49.0 N	121 50.6 W	19/07/84	0135 GMT	3566 M	250	6 KT	300 5 12	2	1015.0 MB	18.0 C	15.8 C	8/8	ST			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	15.86	15.86	33.138	24.348	359.4	.000	6.04	106.8							0
1	2	15.86	15.86	33.138	24.348	357.0	.007	6.04	106.8	2.2	.31	.3	.02	.19	.06	2
1	10 ISL	15.30	15.29	33.187	24.511	341.6	.035	6.14	107.3							10
1	11	15.19	15.19	33.191	24.537	339.2	.038	6.14	107.2	2.3	.35	.3	.04	.32	.02	11
1	20 ISL	13.67	13.67	33.196	24.862	308.5	.068	6.07	102.8							20
1	22	13.45	13.44	33.218	24.925	302.5	.073	6.06	102.1	3.4	.50	2.5	.25	.52	.25	22
1	30 ISL	14.32	14.32	33.574	25.019	293.8	.098	5.92	101.8							30
1	31	14.44	14.43	33.611	25.024	293.4	.100	5.91	101.8	3.4	.55	3.1	.22	.38	.21	31
1	42	13.87	13.86	33.534	25.084	288.0	.132	5.81	98.9	3.5	.62	3.3	.33	.31	.15	42
1	50	12.75	12.75	33.390	25.196	277.4	.155	5.64	93.7	4.6	.72	5.5	.81	.16	.15	50
1	59	11.33	11.33	33.345	25.428	255.4	.178	5.20	83.8	10.0	1.03	11.3	.04	.10	.09	59
1	70	10.80	10.79	33.392	25.562	242.9	.206	4.85	77.3	13.1	1.13	13.7	.02	.05	.08	70
1	75 ISL	10.66	10.65	33.437	25.621	237.4	.218	4.80	76.3							75
1	85	10.42	10.41	33.523	25.730	227.2	.241	4.70	74.4	15.7	1.31	16.7	.02	.01	.11	85
1	100	9.64	9.63	33.609	25.928	208.6	.273	4.08	63.5	22.1	1.54	21.0	.01	.01	.08	100
1	115	9.19	9.18	33.794	26.146	188.2	.313	3.29	50.7	28.3	1.78	24.9	.02	.01	.09	115
1	125 ISL	9.10	9.09	33.822	26.182	184.9	.323	3.19	49.2							125
1	142	8.85	8.84	33.883	26.270	176.9	.354	3.04	46.6	30.7	1.86	26.1	.02	.00	.07	142
1	150 ISL	8.71	8.69	33.919	26.320	172.2	.368	2.97	45.4							150
1	173	8.29	8.27	34.009	26.456	159.7	.406	2.80	42.4	36.5	1.99	28.0	.02			173
1	200 ISL	7.92	7.90	34.031	26.528	153.2	.448	2.62	39.3							200
1	204	7.87	7.85	34.031	26.535	152.6	.454	2.60	39.0	40.7	2.08	29.5	.02			204
1	233	7.48	7.45	34.039	26.599	146.8	.497	2.60	38.6	44.3	2.14	30.3	.02			233
1	250 ISL	7.30	7.28	34.040	26.624	144.6	.523	2.51	37.2							250
1	271	7.10	7.08	34.043	26.654	142.0	.553	2.33	34.3	49.2	2.23	32.3	.02			271
1	300 ISL	6.80	6.77	34.065	26.714	136.6	.593	1.91	28.0							300
1	332	6.46	6.43	34.096	26.783	130.3	.636	1.42	20.6	61.4	2.59	36.9	.02			332
1	400 ISL	5.87	5.83	34.143	26.897	120.0	.721	.85	12.2							400
1	407	5.81	5.78	34.148	26.907	119.1	.730	.81	11.6	74.0	2.85	40.2	.00			407
1	481	5.50	5.46	34.208	26.994	111.6	.814	.53	7.5	82.1	2.98	41.6	.00			481
1	500 ISL	5.43	5.39	34.227	27.017	109.5	.836	.48	6.8							500
1	556	5.27	5.23	34.293	27.089	103.3	.895	.38	5.4	89.1	3.08	42.2	.00			556

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 49.0 N	121 50.6 W	19/07/84	0633 GMT	3566 M	350	4 KT			1016.0 MB	16.8 C	15.0 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	16.06	16.06	33.126	24.293	362.7	.000	6.00	106.5							0
1	1	16.06	16.06	33.126	24.293	362.1	.004	6.00	106.5	2.0	.31	.1	.01	.05	.18	1
1	10	15.83	15.83	33.127	24.346	357.3	.036	6.10	107.8	2.0	.34	.1	.00	.15	.04	10
1	20	15.01	15.01	33.196	24.581	335.3	.070	6.25	108.7	1.8	.34	.1	.02	.24	.07	20
1	30	14.13	14.13	33.280	24.832	311.6	.103	6.26	107.0	2.0	.42	1.6	.12	.39	.10	30
1	40	14.04	14.03	33.509	25.029	293.2	.133	5.93	101.3	3.4	.55	2.9	.26	.46	.24	40
1	50 ISL	14.12	14.11	33.559	25.052	291.3	.162	5.87	100.5							50
1	51	14.12	14.11	33.563	25.054	291.1	.165	5.87	100.5	3.8	.59	3.0	.26	.37	.25	51
1	60	12.18	12.17	33.290	25.229	274.5	.190	5.60	91.9	6.0	.78	6.9	.52	.28	.15	60
1	71	11.29	11.28	33.276	25.383	260.0	.219	5.31	85.5	8.7	.93	10.5	.08	.11	.12	71
1	75 ISL	11.05	11.04	33.320	25.461	252.7	.230	5.09	81.6							75
1	86	10.63	10.62	33.456	25.641	235.8	.256	4.60	73.1	13.9	1.17	14.4	.02	.06	.08	86
1	100 ISL	10.37	10.36	33.567	25.773	223.5	.289	4.53	71.5							100
1	102	10.34	10.33	33.576	25.785	222.3	.293	4.52	71.4	17.7	1.39	18.1	.02	.07	.08	102
1	119	9.40	9.39	33.700	26.039	198.5	.330	3.70	57.3	25.5	1.69	23.2	.02	.05	.10	119
1	125 ISL	9.24	9.22	33.739	26.095	193.2	.341	3.53	54.5							125
1	145	8.88	8.86	33.865	26.252	178.6	.379	3.12	47.8	29.9	1.83	25.9	.02	.03	.07	145
1	150 ISL	8.80	8.79	33.890	26.283	175.8	.387	3.06	46.8							150
1	174	8.47	8.45	33.985	26.409	164.2	.428	2.83	43.0	35.1	1.95	27.7	.01			174
1	200 ISL	8.08	8.06	34.028	26.501	155.8	.470	2.62	39.4							200
1	205	8.01	7.99	34.030	26.514	154.6	.477	2.60	39.1	40.3	2.06	29.4	.01			205
1	234	7.59	7.57	34.034	26.578	148.9	.521	2.78	41.4	42.9	2.08	29.6	.02			234
1	250 ISL	7.39	7.36	34.041	26.613	145.7	.545	2.59	38.3							250
1	272	7.13	7.11	34.054	26.659	141.6	.577	2.20	32.4	49.9	2.30	32.8	.01			272
1	300 ISL	6.83	6.81	34.070	26.713	136.7	.616	1.85	27.1							300
1	332	6.51	6.48	34.091	26.773	131.3	.658	1.50	21.8	60.6	2.59	36.9	.00			332
1	400 ISL	5.86	5.82	34.142	26.897	120.0	.744	.90	12.8							400
1	405	5.87	5.78	34.146	26.905	119.2	.750	.86	12.3	74.2	2.85	40.3	.00			405
1	482	5.50	5.46	34.223	27.005	110.5	.838	.53	7.5	82.9	3.00	41.8	.00			482
1	500 ISL	5.42	5.38	34.238	27.027	108.6	.858	.48	6.7							500
1	558	5.11	5.07	34.278	27.095	102.6	.919	.37	5.2	91.6	3.07	42.8	.00			558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 29.0 N	122 32.0 W	19/07/84	1458 GMT	3932 M	220	5 KT	300 4 8	2	1016.0 MB	16.2 C	14.8 C	8/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	STO3	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	C ISL	16.17	16.17	33.090	24.241	367.2	.000	5.96	106.0							0
1	1	16.17	16.17	33.090	24.241	367.1	.004	5.96	106.0	2.3	.34	.3	.00	.17	.03	1
1	10	15.76	15.76	33.086	24.332	358.7	.036	6.23	109.9	2.4	.34	.2	.00	.13	.05	10
	20	15.21	15.20	33.284	24.606	332.9	.071	6.27	109.5							20
1	21	15.14	15.14	33.301	24.634	330.3	.074	6.27	109.4	2.1	.37	.6	.06	.31	.11	21
1	30	14.19	14.19	33.260	24.805	314.2	.103	6.16	105.4	2.3	.39	1.1	.10	.23	.12	30
1	40	12.91	12.90	33.189	25.010	294.9	.133	5.89	98.1	3.9	.50	2.5	.17	.62	.24	40
1	49	12.35	12.35	33.310	25.211	276.0	.159	5.58	91.9	5.5	.72	6.1	.83	.47	.32	49
	50	12.20	12.20	33.308	25.238	273.4	.162	5.55	91.1							50
1	59	11.23	11.22	33.328	25.435	254.8	.185	5.26	84.6	9.8	1.11	12.0	.17	.17	.14	59
1	69	11.16	11.15	33.609	25.666	233.0	.209	4.63	74.5	14.7	1.33	16.7	.02	.08	.12	69
	75	10.89	10.88	33.676	25.766	223.7	.224	4.34	69.4							75
1	85	10.32	10.31	33.696	25.881	212.9	.245	4.01	63.4	20.6	1.58	20.6	.02	.06	.10	85
1	95	9.42	9.41	33.695	26.031	198.8	.273	3.70	57.3	24.3	1.64	22.1	.02	.01	.07	95
	100	9.37	9.36	33.700	26.043	197.6	.276	3.67	56.7							101
1	118	9.01	9.00	33.799	26.178	185.2	.312	3.22	49.5	30.2	1.87	25.9	.01	.02	.10	119
	125	8.95	8.94	33.846	26.225	180.9	.324	3.02	46.3							126
1	142	8.81	8.80	33.955	26.332	171.0	.354	2.56	39.2	34.7	2.04	27.8	.00	.01	.11	143
	150	8.70	8.68	33.980	26.370	167.5	.367	2.52	38.5							151
1	171	8.38	8.37	34.017	26.447	160.5	.402	2.41	36.5	38.6	2.13	29.3	.00			172
	200	8.17	8.15	34.041	26.498	156.1	.447	2.28	34.5							201
1	202	8.16	8.14	34.041	26.501	155.9	.450	2.28	34.4	41.4	2.20	30.1	.01			203
1	233	7.53	7.50	34.031	26.585	148.1	.497	2.36	35.1	45.7	2.24	31.3	.02			234
	250	7.30	7.28	34.038	26.623	144.8	.523	2.22	32.8							252
1	271	7.10	7.07	34.054	26.664	141.1	.553	1.96	28.9	52.2	2.44	33.7	.02			273
	300	6.87	6.85	34.086	26.720	136.1	.593	1.62	23.7							302
1	331	6.65	6.62	34.119	26.776	131.1	.634	1.28	18.7	61.6	2.71	26.6	.02			333
	400	6.03	6.00	34.137	26.871	122.6	.722	.91	13.0							403
1	405	5.98	5.95	34.137	26.877	122.0	.728	.89	12.8	71.7	2.87	39.8	.00			408
1	481	5.22	5.18	34.170	26.997	111.0	.816	.61	8.6	85.1	3.04	42.0	.00			484
	500	5.10	5.06	34.185	27.022	108.7	.837	.56	7.8							504
1	557	4.95	4.91	34.241	27.084	103.4	.898	.45	6.3	93.3	3.13	43.4	.00			561

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 09.0 N	123 13.1 W	19/07/84	2122 GMT	4206 M	190	6 KT	300 3 9	2	1018.0 MB	18.0 C	15.9 C	8/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	STO3	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	16.36	16.36	32.944	24.085	381.9	.000	5.93	105.8	2.8	.33	.0	.00	.16	.05	0
1	10	15.37	15.37	32.926	24.293	362.4	.037	6.15	107.6	2.8	.34	.0	.00	.14	.03	10
1	20	14.36	14.36	32.896	24.487	344.2	.072	6.19	106.0	2.7	.36	.0	.00	.13	.08	20
1	30	13.62	13.62	32.896	24.641	329.8	.106	6.19	104.4	2.7	.36	.0	.00	.25	.08	30
1	40	13.27	13.26	32.898	24.713	323.1	.138	6.19	103.7	2.7	.38	.4	.06	.49	.13	40
	50	13.39	13.38	32.990	24.761	318.9	.171	6.08	102.1							50
1	51	13.40	13.39	32.997	24.764	318.6	.173	6.07	102.0	2.7	.46	1.2	.19	.35	.30	51
1	61	13.15	13.14	32.993	24.812	314.4	.205	5.99	100.1	2.7	.46	1.5	.31	.31	.30	61
1	71	12.97	12.96	32.993	24.847	311.2	.236	5.92	98.6	3.4	.50	2.0	.31	.26	.19	71
	75	12.87	12.86	33.002	24.873	308.8	.249	5.89	97.9							75
1	86	12.53	12.52	33.053	24.979	298.9	.282	5.76	95.1	4.1	.54	2.6	.18	.15	.18	86
	100	11.76	11.75	33.209	25.247	273.8	.323	5.38	87.4							101
1	101	11.72	11.71	33.216	25.258	272.7	.324	5.36	87.1	6.4	.67	5.5	.10	.12	.16	101
1	120	10.46	10.44	33.377	25.610	239.4	.375	5.04	79.7	10.8	.96	10.9	.12	.04	.08	121
	125	10.23	10.22	33.421	25.682	232.6	.386	4.91	77.3							126
1	144	9.59	9.48	33.593	25.940	208.4	.429	4.31	66.8	19.0	1.33	17.9	.02	.02	.01	145
	150	9.36	9.34	33.625	25.988	203.9	.440	4.16	64.3							151
1	174	8.91	8.90	33.738	26.147	189.2	.488	3.63	55.6	28.7	1.75	24.7	.01			175
	200	8.46	8.44	33.885	26.333	171.9	.535	3.28	49.8							201
1	204	8.39	8.37	33.905	26.359	169.5	.541	3.24	49.1	33.9	1.91	27.2	.01			205
1	233	7.88	7.85	33.999	26.510	155.4	.588	3.00	45.0	39.0	1.99	28.6	.02			234
	250	7.57	7.54	34.012	26.565	150.3	.614	2.80	41.7							252
1	271	7.21	7.18	34.013	26.616	145.7	.646	2.53	37.3	47.3	2.20	31.9	.01			273
	300	6.83	6.80	34.023	26.676	140.2	.687	2.21	32.3							302
1	330	6.54	6.51	34.043	26.730	135.4	.728	1.86	27.0	57.9	2.45	35.5	.00			332
	400	6.37	6.34	34.162	26.847	125.2	.820	.95	13.7							403
1	404	6.36	6.32	34.168	26.854	124.6	.825	.90	13.0	68.4	2.79	38.8	.00			407
1	480	5.40	5.36	34.148	26.958	114.8	.915	.69	9.8	81.1	2.96	41.8	.00			483
	500	5.39	5.35	34.183	26.987	112.4	.938	.62	8.8							504
1	556	5.37	5.33	34.272	27.060	106.2	1.000	.39	5.5	87.3	3.08	42.3	.00			560

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 49.0 N	123 54.5 W	20/07/84	0335 GMT	4114 M	290	7 KT	300 3 10	2	1017.0 MB	17.8 C	15.1 C	8/8	ST			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
#	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	16.45	16.45	32.894	24.027	387.5	.000	5.82	104.0	2.8	.38	.1	.00	.06	.02	0
	10	15.60	15.59	32.879	24.208	370.5	.038	5.90	103.7							10
1	11	15.54	15.54	32.878	24.220	369.4	.041	5.91	103.7	2.8	.37	.1	.00	.11	.03	11
1	20	15.19	15.19	32.875	24.294	362.6	.074	5.96	103.8	2.7	.36	.1	.00	.10	.02	20
	30	15.05	15.04	32.876	24.326	359.9	.111	5.94	103.2							30
1	31	15.03	15.03	32.877	24.331	359.5	.114	5.94	103.1	2.7	.35	.0	.00	.13	.03	31
1	40	14.51	14.50	32.905	24.465	346.9	.146	6.14	105.5	2.8	.35	.0	.00	.18	.04	40
	50	14.11	14.10	32.939	24.574	336.7	.180	6.18	105.3							50
1	51	14.08	14.07	32.942	24.582	336.0	.183	6.18	105.3	2.8	.36	.1	.02	.29	.06	51
1	61	13.78	13.77	33.011	24.698	325.2	.216	6.14	104.0	2.8	.44	1.4	.06	.35	.09	61
1	70	13.47	13.46	32.988	24.743	321.1	.245	6.07	102.1	2.6	.41	.9	.08	.36	.18	70
	75	13.23	13.22	32.973	24.780	317.7	.262	6.01	100.6							75
1	85	12.80	12.79	32.970	24.862	310.1	.292	5.88	97.6	2.9	.44	.8	.14	.34	.18	85
1	99	12.45	12.44	33.063	25.002	297.1	.334	5.68	93.6	3.9	.50	2.3	.09	.14	.16	99
1	100	12.39	12.37	33.080	25.028	294.6	.338	5.64	92.9							100
1	120	11.31	11.29	33.345	25.435	256.2	.395	5.02	80.9	9.3	.89	9.5	.04	.05	.08	120
1	125	11.04	11.03	33.376	25.507	249.5	.406	4.91	78.6							125
1	147	10.13	10.11	33.481	25.747	226.8	.450	4.46	70.1	16.6	1.27	16.1	.02	.01	.06	144
	150	9.98	9.96	33.536	25.816	220.4	.465	4.26	66.7							150
1	174	9.64	9.62	33.726	26.021	201.4	.516	3.60	56.0	23.4	1.61	21.8	.01			175
1	200	9.09	9.07	33.851	26.207	184.0	.566	3.28	50.5							201
1	202	9.05	9.03	33.858	26.220	182.8	.569	3.27	50.3	28.3	1.77	24.6	.01			203
1	231	8.50	8.48	33.951	26.379	168.1	.620	3.30	50.1	31.7	1.81	25.7	.01			232
1	257	8.22	8.19	33.993	26.456	161.1	.651	3.06	46.3							252
1	271	7.95	7.92	34.026	26.521	155.2	.684	2.73	41.0	39.4	2.06	28.9	.00			272
1	300	7.60	7.57	34.056	26.596	148.3	.729	2.35	35.0							302
1	330	7.26	7.23	34.073	26.657	142.8	.772	2.00	29.6	49.9	2.35	32.9	.00			332
1	400	6.51	6.48	34.091	26.773	132.3	.869	1.41	20.5							403
1	406	6.46	6.42	34.092	26.781	131.6	.876	1.37	19.9	61.7	2.65	36.8	.01			408
1	481	5.86	5.82	34.154	26.906	120.2	.971	.79	11.3	74.4	2.90	40.2	.00			484
1	500	5.74	5.70	34.166	26.932	117.9	.993	.70	10.0							504
1	556	5.41	5.37	34.195	26.994	112.4	1.062	.56	7.9	83.2	3.03	41.6	.00			563

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
34 16.2 N	119 56.3 W	16/07/84	0553 GMT	512 M	260	10 KT			1016.0 MB	19.5 C	17.5 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
#	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	18.87	18.87	33.629	24.007	394.6	.000	5.87	110.4							0
	1	18.87	18.87	33.629	24.007	389.4	.004	5.87	110.4	2.3	.29	.0	.00	.25	.07	1
	10	17.12	17.12	33.601	24.413	351.0	.037	6.17	112.1							10
1	12	16.82	16.82	33.596	24.481	344.6	.044	6.19	111.9	2.6	.32	.0	.00	.75	.31	12
	20	15.87	15.86	33.570	24.680	325.9	.071	6.08	107.8							20
1	22	15.68	15.67	33.563	24.717	322.4	.077	6.05	106.9	3.5	.40	.4	.09	1.48	.57	22
	30	14.83	14.83	33.551	24.893	305.9	.103	5.72	99.3							30
1	37	14.65	14.65	33.549	24.930	302.4	.108	5.64	97.6	5.3	.58	2.3	.29	.89	.49	32
1	41	13.89	13.88	33.536	25.081	288.3	.135	5.50	93.7	6.0	.63	3.0	.33	.81	.37	41
1	50	13.11	13.11	33.526	25.230	274.3	.161	5.21	87.3							50
1	52	12.97	12.96	33.526	25.260	271.4	.165	5.13	85.7	7.1	.74	5.0	.27	.37	.39	52
1	62	12.12	12.11	33.564	25.453	253.3	.192	4.57	75.0	12.1	1.04	11.2	.11	.22	.34	62
1	72	11.58	11.57	33.585	25.570	242.3	.216	4.24	68.8	13.4	1.16	13.3	.06	.16	.27	72
	75	11.36	11.35	33.604	25.625	237.1	.224	4.13	66.7							75
1	87	10.66	10.65	33.682	25.812	219.5	.251	3.77	60.0	18.4	1.42	18.1	.02	.05	.17	87
	100	10.19	10.18	33.746	25.943	207.3	.279	3.48	54.8							101
1	101	10.15	10.14	33.752	25.954	206.3	.282	3.45	54.3	22.0	1.60	20.7	.02	.04	.12	102
1	121	9.78	9.76	33.825	26.074	195.3	.322	3.25	50.8	25.4	1.71	22.4	.02	.02	.10	122
1	125	9.71	9.69	33.841	26.099	193.0	.329	3.20	49.9							126
1	146	9.35	9.34	33.930	26.226	181.3	.369	2.88	44.6	29.8	1.89	25.2	.01	.01	.09	147
1	150	9.32	9.30	33.939	26.240	180.0	.376	2.84	44.0							151
1	175	9.13	9.11	33.988	26.309	173.9	.420	2.65	40.9	32.7	1.98	26.6	.02			176
1	200	8.95	8.93	34.031	26.371	168.5	.463	2.46	37.8							201
1	205	8.92	8.90	34.039	26.382	167.5	.471	2.42	37.1	35.8	2.09	27.6	.02			206
1	238	8.68	8.66	34.098	26.466	160.1	.525	2.09	31.9	39.9	2.22	29.1	.02			239
1	257	8.55	8.52	34.103	26.491	157.9	.544	2.00	30.5							252
1	287	8.09	8.06	34.107	26.563	151.5	.602	1.77	26.7	47.1	2.39	31.6	.01			289
1	300	7.97	7.90	34.116	26.595	148.7	.621	1.66	25.0							302
1	348	7.37	7.34	34.151	26.704	138.8	.690	1.29	19.1	57.6	2.64	34.5	.00			350
1	400	7.01	6.97	34.173	26.771	133.0	.761	1.05	15.4							403
1	409	6.97	6.95	34.175	26.778	132.4	.773	1.02	15.0	63.7	2.78	35.9	.00			412

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
34 13.5 N	119 24.7 W	16/07/84	1425 GMT	36 M	270	5 KT	260 2 4	2	1017.0 MB	20.2 C	19.2 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
#	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	18.86	18.86	33.598	23.987	401.2	.000	5.87	110.3							0
	1	18.86	18.86	33.598	23.987	391.3	.004	5.87	110.3	1.5	.31	.0	.00	.48	.12	1
	10	15.87	15.87	33.548	24.661	327.4	.036	6.19	109.8							10
1	11	15.68	15.68	33.548	24.704	323.3	.039	6.20	109.5	3.1	.35	.0	.02	.44	.16	11
1	20	15.09	15.09	33.546	24.833	311.3	.068	6.01	104.9							20
1	21	15.07	15.06	33.544	24.837	311.0	.071	5.99	104.5	4.3	.47	.4	.12	1.18	.26	21
	30	13.67	13.66	33.531	25.123	284.0	.098	5.36	90.9							30
1	31	13.49	13.49	33.531	25.158	280.6	.100	5.28	89.2	7.4	.72	4.0	.31	.58	.30	31

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
34 10.7 N	119 30.6 W	16/07/84	1239 GMT	155 M	280	9 KT	260 2 4	1	1016.0 MB	19.2 C	17.5 C	3/8		CC		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	4	19.67	19.67	33.624	23.798	409.4	.017	5.73	109.4	1.9	.25	.0	.00	.28	.06	4
1	10 ISL	18.85	18.85	33.615	24.002	390.2	.041	5.93	111.5							10
1	12	18.62	18.62	33.613	24.059	384.9	.048	5.98	111.9	2.1	.29	.0	.00	.57	.15	12
1	20 ISL	17.86	17.86	33.603	24.238	368.1	.079	6.08	112.2							20
1	22	17.74	17.73	33.600	24.266	365.4	.086	6.09	112.0	2.9	.30	.0	.01	.92	.17	22
1	30 ISL	17.50	17.49	33.594	24.319	360.6	.115	6.05	110.8							30
1	32	17.44	17.44	33.593	24.332	359.5	.122	6.04	110.5	2.8	.33	.0	.01	.95	.20	32
1	41	13.80	13.80	33.543	25.104	286.0	.151	5.50	93.5	5.9	.59	3.1	.15	.44	.27	41
1	50 ISL	12.96	12.95	33.515	25.252	272.1	.176	5.06	84.5							50
1	52	12.93	12.92	33.544	25.281	269.4	.181	4.96	82.8	8.0	.83	7.0	.15	.31	.36	52
1	61	11.70	11.69	33.567	25.534	245.5	.204	4.24	69.0	13.3	1.17	13.3	.04	.23	.27	61
1	72	11.31	11.30	33.596	25.629	236.7	.230	3.99	64.4	15.2	1.25	15.1	.03	.13	.22	72
1	75 ISL	11.15	11.14	33.614	25.672	232.6	.238	3.90	62.7							75
1	87	10.58	10.57	33.686	25.829	218.0	.264	3.62	57.5	20.2	1.51	18.7	.03	.06	.14	87
1	100 ISL	10.13	10.11	33.752	25.958	205.9	.293	3.44	54.2							101
1	102	10.09	10.08	33.757	25.969	204.9	.296	3.43	54.0	22.7	1.61	20.7	.02	.02	.09	102
1	125	10.07	10.05	33.769	25.983	204.1	.345	3.37	53.0	23.5	1.62	21.2	.02	.01	.11	126

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 52.7 N	120 08.0 W	16/07/84	010R GMT	100 M	310	16 KT	290 3 10	1	1016.0 MB	19.2 C	17.1 C	3/8		AC		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	17.43	17.43	33.621	24.355	361.3	.000	5.83	106.6							0
1	10 ISL	17.43	17.43	33.621	24.355	356.3	.004	5.83	106.6	3.9	.35	.9	.04	.85	.14	1
1	11	15.30	15.30	33.571	24.806	313.6	.034	5.97	104.6							10
1	11	15.08	15.08	33.567	24.852	309.2	.037	5.98	104.4	5.5	.47	1.3	.06	1.55	.25	11
1	20 ISL	13.00	12.99	33.542	25.265	270.1	.063	5.22	87.3							20
1	21	12.83	12.83	33.542	25.299	266.9	.065	5.13	85.5	8.7	.76	6.4	.19	.96	.53	21
1	30 ISL	12.28	12.27	33.562	25.421	255.5	.089	4.64	76.4							30
1	31	12.27	12.27	33.564	25.423	255.3	.091	4.61	75.9	11.4	1.02	10.2	.15	.64	.38	31
1	41	12.21	12.20	33.577	25.446	253.4	.117	4.51	74.2	12.0	1.06	10.9	.14	.52	.35	41
1	50 ISL	11.50	11.50	33.612	25.606	238.4	.139	4.03	65.4							50
1	51	11.43	11.43	33.616	25.621	237.0	.141	3.99	64.6	15.6	1.27	15.1	.08	.27	.24	51
1	61	10.90	10.89	33.667	25.757	224.2	.164	3.74	59.9	18.5	1.46	17.6	.06	.16	.22	61
1	75 ISL	10.70	10.69	33.693	25.813	219.3	.196	3.63	57.9							75
1	77	10.68	10.67	33.695	25.818	218.7	.199	3.62	57.7	20.0	1.51	18.6	.06	.12	.19	77

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 44.6 N	120 24.7 W	15/07/84	2159 GMT	969 M	310	14 KT	320 2 10	1	1017.0 MB	19.5 C	16.9 C	6/8		AC		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	18.40	18.40	33.658	24.148	377.3	.000	5.72	106.6							0
1	1	18.40	18.40	33.658	24.148	376.0	.004	5.72	106.6	1.6	.24	.0	.00	.15	.05	1
1	10 ISL	17.87	17.87	33.658	24.278	363.9	.037	5.98	110.3							10
1	11	17.81	17.81	33.658	24.292	362.6	.041	5.99	110.4	1.5	.28	.0	.00	.34	.02	11
1	20 ISL	14.61	14.61	33.587	24.968	298.4	.070	5.96	103.0							20
1	22	13.87	13.87	33.585	25.121	283.9	.076	5.95	101.3	2.9	.54	3.2	.13	1.55	.19	22
1	30 ISL	12.29	12.28	33.572	25.427	254.9	.098	4.85	79.9							30
1	31	12.17	12.17	33.572	25.448	252.9	.100	4.72	77.6	10.9	.95	10.6	.18	.80	.27	31
1	41	11.48	11.47	33.593	25.595	239.2	.124	4.20	68.0	14.3	1.16	14.0	.09	.36	.23	41
1	50	11.25	11.24	33.605	25.646	234.6	.146	4.10	66.1	15.4	1.21	15.0	.06	.29	.22	50
1	60	10.71	10.70	33.660	25.786	221.4	.168	3.85	61.4	18.5	1.37	17.5	.04	.12	.16	60
1	70	9.91	9.90	33.769	26.009	200.4	.189	3.40	53.3	23.0	1.58	21.4	.01	.02	.09	70
1	75 ISL	9.68	9.67	33.806	26.075	194.2	.200	3.28	51.2							75
1	85	9.48	9.47	33.849	26.141	188.1	.218	3.18	49.4	26.9	1.71	23.5	.00	.01	.07	85
1	99	9.36	9.35	33.887	26.191	183.6	.246	3.08	47.7	27.1	1.77	24.3	.00	.01	.06	100
1	100 ISL	9.35	9.34	33.889	26.194	183.4	.247	3.08	47.6							101
1	119	9.04	9.03	33.957	26.298	173.8	.281	2.88	44.3	31.0	1.86	25.7	.00	.00	.04	120
1	125 ISL	9.00	8.99	33.971	26.315	172.3	.291	2.82	43.3							126
1	144	8.90	8.88	34.012	26.363	168.1	.324	2.60	39.9	33.5	1.96	27.0	.00	.00	.03	145
1	150 ISL	8.84	8.82	34.024	26.382	166.4	.334	2.54	38.9							151
1	173	8.60	8.58	34.069	26.456	159.8	.371	2.30	35.1	38.3	2.11	28.6	.00			174
1	200 ISL	8.43	8.41	34.112	26.516	154.6	.414	2.03	30.9							201
1	203	8.41	8.39	34.116	26.521	154.2	.418	2.01	30.5	41.9	2.30	30.1	.00			204
1	233	8.26	8.24	34.137	26.561	150.9	.463	1.88	28.4	43.7	2.32	30.6	.01			234
1	250 ISL	8.17	8.14	34.149	26.585	148.9	.489	1.72	26.0							252
1	272	8.03	8.01	34.161	26.614	146.4	.522	1.52	22.9	47.1	2.44	32.0	.02			274
1	300 ISL	7.86	7.83	34.168	26.646	143.8	.562	1.45	21.7							302
1	332	7.64	7.61	34.174	26.683	140.7	.608	1.41	21.0	51.6	2.56	33.6	.00			334
1	400 ISL	7.09	7.05	34.202	26.783	131.9	.701	1.05	15.5							403
1	405	7.04	7.00	34.204	26.792	131.2	.708	1.02	15.0	60.2	2.73	36.0	.00			408
1	482	6.48	6.44	34.237	26.894	122.7	.804	.71	10.3	69.6	2.90	38.4	.00			485
1	500 ISL	6.38	6.34	34.243	26.911	120.6	.827	.66	9.6							504
1	558	6.16	6.11	34.257	26.952	117.5	.896	.57	8.2	75.0	3.00	39.8	.00			562



LATITUDE	LONGITUDE	DAY/MO/YR	MESSNGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 34.7 N	120 45.3 W	15/07/84	1805 GMT	1463 M	330	9 KT	6 10	1	1018.0 MB	18.2 C	16.0 C	7/8	AC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C			THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	17.63	17.63	33.681	24.354	359.0	.000	5.78	106.2	.8	.22	.0	.00	.30	.01	0
1	2	17.63	17.63	33.681	24.354	356.4	.007	5.78	106.2	.8	.22	.0	.00	.30	.01	2
1	10 ISL	17.19	17.19	33.675	24.454	347.1	.035	5.88	107.1	.8	.27	.0	.00	.28	.03	10
1	11	17.14	17.14	33.675	24.465	346.1	.039	5.89	107.2	.8	.27	.0	.00	.28	.03	11
1	20 ISL	16.76	16.76	33.670	24.551	338.2	.070	5.87	106.0	.8	.31	.0	.01	.66	.10	20
1	26	16.52	16.51	33.667	24.606	333.1	.089	5.86	105.3	.8	.31	.0	.01	.66	.10	26
1	30 ISL	15.59	15.59	33.651	24.804	314.4	.103	5.69	100.4	7.2	.90	9.2	.22	1.27	.79	30
1	41	12.93	12.92	33.659	25.370	260.7	.134	5.05	84.4	7.2	.90	9.2	.22	1.27	.79	41
1	50 ISL	11.63	11.63	33.680	25.634	235.7	.157	4.37	71.0	7.2	1.45	17.8	.16	.30	.32	50
1	56	11.05	11.04	33.703	25.759	223.9	.170	3.91	62.8	7.2	1.45	17.8	.16	.30	.32	56
1	65	10.22	10.22	33.791	25.972	203.8	.189	3.24	51.1	24.0	1.66	22.1	.13	.19	.20	65
1	75 ISL	9.93	9.92	33.814	26.039	197.6	.210	3.15	49.3	24.0	1.66	22.1	.13	.19	.20	75
1	77	9.91	9.90	33.814	26.043	197.3	.213	3.13	49.1	26.0	1.75	23.2	.06	.11	.20	77
1	92	9.37	9.36	33.871	26.177	184.8	.241	2.89	44.8	29.7	1.83	25.2	.02	.05	.16	92
1	100 ISL	9.19	9.18	33.895	26.225	180.4	.257	2.82	43.6	29.7	1.83	25.2	.02	.05	.16	100
1	106	9.07	9.06	33.911	26.257	177.4	.268	2.77	42.6	31.3	1.91	26.2	.01	.04	.21	106
1	119	8.79	8.77	33.947	26.330	170.7	.291	2.55	39.0	33.1	1.98	27.1	.01	.03	.13	119
1	125 ISL	8.72	8.70	33.957	26.348	169.1	.300	2.57	39.2	33.1	1.98	27.1	.01	.03	.13	125
1	145	8.56	8.55	33.981	26.391	165.3	.334	2.63	40.0	35.2	2.03	28.0	.02	.01	.11	145
1	150 ISL	8.53	8.52	33.987	26.400	164.6	.342	2.61	39.7	35.2	2.03	28.0	.02	.01	.11	150
1	165	8.42	8.40	34.003	26.431	161.9	.367	2.52	38.2	37.2	2.07	28.5	.01	.01	.11	165
1	184	8.14	8.12	34.032	26.496	156.0	.397	2.41	36.3	39.4	2.15	29.5	.02			184
1	200 ISL	8.01	7.99	34.047	26.527	153.3	.421	2.34	35.2	39.4	2.15	29.5	.02			200
1	206	7.97	7.95	34.051	26.536	152.5	.430	2.31	34.7	42.4	2.19	30.2	.01			206
1	234	7.66	7.64	34.081	26.605	146.4	.472	2.00	29.8	46.3	2.31	31.9	.02			234
1	250 ISL	7.51	7.49	34.096	26.639	143.3	.496	1.82	27.1	46.3	2.31	31.9	.02			250
1	273	7.31	7.29	34.117	26.684	139.4	.529	1.59	23.5	52.4	2.48	33.9	.01			273
1	300 ISL	7.10	7.07	34.138	26.730	135.3	.565	1.37	20.2	52.4	2.48	33.9	.01			300
1	332	6.85	6.82	34.163	26.784	130.5	.608	1.14	16.7	60.3	2.69	36.4	.01			332
1	400 ISL	6.36	6.32	34.224	26.898	120.4	.693	.73	10.5	60.3	2.69	36.4	.01			400
1	407	6.31	6.27	34.230	26.910	119.4	.702	.69	10.0	71.4	2.90	38.9	.00			407
1	483	5.95	5.91	34.281	26.997	111.9	.789	.46	6.6	78.9	3.03	40.3	.00			483
1	500 ISL	5.87	5.83	34.292	27.015	110.3	.808	.42	6.1	78.9	3.03	40.3	.00			500
1	558	5.63	5.59	34.327	27.072	105.4	.871	.34	4.8	85.1	3.11	41.3	.00			558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSNGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 15.0 N	121 26.8 W	15/07/84	1239 GMT	2749 M	250	8 KT			1015.8 MB	16.1 C	14.2 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C			THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	15.34	15.34	33.103	24.438	348.6	.000	6.02	105.3	2.0	.36	.3	.02	.22	.03	0
1	1	15.34	15.34	33.103	24.438	348.4	.003	6.02	105.3	2.0	.36	.3	.02	.22	.03	1
1	10 ISL	15.06	15.06	33.089	24.487	343.9	.035	6.16	107.2	2.4	.36	.3	.02	.23	.04	10
1	11	15.02	15.02	33.088	24.495	343.2	.038	6.17	107.2	2.4	.36	.3	.02	.23	.04	11
1	20 ISL	14.54	14.54	33.104	24.610	332.5	.068	6.16	106.1	2.3	.39	.4	.06	.24	.08	20
1	26	14.11	14.11	33.113	24.708	323.3	.088	6.16	105.1	2.3	.39	.4	.06	.24	.08	26
1	30 ISL	13.58	13.58	33.083	24.794	315.2	.101	6.09	102.7	3.4	.57	3.5	.32	.51	.23	30
1	40	12.65	12.65	33.090	24.983	297.4	.131	5.91	97.8	3.4	.57	3.5	.32	.51	.23	40
1	50 ISL	13.39	13.38	33.396	25.075	289.0	.161	5.88	99.1	3.2	.61	2.6	.21	.31	.16	50
1	55	13.86	13.85	33.546	25.094	287.4	.175	5.87	99.9	3.2	.61	2.6	.21	.31	.16	55
1	65	13.98	13.97	33.593	25.106	286.5	.203	5.86	100.0	2.6	.60	2.2	.17	.28	.11	65
1	74	12.12	12.11	33.343	25.281	269.9	.228	5.51	90.3	5.8	.81	6.7	.55	.10	.12	74
1	75 ISL	12.00	11.99	33.346	25.308	267.4	.232	5.46	89.2	5.8	.81	6.7	.55	.10	.12	75
1	90	11.26	11.24	33.502	25.566	243.1	.269	4.89	78.8	12.0	1.20	14.6	.04	.06	.07	90
1	100 ISL	10.55	10.54	33.484	25.677	232.7	.294	4.57	72.5	12.0	1.20	14.6	.04	.06	.07	100
1	104	10.30	10.29	33.477	25.714	229.1	.302	4.46	70.4	16.1	1.30	16.1	.02	.02	.08	104
1	118	9.32	9.31	33.614	25.984	203.6	.334	3.80	58.7	22.9	1.59	21.4	.02	.01	.06	118
1	125 ISL	9.06	9.05	33.663	26.063	196.1	.347	3.67	56.4	22.9	1.59	21.4	.02	.01	.06	125
1	142	8.69	8.67	33.775	26.211	182.5	.380	3.48	53.1	28.8	1.78	24.8	.01	.00	.05	142
1	150 ISL	8.61	8.59	33.828	26.265	177.4	.394	3.35	51.0	28.8	1.78	24.8	.01	.00	.05	150
1	161	8.55	8.54	33.897	26.327	171.7	.413	3.15	47.9	32.0	1.87	26.3	.00	.01	.04	161
1	179	8.50	8.48	33.962	26.387	166.4	.443	2.85	43.3	34.2	1.98	27.7	.00			179
1	198	8.27	8.25	33.994	26.447	161.0	.474	2.95	44.6	35.2	1.96	27.3	.00			198
1	200 ISL	8.24	8.22	33.996	26.452	160.5	.478	2.98	45.0	35.2	1.96	27.3	.00			200
1	228	7.93	7.90	34.015	26.515	154.9	.521	3.22	48.3	37.1	1.91	27.1	.00			228
1	250 ISL	7.69	7.66	34.033	26.564	150.5	.555	2.90	43.3	37.1	1.91	27.1	.00			250
1	264	7.52	7.50	34.044	26.596	147.6	.577	2.61	38.8	43.8	2.15	30.1	.00			264
1	300 ISL	7.03	7.01	34.057	26.675	140.5	.628	2.16	31.7	43.8	2.15	30.1	.00			300
1	323	6.71	6.68	34.063	26.724	136.0	.660	1.90	27.7	55.6	2.45	34.6	.00			323
1	398	5.92	5.89	34.110	26.864	123.2	.758	1.07	15.3	69.9	2.78	39.4	.00			398
1	400 ISL	5.90	5.87	34.111	26.867	122.9	.760	1.06	15.1	69.9	2.78	39.4	.00			400
1	474	5.21	5.18	34.178	27.004	110.3	.848	.61	8.6	84.7	3.00	41.9	.00			474
1	500 ISL	5.07	5.03	34.199	27.037	107.2	.874	.51	7.2	84.7	3.00	41.9	.00			500
1	558	4.86	4.82	34.246	27.098	101.9	.935	.38	5.3	93.8	3.09	43.3	.00			558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 54.7 N	122 07.7 W	15/07/84	U620 GMT	4047 M	340	5 KT			1015.0 MB	16.6 C	14.5 C					
CST	DEPTH	TEMP	POT	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	15.79	15.79	33.539	24.672	326.8	.000	6.13	108.5							0
1	1	15.79	15.79	33.539	24.672	326.1	.003	6.13	108.5	1.7	.43	1.3	.05			1
	10 ISL	15.56	15.56	33.545	24.728	321.0	.032	6.19	109.1							10
1	11	15.54	15.54	33.545	24.732	320.6	.035	6.20	109.2	1.7	.43	1.4	.06	.32	.02	11
1	20	15.41	15.41	33.545	24.761	318.1	.064	6.11	107.3	1.7	.45	1.8	.06	.39	.04	20
	30 ISL	15.37	15.37	33.546	24.771	317.5	.096	5.99	105.1							30
1	31	15.37	15.36	33.546	24.772	317.4	.099	5.98	105.0	1.8	.47	1.8	.06	.35	.09	31
1	41	14.49	14.48	33.543	24.961	299.7	.130	5.92	102.1	2.3	.59	3.2	.15	.37	.17	41
	50 ISL	13.94	13.95	33.507	25.044	292.0	.157	5.88	100.3							50
1	51	13.91	13.90	33.506	25.054	291.1	.159	5.38	100.2	2.6	.63	3.6	.28	.38	.19	51
1	61	12.90	12.89	33.638	25.359	262.2	.187	5.20	86.8	7.8	1.01	9.3	1.57	.25	.15	61
1	71	11.77	11.76	33.680	25.609	238.6	.211	4.49	73.2	14.1	1.30	15.8	.02	.15	.11	71
	75 ISL	11.21	11.20	33.699	25.727	227.5	.222	4.14	66.8							75
1	86	10.01	10.00	33.760	25.983	203.1	.244	3.39	53.2	24.2	1.65	22.5	.00	.04	.10	86
	100 ISL	9.41	9.40	33.868	26.168	185.8	.272	2.90	45.0							101
1	102	9.38	9.37	33.878	26.180	184.7	.275	2.87	44.5	29.5	1.85	25.5	.00	.02	.13	102
1	120	8.99	8.98	33.951	26.301	173.6	.309	2.58	39.6	33.6	1.98	27.3	.00	.02	.09	121
	125 ISL	8.88	8.86	33.963	26.328	171.1	.317	2.58	39.5							126
1	144	8.44	8.43	34.000	26.425	162.2	.349	2.57	39.0	37.2	2.06	28.4	.00	.00	.07	145
	150 ISL	8.37	8.36	34.012	26.445	160.3	.358	2.51	38.1							151
1	174	8.15	8.13	34.055	26.513	154.2	.396	2.25	33.9	41.5	2.19	30.1	.00			175
	200 ISL	7.84	7.82	34.070	26.571	149.1	.435	2.19	32.7							201
1	203	7.80	7.78	34.071	26.576	148.6	.440	2.18	32.6	45.0	2.25	31.1	.00			204
1	232	7.53	7.51	34.087	26.628	144.0	.482	1.94	28.9	49.0	2.37	32.4	.01			233
	250 ISL	7.28	7.26	34.085	26.663	141.0	.508	1.91	28.2							252
1	270	7.00	6.98	34.083	26.700	137.6	.536	1.87	27.5	53.4	2.44	33.9	.01			272
	300 ISL	6.76	6.74	34.104	26.749	133.3	.576	1.58	23.0							302
1	329	6.57	6.55	34.129	26.794	129.3	.614	1.24	18.0	63.0	2.69	36.8	.01			331
	400 ISL	5.94	5.91	34.162	26.902	119.6	.703	.81	11.6							403
1	402	5.92	5.89	34.163	26.906	119.3	.706	.80	11.5	74.2	2.90	40.1	.00			405
1	478	5.45	5.41	34.213	27.003	110.6	.792	.51	7.2	83.6	3.06	41.6	.00			481
	500 ISL	5.33	5.29	34.229	27.030	108.2	.817	.45	6.4							504
1	554	5.10	5.06	34.271	27.091	102.9	.874	.36	5.1	92.1	3.15	42.6	.00			558

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 34.7 N	122 48.7 W	15/07/84	0103 GMT	4114 M	200	5 KT	320 4 10	2	1014.0 MB	18.3 C	15.1 C					
CST	DEPTH	TEMP	POT	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	15.75	15.75	32.893	24.185	374.4	.000	5.93	104.5							0
1	2	15.75	15.75	32.893	24.185	372.4	.007	5.93	104.5	2.3	.36	.0	.00	.09	.02	2
	10 ISL	15.43	15.43	32.887	24.251	366.3	.037	6.08	106.4							10
1	11	15.40	15.40	32.887	24.258	365.8	.041	6.09	106.5	2.3	.36	.0	.00	.10	.01	11
	20 ISL	15.30	15.29	32.884	24.278	364.2	.074	6.06	105.8							20
1	27	15.22	15.22	32.881	24.293	363.0	.099	6.04	105.3	2.3	.36	.0	.00	.10	.02	27
	30 ISL	15.22	15.21	32.881	24.293	362.9	.110	6.01	104.7							30
1	41	15.20	15.20	32.882	24.298	362.9	.149	5.94	103.5	2.2	.36	.0	.00	.14	.03	41
	50 ISL	14.23	14.23	32.945	24.553	338.8	.181	6.07	103.8							50
1	56	13.57	13.56	32.985	24.721	322.9	.200	6.15	103.7	2.3	.36	.0	.04	.27	.09	56
1	65	13.12	13.11	32.972	24.801	315.5	.229	6.07	101.4	2.3	.45	1.1	.33	.42	.17	65
1	74	12.91	12.90	33.049	24.902	306.0	.257	6.03	100.3	2.6	.52	2.1	.23	.29	.15	74
	75 ISL	12.85	12.84	33.058	24.920	304.4	.261	6.00	99.7							75
1	89	12.28	12.27	33.145	25.098	287.7	.301	5.60	92.0	5.4	.70	5.2	.06	.11	.11	89
	100 ISL	12.06	12.05	33.216	25.195	278.7	.333	5.49	89.8							101
1	104	11.95	11.94	33.238	25.232	275.3	.343	5.45	89.0	6.4	.78	7.1	.02	.08	.08	104
1	119	10.61	10.60	33.358	25.568	243.4	.385	4.84	76.8	12.4	1.08	12.7	.02	.04	.06	120
	125 ISL	10.36	10.34	33.411	25.654	235.4	.398	4.64	73.3							126
1	143	9.76	9.74	33.585	25.891	213.1	.439	4.10	63.9	19.6	1.45	19.0	.01	.01	.05	144
	150 ISL	9.47	9.46	33.639	25.979	204.7	.453	4.02	62.3							151
1	163	9.02	9.00	33.744	26.135	190.1	.479	3.80	58.4	27.9	1.74	24.0	.00	.01	.06	164
1	183	8.93	8.91	33.914	26.282	176.5	.515	2.87	44.0	31.2	1.91	26.2	.00			184
	200 ISL	8.72	8.69	33.959	26.351	170.3	.545	2.79	42.7							201
1	203	8.67	8.65	33.961	26.360	169.5	.550	2.78	42.4	33.2	1.97	27.2	.00			204
1	231	8.23	8.21	33.997	26.456	160.7	.596	2.71	40.9	37.0	2.05	28.2	.00			232
	250 ISL	8.07	8.04	34.044	26.517	155.2	.626	2.34	35.2							252
1	271	7.91	7.88	34.088	26.576	149.9	.657	1.90	28.5	45.1	2.31	31.5	.00			272
	300 ISL	7.43	7.40	34.090	26.646	143.4	.701	1.81	26.9							302
1	329	6.90	6.87	34.074	26.707	137.8	.741	1.73	25.4	54.7	2.50	34.6	.00			331
	400 ISL	5.92	5.89	34.081	26.841	125.4	.835	1.23	17.6							403
1	403	5.90	5.86	34.082	26.845	125.0	.838	1.21	17.3	68.8	2.73	38.8	.00			405
1	476	5.60	5.56	34.172	26.953	115.6	.926	.65	9.2	78.3	2.97	40.8	.00			479
	500 ISL	5.57	5.53	34.211	26.987	112.6	.954	.52	7.4							504
1	551	5.51	5.46	34.292	27.060	106.3	1.010	.35	5.0	85.6	3.10	41.3	.00			555

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 14.7 N	123 29.5 W	14/07/84	0157 GMT	4023 M	320	14 KT	330 6 6	2	1009.0 MB	17.4 C	14.7 C	8/8		ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	16.56	16.56	33.127	24.179	372.8	.000	5.77	103.5							0
1	1	16.56	16.56	33.127	24.179	373.0	.004	5.77	103.5	2.5	.32	.0	.01	.08	.01	1
1	9	16.58	16.58	33.124	24.173	373.9	.033	5.84	104.7	2.5	.36	.0	.01	.07	.02	9
	10 ISL	16.58	16.58	33.123	24.173	373.8	.037	5.84	104.7							10
	20 ISL	16.53	16.53	33.125	24.186	373.0	.075	5.82	104.3							20
1	25	16.50	16.50	33.126	24.194	372.4	.093	5.81	104.0	2.5	.33	.0	.00	.08	.02	25
	30 ISL	16.50	16.49	33.128	24.197	372.3	.112	5.77	103.4							30
1	38	16.49	16.48	33.131	24.201	372.1	.141	5.73	102.6	2.4	.33	.0	.00	.10	.02	38
	50 ISL	16.33	16.33	33.127	24.234	369.3	.186	5.78	103.1							50
1	53	16.30	16.29	33.126	24.242	368.7	.197	5.79	103.3	2.1	.32	.0	.00	.11	.00	53
1	63	15.26	15.25	33.097	24.452	348.8	.232	6.04	105.5	2.4	.31	.0	.00	.17	.00	63
1	73	15.26	15.25	33.177	24.513	343.4	.267	5.99	104.7	2.4	.29	.0	.00	.18	.04	73
	75 ISL	15.24	15.23	33.183	24.523	342.5	.275	5.99	104.6							75
1	88	15.09	15.08	33.286	24.634	332.3	.317	5.98	104.2	2.5	.29	.0	.01	.24	.09	88
	100 ISL	13.65	13.64	33.245	24.907	306.5	.357	5.84	98.7							101
1	103	13.32	13.31	33.233	24.964	301.0	.365	5.80	97.4	3.7	.56	3.3	.10	.24	.15	103
1	117	12.56	12.54	33.205	25.093	289.0	.406	5.69	94.1	5.1	.70	5.8	.01	.11	.08	117
	125 ISL	12.31	12.29	33.237	25.166	282.2	.430	5.54	91.1							126
1	140	11.95	11.93	33.350	25.321	267.7	.472	5.18	84.6	7.9	.82	8.1	.02	.06	.07	141
	150 ISL	11.61	11.59	33.450	25.462	254.5	.527	4.93	79.9							151
1	159	11.26	11.24	33.544	25.598	241.7	.590	4.70	75.7	11.3	1.03	11.5	.01	.04	.05	160
1	179	10.60	10.58	33.654	25.802	222.6	.566	4.45	70.7	16.2	1.33	16.3	.01			180
1	198	10.00	9.98	33.743	25.974	206.5	.607	3.86	60.6	21.1	1.50	19.6	.01			199
	200 ISL	9.94	9.92	33.753	25.992	204.8	.611	3.79	59.4							201
1	228	9.17	9.14	33.891	26.228	182.7	.665	2.95	45.5	29.7	1.84	25.4	.01			229
	250 ISL	8.76	8.74	33.963	26.348	171.6	.704	2.68	40.9							252
1	268	8.50	8.48	34.002	26.419	165.0	.734	2.59	39.4	36.0	2.08	27.9	.01			269
	300 ISL	7.99	7.96	34.042	26.528	155.1	.786	2.48	37.3							302
1	324	7.63	7.60	34.057	26.593	149.1	.822	2.38	35.5	44.6	2.22	30.8	.01			326
1	400	6.69	6.65	34.122	26.775	132.3	.929	1.29	18.8	61.4	2.64	36.4	.01			402
1	473	6.01	5.97	34.161	26.894	121.5	1.022	.85	12.2	72.3	2.88	39.5	.01			476
	500 ISL	5.79	5.74	34.174	26.932	118.0	1.054	.73	10.4							504
1	546	5.44	5.39	34.193	26.990	112.6	1.108	.56	7.9	83.5	3.02	41.5	.00			550

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 14.7 N	123 29.5 W	14/07/84	0648 GMT	4023 M	350	7 KT			1011.0 MB	17.0 C	14.5 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	16.54	16.54	33.119	24.178	373.1	.000	5.73	102.7							0
1	1	16.54	16.54	33.119	24.178	373.1	.004	5.73	102.7	2.3	.33	.0	.00	.06	.02	1
1	9	16.54	16.54	33.117	24.178	373.4	.033	5.88	105.4	2.3	.33	.0	.00	.06	.02	9
	10 ISL	16.54	16.54	33.117	24.178	373.4	.037	5.87	105.3							10
	20 ISL	16.53	16.52	33.122	24.185	373.0	.075	5.82	104.2							20
1	27	16.52	16.51	33.128	24.192	372.6	.100	5.78	103.5	2.3	.33	.0	.00	.07	.01	27
	30 ISL	16.52	16.51	33.131	24.194	372.5	.112	5.76	103.2							30
1	40	16.52	16.51	33.141	24.203	372.0	.149	5.73	102.6	2.3	.33	.0	.00	.07	.02	40
	50 ISL	16.03	16.02	33.113	24.293	363.7	.186	5.83	103.3							50
1	56	15.65	15.64	33.099	24.367	356.8	.207	5.91	104.0	2.3	.33	.0	.00	.10	.02	56
1	66	15.04	15.03	33.118	24.515	342.9	.242	6.05	105.2	2.3	.34	.0	.00	.16	.05	66
	75 ISL	15.09	15.08	33.309	24.652	330.2	.273	6.00	104.6							75
1	76	15.10	15.08	33.323	24.662	329.3	.275	6.00	104.6	2.3	.30	.0	.00	.23	.09	76
1	92	14.33	14.32	33.297	24.806	315.9	.326	5.88	100.9	2.5	.35	.2	.10	.27	.19	92
	100 ISL	13.83	13.81	33.259	24.881	308.9	.353	5.83	98.9							101
1	107	13.45	13.43	33.229	24.935	303.8	.373	5.79	97.5	3.4	.55	3.3	.07	.22	.15	107
1	121	12.91	12.90	33.208	25.026	295.5	.414	5.74	95.6	4.4	.66	4.8	.01	.11	.11	121
	125 ISL	12.75	12.73	33.213	25.062	292.2	.428	5.71	94.8							126
1	144	12.09	12.07	33.289	25.247	274.9	.483	5.45	89.2	7.3	.80	7.6	.01	.07	.09	145
	150 ISL	11.95	11.93	33.331	25.307	269.3	.498	5.30	86.6							151
1	165	11.47	11.45	33.469	25.504	250.9	.538	4.85	78.4	9.7	.97	10.4	.01	.03	.08	166
1	183	10.46	10.43	33.649	25.823	220.6	.580	4.35	68.9	17.1	1.34	17.0	.01			184
	200 ISL	9.92	9.89	33.740	25.987	205.3	.616	3.79	59.4							201
1	202	9.86	9.84	33.748	26.001	203.9	.620	3.72	58.2	21.9	1.55	20.4	.01			203
1	230	9.11	9.09	33.887	26.233	182.2	.674	2.88	44.4	30.0	1.84	25.6	.00			231
	250 ISL	8.83	8.81	33.940	26.319	174.3	.710	2.76	42.3							252
1	270	8.63	8.60	33.971	26.375	169.3	.743	2.65	40.4	34.4	1.97	27.6	.00			271
	300 ISL	8.17	8.14	34.018	26.481	159.5	.793	2.49	37.5							302
1	327	7.76	7.73	34.051	26.569	151.5	.835	2.30	34.4	43.6	2.18	30.5	.00			329
	400 ISL	6.94	6.90	34.122	26.741	135.7	.940	1.40	20.6							403
1	403	6.91	6.87	34.124	26.746	135.3	.944	1.37	20.1	57.8	2.56	35.4	.01			405
1	478	6.09	6.05	34.148	26.874	123.5	1.041	.96	13.8	70.6	2.81	38.8	.00			481
	500 ISL	5.89	5.84	34.158	26.907	120.5	1.068	.85	12.1							504
1	558	5.43	5.38	34.185	26.984	113.3	1.136	.55	7.8	82.3	2.98	41.2	.00			562



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 14.7 N	123 29.5 W	14/07/84	1112 GMT	4023 M	330	7 KT			1011.0 MB	16.9 C	14.1 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	16.53	16.53	33.122	24.184	372.5	.000	5.72	102.5							0
1	2	16.53	16.53	33.122	24.184	372.6	.007	5.72	102.5	2.0	.32	.0	.00	.05	.03	2
	10 ISL	16.53	16.53	33.126	24.186	372.6	.037	5.76	103.2							10
1	11	16.53	16.53	33.126	24.186	372.6	.041	5.76	103.2	2.1	.33	.0	.00	.06	.02	11
	20 ISL	16.55	16.55	33.139	24.192	372.4	.075	5.77	103.4							20
1	26	16.55	16.55	33.146	24.197	372.2	.097	5.77	103.4	2.1	.32	.0	.00	.06	.02	26
	30 ISL	16.54	16.54	33.146	24.200	371.9	.112	5.76	103.2							30
1	40	16.51	16.50	33.147	24.210	371.5	.148	5.73	102.6	2.0	.32	.0	.00	.08	.01	40
	50 ISL	15.38	15.38	33.029	24.372	356.2	.185	5.95	104.1							50
1	55	14.85	14.84	33.001	24.467	347.2	.202	6.06	104.9	1.9	.33	.0	.00	.14	.02	55
1	65	14.61	14.60	33.147	24.630	331.9	.236	6.14	105.9	2.7	.33	.0	.00	.28	.04	65
1	75	14.64	14.63	33.315	24.754	320.4	.268	5.91	102.1	2.6	.33	.0	.03	.33	.18	75
1	89	13.50	13.49	33.209	24.908	306.0	.312	5.86	98.8	3.2	.55	2.8	.58	.28	.12	89
	100 ISL	13.07	13.05	33.200	24.989	298.5	.346	5.80	97.0							101
1	105	12.95	12.93	33.207	25.018	295.8	.360	5.75	95.8	4.7	.66	4.8	.01	.14	.08	105
1	119	12.48	12.46	33.230	25.127	285.7	.400	5.35	88.3	5.3	.71	6.1	.01	.11	.07	119
	125 ISL	12.27	12.25	33.261	25.192	279.7	.419	5.29	87.0							126
1	143	11.66	11.65	33.380	25.397	260.4	.468	5.19	84.3	8.9	.91	9.5	.01	.04	.05	144
	150 ISL	11.44	11.42	33.430	25.478	253.0	.485	5.06	81.7							151
1	161	11.05	11.03	33.519	25.617	239.9	.513	4.81	77.1	12.2	1.11	13.2	.01	.02	.03	162
1	181	10.36	10.34	33.674	25.859	217.2	.559	4.16	65.1	17.7	1.38	18.0	.01			182
	200 ISL	9.84	9.82	33.755	26.011	203.0	.598	4.14	64.7							201
1	201	9.81	9.79	33.759	26.018	202.3	.600	4.14	64.7	22.6	1.58	20.9	.01			202
1	230	9.13	9.10	33.886	26.230	182.5	.656	3.16	48.7	28.1	1.76	24.4	.00			231
	250 ISL	8.87	8.84	33.936	26.311	175.1	.692	2.88	44.2							252
1	265	8.68	8.65	33.967	26.365	170.3	.724	2.76	42.1	33.5	1.95	27.1	.00			270
	300 ISL	8.21	8.18	34.019	26.477	160.0	.776	2.49	37.7							302
1	327	7.79	7.75	34.056	26.569	151.5	.818	2.25	33.7	43.2	2.17	30.6	.01			329
	400 ISL	6.78	6.74	34.132	26.771	132.9	.922	1.29	18.8							403
1	401	6.77	6.73	34.132	26.771	132.7	.922	1.28	18.7	60.0	2.63	36.0	.01			403
1	476	5.97	5.93	34.157	26.895	121.4	1.018	.83	11.9	72.7	2.94	39.3	.00			479
	500 ISL	5.77	5.73	34.171	26.931	118.1	1.047	.72	10.2							504
1	553	5.41	5.37	34.210	27.006	111.2	1.108	.51	7.2	84.4	3.01	41.3	.00			557

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 14.7 N	123 29.5 W	14/07/84	1817 GMT	4023 M	280	6 KT	320 6 10	2	1016.0 MB	17.9 C	15.0 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1 ISL	16.58	16.58	33.123	24.172	373.6	.000	5.76	103.3							0
1	1	16.58	16.58	33.123	24.172	373.7	.004	5.76	103.3	2.2	.32	.0	.00	.08	.02	1
	10 ISL	16.61	16.61	33.120	24.164	374.7	.037	5.76	103.3							10
1	11	16.61	16.61	33.120	24.164	374.7	.041	5.76	103.3	2.2	.32	.0	.00	.07	.02	11
	20 ISL	16.58	16.58	33.119	24.170	374.5	.075	5.75	103.1							20
1	26	16.56	16.55	33.115	24.173	374.4	.097	5.74	103.0	2.2	.32	.0	.00	.07	.02	26
	30 ISL	16.55	16.54	33.117	24.176	374.2	.112	5.74	102.8							30
1	39	16.53	16.52	33.120	24.183	373.8	.145	5.74	102.8	2.2	.31	.0	.00	.07	.02	39
	50 ISL	16.36	16.35	33.121	24.225	370.2	.187	5.79	103.4							50
1	55	16.28	16.27	33.122	24.243	368.7	.205	5.81	103.6	2.2	.31	.0	.00	.11	.02	55
1	65	15.36	15.35	33.191	24.503	344.1	.240	6.01	105.2	2.2	.32	.0	.00	.14	.04	65
1	75	14.93	14.92	33.322	24.697	375.9	.273	6.23	108.2	2.2	.32	.0	.00	.18	.08	75
1	89	14.49	14.48	33.339	24.804	316.0	.318	5.93	102.1	2.1	.33	.0	.03	.28	.15	89
	100 ISL	13.81	13.80	33.227	24.859	311.0	.354	5.87	99.5							101
1	103	13.64	13.63	33.201	24.874	309.6	.362	5.86	99.1	2.6	.54	2.6	.71	.24	.15	103
1	119	12.75	12.74	33.216	25.063	291.8	.410	5.75	95.4	4.4	.67	5.2	.02	.10	.13	119
	125 ISL	12.55	12.53	33.263	25.140	284.7	.428	5.67	93.7							126
1	142	12.06	12.04	33.411	25.348	265.2	.476	5.35	87.6	6.9	.80	7.6	.02	.07	.08	143
	150 ISL	11.71	11.69	33.455	25.448	255.9	.496	5.15	83.7							151
1	162	11.15	11.13	33.521	25.602	241.4	.527	4.79	77.0	11.8	1.08	12.7	.01	.02	.06	163
1	182	10.50	10.48	33.631	25.802	222.6	.573	3.83	59.9	16.3	1.33	16.7	.00			183
	200 ISL	9.94	9.91	33.717	25.965	207.4	.611	3.80	59.5							201
1	201	9.91	9.88	33.722	25.974	206.5	.613	3.80	59.5	21.5	1.54	20.0	.02			202
1	231	9.11	9.09	33.880	26.227	182.8	.671	3.09	47.6	28.9	1.80	24.8	.00			232
	250 ISL	8.76	8.74	33.945	26.333	172.9	.705	2.80	42.9							252
1	272	8.44	8.41	33.993	26.422	164.8	.742	2.59	39.3	36.1	2.06	28.2	.00			273
	300 ISL	8.01	7.98	34.028	26.513	156.4	.787	2.46	37.0							302
1	330	7.60	7.56	34.049	26.591	149.3	.834	2.34	34.8	45.1	2.23	31.1	.00			332
	400 ISL	6.73	6.69	34.122	26.769	132.9	.932	1.39	20.3							403
1	406	6.67	6.63	34.126	26.781	131.8	.939	1.31	19.1	60.4	2.66	36.4	.00			408
1	479	6.00	5.96	34.154	26.889	122.0	1.033	.84	12.1	72.3	2.87	39.3	.00			482
	500 ISL	5.82	5.78	34.165	26.921	119.1	1.058	.74	10.6							504
1	553	5.39	5.34	34.198	27.000	111.8	1.120	.56	7.9	83.7	3.04	41.3	.00			557

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 53.4 N	118 29.8 W	11/07/84	1520 GMT	52 M	250	4 KT	250 2 4	1	1014.0 MB	20.0 C	18.0 C	1/8		AC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	10	16.68	16.68	33.567	24.491	343.6	.034	6.11	110.1	2.6	.35	.0	.01	.22	.09	10

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 49.4 N	118 37.7 W	11/07/84	1755 GMT	648 M	270	7 KT	250 2 5	1	1014.0 MB	22.1 C	19.0 C	1/8		AC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0	19.60	19.60	33.624	23.819	407.4	.000	5.77	110.0	1.4	.21	.0	.00	.16	.07	0
1	1C ISL	19.21	19.21	33.628	23.921	398.0	.040	6.23	118.0							10
1	11	19.17	19.17	33.628	23.931	397.1	.044	6.27	118.5	1.3	.21	.0	.02	.23	.05	11
1	20	17.63	17.62	33.571	24.271	366.9	.078	6.52	119.7	2.4	.24	.0	.00	.15	.07	20
1	3C ISL	16.21	16.21	33.538	24.577	336.0	.114	6.26	111.7							30
1	32	15.94	15.93	33.534	24.636	330.5	.120	6.19	109.9	2.5	.29	.0	.00	.18	.06	32
1	41	14.25	14.24	33.522	24.995	296.5	.148	6.08	104.3	3.3	.37	.0	.00	.25	.09	41
1	5C ISL	13.29	13.28	33.509	25.182	278.8	.174	5.40	90.8							50
1	51	13.22	13.21	33.508	25.196	277.6	.176	5.32	89.3	6.6	.67	3.3	.44	.87	.29	51
1	62	11.95	11.94	33.538	25.466	252.1	.205	4.25	69.5	12.9		13.3	.99	.27	.26	62
1	72	11.43	11.43	33.572	25.587	240.7	.230	4.02	65.0	14.1	1.16	14.3	.10	.19	.23	72
1	75 ISL	11.34	11.33	33.581	25.612	238.3	.238	3.98	64.2							75
1	87	10.99	10.98	33.623	25.707	229.6	.265	3.83	61.4	16.5	1.27	16.5	.06	.06	.16	87
1	100 ISL	10.27	10.26	33.719	25.908	210.7	.295	3.52	55.6							101
1	101	10.25	10.24	33.723	25.916	210.0	.296	3.51	55.4	20.6	1.47	19.9	.02	.05	.11	101
1	120	9.89	9.88	33.798	26.034	199.0	.336	3.30	51.7	23.7	1.61	21.8	.02	.02	.10	121
1	125 ISL	9.80	9.79	33.820	26.067	196.0	.345	3.24	50.6							126
1	145	9.43	9.42	33.914	26.201	183.6	.384	2.96	45.9	28.2	1.77	24.3	.02	.01	.05	146
1	150 ISL	9.39	9.37	33.931	26.222	181.7	.392	2.92	45.2							151
1	174	9.21	9.19	34.002	26.306	174.3	.435	2.71	41.9	31.6	1.90	26.2	.03			175
1	200 ISL	8.99	8.97	34.063	26.390	166.7	.480	2.42	37.2							201
1	204	8.95	8.93	34.070	26.401	165.7	.486	2.38	36.6	35.3	2.02	27.3	.02			205
1	235	8.74	8.71	34.106	26.464	160.3	.536	2.20	33.6	37.6	2.10	28.5	.02			236
1	250 ISL	8.63	8.61	34.112	26.485	158.5	.561	2.15	32.8							252
1	272	8.47	8.45	34.120	26.516	156.0	.596	2.07	31.5	40.1	2.20	29.2	.02			274
1	300 ISL	8.22	8.19	34.153	26.581	150.1	.638	1.81	27.3							302
1	331	7.91	7.88	34.193	26.658	143.3	.684	1.48	22.2	48.4	2.41	32.5	.01			333
1	400 ISL	7.37	7.33	34.215	26.755	134.9	.780	1.09	16.2							403
1	405	7.33	7.29	34.215	26.761	134.3	.787	1.07	15.9	56.4	2.62	34.9	.02			408
1	482	6.80	6.75	34.269	26.877	124.1	.885	.63	9.2	65.2	2.79	37.4	.00			485
1	500 ISL	6.65	6.60	34.278	26.905	121.6	.908	.56	8.1							504
1	560	6.08	6.03	34.300	26.996	113.2	.978	.41	5.9	76.6	2.92	39.8	.00			564

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 54.6 N	118 58.3 W	11/07/84	2255 GMT	650 M	290	6 KT	250 2 8	1	1012.0 MB	22.6 C	19.2 C	1/8		AC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	1 ISL	21.52	21.52	33.674	23.345	456.3	.000	5.49	108.4							0
1	1	21.52	21.52	33.674	23.345	452.6	.005	5.49	108.4	2.8	.19	.0	.00	.12	.03	1
1	11	20.24	20.24	33.654	23.674	421.5	.044	5.77	111.3							10
1	20	18.99	18.99	33.651	23.706	418.5	.048	5.80	111.6	2.8	.19	.0	.01	.15	.03	11
1	21	18.84	18.84	33.613	23.965	394.1	.085	6.06	114.1							20
1	31	16.11	16.10	33.607	23.999	390.9	.088	6.08	114.2	2.8	.22	.0	.00	.20	.05	21
1	35 ISL	16.11	16.10	33.552	24.612	332.7	.121	6.25	111.4							30
1	41	15.84	15.84	33.551	24.671	327.1	.124	6.26	110.9	3.0	.28	.0	.00	.25	.06	31
1	51	14.80	14.79	33.534	24.887	306.7	.156	6.12	106.2	3.8	.35	.0	.01	.22	.21	41
1	51 ISL	13.87	13.87	33.530	25.080	288.6	.183	5.71	97.3							50
1	51	13.80	13.79	33.530	25.096	287.1	.185	5.67	96.4	5.3	.51	1.8	.12	.77	.30	51
1	62	12.84	12.83	33.540	25.295	268.4	.216	5.04	84.0	8.4	.74	7.0	.12	.43	.39	62
1	71	12.44	12.43	33.538	25.373	261.2	.239	4.72	78.0	10.2	.87	9.0	.06	.30	.36	71
1	75 ISL	12.15	12.14	33.546	25.435	255.3	.250	4.58	75.2							75
1	85	11.44	11.43	33.581	25.593	240.5	.274	4.28	69.3	13.6	1.08	13.3	.06	.13	.22	85
1	100 ISL	10.55	10.54	33.668	25.820	219.1	.310	3.84	61.1							101
1	101	10.53	10.52	33.671	25.826	218.5	.311	3.83	60.8	18.8	1.33	17.6	.03	.06	.10	101
1	110	9.99	9.97	33.763	25.991	203.1	.351	3.40	53.4	23.3	1.59	21.1	.01	.02	.10	120
1	125 ISL	9.85	9.84	33.789	26.033	199.2	.362	3.32	51.9							126
1	144	9.48	9.47	33.874	26.162	187.4	.399	3.08	47.8	27.7	1.76	23.9	.01	.01	.10	145
1	150 ISL	9.41	9.39	33.899	26.194	184.4	.410	3.01	46.7							151
1	174	9.14	9.12	33.994	26.312	173.6	.453	2.73	42.1	31.9	1.90	26.2	.01			175
1	200 ISL	8.77	8.75	34.060	26.422	163.6	.496	2.47	37.8							201
1	202	8.74	8.72	34.064	26.429	162.9	.500	2.45	37.5	36.7	2.02	27.8	.01			203
1	232	8.33	8.31	34.102	26.522	154.5	.547	2.19	33.2	41.0	2.15	29.3	.01			233
1	250 ISL	8.05	8.03	34.121	26.580	149.2	.575	1.98	29.9							252
1	271	7.75	7.73	34.142	26.641	143.7	.606	1.74	26.0	48.2	2.33	32.1	.01			273
1	300 ISL	7.55	7.52	34.170	26.692	139.2	.646	1.47	21.9							302
1	330	7.41	7.38	34.197	26.734	135.7	.688	1.23	18.3	55.1	2.57	34.5	.01			332
1	400 ISL	6.93	6.89	34.245	26.839	126.5	.780	.83	12.2							403
1	404	6.90	6.86	34.247	26.845	126.0	.785	.81	11.9	63.4	2.75	36.5	.01			407
1	482	6.41	6.37	34.2												

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER		BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE
33 29.4 N		119 19.1 W		12/07/84	0357	GMT	1627 M	280	18 KT	290	4 5	1	1011.0 MB	18.0 C	16.3 C	2/8	AC
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C	20.00	20.00	33.660	23.741	414.7	.000	5.58	107.2	6.5	.21	.0	.00	.13	.04	0	
1	10 ISL	19.33	19.33	33.646	23.903	399.7	.041	5.68	107.8							10	
1	11	19.27	19.27	33.645	23.919	398.2	.045	5.70	108.0	2.0	.22	.0	.00	.14	.04	11	
1	20	17.04	17.04	33.614	24.443	348.5	.078	5.95	108.0	1.9	.26	.0	.00	.18	.02	20	
1	30 ISL	15.91	15.91	33.645	24.727	321.7	.112	6.10	108.2							30	
1	31	15.83	15.83	33.645	24.746	320.0	.115	6.10	108.1	1.1	.31	.0	.01	.39	.05	31	
1	40	14.15	14.14	33.559	25.045	291.7	.142	6.03	103.3	2.9	.44	.9	.08	1.20	.09	40	
1	49	12.76	12.76	33.524	25.299	267.7	.167	5.08	84.5	7.2	.73	5.5	.24	.93	.24	49	
1	50 ISL	12.64	12.63	33.525	25.324	265.3	.170	4.98	82.7							50	
1	61	11.75	11.74	33.569	25.527	246.1	.198	4.33	70.5	12.1	1.08	12.3	.10	.40	.35	61	
1	70	11.07	11.06	33.632	25.699	230.0	.219	3.97	63.8	16.0	1.25	16.1	.05	.22	.21	70	
1	75 ISL	10.84	10.83	33.656	25.759	224.3	.231	3.85	61.5							75	
1	85	10.52	10.52	33.694	25.845	216.4	.252	3.68	58.4	19.4	1.42	18.6	.03	.08	.17	85	
1	100	9.93	9.92	33.777	26.011	200.8	.283	3.35	52.5	23.8	1.63	22.0	.02	.05	.12	100	
1	119	9.58	9.57	33.819	26.102	192.6	.322	3.20	49.8	26.1	1.72	23.4	.02	.01	.08	120	
1	125 ISL	9.47	9.45	33.840	26.137	189.3	.333	3.15	48.9							126	
1	144	9.05	9.04	33.921	26.268	177.2	.368	2.94	45.2	30.5	1.89	25.7	.01	.01	.09	145	
1	150 ISL	8.92	8.91	33.941	26.304	173.8	.379	2.85	43.7							151	
1	174	8.46	8.44	34.019	26.438	161.5	.419	2.46	37.4	37.4	2.05	28.3	.01			175	
1	200 ISL	8.22	8.20	34.088	26.528	153.3	.460	2.17	32.8							201	
1	203	8.20	8.18	34.095	26.537	152.6	.464	2.14	32.3	41.8	2.19	30.1	.01			204	
1	232	7.72	7.70	34.144	26.646	142.5	.507	1.62	24.2	49.1	2.41	32.6	.02			233	
1	250 ISL	7.57	7.55	34.163	26.683	139.2	.532	1.44	21.5							252	
1	271	7.47	7.44	34.178	26.710	137.0	.562	1.32	19.6	53.5	2.53	34.1	.01			273	
1	300 ISL	7.34	7.31	34.188	26.736	135.0	.601	1.21	18.0							302	
1	331	7.21	7.18	34.193	26.759	133.2	.642	1.13	16.7	57.8	2.64	35.3	.02			333	
1	400 ISL	6.82	6.78	34.223	26.837	126.6	.732	.86	12.6							403	
1	402	6.80	6.77	34.224	26.840	126.4	.735	.85	12.4	64.4	2.77	37.2	.01			405	
1	478	6.35	6.30	34.263	26.932	118.4	.827	.59	8.5	72.6	2.92	38.8	.00			481	
1	500 ISL	6.21	6.17	34.273	26.958	116.1	.853	.53	7.7							504	
1	555	5.88	5.83	34.298	27.019	110.7	.916	.42	6.0	81.1	3.02	40.1	.00			559	

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER		BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE
33 19.6 N		119 39.7 W		12/07/84	0749	GMT	79 M	310	15 KT	320	4 4	1011.2 MB	16.2 C	15.1 C			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C	17.29	17.29	33.696	24.447	347.5	.000	5.90	107.7	.8	.21	.0	.01	.86	.08	0	
1	9	17.06	17.06	33.699	24.502	342.5	.031	6.00	109.0	1.0	.24	.1	.01	.92	.09	9	
1	10 ISL	16.87	16.87	33.695	24.545	338.5	.034	5.99	108.4							10	
1	20	14.69	14.68	33.668	25.014	294.1	.066	5.91	102.4	2.7	.46	2.8	.10	3.37	.34	20	
1	29	13.39	13.39	33.651	25.271	269.8	.091	5.26	88.7	6.9	.75	7.4	.17	2.63	.15	29	
1	39	11.36	11.35	33.654	25.664	232.6	.116	4.20	67.9	15.4	1.24	15.9	.15	.66	.26	39	
1	50	10.24	10.24	33.744	25.931	207.3	.140	3.49	55.1	22.4	1.53	20.9	.08	.09	.14	50	

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER		BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE
33 09.5 N		120 00.5 W		12/07/84	1250	GMT	1207 M	310	14 KT			1012.0 MB	15.8 C	14.1 C			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	C	16.79	16.79	33.702	24.569	335.9	.000	5.81	105.0							0	
1	1	16.79	16.79	33.702	24.568	335.9	.003	5.81	105.0	.3	.24	.0	.01	.33	.09	1	
1	10 ISL	16.80	16.80	33.703	24.566	336.4	.034	5.84	105.5							10	
1	11	16.81	16.80	33.703	24.566	336.5	.037	5.84	105.6	.5	.24	.0	.01	.37	.08	11	
1	20 ISL	16.66	16.65	33.706	24.604	333.2	.067	5.83	105.0							20	
1	26	16.56	16.56	33.708	24.627	331.1	.087	5.82	104.7	.5	.24	.1	.01	.44	.07	26	
1	30 ISL	15.44	15.44	33.698	24.874	307.7	.100	5.53	97.3							30	
1	40	12.55	12.54	33.734	25.503	248.0	.127	4.69	77.8	9.6	.98	11.1	.22	1.28	.27	40	
1	50 ISL	11.33	11.32	33.759	25.752	224.5	.151	4.01	64.8							50	
1	55	11.01	11.00	33.761	25.811	218.9	.162	3.74	60.0	18.8	1.43	18.2	.25	1.00	.75	55	
1	66	10.05	10.05	33.785	25.996	201.5	.185	3.24	50.9	24.4	1.61	22.3	.08	.29	.48	66	
1	75 ISL	9.86	9.86	33.802	26.041	197.4	.203	3.17	49.6							76	
1	76	9.86	9.85	33.803	26.043	197.2	.204	3.17	49.6	25.4	1.66	22.8	.06	.17	.37	76	
1	90	9.23	9.22	33.885	26.211	181.5	.231	2.91	44.9	29.9	1.79	25.2	.03	.05	.15	90	
1	100 ISL	8.98	8.97	33.924	26.281	174.9	.249	2.71	41.6							101	
1	103	8.92	8.91	33.934	26.298	173.4	.256	2.65	40.7	33.2	1.91	27.1	.03	.02	.13	104	
1	119	8.70	8.69	33.966	26.358	168.0	.283	2.59	39.5	34.9	1.99	27.6	.03	.02	.12	120	
1	125 ISL	8.60	8.59	33.979	26.384	165.7	.292	2.58	39.4							126	
1	144	8.27	8.26	34.018	26.464	158.3	.323	2.56	38.7	37.8	2.04	28.6	.03	.00	.10	145	
1	150 ISL	8.20	8.18	34.025	26.481	156.8	.332	2.51	37.9							151	
1	164	7.06	7.04	34.039	26.514	153.9	.354	2.38	35.8	40.6	2.11	29.6	.02	.00	.08	165	
1	182	7.96	7.94	34.050	26.537	152.1	.382	2.32	34.8	41.9	2.15	30.1	.01			183	
1	200 ISL	7.69	7.67	34.083	26.603	146.0	.408	1.98	29.6							201	
1	203	7.64	7.62	34.089	26.614	144.9	.413	1.92	28.6	47.9	2.38	32.1	.01			204	
1	232	7.33	7.31	34.122	26.685	138.6	.453	1.58	23.4	53.0	2.46	33.9	.01			233	
1	250 ISL	7.14	7.12	34.135	26.721	135.3	.479	1.42	21.0							252	
1	270	6.96	6.93	34.148	26.757	132.2	.506	1.28	18.8	57.6	2.59	35.4	.01			272	
1	300 ISL	6.76	6.73	34.171	26.803	128.2	.544	1.07	15.7							302	
1	331	6.59	6.56	34.196	26.845	124.6	.583	.89	13.0	66.2	2.76	37.8	.01			333	
1	400 ISL	6.28	6.25	34.247	26.926	117.7	.667	.60	8.7							403	
1	404	6.26	6.23	34.249	26.930	117.3	.672	.59	8.5	72.8	2.90	39.2	.01			407	
1	480	5.95	5.91	34.286	27.000	111.5	.758	.43	6.2	79.1	3.00	40.2	.00			483	

LATITUDE		LONGITUDE		DAY/MO/YR	MESSNGR	BOTTOM	WIND SPEED		WAVES		WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE
32 59.4 N		120 21.0 W		12/07/84	1637 GMT	704 M	310	12 KT	300	5 5	2	1011.0 MB	16.3 C	14.3 C		R/S		ST
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAE0	PRESS		
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR		
	C ISL	16.78	16.78	33.704	24.572	335.6	.000	5.81	105.0		.22	.0	.00	.51	.03			0
1	1	16.78	16.78	33.704	24.572	335.6	.003	5.81	105.0	.4	.22	.0	.00	.48	.05			1
1	10	16.77	16.77	33.703	24.574	335.7	.033	5.91	106.8	.3	.23	.0	.00					10
	20 ISL	15.57	15.57	33.639	24.799	314.5	.066	5.82	102.6									20
1	21	15.44	15.44	33.634	24.823	312.3	.069	5.81	102.2	1.5	.38	1.3	.05	.46	.23			21
1	30	14.91	14.90	33.635	24.941	301.3	.096	5.57	96.9	2.5	.52	1.9	.10	.41	.18			30
1	40	13.95	13.95	33.639	25.147	282.0	.125	5.15	87.9	6.0	.76	5.8	.31	.39	.28			40
1	48	12.06	12.05	33.644	25.527	245.9	.146	4.41	72.3	14.2	1.16	14.5	.23	.22	.20			48
	50 ISL	11.72	11.72	33.645	25.590	239.9	.152	4.32	70.3									50
1	60	10.84	10.83	33.653	25.757	224.2	.174	4.10	65.5	17.7	1.41	18.4	.03	.08	.16			60
1	69	10.58	10.57	33.695	25.836	216.9	.194	3.83	60.9	19.2	1.50	19.9	.02	.06	.11			69
	75 ISL	10.30	10.29	33.723	25.906	210.3	.208	3.69	58.3									75
1	84	9.91	9.90	33.762	26.003	201.2	.225	3.52	55.2	23.5	1.64	22.3	.02	.03	.10			84
1	98	9.47	9.46	33.822	26.122	190.1	.253	3.24	50.3	26.5	1.72	24.1	.02	.01	.09			98
	100 ISL	9.43	9.41	33.832	26.138	188.7	.257	3.18	49.3									101
1	118	9.13	9.11	33.901	26.240	179.3	.291	2.77	42.7	30.2	1.88	26.3	.02	.01	.08			119
1	125 ISL	8.97	8.96	33.928	26.286	175.1	.303	2.68	41.2									126
1	142	8.55	8.54	33.990	26.399	164.5	.332	2.53	38.5	35.4	2.02	28.2	.02	.00	.08			143
	150 ISL	8.42	8.40	34.007	26.434	161.3	.345	2.50	37.9									151
1	172	8.09	8.07	34.039	26.509	154.5	.380	2.43	36.6	39.6	2.10	29.5	.02					173
1	200	7.71	7.69	34.066	26.586	147.6	.422	2.21	33.0	44.0	2.20	31.0	.02					201
1	229	7.42	7.40	34.085	26.642	142.7	.463	1.93	28.6	48.4	2.32	32.4	.02					230
	250 ISL	7.21	7.18	34.111	26.694	138.0	.493	1.64	24.2									252
1	268	7.03	7.00	34.136	26.738	134.0	.518	1.39	20.4	56.1	2.54	35.2	.02					270
	300 ISL	6.77	6.74	34.160	26.792	129.2	.560	1.13	16.5									302
1	327	6.58	6.55	34.174	26.829	126.0	.594	.98	14.3	63.8	2.75	37.2	.01					329
	400 ISL	6.14	6.11	34.221	26.923	117.8	.683	.67	9.7									403
1	401	6.14	6.10	34.222	26.926	117.6	.685	.67	9.7	72.2	2.92	39.2	.00					404
1	477	5.81	5.77	34.315	27.040	107.6	.770	.38	5.4	81.1	3.05	40.6	.00					480
	500 ISL	5.70	5.66	34.332	27.068	105.2	.795	.38	5.4									504
1	554	5.41	5.36	34.352	27.119	100.6	.850	.38	5.4	89.2	3.12	41.6	.00					558

LATITUDE		LONGITUDE		DAY/MO/YR	MESSNGR	BOTTOM	WIND SPEED		WAVES		WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE
32 39.4 N		121 01.7 W		13/07/84	2238 FMT	365R M	340	14 KT	320	6 5	2	1012.0 MB	16.4 C	14.0 C		R/S		ST
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAE0	PRESS		
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR		
	C ISL	14.80	14.80	33.227	24.649	328.3	.000	6.13	106.2									0
1	1	14.80	14.80	33.227	24.649	328.2	.003	6.13	106.2	1.8	.39	.9	.07	.33	.03			1
	10 ISL	14.80	14.80	33.234	24.655	327.9	.033	6.23	107.9									10
1	11	14.80	14.80	33.235	24.656	327.9	.036	6.23	107.9	1.7	.41	.9	.07	.33	.05			11
	20 ISL	14.81	14.81	33.330	24.727	321.4	.065	6.17	106.9									20
1	21	14.81	14.81	33.342	24.736	320.6	.068	6.16	106.8	1.6	.42	1.2	.09	.34	.06			21
	30 ISL	13.98	13.98	33.225	24.821	312.7	.097	6.12	104.2									30
1	31	13.90	13.89	33.215	24.830	311.8	.100	6.11	103.9	1.9	.47	2.0	.17	.50	.22			31
1	39	13.69	13.68	33.285	24.927	302.8	.124	6.01	101.8	2.3	.55	2.9	.27	.43	.38			39
1	50	13.15	13.15	33.247	25.006	295.5	.157	5.94	99.5	2.7	.59	3.4	.44	.37	.36			50
1	60	13.08	13.07	33.258	25.030	293.5	.186	5.93	99.1	3.1	.64	3.8	.49	.29	.31			60
1	71	12.79	12.78	33.302	25.122	285.0	.218	5.74	95.4	4.1	.72	5.0	.66	.24	.19			71
	75 ISL	12.63	12.62	33.300	25.151	282.4	.230	5.68	94.0									75
1	85	12.21	12.20	33.291	25.226	275.5	.257	5.52	90.6	5.3	.80	7.3	.65	.12	.13			85
1	98	11.47	11.45	33.329	25.393	259.7	.292	5.22	84.4	9.1	.98	10.6	.20	.07	.09			98
	100 ISL	11.26	11.25	33.347	25.445	254.9	.298	5.09	82.0									101
1	118	9.85	9.84	33.533	25.833	215.0	.342	4.05	63.3	19.3	1.42	18.9	.02	.02	.10			119
1	125 ISL	9.68	9.67	33.612	25.924	209.6	.356	3.79	59.0									126
1	143	9.48	9.46	33.804	26.107	192.5	.392	3.27	50.8	27.0	1.76	24.6	.02	.02	.12			144
	150 ISL	9.33	9.31	33.842	26.161	187.5	.405	3.19	49.4									151
1	172	8.82	8.80	33.918	26.303	174.3	.445	2.94	45.0	31.4	1.85	26.3	.02					173
1	200 ISL	8.31	8.29	33.994	26.441	161.6	.492	3.42	51.7									201
1	202	8.28	8.26	33.998	26.449	160.9	.495	3.45	52.2	33.6	1.80	25.6	.02					203
1	233	7.89	7.87	34.027	26.530	153.6	.543	3.15	47.2	38.0	1.89	27.2	.02					234
	250 ISL	7.73	7.71	34.044	26.566	150.4	.570	2.87	42.9									252
1	272	7.53	7.51	34.059	26.607	146.8	.603	2.49	37.0	45.3	2.15	30.5	.01					274
	300 ISL	7.16	7.13	34.061	26.661	141.9	.643	2.20	32.5									302
1	333	6.71	6.68	34.062	26.724	136.1	.689	1.91	27.9	55.8	2.40	34.4	.01					335
	400 ISL	6.08	6.05	34.114	26.847	125.0	.776	1.13	16.3									403
1	407	6.03	6.00	34.122	26.859	123.8	.785	1.05	15.1	70.1	2.74	38.8	.00					410
1	484	5.79	5.74	34.221	26.969	114.3	.876	.56	8.0	78.8	2.96	40.7	.00					487
	500 ISL	5.72	5.68	34.238	26.991	112.4	.895	.49	7.0									504
1	559	5.45	5.40	34.286	27.062	106.1	.959	.36	5.1	86.6	3.09	41.7	.00					563



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WFT	CLOUD	AMT	TYPE		
32 19.4 N	121 42.9 W	13/07/84	0503 GMT	4005 M	350	18 KT			1010.0 MB	15.3 C	13.5 C					
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	14.81	14.81	32.983	24.458	346.4	.000	6.04	104.5	2.1	.36	.4	.03	.20	.02	0
	10 ISL	14.81	14.81	32.983	24.458	346.6	.035	6.29	108.8							10
1	11	14.81	14.81	32.983	24.458	346.6	.038	6.30	109.0	1.8	.37	.4	.03	.17	.05	11
	20 ISL	14.67	14.67	32.986	24.491	343.8	.069	6.24	107.7							20
1	25	14.61	14.61	33.009	24.522	341.0	.086	6.21	107.0	2.1	.36	.2	.01	.19	.07	25
	30 ISL	14.68	14.67	33.089	24.570	336.6	.103	6.15	106.2							30
1	40	14.81	14.80	33.274	24.685	325.9	.136	6.02	104.3	2.4	.32	.0	.00	.21	.11	40
	50 ISL	14.00	14.00	33.238	24.827	312.7	.168	5.88	100.2							50
1	56	13.48	13.47	33.200	24.905	305.3	.186	5.82	98.1	3.3	.44	1.3	.11	.45	.21	56
1	65	13.00	13.08	33.220	24.999	296.6	.213	5.81	97.1	3.5	.57	3.7	.05	.36	.17	65
	75 ISL	12.93	12.92	33.220	25.030	293.9	.243	5.75	95.8							75
1	77	12.91	12.90	33.222	25.036	293.4	.248	5.74	95.6	4.0	.62	4.4	.02	.21	.11	77
1	91	12.20	12.19	33.323	25.251	273.2	.288	5.35	87.8	6.0	.73	6.2	.07	.10	.14	91
	100 ISL	11.69	11.68	33.437	25.437	255.7	.313	5.16	83.9							101
1	106	11.39	11.38	33.501	25.541	245.9	.326	5.04	81.4	9.0	.89	9.5	.02	.07	.06	106
1	120	10.69	10.67	33.565	25.716	229.4	.362	4.50	71.6	13.1	1.11	13.8	.02	.02	.05	121
	125 ISL	10.48	10.46	33.595	25.777	223.7	.372	4.33	68.6							126
1	147	9.58	9.57	33.747	26.046	198.4	.419	3.62	56.3	22.3	1.57	21.5	.00	.01	.02	148
	150 ISL	9.50	9.49	33.762	26.071	176.1	.425	3.56	55.3							151
1	165	9.14	9.12	33.833	26.186	185.4	.454	3.33	51.3	26.5	1.74	24.0	.00	.01	.04	166
1	186	8.85	8.81	33.893	26.281	176.6	.491	3.22	49.3	29.0	1.80	25.3	.00			187
	200 ISL	8.62	8.60	33.933	26.346	170.7	.516	3.31	50.5							201
1	205	8.54	8.52	33.946	26.368	168.7	.524	3.34	50.8	30.8	1.81	25.4	.00			206
1	235	8.09	8.07	34.013	26.489	157.5	.573	2.92	44.0	37.1	1.99	28.2	.00			236
	250 ISL	7.78	7.75	34.027	26.546	152.3	.596	2.77	41.5							252
1	273	7.31	7.28	34.038	26.623	145.2	.631	2.56	37.9	46.0	2.18	31.1	.00			275
	300 ISL	6.97	6.95	34.055	26.682	139.8	.669	2.21	32.4							302
1	331	6.68	6.64	34.072	26.736	134.9	.712	1.80	26.2	55.9	2.47	36.5	.00			333
	400 ISL	5.97	5.93	34.101	26.851	124.5	.801	1.24	17.8							403
1	405	5.91	5.88	34.103	26.859	123.7	.808	1.21	17.3	68.9	2.73	38.9	.00			408
1	482	5.37	5.33	34.153	26.965	114.2	.899	.79	11.2	80.8	2.93	41.3	.00			485
	500 ISL	5.27	5.23	34.169	26.990	111.9	.919	.70	9.9							504
1	561	4.99	4.95	34.239	27.078	104.0	.985	.46	6.4	91.6	3.06	42.8	.00			565

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WFT	CLOUD	AMT	TYPE		
31 59.5 N	122 23.3 W	13/07/84	1200 GMT	4169 M	320	17 KT			1009.0 MB	15.0 C	13.2 C					
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1 ISL	16.57	16.57	33.146	24.193	371.6	.000	5.73	102.8							0
1	2	16.57	16.57	33.146	24.193	371.7	.007	5.73	102.8	2.1	.32	.4	.00	.05	.02	2
1	10	16.58	16.57	33.147	24.193	372.0	.037	5.87	105.3	1.9	.32	.5	.00	.05	.02	10
	20 ISL	16.58	16.58	33.146	24.191	372.5	.074	5.80	104.0							20
1	26	16.58	16.58	33.145	24.191	372.7	.096	5.72	102.6	1.9	.32	.5	.00	.05	.02	26
	30 ISL	16.58	16.57	33.145	24.191	372.8	.112	5.72	102.6							30
1	41	16.57	16.56	33.144	24.193	373.0	.152	5.72	102.6	1.9	.32	.6	.00	.06	.02	41
	50 ISL	15.95	15.94	33.120	24.317	361.5	.186	5.87	103.9							50
1	56	15.44	15.44	33.114	24.424	351.4	.206	5.97	104.7	1.8	.32	.6	.00	.11	.03	56
1	65	14.78	14.77	33.145	24.595	355.4	.237	6.04	104.5	1.9	.32	.7	.00	.11	.04	65
	75 ISL	14.91	14.90	33.261	24.654	330.0	.271	5.99	103.9							75
1	76	14.93	14.91	33.268	24.656	329.8	.274	5.98	103.8	1.9	.32	.8	.00	.22	.11	76
1	89	14.23	14.21	33.236	24.781	318.2	.316	5.87	100.5	2.7	.38	1.2	.15	.32	.25	89
	100 ISL	13.84	13.82	33.337	24.939	303.4	.351	5.68	96.5							101
1	105	13.65	13.63	33.375	25.008	297.0	.365	5.60	94.8	3.1	.47	2.9	.06	.17	.18	105
1	119	12.50	12.49	33.312	25.186	280.2	.405	5.44	89.9	5.1	.71	7.1	.02	.10	.08	119
	125 ISL	12.13	12.11	33.338	25.278	271.5	.423	5.27	86.4							126
1	143	11.27	11.25	33.474	25.542	246.6	.470	4.64	74.7	10.5	1.01	12.5	.00	.03	.05	144
	150 ISL	10.97	10.95	33.519	25.632	238.1	.486	4.38	70.1							151
1	163	10.40	10.38	33.611	25.803	222.1	.517	3.93	62.2	17.0	1.37	18.8	.00	.01	.02	164
1	183	9.69	9.67	33.752	26.033	200.4	.559	3.76	58.6	21.2	1.51	21.7	.00			184
	200 ISL	9.31	9.29	33.847	26.169	187.8	.592	3.83	59.3							201
1	203	9.26	9.24	33.861	26.189	185.9	.597	3.85	59.5	23.5	1.55	22.8	.00			204
1	231	8.85	8.81	33.948	26.325	173.4	.647	3.72	56.9	27.5	1.67	24.4	.00			232
	250 ISL	8.48	8.45	33.983	26.408	165.7	.680	3.61	54.9							252
1	271	8.08	8.06	34.009	26.488	158.4	.713	3.43	51.6	34.5	1.83	27.4	.00			272
	300 ISL	7.55	7.52	34.033	26.585	149.3	.758	2.89	43.0							302
1	330	7.06	7.03	34.048	26.665	141.9	.802	2.31	34.0	50.2	2.26	33.9	.00			332
	400 ISL	6.41	6.37	34.060	26.762	133.2	.898	1.80	26.0							403
1	406	6.37	6.33	34.060	26.768	132.7	.906	1.77	25.6	60.3	2.51	37.7	.00			408
1	482	5.66	5.62	34.123	26.907	120.0	1.002	.97	13.8	75.5	2.82	39.9	.00			485
	500 ISL	5.61	5.57	34.150	26.935	117.5	1.024	.83	11.9							504
1	561	5.43	5.38	34.223	27.015	110.5	1.093	.52	7.4	84.1	3.01	41.8	.00			565

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
31 39.4 N	123 04.2 W	13/07/84	1754 GMT	3749 M	330	15 KT	340 6 6	2	1011.0 MB	17.0 C	14.5 C		8/8	ST	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C	16.68	16.68	33.136	24.160	374.8	.000	5.74	103.2	2.0	.31	.1	.00	.05	.00
1	10	16.65	16.65	33.135	24.166	374.5	.037	5.88	105.6	2.0	.31	.1	.00	.05	.01
1	20 ISL	16.65	16.65	33.135	24.166	374.9	.075	5.83	104.6						.20
1	25	16.65	16.65	33.134	24.165	375.1	.093	5.80	104.2	2.0	.31	.0	.00	.06	.00
1	30 ISL	16.65	16.64	33.133	24.167	375.2	.112	5.77	103.6						.30
1	40	16.63	16.63	33.133	24.170	375.2	.149	5.73	102.9	2.0	.31	.0	.00	.06	.01
1	50 ISL	16.43	16.42	33.123	24.209	371.7	.187	5.79	103.5						.50
1	56	16.31	16.30	33.118	24.232	369.7	.209	5.82	103.8	2.0	.29	.0	.00	.08	.01
1	66	15.10	15.09	33.119	24.503	344.1	.244	6.04	105.2	2.0	.31	.0	.00	.10	.02
1	75 ISL	14.83	14.81	33.166	24.599	335.2	.276	6.03	104.4						.75
1	74	14.80	14.79	33.165	24.603	334.8	.278	6.03	104.4	2.0	.31	.0	.00	.11	.03
1	91	14.90	14.88	33.319	24.703	325.8	.327	5.87	101.9	2.0	.30	.0	.00	.18	.11
1	100 ISL	14.16	14.14	33.264	24.816	315.2	.357	5.80	99.1						.101
1	105	13.76	13.75	33.235	24.876	309.5	.372	5.76	97.7	2.2	.40	.9	.07	.28	.11
1	119	13.40	13.39	33.332	25.025	295.7	.414	5.57	93.8	3.2	.46	2.1	.05	.15	.11
1	125 ISL	12.90	12.88	33.367	25.152	283.7	.433	5.36	89.4						.126
1	144	11.42	11.40	33.444	25.492	251.5	.485	4.78	77.2	9.7	.94	10.7	.00	.02	.04
1	150 ISL	11.30	11.29	33.442	25.512	249.7	.499	4.75	76.5						.151
1	162	11.13	11.11	33.448	25.549	246.4	.529	4.66	74.8	11.8	1.11	12.5	.00	.01	.04
1	183	10.22	10.20	33.619	25.841	218.8	.578	3.93	61.9	18.2	1.41	18.4	.00		.184
1	200 ISL	9.68	9.65	33.767	26.048	199.4	.613	3.47	54.1						.201
1	202	9.62	9.60	33.784	26.070	197.3	.617	3.42	53.2	24.7	1.66	22.9	.00		.203
1	232	9.06	9.03	33.925	26.271	178.6	.673	2.75	42.3	31.2	1.91	26.3	.00		.233
1	250 ISL	8.60	8.58	33.977	26.384	168.1	.704	2.63	40.0						.252
1	269	8.15	8.12	34.013	26.480	159.0	.735	2.58	38.9	38.5	2.07	28.8	.00		.270
1	300 ISL	7.76	7.73	34.044	26.563	151.6	.784	2.37	35.5						.302
1	327	7.54	7.51	34.056	26.605	147.9	.824	2.14	31.8	46.1	2.25	31.6	.00		.329
1	400 ISL	6.76	6.72	34.127	26.769	132.9	.927	1.25	18.3						.403
1	402	6.74	6.70	34.128	26.773	132.6	.929	1.23	18.0	60.3	2.62	36.4	.00		.404
1	475	6.20	6.16	34.202	26.902	120.9	1.022	.71	10.2	71.8	2.86	38.9	.00		.478
1	500 ISL	6.05	6.01	34.223	26.938	117.7	1.052	.60	8.6						.504
1	551	5.80	5.75	34.258	26.998	112.6	1.111	.47	6.7	80.4	2.99	40.3	.00		.555

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
33 28.7 N	117 46.9 W	12/07/84	2240 GMT	185 M	270	12 KT	280 01 02	1	1005.5 MB	22.5 C	21.0 C		1/5	CU	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C ISL	21.85	21.85	33.681	23.258	467.0	.000	5.36	106.5						.0
1	1	21.85	21.85	33.681	23.259	460.9	.005	5.36	106.5	2.4	.22	.0	.00	.20	.01
1	10 ISL	19.70	19.69	33.629	23.797	409.7	.044	5.68	109.5						.10
1	11	19.47	19.47	33.624	23.852	404.6	.048	5.71	108.6	2.5	.24	.0	.00	.20	.02
1	20 ISL	17.23	17.23	33.545	24.344	357.9	.082	5.97	108.7						.20
1	30 ISL	15.20	15.20	33.494	24.768	317.8	.116	6.10	106.7						.30
1	32	14.87	14.87	33.486	24.834	311.6	.122	6.11	106.1	3.1	.35	.0	.00	.22	.08
1	42	13.93	13.92	33.485	25.033	292.8	.152	5.96	101.6	3.8	.45	.0	.00	.38	.06
1	50 ISL	13.14	13.14	33.497	25.202	276.9	.175	5.44	91.3						.50
1	57	12.56	12.56	33.514	25.330	264.9	.194	4.96	82.2	8.5	.83	6.2	.16	1.07	.57
1	72	11.76	11.76	33.559	25.516	247.5	.232	4.39	71.5	12.1	1.08	11.7	.08	.70	.72
1	75 ISL	11.63	11.62	33.570	25.550	244.3	.240	4.29	69.7						.75
1	87	11.22	11.21	33.608	25.655	234.6	.268	4.00	64.4	15.6	1.28	15.0	.09	.35	.87
1	100 ISL	10.84	10.83	33.652	25.757	225.2	.299	3.81	60.9						.101
1	107	10.69	10.68	33.672	25.799	221.2	.313	3.75	59.7	18.9	1.44	17.8	.04	.12	.107
1	125 ISL	10.36	10.35	33.728	25.900	212.0	.353	3.57	56.5						.126
1	132	10.25	10.24	33.746	25.933	209.0	.369	3.52	55.6	21.6	1.58	20.0	.04	.07	.133
1	150 ISL	9.98	9.97	33.776	26.002	202.7	.405	3.49	54.7						.151
1	159	9.85	9.83	33.785	26.031	200.1	.423	3.47	54.3	23.2	1.65	20.9	.03	.08	.160



## RV NEW HORIZON

## CALCOFT CRUISE 8407

STATION 90 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 25.2 N	117 54.8 W	12/07/84	2037 GMT	607 M	270	10 KT	270 01 02	1	1007.6 MB	23.0 C	21.0 C		1/8	CU		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	21.14	21.14	33.607	23.397	447.6	.000	5.88	115.3	.8	.22	.0	.00	.36	.15	0
1	10	17.90	17.90	33.573	24.205	370.8	.041	6.07	112.0	2.5	.23	.0	.00	.24	.08	10
	20 ISL	16.05	16.05	33.546	24.619	331.7	.076	6.37	113.3							20
1	21	15.92	15.92	33.541	24.645	329.3	.079	6.38	113.2	2.6	.27	.0	.00	.24	.06	21
	30 ISL	14.41	14.41	33.484	24.931	302.3	.108	6.03	104.5							30
1	31	14.29	14.28	33.480	24.954	300.1	.110	6.03	103.5	3.7	.34	.0	.00	.23	.07	31
1	41	13.45	13.44	33.496	25.140	282.6	.139	5.78	97.5	4.7	.45	.3	.02	.74	.34	41
	50 ISL	12.57	12.56	33.510	25.325	265.2	.165	4.93	81.7							50
1	51	12.50	12.49	33.511	25.339	263.8	.167	4.86	80.4	8.5	.78	6.3	.25	.75	.51	51
1	61	12.10	12.09	33.526	25.428	255.6	.192	4.55	74.6	10.8	.94	10.0	.10	.51	.59	61
1	72	11.64	11.63	33.552	25.534	245.8	.220	4.29	69.7	12.7	1.08	17.7	.05	.33	.45	72
	75 ISL	11.50	11.49	33.565	25.569	242.4	.228	4.22	68.3							75
1	87	11.04	11.03	33.613	25.691	231.2	.255	4.00	64.2	15.7	1.26	15.6	.03	.14	.25	87
	100 ISL	10.62	10.60	33.659	25.802	220.9	.286	3.85	61.3							101
1	102	10.57	10.56	33.663	25.813	219.8	.289	3.84	61.0	18.1	1.37	17.6	.02	.09	.15	102
1	121	9.97	9.95	33.743	25.979	204.4	.331	3.57	56.0	22.0	1.54	20.5	.01	.02	.09	122
	125 ISL	9.88	9.87	33.761	26.008	201.7	.339	3.53	55.2							126
1	146	9.47	9.45	33.863	26.155	188.0	.380	3.30	51.2	26.1	1.70	22.9	.01	.02	.07	147
	150 ISL	9.40	9.39	33.877	26.177	186.0	.387	3.27	50.7							151
1	176	9.01	9.00	33.947	26.295	175.2	.434	3.10	47.7	30.1	1.84	24.8	.01			177
	200 ISL	8.76	8.74	33.982	26.362	169.3	.475	3.06	46.7							201
1	206	8.71	8.69	33.989	26.376	168.0	.485	3.04	46.4	32.9	1.90	25.9	.01			207
1	236	8.41	8.38	34.051	26.471	159.4	.534	2.71	41.1	37.2	2.03	27.7	.01			237
	250 ISL	8.39	8.36	34.106	26.517	155.3	.557	2.30	34.9							252
1	275	8.37	8.34	34.193	26.589	149.0	.595	1.59	24.1	45.2	2.40	31.0	.01			277
	300 ISL	8.10	8.07	34.199	26.635	145.0	.631	1.57	23.7							302
1	336	7.63	7.60	34.171	26.682	140.8	.683	1.54	23.0	51.1	2.51	33.0	.01			338
	400 ISL	7.18	7.14	34.190	26.762	134.0	.771	1.20	17.7							403
1	410	7.13	7.09	34.196	26.774	133.0	.785	1.13	16.7	58.8	2.69	35.4	.00			413
1	486	6.84	6.79	34.264	26.867	125.1	.882	.68	10.0	66.2	2.88	37.1	.00			489
	500 ISL	6.75	6.70	34.273	26.887	123.4	.900	.62	9.1							504
1	562	6.23	6.18	34.299	26.977	115.2	.974	.46	6.6	76.3	3.02	39.2	.00			566

## RV NEW HORIZON

## CALCOFT CRUISE 8407

STATION 90 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 15.0 N	118 14.8 W	12/07/84	1647 GMT	464 M	270	10 KT	290 04 06	0	1009.4 MB	20.0 C	19.0 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	20.75	20.75	33.662	23.544	435.1	.000	5.51	107.3							0
1	1	20.75	20.75	33.662	23.544	433.6	.004	5.51	107.3	2.7	.25	.1	.00	.16	.00	1
	10 ISL	19.80	19.89	33.630	23.747	414.5	.043	5.79	111.0							10
1	11	19.77	19.77	33.625	23.775	411.9	.047	5.82	111.3	2.3	.24	.1	.00	.18	.06	11
	20 ISL	18.24	18.24	33.572	24.122	379.1	.082	5.99	111.2							20
	30 ISL	16.28	16.27	33.530	24.556	338.0	.118	6.17	110.3							30
1	31	16.09	16.08	33.528	24.597	334.1	.121	6.19	110.2	2.6	.29	.0	.00	.25	.07	31
1	46	13.37	13.36	33.518	25.173	279.6	.167	5.49	92.5	6.0	.65	2.9	.27	1.16	.55	46
	50 ISL	13.03	13.02	33.520	25.244	273.0	.178	5.24	87.7							50
1	57	12.62	12.61	33.525	25.328	265.1	.197	4.84	80.3	8.9	.89	8.1	.17	.63	.55	57
1	72	11.46	11.45	33.577	25.587	240.7	.234	4.12	66.7	14.0	1.16	14.1	.04	.26	.40	72
	75 ISL	11.34	11.33	33.586	25.616	238.0	.242	4.07	65.7							75
1	87	11.03	11.02	33.620	25.698	230.4	.270	3.98	63.8	15.9	1.27	15.8	.02	.12	.24	87
	100 ISL	10.51	10.50	33.691	25.845	216.7	.299	3.80	60.3							101
1	107	10.23	10.22	33.735	25.927	209.0	.315	3.68	58.1	20.9	1.49	19.4	.01	.05	.11	108
	125 ISL	9.85	9.83	33.813	26.053	197.4	.351	3.31	51.8							126
1	132	9.74	9.72	33.843	26.095	193.5	.365	3.15	49.2	26.0	1.72	22.8	.01	.03	.09	133
	150 ISL	9.51	9.49	33.924	26.197	184.2	.399	2.86	44.5							151
1	152	9.48	9.46	33.934	26.209	183.0	.403	2.83	44.0	29.4	1.87	24.7	.00	.02	.06	153
1	182	9.04	9.02	34.066	26.384	167.0	.455	2.41	37.1	34.9	2.05	27.1	.00	.02	.05	183
	200 ISL	8.80	8.78	34.115	26.460	160.0	.484	2.20	33.7							201
1	206	8.73	8.70	34.125	26.480	158.2	.494	2.14	32.7	38.9	2.18	28.6	.00	.01	.05	207

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 90 37

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 11.0 N	119 23.6 W	12/07/84	1225 GMT	1174 M	280	11 KT	280 02 04	1	1009.9 MB	18.3 C	17.6 C	5/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	20.81	20.81	33.638	23.509	436.9	.000	5.67	110.5							0
1	1	20.81	20.81	33.638	23.509	437.0	.004	5.67	110.5	1.1	.21	.0	.00	.34	.12	1
1	10 ISL	20.82	20.82	33.635	23.505	437.7	.044	5.74	112.0							10
1	11	20.82	20.82	33.635	23.505	437.7	.048	5.75	112.1	.9	.22	.0	.00	.28	.15	11
1	20 ISL	19.46	19.46	33.611	23.844	405.7	.086	5.78	109.9							20
1	22	19.06	19.05	33.605	23.942	396.4	.094	5.79	109.2	2.4	.25	.0	.00	.16	.10	22
1	30 ISL	17.26	17.26	33.553	24.344	358.3	.124	6.11	111.3							30
1	32	16.83	16.83	33.543	24.438	349.4	.131	6.19	111.8	2.5	.27	.0	.00	.20	.11	32
1	42	15.02	15.01	33.519	24.829	312.3	.164	6.37	111.0	2.9	.34	.0	.00	.21	.15	42
1	50 ISL	14.07	14.06	33.528	25.037	292.7	.189	6.25	106.8							50
1	52	13.90	13.89	33.529	25.074	289.2	.194	6.22	106.0	4.4	.41	.0	.00	.34	.21	52
1	63	12.78	12.78	33.514	25.286	269.2	.224	5.15	85.7	7.2	.72	4.3	.34	.53	.54	63
1	73	11.86	11.85	33.547	25.489	250.1	.250	4.40	71.8	11.6	1.02	11.7	.06	.26	.26	73
1	75 ISL	11.72	11.71	33.555	25.521	247.1	.256	4.32	70.2							75
1	88	11.14	11.13	33.602	25.665	233.7	.286	4.06	65.3	15.1	1.22	15.1	.02	.13	.25	88
1	100 ISL	10.56	10.55	33.660	25.812	219.8	.314	3.79	60.3							101
1	103	10.46	10.45	33.672	25.838	217.3	.320	3.75	59.4	19.1	1.41	18.4	.01	.06	.11	103
1	123	10.14	10.13	33.738	25.946	207.6	.364	3.64	57.3	21.2	1.50	19.9	.01	.04	.08	124
1	125 ISL	10.10	10.09	33.745	25.957	206.6	.368	3.62	56.9							126
1	148	9.52	9.50	33.834	26.125	191.0	.414	3.28	51.0	26.3	1.70	23.2	.01	.01	.05	149
1	150 ISL	9.48	9.46	33.841	26.137	189.8	.417	3.26	50.6							151
1	178	8.85	8.83	33.940	26.316	173.2	.468	3.08	47.2	31.3	1.84	25.6	.01			179
1	200 ISL	8.52	8.49	33.985	26.403	165.3	.505	3.06	46.5							201
1	208	8.42	8.40	33.996	26.426	163.2	.518	3.05	46.3	35.0	1.91	26.7	.01			209
1	238	8.10	8.08	34.034	26.504	156.2	.566	2.82	42.5	39.0	2.02	28.3	.01			239
1	250 ISL	7.99	7.96	34.051	26.534	153.5	.585	2.67	40.1							252
1	277	7.77	7.74	34.087	26.595	148.0	.626	2.28	34.1	45.3	2.24	30.9	.01			279
1	300 ISL	7.62	7.59	34.111	26.636	144.5	.659	1.92	28.6							302
1	338	7.37	7.35				.714	1.37	20.3	55.1	2.56	34.3	.00			340
1	400 ISL	6.79	6.75	34.209	26.829	127.3	.796	.96	14.1							403
1	413	6.67	6.63	34.222	26.856	124.9	.812	.91	13.3	66.3	2.79	37.3	.00			416
1	490	6.31	6.27	34.298	26.964	115.5	.904	.53	7.7	74.8	2.96	39.1	.00			493
1	500 ISL	6.26	6.22	34.305	26.976	114.5	.916	.52	7.5							504
1	567	5.89	5.84	34.330	27.043	108.6	.991	.47	6.7	82.3	3.04	40.3	.00			571

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 90 45

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 55.1 N	118 56.7 W	11/07/84	1242 GMT	1775 M	300	13 KT	280 04 05	2	1012.0 MB	16.0 C	15.2 C	8/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
M		DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	17.37	17.36	33.689	24.423	349.9	.000	5.73	104.7							0
1	1	17.37	17.36	33.689	24.423	349.8	.003	5.73	104.7	.2	.34	.0	.00	.12	.07	1
1	10 ISL	17.30	17.30	33.685	24.435	348.9	.035	5.76	105.1							10
1	11	17.29	17.29	33.684	24.436	348.9	.038	5.76	105.1	.7	.33	.0	.00	.14	.05	11
1	20 ISL	16.99	16.98	33.684	24.509	342.2	.070	5.79	105.0							20
1	21	16.96	16.95	33.684	24.517	341.5	.073	5.79	105.0	.6	.31	.0	.00	.17	.10	21
1	30 ISL	15.00	14.99	33.614	24.906	304.6	.102	5.67	98.8							30
1	31	14.78	14.78	33.609	24.948	300.6	.105	5.65	98.0	3.0	.52	2.4	.11	.60	.34	31
1	41	13.29	13.28	33.594	25.249	272.3	.133	5.27	88.7	5.9	.85	7.7	.39	.61	.50	41
1	50 ISL	12.27	12.26	33.556	25.418	256.3	.157	4.63	76.3							50
1	51	12.20	12.20	33.553	25.429	255.3	.159	4.58	75.3	10.2	1.00	10.0	.21	.53	.49	51
1	61	11.69	11.69	33.575	25.542	244.8	.184	4.34	70.6	12.2	1.10	12.1	.09	.27	.39	61
1	70	11.08	11.08	33.629	25.695	230.4	.206	4.09	65.7	15.0	1.26	15.0	.03	.17	.24	70
1	75 ISL	10.86	10.85	33.650	25.751	225.1	.218	3.96	63.3							75
1	85	10.56	10.55	33.680	25.828	218.0	.239	3.75	59.6	18.6	1.46	18.1	.01	.09	.17	85
1	100	10.12	10.11	33.740	25.950	206.7	.271	3.45	54.3	21.9	1.62	20.8	.01	.15	.11	100
1	118	9.57	9.56	33.824	26.108	192.0	.310	3.17	49.3	26.2	1.79	23.5	.01	.03	.10	120
1	125 ISL	9.45	9.44	33.844	26.143	188.8	.321	3.09	48.0							126
1	144	9.14	9.13	33.898	26.236	180.3	.356	2.87	44.2	30.4	1.93	25.6	.01	.03	.11	145
1	150 ISL	9.08	9.06	33.908	26.253	178.7	.367	2.85	43.8							151
1	174	8.86	8.84	33.941	26.314	173.3	.409	2.78	42.6	32.9	2.01	26.8	.01			175
1	200 ISL	8.54	8.52	33.986	26.399	165.7	.453	2.60	39.6							201
1	203	8.51	8.49	33.991	26.408	164.8	.458	2.58	39.2	36.3	2.10	28.1	.00			204
1	233	8.19	8.17	34.032	26.489	157.6	.506	2.32	35.0	40.3	2.22	29.7	.00			234
1	250 ISL	8.04	8.01	34.048	26.524	154.5	.533	2.21	33.3							252
1	272	7.85	7.83	34.068	26.568	150.7	.567	2.07	31.0	44.4	2.33	31.2	.01			274
1	300 ISL	7.57	7.55	34.101	26.635	144.6	.608	1.78	26.5							302
1	331	7.24	7.21	34.142	26.714	137.5	.654	1.41	20.8	54.6	2.61	34.4	.01			335
1	400 ISL	6.72	6.69	34.193	26.826	127.6	.743	.92	13.5							403
1	407	6.67	6.63	34.198	26.837	126.6	.753	.88	12.8	64.6	2.85	37.1	.00			410
1	483	6.11	6.07	34.260	26.960	115.5	.844	.52	7.5	75.6	3.04	39.6	.00			486
1	500 ISL	6.01	5.96	34.274	26.984	113.4	.864	.47	6.7							504
1	558	5.73	5.68	34.321	27.057	107.0	.928	.38	5.4	84.0	3.15	41.0	.00			562

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE
32 55.2 N		118 55.9 W		11/07/84	1735 GMT	1664 M	310	07 KT	290 04 06	2	1013.9 MB	17.3 C	16.1 C	9/8	AS	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI02	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	17.66	17.66	33.688	24.351	356.9	.000	5.60	102.9							0
1	1	17.66	17.66	33.688	24.351	356.6	.004	5.60	102.9	.6	.32	.0	.00	.19	.07	1
1	11	17.52	17.52	33.686	24.381	354.1	.036	5.71	104.7							10
1	21	17.16	17.15	33.682	24.384	353.8	.039	5.72	104.8	.6	.32	.0	.00	.16	.03	11
1	22	17.00	17.00	33.679	24.468	346.1	.071	5.76	104.8							20
1	30	15.63	15.62	33.679	24.502	342.9	.077	5.77	104.7	.6	.31	.0	.00	.16	.09	22
1	32	15.31	15.30	33.649	24.794	315.3	.104	5.91	104.3							30
1	42	14.66	14.66	33.645	24.865	308.9	.110	5.93	104.0	2.0	.41	1.0	.10	.49	.27	32
1	50	13.63	13.63	33.622	24.985	297.5	.140	5.73	99.2	3.5	.53	2.8	.19	.57	.33	42
1	52	13.39	13.39	33.591	25.176	279.5	.163	5.37	90.9							50
1	62	12.36	12.35	33.584	25.219	275.3	.168	5.27	88.9	6.3	.82	7.1	.41	.64	.46	52
1	72	11.62	11.61	33.534	25.384	259.9	.195	4.72	77.9	9.6	.92	8.7	.22	.52	.44	62
1	75	11.38	11.37	33.579	25.559	243.4	.220	4.33	70.3	12.8	1.08	12.3	.07	.39	.36	72
1	87	10.63	10.62	33.598	25.617	237.9	.228	4.20	67.9							75
1	100	10.03	10.02	33.668	25.806	220.1	.255	3.78	60.1	18.7	1.41	17.7	.02	.08	.17	87
1	103	9.94	9.93	33.746	25.970	204.7	.283	3.42	53.8							101
1	122	9.44	9.43	33.759	25.995	202.4	.288	3.37	52.8	24.1	1.65	21.7	.01	.05	.13	103
1	125	9.40	9.39	33.841	26.142	188.8	.327	3.10	48.1	28.0	1.80	24.1	.01	.02	.10	123
1	147	9.10	9.09	33.848	26.155	187.6	.332	3.07	47.7							126
1	150	9.07	9.06	33.896	26.240	179.9	.373	2.90	44.7	31.2	1.99	25.7	.01	.02	.09	148
1	178	8.77	8.75	33.901	26.249	179.1	.378	2.88	44.4							151
1	200	8.52	8.50	33.946	26.332	171.7	.427	2.72	41.6	34.4	2.00	26.9	.01			179
1	208	8.43	8.41	33.984	26.401	165.4	.464	2.58	39.2							201
1	235	8.13	8.11	33.997	26.425	163.3	.477	2.52	38.2	37.8	2.10	28.4	.01			209
1	250	8.05	8.03	34.037	26.502	156.5	.526	2.29	34.5	41.7	2.21	29.9	.00			240
1	278	7.72	7.70	34.049	26.529	154.0	.544	2.21	33.2							252
1	300	7.53	7.50	34.081	26.597	147.9	.587	1.97	29.4	47.1	2.36	31.8	.02			280
1	340	7.18	7.15	34.117	26.653	142.9	.618	1.70	25.3							302
1	400	6.57	6.53	34.178	26.751	134.0	.673	1.20	17.7	58.3	2.68	35.2	.00			342
1	415	6.47	6.39	34.214	26.863	123.9	.751	.78	11.3							403
1	493	6.14	6.09	34.219	26.885	121.9	.770	.71	10.3	69.7	2.91	39.2	.00			418
1	500	6.10	6.06	34.255	26.952	116.4	.862	.50	7.2	75.9	3.02	39.4	.00			496
1	567	5.79	5.74	34.259	26.959	115.8	.870	.51	7.3							504
				34.303	27.036	109.3	.946			83.0	3.11	40.6	.00			571

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE
32 54.9 N		118 56.3 W		12/07/84	0024 GMT	1679 M	290	18 KT	280 03 04	1	1010.1 MB	10.9 C	12.5 C	4/8	SC	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI02	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	17.94	17.94	33.629	24.239	367.3	.000	5.71	105.5	1.3	.29	.0	.00	.18	.05	0
1	10	17.90	17.90	33.626	24.247	366.9	.037	5.76	106.3	1.4	.28	.0	.00	.18	.05	10
1	20	16.96	16.96	33.685	24.515	341.6	.072	5.87	106.4	.3	.31	.0	.00	.19	.11	20
1	30	15.77	15.77	33.664	24.773	317.3	.105	6.01	106.4							30
1	31	15.66	15.65	33.660	24.797	315.1	.108	6.02	106.4	.7	.36	.4	.05	.50	.32	31
1	41	14.07	14.06	33.588	25.094	287.9	.138	5.46	93.4	4.2	.62	4.2	.16	1.09	.37	41
1	50	12.73	12.72	33.538	25.316	266.1	.163	4.95	82.3							50
1	51	12.63	12.63	33.535	25.332	264.5	.165	4.91	81.5	7.6	.82	7.3	.24	.79	.43	51
1	61	12.08	12.08	33.544	25.444	254.0	.191	4.52	74.1	10.2	.97	10.1	.14	.50	.49	61
1	71	11.25	11.24	33.611	25.652	234.5	.215	4.14	66.7	14.2	1.18	14.4	.04	.20	.28	71
1	75	11.01	11.00	33.635	25.714	228.7	.225	4.00	64.2							75
1	86	10.53	10.52	33.647	25.835	217.0	.249	3.72	59.1	18.4	1.41	18.2	.03	.08	.14	86
1	100	9.89	9.88	33.771	26.013	200.6	.279	3.41	53.3							101
1	101	9.87	9.86	33.774	26.019	200.1	.280			23.4	1.61	21.6	.01	.04	.13	101
1	120	9.44	9.43	33.845	26.145	188.4	.319	3.11	48.2	26.9	1.76	23.9	.01	.02	.10	121
1	125	9.36	9.37	33.856	26.164	186.7	.327	3.08	47.7							126
1	146	9.17	9.16	33.894	26.228	181.1	.366	2.99	46.1	29.2	1.83	25.0	.01	.02	.11	147
1	150	9.13	9.12	33.899	26.238	180.2	.373	2.96	45.7							151
1	176	8.88	8.86	33.934	26.305	174.2	.419	2.80	42.9	31.9	1.91	26.4	.01			177
1	200	8.64	8.62	33.970	26.372	168.2	.460	2.74	41.8							201
1	206	8.58	8.55	33.979	26.389	166.8	.470	2.72	41.4	35.0	1.99	27.5	.01			207
1	236	8.27	8.25	34.022	26.469	159.6	.519	2.39	36.1	39.0	2.10	29.1	.01			237
1	250	8.14	8.12	34.038	26.501	156.7	.542	2.30	34.6							252
1	275	7.90	7.88	34.065	26.558	151.7	.581	2.14	32.1	43.3	2.22	30.8	.01			277
1	300	7.64	7.61	34.101	26.625	145.7	.617	1.86	27.7							302
1	335	7.27	7.23	34.149	26.717	137.3	.667	1.43	21.1	54.3	2.63	34.2	.01			337
1	400	6.63	6.60	34.191	26.836	126.5	.752	.95	13.8							403
1	410	6.55	6.51	34.196	26.852	125.1	.766	.89	12.9	66.2	2.84	37.4	.01			413
1	487	6.17	6.07	34.262	26.960	115.5	.857	.56	8.1	75.6		39.5	.00			490
1	500	6.04	6.00	34.273	26.979	113.9	.873	.52	7.4							504
1	564	5.68	5.64	34.324	27.064	106.3	.943	.35	5.0	84.8		41.1	.00			568

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 55.1 N	114 56.1 W	12/07/84	0528 GMT	1701 M	280	15 KT	290 02 04	2	1010.8 MB	16.2 C	16.0 C	R/R	SC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	C ISL	17.47	17.47	33.688	24.398	352.1	.000	5.73	104.9							0
1	1	17.47	17.47	33.688	24.398	352.2	.004	5.73	104.9	1.2	.32	.0	.00	.17	.07	1
	10 ISL	17.47	17.46	33.683	24.395	352.8	.035	5.77	105.7							10
1	11	17.47	17.46	33.682	24.394	352.9	.039	5.78	105.8	1.2	.31	.0	.00	.19	.05	11
	20 ISL	17.18	17.18	33.664	24.448	348.0	.070	5.84	106.3							20
1	21	17.15	17.15	33.662	24.453	347.5	.074	5.85	106.4	1.4	.29	.0	.00	.20	.12	21
	30 ISL	15.54	15.53	33.587	24.766	318.0	.104	6.07	106.9							30
1	31	15.34	15.34	33.579	24.803	314.5	.107	6.08	106.7	2.6	.35	.0	.01	.57	.22	31
	41	13.28	13.27	33.493	25.172	279.5	.136	5.63	94.7	4.8	.50	.9	.05	.64	.32	41
1	50 ISL	12.55	12.54	33.516	25.333	264.4	.161	4.93	81.7							50
	52	12.48	12.47	33.525	25.355	262.4	.166	4.80	79.4	8.8	.81	7.3	.20	.54	.45	52
1	62	11.82	11.81	33.564	25.510	247.9	.191	4.44	72.4	11.7	.98	11.0	.07	.35	.37	62
	72	11.02	11.01	33.625	25.703	229.6	.215	3.99	64.0	16.5	1.24	15.7	.02	.15	.26	72
1	75 ISL	10.88	10.88	33.639	25.739	226.3	.222	3.92	62.7							75
	87	10.54	10.53	33.687	25.837	217.1	.248	3.74	59.4	19.1	1.40	19.3	.02	.18	.31	87
1	100 ISL	9.82	9.87	33.774	26.017	200.2	.276	3.34	52.4							101
	102	9.81	9.80	33.784	26.037	198.3	.279	3.30	51.6	24.7	1.64	22.4	.02	.03	.10	102
1	121	9.33	9.31	33.863	26.178	185.3	.317	3.04	47.0	28.9	1.78	24.7	.01	.02	.10	122
	125 ISL	9.28	9.27	33.871	26.191	184.1	.324	3.02	46.6							126
1	146	9.11	9.10	33.898	26.240	179.9	.363	2.92	45.0	31.0	1.85	25.8	.01	.02	.08	147
	150 ISL	9.08	9.06	33.903	26.250	179.0	.369	2.90	44.6							151
1	176	8.82	8.80	33.944	26.323	172.5	.415	2.74	41.9	33.8	1.93	27.0	.01			177
	200 ISL	8.53	8.51	33.986	26.400	165.5	.456	2.59	39.4							201
1	206	8.46	8.44	33.996	26.419	163.8	.465	2.55	38.7	37.4	2.03	28.5	.01			207
	236	8.14	8.12	34.039	26.502	156.4	.513	2.37	35.7	41.1	2.12	30.0	.01			237
1	250 ISL	7.93	7.91	34.060	26.550	152.0	.535	2.20	33.0							252
	275	7.57	7.54	34.096	26.631	144.5	.573	1.86	27.7	48.9	2.32	32.5	.01			277
1	300 ISL	7.38	7.35	34.124	26.680	140.3	.608	1.62	24.0							302
	337	7.17	7.14	34.155	26.734	135.6	.659	1.33	19.6	56.9	2.56	35.0	.01			339
1	400 ISL	6.63	6.60	34.194	26.838	126.3	.741	.94	13.7							403
	411	6.54	6.50	34.200	26.856	124.7	.755	.88	12.8	67.4	2.77	37.7	.00			414
1	488	6.12	6.07	34.263	26.961	115.5	.847	.53	7.6	76.2	2.91	39.7	.00			491
	500 ISL	6.06	6.02	34.271	26.975	114.3	.861	.52	7.4							504
1	564	5.81	5.77	34.302	27.031	109.6	.933	.44	6.3	82.2	3.01	40.8	.00			568

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 39.0 N	119 29.3 W	11/07/84	0635 GMT	1432 M	300	11 KT	300 05 04		1012.9 MB	16.0 C	15.2 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	C ISL	17.54	17.54	33.619	24.328	358.8	.000	5.67	103.9							0
1	1	17.54	17.54	33.619	24.328	358.9	.004	5.67	103.9	2.5	.30	.0	.00	.12	.06	1
	10 ISL	17.54	17.54	33.618	24.327	359.2	.036	5.76	105.5							10
1	11	17.54	17.54	33.618	24.327	359.3	.039	5.76	105.6	2.5	.30	.0	.00	.13	.06	11
	20 ISL	17.33	17.32	33.610	24.372	355.3	.072	5.74	104.8							20
1	21	17.30	17.29	33.609	24.378	354.7	.075	5.74	104.7	2.3	.28	.0	.00	.16	.08	21
	30 ISL	16.95	16.95	33.606	24.458	347.4	.107	5.80	105.1							30
1	31	16.89	16.89	33.606	24.472	346.1	.110	5.81	105.1	2.3	.29	.0	.00	.22	.10	31
	41	15.28	15.27	33.587	24.824	312.7	.143	6.03	105.7	2.6	.40	.4	.04	.63	.38	41
1	50 ISL	13.69	13.68	33.530	25.117	285.0	.170	5.68	96.3							50
	51	13.57	13.56	33.526	25.139	283.0	.172	5.63	95.3	5.3	.61	5.1	.15	.85	.54	51
1	61	12.86	12.85	33.529	25.284	269.4	.200	5.06	84.3	7.8	.82	7.1	.13	.54	.56	61
	71	12.21	12.20	33.542	25.420	256.6	.226	4.62	76.0	10.6	1.05	10.7	.05	.34	.37	71
1	75 ISL	11.99	11.98	33.550	25.468	252.2	.237	4.48	73.3							75
	85	11.56	11.55	33.575	25.567	242.9	.261	4.22	68.5	13.6	1.20	13.7	.03	.15	.22	85
1	100	10.89	10.88	33.634	25.734	227.3	.296	3.89	62.2	16.9	1.37	16.6	.03	.10	.15	100
	119	10.30	10.28	33.707	25.895	212.3	.340	3.76	59.4	19.8	1.49	18.8	.01	.04	.08	120
1	125 ISL	10.07	10.05	33.742	25.961	206.1	.351	3.65	57.3							126
	141	9.34	9.32	33.860	26.174	186.1	.387	3.26	50.5	27.3	1.79	23.6	.01	.01	.05	144
1	150 ISL	9.14	9.13	33.888	26.228	181.1	.399	3.19	49.1							151
	173	8.66	8.64	33.956	26.357	169.1	.440	3.02	46.1	32.8	1.93	26.1	.01			174
1	200 ISL	8.36	8.34	34.005	26.441	161.6	.484	2.85	43.1							201
	202	8.35	8.33	34.007	26.445	161.2	.487	2.83	42.9	36.6	2.04	27.4	.00			203
1	231	7.94	7.91	34.056	26.545	152.1	.533	2.35	35.3	42.6	2.21	29.9	.00			232
	250 ISL	7.66	7.64	34.088	26.611	146.0	.561	1.98	29.6							252
1	270	7.40	7.37	34.120	26.674	140.4	.591	1.63	24.2	52.2	2.53	33.4	.01			272
	300 ISL	7.14	7.11	34.150	26.735	134.9	.631	1.35	19.8							302
1	330	6.94	6.91	34.172	26.779	131.1	.671	1.17	17.2	60.6	2.74	35.8	.00			332
	400 ISL	6.58	6.54	34.217	26.864	123.8	.760	.84	12.2							403
1	402	6.57	6.53	34.219	26.867	123.6	.763	.83	12.1	67.6	2.90	37.4	.00			405
	479	6.20	6.16	34.270	26.955	116.0	.855	.56	8.1	75.5	3.04	39.0	.00			492
1	500 ISL	6.11	6.07	34.279	26.975	114.3	.879	.50	7.3							504
	555	5.88	5.83	34.294	27.017	110.9	.941	.40	5.7	81.8	3.10	40.1	.00			559

RV NEW HORIZON

CALFOFI CRUISE 8407

STATION 90 60

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER		BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE	
32 25.8 N		119 57.9 W		11/07/84	0202	GMT	1231 M	320	17 KT	330 06 07	2	1011.1 MB	16.2 C	15.1 C		3/9		ST	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS			
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR			
1	C ISL	17.15	17.15	33.664	24.455	347.2	.000	5.73	104.3									0	
1	1	17.15	17.15	33.664	24.455	346.7	.003	5.73	104.3	1.0	.31	.1	.00	.19	.03			1	
1	10 ISL	16.93	16.93	33.656	24.501	342.6	.034	5.78	104.6									10	
1	11	16.90	16.90	33.655	24.506	342.1	.038	5.78	104.7	1.0	.30	.1	.00	.18	.10			11	
1	20 ISL	15.80	15.80	33.647	24.754	318.9	.068	5.98	106.0									20	
1	21	15.69	15.69				.071	6.00	106.1	1.0	.35	.1	.00	.20	.11			21	
1	30 ISL	15.55	15.55	33.635	24.800	314.8	.099	5.96	105.0									30	
1	32	15.54	15.54	33.638	24.804	314.4	.105	5.95	104.9	1.4	.38	.3	.05	.36	.11			32	
1	42	14.73	14.72	33.631	24.977	298.3	.136	5.74	99.5	2.7	.56	3.0	.42	.48	.38			42	
1	50 ISL	13.37	13.36	33.576	25.218	275.5	.159	5.31	89.5									50	
1	57	12.29	12.28	33.549	25.410	257.3	.177	4.92	81.0	8.9	1.07	11.5	.32	.38	.31			57	
1	67	11.68	11.68	33.581	25.548	244.3	.202	4.56	74.2	11.6	1.22	14.2	.03	.25	.16			67	
1	75 ISL	11.23	11.22	33.647	25.682	231.8	.222	4.18	67.4									75	
1	77	11.14	11.13	33.660	25.709	229.2	.226	4.10	66.0	16.4	1.42	17.6	.02	.11	.14			77	
1	92	10.10	10.09	33.718	25.936	207.8	.258	3.41	53.6	22.1		21.2	.02	.03	.09			92	
1	100 ISL	9.80	9.79	33.760	26.020	200.0	.275	3.22	50.4									100	
1	111	9.56	9.55	33.810	26.099	192.7	.298	3.09	48.1	26.6		23.8	.02	.02	.08			111	
1	125 ISL	9.37	9.36	33.842	26.154	187.7	.324	2.97	46.0									125	
1	130	9.29	9.28	33.855	26.177	185.6	.335	2.94	45.5	29.0		25.1	.01	.02	.08			130	
1	150 ISL	8.86	8.84	33.927	26.303	173.9	.369	2.98	45.6									150	
1	156	8.71	8.69	33.951	26.345	170.0	.380	3.00	45.8	32.2		26.1	.01	.01	.03			156	
1	187	8.30	8.28	34.001	26.448	160.7	.431	2.86	43.3	36.1		27.5	.01					187	
1	200 ISL	8.08	8.06	34.026	26.500	155.9	.451	2.69	40.5									200	
1	217	7.83	7.81	34.052	26.558	150.6	.477	2.48	37.1	42.4		29.7	.01					217	
1	250 ISL	7.59	7.57	34.048	26.590	148.0	.526	2.40	35.8									250	
1	252	7.58	7.56	34.048	26.591	147.9	.529	2.40	35.7	44.9		30.6	.01					252	
1	300 ISL	6.84	6.81	34.105	26.740	134.2	.597	1.76	25.8									300	
1	301	6.82	6.79	34.107	26.744	133.8	.599			57.7		35.1	.00					301	
1	356	6.44	6.41	34.171	26.846	124.7	.669	.93	13.5	66.7		37.6	.00					356	
1	400 ISL	6.27	6.23	34.221	26.904	119.4	.723	.66	9.6									400	
1	441	6.15	6.11	34.259	26.953	115.6	.772	.57	8.2	75.0		39.3	.00					441	
1	500 ISL	5.96	5.91	34.294	27.005	111.3	.838	.43	6.2									500	
1	526	5.86	5.82	34.306	27.027	109.5	.867	.39	5.6	91.5		40.4	.00					526	
1	600 ISL	5.55	5.50	34.348	27.100	103.3	.946	.32	4.5									600	
1	612	5.49	5.44	34.356	27.113	102.1	.959	.31	4.4	88.7		41.5	.00					612	

RV NEW HORIZON

CALFOFI CRUISE 8407

STATION 90 70

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER		BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER		DRY	WET	CLOUD	AMT	TYPE	
32 05.4 N		120 38.7 W		10/07/84	0021	GMT		340	17 KT	340 08 07	1	1010.1 MB	17.9 C	16.5 C		6/9		ST	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS			
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR			
1	C	16.57	16.57	33.668	24.593	333.5	.000	5.84	105.1	1.0	.32	.1	.01	.33	.07			0	
1	10	16.16	16.16	33.649	24.673	326.2	.033	5.91	105.5	1.0	.33	.1	.02	.25	.11			10	
1	20	15.93	15.93	33.619	24.702	323.8	.065	5.96	105.8	1.0	.33	.1	.02	.26	.14			20	
1	30	15.43	15.43	33.649	24.838	311.1	.097	5.89	103.6	1.5	.41	1.2	.10	.32	.16			30	
1	40	14.50	14.50	33.628	25.073	293.8	.177	5.52	95.3	3.2	.65	3.0	.56	.31	.17			40	
1	50 ISL	12.99	12.93	33.568	25.256	268.6	.156	5.17	86.5									50	
1	56	12.18	12.17	33.549	25.430	255.3	.171	4.98	81.9	8.7	1.05	11.8	.04	.15	.14			56	
1	66	11.56	11.55	33.581	25.572	242.0	.195	4.62	74.9	11.9	1.19	14.1	.02	.09	.11			66	
1	75 ISL	11.00	10.99	33.625	25.708	229.2	.217	4.17	68.9									75	
1	76	10.96	10.95	33.628	25.716	228.4	.219	4.14	68.3	15.9	1.35	17.0	.02	.05	.08			76	
1	91	10.35	10.34	33.679	25.864	214.7	.252	3.71	58.7	19.7	1.52	19.4	.01	.03	.07			91	
1	100 ISL	10.05	10.04	33.716	25.944	207.2	.272	3.50	55.1									100	
1	110	9.76	9.75	33.762	26.028	199.4	.293	3.31	51.7	24.3	1.71	22.7	.00	.02	.04			110	
1	125 ISL	9.39	9.37	33.837	26.148	188.3	.321	3.05	47.3									125	
1	130	9.26	9.24	33.863	26.189	184.4	.331	2.97	45.9	28.6	1.86	25.1	.00	.01	.03			130	
1	150 ISL	8.82	8.80	33.941	26.321	172.2	.366	2.76	42.3									150	
1	155	8.71	8.69	33.958	26.351	169.4	.375	2.72	41.5	34.0	2.00	27.3	.01	.02	.04			155	
1	186	8.18	8.16	34.028	26.487	156.9	.425	2.41	36.4	39.6	2.15	29.1	.01					186	
1	200 ISL	7.99	7.97	34.049	26.531	153.0	.447	2.29	34.5									200	
1	216	7.81	7.78	34.067	26.573	149.1	.471	2.16	32.3	44.6	2.29	30.4	.01					216	
1	250 ISL	7.36	7.34	34.108	26.669	140.4	.520	1.77	26.2									250	
1	251	7.35	7.33	34.108	26.670	140.3	.521	1.76	26.1	51.3	2.48	33.1	.01					251	
1	300	6.77	6.74	34.126	26.766	131.7	.589	1.37	20.0	59.6	2.66	35.7	.01					300	
1	356	6.28	6.25	34.172	26.866	122.7	.659	.91	13.2	69.0	2.87	38.3	.00					356	
1	400 ISL	6.05	6.01	34.212	26.928	117.3	.712	.69	10.0									400	
1	441	5.88	5.84	34.247	26.978	113.0	.760	.56	8.0	78.6	3.05	40.2	.00					441	
1	500 ISL	5.61	5.57	34.292	27.048	106.9	.824	.41	5.8									500	
1	527	5.48	5.44	34.311	27.077	104.3	.853	.36	5.1	88.0	3.15	41.4	.00					527	
1	600 ISL	5.19	5.14	34.350	27.144	98.6	.927	.34	4.8									600	
1	614	5.13	5.08	34.355	27.155	97.7	.940	.34	4.8	95.1	3.21	42.5	.00					614	



## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 90 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 04.1 N	120 37.9 W	10/07/84	0530 GMT		330	20 KT	340 08 07	1	1010.8 MB	16.0 C	15.2 C	4/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	16.17	16.17	33.663	24.681	325.1	.000	5.85	104.4	1.4	.34	.2	.01	.24	.12	0
1	10	16.13	16.13	33.661	24.690	324.6	.032	5.87	104.7	1.6	.34	.2	.01	.25	.10	10
1	20	15.89	15.89	33.636	24.725	321.6	.065	5.94	105.4	1.5	.35	.2	.02	.27	.11	20
1	30	15.74	15.74	33.641	24.763	318.3	.096	5.89	104.2	1.6	.38	.4	.05	.26	.13	30
1	40	15.58	15.58	33.645	24.801	314.9	.128	5.90	104.1	1.5	.39	.7	.08	.45	.23	40
1	50	14.75	14.74	33.628	24.971	299.0	.158	5.60	97.1	2.4	.59	2.5	.42	.38	.30	50
1	60	12.49	12.48	33.546	25.369	261.2	.186	5.04	83.4	8.0	1.03	11.0	.02	.16	.13	60
1	70	11.88	11.87	33.566	25.500	249.0	.212	4.79	78.2	10.2	1.12	12.7	.01	.13	.11	70
	75 ISL	11.49	11.48	33.587	25.589	240.6	.225	4.58	74.2							75
1	85	10.81	10.80	33.636	25.750	225.4	.247	4.14	66.1	16.7	1.38	17.3	.00	.04	.08	85
1	100 ISL	10.05	10.04	33.712	25.940	207.6	.280	3.47	54.5							101
1	101	10.03	10.02	33.715	25.946	207.1	.282	3.45	54.2	22.0	1.61	21.1	.00	.02	.08	101
1	120	9.48	9.47	33.816	26.116	191.2	.321	3.09	48.0	26.7	1.80	24.0	.00	.02	.04	121
1	125 ISL	9.39	9.38	33.835	26.145	188.5	.330	3.04	47.2							126
1	145	9.03	9.02	33.906	26.259	178.0	.367	2.88	44.3	30.6	1.93	25.9	.00	.01	.05	146
1	150 ISL	8.93	8.91	33.923	26.289	175.2	.375	2.83	43.4							151
1	175	8.41	8.39	34.000	26.430	162.2	.418	2.56	38.8	37.0	2.09	28.3	.00			176
1	200 ISL	8.13	8.11	34.049	26.510	154.9	.457	2.29	34.5							201
1	205	8.09	8.07	34.055	26.522	153.9	.465	2.24	33.7	41.8	2.25	30.2	.00			206
1	230	7.65	7.63	34.080	26.606	146.3	.511	2.06	30.7	46.4	2.36	31.6	.00			237
1	250 ISL	7.46	7.44	34.086	26.638	143.4	.532	1.96	29.2							252
1	275	7.17	7.14	34.093	26.685	139.2	.568	1.79	26.4	52.5	2.49	33.5	.00			277
1	300 ISL	7.00	6.97	34.101	26.714	136.7	.601	1.64	24.1							302
1	330	6.81	6.78	34.117	26.753	133.5	.650	1.42	20.8	58.6	2.66	35.4	.00			338
1	400 ISL	6.27	6.23	34.179	26.874	122.6	.732	.89	12.8							403
1	412	6.17	6.13	34.192	26.897	120.5	.747	.79	11.4	70.9	2.94	38.8	.00			415
1	490	5.85	5.81	34.249	26.983	113.1	.837	.51	7.3	78.7	3.08	40.3	.00			493
1	500 ISL	5.81	5.76	34.257	26.995	112.1	.849	.48	6.9							504
1	565	5.52	5.47	34.310	27.073	105.3	.920	.36	5.1	86.5	3.17	41.5	.00			569

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 90 70

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
52 05.2 N	120 39.6 W	10/07/84	1245 GMT		240	19 KT		1	1011.9 MB	15.7 C	14.2 C					
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	16.08	16.08	33.626	24.673	325.9	.000	5.72	101.9	1.1	.31	.2	.01	.17	.11	0
1	9	16.09	16.09	33.627	24.672	326.3	.029	5.80	103.3	1.0	.31	.2	.00	.19	.11	9
1	10 ISL	16.08	16.08	33.626	24.673	326.2	.033	5.80	103.4							10
1	19	16.02	16.01	33.622	24.686	325.3	.062	5.82	103.5	1.0	.30	.2	.00	.19	.13	19
1	20 ISL	15.99	15.98	33.623	24.693	324.7	.065	5.82	103.6							20
1	28	15.65	15.65	33.627	24.772	317.4	.090	5.86	103.5	1.2	.34	.5	.05	.29	.18	28
1	30 ISL	15.56	15.55	33.632	24.796	315.1	.097	5.84	102.9							30
1	37	15.05	15.04	33.633	24.909	304.5	.118	5.66	98.8	1.9	.49	1.8	.30	.36	.17	37
1	46	13.59	13.58	33.579	25.176	279.3	.145	5.18	87.7	5.6	.85	7.8	.69	.27	.19	46
1	50 ISL	12.85	12.85	33.559	25.307	266.9	.156	5.02	83.6							50
1	55	12.14	12.14	33.551	25.439	254.5	.168	4.86	79.8	9.5	1.09	12.5	.02	.14	.13	55
1	64	11.58	11.57	33.585	25.570	242.1	.191	4.60	74.7	12.2	1.18	14.3	.01	.11	.07	64
1	75 ISL	11.42	11.41	33.589	25.604	239.2	.218	4.54	73.4							75
1	77	11.40	11.39	33.589	25.607	238.9	.222	4.52	73.1	13.1	1.23	15.0	.00	.07	.06	77
1	90	10.69	10.68	33.643	25.776	223.1	.252	3.89	62.0					.03	.09	90
1	100 ISL	10.36	10.34	33.675	25.859	215.3	.274	3.63	57.4							101
1	107	10.17	10.15	33.699	25.911	210.6	.290	3.50	55.1	21.5	1.58	20.6	.00	.03	.07	108
1	125 ISL	9.58	9.57	33.797	26.085	194.3	.326	3.13	48.7							126
1	129	9.45	9.43	33.823	26.127	190.3	.334	3.05	47.3	27.3	1.82	24.2	.00	.02	.06	130
1	150 ISL	8.98	8.96	33.915	26.274	176.6	.372	2.76	42.4							151
1	155	8.84	8.87	33.933	26.303	174.0	.381	2.71	41.5	33.1	1.99	26.8	.00			156
1	181	8.50	8.49	33.990	26.408	164.4	.425	2.60	39.5	36.5	2.08	28.1	.00			182
1	200 ISL	8.17	8.15	34.038	26.497	156.3	.455	2.33	35.2							201
1	207	8.05	8.03	34.053	26.526	153.5	.466	2.23	33.6	42.1	2.25	30.2	.00			208
1	242	7.64	7.61	34.079	26.607	146.3	.518	2.05	30.6	46.6	2.36	31.7	.00			243
1	250 ISL	7.53	7.51	34.084	26.626	144.6	.530	1.98	29.5							252
1	294	7.03	7.00	34.110	26.718	136.3	.592	1.57	23.1	55.8	2.59	34.5	.01			296
1	300 ISL	6.96	6.93	34.114	26.730	135.3	.600	1.52	22.3							302
1	362	6.37	6.34	34.156	26.843	125.0	.681	1.00	14.5	67.4	2.86	37.8	.00			364
1	400 ISL	6.16	6.12	34.190	26.897	120.3	.727	.78	11.3							403
1	433	6.02	5.98	34.221	26.939	116.7	.767	.64	9.2	75.9	3.03	39.7	.00			436
1	500 ISL	5.73	5.69	34.278	27.021	109.6	.842	.43	6.1							504
1	509	5.70	5.66	34.285	27.031	108.7	.852	.41	5.8	83.5	3.15	41.0	.00			512

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
32 05.3 N	120 38.5 W	10/07/84	1737 GMT		340 17 KT	360 05 06	2	1014.0 MB	15.8 C	14.7 C						
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI02	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	16.14	16.14	33.650	24.678	325.5	.000	5.79	103.3							0
1	1	16.14	16.14	33.650	24.678	325.5	.003	5.79	103.3	1.1	.35	.2	.02	.23	.12	1
1	10 ISL	16.15	16.15	33.650	24.676	325.9	.033	5.82	103.8							10
1	11	16.15	16.15	33.650	24.676	326.0	.036	5.82	103.8	1.1	.35	.2	.02	.22	.11	11
1	20 ISL	16.04	16.04	33.639	24.693	324.7	.065	5.85	104.1							20
1	21	16.03	16.03	33.638	24.695	324.5	.068	5.85	104.1	1.2		.3	.02	.31	.11	21
1	30 ISL	15.94	15.94	33.639	24.716	322.8	.097	5.85	103.9							30
1	32	15.91	15.90	33.634	24.720	322.4	.104	5.85	103.8	1.3	.36	.4	.03	.27	.12	32
1	42	15.45	15.44	33.630	24.820	313.2	.135	5.80	102.0	1.2	.43	.8	.10	.28	.16	42
1	50 ISL	14.82	14.81	33.618	24.948	301.2	.160	5.68	98.7							50
1	57	14.01	14.00	33.595	25.102	286.8	.180	5.48	93.6	4.2	.80	6.0	.79	.27	.20	57
1	67	12.14	12.13	33.546	25.436	255.0	.207	4.92	80.8	9.0	1.09	12.0	.03	.14	.13	67
1	75 ISL	11.55	11.54	33.575	25.570	242.4	.228	4.59	74.4							75
1	77	11.46	11.47	33.584	25.588	240.7	.232	4.53	73.4	12.4	1.23	14.6	.02	.08	.10	77
1	93	10.67	10.66	33.641	25.779	222.9	.269	3.90	62.1	17.4	1.41	18.0	.01	.04	.08	93
1	100 ISL	10.29	10.28	33.685	25.878	213.5	.285	3.62	57.2							101
1	112	9.74	9.73	33.761	26.030	199.2	.311	3.24	50.6	24.3	1.74	22.7	.00	.02	.07	113
1	125 ISL	9.45	9.43	33.818	26.124	190.6	.335	3.04	47.2							126
1	132	9.33	9.31	33.846	26.165	186.8	.349	2.97	46.0	28.1	1.88	24.9	.00	.01	.07	133
1	150 ISL	9.01	8.99	33.903	26.261	177.9	.381	2.82	43.3							151
1	158	8.87	8.85	33.925	26.300	174.4	.395	2.76	42.3	32.7	1.99	26.7	.00	.01	.06	159
1	188	8.45	8.43	33.996	26.421	163.3	.446	2.57	39.0	37.4	2.12	28.4	.00			189
1	200 ISL	8.25	8.23	34.019	26.469	158.9	.465	2.46	37.3							201
1	218	7.97	7.94	34.048	26.535	152.9	.493	2.29	34.4	42.8	2.26	30.4	.00			219
1	250 ISL	7.56	7.54	34.081	26.620	145.2	.541	1.95	29.0							252
1	254	7.52	7.50	34.084	26.628	144.5	.546			49.1	2.42	32.5	.01			255
1	300 ISL	6.88	6.85	34.112	26.740	134.2	.611	1.44	21.1							302
1	303	6.84	6.81	34.114	26.747	133.6	.615	1.41	20.6	58.7	2.65	35.5	.01			305
1	359	6.37	6.34	34.150	26.838	125.5	.687	.99	14.3	67.8	2.86	37.9	.00			361
1	400 ISL	6.15	6.11	34.189	26.898	120.2	.738	.76	10.9							403
1	444	5.96	5.92	34.232	26.956	115.2	.789	.57	8.2	77.4	3.05	39.9	.00			447
1	500 ISL	5.73	5.69	34.273	27.016	110.0	.852	.41	5.9							504
1	529	5.62	5.57	34.291	27.045	107.5	.884	.36	5.1	85.7	3.16	41.3	.00			533
1	600 ISL	5.32	5.27	34.333	27.115	101.5	.958	.28	4.0							604
1	614	5.26	5.20	34.339	27.128	100.3	.972	.28	4.0	93.1	3.22	42.2	.00			618

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
31 45.6 N	121 19.4 W	09/07/84	1747 GMT	1939 M	330 14 KT	340 05 06	0	1013.2 MB	18.0 C	16.5 C						
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI02	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	15.20	15.20	32.997	24.385	353.5	.000	5.99	104.4							0
1	1	15.20	15.20	32.997	24.385	353.4	.004	5.99	104.4	2.3	.35	.3	.02	.15	.08	1
1	10 ISL	15.12	15.12	32.998	24.403	351.9	.035	6.01	104.6							10
1	11	15.11	15.11	32.998	24.405	351.7	.039	6.01	104.6	2.3	.35	.3	.02	.17	.08	11
1	20 ISL	14.57	14.57	33.088	24.591	334.3	.070	6.12	105.4							20
1	21	14.50	14.49	33.099	24.615	332.0	.073	6.13	105.4	2.3	.40	1.1	.08	.18	.12	21
1	30 ISL	13.62	13.61	33.164	24.848	310.1	.102	6.09	103.0							30
1	31	13.55	13.54	33.171	24.868	308.2	.105	6.09	102.8	2.7	.46	2.2	.18	.36	.22	31
1	41	13.52	13.51	33.299	24.973	298.5	.135	6.03	101.8	2.7	.55	3.2	.24	.47	.41	41
1	50 ISL	13.40	13.39	33.411	25.084	288.2	.162	5.98	100.7							50
1	57	13.35	13.35	33.481	25.148	282.3	.181	5.95	100.2	1.8	.66	3.6	.27	.21	.20	57
1	67	13.53	13.52	33.552	25.168	280.6	.209	5.93	100.3	1.6	.66	3.4	.26	.14	.18	67
1	75 ISL	13.60	13.59	33.595	25.188	279.0	.232	5.87	99.5							75
1	77	13.61	13.60	33.604	25.192	278.7	.237	5.85	99.1	1.8	.70	3.5	.33	.07	.16	77
1	92	11.97	11.96	33.439	25.385	260.4	.277	5.25	85.8	7.0	.81	7.5	.24	.09	.15	92
1	100 ISL	11.36	11.35	33.440	25.498	249.8	.298	5.00	80.6							101
1	111	10.75	10.73	33.503	25.658	234.8	.326	4.63	73.8	12.9	1.12	13.2	.04	.05	.10	112
1	125 ISL	10.12	10.10	33.621	25.859	215.9	.357	3.96	62.3							126
1	131	9.87	9.86	33.684	25.949	207.4	.370	3.67	57.4	21.5	1.54	20.4	.01	.01	.04	132
1	150 ISL	9.36	9.34	33.824	26.143	189.2	.407	3.38	52.4							151
1	156	9.22	9.21	33.862	26.195	184.4	.419	3.35	51.7	27.3	1.74	23.5	.00	.01	.04	157
1	186	8.60	8.58	33.959	26.368	168.3	.471	3.01	45.9	33.2	1.91	26.2	.00			187
1	200 ISL	8.42	8.40	33.984	26.416	164.0	.495	2.95	44.7							201
1	216	8.24	8.22	34.004	26.459	160.2	.520	2.86	43.2	37.3	2.01	27.7	.00			217
1	250 ISL	7.71	7.69	34.049	26.573	149.7	.573	2.29	34.2							252
1	251	7.70	7.68	34.050	26.575	149.5	.574	2.28	34.0	44.7	2.25	30.8	.01			252
1	300	7.09	7.06	34.104	26.705	137.6	.645	1.61	23.7	55.0	2.55	34.3	.01			302
1	357	6.60	6.56	34.136	26.799	129.3	.721	1.16	16.9	63.2	2.76	36.9	.01			359
1	400 ISL	6.32	6.29	34.186	26.873	122.8	.775	.85	12.2							403
1	440	6.12	6.08	34.232	26.936	117.2	.824	.61	8.8	74.9	3.01	39.2	.00			443
1	500 ISL	5.86	5.82	34.274	27.002	111.5	.892	.44	6.3							504
1	527	5.75	5.70	34.291	27.030	109.1	.922	.40	5.7	83.0	3.12	40.6	.00			531
1	600 ISL	5.33	5.28	34.345	27.124	100.7	.998	.32	4.5							604
1	613	5.25	5.20	34.355	27.141	99.1	1.011	.31	4.4	93.5	3.22	42.0	.00			617

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
31 25.0 N	122 00.5 W	09/07/84	1102 GMT		350 14 KT			1012.4 MB	15.0 C	14.2 C						
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	15.09	15.09	32.981	24.397	352.3	.000	6.01	104.5	2.5	.36	.2	.02	.17	.10	0
1	1	15.09	15.09	32.981	24.397	352.2	.004	6.01	104.5							1
1	10 ISL	15.04	15.04	32.980	24.407	351.5	.035	6.00	104.3			.02	.18	.08		10
1	11	15.04	15.04	32.980	24.408	351.5	.039	6.00	104.3	2.5	.35	.2	.02	.18	.08	11
1	20 ISL	14.78	14.78	33.020	24.494	343.6	.070	6.15	106.4							20
1	21	14.74	14.74	33.024	24.506	342.4	.073	6.17	106.6	2.5	.33	.1	.01	.17	.11	21
1	30 ISL	14.02	14.02	33.050	24.678	326.2	.103	6.16	104.9							30
1	32	13.88	13.87	33.057	24.713	323.0	.110	6.16	104.6	2.5	.34	.3	.04	.27	.13	32
1	42	13.68	13.67	33.102	24.789	316.1	.141	6.10	103.2	2.5	.39	1.0	.10	.49	.43	42
1	50 ISL	14.06	14.05	33.241	24.819	313.5	.167	6.08	103.8							50
1	57	14.30	14.29	33.358	24.857	310.0	.188	6.05	103.8	2.5	.44	1.8	.12	.49	.36	57
1	67	13.77	13.76	33.405	25.005	296.2	.218	5.89	100.0	2.5	.53	2.7	.21	.47	.37	67
1	75 ISL	13.30	13.29	33.368	25.072	290.0	.243	5.85	98.4							75
1	77	13.20	13.19	33.358	25.084	288.8	.248	5.84	97.9	3.1	.63	3.9	.27	.45	.34	77
1	92	12.17	12.16	33.345	25.274	271.1	.289	5.30	87.0	6.7	.74	6.6	.25	.19	.17	92
1	100 ISL	11.60	11.59	33.384	25.411	258.1	.311	5.06	82.1							101
1	112	10.91	10.90	33.467	25.601	240.3	.340	4.72	75.4	11.8	1.05	12.2	.04	.11	.09	112
1	125 ISL	10.39	10.37	33.576	25.777	223.7	.371	4.15	65.6							126
1	131	10.21	10.19	33.627	25.848	217.0	.386	3.89	61.3	19.0	1.44	18.6	.01	.02	.08	132
1	150 ISL	9.79	9.77	33.750	26.015	201.5	.425	3.50	54.6							151
1	156	9.66	9.65	33.785	26.063	197.0	.437	3.40	53.0	24.8	1.68	22.5	.01	.02	.09	157
1	186	8.91	8.89	33.925	26.295	175.4	.492	2.75	42.2	32.3	1.95	26.8	.01			187
1	200 ISL	8.65	8.63	33.967	26.368	168.7	.516	2.76	42.2							201
1	216	8.39	8.37	33.999	26.433	162.6	.543	2.78	42.2	36.2	2.03	27.9	.01			217
1	250	7.78	7.76	34.035	26.552	151.8	.596	2.62	39.2	41.5	2.14	29.6	.01			251
1	299	7.21	7.18	34.079	26.669	141.1	.669			51.4	2.43	33.2	.01			301
1	300 ISL	7.20	7.17	34.080	26.670	141.0	.670	2.09	30.8							302
1	352	6.79	6.76	34.117	26.756	133.4	.742	1.46	21.3	58.8	2.65	35.8	.01			355
1	400 ISL	6.43	6.40	34.153	26.832	126.7	.803	1.06	15.4							403
1	437	6.17	6.13	34.183	26.890	121.5	.850	.83	12.0	71.1	2.92	38.9	.00			440
1	500 ISL	5.83	5.79	34.243	26.981	113.5	.923	.57	8.2							504
1	523	5.71	5.67	34.261	27.010	110.8	.949	.51	7.3	81.8	3.09	40.7	.00			526
1	600 ISL	5.20	5.15	34.299	27.103	102.4	1.031	.37	5.2							604
1	608	5.14	5.09	34.301	27.111	101.7	1.039	.36	5.1	92.9	3.19	42.4	.00			612

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
31 04.9 N	122 40.0 W	09/07/84	0450 GMT	1977 M	350 14 KT	320 05 07	2	1012.8 MB	16.2 C	15.1 C		5/8	ST			
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	16.71	16.71	33.328	24.299	361.5	.000	5.77	103.9							0
1	1	16.71	16.71	33.328	24.299	361.6	.004	5.77	103.9	1.4	.36	.0	.00	.16	.04	1
1	10 ISL	16.72	16.72	33.327	24.296	362.1	.036	5.77	103.9							10
1	11	16.73	16.72	33.327	24.296	362.2	.040	5.77	103.9				.16	.05		11
1	20 ISL	16.30	16.30	33.319	24.389	353.7	.072	5.90	105.3							20
1	27	15.82	15.81	33.318	24.497	343.5	.096	6.01	106.3	1.5	.35	.0	.00	.21	.07	27
1	30 ISL	15.57	15.56	33.322	24.556	338.0	.107	6.05	106.5							30
1	42	14.68	14.67	33.356	24.776	317.3	.145	6.13	106.0	2.3	.43	.8	.10	.48	.29	42
1	50 ISL	14.40	14.40	33.401	24.870	308.7	.171	6.07	104.3							50
1	57	14.12	14.11	33.422	24.945	301.7	.192	5.96	101.9	2.4	.55	2.2	.29	.51	.30	57
1	67	13.17	13.16	33.379	25.107	286.5	.221	5.74	96.2	5.2	.76	5.4	.80	.47	.31	67
1	75 ISL	12.39	12.38	33.340	25.229	274.9	.244	5.40	89.0							75
1	77	12.24	12.23	33.338	25.255	272.5	.249	5.33	87.6	7.4	.81	7.6	.07	.41	.29	77
1	92	11.47	11.46	33.499	25.524	247.1	.288	4.96	80.3	10.5	1.09	12.2	.01	.11	.11	92
1	100 ISL	11.13	11.12	33.542	25.620	238.2	.308	4.74	76.1							101
1	107	10.90	10.88	33.566	25.680	232.5	.323	4.56	72.9	14.1	1.28	15.2	.01	.05	.07	107
1	121	10.42	10.40	33.645	25.826	219.0	.357	4.17	66.0	17.6	1.36	17.1	.01	.02	.07	122
1	125 ISL	10.29	10.27	33.670	25.867	215.1	.365	4.12	65.1							126
1	147	9.56	9.54	33.816	26.104	192.9	.410	3.78	58.8	23.2	1.55	20.7	.01	.02	.07	148
1	150 ISL	9.49	9.47	33.828	26.125	191.0	.415	3.68	57.2							151
1	167	9.14	9.12	33.882	26.223	181.9	.447	3.10	47.8	29.1	1.84	24.8	.01	.02	.05	168
1	187	8.84	8.84	33.923	26.301	174.8	.483	2.97	45.5	31.5	1.91	25.9	.01			188
1	200 ISL	8.61	8.59	33.962	26.369	168.5	.505	2.86	43.5							201
1	207	8.47	8.45	33.981	26.406	165.1	.517	2.79	42.4	35.4	2.02	27.5	.01			208
1	237	7.86	7.84	34.030	26.536	153.1	.564	2.52	37.8	42.0	2.18	29.6	.00			238
1	250 ISL	7.72	7.70	34.040	26.564	150.6	.584	2.44	36.5							252
1	277	7.52	7.50	34.052	26.603	147.2	.625	2.27	33.8	46.7	2.30	31.3	.00			279
1	300 ISL	7.34	7.32	34.076	26.647	143.3	.658	1.99	29.4							302
1	338	7.02	6.99	34.119	26.727	136.2	.711	1.47	21.6	57.0	2.62	34.9	.00			340
1	400 ISL	6.34	6.30	34.162	26.853	124.7	.792	.92	13.3							403
1	412	6.21	6.17	34.171	26.876	122.5	.807	.84	12.1	71.1	2.91	38.6	.00			415
1	489	5.75	5.74	34.240	26.984	112.9	.897	.51	7.3	81.0	3.08	40.4	.00			492
1	500 ISL	5.72	5.68	34.250	27.000	111.6	.910	.48	6.8							504
1	564	5.37	5.32	34.301	27.084	104.0	.979	.38	5.4	90.1	3.18	41.6	.00			568

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 93 26.7

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
32 57.5 N	117 18.4 W	05/07/84	2202 GMT	64 M	270	10 KT	280 U3 D6	1	1007.4 MB	22.0 C	19.5 C	7/8		SC	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SiO <sub>2</sub>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	10	19.09	19.09	33.600	23.930	397.1	.040	6.04	114.0				.35	.15	10

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 93 29

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 51.9 N	117 28.3 W	06/07/84	0031 GMT	655 M	290	11 KT	290 U3 D6	1	1006.5 MB	20.5 C	15.8 C	5/8		SC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SiO <sub>2</sub>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0	21.12	21.12	33.680	23.458	441.8	.000	5.45	106.9	4.2	.25	.0	.00	.15	.05	0
1	10	20.34	20.34	33.649	23.644	424.4	.043	5.59	108.0	4.2	.23	.0	.00	.15	.07	10
1	19	18.01	18.01	33.568	24.175	374.0	.079	6.04	111.7	4.1	.24	.0	.00	.19	.07	19
1	20 ISL	17.78	17.78	33.558	24.223	369.5	.083	6.05	111.3							20
1	29	16.18	16.17	33.500	24.556	338.0	.114	6.09	108.6	4.6	.28	.0	.00	.17	.07	29
1	30 ISL	16.00	15.99	33.497	24.594	334.4	.118	6.11	108.6							30
1	38	14.95	14.95	33.499	24.827	312.4	.144	6.27	109.1	4.4	.34	.0	.00	.18	.10	38
1	48	14.38	14.38	33.538	24.979	298.1	.174	6.28	108.0	4.6	.36	.0	.00	.29	.15	48
1	50 ISL	14.14	14.13	33.530	25.025	293.9	.180	6.16	105.4							50
1	58	13.14	13.13	33.504	25.208	276.5	.203	5.51	92.4	7.9	.61	2.5	.18	1.12	.59	58
1	67	12.05	12.04	33.538	25.447	253.9	.226	4.57	74.9	14.5	.96	9.8	.06	.42	.52	67
1	75 ISL	11.45	11.47	33.564	25.573	242.2	.247	4.23	68.5							75
1	82	11.17	11.17	33.588	25.647	235.2	.263	4.33	66.5	17.6	1.21	14.1	.02	.16	.27	82
1	96	10.45	10.44	33.682	25.848	216.3	.294	3.84	60.9	20.8	1.36	16.6	.01	.11	.10	96
1	100 ISL	10.30	10.28	33.712	25.898	211.6	.304	3.72	58.8							101
1	114	9.92	9.91	33.810	26.038	198.6	.333	3.31	51.9	27.0	1.68	21.5	.00	.02	.07	115
1	125 ISL	9.75	9.73	33.899	26.138	189.3	.354	2.98	46.5							126
1	138	9.60	9.59	33.994	26.236	180.2	.378	2.64	41.1	33.0	1.97	25.0	.01	.01	.04	139
1	150 ISL	9.52	9.50	33.996	26.251	179.0	.399	2.64	41.1							151
1	167	9.41	9.39	34.007	26.274	177.2	.430	2.64	41.0	34.2	2.00	25.5	.01			168
1	195	9.13	9.11	34.038	26.347	170.7	.478	2.55	39.3	36.7	2.07	26.4	.01			196
1	200 ISL	9.08	9.06	34.043	26.360	169.5	.487	2.54	39.1							201
1	224	8.85	8.83	34.073	26.420	164.4	.526	2.44	37.4	38.7	2.14	27.4	.01			225
1	250 ISL	8.78	8.76	34.131	26.476	159.5	.569	2.10	32.2							252
1	261	8.76	8.73	34.153	26.498	157.6	.586	1.96	30.0	42.1	2.31	28.9	.01			262
1	300 ISL	8.36	8.33	34.170	26.573	151.0	.647	1.82	27.5							302
1	318	8.15	8.12	34.171	26.605	148.2	.674	1.78	26.9	48.1	2.46	30.9	.00			320
1	390	7.74	7.71	34.243	26.723	138.1	.776	1.13	16.9	55.7	2.73	33.4	.00			392
1	400 ISL	7.64	7.60	34.247	26.741	136.4	.790	1.07	15.9							403
1	463	6.99	6.95	34.267	26.849	126.7	.873	.76	11.2	67.7	2.93	36.3	.01			466
1	500 ISL	6.65	6.61	34.281	26.906	121.5	.919	.60	8.7							504
1	538	6.35	6.28	34.296	26.960	116.5	.965	.44	6.4	77.2	3.09	38.7	.00			542

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 93 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 50.6 N	117 31.9 W	06/07/84	0534 GMT	856 M	310	09 KT	280 U3 D6	1	1006.7 MB	19.4 C	15.4 C	6/8		SC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SiO <sub>2</sub>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0	20.56	20.56	33.656	23.592	429.0	.000	5.50	106.7	3.4	.26	.0	.00	.13	.04	0
1	10	19.58	19.57	33.604	23.809	408.7	.042	5.78	110.1	3.6	.25	.0	.00	.17	.04	10
1	20 ISL	16.90	16.90	33.546	24.424	350.3	.080	6.05	109.4							20
1	21	16.65	16.65				.083	6.07	109.3	3.4	.28	.0	.00	.15	.05	21
1	30 ISL	15.59	15.58	33.493	24.683	325.9	.113	6.20	109.3							30
1	31	15.52	15.52	33.489	24.695	324.8	.116	6.21	109.3	3.5	.32	.0	.00	.16	.08	31
1	41	14.62	14.62	33.511	24.908	304.8	.148	6.21	107.3	3.5	.35	.0	.00	.19	.13	41
1	50 ISL	13.57	13.56	33.506	25.123	284.4	.175	5.64	95.5							50
1	56	12.96	12.95				.191	5.20	86.9	7.3	.68	3.6	.32	.66	.61	56
1	67	12.35	12.34	33.494	25.355	262.7	.220	4.69	77.3	10.3	.90	8.4	.11	.47	.49	67
1	75 ISL	11.85	11.84	33.506	25.459	253.0	.241	4.43	72.2							75
1	77	11.75	11.74	33.512	25.483	250.8	.246	4.38	71.3	13.0	1.07	11.8	.05	.32	.34	77
1	92	10.92	10.91	33.637	25.731	227.4	.281	3.90	62.4	17.8	1.34	16.3	.01	.11	.21	92
1	100 ISL	10.66	10.65	33.683	25.813	219.8	.300	3.73	59.3							101
1	112	10.39	10.37	33.735	25.901	211.7	.327	3.54	56.0	21.6	1.55	19.4	.01	.05	.11	113
1	125 ISL	10.06	10.04	33.784	25.996	202.9	.353	3.39	53.2							126
1	132	9.88	9.87	33.811	26.047	198.2	.368	3.31	51.8	25.1	1.71	21.9	.00	.02	.09	133
1	150 ISL	9.61	9.59	33.875	26.143	189.3	.402	3.13	48.8							151
1	157	9.53	9.51	33.901	26.175	186.4	.416	3.06	47.6	28.4	1.85	23.8	.01	.02	.06	158
1	188	9.28	9.26	33.997	26.292	175.9	.471	2.70	41.8	32.2	2.01	25.8	.01			189
1	200 ISL	9.14	9.12	34.014	26.328	172.7	.492	2.66	41.1							201
1	219	8.93	8.91	34.037	26.379	168.1	.524	2.60	39.9	34.9	2.08	26.9	.01			220
1	250 ISL	8.79	8.76	34.115	26.463	160.7	.576	2.17	33.3							252
1	254	8.77	8.75	34.123	26.477	160.0	.581	2.12	32.4	38.8	2.25	28.6	.01			255
1	300 ISL	8.46	8.43	34.142	26.535	154.6	.654	1.90	28.9							302
1	304	8.42	8.39	34.141	26.541	154.2	.661	1.89	28.7	42.1	2.37	29.7	.00			306
1	361	7.54	7.50	34.160	26.667	140.7	.744	1.50	22.3	52.2	2.50	33.2	.00			363
1	400 ISL	7.23	7.19	34.206	26.767	133.6	.798	1.13	16.7							403
1	446	6.97	6.93	34.261	26.847	126.6	.858	.73	10.7	64.4	2.92	36.6	.00			449
1	500 ISL	6.52	6.48	34.288	26.929	119.2	.924	.50	7.3							504
1	533	6.24	6.20	34.300	26.975	115.0	.963	.43	6.2	75.9	3.10	39.2	.00			537
1	600 ISL	5.78	5.73	34.333	27.060	107.3	1.037	.36								

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 93 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
32 50.7 N	117 31.5 W	06/07/84	1247 CMT	823 M	300	06 KT	270 03 05	2	1007.5 MB	19.1 C	19.2 C	8/8		ST	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI02	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	20.53	20.53	33.664	23.606	427.8	.000	5.49	106.5						0
1	1	20.53	20.53	33.664	23.606	427.7	.004	5.49	106.5	3.4	.24	.00	.14	.06	1
1	11	20.44	20.44	33.654	23.621	426.6	.043	5.52	106.8						10
1	20 ISL	17.78	17.78	33.653	23.622	426.5	.047	5.52	106.9	3.4	.24	.00	.15	.07	11
1	21	17.47	17.46	33.536	24.206	371.1	.083	5.94	109.4						20
1	30 ISL	15.74	15.73	33.527	24.275	364.6	.086	5.99	109.6	3.4	.25	.00	.17	.07	21
1	32	15.48	15.47	33.475	24.636	330.4	.118	6.09	107.6						30
1	42	14.56	14.55	33.471	24.690	325.2	.124	6.11	107.4	3.4	.31	.00	.18	.07	32
1	50 ISL	14.05	14.05	33.512	24.922	303.4	.155	6.12	105.7	3.1	.36	.00	.21	.13	42
1	52	13.92	13.92	33.524	25.037	292.7	.180	6.02	102.9						50
1	62	12.57	12.57	33.523	25.064	290.2	.185	6.00	102.3	3.6	.44	.00	.40	.42	52
1	72	11.80	11.79	33.501	25.317	266.2	.213	4.84	80.2	8.6	.81	6.1	.34	.50	62
1	75 ISL	11.66	11.65	33.549	25.501	248.9	.238	4.44	72.4	12.1	1.04	11.4	.06	.35	72
1	87	11.27	11.26	33.557	25.535	245.7	.246	4.37	71.0						75
1	100 ISL	10.69	10.68	33.588	25.631	236.9	.274	4.18	67.4	14.5	1.20	14.1	.03	.19	87
1	103	10.59	10.57	33.673	25.799	221.1	.305	3.83	61.0						101
1	122	9.95	9.94	33.691	25.832	218.0	.311	3.76	59.8						103
1	125 ISL	9.90	9.89	33.805	26.030	199.6	.352	3.35	52.6	24.1	1.65	21.6	.01	.02	123
1	147	9.60	9.58	33.819	26.049	197.8	.357	3.32	52.1						126
1	150 ISL	9.57	9.56	33.928	26.185	185.3	.400	3.13	48.8	28.6	1.86	24.2	.01	.02	148
1	178	9.33	9.31	33.939	26.198	184.1	.405	3.08	47.9						151
1	200 ISL	9.04	9.02	34.029	26.309	174.0	.455	2.57	39.8	32.2	2.02	26.2	.01		179
1	208	8.94	8.92	34.068	26.386	167.1	.493	2.47	38.0						201
1	239	8.71	8.69	34.078	26.409	165.0	.506	2.46	37.8	35.7	2.12	27.6	.01		209
1	250 ISL	8.63	8.60	34.119	26.478	159.0	.556	2.36	36.1	38.4	2.21	28.7	.01		240
1	279	8.40	8.37	34.141	26.508	156.3	.573	2.23	34.1						252
1	300 ISL	8.22	8.19	34.190	26.582	149.8	.618	1.87	28.4	44.1	2.43	30.8	.00		281
1	340	7.88	7.85	34.192	26.611	147.3	.649	1.75	26.5						302
1	400 ISL	7.43	7.39	34.181	26.654	143.8	.707	1.59	23.9	49.1	2.53	32.5	.00		342
1	416	7.30	7.26	34.213	26.745	135.9	.791	1.16	17.2						403
1	492	6.66	6.61	34.225	26.772	133.5	.813	1.04	15.4	57.8	2.77	35.1	.00		419
1	500 ISL	6.59	6.55	34.280	26.905	121.5	.909	.77	11.2	69.2	2.99	37.8	.00		495
1	568	6.13	6.08	34.286	26.917	120.4	.919	.74	10.7						504
				34.320	27.006	112.4	.998	.43	6.2	77.8	3.12	39.8	.00		572

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 95 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
32 50.8 N	117 31.4 W	06/07/84	1736 CMT	823 M	270	09 KT	270 04 05	2	1007.8 MB	19.8 C	19.0 C	8/8		ST	
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI02	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	21.00	21.00	33.685	23.495	439.3	.000	5.37	105.1						0
1	1	21.00	21.00	33.685	23.495	438.3	.004	5.37	105.1	2.7	.25	.00	.17	.06	1
1	11	20.53	20.53	33.657	23.600	428.6	.043	5.48	106.2						10
1	20 ISL	17.48	17.47	33.654	23.611	427.5	.048	5.49	106.4	2.7	.24	.00	.16	.07	11
1	21	17.14	17.14	33.553	24.293	362.8	.083	5.96	109.1						20
1	30 ISL	15.42	15.42	33.537	24.275	364.6	.087	6.01	109.2	2.6	.26	.00	.16	.06	21
1	31	15.32	15.31	33.444	24.682	326.0	.117	6.12	107.4						30
1	41	14.67	14.66	33.438	24.701	324.2	.120	6.12	107.2	3.0	.32	.00	.19	.09	31
1	50 ISL	13.76	13.75	33.537	24.918	303.8	.152	6.30	109.0	2.8	.35	.00	.29	.11	41
1	51	13.67	13.67	33.527	25.101	286.6	.179	5.98	101.6						50
1	61	12.98	12.97	33.512	25.247	272.9	.209	5.93	100.5	3.5	.45	.1	.02	.86	51
1	71	12.19	12.19	33.496	25.386	259.8	.235	5.22	87.2	6.4	.68	7.4	.28	.73	61
1	75 ISL	11.88	11.87	33.496	25.386	259.8	.235	4.63	76.1	10.0	.92	9.1	.08	.44	71
1	86	11.17	11.16	33.517	25.463	252.6	.246	4.45	72.6						75
1	100 ISL	10.49	10.47	33.597	25.655	234.5	.272	4.11	66.1	14.7	1.23	14.5	.03	.17	86
1	101	10.47	10.45	33.694	25.852	216.0	.305	3.85	61.0						101
1	120	10.08	10.07	33.698	25.858	215.4	.306	3.84	60.9	17.1	1.29	15.6	.01	.08	101
1	125 ISL	10.00	9.98	33.793	25.998	202.5	.347	3.36	52.9	23.1	1.65	21.1	.00	.03	121
1	146	9.65	9.63	33.812	26.028	199.8	.356	3.29	51.7						126
1	150 ISL	9.61	9.60	33.888	26.146	189.0	.398	3.09	48.2	26.8	1.82	23.4	.00	.02	147
1	176	9.40	9.38	33.899	26.160	187.7	.405	3.07	47.9						151
1	200 ISL	9.16	9.14	33.977	26.256	179.1	.453	2.92	45.3	30.6	1.96	25.3	.01		177
1	206	9.10	9.08	34.064	26.363	169.4	.494	2.51	38.8						188
1	236	8.82	8.80	34.085	26.389	167.0	.504	2.42	37.3	34.7	2.11	27.1	.01		207
1	250 ISL	8.74	8.71	34.180	26.509	156.1	.552	2.37	36.3	36.5	2.16	27.9	.01		237
1	277	8.59	8.56	34.193	26.532	154.1	.575	2.26	34.6						252
1	300 ISL	8.38	8.34	34.193	26.556	152.3	.617	1.99	30.3	42.0	2.38	30.1	.01		279
1	338	7.96	7.93	34.192	26.588	149.6	.651	1.79	27.1						302
1	400 ISL	7.24	7.20	34.192	26.651	144.1	.706	1.49	22.4	48.9	2.55	32.5	.00		340
1	412	7.11	7.07	34.218	26.775	132.8	.792	1.26	18.7						403
1	490	6.66	6.61	34.226	26.799	130.6	.809	1.22	18.0	60.2	2.82	35.7	.00		415
1	500 ISL	6.59	6.54	34.276	26.901	121.8	.906	.60	8.8	68.8	3.00	37.7	.00		493
1	564	6.11	6.06	34.282	26.915	120.6	.919	.58	8.5						504
				34.317	27.006	112.4	.993	.46	6.6	77.8	3.13	39.7	.00		568



LATITUDE		LONGITUDE		DAY/MO/YR		MESSENGER		BOTTOM		WIND		SPEED		WAVES		WEATHER		BAROMETER		DRY		WET		CLOUD AMT		TYPE	
32 50.5 N		117 31.4 W		07/07/84		0030 GMT		856 M		200 06 KT		260 03 06		2		1006.1 MB		20.3 C		18.4 C		8/8		ST			
CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR											
1	0	20.78	20.78	33.649	23.527	435.2	.000	5.49	107.0	2.6	.25	.0	.00	.16	.06	0											
1	10	20.14	20.14	33.628	23.680	420.9	.043	5.60	107.8	2.6	.23	.0	.00	.18	.06	10											
	20 ISL	17.25	17.24	33.539	24.337	358.6	.082	6.07	110.5						20												
1	21	16.97	16.97				.085	6.11	110.7	2.6	.27	.0	.00	.17	.08	21											
	30 ISL	15.85	15.84	33.453	24.595	334.3	.116	6.16	109.2						30												
1	31	15.78	15.77	33.448	24.606	333.3	.119	6.17	109.1	2.9	.30	.0	.00	.20	.08	31											
1	41	14.75	14.75	33.501	24.872	308.2	.151	6.25	108.3	2.9	.33	.0	.00	.25	.14	41											
	50 ISL	13.58	13.58	33.497	25.114	285.3	.178	5.71	96.6						50												
1	51	13.47	13.47				.181	5.64	95.2	4.9	.51	.9	.08	.90	.46	51											
1	61	12.40	12.40	33.491	25.343	263.8	.208	4.77	78.7	9.2	.84	7.8	.10	.47	.52	61											
1	71	11.75	11.75	33.517	25.485	250.4	.233	4.35	70.8	12.3	1.06	11.9	.05	.33	.43	71											
	75 ISL	11.47	11.46	33.547	25.561	243.3	.244	4.22	68.3						75												
1	86	10.90	10.89	33.626	25.727	227.7	.269	3.98	63.7	16.7	1.30	16.0	.02	.12	.21	86											
	100 ISL	10.61	10.60	33.679	25.818	219.3	.301	3.75	59.6						101												
1	101	10.61	10.60	33.681	25.820	219.1	.302	3.74	59.5	19.2	1.43	17.9	.01	.08	.19	101											
1	121	10.26	10.24	33.777	25.956	206.6	.347	3.36	53.1	22.6	1.62	20.7	.00	.04	.11	122											
	125 ISL	10.17	10.16	33.792	25.982	204.2	.354	3.32	52.3						126												
1	146	9.69	9.67	33.874	26.128	190.7	.396	3.10	48.4	26.7	1.79	23.2	.00	.02	.12	147											
	150 ISL	9.63	9.61	33.891	26.151	188.6	.403	3.05	47.5						151												
1	176	9.30	9.28	33.996	26.287	176.1	.451	2.68	41.5	31.9	1.98	25.7	.00		177												
	200 ISL	9.05	9.02	34.048	26.369	168.7	.492	2.48	38.2						201												
1	206	8.99	8.97	34.057	26.385	167.4	.502	2.44	37.5	35.1	2.09	27.2	.00		207												
1	236	8.81	8.78	34.101	26.449	161.7	.551	2.24	34.3	37.8	2.20	28.3	.00		217												
	250 ISL	8.71	8.68	34.128	26.486	158.4	.574	2.08	31.8						252												
1	276	8.50	8.47	34.174	26.554	152.4	.615	1.77	26.9	42.7	2.39	30.3	.00		278												
	300 ISL	8.28	8.25	34.189	26.600	148.5	.650	1.60	24.2						302												
1	336	7.92	7.89	34.193	26.657	143.4	.703	1.41	21.2	49.7	2.57	32.6	.00		338												
	400 ISL	7.30	7.26	34.193	26.748	135.5	.792	1.14	16.9						403												
1	412	7.18	7.14	34.195	26.765	133.9	.809	1.09	16.1	58.6	2.74	35.2	.00		415												
1	488	6.64	6.60	34.274	26.902	121.7	.905	.58	8.5	69.4	2.99	37.8	.00		491												
	500 ISL	6.56	6.51	34.283	26.920	120.0	.920	.53	7.7						504												
1	565	6.10	6.05	34.309	27.000	112.9	.996	.40	5.8	78.2	3.12	39.7	.00		569												

LATITUDE		LONGITUDE		DAY/MO/YR		MESSENGER		BOTTOM		WIND		SPEED		WAVES		WEATHER		BAROMETER		DRY		WET		CLOUD AMT		TYPE	
32 40.0 N		117 52.5 W		07/07/84		0549 GMT		565 M		300 07 KT		270 03 06		2		1007.2 MB		19.2 C		17.5 C		8/8		ST			
CAST	DEPTH M	TEMP DEG C	POT TEMP DEG C	SALINITY	SIGMA THETA	SVA	DYN HT	OXYGEN ML/L	OXY PCT	SIO3 UM/L	PO4 UM/L	NO3 UM/L	NO2 UM/L	CHL-A UG/L	PHAEO UG/L	PRESS D.BAR											
	0 ISL	19.95	19.95	33.681	23.771	412.5	.000	5.46	104.8							0											
1	1	19.95	19.95	33.681	23.771	412.0	.004	5.46	104.8	3.1	.22	.0	.00	.28	.08	1											
1	11	19.32	19.32	33.661	23.918	398.2	.041	5.52	104.7						10												
	20 ISL	19.21	19.20	33.656	23.944	395.8	.044	5.53	104.6	3.1	.22	.0	.00	.22	.09	11											
	20 ISL	17.25	17.25	33.597	24.350	354.5	.078	5.96	108.6						20												
	30 ISL	14.92	14.91	33.561	24.883	306.8	.111	6.23	108.3						30												
1	32	14.47	14.46	33.562	24.980	297.6	.117	6.25	107.7	3.9	.38	.0	.01	.35	.11	32											
1	47	12.95	12.95	33.544	25.276	269.7	.159	5.10	85.2	8.3	.77	6.9	.21	.71	.54	47											
	50 ISL	12.60	12.59	33.547	25.348	263.0	.168	4.88	81.0						50												
1	57	11.91	11.90	33.557	25.488	249.8	.185	4.49	73.4	11.7	1.02	11.1	.05	.36	.39	57											
1	72	11.06	11.05				.222	4.06	65.2	15.7	1.24	15.1	.02	.13	.22	72											
	75 ISL	10.92	10.91	33.574	25.681	231.7	.229	3.97	63.6						75												
1	88	10.49	10.48	33.591	25.771	223.4	.258	3.70	58.6	19.9	1.47	18.5	.01	.10	.12	88											
	100 ISL	10.14	10.13	33.661	25.885	212.9	.285	3.60	56.6						101												
1	103	10.09	10.08	33.679	25.908	210.7	.290	3.58	56.3	22.1	1.58	20.1	.01	.03	.08	103											
	125 ISL	9.87	9.85	33.861	26.088	194.1	.336	3.09	48.4						126												
1	127	9.85	9.84	33.877	26.103	192.7	.340	3.04	47.6	26.4	1.81	22.9	.00	.02	.06	128											
1	148	9.56	9.55	33.902	26.170	186.6	.380	3.04	47.3	28.0	1.84	23.6	.00	.05	.08	149											
	150 ISL	9.56	9.54	33.912	26.179	185.9	.383	3.00	46.6						151												
1	178	9.46	9.44	34.069	26.319	173.2	.433	2.34	36.4	33.1	2.11	26.6	.00	.04	.06	179											
	200 ISL	9.00	8.98	34.055	26.382	167.5	.471	2.58	39.6						201												
1	209	8.79	8.76	34.036	26.401	165.8	.486	2.75	41.8	34.6	2.01	26.7	.00	.02	.07	210											
1	239	8.33	8.31	34.032	26.468	159.8	.534	2.78	42.1	37.4	2.08	27.6	.01		240												
	250 ISL	8.20	8.18	34.033	26.489	158.0	.552	2.77	41.8						252												
1	279	7.95	7.92	34.048	26.537	153.7	.598	2.61	39.2	41.5	2.18	29.0	.01		281												
	300 ISL	7.87	7.84	34.081	26.576	150.3	.629	2.31	34.6						302												
1	339	7.72	7.69	34.147	26.650	144.0	.687	1.69	25.3	49.3	2.50	32.3	.00		341												
1	395	7.23	7.19	34.175	26.742	135.8	.764	1.35	19.7	55.4	2.66	34.2	.00		397												
	400 ISL	7.17	7.13	34.181	26.755	134.6	.772	1.27	18.8						403												
1	455	6.64	6.60	34.245	26.879	123.4	.843	.72	10.5	67.6	2.95	37.5	.00		458												
	500 ISL	6.37	6.32	34.286	26.947	117.2	.897	.51	7.3						504												
1	516	6.31	6.26	34.298	26.965	115.8	.915	.48	6.9	74.5	3.08	39.0	.00		519												

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 30.9 N	118 12.5 W	07/07/84	0927 GMT	1572 M	290	07 KT	280 03 06		1007.1 MB	17.7 C	17.0 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	19.50	19.50	33.690	23.894	400.2	.000	5.50	104.7	3.1	.21	.0	.00	.28	.12	0
1	10	19.50	19.50	33.691	23.895	400.5	-.040	5.52	105.1	3.3	.20	.0	.00	.36	.11	10
1	20	16.32	16.31	33.554	24.565	336.9	-.077	6.26	111.9							20
1	21	15.98	15.98	33.546	24.635	330.2	-.080	6.32	112.3	4.1	.30	.0	.00	.28	.14	21
1	30	14.33	14.33	33.519	24.976	298.0	-.108	6.21	106.7							30
1	31	14.21	14.21	33.519	25.000	295.7	-.111	6.20	106.3	4.5	.38	.0	.00	.42	.31	31
1	41	13.03	13.03	33.539	25.257	271.5	-.139	5.37	89.9	6.6	.65	3.7	.34	.57	.42	41
1	50	12.30	12.29	33.545	25.405	257.6	-.164	4.80	79.1							50
1	52	12.20	12.19	33.546	25.424	255.8	-.168	4.72	77.6	9.8	.89	8.6	.18	.69	.46	52
1	62	11.96	11.95	33.558	25.479	250.8	-.193	4.57	74.8	11.1	.99	10.2	.13	.55	.46	62
1	72	11.23	11.22	33.605	25.650	234.7	-.218	4.15	66.9	14.7	1.21	14.3	.04	.33	.40	72
1	75	11.10	11.09	33.614	25.680	231.9	-.225	4.08	65.5							75
1	87	10.81	10.80	33.637	25.750	225.5	-.252	3.92	62.6	17.1	1.36	16.7	.02	.12	.21	87
1	100	10.51	10.50	33.684	25.839	217.2	-.281	3.74	59.4							101
1	103	10.45	10.44	33.694	25.857	215.6	-.287	3.71	58.8	19.0	1.43	17.7	.02	.10	.13	103
1	122	9.86	9.84	33.785	26.030	199.5	-.328	3.46	54.2	23.4	1.65	21.4	.01	.03	.06	123
1	125	9.79	9.77	33.795	26.049	197.8	-.333	3.43	53.7							126
1	148	9.26	9.24	33.867	26.193	184.4	-.378	3.23	49.9	27.8	1.81	24.0	.01	.02	.07	149
1	150	9.22	9.20	33.871	26.202	183.6	-.381	3.22	49.7							151
1	178	8.79	8.77	33.962	26.341	170.8	-.431	3.02	46.2	32.1	1.93	25.8	.01			179
1	200	8.93	8.91	34.131	26.452	160.8	-.467	2.16	33.1							201
1	208	8.99	8.97	34.190	26.489	157.5	-.480	1.83	28.2	39.1	2.31	28.9	.01			209
1	239	8.71	8.69	34.258	26.587	148.8	-.527	1.35	20.7	44.3	2.52	30.9	.00			240
1	250	8.57	8.54	34.259	26.611	146.6	-.543	1.32	20.1							252
1	278	8.21	8.18	34.250	26.658	142.5	-.584	1.25	18.9	48.8	2.62	32.3	.00			280
1	300	8.05	8.02	34.257	26.688	139.9	-.615	1.16	17.5							302
1	338	7.83	7.79	34.274	26.734	136.1	-.667	1.00	15.0	54.3	2.76	33.9	.00			340
1	400	7.35	7.31	34.281	26.810	129.7	-.750	.80	11.8							403
1	413	7.24	7.20	34.281	26.825	128.3	-.767	.76	11.2	61.5	2.89	35.8	.00			416
1	489	6.56	6.51	34.275	26.914	120.5	-.861	.63	9.2	70.1	3.00	38.1	.00			492
1	500	6.46	6.41	34.280	26.931	118.9	-.874	.60	8.8							504
1	565	5.85	5.80	34.332	27.050	107.9	-.948	.41	5.9	82.6	3.15	40.5	.00			569

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 21.1 N	118 34.1 W	07/07/84	1351 GMT	1322 M	240	13 KT	280 04 05	1	1008.1 MB	18.1 C	16.9 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	18.80	18.80	33.618	24.018	388.4	.000	5.54	104.0							0
1	1	18.80	18.80	33.618	24.018	388.4	.004	5.54	104.0	2.8	.24	.0	.00	.14	.07	1
1	10	18.79	18.79	33.616	24.018	388.7	.039	5.55	104.2							10
1	11	18.79	18.79	33.616	24.018	388.7	.043	5.55	104.2	2.9	.23	.0	.00	.14	.07	11
1	20	18.14	18.14	33.587	24.157	375.8	.077	5.70	105.8							20
1	22	17.91	17.91	33.578	24.206	371.2	.084	5.75	106.1	2.9	.23	.0	.00	.16	.06	22
1	30	16.41	16.41	33.526	24.522	341.2	.113	5.96	106.8							30
1	32	16.07	16.06	33.519	24.595	334.4	.119	6.00	106.8	3.1	.29	.0	.00	.24	.11	32
1	42	15.38	15.38	33.505	24.738	321.0	.152	6.03	105.8	3.6	.31	.0	.00	.35	.12	42
1	50	14.53	14.52	33.501	24.921	303.8	.178	6.04	104.2							50
1	52	14.32	14.31	33.501	24.965	299.6	.183	6.04	103.8	3.8	.36	.0	.00	.47	.24	52
1	63	13.10	13.09	33.513	25.224	275.2	.214	5.39	90.3	6.2	.61	3.4	.17	.85	.50	63
1	72	12.01	12.00	33.555	25.467	252.2	.241	4.54	74.4	11.3	.97	10.2	.14	.51	.60	73
1	75	11.86	11.85	33.564	25.503	248.8	.246	4.44	72.4							75
1	88	11.27	11.26	33.607	25.645	235.5	.277	4.11	66.3	14.8	1.19	14.4	.04	.29	.35	88
1	100	10.80	10.79	33.647	25.760	224.8	.306	3.89	62.1							101
1	102						.311	3.85	61.4							103
1	123	10.10	10.09	33.761	25.970	205.3	.356	3.55	55.9	22.0	1.55	20.2	.01	.04	.10	124
1	125	10.06	10.04	33.775	25.989	203.6	.359	3.50	55.1							126
1	148	9.42	9.41	33.949	26.230	181.0	.404	2.92	45.3	29.0	1.87	24.6	.01	.01	.06	149
1	150	9.38	9.36	33.952	26.240	180.1	.407	2.93	45.4							151
1	178	8.72	8.71	33.952	26.344	170.5	.456	3.20	48.9	31.8	1.87	25.4	.01			179
1	200	8.36	8.34	33.985	26.427	163.0	.493	3.09	46.8							201
1	208	8.24	8.22	33.999	26.455	160.3	.506	3.05	46.1	36.2	1.97	27.0	.01			209
1	238	7.79	7.76	34.047	26.561	150.7	.552	2.47	37.0	43.3	2.21	30.1	.00			239
1	250	7.62	7.59	34.066	26.600	147.1	.570	2.26	33.7							252
1	278	7.29	7.27	34.109	26.680	139.8	.611	1.82	26.9	52.1	2.48	33.3	.00			280
1	300	7.17	7.14	34.147	26.727	135.7	.641	1.50	22.1							302
1	338	7.01	6.98	34.200	26.792	130.0	.691	1.05	15.4	60.6	2.77	35.9	.00			340
1	400	6.44	6.40	34.215	26.881	122.1	.769	.78	11.4							403
1	413	6.32	6.29	34.216	26.898	120.6	.786	.76	11.0	70.8	2.95	38.6	.00			416
1	491	5.95	5.91	34.284	26.998	111.8	.875	.48	6.9	79.0	3.10	40.2	.00			494
1	500	5.92	5.87	34.291	27.008	111.0	.886	.47	6.7							504
1	568	5.69	5.64	34.329	27.067	106.1	-.960	.39	5.6	84.6	3.17	41.1	.00			572

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 93 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 10.4 N	118 53.3 W	07/07/84	1749 GMT	1461 M	320	06 KT	280 04 06	1	1010.0 MB	17.3 C	16.0 C	7/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	18.57	18.57	33.598	24.060	384.6	.000	5.58	104.3							0
1	1	18.57	18.57	33.598	24.060	384.4	.004	5.58	104.3	2.7	.25	.0	.00	.17	.07	1
1	10 ISL	18.47	18.47	33.603	24.089	381.9	.038	5.60	104.4							10
1	11	18.46	18.46	33.604	24.092	381.6	.042	5.60	104.4	2.7	.24	.0	.00	.18	.09	11
1	20 ISL	18.07	18.06	33.588	24.177	373.9	.076	5.68	105.0							20
1	21	18.03	18.02	33.587	24.186	373.1	.080	5.69	105.2	2.8	.24	.0	.00	.24	.09	21
1	30 ISL	15.32	15.32	33.503	24.749	319.6	.111	6.01	105.4							30
1	32	14.74	14.73	33.498	24.872	307.9	.117	6.07	105.2	3.4	.34	.0	.00	.44	.23	32
1	42	13.85	13.84	33.539	25.091	287.3	.147	5.94	101.1	3.4	.46	.8	.09	.95	.43	42
1	50 ISL	13.03	13.02	33.541	25.259	271.6	.169	5.35	89.5							50
1	57	12.40	12.39	33.540	25.381	260.0	.187	4.79	79.1	9.0	.86	8.3	.20	.74	.54	57
1	67	11.78	11.77	33.568	25.521	246.9	.213			12.3	1.07	12.0	.08	.38	.50	67
1	75 ISL	11.31	11.30	33.605	25.636	236.1	.233	4.08	65.8							75
1	77	11.23	11.22	33.613	25.656	234.1	.236	4.04	65.1	15.1	1.23	14.7	.04	.18	.37	77
1	92	10.74	10.73	33.669	25.787	222.1	.271	3.80	60.6	17.9	1.40	17.2	.02	.11	.18	92
1	100 ISL	10.52	10.51	33.695	25.846	216.6	.289	3.73	59.2							101
1	112	10.17	10.15	33.739	25.942	207.7	.315	3.63	57.2	21.2	1.55	19.7	.01	.06	.08	113
1	125 ISL	9.62	9.60	33.812	26.091	193.7	.341	3.43	53.4							126
1	132	9.29	9.28	33.857	26.179	185.4	.355	3.30	51.0	27.1	1.77	23.6	.01	.02	.06	133
1	150 ISL	8.81	8.79	33.931	26.314	172.8	.386	3.11	47.6							151
1	187	8.24	8.22	34.023	26.473	158.2	.447	2.72	41.1	37.6	2.07	28.0	.01			188
1	200 ISL	8.12	8.09	34.042	26.508	155.2	.468	2.51	37.9							201
1	217	7.95	7.92	34.061	26.548	151.6	.494	2.23	33.5	42.9	2.27	30.3	.01			218
1	250 ISL	7.36	7.34	34.115	26.675	139.9	.542	1.71	25.3							252
1	251	7.35	7.33	34.116	26.677	139.7	.543	1.70	25.2	51.5	2.52	33.4	.00			252
1	300	7.02	7.00	34.157	26.756	132.9	.610	1.30	19.1	57.6	2.68	35.1	.00			302
1	356	6.66	6.62	34.182	26.825	126.9	.683	1.04	15.2	63.7	2.82	36.8	.00			358
1	400 ISL	6.39	6.36	34.224	26.894	120.8	.737	.77	11.2							403
1	440	6.18	6.15	34.264	26.953	115.6	.785	.56	8.1	73.8	3.05	39.0	.00			443
1	500 ISL	5.94	5.90	34.297	27.010	110.9	.853	.43	6.1							504
1	527	5.84	5.80	34.308	27.032	109.1	.883	.40	5.7	81.9	3.13	40.2	.00			531
1	600 TSL	5.52	5.47	34.342	27.099	103.3	.960	.32	4.5							604
1	614	5.46	5.41	34.348	27.111	102.2	.974	.31	4.4	90.0	3.20	41.0	.00			618

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 93 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 00.8 N	119 14.7 W	07/07/84	2138 GMT	1585 M	310	09 KT	280 04 06	1	1008.5 MB	17.3 C	17.0 C	6/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	18.89	18.89	33.622	23.998	390.3	.000	5.55	104.4	2.5	.24	.0	.00	.11	.04	0
1	10	18.38	18.38	33.616	24.120	379.0	.038	5.59	104.1	2.5	.23	.0	.00	.13	.06	10
1	20	18.33	18.33	33.613	24.130	378.4	.076	5.63	104.8	2.5	.22	.0	.00	.17	.05	20
1	30	16.66	16.66	33.542	24.477	345.6	.112	5.97	107.5	2.7	.27	.0	.00	.20	.09	30
1	40	14.67	14.67	33.486	24.877	307.7	.145	6.07	105.0	3.3	.34	.0	.00	.34	.14	40
1	50	12.95	12.94	33.511	25.252	272.2	.174	5.25	87.7	6.6	.67	4.5	.21	.19	.14	50
1	60	12.23	12.22	33.530	25.407	257.6	.200	4.66	76.7	9.9	.91	9.0	.12	.19	.20	60
1	70	11.67	11.66	33.576	25.547	244.5	.225	4.29	69.8	12.9	1.09	12.4	.04	.12	.14	70
1	75 ISL	11.43	11.42	33.597	25.607	238.8	.238	4.15	67.2							75
1	85	11.02	11.01	33.635	25.711	229.2	.260	3.95	63.4	16.3	1.29	15.8	.02	.12	.21	85
1	100	10.37	10.36	33.715	25.888	212.6	.293	3.65	57.8	20.2	1.49	19.1	.01	.05	.09	100
1	119	9.73	9.71	33.819	26.078	194.8	.334	3.35	52.3	24.8	1.68	22.2	.01	.02	.07	120
1	125 ISL	9.59	9.57	33.841	26.118	191.1	.344	3.30	51.4							126
1	145	9.16	9.14	33.900	26.234	180.4	.382	3.21	49.5	28.6	1.81	24.3	.00	.01	.04	146
1	150 ISL	9.07	9.06	33.910	26.256	178.4	.391	3.21	49.4							151
1	175	8.68	8.67	33.956	26.353	169.5	.434	3.19	48.7	31.8	1.86	25.3	.00			176
1	200 ISL	8.41	8.39	34.009	26.437	162.0	.475	2.82	42.7							201
1	205	8.36	8.34	34.018	26.452	160.6	.483	2.73	41.4	37.1	2.05	27.8	.00			206
1	235	7.84	7.81	34.057	26.561	150.7	.530	2.42	36.2	43.2	2.20	30.1	.00			236
1	250 ISL	7.55	7.53	34.064	26.607	146.4	.552	2.28	33.9							252
1	275	7.13	7.11	34.070	26.672	140.4	.589	2.05	30.2	50.3	2.40	32.7	.00			277
1	300 ISL	6.87	6.84	34.079	26.715	136.5	.623	1.80	26.4							302
1	336	6.64	6.61	34.106	26.768	131.9	.671	1.42	20.7	60.4	2.68	36.0	.00			338
1	400 ISL	6.60	6.57	34.249	26.886	121.8	.752	.70	10.1							403
1	411	6.60	6.56	34.271	26.904	120.2	.766	.59	8.6	69.1	2.97	38.1	.00			414
1	488	6.23	6.19	34.299	26.975	114.3	.856	.43	6.2	75.0	3.07	39.5	.00			491
1	500 ISL	6.14	6.10	34.302	26.989	113.1	.870	.41	6.0							504
1	564	5.56	5.51	34.313	27.071	105.5	.940	.37	5.3	85.8	3.17	41.4	.00			568

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	FOTTON	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
31 50.7 N	119 34.9 W	08/07/84	0046 GMT	1876 M	310 06 KT	280 05 06	2	1007.9 MB	18.2 C	16.2 C		R/S	ST			
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0	18.46	18.46	33.619	24.103	380.2	.000	5.55	103.5	3.1	.25	.0	.00	.14	.03	0
1	10	18.13	18.13	33.618	24.183	373.0	.038	5.57	103.3	3.1	.24	.0	.00	.19	.01	10
1	20	16.87	16.87	33.603	24.474	345.5	.073	5.83	105.5	2.4	.28	.0	.00	.22	.08	20
1	30	15.77	15.77	33.614	24.735	321.0	.107	6.07	107.5	2.2	.32	.0	.00	.36	.10	30
1	40	14.44	14.44	33.567	24.989	297.0	.137	6.02	103.7	3.5	.49	1.4	.18	.72	.42	40
1	50	13.65	13.64	33.552	25.143	282.6	.166	5.66	95.9	5.1	.66	4.3	.33	.74	.51	50
1	60	12.94	12.93	33.578	25.306	267.3	.193	5.22	87.2	7.8	.89	8.8	.05	.38	.28	60
1	70	12.35	12.34	33.577	25.420	256.7	.220	4.84	79.9	10.4	1.02	11.3	.02	.17	.19	70
1	75 ISL	12.07	12.06	33.573	25.470	252.0	.233	4.64	76.1							75
1	85	11.54	11.53	33.572	25.568	242.8	.257	4.28	69.4	13.5	1.19	14.2	.02	.11	.15	85
1	100	10.62	10.60	33.625	25.775	223.3	.292	3.74	59.5	18.5	1.42	18.1	.01	.04	.10	100
1	120	9.99	9.97	33.718	25.956	206.5	.337	3.43	53.8	23.0	1.61	21.3	.01	.02	.07	121
1	125 ISL	9.84	9.62	33.746	26.003	202.1	.346	3.38	52.8							126
1	145	9.23	9.21	33.866	26.197	183.9	.385	3.18	49.1	28.3	1.80	24.4	.00	.01	.03	146
1	150 ISL	9.12	9.10	33.887	26.230	180.9	.394	3.14	48.4							151
1	175	8.66	8.64	33.963	26.363	168.6	.437	2.97	45.3	33.1	1.93	26.4	.01			176
1	200 ISL	8.26	8.24	34.007	26.458	160.0	.478	2.84	42.9							201
1	205	8.19	8.17	34.013	26.473	158.6	.486	2.81	42.4	37.6	2.04	28.1	.00			206
1	235	7.81	7.78	34.045	26.556	151.0	.532	2.52	37.7	42.7	2.19	30.1	.00			236
1	250 ISL	7.60	7.58	34.057	26.595	147.6	.555	2.35	35.0							252
1	274	7.31	7.28	34.070	26.648	142.8	.591	2.07	30.6	50.0	2.38	32.5	.00			276
1	300 ISL	7.06	7.03	34.069	26.681	139.9	.627	1.81	26.6							302
1	335	6.78	6.75	34.071	26.721	136.4	.675	1.47	21.5	59.1	2.64	35.7	.00			337
1	400 ISL	6.27	6.23	34.169	26.867	123.2	.759	.90	12.9							403
1	410	6.19	6.16	34.188	26.891	121.0	.772	.82	11.8	71.3	2.92	38.9	.00			413
1	484	5.83	5.79	34.248	26.985	112.9	.860	.52	7.4	79.5	3.05	40.6	.00			489
1	500 ISL	5.76	5.72	34.260	27.003	111.3	.876	.48	6.8							504
1	561	5.43	5.38	34.315	27.088	103.7	.942	.35	5.0	88.4	3.18	41.8	.00			565

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	FOTTON	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
31 30.5 N	120 14.8 W	08/07/84	0606 GMT		300 07 KT	280 06 07	2	1011.1 MB	16.1 C	15.0 C		R/S	ST			
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0	16.61	16.61	33.420	24.394	352.5	.000	5.77	103.7	1.9	.34	.0	.00	.13	.04	0
1	10	16.55	16.55	33.411	24.400	352.2	.035	5.80	104.1	2.3	.33	.0	.00	.14	.04	10
1	20	16.51	16.51	33.420	24.417	350.9	.070	5.76	103.3	2.1	.33	.0	.00	.15	.12	20
1	30	15.87	15.87	33.487	24.615	332.4	.104	5.88	104.2	1.3	.34	.0	.00	.14	.09	30
1	40	15.39	15.38	33.469	24.710	323.6	.137	5.95	104.4	1.3	.36	.0	.02	.24	.11	40
1	50	13.95	13.94	33.415	24.975	298.6	.168	5.96	101.6	2.5	.52	2.0	.30	.33	.11	50
1	61	13.28	13.27	33.408	25.106	286.3	.200	5.70	95.8	4.2	.65	4.2	.43	.40	.38	61
1	71	12.86	12.85	33.443	25.217	276.0	.228	5.40	90.0	5.7	.75	6.5	.13	.49	.54	71
1	75 ISL	12.68	12.67	33.465	25.270	271.1	.240	5.28	87.7							75
1	86	12.14	12.13	33.521	25.417	257.3	.268	4.93	80.9	9.0	.95	10.2	.03	.16	.16	86
1	100	11.12	11.10	33.577	25.649	235.4	.302	4.18	67.2	14.6	1.21	14.8	.01	.08	.11	100
1	119	10.28	10.27	33.690	25.883	213.4	.347	3.79	59.8	19.6	1.44	18.7	.01	.02	.08	120
1	125 ISL	10.06	10.04	33.724	25.949	207.3	.358	3.66	57.5							126
1	144	9.38	9.37	33.832	26.145	188.9	.397	3.24	50.2	26.9	1.75	23.6	.01	.02	.05	145
1	150 ISL	9.26	9.25	33.853	26.181	185.6	.407	3.18	49.1							151
1	174	8.88	8.86	33.922	26.296	175.0	.451	3.00	46.0	31.6	1.91	26.0	.01			175
1	200 ISL	8.39	8.37	33.996	26.431	162.6	.494	2.79	42.3							201
1	204	8.32	8.29	34.005	26.449	160.9	.501	2.76	41.8	37.0	2.04	28.0	.01			205
1	234	7.91	7.89	34.037	26.534	153.2	.548	2.53	38.0	41.6	2.19	29.6	.01			235
1	250 ISL	7.69	7.67	34.049	26.576	149.4	.572	2.38	35.6							252
1	274	7.38	7.35	34.063	26.632	144.3	.608	2.15	31.9	48.7	2.35	32.0	.01			276
1	300 ISL	7.13	7.11	34.076	26.676	140.4	.644	1.92	28.3							302
1	333	6.85	6.82	34.094	26.730	135.7	.690	1.61	23.6	57.3	2.62	35.0	.00			335
1	400 ISL	6.17	6.14	34.161	26.872	122.7	.777	.91	13.1							403
1	407	6.11	6.07	34.169	26.887	121.3	.786	.84	12.1	72.0	2.96	39.0	.00			410
1	484	5.72	5.68	34.233	26.986	112.6	.875	.53	7.6	81.1	3.08	40.6	.00			487
1	500 ISL	5.64	5.60	34.246	27.006	110.8	.893	.48	6.9							504
1	560	5.36	5.31	34.291	27.077	104.6	.958	.37	5.2	89.3	3.18	41.7	.00			564

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 93 80

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 10.8 N	120 55.2 W	08/07/84	1102 GMT		340	10 KT	300 05 06		1011.1 MB	15.0 C	14.5 C					
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	ST03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	1 ISL	16.62	16.62	33.319	24.314	360.0	.000	5.68	102.1						0	
1	1	16.62	16.62	33.319	24.314	360.1	.004	5.68	102.1	1.8	.35	.1	.00	.15	.04	1
1	10 ISL	16.64	16.64	33.320	24.310	360.8	.036	5.79	104.1							10
1	11	16.64	16.64	33.320	24.310	360.9	.040	5.80	104.3	1.8	.34	.1	.00	.15	.04	11
1	20 ISL	16.29	16.28	33.280	24.361	356.3	.072	5.87	104.8							20
1	27	15.81	15.81	33.251	24.447	348.3	.096	5.94	105.0	2.0	.35	.1	.00	.19	.08	27
1	30 ISL	15.47	15.47	33.246	24.519	341.5	.107	6.03	105.8							30
1	42	14.27	14.27	33.282	24.805	314.6	.146	6.25	107.1	2.1	.42	.9	.08	.32	.10	42
1	50 ISL	14.05	14.04	33.354	24.907	305.1	.171	6.07	103.7							50
1	57	13.99	13.98	33.426	24.976	298.6	.191	5.83	99.4	3.3	.50	2.1	.34	.43	.35	57
1	68	13.64	13.63	33.542	25.138	283.6	.223	5.43	92.0					.45	.35	68
1	75 ISL	12.88	12.87	33.488	25.248	273.2	.244	5.32	88.7							75
1	78	12.58	12.57	33.463	25.287	269.5	.251	5.29	87.6	6.7	.82	7.9	.03			78
1	93	11.80	11.79	33.498	25.463	253.1	.290	4.88	79.5	9.4	.97	10.5	.02	.09	.13	93
1	100 ISL	11.59	11.58	33.520	25.518	247.9	.308	4.77	77.5							101
1	108	11.39	11.37	33.549	25.579	242.3	.327	4.66	75.3	11.8	1.11	13.0	.01	.05	.09	108
1	123	10.61	10.59	33.650	25.797	221.8	.364	4.15	66.0	16.9	1.32	16.5	.01	.03	.06	124
1	125 ISL	10.54	10.52	33.660	25.817	220.0	.367	4.11	65.2							126
1	148	9.72	9.70	33.794	26.061	197.1	.416	3.68	57.4	22.7	1.56	20.7	.01	.01	.03	149
1	150 ISL	9.67	9.65	33.803	26.076	195.7	.419	3.67	57.2							151
1	168	9.24	9.22	33.882	26.208	183.4	.454	3.58	55.3	26.1	1.67	22.5	.01	.01	.03	169
1	189	8.85	8.83	33.933	26.309	174.1	.491	3.28	50.2	30.2	1.82	24.7	.00			190
1	200 ISL	8.58	8.56	33.968	26.380	167.5	.510	3.15	47.9							201
1	207	8.36	8.34	33.996	26.434	162.4	.524	3.03	45.9	35.3	1.96	26.8	.00			210
1	239	8.05	8.02	34.042	26.519	154.9	.572	2.44	36.7	40.8	2.18	29.7	.00			240
1	250 ISL	7.89	7.86	34.052	26.550	152.0	.589	2.32	34.7							252
1	279	7.43	7.40	34.068	26.629	144.8	.633	2.10	31.2	48.1	2.36	32.1	.00			281
1	300 ISL	7.11	7.08	34.068	26.674	140.6	.662	1.98	29.1							302
1	340	6.53	6.50	34.067	26.751	133.5	.717	1.73	25.1	60.0	2.60	35.8	.00			342
1	400 ISL	5.93	5.90	34.109	26.862	123.4	.794	1.13	16.2							403
1	415	5.83	5.80	34.125	26.887	121.1	.813	.98	14.0	74.0	2.91	39.5	.00			418
1	492	5.77	5.73	34.239	26.985	112.8	.902	.53	7.6	80.6	3.07	40.6	.00			495
1	500 ISL	5.74	5.70	34.248	26.996	111.9	.911	.50	7.1							504
1	568	5.34	5.29	34.298	27.085	103.9	.985	.37	5.2	89.9	3.16	42.0	.00			572

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 93 90

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 51.1 N	121 35.7 W	08/07/84	1659 GMT		340	10 KT	310 05 07	2	1010.3 MB	16.3 C	15.0 C		R/R	ST		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	ST03	P04	N03	N02	CHL-A	PHAE0	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	1 ISL	16.90	16.89	33.283	24.222	368.8	.000	4.95							0	
1	1	16.90	16.89	33.283	24.222	368.9	.004			2.1	.33	.0	.00	.13	.04	1
1	10 ISL	16.90	16.89	33.279	24.220	369.4	.037	5.65	102.1							10
1	11	16.90	16.89	33.279	24.220	369.5	.040	5.71	103.1	2.1	.33	.0	.00	.11	.06	11
1	20 ISL	15.87	15.86	33.363	24.521	341.1	.073	6.12	108.4							20
1	26	15.11	15.11	33.429	24.738	320.5	.092	6.25	109.1	1.2	.38	.4	.07	.38	.08	26
1	30 ISL	14.95	14.95	33.440	24.781	316.6	.105	6.20	107.8							30
1	42	14.67	14.67	33.433	24.836	311.6	.142	6.04	104.5	1.7	.43	1.1	.14	.50	.42	42
1	50 ISL	14.21	14.20	33.430	24.933	302.7	.167	5.90	101.1							50
1	57	13.74	13.73	33.422	25.024	294.1	.188	5.77	97.9	2.8	.66	3.3	.58	.44	.31	57
1	67	12.99	12.98	33.395	25.154	281.9	.216	5.56	92.9	5.0	.78	6.5	.61	.26	.21	67
1	75 ISL	12.37	12.36	33.391	25.271	270.9	.239	5.45	89.9							75
1	77	12.26	12.25	33.394	25.296	268.6	.244	5.43	89.3	7.1	.89	8.9	.04	.15	.11	77
1	92	11.48	11.47	33.489	25.515	248.0	.282	5.00	80.9	10.2	1.06	12.0	.02	.07	.08	92
1	100 ISL	11.16	11.15	33.522	25.598	240.3	.303	4.74	76.2							101
1	107	10.94	10.93	33.547	25.658	234.7	.318	4.56	73.0	13.9	1.24	15.0	.01	.04	.08	107
1	121	10.36	10.35	33.643	25.834	218.2	.352	4.33	68.5	17.9	1.39	17.7	.01	.02	.08	122
1	125 ISL	10.24	10.22	33.669	25.876	214.3	.360	4.28	67.5							126
1	146	9.53	9.51	33.819	26.111	192.2	.403	3.82	59.4	23.0	1.54	20.7	.02	.00	.03	147
1	150 ISL	9.40	9.39	33.840	26.148	188.7	.410	3.65	56.6							151
1	167	8.89	8.87	33.919	26.292	175.3	.441	3.00	46.0	31.2	1.89	26.0	.01	.01	.04	168
1	187	8.56	8.54	33.964	26.379	167.3	.475	3.08	46.9	33.2	1.92	26.4	.01			188
1	200 ISL	8.36	8.34	33.991	26.430	162.6	.497	3.19	48.3							201
1	207	8.25	8.23	34.002	26.456	160.3	.508	3.22	48.7	35.1	1.91	26.4	.02			208
1	237	7.71	7.69	34.034	26.561	150.5	.554	2.75	41.1	42.4	2.13	29.3	.02			238
1	250 ISL	7.56	7.54	34.050	26.595	147.5	.574	2.55	38.0							252
1	276	7.32	7.29	34.076	26.651	142.6	.612	2.18	32.3	49.6	2.39	32.4	.01			278
1	300 ISL	7.01	6.99	34.082	26.698	138.3	.645	1.89	27.7							302
1	337	6.53	6.50	34.088	26.768	131.9	.695	1.48	21.5	60.9	2.65	36.1	.00			339
1	400 ISL	5.94	5.90	34.142	26.887	121.0	.775	.93	13.4							403
1	412	5.84	5.81	34.154	26.908	119.1	.790	.85	12.2	75.1	2.94	39.7	.00			415
1	489	5.45	5.41	34.198	26.991	111.9	.878	.59	8.4	83.8	3.08	41.3	.00			492
1	500 ISL	5.41	5.36	34.208	27.005	110.7	.891	.56	7.9							504
1	565	5.18	5.13	34.282	27.091	103.1	.960	.39	5.5	91.9	3.17	42.3	.00			569



RV NEW HORIZON

CALCOFI CRUISE #407

STATION 93 100

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 30.6 N	122 16.1 W	08/07/84	2307 GMT	4149 M	360	13 KT	310 05 07	2	1012.0 MB	16.9 C	15.2 C	8/8		ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	17.03	17.03	33.267	24.178	373.1	.000	5.75	104.1	1.6	.36	.0	.00	.17	.05	0
1	10	16.91	16.91	33.266	24.206	370.7	.037	5.78	104.4	1.6	.35	.0	.00	.18	.06	10
	20	16.86	16.86	33.265	24.217	370.1	.074	5.82	105.0							20
1	21	16.86	16.85	33.265	24.218	370.0	.078	5.82	105.0	1.5	.35	.0	.00	.20	.06	21
	30	15.93	15.92	33.304	24.461	347.1	.110	6.01	106.6							30
1	31	15.80	15.80	33.310	24.494	343.9	.113	6.03	106.6	1.4	.37	.2	.04	.25	.10	31
1	41	14.20	14.19	33.409	24.919	303.7	.146	6.05	103.6	1.8	.51	1.8	.22	.35	.20	41
	50	13.21	13.21	33.364	25.085	288.1	.173	5.74	96.3							50
1	51	13.15	13.14	33.358	25.094	287.2	.175	5.71	95.7	4.2	.71	4.8	.74	.34	.21	51
1	61	12.42	12.41	33.392	25.262	271.4	.203	5.46	90.1	5.9	.84	8.0	.20	.33	.24	61
1	71	11.79	11.78	33.441	25.419	256.6	.229	5.17	84.2	8.3	.98	10.6	.04	.17	.19	71
	75	11.60	11.59	33.469	25.477	251.3	.240	5.06	82.1							75
1	86	11.23	11.22	33.535	25.596	240.2	.266	4.80	77.3	11.6	1.17	13.6	.02	.08	.11	86
	100	10.82	10.81	33.587	25.709	229.6	.300	4.48	71.6							101
1	102	10.78	10.77	33.591	25.720	228.6	.303	4.45	71.0	15.2	1.31	16.1	.01	.03	.09	102
1	121	10.11	10.10	33.694	25.916	210.4	.347	3.90	61.4	20.5	1.50	19.5	.01	.02	.07	122
	125	10.00	9.98	33.712	25.950	207.2	.354	3.80	59.7							126
1	146	9.37	9.35	33.814	26.133	190.1	.397	3.40	52.6	26.1	1.73	23.3	.02	.01	.04	147
	150	9.28	9.26	33.831	26.161	187.4	.404	3.41	52.8							151
1	176	8.73	8.71	33.936	26.331	171.7	.451	3.54	54.1	29.6	1.73	23.9	.02			177
	200	8.28	8.26	33.991	26.442	161.4	.490	3.11	47.0							201
1	207	8.18	8.16	34.001	26.466	159.3	.501	2.95	44.5	37.0	1.99	27.4	.02			208
1	237	7.96	7.93	34.030	26.522	154.4	.548	2.49	37.4	41.3	2.15	29.7	.02			238
	250	7.77	7.75	34.044	26.560	150.9	.568	2.30	34.5							252
1	276	7.38	7.35	34.073	26.639	143.7	.607	1.96	29.1	49.6	2.39	32.7	.01			278
	300	7.14	7.11	34.097	26.692	139.0	.641	1.67	24.6							302
1	337	6.84	6.81	34.128	26.758	133.1	.691	1.28	18.7	59.8	2.67	35.9	.00			339
	400	6.36	6.32	34.163	26.850	124.9	.772	.89	12.9							403
1	412	6.26	6.22	34.167	26.866	123.4	.788	.84	12.1	69.9	2.89	38.5	.00			415
1	489	5.35	5.31	34.185	26.993	111.6	.877	.59	8.3	84.9	3.07	41.4	.00			492
	500	5.27	5.23	34.194	27.010	110.0	.890	.56	7.8							504
1	567	5.03	4.98	34.275	27.103	101.8	.961	.36	5.1	94.7	3.19	42.6	.00			571

RV NEW HORIZON

CALCOFI CRUISE #407

STATION 97 29

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 17.4 N	117 04.8 W	13/07/84	1436 GMT	46 M	040	03 KT	030 02 04	1	1006.8 MB	20.1 C	19.7 C	1/5		AS		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	10	17.92	17.92	33.564	24.192	372.0	.037	5.55	102.4	3.8	.27	.1	.00	.82	.26	10

RV NEW HORIZON

CALCOFI CRUISE #407

STATION 97 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 15.5 N	117 09.5 W	13/07/84	1618 GMT	58 M	310	12 KT	320 03 04	1	1007.0 MB	22.8 C	21.0 C	5/8		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	20.70	20.70	33.616	23.522	439.8	.000	5.55	108.0							0
1	1	20.70	20.70	33.616	23.522	435.7	.004	5.55	108.0	3.7	.22	.0	.00	.52	.16	1
	10	18.79	18.79	33.580	23.992	391.2	.042	6.04	113.3							10
1	11	18.54	18.54	33.575	24.050	385.7	.045	6.07	113.4	3.4	.24	.0	.00	.68	.23	11
	20	15.68	15.68	33.540	24.698	324.2	.077	6.19	109.4							20
1	22	15.09	15.09	33.539	24.827	311.9	.084	6.22	108.6	3.5	.35	.0	.00	.52	.27	22
	30	13.54	13.53	33.516	25.137	282.5	.108	5.59	94.6							30
1	32	13.28	13.27	33.512	25.186	278.0	.113	5.42	91.1	6.0	.65	4.5	.17	.90	.48	32
	50	12.71	12.70	33.565	25.341	263.7	.162	4.72	78.5							50
1	53	12.62	12.61	33.573	25.364	261.5	.169	4.70	78.0	9.9	.90	8.5	.32	.69	.50	53

RV NEW HORIZON

CALCOFI CRUISE #407

STATION 97 32

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 11.5 N	117 17.3 W	13/07/84	1810 GMT	1408 M	300	11 KT	310 04 04	1	1006.1 MB	23.1 C	21.0 C	6/8		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	10	20.74	20.73	33.584	23.489	439.2	.044	5.57	108.4	3.7	.25	.1	.00	.69	.14	10

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
32 05.4 N	117 29.4 W	13/07/84	2100 GMT	1202 M	320 12 KT	270 03 04	1	1005.9 MB	22.2 C	-21.9 C	6/8		SC		
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C ISL	21.97	21.97	33.693	23.235	475.0	.000	5.17	102.9						0
1	1	21.97	21.97	33.693	23.235	463.1	.005	5.17	102.9	2.6	.21	.00	.20	.08	1
1	1C ISL	18.52	18.52	33.614	24.083	382.5	.043	5.77	107.7						10
1	11	18.27	18.27	33.612	24.144	376.7	.046	5.81	108.0	2.3	.26	.00	.18	.06	11
1	2C ISL	17.24	17.23	33.599	24.385	354.0	.079	5.96	108.5						20
1	22	17.08	17.08	33.592	24.416	351.1	.086	5.97	108.4	2.3	.28	.00	.17	.06	22
1	3C ISL	15.17	15.16	33.558	24.826	312.2	.113	6.25	109.3						30
1	32	14.73	14.72	33.556	24.920	303.4	.119	6.29	109.0	3.5	.38	.00	.16	.12	32
1	42	13.69	13.69	33.557	25.133	283.3	.148	5.86	99.4	5.0	.55	2.5	.12	.87	42
1	5C ISL	13.51	13.51	33.555	25.173	279.8	.171	5.68	96.0						50
1	53	13.48	13.47	33.555	25.180	279.1	.179	5.60	94.6	5.8	.64	4.4	.10	1.08	53
1	63	12.78	12.77	33.546	25.312	266.8	.206	4.95	82.4	8.2	.85	8.2	.10	.70	63
1	73	11.27	11.26	33.578	25.623	233.3	.231	4.99	67.5	14.3	1.20	14.3	.03	.21	73
1	75 ISL	11.11	11.11	33.592	25.661	233.7	.236	4.08	65.6						75
1	89	10.70	10.69	33.677	25.800	220.7	.267	3.71	59.1	18.6	1.43	17.8	.02	.18	89
1	100 ISL	10.26	10.25	33.737	25.925	209.1	.292	3.53	55.8						101
1	104	10.13	10.12	33.754	25.959	205.8	.299	3.49	54.9	22.0	1.57	20.4	.01	.07	104
1	124	9.76	9.75	33.861	26.105	192.4	.341	3.15	49.2	25.9	1.75	22.8	.01	.01	125
1	125 ISL	9.75	9.74	33.863	26.109	192.1	.342	3.15	49.2						126
1	144	9.20	9.19	33.939	26.258	178.3	.387	3.10	47.9	29.3	1.83	24.3	.01	.02	150
1	150 ISL	9.19	9.18	33.941	26.261	178.0	.388	3.10	47.8						151
1	180	8.99	8.97	34.023	26.358	169.3	.440	2.76	42.4	33.0	1.98	26.1	.02		181
1	20C ISL	8.97	8.95	34.110	26.430	162.9	.473	2.27	34.9						201
1	21C	8.96	8.93	34.149	26.463	160.0	.489	2.02	31.1	37.9	2.23	28.4	.03		211
1	241	8.90	8.87	34.219	26.527	154.5	.538	1.61	24.7	41.3	2.38	29.8	.01		242
1	250 ISL	8.87	8.85	34.233	26.542	153.3	.552	1.52	23.3						252
1	28C	8.77	8.74	34.264	26.584	149.9	.598	1.28	19.6	44.4	2.51	30.9	.01		282
1	30C ISL	8.63	8.60	34.272	26.611	147.6	.627	1.19	18.1						302
1	341	8.29	8.25	34.279	26.670	142.6	.687	1.04	15.8	49.7	2.64	32.5	.00		343
1	400 ISL	7.74	7.70	34.292	26.762	134.5	.769	.79	11.8						403
1	417	7.57	7.53	34.295	26.789	132.1	.792	.72	10.7	58.4	2.83	34.9	.00		420
1	493	6.96	6.91	34.317	26.894	122.9	.888	.49	7.2	67.2	2.97	37.2	.00		496
1	50C ISL	6.90	6.85	34.317	26.902	122.2	.897	.48	7.1						504
1	570	6.30	6.25	34.302	26.969	116.1	.980	.42	6.1	75.6	3.07	39.3	.00		574

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 55.7 N	117 49.7 W	14/07/84	002R GMT	855 M	280 16 KT	270 04 04	1	1006.8 MB	20.2 C	15.9 C	2/3		SC		
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C ISL	20.90	20.90	33.674	23.513	418.3	.000	5.40	105.4						0
1	1	20.90	20.90	33.674	23.513	436.5	.004	5.40	105.4	2.8	.39	.00	.21	.08	1
1	1C ISL	20.24	20.24	33.661	23.679	421.0	.043	5.50	106.1						10
1	11	20.17	20.17	33.660	23.697	419.4	.047	5.51	106.2	2.6	.37	.00	.22	.12	11
1	20 ISL	17.09	17.09	33.615	24.432	349.6	.082	5.90	107.2						20
1	22	16.42	16.41	33.616	24.590	334.5	.088	5.99	107.4	1.4	.44	.00	.20	.08	22
1	3C ISL	15.47	15.47	33.587	24.781	316.6	.115	6.15	108.2						30
1	32	15.34	15.34	33.575	24.800	314.8	.121	6.16	108.1	2.0	.47	.1	.00	.31	32
1	42	14.02	14.01	33.517	25.040	292.2	.151	6.01	102.6	4.0	.58	.6	.07	.58	42
1	5C ISL	13.46	13.45	33.517	25.154	281.5	.174	5.60	94.6						50
1	52	13.36	13.36	33.520	25.176	279.5	.179	5.49	92.5	5.3	.74	3.3	.24	.34	52
1	62	12.61	12.60	33.558	25.355	262.6	.206	4.87	80.8	8.3	.96	8.3	.13	.39	62
1	73	11.91	11.90	33.552	25.483	250.6	.234	4.41	72.1	11.4	1.13	11.5	.09	.23	73
1	75 ISL	11.72	11.71	33.563	25.528	246.5	.240	4.32	70.3						75
1	88	10.77	10.76	33.652	25.768	223.8	.270	3.88	61.9	17.3	1.43	16.7	.03	.11	88
1	10C ISL	10.43	10.42	33.745	25.901	211.4	.297	3.54	56.1						101
1	103	10.40	10.38	33.761	25.919	209.7	.302	3.49	55.3	21.5	1.48	19.5	.02	.10	103
1	122	10.06	10.05	33.805	26.011	201.4	.343	3.50	55.0	22.6	1.52	20.5	.01	.04	123
1	125 ISL	10.03	10.02	33.819	26.027	199.9	.348	3.44	54.1						126
1	147	9.82	9.81	33.957	26.170	186.7	.391	2.79	43.7	28.2	1.80	23.9	.01	.02	148
1	150 ISL	9.81	9.80	33.973	26.185	185.4	.396	2.71	42.5						151
1	177	9.72	9.70	34.112	26.309	174.2	.445	2.10	32.8	33.2	2.03	26.5	.02		178
1	20C ISL	9.51	9.49	34.173	26.391	166.8	.484	1.88	29.2						201
1	207	9.44	9.42	34.185	26.413	164.9	.495	1.83	28.4	36.7	2.17	28.1	.01		208
1	238	9.23	9.21	34.256	26.503	156.9	.545	1.44	22.3	40.5	2.33	29.4	.01		239
1	25C ISL	9.12	9.10	34.267	26.529	154.7	.564	1.39	21.4						252
1	277	8.86	8.84	34.277	26.578	150.4	.606	1.32	20.3	44.2	2.42	30.5	.01		279
1	30C ISL	8.67	8.64	34.289	26.618	147.0	.639	1.17	17.9						302
1	337	8.33	8.29	34.303	26.683	141.3	.693	.91	13.8	50.7	2.60	32.5	.00		339
1	400 ISL	7.51	7.47	34.303	26.804	130.3	.778	.67	10.0						403
1	413	7.34	7.30	34.301	26.827	128.3	.796	.64	9.5	61.4	2.79	35.6	.00		416
1	491	6.75	6.71	34.285	26.896	122.4	.893	.54	7.9	68.6	2.88	37.6	.00		494
1	50C ISL	6.68	6.64	34.287	26.907	121.5	.904	.52	7.6						504
1	570	6.15	6.10	34.330	27.011	112.0	.986	.35	5.0	78.8	3.02	39.7	.00		574

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 45.4 N	118 09.8 W	14/07/84	0400 GMT	1484 M	290	08 KT	280 04 04	1	1008.0 MB	19.0 C	19.0 C	2/8		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	20.53	20.53	33.716	23.644	424.9	.000	5.44	105.5							0
1	1	20.53	20.53	33.716	23.644	424.0	.004	5.44	105.5	2.2	.23	.0	.00	.35	.11	1
1	10 ISL	20.19	20.19	33.708	23.729	416.3	.042	5.51	106.3							10
1	11	20.15	20.15	33.707	23.738	415.5	.046	5.52	106.3	2.1	.22	.0	.00	.39	.09	11
1	21 ISL	18.02	18.01	33.586	24.188	372.9	.082	5.92	109.5							20
1	21	17.74	17.74	33.574	24.245	367.4	.085	5.97	109.8	2.3	.24	.0	.00	.22	.10	21
1	30 ISL	15.35	15.33	33.520	24.760	318.5	.116	6.22	109.1							30
1	31	15.12	15.12	33.519	24.806	314.2	.119	6.23	108.8	3.2	.33	.0	.00	.49	.24	31
1	41	13.83	13.83	33.518	25.078	288.5	.149	6.10	103.8	3.5	.40	.1	.01	1.10	.69	41
1	50 ISL	12.81	12.81	33.524	25.289	268.7	.175	5.22	86.9							50
1	51	12.73	12.72	33.526	25.306	267.0	.177	5.13	85.3	7.1	.71	5.4	.22	1.11	.61	51
1	62	11.65	11.64	33.580	25.554	243.6	.205	4.27	69.4					.45	.53	62
1	72	11.27	11.26	33.605	25.643	235.3	.228	4.07	65.6	14.7	1.20	14.7	.06	.30	.41	72
1	75 ISL	11.11	11.10	33.610	25.677	232.2	.236	4.00	64.3							75
1	87	10.56	10.55	33.644	25.799	220.8	.263	3.77	59.9	18.2	1.39	17.9	.03	.12	.18	87
1	100 ISL	10.17	10.16	33.731	25.934	208.2	.291	3.53	55.7							101
1	102	10.14	10.12	33.741	25.948	206.8	.294	3.51	55.3	21.6	1.54	20.2	.01	.07	.11	102
1	121	9.60	9.58	33.802	26.086	194.1	.334	3.31	51.5	25.2	1.68	22.6	.01	.03	.08	122
1	125 ISL	9.51	9.49	33.816	26.112	191.7	.341	3.29	51.2							126
1	146	9.06	9.04	33.899	26.250	179.0	.381	3.22	49.5	29.0	1.78	24.3	.01	.02	.07	147
1	150 ISL	9.01	9.00	33.909	26.264	177.6	.387	3.19	49.0							151
1	176	8.70	8.68	33.961	26.354	169.5	.433	3.00	45.8	32.6	1.89	25.9	.01			177
1	200 ISL	8.21	8.19	34.001	26.462	159.5	.472	3.02	45.5							201
1	207	8.06	8.04	34.011	26.491	156.8	.483	3.02	45.5	37.6	1.95	27.3	.01			208
1	237	7.72	7.69	34.039	26.564	150.3	.528	2.65	39.6	42.8	2.11	29.4	.00			238
1	250 ISL	7.59	7.57	34.054	26.594	147.7	.548	2.44	36.3							252
1	276	7.38	7.36	34.084	26.648	142.9	.587	2.01	29.8	49.6	2.34	32.1	.00			278
1	300 ISL	7.21	7.18	34.106	26.689	139.2	.620	1.71	25.3							302
1	338	6.96	6.93	34.143	26.754	133.6	.672	1.32	19.4	58.8	2.60	35.2	.00			340
1	400 ISL	6.54	6.50	34.217	26.870	123.2	.751	.79	11.5							403
1	412	6.45	6.42	34.231	26.892	121.3	.767	.71	10.3	70.1	2.87	38.0	.00			415
1	490	5.94	5.90	34.272	26.990	112.5	.857	.44	6.3	79.4	3.01	40.0	.00			493
1	500 ISL	5.89	5.84	34.278	27.002	111.5	.868	.42	6.0							504
1	564	5.61	5.56	34.318	27.069	105.8	.938	.33	4.7	86.3	3.09	41.2	.00			568

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 35.5 N	118 30.5 W	14/07/84	0722 GMT		280	12 KT	280 04 04	1	1009.2 MB	18.5 C	17.5 C	4/8		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	20.06	20.06	33.720	23.771	411.9	.000	5.53	106.4							0
1	1	20.06	20.06	33.720	23.771	412.0	.004	5.53	106.4	2.6	.22	.0	.00	.33	.08	1
1	10 ISL	20.08	20.08	33.719	23.766	412.7	.041	5.51	106.0							10
1	11	20.08	20.08	33.719	23.766	412.8	.045	5.51	106.0	2.4	.21	.0	.00	.31	.11	11
1	20 ISL	18.65	18.64	33.621	24.059	385.2	.081	5.81	108.7							20
1	22	18.26	18.25	33.600	24.139	377.6	.089	5.88	109.2	2.8	.23	.0	.00	.25	.08	22
1	30 ISL	16.94	16.93	33.552	24.420	351.0	.118	6.06	109.7							30
1	32	16.64	16.64	33.545	24.484	345.0	.125	6.09	109.6	3.2	.28	.0	.00	.30	.10	32
1	42	15.28	15.27	33.525	24.776	317.4	.158	6.18	108.3	3.4	.33	.0	.00	.40	.14	42
1	50 ISL	14.08	14.08	33.514	25.023	294.0	.182	5.98	102.2							50
1	52	13.85	13.84	33.513	25.072	289.4	.188	5.91	100.6	4.7	.44	.5	.04	1.14	.51	52
1	63	13.06	13.06	33.521	25.237	273.9	.219	5.38	90.1	6.8	.64	3.9	.15	1.07	.85	63
1	73	12.14	12.13	33.540	25.431	255.7	.245	4.65	76.4	10.5	.92	9.4	.15	.61	.60	73
1	75 ISL	11.90	11.89	33.551	25.484	250.6	.251	4.50	73.5							75
1	88	10.75	10.74	33.627	25.753	225.2	.281	3.87	61.7	17.4	1.33	16.7	.03	.12	.19	88
1	100 ISL	10.27	10.26	33.691	25.886	212.8	.308	3.63	57.2							101
1	103	10.22	10.20	33.703	25.905	211.0	.313	3.60	56.8	21.0	1.50	19.5	.02	.05	.12	103
1	123	9.63	9.62	33.806	26.083	194.4	.356	3.31	51.6	25.1	1.68	22.5	.02	.02	.08	124
1	125 ISL	9.59	9.58	33.813	26.096	193.2	.359	3.29	51.2							126
1	148	9.05	9.03	33.911	26.261	178.0	.402	3.06	47.1	29.8	1.83	24.8	.03	.01	.04	149
1	150 ISL	9.01	9.00	33.917	26.271	177.0	.405	3.05	46.9							151
1	179	8.52	8.50	34.002	26.415	163.8	.454	2.84	43.2	35.1	1.96	26.8	.02			180
1	200 ISL	8.27	8.25	34.039	26.482	157.8	.488	2.58	39.0							201
1	209	8.16	8.14	34.047	26.505	155.6	.502	2.48	37.4	40.0	2.11	28.8	.02			210
1	239	7.61	7.59	34.047	26.586	148.2	.547	2.43	36.2	44.9	2.20	30.3	.01			240
1	250 ISL	7.45	7.42	34.057	26.617	145.4	.564	2.27	33.8							252
1	278	7.11	7.09	34.087	26.688	139.0	.604	1.81	26.7	53.3	2.46	33.3	.01			280
1	300 ISL	6.94	6.91	34.099	26.722	136.0	.634	1.59	23.4							302
1	339	6.69	6.66	34.119	26.771	131.8	.686	1.29	18.8	61.7	2.65	35.9	.00			341
1	400 ISL	6.36	6.33	34.182	26.865	123.5	.764	.81	11.8							403
1	414	6.29	6.25	34.198	26.887	121.5	.782	.72	10.4	71.2	2.88	38.2	.00			417
1	492	5.82	5.78	34.260	26.996	111.9	.872	.45	6.4	80.8	3.02	40.2	.00			495
1	500 ISL	5.81	5.76	34.271	27.007	111.0	.881	.43	6.1							504
1	568	5.69	5.64	34.352	27.086	104.3	.954	.29	4.1	85.9	3.12	40.9	.00			572

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 25.1 N	118 50.7 W	14/07/84	1052 GMT	1053 M	260	05 KT	250 04 04	1	1010.2 MB	18.1 C	14.9 C	2/8		SC		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C	PSU	THETA	M	M	ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	19.48	19.48	33.675	23.887	400.8	.000	5.39	102.5	2.5	.24	.0	.00	.17	.08	0
1	10	19.41	19.41	33.676	23.907	399.3	.040	5.51	104.7	2.3	.23	.0	.00	.15	.06	10
1	20	17.23	17.22	33.606	24.393	353.2	.078	5.76	104.8							20
1	21	17.00	17.00	33.602	24.443	348.5	.081	5.78	104.8	1.4	.29	.0	.00	.12	.03	21
1	30	16.01	16.01	33.595	24.667	327.5	.112	5.96	105.9							30
1	31	15.94	15.94	33.594	24.681	326.2	.114	5.97	106.0	.9	.32	.0	.00	.14	.05	31
1	41	15.08	15.08	33.535	24.827	312.5	.146	6.09	106.3	1.4	.36	.0	.02	.49	.28	41
1	50	13.88	13.87	33.489	25.047	291.7	.174	5.92	100.7							50
1	51	13.77	13.77	33.487	25.067	289.8	.176	5.89	100.0	3.3	.56	2.7	.25	.57	.44	51
1	61	13.00	12.99	33.523	25.250	272.6	.204	5.37	89.8	5.6	.79	7.0	.06	.45	.44	61
1	71	12.52	12.51	33.549	25.365	261.9	.231	5.11	84.6	7.8	.93	9.7	.04	.27	.19	71
1	75	12.27	12.26	33.557	25.419	256.9	.242	4.96	81.7							75
1	87	11.60	11.59	33.578	25.561	243.5	.271	4.54	73.7	13.1	1.19	14.0	.02	.09	.11	87
1	100	10.97	10.95	33.605	25.698	230.8	.303	4.14	66.3							101
1	102	10.90	10.89	33.609	25.713	229.3	.306	4.10	65.6	17.2	1.36	17.0	.01	.05	.10	102
1	121	10.06	10.05	33.718	25.943	207.8	.350	3.77	59.2	21.7	1.53	20.2	.01	.02	.06	122
1	125	9.90	9.89	33.744	25.990	203.3	.357	3.74	58.6							126
1	147	9.08	9.07	33.889	26.238	180.1	.400	3.57	55.0	28.8	1.77	24.3	.01	.00	.02	148
1	150	9.05	9.03	33.896	26.249	179.0	.405	3.53	54.3							151
1	177	8.86	8.85	33.939	26.312	173.6	.452	3.13	48.0	31.3	1.84	25.3	.02			178
1	200	8.52	8.50	33.991	26.406	165.0	.491	2.99	45.4							201
1	208	8.38	8.36	34.008	26.441	161.7	.504	2.95	44.7	36.1	1.98	27.1	.01			209
1	238	7.84	7.81	34.052	26.557	151.0	.551	2.68	40.1	42.2	2.12	29.4	.02			239
1	250	7.61	7.59	34.062	26.598	147.3	.569	2.50	37.2							252
1	278	7.16	7.13	34.086	26.680	139.7	.610	2.02	29.8	52.5	2.43	33.1	.00			280
1	300	7.00	6.97	34.126	26.735	134.8	.640	1.66	24.4							302
1	339	6.81	6.78	34.200	26.819	127.4	.691	1.12	16.4	63.4	2.76	36.4	.00			341
1	400	6.32	6.28	34.241	26.917	118.6	.766	.83	12.0							403
1	414	6.20	6.17	34.246	26.936	116.9	.783	.81	11.7	74.0	2.94	38.9	.00			417
1	491	5.80	5.76	34.293	27.024	109.2	.869	.58	8.3	82.5	3.05	40.4	.01			494
1	500	5.76	5.72	34.300	27.035	108.3	.879	.58	8.2							504
1	567	5.50	5.45	34.358	27.114	101.4	.949	.54	7.7	89.6	3.15	41.4	.00			571

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 15.4 N	119 11.2 W	14/07/84	1503 GMT		290	11 KT	300 07 08	1	1012.1 MB	18.2 C	17.0 C	4/8		AC		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C	PSU	THETA	M	M	ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	19.22	19.22	33.684	23.962	393.7	.000	5.44	103.0							0
1	1	19.22	19.22	33.684	23.962	393.7	.004	5.44	103.0	2.6	.23	.0	.00	.19	.05	1
1	11	19.22	19.22	33.684	23.962	394.0	.039	5.50	104.2							10
1	20	17.05	17.05	33.620	24.444	348.4	.077	5.83	105.8	2.4	.22	.0	.00	.17	.08	11
1	21	16.81	16.81	33.615	24.497	343.4	.080	5.86	105.9	1.4	.29	.0	.00	.14	.05	21
1	30	16.06	16.06	33.569	24.634	330.6	.111	5.94	105.7							30
1	31	16.03	16.02	33.565	24.639	330.1	.113	5.94	105.7	1.3	.32	.0	.00	.14	.08	31
1	41	15.32	15.31	33.555	24.791	316.0	.146	6.05	106.1	1.6	.35	.1	.02	.71	.39	41
1	50	14.38	14.37	33.516	24.964	299.7	.174	5.90	101.6							50
1	57	13.71	13.70	33.497	25.088	288.0	.194	5.70	96.7	4.1	.59	3.7	.26	.45	.37	57
1	67	13.14	13.13	33.521	25.223	275.4	.222	5.35	89.7	5.9	.72	6.4	.11	.39	.30	67
1	75	12.25	12.24	33.550	25.418	257.0	.244	4.79	78.9							75
1	77	12.07	12.06	33.556	25.457	253.2	.248	4.68	76.7	10.8	1.01	11.4	.03	.16	.18	77
1	92	11.33	11.32	33.587	25.618	238.2	.285	4.20	67.8	14.4	1.24	14.9	.01	.07	.12	92
1	100	10.88	10.86	33.619	25.725	228.2	.304	3.89	62.2							101
1	111	10.26	10.24	33.681	25.881	213.5	.330	3.52	55.5	21.2	1.51	20.0	.01	.02	.08	112
1	125	9.61	9.59	33.791	26.076	195.1	.357	3.28	51.0							126
1	131	9.35	9.34	33.842	26.158	187.4	.369	3.21	49.7	27.4	1.73	23.6	.01	.00	.03	132
1	150	8.96	8.94	33.910	26.274	176.6	.403	3.15	48.3							151
1	157	8.87	8.85	33.924	26.300	174.4	.416	3.12	47.8	31.0	1.83	25.4	.00	.00	.02	158
1	187	8.47	8.45	33.979	26.405	164.8	.467	3.03	46.0	34.4	1.89	26.3	.02			188
1	200	8.27	8.25	34.000	26.452	160.5	.488	2.90	43.8							201
1	217	8.02	8.00	34.023	26.507	155.5	.514	2.70	40.6	39.9	2.05	28.7	.01			218
1	250	7.65	7.63	34.048	26.581	148.9	.565	2.41	36.0							252
1	253	7.62	7.60	34.049	26.586	148.5	.569	2.39	35.6	45.2	2.19	30.7	.00			254
1	300	6.96	6.93	34.065	26.691	138.9	.637	1.92	28.2							302
1	303	6.92	6.89	34.066	26.699	138.2	.641	1.89	27.7	54.4	2.42	33.8	.00			305
1	359	6.29	6.26	34.101	26.810	128.1	.715	1.28	18.5	65.6	2.69	37.4	.00			361
1	400	5.99	5.96	34.139	26.877	122.0	.767	.96	13.8							403
1	444	5.80	5.76	34.190	26.943	116.2	.819	.70	10.0	78.1	2.94	40.1	.00			447
1	500	5.72	5.67	34.282	27.026	109.0	.882	.43	6.1							504
1	530	5.67	5.62	34.328	27.069	105.4	.915	.33	4.7	85.4	3.08	41.0	.00			534
1	600	5.29	5.24	34.370	27.148	98.3	.986	.31	4.3							604
1	617	5.16	5.11	34.371	27.164	96.9	1.002	.30	4.2	95.2	3.15	42.4	.00			621

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 55.7 N	119 50.9 W	14/07/84	2122 GMT	3964 M	330	DR KT	290 04 06	1	1012.8 MB	18.5 C	16.8 C	4/8	AC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	ST03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	18.03	18.03	33.449	24.077	385.5	.000	5.70	105.4							0
1	1	18.03	18.03	33.449	24.077	382.7	.004	5.70	105.4	1.4	.33	.0	.00	.07	.02	1
	10 ISL	17.17	17.17	33.434	24.274	364.3	.037	5.72	103.9							10
1	11	17.10	17.10	33.432	24.288	363.0	.041	5.72	103.8	1.4	.33	.0	.00	.09	.03	11
	20 ISL	16.78	16.78	33.402	24.341	358.2	.074	5.79	104.4							20
1	22	16.77	16.72	33.394	24.349	357.5	.080	5.81	104.7	1.5	.34	.0	.00	.10	.04	22
	30 ISL	16.11	16.11	33.365	24.467	346.5	.109	5.95	105.8							30
1	32	15.96	15.96	33.359	24.496	343.8	.115	5.98	106.1	1.3	.35	.0	.00	.17	.03	32
	42	15.47	15.47	33.327	24.581	336.0	.149	6.05	106.3	1.3	.35	.0	.01	.16	.03	42
1	50 ISL	15.30	15.29	33.384	24.663	328.4	.176	6.09	106.7							50
	52	15.26	15.25	33.396	24.682	326.7	.182	6.10	106.7	1.3	.38	.1	.04	.18	.06	52
1	63	14.54	14.53	33.342	24.795	316.1	.217	6.11	105.3	2.0	.41	.6	.13	.18	.10	63
	73	14.27	14.26	33.408	24.903	306.1	.248	5.96	102.2	2.4	.46	1.3	.25	.22	.12	73
1	75 ISL	14.11	14.10	33.412	24.940	302.6	.255	5.92	101.2							75
	88	13.09	13.08	33.437	25.167	281.3	.292	5.63	94.3	4.2	.69	5.0	.58	.30	.15	88
1	100 ISL	12.50	12.49	33.534	25.359	263.2	.326	5.17	85.5							101
	103	12.39	12.38	33.556	25.396	259.8	.333	5.07	83.7	7.1	.81	8.1	.06	.18	.20	103
1	123	11.30	11.28	33.625	25.655	235.5	.384	4.47	72.1	12.4	1.06	12.8	.03	.05	.08	124
	125 ISL	11.20	11.19	33.632	25.677	233.4	.388	4.39	70.7							126
1	148	9.90	9.88	33.741	25.990	203.9	.439	3.35	52.5	23.4	1.61	21.7	.02	.00	.03	149
	150 ISL	9.84	9.82	33.750	26.007	202.3	.442	3.35	52.4							151
1	179	9.08	9.06	33.896	26.245	180.0	.498	3.33	51.2	28.0	1.73	23.8	.02			180
	200 ISL	8.62	8.60	33.968	26.373	168.2	.534	2.94	44.8							201
1	209	8.46	8.44	33.990	26.415	164.3	.549	2.76	41.9	35.5	1.98	27.5	.01			210
	239	8.10	8.08	34.025	26.497	156.9	.597	2.62	39.5	39.1	2.07	28.8	.01			240
1	250 ISL	7.95	7.93	34.037	26.529	154.0	.615	2.52	37.8							252
	279	7.56	7.53	34.067	26.610	146.6	.659	2.19	32.6	46.5	2.27	31.4	.01			281
1	300 ISL	7.31	7.28	34.081	26.656	142.5	.689	1.97	29.1							302
	340	6.88	6.85	34.101	26.732	135.6	.744	1.55	22.7	57.0	2.54	34.9	.00			342
1	400 ISL	6.30	6.27	34.136	26.836	126.2	.823	1.06	15.3							403
	415	6.18	6.14	34.147	26.861	123.9	.842	.95	13.7	69.7	2.82	38.5	.00			418
1	492	5.74	5.70	34.231	26.982	113.1	.933	.51	7.3	80.6	3.01	40.5	.00			495
	500 ISL	5.69	5.65	34.237	26.993	112.1	.942	.50	7.1							504
1	568	5.23	5.18	34.261	27.068	105.3	1.016	.41	5.8	90.6	3.11	42.1	.00			572

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 55.3 N	120 31.2 W	15/07/84	0253 GMT	4030 M	280	06 KT	300 04 04	1	1012.5 MB	17.9 C	16.2 C	7/8	ST			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	ST03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	17.85	17.85	33.346	24.044	386.4	.000	6.13	112.8							0
1	1	17.85	17.85	33.346	24.044	385.9	.004	6.13	112.8	1.6	.34	.2	.00	.14	.07	1
	10 ISL	17.38	17.38	33.378	24.180	373.2	.038	6.04	110.2							10
1	11	17.29	17.29	33.380	24.205	370.9	.042	6.03	109.8	1.3	.34	.2	.01	.19	.07	11
	20 ISL	15.96	15.96	33.401	24.529	340.3	.074	6.29	111.5							20
1	21	15.82	15.81	33.403	24.563	337.1	.077	6.31	111.7	1.4	.33	.3	.02	.20	.07	21
	30 ISL	14.94	14.93	33.395	24.750	319.5	.107	6.18	107.4							30
1	31	14.88	14.88	33.397	24.763	318.2	.109	6.16	107.0	1.6	.36	.5	.05	.22	.09	31
	41	14.88	14.87	33.555	24.886	306.8	.141	6.10	106.0	1.1	.43	1.2	.15	.21	.09	41
1	50 ISL	14.76	14.75	33.571	24.926	303.4	.169	5.94	102.9							50
	52	14.73	14.73	33.573	24.932	302.8	.174	5.90	102.3	1.9	.50	2.0	.21	.27	.16	52
1	62	13.53	13.52	33.380	25.034	293.2	.204	5.76	97.3	3.3	.58	3.5	.38	.24	.18	62
	72	12.84	12.83	33.342	25.143	283.1	.232	5.57	92.7	5.2	.69	6.0	.19	.18	.22	72
1	75 ISL	12.68	12.67	33.370	25.195	278.2	.242	5.48	91.0							75
	87	12.37	12.36	33.525	25.376	261.2	.273	5.17	85.3	7.0	.72	7.2	.02	.07	.13	87
1	100 ISL	12.41	12.39	33.692	25.499	250.0	.307	4.91	81.1							101
	102	12.41	12.40	33.708	25.510	248.9	.311	4.88	80.7	8.2	.72	7.9	.02	.04	.11	102
1	121	11.24	11.23	33.672	25.701	231.0	.359	4.50	72.5	12.8	1.00	12.5	.01	.01	.04	122
	125 ISL	11.05	11.04	33.678	25.740	227.4	.367	4.44	71.2							126
1	146	10.06	10.04	33.744	25.965	206.3	.413	4.03	63.3	19.8	1.35	18.6	.01	.00	.07	147
	150 ISL	9.94	9.92	33.759	25.997	203.3	.421	3.93	61.5							151
1	177	9.24	9.22	33.877	26.204	183.9	.473	3.29	50.8	27.5	1.67	23.6	.01			178
	200 ISL	8.66	8.63	33.968	26.367	168.7	.514	3.31	50.4							201
1	207	8.50	8.48	33.988	26.407	165.0	.525	3.31	50.3	32.9	1.76	25.3	.02			208
	237	8.15	8.13	34.006	26.474	159.1	.573	3.17	47.8	36.2	1.84	26.6	.01			238
1	250 ISL	7.97	7.94	34.020	26.513	155.5	.594	2.95	44.3							252
	277	7.57	7.55	34.053	26.597	147.8	.636	2.40	35.7	45.4	2.13	30.5	.00			279
1	300 ISL	7.30	7.27	34.077	26.654	142.6	.669	2.04	30.2							302
	338	6.89	6.86	34.113	26.740	134.9	.721	1.52	22.3	57.8	2.47	34.8	.00			340
1	400 ISL	6.25	6.22	34.162	26.864	123.6	.801	.90	13.0							403
	412	6.14	6.10	34.171	26.885	121.6	.817	.81	11.7	72.0	2.75	38.7	.00			415
1	488	5.66	5.62	34.214	26.979	113.3	.905	.55	7.8	82.0	2.90	40.6	.00			491
	500 ISL	5.61	5.56	34.224	26.994	112.0	.919	.52	7.4							504
1	563	5.37	5.32	34.284	27.070	105.3	.988	.40	5.7	89.9	3.02	41.7	.00			567



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 15.5 N	121 11.1 W	15/07/84	0815 GMT	3963 M	320	06 KT	320 04 06	2	1015.3 MB	17.4 C	16.2 C	8/8		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	17.58	17.58	33.459	24.196	371.7	.000	5.65	103.5							0
1	1	17.58	17.58	33.459	24.196	371.4	.004	5.65	103.5	1.5	.38	.1	.01	.21	.08	1
1	10	17.22	17.22	33.414	24.247	366.9	.037	5.70	103.7							10
1	11	17.18	17.18	33.411	24.254	366.2	.040	5.71	103.8	1.5	.37	.1	.01	.15	.06	11
1	20	16.81	16.81	33.403	24.334	358.9	.073	5.82	105.0							20
1	22	16.69	16.68	33.400	24.361	356.3	.080	5.85	105.3	1.4	.35	.0	.00	.16	.06	22
1	30	15.56	15.56	33.353	24.581	335.6	.108	6.04	106.4							30
1	32	15.31	15.31	33.352	24.636	330.4	.114	6.08	106.5	1.9	.37	.2	.02	.15	.04	32
1	42	15.08	15.08	33.512	24.809	314.3	.146	6.01	104.9	1.8	.46	1.4	.11	.20	.10	42
1	50	14.62	14.62	33.543	24.932	302.7	.172	5.88	101.8							50
1	52	14.52	14.51	33.543	24.955	300.6	.177	5.85	100.9	2.4	.57	2.2	.32	.29	.16	52
1	62	14.16	14.15	33.549	25.036	293.2	.207	5.62	96.2	3.3	.68	3.6	1.01	.29	.16	62
1	72	12.68	12.67	33.458	25.264	271.6	.235	5.35	88.8	6.9	.93	9.5	.03	.10	.12	72
1	75	12.40	12.39	33.458	25.317	266.6	.244	5.29	87.3							75
1	88	11.71	11.70	33.502	25.483	251.1	.276	5.07	82.5	10.6	1.12	12.7	.01	.04	.08	88
1	100	11.08	11.07	33.552	25.636	236.7	.306	4.70	75.4							100
1	103	10.97	10.96	33.564	25.665	233.9	.312	4.62	74.0	14.5	1.28	15.5	.01	.02	.08	103
1	120	10.34	10.33	33.667	25.856	216.1	.353	4.27	67.5	19.0	1.45	19.7	.00	.00	.05	120
1	125	10.22	10.20	33.690	25.895	212.5	.362	4.16	65.6							126
1	148	9.65	9.63	33.795	26.073	195.9	.410	3.62	56.4	23.9	1.59	21.3	.00	.00	.03	149
1	150	9.60	9.58	33.803	26.087	194.6	.413	3.59	55.9							151
1	178	8.86	8.85	33.919	26.296	175.1	.465	3.26	49.9	30.4	1.80	24.6	.01			179
1	200	8.44	8.42	33.976	26.406	164.9	.502	3.25	49.4							201
1	209	8.30	8.28	33.992	26.441	161.7	.517	3.25	49.2	34.9	1.89	26.0	.01			210
1	239	7.83	7.81	34.027	26.538	152.8	.564	3.10	46.4	39.7	1.97	27.5	.01			240
1	250	7.71	7.71	34.046	26.568	150.2	.581	2.79	41.7							252
1	279	7.49	7.46	34.087	26.635	144.2	.624	1.95	29.0	49.0	2.35	32.2	.01			281
1	300	7.19	7.16	34.084	26.675	140.6	.654	1.90	28.0							302
1	340	6.59	6.56	34.068	26.745	134.1	.709	1.80	26.2	59.2	2.53	35.0	.00			342
1	400	6.07	6.03	34.115	26.850	124.7	.786	1.19	17.0							403
1	416	5.97	5.93	34.133	26.876	122.3	.807	1.01	14.5	72.6	2.83	38.7	.00			419
1	493	5.59	5.55	34.213	26.987	112.5	.896	.75	10.7	83.1	3.01	40.7	.00			496
1	500	5.56	5.52	34.222	26.997	111.6	.904	.72	10.2							504
1	569	5.33	5.28	34.314	27.099	102.6	.978	.34	4.8	90.9	3.12	41.9	.00			573

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 55.2 N	121 50.6 W	15/07/84	1419 GMT	4158 M	320	08 KT	330 04 05	2	1016.5 MB	17.2 C	15.8 C	8/8		ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	17.02	17.02	33.156	24.096	380.9	.000	5.61	101.5	2.7	.32	.1	.00	.09	.04	0
1	10	16.85	16.85	33.155	24.134	377.6	.038	5.68	102.4	2.5	.31	.0	.00	.08	.03	10
1	20	16.82	16.82	33.162	24.148	376.6	.075	5.71	102.9	2.6	.30	.0	.00	.07	.03	20
1	30	16.83	16.83	33.200	24.175	374.3	.113	5.73	103.3							30
1	31	16.83	16.83	33.204	24.178	374.1	.117	5.73	103.3	2.6	.30	.0	.00	.09	.04	31
1	41	16.50	16.49	33.282	24.316	361.3	.153	5.81	104.1	2.5	.27	.0	.00	.08	.04	41
1	50	15.97	15.97	33.431	24.550	339.2	.185	5.95	105.6							50
1	51	15.93	15.93	33.445	24.570	337.4	.188	5.96	105.7	2.5	.24	.0	.00	.08	.05	51
1	61	16.00	15.99	33.537	24.626	332.3	.221	5.87	104.3	2.5	.22	.0	.00	.10	.05	61
1	71	15.94	15.93	33.574	24.667	328.7	.254	5.86	104.1	2.5	.22	.0	.00	.12	.06	71
1	75	15.68	15.67	33.539	24.699	325.8	.268	5.84	103.1							75
1	86	14.74	14.72	33.418	24.813	315.1	.302	5.79	100.3	2.7	.30	.1	.01	.25	.21	86
1	100	13.33	13.32	33.326	25.033	294.3	.346	5.50	92.5							101
1	101	13.27	13.26	33.324	25.044	293.4	.348	5.49	92.2	4.2	.50	2.7	.03	.24	.24	101
1	121	12.36	12.34	33.431	25.306	268.8	.404	5.10	84.1	6.8	.69	6.2	.01	.10	.13	121
1	125	12.12	12.10	33.455	25.371	262.7	.416	4.97	81.5							126
1	146	10.98	10.96	33.583	25.680	233.5	.469	4.38	70.2	13.8	1.10	13.7	.01	.02	.03	147
1	150	10.81	10.79	33.611	25.731	228.7	.477	4.33	69.1							151
1	176	9.82	9.80	33.809	26.056	198.2	.533	4.08	63.8	20.2	1.36	18.5	.01			177
1	200	9.17	9.15	33.910	26.242	180.8	.578	3.83	59.0							201
1	206	9.04	9.02	33.927	26.275	177.7	.589	3.77	58.0	27.2	1.60	22.2	.01			207
1	236	8.64	8.62	33.978	26.378	168.3	.641	3.58	54.6	30.8	1.72	24.0	.01			237
1	250	8.39	8.37	33.992	26.428	163.8	.664	3.50	53.1							252
1	277	7.90	7.88	34.009	26.514	155.9	.707	3.27	49.0	37.5	1.91	26.9	.01			278
1	300	7.53	7.51	34.028	26.582	149.6	.742	2.80	41.6							302
1	337	7.02	6.99	34.055	26.676	140.9	.796	2.00	29.4	52.3	2.36	33.0	.00			339
1	400	6.33	6.29	34.089	26.796	130.0	.881	1.38	20.0							403
1	413	6.23	6.19	34.099	26.817	128.1	.898	1.30	18.8	66.0	2.71	37.5	.00			415
1	490	5.96	5.92	34.223	26.947	116.5	.992	.59	8.5	77.0	2.98	40.0	.00			493
1	500	5.89	5.85	34.231	26.964	115.1	1.004	.57	8.1							504
1	567	5.20	5.16	34.243	27.057	106.3	1.078	.42	5.9	90.1	3.10	42.2	.00			571

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 100 29.3

LATITUDE	LONGITUDE	DAY/MO/YR	MESSNGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE				
31 42.7 N	116 44.0 W	18/07/84	1052 GMT	139 M			1	1011.2 MB	20.5 C	17.5 C	2/8	AC				
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1	19.31	19.31	33.571	23.851	405.8	.000	6.13	116.2							0
	1	19.31	19.31	33.571	23.851	404.3	.004	6.13	116.2	3.8	.25	.0	.00	.53	.20	1
	10	18.38	18.38	33.567	24.083	382.5	.039	6.24	116.2							10
	11	18.24	18.23	33.565	24.117	379.2	.043	6.25	116.0	3.6	.29	.0	.00	.56	.24	11
	20	16.11	16.11	33.537	24.599	333.6	.075	6.09	108.5							20
	1	14.57	14.57	33.540	24.940	301.3	.097	5.87	101.4	4.5	.48	1.1	.09	.63	.46	27
	30	14.29	14.28	33.541	25.001	295.5	.106	5.76	99.0							30
	1	13.89	13.89	33.541	25.084	287.8	.126	5.51	93.9	5.7	.61	3.1	.26	.57	.35	37
	1	13.34	13.33	33.547	25.201	276.9	.155	5.15	86.7	7.2	.74	5.3	.32	.73	.23	47
	1	13.15	13.14	33.553	25.245	272.9	.163	4.99	83.8							50
	1	12.53	12.52	33.577	25.385	259.8	.195	4.48	74.2	11.2	1.02	9.8	.31	.59	.47	62
	1	12.25	12.24	33.589	25.448	254.1	.229	4.30	70.9							75
	1	12.21	12.20	33.590	25.456	253.4	.235	4.29	70.6	12.6	1.11	11.5	.24	.57	.43	78
	1	11.72	11.70	33.625	25.577	242.4	.291	3.96	64.5							101
	1	11.63	11.62	33.632	25.598	240.5	.299	3.90	63.4	15.7	1.30	14.4	.16	.26	.24	104

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 100 30

LATITUDE	LONGITUDE	DAY/MO/YR	MESSNGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE				
31 40.8 N	116 46.2 W	18/07/84	0845 GMT	412 M				1011.1 MB	21.2 C	20.5 C						
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1	21.14	21.14	33.577	23.375	460.8	.000	5.95	116.6							0
	1	21.14	21.14	33.577	23.375	449.7	.005	5.95	116.6	3.6	.19	.0	.00	.93	.24	1
	10	17.69	17.68	33.554	24.242	367.3	.041	6.13	112.6							10
	11	17.39	17.39	33.556	24.315	360.3	.045	6.14	112.2	2.9	.26	.0	.00	.57	.25	11
	20	15.58	15.58	33.547	24.725	321.6	.076	6.02	106.2							20
	30	14.51	14.50	33.523	24.940	301.3	.107	5.89	101.7							30
	1	14.42	14.41	33.514	24.954	300.1	.112	5.87	101.0	4.4	.37	.3	.03	1.47	1.07	37
	1	13.44	13.43	33.549	25.183	278.7	.156	5.19	87.6	7.1	.68	4.9	.29	.56	.49	47
	1	13.24	13.24	33.554	25.226	274.6	.164	5.09	85.6							50
	1	12.57	12.56	33.572	25.374	260.9	.199	4.72	78.2	10.0	.91	9.0	.28	.77	.58	63
	1	12.14	12.13	33.590	25.470	252.0	.230	4.24	69.7							75
	1	12.06	12.05	33.595	25.489	250.3	.237	4.15	68.1	12.9	1.08	12.2	.17	.29	.29	78
	1	11.57	11.56	33.628	25.606	239.4	.273	3.95	64.1	15.2	1.20	14.3	.08	.20	.20	93
	1	11.49	11.48	33.637	25.628	237.5	.291	3.91	63.3							101
	1	11.42	11.40	33.648	25.651	235.6	.320	3.86	62.4	16.0	1.24	15.0	.08	.19	.23	113
	1	11.27	11.25	33.660	25.688	232.4	.350	3.77	60.8							126
	1	11.05	11.04	33.685	25.746	227.1	.378	3.64	58.4	18.2	1.37	16.9	.05	.10	.16	138
	1	10.65	10.63	33.752	25.869	215.6	.406	3.42	54.5							151
	1	10.11	10.09	33.851	26.041	199.5	.442	3.13	49.3	24.7	1.67	21.6	.01	.02	.08	168
	1	9.73	9.71	33.939	26.172	187.7	.505	2.91	45.4							201
	1	9.72	9.70	33.943	26.177	187.2	.509	2.89	45.1	28.2	1.82	23.8	.02	.02	.23	203
	1	9.33	9.30	34.113	26.376	169.0	.571	2.05	31.8	35.9	2.13	27.4	.00	.00	.05	238
	1	9.23	9.20	34.144	26.416	165.4	.593	1.90	29.4							252
	1	9.08	9.04	34.180	26.469	160.8	.638	1.72	26.5	39.6	2.28	29.1	.01			279
	1	9.00	8.97	34.210	26.505	157.9	.674	1.57	24.2							302
	1	8.88	8.85	34.232	26.542	154.8	.710	1.44	22.1	43.2	2.42	30.3	.01			325
	1	8.29	8.25	34.245	26.644	145.5	.773	1.21	18.3	49.7	2.52	32.0	.04			367

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 100 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSNGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD AMT	TYPE				
31 31.1 N	117 06.4 W	18/07/84	0518 GMT	1165 M	280 09 KT	280 01 04		1010.9 MB	21.2 C	20.5 C						
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	1	22.35	22.35	33.708	23.140	484.9	.000	5.26	105.5							0
	1	22.35	22.35	33.708	23.140	472.2	.005	5.26	105.5	2.5	.23	.0	.00	.38	.11	1
	10	18.65	18.68	33.572	24.012	389.2	.044	5.64	105.7							10
	11	18.42	18.42	33.565	24.071	383.7	.047	5.67	105.7	2.6	.28	.0	.00	.13	.04	11
	20	17.39	17.38	33.481	24.259	366.0	.081	5.80	105.9							20
	1	17.35	17.34	33.473	24.263	365.7	.085	5.81	106.0	2.7	.29	.0	.00	.10	.04	21
	1	16.32	16.32	33.449	24.484	344.9	.117	5.93	106.0							30
	1	16.14	16.13	33.449	24.526	341.0	.123	5.95	106.0	2.8	.32	.0	.00	.10	.05	32
	1	15.64	15.64	33.431	24.624	331.9	.157	6.01	106.0	2.5	.33	.0	.00	.13	.05	42
	1	14.85	14.84	33.405	24.778	317.4	.183	6.11	106.1							50
	1	14.66	14.65	33.399	24.814	314.0	.189	6.13	106.0	2.9	.36	.0	.00	.24	.14	52
	1	13.84	13.84	33.362	24.956	300.7	.220	6.03	102.5	3.8	.46	1.1	.17	.34	.16	62
	1	13.53	13.52	33.431	25.075	289.7	.249	5.78	97.6	4.6	.56	3.1	.21	.77	.13	72
	1	13.41	13.40	33.459	25.121	285.4	.258	5.60	94.4							75
	1	12.90	12.89	33.544	25.288	269.7	.291	4.97	82.9	7.5	.78	7.5	.07	.25	.19	87
	1	12.13	12.11	33.585	25.469	252.7	.326	4.72	77.4							101
	1	12.09	12.08	33.586	25.477	252.0	.327	4.71	77.3	10.1	.91	10.2	.03	.11	.12	101
	1	11.21	11.19	33.589	25.643	236.5	.376	4.15	66.8	14.7	1.18	14.5	.01	.06	.08	121
	1	10.97	10.95	33.614	25.705	230.7	.386	4.03	64.5							126
	1	10.02	10.00	33.750	25.976	205.1	.430	3.59	56.4	21.8	1.49	20.2	.01	.01	.03	146
	1	9.90	9.89	33.770	26.010	201.9	.440	3.54	55.4							151
	1	9.52	9.50	33.847	26.136	190.5	.489	3.37	52.4	25.8	1.68	22.4	.01			176
	1	9.15	9.13	33.918	26.250	180.0	.535	3.19	49.2							201
	1	9.09	9.07	33.929	26.269	178.3	.542	3.16	48.7	29.5	1.79	24.3	.00			205
	1	8.61	8.58	34.020	26.417	164.7										

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER		BOTTOM	WIND	SPEED	WAVES		WEATHER	BAROMETER		DRY	WET	CLOUD AMT		TYPE
51 21.3 N		117 27.2 W		18/07/84	0140	GMT	1940 M	280	09 KT	310	01 04	1	1010.0 MB	21.0 C	19.8 C	7/8		ST	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS			
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR			
1	C	21.37	21.37	33.646	23.365	450.7	.000	5.34	105.2	2.1	.26	.0	.00	.23	.10	0			
1	10	19.85	19.85	33.629	23.756	413.7	.043	5.54	106.1	2.1	.25	.0	.00	.21	.09	10			
1	20	17.73	17.72	33.534	24.218	370.0	.082	5.78	106.3							20			
1	21	17.56	17.55	33.527	24.254	366.6	.086	5.80	106.3	2.2	.28	.0	.00	.12	.04	21			
1	30	17.13	17.13	33.540	24.364	356.3	.119	5.83	105.9							30			
1	31	17.12	17.11	33.542	24.370	355.8	.122	5.83	105.9	2.1	.28	.0	.00	.12	.04	31			
1	41	16.16	16.15	33.515	24.572	336.9	.156	5.91	105.4	2.0	.31	.0	.00	.14	.05	41			
1	50	15.51	15.50	33.487	24.697	325.2	.187	5.99	105.3							50			
1	51	15.45	15.44	33.485	24.708	324.2	.189	5.99	105.3	2.1	.32	.0	.00	.16	.11	51			
1	61	14.64	14.63	33.474	24.877	308.3	.221	5.96	103.0	2.6	.38	.3	.04	.47	.25	61			
1	72	14.12	14.11	33.506	25.011	295.8	.254	5.69	97.3	3.5	.48	2.0	.21	.44	.30	72			
1	75	13.89	13.88	33.489	25.046	292.5	.263	5.66	96.4							75			
1	87	13.10	13.09	33.437	25.165	281.4	.297	5.56	93.1	4.8	.65	5.2	.10	.29	.17	87			
1	100	12.64	12.63	33.513	25.315	267.5	.333	5.24	86.9							101			
1	102	12.59	12.57	33.524	25.334	265.7	.338	5.19	86.0	6.8	.78	7.4	.03	.14	.12	102			
1	121	11.24	11.22	33.605	25.650	235.9	.388	4.29	69.1	13.6	1.09	13.5	.01	.05	.07	122			
1	125	11.06	11.05	33.620	25.693	231.9	.396	4.18	67.1							126			
1	147	10.20	10.18	33.723	25.925	210.1	.445	3.69	58.2	20.6	1.44	19.3	.01	.01	.04	148			
1	150	10.10	10.09	33.741	25.954	207.4	.451	3.64	57.3							151			
1	177	9.32	9.30	33.904	26.212	183.2	.504	3.31	51.2	27.3	1.68	23.1	.01			178			
1	200	8.85	8.83	33.969	26.338	171.6	.544	3.22	49.3							201			
1	207	8.74	8.72	33.982	26.366	169.0	.556	3.19	48.8	31.6	1.80	25.0	.01			208			
1	237	8.32	8.29	34.045	26.481	158.5	.605	2.80	42.4	37.2	1.98	27.4	.00			238			
1	250	8.24	8.22	34.083	26.522	154.8	.626	2.48	37.6							252			
1	277	8.17	8.14	34.162	26.595	148.4	.667	1.80	27.2	44.7	2.31	30.7	.00			279			
1	300	8.10	8.07	34.212	26.645	144.1	.700	1.43	21.5							302			
1	337	7.91	7.87	34.261	26.712	138.2	.753	1.02	15.3	52.2	2.60	33.2	.00			339			
1	400	7.14	7.10	34.242	26.808	129.6	.837	.84	12.5							403			
1	412	6.98	6.94	34.235	26.825	128.1	.853	.81	11.9	62.2	2.76	36.2	.00			415			
1	485	6.56	6.51	34.297	26.931	118.9	.947	.57	8.3	70.9	2.94	39.2	.00			492			
1	500	6.50	6.45	34.305	26.945	117.6	.960	.54	7.8							504			
1	567	6.15	6.10	34.344	27.021	111.0	1.037	.35	5.0	77.8	3.03	39.4	.00			571			

LATITUDE		LONGITUDE		DAY/MO/YR	MESSENGER		BOTTOM	WIND	SPEED	WAVES		WEATHER	BAROMETER		DRY	WET	CLOUD AMT		TYPE
31 11.1 N		117 47.1 W		17/07/84	2222	GMT	1491 M	310	08 KT	300	01 04	1	1011.1 MB	22.5 C	22.5 C	7/8		ST	
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	S103	P04	N03	N02	CHL-A	PHAEO	PRESS			
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR			
1	C ISL	20.88	20.88	33.543	23.418	449.6	.000	5.35	104.4							0			
1	1	20.88	20.88	33.543	23.418	445.6	.004	5.35	104.4	2.3	.28	.0	.00	.11	.04	1			
1	10	19.56	19.56	33.558	23.777	411.7	.043	5.52	105.1							10			
1	11	19.41	19.41	33.553	23.813	408.3	.047	5.54	105.2	2.4	.27	.0	.00	.06	.02	11			
1	20	17.77	17.77	33.453	24.145	377.0	.082	5.71	105.0							20			
1	22	17.47	17.47	33.432	24.201	371.6	.090	5.74	104.9	2.2	.30	.0	.00	.05	.03	22			
1	30	16.97	16.96	33.422	24.313	361.2	.119	5.82	105.3							30			
1	32	16.92	16.91	33.422	24.326	360.1	.126	5.83	105.4	2.3	.29	.0	.00	.07	.03	32			
1	42	16.55	16.54	33.393	24.389	354.3	.162	5.88	105.5	2.3	.29	.0	.00	.08	.03	42			
1	50	15.97	15.96	33.352	24.490	345.0	.190	6.01	106.6							50			
1	53	15.76	15.75	33.347	24.533	340.9	.200	6.03	106.5	2.3	.30	.0	.00	.09	.04	53			
1	63	15.25	15.24	33.448	24.725	322.9	.233	5.80	101.5	2.8	.33	.0	.00	.14	.07	63			
1	73	14.48	14.47	33.466	24.904	306.1	.264	5.70	98.2	3.2	.38	.2	.04	.33	.23	73			
1	75	14.34	14.33	33.469	24.936	303.1	.271	5.67	97.5							75			
1	89	13.62	13.60	33.504	25.113	286.5	.311	5.49	93.0	4.2	.55	3.4	.06	.31	.15	89			
1	100	13.12	13.10	33.585	25.277	271.2	.343	5.29	88.7							101			
1	104	12.95	12.93	33.609	25.329	266.3	.353	5.21	87.0	5.8	.66	6.0	.03	.14	.15	104			
1	123	11.61	11.60	33.621	25.594	241.3	.403	4.58	74.4	11.3	.99	11.7	.01	.04	.08	124			
1	125	11.50	11.49	33.626	25.618	239.1	.407	4.52	73.2							126			
1	148	10.06	10.04	33.729	25.953	207.5	.459	3.66	57.5	21.0	1.47	19.7	.00	.00	.03	149			
1	150	10.00	9.98	33.737	25.970	205.8	.462	3.62	56.8							151			
1	179	9.24	9.22	33.866	26.195	184.8	.519	3.10	47.9	28.4	1.77	24.4	.01			180			
1	200	8.90	8.87	33.930	26.301	175.1	.557	2.88	44.2							201			
1	209	8.77	8.75	33.951	26.337	171.9	.572	2.85	43.6	32.8	1.91	26.5	.00			210			
1	235	8.30	8.28	34.002	26.449	161.5	.622	2.14	47.5	35.2	1.89	26.3	.00			240			
1	250	8.16	8.14	34.021	26.485	158.2	.640	2.98	45.0							252			
1	278	7.84	7.81	34.067	26.566	151.0	.684	2.39	35.8	43.5	2.17	30.0	.00			280			
1	300	7.57	7.54	34.078	26.617	146.3	.716	2.12	31.6							302			
1	338	7.12	7.08	34.098	26.697	139.1	.770	1.75	25.8	54.1	2.44	33.6	.00			340			
1	400	6.52	6.49	34.142	26.812	128.7	.853	1.12	16.3							403			
1	413	6.41	6.38	34.152	26.834	126.6	.870	1.00	14.5	66.3	2.75	37.6	.00			416			
1	491	5.92	5.88	34.215	26.948	116.5	.964	.58	8.3	77.2	2.95	40.0	.00			494			
1	500	5.87	5.82	34.224	26.962	115.3	.975	.54	7.8							504			
1	569	5.50	5.45	34.301	27.068	105.7	1.052	.34	4.8	87.1	3.07	41.5	.00			573			

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 100 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
31 01.9 N	116 07.5 W	17/07/84	1823 GMT	1737 M	310 12 KT	300 03 05	1	1011.5 MB	21.9 C	20.0 C	6/8		CU			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
#	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	20.33	20.33	33.536	23.560	432.1	.000	5.28	102.0							0
1	1C ISL	20.33	20.33	33.536	23.560	432.1	.004	5.28	102.0	2.6	.29	.1	.00	.09	.03	1
1	11	19.65	19.65	33.492	23.704	418.7	.043	5.43	103.5							10
1	20 ISL	19.52	19.52	33.487	23.734	415.9	.047	5.45	103.6	2.4	.30	.0	.00	.08	.03	11
1	22	17.66	17.66	33.457	24.174	374.1	.082	5.72	104.9							20
1	30 ISL	17.27	17.26	33.454	24.267	365.4	.089	5.77	105.1	2.4	.30	.0	.00	.09	.04	22
1	32	16.53	16.61	33.424	24.396	353.3	.118	5.87	105.6							30
1	42	16.53	16.52	33.418	24.413	351.7	.125	5.89	105.7	2.4	.32	.0	.00	.09	.04	32
1	50 ISL	15.78	15.78	33.436	24.596	334.6	.159	5.99	105.9	2.5	.34	.0	.00	.13	.05	42
1	53	15.12	15.11	33.427	24.737	321.4	.186	6.08	106.1							50
1	63	14.92	14.91	33.428	24.780	317.3	.195	6.10	106.0	2.3	.34	.0	.00	.16	.10	53
1	73	14.63	14.62	33.499	24.898	306.3	.226	6.00	103.7	2.7	.35	.0	.01	.22	.14	63
1	83	13.82	13.81	33.502	25.070	290.2	.256	5.64	95.9	3.8	.51	2.6	.25	.37	.16	73
1	89	13.74	13.73	33.516	25.096	287.8	.262	5.59	94.9							75
1	100 ISL	13.39	13.38	33.595	25.229	275.4	.301	5.33	89.9	4.9	.60	4.8	.07	.74	.38	89
1	104	12.68	12.66	33.582	25.362	263.0	.331	5.09	84.5							101
1	123	12.42	12.41	33.576	25.406	258.8	.341	5.00	82.6	7.5	.78	7.9	.02	.09	.16	104
1	125 ISL	11.16	11.15	33.624	25.678	233.2	.390	4.36	70.1	13.6	1.12	13.8	.01	.02	.04	124
1	149	11.10	11.08	33.628	25.693	231.8	.393	4.32	69.3							126
1	175	10.27	10.26	33.712	25.903	212.2	.447	3.76	59.4	19.6	1.42	18.9	.01	.00	.04	150
1	200 ISL	10.25	10.23	33.715	25.910	211.6	.449	3.75	59.2							151
1	209	9.28	9.26	33.874	26.195	184.9	.506	3.47	53.6	26.4	1.66	22.8	.01			180
1	240	8.84	8.82	33.938	26.315	173.7	.544	3.32	50.8							201
1	245	8.68	8.66	33.957	26.355	170.0	.559	3.26	49.7	31.4	1.81	25.1	.01			210
1	250 ISL	8.06	8.04	34.014	26.494	157.1	.609	3.05	45.9	37.7	1.95	27.5	.01			241
1	279	7.91	7.88	34.024	26.525	154.3	.625	2.97	44.5							252
1	300 ISL	7.56	7.53	34.043	26.590	148.5	.670	2.69	40.0	44.1	2.13	29.9	.00			281
1	339	7.33	7.33	34.048	26.623	145.6	.700	2.45	36.1							302
1	400 ISL	6.97	6.99	34.065	26.684	140.2	.756	1.89	27.8	56.1	2.45	34.5	.00			341
1	414	6.27	6.26	34.169	26.847	125.3	.837	1.00	14.5							403
1	491	5.87	5.83	34.195	26.884	121.9	.855	.82	11.9	70.4	2.85	38.5	.00			417
1	500 ISL	5.82	5.77	34.252	26.984	113.1	.945	.47	6.7	79.5	3.00	40.4	.00			494
1	568	5.44	5.39	34.258	26.995	112.1	.955	.46	6.5							504
				34.295	27.071	105.4	1.029	.36	5.1	88.2	3.09	41.9	.00			572

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 100 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
30 51.0 N	118 27.4 W	16/07/84	2057 GMT		330 06 KT	300 02 06	1	1014.5 MB	21.5 C	21.5 C	2/8		ST			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
#	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	19.47	19.47	33.512	23.766	412.4	.000	5.46	103.7	2.4	.30	.0	.00	.11	.04	0
1	10	18.95	18.95	33.506	23.893	400.6	.041	5.53	104.1	2.3	.30	.0	.00	.09	.03	10
1	20 ISL	17.86	17.85	33.426	24.104	380.8	.080	5.72	105.3							20
1	21	17.72	17.72	33.416	24.129	378.5	.083	5.74	105.4	2.0	.32	.0	.00	.09	.04	21
1	30 ISL	16.10	16.09	33.311	24.429	350.1	.116	6.00	106.6							30
1	31	15.94	15.93	33.303	24.458	347.3	.119	6.02	106.7	2.0	.33	.0	.00	.08	.07	31
1	41	14.99	14.98	33.264	24.639	330.4	.153	6.20	107.8	2.1	.33	.0	.00	.17	.04	41
1	50 ISL	14.58	14.58	33.376	24.812	314.1	.183	6.17	106.4							50
1	52	14.52	14.51	33.400	24.844	311.2	.188	6.16	106.2	2.6	.37	.0	.01	.31	.12	52
1	62	13.95	13.94	33.393	24.959	300.5	.219	6.05	103.1	3.3	.44	.7	.10	.39	.15	62
1	72	13.48	13.47	33.434	25.086	288.6	.248	5.74	96.9	4.3	.56	3.2	.17	.44	.32	72
1	75 ISL	13.38	13.37	33.448	25.117	285.7	.257	5.65	95.2							75
1	88	12.95	12.94	33.497	25.241	274.2	.293	5.32	88.8	5.9	.73	6.4	.06	.28	.54	88
1	100 ISL	12.18	12.17	33.533	25.418	257.6	.326	4.95	81.4							101
1	103	12.01	11.99	33.540	25.457	253.9	.332	4.87	79.7	9.2	.96	10.5	.01	.13	.12	103
1	123	10.88	10.87	33.621	25.726	228.6	.385	4.01	64.1	16.1	1.27	16.1	.01	.02	.04	124
1	125 ISL	10.81	10.79	33.629	25.745	226.9	.386	3.96	63.3							126
1	146	9.90	9.88	33.746	25.993	203.6	.436	3.41	53.4	23.0	1.60	21.5	.00	.00	.04	149
1	150 ISL	9.84	9.83	33.755	26.009	202.0	.440	3.38	52.9							151
1	179	9.08	9.06	33.899	26.248	179.8	.495	3.08	47.4	29.6	1.82	25.0	.00			180
1	200 ISL	8.70	8.68	33.967	26.357	169.8	.532	3.12	47.7							201
1	209	8.56	8.54	33.981	26.393	166.4	.547	3.15	47.9	32.8	1.85	25.7	.00			210
1	239	8.11	8.08	34.028	26.498	156.8	.595	2.93	44.2	38.2	2.01	27.8	.00			240
1	250 ISL	7.98	7.96	34.040	26.527	154.2	.613	2.79	42.0							252
1	279	7.65	7.62	34.060	26.591	148.4	.657	2.40	35.8	44.7	2.19	30.4	.00			281
1	300 ISL	7.31	7.28	34.062	26.640	143.9	.687	2.18	32.3							302
1	339	6.88	6.84	34.064	26.730	135.6	.742	1.80	26.2	57.4	2.51	34.8	.00			341
1	400 ISL	6.09	6.05	34.113	26.845	125.1	.821	1.13	16.2							403
1	414	5.99	5.96	34.128	26.869	122.9	.839	.98	14.1	71.4	2.84	38.9	.00			417
1	491	5.57	5.53	34.213	26.989	112.2	.929	.51	7.2	82.7	3.04	41.1	.00			494
1	500 ISL	5.54	5.49	34.223	27.001	111.2	.939	.47	6.7							504
1	567	5.34	5.29	34.286	27.075	104.8	1.012	.35	4.9	89.5	3.14	42.1	.00			571



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
30 41.3 N	118 47.0 W	16/07/84	1720 GMT	2830 M	350 08 KT	320 03 05	1	1016.7 MB	20.7 C	19.8 C	6/8		AC			
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	18.96	18.96	33.435	23.836	406.5	.000	5.49	103.3							0
1	1	18.96	18.96	33.435	23.836	405.7	.004	5.49	103.3	2.0	.32	.1	.00	.11	.04	1
1	1C ISL	18.30	18.30	33.432	24.000	390.4	.040	5.57	103.5							10
1	11	18.19	18.19	33.433	24.027	387.8	.044	5.59	103.6	1.9	.31	.1	.00	.10	.05	11
1	20 ISL	16.84	16.84	33.470	24.379	354.6	.077	5.86	105.8							20
1	21	16.72	16.71	33.475	24.413	351.4	.080	5.88	106.0	1.5	.31	.1	.00	.11	.05	21
1	30 ISL	16.40	16.49	33.523	24.501	343.3	.112	5.87	105.4							30
1	31	16.47	16.47	33.523	24.506	342.9	.115	5.87	105.3	1.2	.31	.0	.00	.11	.05	31
1	41	15.00	15.00	33.370	24.717	323.0	.148	6.25	108.8	1.9	.34	.0	.00	.19	.12	41
1	50 ISL	13.95	13.95	33.368	24.937	302.2	.177	6.13	104.4							50
1	51	13.88	13.87	33.370	24.955	300.5	.179	6.12	104.1	2.9	.48	1.8	.21	.29	.13	51
1	61	13.30	13.29	33.363	25.068	290.0	.209	5.79	97.3	4.0	.60	3.8	.35	.35	.19	61
1	71	12.99	12.98	33.404	25.162	281.3	.237	5.58	93.2	4.8	.67	5.4	.11	.39	.16	71
1	75 ISL	12.86	12.85	33.431	25.209	276.9	.249	5.47	91.1							75
1	86	12.45	12.44	33.496	25.338	264.8	.278	5.17	85.4	6.7	.83	8.3	.04	.20	.19	86
1	100 ISL	11.59	11.58	33.540	25.534	246.4	.315	4.73	76.8							101
1	101	11.55	11.54	33.542	25.543	245.6	.316	4.71	76.4	10.6	1.03	11.9	.01	.06	.09	101
1	119	10.68	10.67	33.629	25.767	224.5	.360	3.78	60.2	18.1	1.37	17.8	.01	.02	.11	120
1	125 ISL	10.42	10.41	33.664	25.840	217.7	.373	3.62	57.4							126
1	144	9.66	9.64	33.783	26.062	196.9	.413	3.30	51.4	24.8	1.66	22.6	.01	.00	.05	145
1	150 ISL	9.54	9.52	33.804	26.098	193.5	.424	3.24	50.4							151
1	174	9.18	9.17	33.869	26.207	183.6	.469	3.09	47.7	28.8	1.80	24.6	.01			175
1	200 ISL	8.81	8.78	33.936	26.320	173.3	.515	3.01	46.1							201
1	205	8.73	8.71	33.948	26.341	171.4	.524	3.00	45.8	32.3	1.88	26.1	.00			206
1	235	8.18	8.15	34.012	26.476	158.9	.573	2.91	43.9	37.0	1.95	27.4	.00			236
1	250 ISL	7.93	7.90	34.024	26.522	154.6	.597	2.86	42.9							252
1	274	7.57	7.55	34.034	26.581	149.2	.634	2.71	40.3	43.4	2.09	29.6	.00			276
1	300 ISL	7.29	7.26	34.058	26.641	143.8	.672	2.31	34.2							302
1	335	6.93	6.90	34.092	26.718	136.9	.721	1.71	25.1	55.8	2.48	34.4	.00			337
1	400 ISL	6.13	6.09	34.138	26.859	123.8	.806	1.21	17.5							403
1	410	6.01	5.98	34.144	26.879	121.9	.818	1.16	16.7	71.9	2.83	38.8	.00			413
1	487	5.54	5.50	34.204	26.986	112.5	.908	.64	9.1	82.7	2.99	41.0	.00			491
1	500 ISL	5.49	5.45	34.220	27.004	110.8	.923	.57	8.1							504
1	562	5.37	5.32	34.317	27.096	102.8	.989	.35	5.0	89.7	3.10	41.9	.00			566

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
30 21.3 N	119 27.3 W	16/07/84	1158 GMT	3887 M	340 09 KT	330 02 04	2	1016.1 MB	18.9 C	17.8 C	8/8		SC			
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	18.29	18.29	33.374	23.957	394.1	.000	5.49	101.9							0
1	1	18.29	18.29	33.374	23.957	394.2	.004	5.49	101.9	2.6	.31	.0	.00	.06	.03	1
1	1C ISL	18.29	18.29	33.368	23.952	395.0	.039	5.62	104.4							10
1	11	18.29	18.29	33.367	23.952	395.0	.043	5.63	104.5	2.4	.30	.0	.00	.07	.03	11
1	20 ISL	18.19	18.19	33.357	23.969	393.7	.079	5.59	103.7							20
1	21	18.18	18.18	33.356	23.970	393.6	.083	5.59	103.6	2.4	.29	.0	.00	.06	.03	21
1	30 ISL	17.59	17.59	33.467	24.199	372.1	.117	5.69	104.3							30
1	31	17.53	17.53	33.478	24.222	369.9	.121	5.70	104.4	2.7	.26	.0	.00	.07	.03	31
1	41	17.27	17.27	33.461	24.272	365.6	.157	5.75	104.7	2.4	.26	.0	.00	.08	.03	41
1	50 ISL	16.69	16.68	33.416	24.374	356.1	.190	5.84	105.2							50
1	52	16.57	16.56	33.409	24.396	353.9	.197	5.86	105.2	2.5	.28	.0	.00	.09	.04	52
1	62	16.23	16.22	33.443	24.501	344.3	.231	5.91	105.5	2.4	.27	.0	.00	.11	.05	62
1	72	15.80	15.79	33.497	24.640	331.3	.265	5.90	104.4	2.5	.26	.0	.00	.14	.06	72
1	75 ISL	15.62	15.61	33.491	24.676	328.0	.276	5.88	103.7							75
1	87	14.90	14.89	33.481	24.827	313.9	.313	5.81	101.0	2.6	.32	.0	.04	.38	.49	87
1	100 ISL	14.01	13.99	33.614	25.119	296.4	.353	5.44	92.9							101
1	102	13.90	13.89	33.631	25.153	293.2	.358	5.39	91.9	4.3	.49	3.1	.02	.11	.25	102
1	122	13.07	13.05	33.607	25.305	269.1	.413	5.21	87.3	5.8	.64	5.8	.01	.05	.11	122
1	125 ISL	12.85	12.84	33.602	25.343	265.6	.422	5.13	85.5							126
1	147	11.43	11.42	33.603	25.613	240.0	.479	4.51	73.0	11.8	1.02	12.4	.00	.01	.04	148
1	150 ISL	11.29	11.27	33.614	25.648	236.7	.485	4.44	71.6							151
1	177	10.03	10.01	33.762	25.985	205.0	.545	3.75	58.9	21.2	1.45	19.5	.01			178
1	200 ISL	9.32	9.30	33.861	26.178	186.9	.590	3.22	49.7							201
1	207	9.15	9.13	33.886	26.225	182.5	.603	3.10	47.8	28.8	1.78	24.6	.00			208
1	238	8.56	8.54	33.975	26.386	167.5	.657	3.20	48.7	32.6	1.84	25.7	.00			239
1	250 ISL	8.33	8.31	33.996	26.439	162.6	.677	3.11	47.0							252
1	275	7.82	7.80	34.032	26.544	153.0	.722	2.76	41.3	41.1	2.06	29.0	.00			280
1	300 ISL	7.49	7.46	34.045	26.602	147.7	.754	2.50	37.1							302
1	339	6.96	6.93	34.061	26.689	139.7	.810	2.00	29.4	53.6	2.39	33.4	.00			341
1	400 ISL	6.29	6.26	34.113	26.819	127.8	.892	1.24	17.9							403
1	415	6.17	6.13	34.127	26.847	125.2	.910	1.08	15.6	68.9	2.76	38.1	.00			417
1	491	5.72	5.68	34.198	26.958	115.3	1.002	.61	8.7	79.9	2.97	40.3	.00			494
1	500 ISL	5.68	5.63	34.208	26.972	114.1	1.012	.57	8.1							504
1	567	5.37	5.32	34.285	27.071	105.3	1.086	.35	5.0	89.3	3.10	41.8	.00			571



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
50 01.3 N	120 07.5 W	16/07/84	0648 GMT	4060 M	320	11 KT	340 02 06	1	1017.2 MB	18.0 C	17.0 C	7/8		SC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	1 ISL	18.56	18.56	33.483	23.974	393.6	.000	5.49	102.5						0	
1	1	18.56	18.56	33.483	23.974	392.6	.004	5.49	102.5	2.6	.29	.0	.00	.07	.03	1
1	11 ISL	18.31	18.31	33.496	24.046	386.1	.039	5.58	103.8							10
1	11	18.28	18.28	33.493	24.051	385.6	.043	5.59	103.8	2.6	.28	.0	.00	.07	.03	11
1	21 ISL	18.02	18.02	33.438	24.072	383.9	.077	5.63	104.1							20
1	22	17.92	17.92	33.412	24.076	383.5	.085	5.65	104.2	2.5	.28	.0	.00	.08	.04	22
1	31 ISL	17.02	17.02	33.287	24.196	372.3	.115	5.84	105.7							30
1	32	16.78	16.77	33.256	24.230	369.2	.122	5.88	105.9	2.3	.31	.0	.00	.11	.05	32
1	42	15.70	15.70	33.126	24.375	355.6	.158	5.97	105.2	2.5	.32	.0	.00	.11	.06	42
1	51 ISL	15.77	15.77	33.236	24.445	349.2	.187	5.96	105.3							50
1	52	15.79	15.78	33.253	24.454	348.4	.194	5.96	105.3	2.5	.30	.0	.00	.11	.06	52
1	62	15.51	15.50	33.194	24.472	347.0	.228	6.01	105.6	2.4	.32	.0	.00	.13	.06	62
1	72	15.53	15.52	33.372	24.604	334.7	.262	5.94	104.5	2.5	.28	.0	.00	.15	.06	72
1	75 ISL	15.50	15.49	33.407	24.639	331.5	.273	5.92	104.2							75
1	87	15.17	15.16	33.463	24.753	320.9	.311	5.89	102.9	2.5	.32	.2	.03	.23	.14	87
1	100 ISL	14.38	14.36	33.415	24.887	308.5	.353	5.88	101.1							101
1	102	14.28	14.26	33.409	24.904	306.9	.358	5.88	100.8	2.2	.52	2.0	.29	.22	.15	102
1	123	13.73	13.71	33.544	25.123	286.6	.420	5.48	93.0	3.9	.55	3.7	.27	.15	.23	123
1	125 ISL	13.60	13.58	33.552	25.156	283.5	.427	5.43	92.0							126
1	147	12.28	12.26	33.597	25.451	255.7	.487	5.01	82.5	8.0	.79	8.2	.02	.05	.11	148
1	150 ISL	12.13	12.11	33.599	25.480	252.9	.494	4.96	81.5							151
1	176	10.77	10.75	33.642	25.763	226.3	.557	4.38	69.9	14.6	1.16	14.5	.01			177
1	200 ISL	9.77	9.75	33.767	26.031	201.0	.608	3.55	55.4							201
1	206	9.56	9.53	33.804	26.096	194.9	.620	3.36	52.2	25.2	1.68	22.8	.01			207
1	236	8.71	8.69	33.959	26.352	170.9	.674	3.16	48.3	31.5	1.85	25.7	.01			237
1	251 ISL	8.47	8.39	33.996	26.427	163.9	.698	3.01	45.7							252
1	276	7.99	7.96	34.031	26.519	155.4	.739	2.72	40.9	39.6	2.09	28.8	.01			277
1	300 ISL	7.71	7.68	34.056	26.580	149.9	.776	2.47	36.9							302
1	334	7.38	7.34	34.078	26.645	144.1	.826	2.12	31.4	49.0	2.36	32.2	.01			336
1	400 ISL	6.59	6.56	34.119	26.785	131.3	.917	1.35	19.6							403
1	410	6.49	6.45	34.126	26.804	129.5	.929	1.24	18.0	63.9	2.74	37.1	.00			412
1	486	5.90	5.85	34.197	26.937	117.5	1.024	.67	9.6	76.3	2.99	40.1	.00			489
1	500 ISL	5.81	5.77	34.209	26.957	115.7	1.040	.60	8.6							504
1	562	5.53	5.48	34.257	27.029	109.3	1.110	.41	5.8	85.3	3.13	41.6	.00			566

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
49 41.4 N	120 47.2 W	16/07/84	0153 GMT	4128 M	320	09 KT	340 02 06	1	1016.3 MB	18.0 C	16.5 C	7/8		SC		
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	1 ISL	18.00	18.00	33.233	23.921	398.6	.000	5.61	103.5							0
1	1	18.00	18.00	33.233	23.921	397.7	.004	5.61	103.5	2.5	.32	.0	.00	.07	.02	1
1	11 ISL	17.65	17.65	33.244	24.013	389.1	.039	5.62	103.0							10
1	11	17.61	17.61	33.244	24.024	388.1	.043	5.62	102.9	2.4	.31	.0	.00	.06	.03	11
1	21 ISL	16.72	16.71	33.227	24.133	378.0	.078	5.75	103.9							20
1	27	16.72	16.71	33.210	24.208	371.1	.104	5.82	104.7	2.5	.30	.0	.00	.06	.03	27
1	30 ISL	16.60	16.59	33.198	24.228	369.3	.115	5.83	104.6							30
1	42	16.33	16.32	33.201	24.293	363.5	.159	5.85	104.4	2.4	.30	.0	.00	.07	.03	42
1	51 ISL	16.42	16.41	33.296	24.345	358.8	.188	5.82	104.2							50
1	57	16.49	16.48	33.398	24.406	353.2	.212	5.80	104.0	2.4	.26	.0	.00	.08	.05	57
1	67	15.61	15.60	33.323	24.548	339.9	.247	5.98	105.3	2.4	.28	.0	.00	.16	.06	67
1	75 ISL	15.91	15.90	33.498	24.617	333.7	.274	5.87	104.0							75
1	77	16.02	16.01	33.547	24.629	332.6	.280	5.83	103.7	2.4	.25	.0	.00	.15	.13	77
1	93	16.49	16.47	33.847	24.753	321.3	.332	5.69	102.3	2.5	.22	.0	.00	.21	.22	93
1	100 ISL	16.32	16.31	33.893	24.827	314.6	.356	5.64	101.0							101
1	102	15.96	15.94	33.890	24.908	307.0	.379	5.58	99.3	2.8	.26	.3	.06	.18	.24	108
1	123	14.81	14.79	33.776	25.074	291.5	.424	5.46	94.9	3.4	.34	1.1	.24	.12	.18	123
1	125 ISL	14.57	14.55	33.749	25.105	288.6	.431	5.44	94.1							126
1	147	12.43	12.41	33.566	25.398	260.7	.493	5.08	83.9	7.5	.74	7.3	.01	.03	.11	148
1	150 ISL	12.23	12.21	33.560	25.431	257.6	.499	4.98	82.0							151
1	168	11.04	11.02	33.583	25.670	235.0	.544	4.28	68.6	14.5	1.17	14.6	.01	.00	.03	169
1	188	10.04	10.02	33.729	25.957	207.9	.588	3.78	59.4	20.8	1.44	19.3	.01			189
1	200 ISL	9.74	9.71	33.796	26.061	198.2	.612	3.86	60.3							201
1	208	9.58	9.55	33.835	26.117	192.9	.628	3.93	61.1	22.6	1.47	20.0	.00			209
1	239	8.75	8.72	33.946	26.339	172.2	.684	3.05	46.6	32.1	1.85	25.9	.00			240
1	251 ISL	8.49	8.47	33.973	26.395	166.7	.703	3.03	46.1							252
1	279	7.93	7.90	34.017	26.517	155.7	.749	2.99	44.9	38.7	1.97	27.7	.00			280
1	300 ISL	7.59	7.56	34.040	26.574	149.5	.762	2.66	39.6							302
1	339	7.11	7.07	34.075	26.660	140.7	.839	1.90	28.0	57.6	2.41	33.3	.00			341
1	400 ISL	6.61	6.58	34.150	26.806	129.3	.921	1.12	16.3							403
1	415	6.53	6.49	34.167	26.832	127.0	.940	.98	14.2	65.4	2.75	37.1	.00			417
1	491	6.11	6.07	34.242	26.945	117.0	1.032	.55	7.9	75.3	2.95	39.3	.00			493
1	500 ISL	6.05	6.01	34.250	26.959	115.7	1.043	.51	7.3							504
1	565	5.64	5.59	34.291	27.043	108.2	1.116	.36	5.1	84.6	3.07	41.1	.00			569

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 20.6 N	121 26.9 W	15/07/84	2004 GMT	4021 M	340	10 KT	330 04 05	2	1017.1 MB	19.3 C	17.3 C	9/8		ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	18.01	18.01	33.275	23.949	395.8	.000	5.59	103.2							0
1	1	18.01	18.01	33.275	23.949	395.0	.004	5.59	103.2							1
1	10 ISL	17.72	17.72	33.270	24.016	398.8	.039	5.58	102.4		.31	.0	.00	.05	.00	10
1	11	17.70	17.70	33.269	24.021	398.4	.043	5.58	102.4	2.6	.31	.0	.00	.05	.00	11
1	20 ISL	17.55	17.55	33.258	24.048	386.1	.078	5.65	103.4							20
1	21	17.54	17.53	33.256	24.051	385.9	.082	5.66	103.5	2.5	.30	.0	.00	.06	.02	21
1	30 ISL	17.33	17.33	33.245	24.092	382.3	.116	5.68	103.4							30
1	31	17.30	17.29	33.244	24.099	381.7	.120	5.68	103.4	2.4	.30	.0	.00	.07	.02	31
1	41	16.55	16.54	33.230	24.264	366.2	.157	5.83	104.5	2.3	.29	.0	.00	.08	.03	41
1	50 ISL	16.31	16.30	33.236	24.324	360.8	.190	5.87	104.7							50
1	51	16.30	16.29	33.237	24.327	360.5	.193	5.87	104.7	2.4	.29	.0	.00	.09	.04	51
1	61	16.02	16.01	33.239	24.392	354.6	.229	5.91	104.9	2.4	.29	.0	.00	.13	.05	61
1	71	15.82	15.81	33.285	24.472	347.3	.264	5.92	104.7	2.4	.28	.0	.00	.16	.11	71
1	75 ISL	15.61	15.59	33.270	24.509	343.9	.279	5.93	104.5							75
1	86	15.14	15.13	33.259	24.604	335.1	.315	5.97	104.1	2.7	.31	.0	.00	.27	.24	86
1	100 ISL	15.33	15.32	33.480	24.732	323.4	.362	5.76	101.0							101
1	101	15.34	15.32	33.490	24.738	322.8	.364	5.75	100.8	2.5	.32	.2	.11	.27	.29	101
1	122	13.99	13.97	33.456	25.001	298.1	.429	5.63	96.0	3.8	.49	2.8	.05	.10	.16	122
1	125 ISL	13.86	13.84	33.463	25.033	295.2	.439	5.60	95.3							126
1	146	13.14	13.12	33.529	25.230	276.9	.500	5.33	89.4	5.6	.61	5.1	.01	.04	.10	147
1	150 ISL	12.93	12.91	33.540	25.280	272.2	.510	5.24	87.5							151
1	176	11.33	11.30	33.633	25.657	236.6	.577	4.51	72.8	12.5	1.02	12.3	.01			177
1	200 ISL	10.28	10.26	33.731	25.918	212.0	.630	4.00	63.1							201
1	206	10.06	10.03	33.756	25.975	206.6	.643	3.88	61.0	20.3	1.40	19.7	.01			207
1	236	8.14	8.12	33.888	26.229	182.7	.701	3.38	52.1	27.8	1.70	23.5	.01			237
1	250 ISL	8.85	8.82	33.932	26.311	175.1	.726	3.31	50.7							252
1	277	8.40	8.37	33.993	26.428	164.2	.772	3.21	48.7	34.1	1.85	25.9	.00			278
1	300 ISL	7.99	7.96	34.029	26.518	156.0	.809	2.84	42.7							302
1	337	7.40	7.36	34.067	26.634	145.2	.865	2.15	31.9	48.7	2.28	31.7	.00			339
1	400 ISL	6.62	6.59	34.121	26.782	131.5	.952	1.33	19.4							403
1	413	6.51	6.47	34.132	26.807	129.3	.968	1.20	17.4	64.0	2.68	36.7	.00			415
1	488	6.15	6.11	34.239	26.938	117.7	1.062	.58	8.4	74.6	2.92	39.1	.00			491
1	500 ISL	6.09	6.05	34.251	26.956	116.1	1.075	.55	7.9							504
1	564	5.72	5.67	34.300	27.040	108.6	1.148	.37	5.3	83.6	3.05	40.7	.00			568

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 08.6 N	116 20.6 W	18/07/84	1539 GMT	37 M	190	06 KT	310 01 04	1	1013.2 MB	20.0 C	19.5 C	3/8		AC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	10	14.21	14.21	33.528	25.008	294.3	.029	5.79	99.3	6.4	.48	.9	.06	.50	.32	10

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
31 07.0 N	116 24.1 W	18/07/84	1727 GMT	59 M	210	06 KT	300 01 05	1	1013.5 MB	20.5 C	20.0 C	5/8		AS		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	19.02	19.02	33.515	23.883	411.4	.000	6.00	113.0							0
1	1	19.02	19.02	33.515	23.883	401.3	.004	6.00	113.0							1
1	10 ISL	15.94	15.94	33.524	24.627	330.6	.037	6.28	111.5		.25	.0	.00	.28	.10	10
1	11	15.70	15.70	33.528	24.684	325.2	.040	6.29	111.1	3.8	.29	.0	.00	.18	.10	11
1	20 ISL	14.37	14.37	33.544	24.985	296.8	.068	6.16	105.9							20
1	22	14.19	14.19	33.541	25.021	293.4	.074	6.13	105.1	3.5	.37	.0	.01	.51	.51	22
1	30 ISL	13.09	13.09	33.525	25.233	273.4	.097	5.29	88.6							30
1	32	12.89	12.89	33.523	25.272	269.8	.102	5.08	84.7	7.1	.71	5.9	.14	.42	.63	32
1	42	12.67	12.61	33.550	25.347	262.9	.128	4.61	76.5	9.7	.89	8.1	.44	.44	.41	42

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	#MT	TYPE		
30 57.3 N	116 44.9 W	18/07/84	2112 GMT	1728 M	260	06 KT	270 01 04	1	1012.5 MB	22.8 C	21.1 C		5/8	SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	22.13	22.13	33.663	23.167	478.9	.000	5.31	106.0							0
	1	22.13	22.13	33.663	23.167	469.6	.005	5.31	106.0	2.5	.22	.0	.00	.17	.08	1
	10 ISL	19.25	19.25	33.599	23.889	401.0	.044	5.66	107.2							10
	11	18.99	18.99	33.593	23.949	395.3	.048	5.69	107.2	2.4	.24	.0	.00	.14	.06	11
	20 ISL	17.12	17.12	33.518	24.351	357.3	.082	5.89	107.1							20
	22	16.84	16.84	33.503	24.405	352.2	.089	5.92	107.0	2.3	.29	.0	.00	.10	.06	22
	30 ISL	16.15	16.15	33.487	24.552	338.4	.116	5.94	105.8							30
	32	16.03	16.03	33.487	24.579	335.9	.123	5.94	105.6	2.4	.29	.0	.00	.14	.06	32
	42	15.00	14.99	33.512	24.827	312.5	.155	5.50	95.8	2.9	.33	.0	.00	.49	.39	42
	50 ISL	14.28	14.27	33.497	24.970	299.1	.180	5.73	98.3							50
	52	14.11	14.10	33.494	25.003	296.0	.185	5.76	98.5	3.6	.42	.2	.04	.78	.59	52
	62	12.92	12.91	33.541	25.281	269.7	.214	4.98	83.1	7.8	.71	6.1	.27	.37	.58	62
	72	12.56	12.55	33.580	25.381	260.4	.240	4.18	69.3	11.6	1.02	10.5	.42	.72	.42	72
	75 ISL	12.46	12.45	33.584	25.404	258.3	.248	4.19	69.2							75
	88	12.09	12.08	33.593	25.481	251.3	.281	4.21	69.1	12.1	1.05	11.6	.17	.18	.31	88
	100 ISL	11.78	11.76	33.627	25.568	243.3	.311	3.77	61.5							101
	103	11.71	11.70	33.635	25.586	241.6	.317	3.66	59.6	15.5	1.27	14.8	.13	.12	.29	103
	122	11.22	11.21	33.704	25.729	228.3	.364	2.96	47.7	19.6	1.54	18.9	.02	.06	.23	123
	125 ISL	11.17	11.15	33.711	25.744	227.0	.370	2.96	47.7							126
	147	10.77	10.75	33.772	25.864	216.0	.419	2.96	47.3	21.7	1.63	20.3	.01	.02	.19	148
	150 ISL	10.74	10.72	33.785	25.880	214.6	.425	2.92	46.5							151
	178	10.33	10.31	33.897	26.038	200.1	.484	2.62	41.5	26.8	1.72	23.2	.01			179
	200 ISL	9.65	9.63	33.893	26.151	189.7	.526	3.10	48.3							201
	208	9.40	9.38	33.892	26.190	186.0	.541	3.27	50.7	26.3	1.81	23.0	.01			209
	239	8.97	8.95	34.004	26.347	171.6	.596	2.92	44.9	31.9	1.90	25.6	.01			240
	250 ISL	9.10	9.07	34.089	26.394	167.4	.615	2.48	38.2							252
	279	9.42	9.39	34.290	26.500	158.2	.663	1.35	21.0	39.3	2.37	29.2	.01			281
	300 ISL	9.00	8.97	34.272	26.554	153.3	.695	1.45	22.4							302
	340	7.92	7.89	34.166	26.636	145.5	.755	1.65	24.8	47.2	2.41	31.8	.00			342
	400 ISL	7.53	7.49	34.234	26.746	135.9	.839	1.07	15.9							403
	415	7.51	7.46	34.261	26.772	133.7	.860	.87	12.9	56.9	2.70	34.7	.00			418
	491	6.91	6.86	34.304	26.890	123.1	.957	.50	7.3	66.6	2.89	37.1	.00			494
	500 ISL	6.85	6.80	34.309	26.902	122.1	.968	.47	6.9							504
	567	6.45	6.40	34.330	26.972	116.1	1.048	.35	5.1	73.6	3.00	38.7	.00			571

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	#MT	TYPE		
30 46.8 N	117 04.8 W	19/07/84	0026 GMT	1784 M	330	07 KT	280 01 04	1	1013.1 MB	22.0 C	20.2 C		6/8	ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0	22.36	22.36	33.636	23.083	477.6	.000	5.30	106.2	2.5	.24	.0	.00	.17	.03	0
	10	21.09	21.09	33.628	23.427	445.1	.046	5.42	106.2	2.5	.22	.0	.00	.11	.04	10
	20	18.37	18.36	33.573	24.091	382.0	.087	5.73	106.7	2.4	.25	.0	.00	.10	.04	20
	30	17.46	17.45	33.547	24.293	363.1	.124	5.84	106.8	2.4	.27	.0	.00	.11	.04	30
	41	17.00	17.00	33.553	24.406	352.7	.164	5.92	107.3	2.3	.26	.0	.00	.13	.05	41
	50 ISL	15.68	15.67	33.505	24.673	327.5	.195	6.00	106.0							50
	51	15.56	15.55	33.501	24.697	325.2	.197	6.01	105.9	2.6	.31	.0	.00	.19	.12	51
	61	15.11	15.10	33.500	24.794	316.2	.229	5.96	104.0	2.8	.32	.0	.00	.20	.16	61
	71	14.51	14.50	33.490	24.916	304.9	.260	5.91	101.9	3.3	.36	.0	.00	.31	.27	71
	75 ISL	14.12	14.11	33.493	25.000	296.9	.273	5.75	98.3							75
	86	13.17	13.16	33.513	25.210	277.1	.304	5.25	88.1	6.1	.62	4.3	.17	.29	.58	86
	100 ISL	12.50	12.48	33.538	25.362	263.0	.342	4.84	80.1							101
	101	12.48	12.46	33.539	25.367	262.5	.344	4.83	79.9	8.8	.81	8.1	.12	.19	.35	101
	121	11.61	11.59	33.618	25.593	241.4	.397	4.47	72.6	11.8	.99	11.6	.04	.11	.15	122
	125 ISL	11.39	11.38	33.636	25.645	236.4	.405	4.37	70.7							126
	146	10.20	10.18	33.756	25.950	207.7	.452	3.75	59.1	20.4	1.43	19.1	.01	.01	.03	147
	150 ISL	10.10	10.08	33.777	25.983	204.6	.460	3.67	57.7							151
	177	9.62	9.60	33.913	26.170	187.3	.513	3.19	49.7	26.7	1.72	23.0	.01			178
	200 ISL	9.06	9.04	33.986	26.319	173.5	.554	2.98	45.8							201
	207	8.91	8.89	34.006	26.358	169.8	.566	2.91	44.6	32.4	1.88	25.6	.01			208
	238	8.67	8.64	34.104	26.473	159.4	.617	2.34	35.7	37.8	2.10	26.2	.01			239
	250 ISL	8.56	8.53	34.129	26.509	156.2	.636	2.17	33.0							252
	279	8.30	8.27	34.170	26.582	149.7	.680	1.82	27.6	43.9	2.31	30.4	.01			280
	300 ISL	8.08	8.05	34.198	26.636	144.9	.712	1.55	23.3							302
	339	7.69	7.66	34.236	26.724	137.0	.767	1.11	16.6	53.9	2.61	33.6	.01			341
	400 ISL	7.19	7.16	34.269	26.821	128.4	.847	.74	10.9							403
	415	7.09	7.05	34.275	26.842	126.7	.867	.68	10.0	63.1	2.82	36.2	.00			418
	491	6.68	6.63	34.327	26.939	118.3	.960	.44	6.4	71.1	2.97	38.0	.00			494
	500 ISL	6.61	6.56	34.330	26.951	117.2	.970	.42	6.1							504
	567	5.95	5.90	34.330	27.035	109.4	1.047	.34	4.9	80.8	3.07	40.2	.00			571

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 36.4 N	117 24.9 W	19/07/84	0339 CMT	2220 M	300	09 KT	280 01 04	1	1012.0 MB	21.0 C	19.6 C		6/8	ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	21.52	21.52	33.627	23.308	456.1	.000	5.27	104.1	2.6	.26	.4	.00	.09	.04	0
1	10	20.17	20.17	33.610	23.660	422.9	.044	5.46	105.2	2.6	.25	.5	.00	.08	.03	10
1	20	17.46	17.46	33.438	24.208	370.9	.083	5.80	106.0	2.6	.31	.5	.00	.05	.04	20
1	29	16.40	16.40	33.426	24.448	348.3	.116	5.94	106.3	2.5	.31	.7	.00	.07	.06	29
1	30 ISL	16.27	16.27	33.423	24.475	345.7	.119	5.95	106.2							30
1	39	15.33	15.32	33.400	24.669	327.5	.149	6.02	105.5	2.6	.32	.8	.00	.06	.14	39
1	48	14.60	14.59	33.375	24.808	314.5	.178	6.17	106.5	2.9	.35	.9	.01	.17	.16	48
1	50 ISL	14.45	14.44	33.368	24.855	312.0	.185	6.15	105.8							50
1	58	14.06	14.05	33.362	24.911	304.9	.209	6.02	102.8	3.2	.42	1.8	.16	.26	.17	58
1	67	14.03	14.02	33.428	24.969	299.7	.236	5.93	101.2	3.4	.46	2.6	.29	.27	.25	67
1	75 ISL	13.97	13.96	33.506	25.041	293.0	.260	5.75	98.0							75
1	82	13.92	13.91	33.581	25.109	286.7	.280	5.56	94.8	4.3	.60	5.4	.39	.28	.22	82
1	96	13.06	13.05	33.555	25.264	272.2	.319	5.14	86.1	6.6	.73	8.1	.03	.16	.19	96
1	100 ISL	12.72	12.71	33.555	25.332	265.9	.330	4.96	82.5							101
1	116	11.53	11.52	33.584	25.580	242.5	.370	4.36	70.7	12.7	1.06	14.1	.02	.07	.12	116
1	125 ISL	11.00	10.99	33.623	25.706	230.6	.392	4.12	66.0							126
1	135	10.39	10.38	33.693	25.868	215.4	.424	3.84	60.8	19.0	1.37	19.6	.01	.01	.01	140
1	150 ISL	10.10	10.09	33.747	25.959	206.9	.447	3.67	57.7							151
1	168	9.73	9.71	33.836	26.092	194.6	.483	3.45	53.9	24.6	1.61	23.1	.01			169
1	198	9.04	9.02	33.957	26.299	175.3	.539	3.25	50.0	30.0	1.77	25.3	.00			199
1	200 ISL	9.00	8.98	33.963	26.310	174.3	.542	3.23	49.6							201
1	227	8.56	8.53	34.028	26.430	163.2	.587	2.91	44.3	35.2	1.93	27.7	.00			228
1	250 ISL	8.26	8.23	34.058	26.500	156.9	.624	2.65	40.0							252
1	267	8.08	8.05	34.076	26.541	153.3	.650	2.45	36.9	41.2	2.13	30.4	.00			268
1	300 ISL	7.79	7.76	34.135	26.630	145.2	.700	1.95	29.2							302
1	326	7.60	7.57	34.182	26.695	139.5	.737	1.55	23.1	52.3	2.52	34.6	.00			328
1	400 ISL	7.17	7.14	34.279	26.832	127.4	.836	.70	10.4							403
1	403	7.16	7.12	34.281	26.836	127.1	.839	.68	10.0	62.4	2.82	37.5	.00			405
1	480	6.66	6.61	34.327	26.942	117.9	.934	.38	5.5	70.9	2.96	39.6	.00			483
1	500 ISL	6.52	6.48	34.336	26.967	115.6	.957	.36	5.2							504
1	557	6.13	6.08	34.359	27.036	109.4	1.022	.29	4.2	79.5	3.08	41.3	.00			561

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 26.9 N	117 45.1 W	19/07/84	0652 CMT	2430 M	300	08 KT	280 01 04		1014.3 MB	20.0 C	19.1 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	20.51	20.51	33.476	23.466	447.0	.000	5.39	104.4							0
1	1	20.51	20.51	33.476	23.466	441.1	.004	5.39	104.4	2.3	.33	.1	.00	.08	.03	1
1	10 ISL	18.55	18.55	33.384	23.901	399.9	.042	5.62	104.9							10
1	11	18.40	18.40	33.377	23.933	396.8	.046	5.64	104.9	2.0	.34	.0	.00	.07	.03	11
1	20 ISL	17.53	17.53	33.322	24.103	380.9	.081	5.74	105.1							20
1	21	17.48	17.47	33.319	24.113	380.0	.085	5.75	105.1	2.3	.32	.0	.00	.06	.03	21
1	30 ISL	17.03	17.03	33.322	24.226	369.6	.119	5.77	104.6							30
1	32	16.95	16.95	33.330	24.247	367.6	.126	5.78	104.5	2.4	.31	.0	.00	.07	.04	32
1	42	16.23	16.22	33.277	24.373	355.8	.162	5.95	106.1	2.3	.32	.0	.00	.08	.04	42
1	50 ISL	15.55	15.54	33.421	24.637	330.9	.190	6.08	107.0							50
1	57	15.03	15.02	33.542	24.844	311.4	.212	6.13	106.9	2.4	.32	.0	.00	.12	.05	57
1	67	14.56	14.55	33.491	24.907	305.6	.242	6.01	103.7	2.5	.36	.1	.02	.19	.11	67
1	75 ISL	13.93	13.92	33.328	24.912	305.3	.268	5.95	101.4							75
1	77	13.82	13.80	33.298	24.913	305.2	.273	5.94	100.9	3.1	.46	1.5	.29	.23	.14	77
1	92	13.72	13.71	33.488	25.079	289.8	.317	5.61	95.2	3.9	.58	3.4	.11	.31	.24	92
1	100 ISL	13.43	13.42	33.523	25.166	281.8	.341	5.44	91.8							101
1	112	12.87	12.85	33.538	25.291	270.1	.373	5.17	86.2	6.4	.75	6.5	.03	.12	.17	112
1	125 ISL	12.11	12.10	33.571	25.461	254.1	.408	4.70	77.1							126
1	132	11.67	11.65	33.592	25.561	244.7	.427	4.42	71.9	12.4	1.09	12.7	.01	.04	.11	133
1	150 ISL	10.61	10.59	33.664	25.807	221.5	.468	3.91	62.1							151
1	157	10.22	10.20	33.699	25.903	212.5	.484	3.73	58.8	20.7	1.47	19.2	.01	.00	.04	158
1	187	9.37	9.35	33.846	26.159	188.4	.543	3.26	50.5	26.8	1.73	23.3	.00			188
1	200 ISL	9.10	9.08	33.898	26.244	180.6	.567	3.25	50.1							201
1	217	8.79	8.77	33.952	26.335	172.2	.597	3.24	49.6	31.0	1.83	25.0	.00			218
1	250 ISL	8.22	8.20	34.000	26.459	160.7	.652	3.14	47.4							252
1	252	8.20	8.17	34.001	26.464	160.3	.655	3.13	47.2	36.0	1.91	26.6	.00			253
1	300 ISL	7.51	7.48	34.036	26.593	148.6	.729	2.64	39.2							302
1	301	7.49	7.46	34.036	26.595	148.3	.731	2.62	38.9	45.0	2.17	30.0	.00			303
1	357	6.80	6.77	34.065	26.714	137.5	.811	1.85	27.1	56.0	2.46	34.0	.00			359
1	400 ISL	6.37	6.33	34.112	26.808	128.9	.868	1.27	18.4							403
1	441	6.04	6.00	34.163	26.892	121.2	.920	.81	11.6	72.8	2.88	38.9	.00			444
1	500 ISL	5.74	5.70	34.229	26.982	113.3	.989	.49	7.0							504
1	529	5.63	5.58	34.258	27.019	110.0	1.020	.41	5.8							532
1	600 ISL	5.32	5.27	34.319	27.104	102.5	1.096	.31	4.4							604
1	616	5.25	5.20	34.330	27.121	101.0	1.112	.29	4.1	92.8	3.15	42.1	.01			620

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 16.2 N	118 04.9 W	19/07/84	1010 GMT	2031 M	300	12 KT	300 D3 D4	1	1014.8 MB	19.8 C	18.5 C		5/8	SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	20.18	20.18	33.493	23.567	431.3	.000	5.44	104.7	2.7	.29	.0	.00	.08	.03	0
1	10	19.23	19.22	33.569	23.872	402.6	.042	5.50	104.1	2.8	.23	.0	.00	.06	.03	10
1	20	17.51	17.51	33.308	24.096	381.6	.081	5.78	105.7	2.6	.31	.0	.00	.06	.03	20
1	30	16.90	16.90	33.241	24.189	373.0	.118	5.83	105.3	2.5	.30	.0	.00	.07	.03	30
1	41	16.38	16.37	33.245	24.314	361.5	.159	5.93	106.0	2.4	.31	.0	.00	.09	.04	41
1	50 ISL	16.40	16.39	33.391	24.421	351.5	.191	5.92	106.0							50
1	51	16.40	16.40	33.406	24.432	350.5	.194	5.92	106.0	2.5	.30	.0	.00	.10	.05	51
1	61	15.85	15.84	33.484	24.619	333.0	.228	5.89	104.3	2.9	.31	.0	.00	.15	.06	61
1	71	14.85	14.84	33.479	24.834	312.7	.260	5.70	99.0	3.4	.36	.0	.00	.23	.21	71
1	75 ISL	14.66	14.64	33.481	24.879	308.6	.273	5.64	97.6							75
1	86	14.25	14.24	33.499	24.979	299.3	.306	5.41	92.8	4.4	.46	.6	.04	.80	.75	86
1	100 ISL	13.16	13.15	33.567	25.254	273.3	.347	4.64	77.9							101
1	101	13.11	13.10	33.570	25.266	272.2	.348	4.61	77.3	8.4	.81	7.7	.02	.13	.29	101
1	121	12.07	12.05	33.642	25.525	247.9	.400	4.28	70.2	12.2	1.04	11.9	.01	.05	.16	121
1	125 ISL	11.87	11.82	33.654	25.579	242.9	.411	4.25	69.4							126
1	146	10.82	10.80	33.705	25.803	221.7	.461	4.14	66.1	16.6	1.23	15.6	.01	.01	.04	147
1	150 ISL	10.69	10.67	33.715	25.834	218.9	.469	4.09	65.2							151
1	176	9.95	9.93	33.794	26.023	201.4	.524	3.70	58.0	22.3	1.47	20.0	.01			177
1	200 ISL	9.40	9.37	33.881	26.182	186.6	.570	3.42	53.0							201
1	207	9.24	9.22	33.905	26.226	182.5	.583	3.34	51.6	28.0	1.70	23.4	.00			208
1	237	8.56	8.53	33.985	26.396	166.6	.635	2.91	44.3	34.6	1.92	26.9	.00			238
1	250 ISL	8.33	8.30	34.005	26.447	161.9	.657	2.85	43.1							252
1	278	7.91	7.89	34.034	26.532	154.2	.700	2.74	41.1	40.9	2.05	28.7	.00			279
1	306 ISL	7.56	7.53	34.055	26.601	147.9	.734	2.41	35.9							302
1	337	7.02	6.99	34.084	26.698	138.8	.787	1.82	26.8	54.7	2.44	33.8	.00			339
1	400 ISL	6.40	6.37	34.119	26.809	128.8	.872	1.40	20.3							403
1	414	6.31	6.27	34.128	26.829	127.0	.889	1.33	19.2	67.0	2.75	37.5	.00			416
1	489	5.98	5.93	34.246	26.966	114.9	.980	.53	7.6	77.5	3.00	39.8	.00			492
1	500 ISL	5.92	5.88	34.256	26.980	113.6	.993	.51	7.3							504
1	565	5.58	5.54	34.287	27.044	108.1	1.065	.41	5.8	85.4	3.09	41.1	.00			569

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 07.4 N	118 24.9 W	19/07/84	1334 GMT	3359 M	310	11 KT	310 D3 D5	1	1016.0 MB	18.9 C	17.8 C		2/8	CC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	19.08	19.08	33.280	23.689	420.3	.000	5.53	104.2							0
1	7	19.08	19.08	33.280	23.689	419.8	.008	5.53	104.2	2.4	.30	.0	.00	.09	.03	2
1	10 ISL	18.75	18.74	33.270	23.765	412.8	.042	5.62	105.2							10
1	12	18.62	18.61	33.269	23.797	409.9	.050	5.64	105.3	2.4	.29	.0	.00	.08	.03	12
1	20 ISL	17.87	17.86	33.272	23.983	392.4	.082	5.69	104.7							20
1	22	17.67	17.66	33.272	24.031	387.8	.090	5.70	104.5	2.5	.30	.0	.00	.07	.03	22
1	30 ISL	16.97	16.96	33.258	24.187	373.2	.120	5.81	105.1							30
1	32	16.81	16.81	33.252	24.219	370.2	.127	5.84	105.3	2.3	.30	.0	.00	.07	.03	32
1	42	15.98	15.97	33.197	24.369	356.2	.164	5.99	106.2	2.3	.31	.0	.00	.08	.03	42
1	50 ISL	15.48	15.47	33.231	24.507	343.3	.192	6.06	106.4							50
1	58	15.19	15.18	33.297	24.621	332.6	.218	6.08	106.2	2.4	.31	.0	.00	.16	.06	58
1	68	15.15	15.14	33.383	24.697	325.8	.251	6.05	105.6	2.5	.31	.0	.00	.16	.11	68
1	75 ISL	14.88	14.86	33.371	24.746	321.2	.275	6.09	105.6							75
1	78	14.75	14.73	33.362	24.768	319.2	.283	6.09	105.4	2.8	.33	.0	.00	.22	.20	78
1	93	14.01	14.00	33.424	24.971	300.2	.329	5.78	98.6	3.5	.44	1.5	.17	.34	.48	93
1	100 ISL	13.80	13.78	33.455	25.039	293.9	.351	5.66	96.2							101
1	113	13.43	13.41	33.495	25.145	284.1	.388	5.48	92.4	4.6	.61	4.3	.03	.16	.28	113
1	125 ISL	12.82	12.81	33.507	25.275	271.9	.422	5.30	88.3							126
1	132	12.39	12.38	33.518	25.367	263.3	.442	5.15	85.0	7.1	.79	8.0	.01	.06	.11	133
1	150 ISL	11.19	11.17	33.605	25.659	235.7	.486	4.44	71.4							151
1	157	10.72	10.70	33.652	25.780	224.2	.503	4.13	65.8	16.2	1.21	15.9	.01	.00	.05	158
1	187	9.76	9.74	33.805	26.063	197.8	.566	3.62	56.5	23.1	1.57	20.8	.01			188
1	200 ISL	9.46	9.44	33.864	26.158	188.9	.591	3.45	53.6							201
1	217	9.13	9.10	33.931	26.265	178.9	.622	3.28	50.5	28.4	1.76	23.8	.00			218
1	250 ISL	8.48	8.45	34.005	26.425	164.1	.678	3.09	47.0							252
1	253	8.43	8.40	34.009	26.436	163.1	.683	3.08	46.7	34.3	1.92	26.3	.00			254
1	300 ISL	7.71	7.68	34.055	26.579	150.0	.757	2.50	37.3							302
1	302	7.68	7.65	34.057	26.585	149.5	.760	2.46	36.7	43.6	2.19	30.1	.00			304
1	357	7.36	7.32	34.164	26.715	137.8	.839	1.41	20.9	53.4	2.57	33.8	.00			359
1	400 ISL	6.86	6.82	34.169	26.789	131.2	.897	1.08	15.8							403
1	442	6.32	6.28	34.160	26.853	125.2	.951	.93	13.5	67.4	2.83	37.9	.00			445
1	500 ISL	5.82	5.77	34.214	26.960	115.4	1.020	.60	8.5							504
1	529	5.62	5.58	34.246	27.009	110.9	1.053	.46	6.5	82.4	3.06	40.8	.00			532
1	600 ISL	5.30	5.25	34.305	27.095	103.3	1.129	.34	4.9							604
1	615	5.26	5.21	34.315	27.108	102.2	1.144	.32	4.5	91.7	3.16	42.0	.00			619



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
29 46.6 N	119 04.3 W	19/07/84	1942 GMT	3636 M	310 07 KT	320 03 05	1	1017.4 MB	19.8 C	13.9 C	7/8		SC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO <sub>2</sub>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C ISL	19.76	19.75	33.364	23.579	431.9	.000	5.56	106.1							0
1	1	19.76	19.75	33.364	23.579	430.2	.004	5.56	106.1	2.5	.31	.0	.00	.09	.03	1
1	11	18.92	18.92	33.332	23.768	412.5	.042	5.56	104.4							10
1	11	18.82	18.82	33.330	23.792	410.3	.046	5.56	104.3	2.3	.31	.0	.00	.07	.03	11
1	20	17.80	17.79	33.333	24.047	386.3	.082	5.71	104.9							20
1	22	17.60	17.60	33.337	24.097	381.6	.090	5.74	105.1	2.4	.29	.0	.00	.07	.03	22
1	32	17.24	17.23	33.354	24.198	372.2	.120	5.78	105.1							30
1	32	17.19	17.19	33.358	24.212	371.0	.127	5.78	105.0	2.4	.29	.0	.00	.07	.03	32
1	42	16.96	16.95	33.364	24.271	365.6	.164	5.79	104.8	2.4	.28	.0	.00	.08	.03	42
1	50	16.56	16.55	33.351	24.354	357.9	.193	5.87	105.3							50
1	52	16.45	16.44	33.349	24.378	355.7	.200	5.89	105.5	2.3	.26	.0	.00	.09	.05	52
1	63	15.74	15.73	33.383	24.565	338.2	.238	6.00	106.0	2.4	.29	.0	.00	.16	.06	63
1	73	15.46	15.45	33.357	24.608	334.3	.271	6.04	106.1	2.5	.29	.0	.00	.17	.11	73
1	75	15.34	15.33	33.369	24.643	331.1	.279	6.04	105.7							75
1	88	14.53	14.52	33.458	24.887	308.1	.319	5.89	101.6	2.9	.39	.5	.06	.50	.53	88
1	100	13.66	13.65	33.501	25.102	287.9	.356	5.53	93.6							101
1	103	13.48	13.46	33.507	25.144	283.9	.363	5.44	91.8	4.4	.60	4.4	.02	.14	.25	103
1	124	12.24	12.22	33.554	25.425	257.5	.420	5.01	82.4	8.0	.85	9.0	.01	.05	.11	124
1	125	12.17	12.15	33.558	25.441	256.0	.424	4.98	81.8							126
1	148	11.24	11.22	33.639	25.676	234.0	.481	4.46	71.9	12.8	1.02	13.1	.01	.02	.04	149
1	150	11.17	11.15	33.646	25.694	232.4	.485	4.41	71.0							151
1	178	10.06	10.04	33.764	25.981	205.4	.547	3.71	58.3	21.2	1.49	19.6	.01			179
1	200	9.57	9.50	33.847	26.135	191.0	.590	3.54	55.0							201
1	209	9.34	9.32	33.878	26.189	186.1	.607	3.51	54.3	26.0	1.68	22.5	.01			210
1	239	8.72	8.69	33.966	26.357	170.5	.660	3.31	50.6	31.0	1.82	24.9	.00			240
1	250	8.54	8.51	33.990	26.404	166.1	.679	3.19	48.6							252
1	279	8.15	8.12	34.036	26.499	157.4	.725	2.85	43.0	37.9	1.97	27.7	.00			280
1	300	7.93	7.90	34.060	26.551	152.8	.758	2.59	38.8							302
1	339	7.56	7.53	34.092	26.630	145.8	.817	2.08	31.0	47.6	2.31	31.6	.00			341
1	400	6.83	6.79	34.153	26.780	132.0	.901	1.18	17.3							403
1	415	6.67	6.63	34.167	26.813	128.9	.920	.99	14.4	64.2	2.74	36.7	.00			417
1	491	6.20	6.16	34.244	26.936	118.0	1.015	.56	8.1	74.3	2.94	39.1	.00			494
1	500	6.15	6.10	34.252	26.949	116.9	1.025	.52	7.5							504
1	568	5.73	5.68	34.299	27.038	108.8	1.102	.35	5.0	83.2	3.10	40.8	.00			572

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
29 26.7 N	119 44.5 W	20/07/84	0055 GMT	5790 M	290 12 KT	320 03 05	2	1015.8 MB	19.8 C	16.0 C	8/8		SC			
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SIO <sub>2</sub>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	C ISL	20.18	20.18	33.584	23.636	425.0	.000	5.42	104.4							0
1	1	20.18	20.18	33.584	23.636	424.8	.004	5.42	104.4	2.5	.24	.1	.00	.11	.04	1
1	11	19.82	19.82	33.570	23.720	417.1	.042	5.47	104.6							10
1	11	19.75	19.75	33.567	23.736	415.6	.046	5.47	104.5	2.5	.23	.1	.00	.10	.03	11
1	20	18.77	18.77	33.527	23.955	395.1	.083	5.63	105.6							20
1	22	18.54	18.53	33.518	24.007	390.2	.090	5.67	105.9	2.5	.24	.1	.00	.11	.04	22
1	30	17.81	17.80	33.492	24.167	375.2	.121	5.78	106.4							30
1	32	17.64	17.64	33.483	24.200	372.1	.128	5.80	106.4	2.5	.24	.1	.00	.14	.04	32
1	42	16.67	16.66	33.371	24.344	358.6	.165	5.84	105.1	2.4	.27	.1	.00	.14	.04	42
1	50	16.22	16.21	33.373	24.450	348.7	.194	5.92	105.5							50
1	53	16.10	16.09				.203	5.94	105.7	2.5	.27	.1	.00	.17	.05	53
1	63	15.66	15.65	33.392	24.590	335.8	.237	5.92	104.4	2.6	.28	.1	.00	.16	.09	63
1	73	15.39	15.38	33.465	24.707	324.9	.270	5.85	102.7	2.6	.30	.1	.00	.18	.19	73
1	75	15.29	15.28	33.465	24.728	323.0	.277	5.85	102.4							75
1	88	14.65	14.64	33.452	24.858	310.9	.318	5.74	99.2	3.3	.31	.0	.02	.25	.42	88
1	100	14.00	13.98	33.517	25.046	293.3	.355	5.32	90.8							101
1	103	13.85	13.84	33.534	25.088	289.3	.362	5.21	88.7	5.5	.54	3.4	.15	.18	.24	103
1	123	12.78	12.76	33.606	25.361	263.7	.414	4.50	74.9	9.4	.86	9.2	.03	.10	.18	123
1	125	12.66	12.64	33.618	25.394	260.7	.428	4.40	73.0							126
1	147	11.69	11.67	33.743	25.675	234.3	.479	3.56	58.0	16.6	1.32	16.4	.01	.05	.09	148
1	150	11.58	11.56	33.758	25.707	231.3	.486	3.50	56.8							151
1	177	10.64	10.62	33.926	26.007	203.1	.545	2.98	47.5	23.5	1.67	21.7	.01			178
1	200	10.31	10.28	34.084	26.189	186.3	.589	2.45	38.9							201
1	207	10.22	10.20	34.123	26.233	182.2	.602	2.32	36.7	29.7	1.96	25.3	.00			208
1	236	9.58	9.55	34.153	26.365	170.1	.653	2.21	34.4	33.4	2.06	26.9	.00			237
1	250	9.47	9.44	34.199	26.420	165.2	.676	1.93	30.1							252
1	277	9.32	9.29	34.279	26.507	157.4	.719	1.39	21.6	39.5	2.35	29.7	.00			278
1	300	8.91	8.88	34.268	26.565	152.2	.756	1.38	21.2							302
1	335	8.23	8.20	34.226	26.636	145.6	.808	1.36	20.6	47.1	2.47	32.0	.00			337
1	400	7.59	7.55	34.274	26.771	133.6	.898	.84	12.5							403
1	408	7.53	7.49	34.282	26.785	132.3	.909	.77	11.5	57.7	2.73	35.0	.00			410
1	483	6.89	6.84	34.322	26.906	121.5	1.004	.43	6.3	67.5	2.91	37.4	.00			486
1	500	6.75	6.70	34.329	26.931	119.3	1.025	.38	5.6							504
1	558	6.27	6.22	34.346	27.007	112.4	1.092	.31	4.5	76.6	3.04	39.6	.00			562

LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER				DRY	WET	CLOUD	AMT	TYPE
29 06.8 N		120 23.5 W		20/07/84	0610 GMT	4099 M	290	12 KT	320 D2 D7		1018.0 MB	19.0 C	19.0 C	19.0 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS			
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR			
1	0	19.89	19.89	33.593	23.719	416.9	.000	5.43	104.0	2.6	.25	.0	.00	.09	.04	0			
1	1	19.89	19.89	33.593	23.719	416.9	.004	5.43	104.0	2.6	.25	.0	.00	.09	.04	1			
1	10	19.85	19.82	33.579	23.725	416.7	.042	5.41	103.6	2.5	.23	.0	.00	.09	.04	10			
1	11	19.82	19.82	33.577	23.725	416.7	.046	5.41	103.5	2.5	.23	.0	.00	.09	.04	11			
1	20	19.22	19.21	33.540	23.853	404.8	.083	5.49	103.8	2.5	.24	.0	.00	.08	.05	20			
1	21	19.13	19.13	33.535	23.870	403.2	.087									21			
1	30	18.29	18.29	33.482	24.041	387.2	.122	5.64	104.7	2.5	.24	.0	.00	.10	.04	30			
1	31	18.21	18.20	33.479	24.059	385.5	.126	5.65	104.8	2.5	.24	.0	.00	.10	.04	31			
1	41	17.56	17.55	33.487	24.223	370.2	.164	5.80	106.2	2.5	.23	.0	.00	.13	.03	41			
1	50	16.98	16.97	33.461	24.342	359.2	.197	5.86	106.1	2.5	.23	.0	.00	.15	.11	50			
1	51	16.92	16.92	33.458	24.352	358.2	.200	5.86	106.0	2.6	.25	.0	.00	.15	.11	51			
1	61	16.33	16.32	33.466	24.495	344.9	.235	5.90	105.5	2.6	.26	.0	.00	.16	.09	61			
1	71	15.92	15.91	33.451	24.578	337.2	.269	5.87	104.1	2.5	.27	.0	.00	.15	.11	71			
1	75	15.65	15.64	33.443	24.631	332.2	.283	5.86	103.4	2.9	.31	.0	.00	.22	.23	75			
1	85	14.99	14.97	33.439	24.776	318.7	.315	5.85	101.8	2.9	.31	.0	.00	.22	.23	85			
1	100	14.04	14.02	33.502	25.025	295.2	.360	5.37	91.7	4.8	.47	1.2	.25	.29	.30	100			
1	119	12.67	12.66	33.592	25.371	262.7	.413	4.41	73.2	10.0	.92	9.9	.03	.11	.24	119			
1	125	12.30	12.28	33.620	25.465	253.8	.430	4.20	69.3	16.1	1.28	16.1	.01	.05	.12	126			
1	142	11.40	11.38	33.698	25.694	232.3	.475	3.79	61.3	16.1	1.28	16.1	.01	.05	.12	144			
1	150	11.11	11.09	33.727	25.769	225.3	.490	3.69	59.3	16.1	1.28	16.1	.01	.05	.12	151			
1	200	10.35	10.33	33.837	25.989	204.7	.538	3.35	53.0	22.4	1.59	21.0	.01	.05	.12	173			
1	202	9.89	9.87	34.010	26.201	185.0	.592	2.68	42.0	28.6	1.88	24.9	.00	.05	.12	201			
1	201	9.88	9.86	34.017	26.208	184.3	.594	2.65	41.6	28.6	1.88	24.9	.00	.05	.12	202			
1	232	9.47	9.44	34.138	26.372	169.3	.648	2.19	34.1	33.6	2.10	27.3	.00	.05	.12	233			
1	250	9.02	9.00	34.136	26.443	162.8	.678	2.22	34.2	33.6	2.10	27.3	.00	.05	.12	252			
1	271	8.51	8.48	34.117	26.508	156.6	.711	2.30	35.0	39.0	2.16	28.9	.00	.05	.12	272			
1	300	8.11	8.08	34.139	26.585	149.7	.756	2.05	31.0	39.0	2.16	28.9	.00	.05	.12	302			
1	328	7.87	7.84	34.173	26.649	144.0	.798	1.69	25.3	48.2	2.46	32.3	.00	.05	.12	330			
1	400	7.25	7.21	34.262	26.809	129.6	.896	.76	11.2	48.2	2.46	32.3	.00	.05	.12	403			
1	402	7.23	7.20	34.264	26.812	129.3	.898	.74	10.9	60.2	2.81	36.1	.00	.05	.12	404			
1	477	6.74	6.69	34.302	26.911	120.8	.992	.47	6.9	68.4	2.98	38.1	.00	.05	.12	480			
1	500	6.58	6.54	34.312	26.940	118.2	1.020	.42	6.1	68.4	2.98	38.1	.00	.05	.12	504			
1	552	6.22	6.17	34.337	27.007	112.2	1.080	.34	4.9	76.6	3.10	40.0	.00	.05	.12	556			

LATITUDE		LONGITUDE		DAY/MO/YR	MESSANGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER				DRY	WET	CLOUD	AMT	TYPE
28 47.4 N		121 03.7 W		20/07/84	1114 GMT	4755 M	320	08 KT	320 D3		1017.8 MB	18.8 C	18.2 C						
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS			
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR			
1	0	19.74	19.74	33.645	23.797	499.5	.000	5.43	103.8	2.6	.23	.0	.00	.10	.04	0			
1	10	19.42	19.42	33.643	23.879	401.9	.040	5.45	103.5	2.5	.21	.0	.00	.08	.04	10			
1	20	19.16	19.16	33.634	23.938	396.7	.081	5.50	104.0	2.5	.21	.0	.00	.10	.04	20			
1	21	19.13	19.13	33.632	23.944	396.2	.084	5.51	104.1	2.5	.21	.0	.00	.10	.04	21			
1	30	18.65	18.65	33.600	24.041	387.2	.120	5.58	104.5	2.5	.21	.0	.00	.10	.04	30			
1	31	18.59	18.59	33.596	24.053	386.1	.123	5.59	104.5	2.5	.21	.0	.00	.10	.04	31			
1	41	17.71	17.70	33.547	24.233	369.2	.161	5.74	105.5	2.5	.22	.0	.00	.11	.04	41			
1	50	17.37	17.36	33.521	24.295	363.6	.194	5.79	105.7	2.5	.22	.0	.00	.11	.04	50			
1	51	17.35	17.34	33.519	24.298	363.3	.197	5.79	105.6	2.5	.22	.0	.00	.11	.04	51			
1	61	16.93	16.92	33.487	24.373	356.6	.233	5.84	105.7	2.4	.23	.0	.00	.14	.05	61			
1	72	16.14	16.13	33.444	24.522	342.6	.272	5.89	104.9	2.5	.25	.0	.00	.16	.12	72			
1	75	15.93	15.91	33.435	24.564	338.7	.283	5.87	104.1	2.8	.30	.0	.00	.20	.25	75			
1	87	15.22	15.20	33.426	24.715	324.6	.321	5.79	101.2	2.8	.30	.0	.00	.20	.25	87			
1	100	14.53	14.51	33.472	24.899	307.3	.363	5.48	94.5	3.9	.41	.5	.09	.28	.55	101			
1	102	14.44	14.43	33.479	24.923	305.1	.368	5.43	93.5	3.9	.41	.5	.09	.28	.55	102			
1	122	13.09	13.08	33.564	25.266	272.7	.426	4.81	80.6	7.5	.75	6.7	.02	.09	.25	122			
1	125	12.87	12.85	33.578	25.321	267.6	.435	4.69	78.2	7.5	.75	6.7	.02	.09	.25	126			
1	147	11.57	11.55	33.677	25.645	237.0	.492	3.96	64.3	14.7	1.15	14.5	.01	.04	.11	148			
1	150	11.45	11.43	33.692	25.679	233.8	.498	3.88	62.9	14.7	1.15	14.5	.01	.04	.11	151			
1	177	10.40	10.38	33.860	25.998	203.9	.558	3.24	51.3	22.9	1.60	20.8	.00	.05	.12	178			
1	200	9.66	9.64	33.978	26.216	183.5	.602	3.00	46.8	22.9	1.60	20.8	.00	.05	.12	201			
1	207	9.48	9.45	34.008	26.269	178.6	.614	2.95	45.8	29.8	1.87	24.7	.00	.05	.12	208			
1	237	9.13	9.10	34.077	26.380	168.5	.666	2.58	39.8	33.6	1.99	26.4	.00	.05	.12	238			
1	250	8.99	8.96	34.119	26.435	163.4	.688	2.32	35.7	33.6	1.99	26.4	.00	.05	.12	252			
1	278	8.69	8.66	34.200	26.545	153.4	.732	1.79	27.4	41.3	2.29	29.6	.00	.05	.12	279			
1	300	8.41	8.38	34.223	26.607	147.8	.765	1.54	23.4	41.3	2.29	29.6	.00	.05	.12	302			
1	337	7.91	7.87	34.229	26.688	140.5	.819	1.27	19.1	50.9	2.57	32.7	.00	.05	.12	339			
1	400	7.06	7.02	34.235	26.813	129.1	.904	.88	13.0	50.9	2.57	32.7	.00	.05	.12	403			
1	413	6.90	6.87	34.236	26.836	127.0	.920	.82	12.0	63.7	2.81	36.5	.00	.05	.12	415			
1	489	6.23	6.18	34.279	26.959	115.8	1.013	.49	7.1	74.8	3.00	39.2	.00	.05	.12	492			
1	500	6.14	6.10	34.286	26.977	114.3	1.025	.46	6.6	74.8	3.00	39.2	.00	.05	.12	504			
1	566	5.69	5.64	34.339	27.075	105.3	1.098	.33	4.7	85.1	3.13	41.1	.00	.05	.12	570			

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 104 72

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 39.6 N	119 10.2 W	25/07/84	2017 GMT	3502 M	330	26 KT	340 06 05	0	1015.3 MB	19.8 C	17.7 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI0 <sup>2</sup>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	19.27	19.27	33.417	23.744	414.5	.000	5.41	102.4		.24	.0	.00	.07	.03	0
1	1	19.27	19.27	33.417	23.744	414.5	.004	5.41	102.4		.24	.0	.00	.07	.03	1
1	10	19.26	19.26	33.414	23.745	414.7	.041	5.49	103.8		.23	.0	.00	.06	.02	10
1	11	19.26	19.26	33.414	23.746	414.7	.045	5.49	103.8		.23	.0	.00	.06	.02	11
1	21	19.18	19.18	33.425	23.773	412.4	.083	5.48	103.5		.22	.0	.00	.06	.03	20
1	22	19.17	19.16	33.427	23.779	411.9	.091	5.48	103.5		.22	.0	.00	.06	.03	22
1	32	18.34	18.34	33.491	24.035	387.8	.123	5.64	104.8		.21	.0	.00	.09	.04	30
1	42	18.13	18.12	33.505	24.099	381.7	.130	5.68	105.2		.21	.0	.00	.09	.04	32
1	42	17.58	17.58	33.480	24.212	371.3	.168	5.77	105.7		.20	.0	.00	.11	.05	42
1	50	17.15	17.14	33.461	24.301	363.0	.198	5.82	105.7		.21	.0	.00	.11	.05	50
1	59	16.61	16.60	33.440	24.412	352.8	.229	5.87	105.5		.21	.0	.00	.14	.06	59
1	68	15.89	15.88	33.419	24.559	339.0	.260	5.94	105.3		.22	.0	.00	.17	.13	68
1	75	15.51	15.50	33.393	24.626	332.8	.285	5.96	104.8		.22	.0	.00	.17	.13	75
1	78	15.39	15.37	33.386	24.647	330.8	.294	5.97	104.7		.24	.0	.00	.23	.21	78
1	94	14.69	14.68	33.444	24.843	312.5	.345	5.77	99.8		.29	.0	.02	.30	.34	94
1	100	14.39	14.37	33.469	24.927	304.7	.364	5.62	96.6		.29	.0	.02	.30	.34	100
1	114	13.66	13.64	33.528	25.125	286.1	.405	5.14	87.1		.53	3.6	.15	.13	.23	114
1	125	12.86	12.84	33.591	25.333	266.5	.436	4.53	75.5		.53	3.6	.15	.13	.23	125
1	133	12.29	12.28	33.644	25.484	252.2	.458	4.06	66.9		1.03	12.0	.01	.07	.11	133
1	150	11.59	11.57	33.746	25.696	232.3	.498	3.44	55.9		1.03	12.0	.01	.07	.11	150
1	158	11.33	11.31	33.801	25.786	223.9	.517	3.20	51.7		1.45	18.5	.01	.04	.06	158
1	188	10.58	10.55	34.031	26.101	194.5	.580	2.52	40.1		1.82	23.2	.01	.04	.06	188
1	200	10.28	10.25	34.066	26.180	187.2	.602	2.47	39.1		1.82	23.2	.01	.04	.06	200
1	218	9.88	9.86	34.097	26.271	178.7	.635	2.43	38.1		1.93	25.0	.00	.04	.06	218
1	251	9.50	9.47	34.189	26.408	166.3	.690	1.95	30.3		1.93	25.0	.00	.04	.06	251
1	253	9.47	9.44	34.197	26.418	165.4	.695	1.90	29.6		2.16	27.6	.00	.04	.06	253
1	300	8.90	8.87	34.270	26.568	151.8	.770	1.29	19.9		2.16	27.6	.00	.04	.06	300
1	301	8.88	8.85	34.271	26.572	151.5	.772	1.28	19.7		2.41	30.2	.01	.04	.06	301
1	356	7.99	7.95	34.269	26.707	139.1	.851	.97	14.6		2.62	33.0	.00	.04	.06	356
1	400	7.57	7.53	34.291	26.785	132.2	.911	.72	10.8		2.62	33.0	.00	.04	.06	400
1	438	7.30	7.26	34.312	26.841	127.3	.961	.54	8.0		2.84	35.7	.00	.04	.06	438
1	500	6.76	6.71	34.324	26.926	119.7	1.037	.38	5.5		2.84	35.7	.00	.04	.06	500
1	523	6.56	6.51	34.327	26.955	117.1	1.064	.34	4.9		3.00	38.4	.00	.04	.06	523
1	600	5.95	5.90	34.351	27.052	108.2	1.151	.25	3.6		3.11	40.5	.00	.04	.06	600
1	606	5.91	5.86	34.353	27.060	107.6	1.157	.25	3.6		3.11	40.5	.00	.04	.06	610

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 107 32

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
50 27.3 N	116 09.1 W	22/07/84	1801 GMT	20 M	290	10 KT	300 02 04	2	1013.2 MB	20.5 C	19.5 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI0 <sup>2</sup>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	10	17.52	17.52	33.519	24.255	366.1	.037	5.98	109.5		.29	.1	.02	1.61	.71	10

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 107 32

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
33 26.9 N	116 09.5 W	22/07/84	1628 GMT	161 M	280	09 KT	300 02 04	2	1014.2 MB	20.7 C	19.4 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI0 <sup>2</sup>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	21.13	21.13	33.523	23.337	465.5	.000	5.48	107.4		.18	.1	.00	.76	.30	0
1	1	21.13	21.13	33.523	23.337	453.4	.005	5.48	107.4		.18	.1	.00	.76	.30	1
1	11	17.53	17.53	33.523	24.255	366.0	.041	6.02	110.3		.23	.1	.00	.48	.27	10
1	11	17.24	17.23	33.528	24.330	358.9	.045	6.06	110.4		.23	.1	.00	.48	.27	11
1	20	15.69	15.69	33.341	24.543	338.9	.076	6.03	106.4		.23	.1	.00	.48	.27	20
1	30	14.95	14.95	33.436	24.779	316.8	.109	6.00	104.3		.23	.1	.00	.48	.27	30
1	32	14.93	14.92	33.487	24.823	312.6	.115	5.99	104.2		.29	.1	.01	.96	.75	32
1	42	14.19	14.18	33.555	25.034	292.8	.145	4.91	84.1		.61	3.3	.62	.48	.74	42
1	50	13.96	13.95	33.564	25.088	287.9	.169	4.85	82.8		.61	3.3	.62	.48	.74	50
1	58	13.79	13.78	33.557	25.118	285.2	.191	4.80	81.6		.72	4.8	.57	.35	.67	58
1	73	12.88	12.87	33.580	25.319	266.4	.232	4.88	81.4		.70	6.9	.18	.20	.43	73
1	75	12.76	12.75	33.584	25.346	263.9	.239	4.85	80.7		.70	6.9	.18	.20	.43	75
1	89	12.15	12.14	33.615	25.488	250.7	.274	4.54	74.6		.92	10.0	.08	.12	.25	89
1	100	11.76	11.75	33.640	25.581	242.0	.302	4.22	68.8		.92	10.0	.08	.12	.25	100
1	108	11.52	11.51	33.660	25.640	236.5	.320	4.00	64.9		1.15	13.9	.09	.07	.21	108
1	125	10.91	10.89	33.733	25.809	220.8	.360	3.49	55.9		1.15	13.9	.09	.07	.21	125
1	128	10.78	10.77	33.751	25.844	217.5	.367	3.39	54.1		1.46	18.5	.07	.03	.14	129

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 22.0 N	116 22.1 W	23/07/84	0629 GMT	1765 M	290	05 KT	290 03 08		1013.9 MB	21.0 C	18.8 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	21.66	21.66	33.642	23.282	459.1	.000	5.40	106.9							0
1	1	21.66	21.66	33.642	23.282	458.6	.005	5.40	106.9	2.6	.19	.0	.00	.36	.08	1
1	1L	21.44	21.43	33.636	23.339	453.5	.046	5.42	106.8							10
1	11	21.41	21.41	33.635	23.345	453.0	.050	5.42	106.8	2.6	.18	.0	.00	.36	.08	11
1	20	18.59	18.59	33.569	24.032	387.8	.088	5.73	107.2							20
1	22	17.96	17.96	33.564	24.184	373.3	.095	5.80	107.1	2.3	.22	.0	.00	.15	.07	22
1	30	17.30	17.30	33.539	24.324	360.2	.125	5.85	106.6							30
1	32	17.21	17.20	33.530	24.340	358.7	.132	5.85	106.5	2.4	.24	.0	.00	.15	.06	32
1	42	15.41	15.40	33.487	24.718	322.9	.166	5.99	105.2	2.5	.29	.0	.00	.20	.11	42
1	50	14.76	14.75	33.481	24.856	310.0	.191	5.95	103.1							50
1	52	14.67	14.67	33.482	24.875	308.3	.197	5.94	102.8	2.8	.33	.0	.00	.28	.18	52
1	62	14.27	14.26	33.506	24.979	298.6	.227	5.72	98.2	3.3	.40	.7	.07	.36	.25	62
1	72	13.84	13.83	33.555	25.106	286.7	.256	5.48	93.2	4.2	.48	2.4	.10	.32	.25	72
1	75	13.54	13.53	33.565	25.176	280.1	.266	5.36	90.7							75
1	88	12.35	12.34	33.605	25.442	255.0	.300	4.81	79.4	8.6	.79	8.2	.03	.12	.16	88
1	100	11.80	11.79	33.647	25.578	242.3	.330	4.15	67.8							101
1	102	11.75	11.74	33.651	25.590	241.1	.334	4.08	66.5	13.4	1.12	13.1	.05	.12	.16	102
1	121	11.09	11.07	33.713	25.760	225.3	.380	3.84	61.7	16.6	1.30	16.0	.03	.05	.11	122
1	125	11.02	11.00	33.727	25.785	223.1	.388	3.75	60.2							126
1	146	10.72	10.70	33.816	25.907	212.0	.435	3.19	50.9	21.4	1.60	19.8	.01	.02	.12	147
1	150	10.68	10.68	33.828	25.923	210.5	.443	3.13	50.0							151
1	175	10.45	10.43	33.905	26.024	201.4	.494	2.86	45.4	24.3	1.75	21.8	.02			176
1	200	10.25	10.23	33.982	26.119	193.0	.543	2.64	41.7							201
1	205	10.21	10.19	33.998	26.138	191.2	.553	2.59	40.9	27.3	1.90	23.7	.01			206
1	234	9.91	9.91	34.112	26.275	178.8	.606	2.22	34.9	31.2	2.06	25.8	.01			235
1	250	9.81	9.78	34.171	26.342	172.7	.635	1.95	30.6							252
1	273	9.56	9.53	34.225	26.426	165.1	.673	1.66	25.9	36.2	2.21	28.1	.01			274
1	300	8.83	8.80	34.190	26.517	156.7	.717	1.77	27.2							302
1	331	7.97	7.94	34.135	26.604	148.4	.764	1.96	29.5	45.2	2.32	30.7	.00			333
1	400	7.40	7.36	34.221	26.755	134.9	.862	1.09	16.1							403
1	404	7.40	7.36	34.227	26.760	134.4	.867	1.03	15.3	56.7	2.70	34.5	.00			406
1	480	6.97	6.95	34.266	26.851	126.7	.967	.70	10.3	64.1	2.87	36.5	.00			483
1	500	6.83	6.79	34.277	26.878	124.3	.992	.62	9.1							504
1	557	6.37	6.32	34.307	26.965	116.5	1.061	.41	5.9	73.9	3.04	38.7	.00			561

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
30 11.1 N	116 42.4 W	23/07/84	0932 GMT	2830 M	270	06 KT	310 01		1014.1 MB	20.4 C	19.2 C					
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	21.58	21.58	33.642	23.304	457.6	.000	5.30	104.8							0
1	1	21.58	21.58	33.642	23.304	456.5	.005	5.30	104.8	2.8	.15	.0	.00	.23	.10	1
1	1L	21.13	21.13	33.629	23.418	446.0	.045	5.45	106.8							10
1	11	21.08	21.08	33.628	23.430	444.8	.050	5.47	107.1	2.9	.17	.0	.00	.37	.07	11
1	20	19.35	19.35	33.596	23.861	404.1	.088	5.75	109.1							20
1	21	19.14	19.14	33.593	23.912	399.2	.092	5.78	109.2	2.7	.19	.0	.00	.24	.12	21
1	30	17.50	17.49	33.545	24.281	364.3	.126	5.94	108.7							30
1	31	17.36	17.36	33.541	24.311	361.5	.129	5.95	108.6	2.6	.23	.0	.00	.37	.13	31
1	41	16.62	16.61	33.514	24.466	347.1	.165	6.00	107.9	3.2	.25	.0	.00	.51	.30	41
1	50	15.61	15.60	33.441	24.639	330.7	.196	5.97	105.1							50
1	51	15.51	15.51	33.436	24.656	329.1	.198	5.96	104.8	2.5	.28	.0	.00	.33	.13	51
1	61	14.72	14.71	33.469	24.855	310.4	.230	5.88	101.8	3.1	.32	.0	.00	.41	.39	61
1	71	14.04	14.03	33.549	25.060	291.1	.260	5.47	93.5	4.4	.44	1.6	.12	.42	.52	71
1	75	13.73	13.72	33.568	25.139	283.7	.272	5.26	89.3							75
1	85	13.05	13.03	33.598	25.301	268.5	.299	4.79	80.2	7.9	.71	6.5	.17	.28	.23	85
1	100	12.15	12.14	33.642	25.509	249.0	.338	4.25	69.8	11.9	1.03	11.4	.07	.13	.15	100
1	120	11.37	11.36	33.707	25.705	230.7	.386	3.86	62.4	15.8	1.25	15.5	.04	.06	.18	120
1	125	11.22	11.20	33.745	25.762	225.3	.398	3.69	59.6							126
1	144	10.75	10.74	33.879	25.950	207.8	.440	3.15	50.3	21.9	1.61	20.2	.03	.02	.08	145
1	150	10.58	10.56	33.892	25.990	204.1	.452	3.10	49.4							151
1	173	10.00	9.98	33.951	26.137	190.5	.497	2.88	45.3	26.4	1.68	21.2	.01			174
1	200	9.91	9.89	34.168	26.321	173.7	.546	1.93	30.3							201
1	203	9.91	9.88	34.190	26.340	171.9	.551	1.82	28.6	33.5	2.18	26.8	.01			204
1	232	9.56	9.54	34.276	26.465	160.6	.599	1.45	22.6	37.9	2.38	28.7	.02			233
1	250	9.52	9.49	34.315	26.502	157.4	.628	1.24	19.4							252
1	273	9.41	9.38	34.329	26.532	155.0	.663	1.12	17.4	40.8	2.51	29.8	.02			274
1	300	8.65	8.61	34.236	26.581	150.4	.705	1.49	22.8							302
1	331	7.72	7.68	34.131	26.638	145.0	.751	1.93	28.8	47.4	2.41	31.4	.00			333
1	400	7.39	7.35	34.243	26.773	133.2	.847	1.05	15.6							403
1	407	7.36	7.32	34.254	26.786	132.0	.856	.93	13.8	58.1	2.81	35.1	.00			409
1	482	6.64	6.60	34.353	26.964	115.8	.949	.35	5.1	71.3	3.05	38.2	.00			485
1	500	6.50	6.45	34.365	26.993	113.2	.970	.33	4.9							504
1	560	6.08	6.03	34.369	27.051	108.0	1.037	.28	4.0	79.6	3.20	40.0	.00			564

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTTEM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
30 00.7 N	117 01.6 W	22/07/84	D611 GMT	1353 M	290	10 KT	290 02 04		1012.1 MB	19.0 C	19.1 C				
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
0 ISL	21.70	21.70	33.609	23.245	462.2	.000	5.21	103.2							0
1 1	21.70	21.70	33.609	23.245	462.2	.005	5.21	103.2	2.8	.23	.0	.00	.09	.05	1
1 10	21.70	21.70	33.609	23.246	462.4	.046	5.28	104.6							10
1 11	21.70	21.70	33.609	23.246	462.4	.051	5.29	104.8	2.8	.22	.0	.00	.09	.05	11
1 20	18.96	18.96	33.574	23.944	396.1	.089	5.63	106.0							20
1 21	18.64	18.64	33.574	24.024	388.5	.093	5.67	106.1	2.8	.23	.0	.00	.10	.05	21
1 30	17.40	17.39	33.530	24.295	363.0	.127	5.82	106.3							30
1 31	17.32	17.31	33.526	24.310	361.6	.130	5.83	106.3	2.7	.26	.0	.00	.09	.05	31
1 41	16.38	16.37	33.521	24.527	341.2	.166	5.93	106.2	2.7	.28	.0	.00	.11	.04	41
1 50	16.03	16.02	33.520	24.605	334.0	.196	5.94	105.6							50
1 51	16.01	16.00	33.520	24.611	333.5	.199	5.94	105.6	2.7	.28	.0	.00	.13	.05	51
1 62	15.39	15.38	33.507	24.740	321.5	.235	5.93	104.1	3.0	.31	.0	.00	.17	.11	62
1 72	14.68	14.67	33.507	24.894	307.1	.266	5.80	100.4	3.1	.34	.0	.00	.28	.21	72
1 75	14.50	14.49	33.517	24.939	302.9	.276	5.74	98.9							75
1 87	13.96	13.94	33.566	25.092	288.6	.311	5.48	93.5	4.4	.47	2.3	.10	.35	.21	87
1 100	13.34	13.32	33.625	25.264	272.4	.348	5.19	87.5							101
1 102	13.26	13.25	33.631	25.284	270.5	.352	5.16	86.8	6.1	.59	5.1	.04	.19	.17	102
1 122	12.24	12.22	33.653	25.501	250.2	.404	4.77	78.5	9.3	.79	8.7	.02	.11	.13	122
1 125	11.96	11.96	33.654	25.551	245.5	.413	4.66	76.2							126
1 145	10.53	10.51	33.688	25.840	218.2	.460	3.98	63.2	17.6	1.28	16.8	.01	.02	.04	146
1 150	10.32	10.30	33.710	25.894	213.2	.470	3.88	61.3							151
1 175	9.54	9.52	33.852	26.135	190.5	.521	3.45	53.6	25.1	1.64	22.0	.00			176
1 200	9.09	9.07	33.977	26.307	174.7	.566	3.00	46.1							201
1 205	9.02	9.00	33.998	26.334	172.1	.575	2.91	44.8	31.7	1.88	25.4	.00			206
1 234	8.50	8.48	34.074	26.475	159.1	.673	2.53	38.5	37.5	2.07	27.9	.00			235
1 250	8.31	8.29	34.103	26.527	154.4	.648	2.30	34.8							252
1 274	8.11	8.08	34.136	26.583	149.4	.684	1.96	29.6	43.7	2.30	30.4	.00			275
1 300	7.96	7.93	34.177	26.639	144.5	.723	1.60	24.0							302
1 333	7.76	7.73	34.220	26.701	139.1	.770	1.20	18.0	51.9	2.59	33.3	.00			335
1 400	7.03	6.99	34.256	26.834	127.0	.859	.72	10.5							403
1 408	6.94	6.90	34.259	26.848	125.8	.868	.68	10.0	63.9	2.86	36.7	.00			410
1 484	6.46	6.42	34.312	26.955	116.4	.961	.38	5.5	72.6	3.01	38.8	.00			487
1 500	6.38	6.33	34.323	26.975	114.7	.979	.36	5.2							504
1 561	6.13	6.08	34.365	27.041	109.1	1.048	.28	4.0	79.1	3.11	40.0	.00			565

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	POTTEM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE	
29 51.4 N	117 22.6 W	22/07/84	D310 GMT	2542 M	290	13 KT	290 02 03	2	1010.3 MB	20.0 C	19.2 C				
CST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
0 ISL	21.40	21.40	33.651	23.360	452.6	.000	5.23	103.1							0
1 1	21.40	21.40	33.651	23.360	451.2	.005	5.23	103.1	2.3	.23	.1	.00	.13	.04	1
1 10	20.73	20.73	33.590	23.496	438.5	.045	5.31	103.3							10
1 11	20.65	20.65	33.584	23.511	437.1	.049	5.32	103.4	2.3	.25	.1	.00	.11	.04	11
1 20	18.44	18.44	33.516	24.030	388.0	.086	5.62	104.8							20
1 22	17.96	17.96	33.507	24.140	377.4	.093	5.69	105.1	2.3	.26	.1	.00	.08	.03	22
1 30	17.20	17.19	33.447	24.278	364.5	.123	5.79	105.3							30
1 32	17.10	17.10	33.434	24.290	363.5	.130	5.80	105.3	2.3	.27	.1	.00	.08	.03	32
1 42	16.58	16.58	33.429	24.409	352.4	.166	5.89	105.8	2.3	.28	.1	.00	.11	.04	42
1 50	16.01	16.00	33.430	24.541	340.1	.194	5.93	105.3							50
1 52	15.89	15.88	33.431	24.569	337.4	.200	5.93	105.1	2.4	.29	.1	.00	.14	.04	52
1 63	15.40	15.39	33.444	24.687	326.5	.237	5.94	104.3	2.4	.26	.1	.00	.16	.10	63
1 73	14.68	14.67	33.400	24.811	314.9	.269	6.00	103.8	2.5	.33	.1	.00	.24	.18	73
1 75	14.53	14.52	33.390	24.834	312.8	.276	5.98	103.1							75
1 88	13.88	13.87	33.373	24.958	301.3	.315	5.86	99.7	3.3	.48	1.5	.34	.36	.27	88
1 100	13.61	13.59	33.478	25.096	288.5	.351	5.47	92.6							101
1 103	13.56	13.54	33.504	25.126	285.6	.358	5.38	91.0	4.9	.57	3.5	.14	.21	.23	103
1 123	12.62	12.61	33.565	25.359	263.9	.413	4.88	81.0	8.0	.79	7.9	.03	.11	.19	123
1 125	12.44	12.42	33.570	25.399	260.1	.420	4.81	79.5							126
1 147	10.82	10.81	33.637	25.749	227.0	.474	4.20	67.1	15.1	1.19	14.8	.01	.02	.07	147
1 150	10.71	10.69	33.647	25.776	224.4	.480	4.14	66.0							151
1 178	9.83	9.81	33.766	26.021	201.5	.540	3.60	56.3	22.1	1.54	20.4	.00			179
1 200	9.14	9.12	33.895	26.234	181.5	.582	3.28	50.5							201
1 207	8.94	8.92	33.932	26.295	175.8	.594	3.21	49.3	29.5	1.80	24.5	.00			208
1 237	8.41	8.39	33.981	26.416	164.7	.645	3.23	49.0	33.0	1.87	25.6	.00			238
1 250	8.24	8.21	34.006	26.462	160.5	.667	3.06	46.2							252
1 277	7.91	7.88	34.048	26.544	153.0	.708	2.62	39.3	40.7	2.12	28.7	.00			278
1 300	7.54	7.51	34.051	26.601	147.8	.744	2.42	36.0							302
1 336	7.02	6.99	34.054	26.676	141.0	.796	2.13	31.3	51.4	2.37	32.6	.00			338
1 400	6.70	6.66	34.162	26.804	129.6	.882	1.11	16.2							403
1 411	6.67	6.63	34.183	26.825	127.7	.896	.94	13.7	63.5	2.80	36.7	.00			413
1 486	6.06	6.02	34.268	26.972	114.3	.987	.44	6.3	75.9	3.03	39.6	.00			489
1 500	5.97	5.92	34.279	26.993	112.5	1.003	.42	6.1							504
1 562	5.63	5.58	34.306	27.057	106.9	1.071	.35	5.0	84.4	3.13	41.1	.00			566



LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
29 41.8 N	117 41.5 W	21/07/84	2157 GMT	3253 M	310 10 KT	330 02 04	1	1011.2 MB	20.2 C	18.5 C	5/8		SC			
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	20.36	20.36	33.552	23.549	433.6	.000	5.37	103.7							0
1	1	20.36	20.36	33.552	23.549	433.1	.004	5.37	103.7	2.7	.26	.0	.00	.10	.04	1
1	11	20.18	20.18	33.526	23.592	429.3	.043	5.46	105.1							10
1	11	20.16	20.16	33.525	23.597	428.9	.047	5.47	105.3	2.7	.26	.0	.00	.09	.04	11
1	20	18.65	18.64	33.473	23.945	396.0	.085	5.64	105.4							20
1	22	18.31	18.31	33.465	24.023	388.7	.092	5.67	105.4	2.8	.26	.0	.00	.06	.02	22
1	30	17.94	17.93	33.470	24.118	379.8	.123	5.69	104.9							30
1	32	17.90	17.90	33.471	24.127	379.0	.130	5.69	104.9	2.8	.26	.0	.00	.06	.02	32
1	42	17.39	17.39	33.416	24.208	371.6	.168	5.73	104.6	2.8	.27	.0	.00	.08	.03	42
1	50	17.06	17.05	33.410	24.283	364.8	.198	5.80	105.1							50
1	52	17.00	16.99	33.412	24.300	363.2	.204	5.81	105.2	2.7	.27	.0	.00	.09	.04	52
1	62	16.62	16.61	33.435	24.406	353.4	.244	5.85	105.2	2.7	.27	.0	.00	.11	.04	63
1	73	16.07	16.06	33.473	24.560	339.0	.278	5.93	105.5	2.7	.26	.0	.00	.13	.05	73
1	75	15.95	15.94	33.475	24.589	336.3	.286	5.93	105.2							75
1	88	15.25	15.24	33.470	24.741	322.1	.327	5.92	103.6	2.8	.29	.0	.00	.21	.17	88
1	100	14.51	14.50	33.480	24.909	306.4	.366	5.72	98.7							101
1	103	14.36	14.35	33.485	24.945	303.1	.374	5.67	97.5	3.3	.40	.8	.11	.35	.54	103
1	124	13.63	13.61	33.606	25.190	280.2	.435	5.35	90.7	5.0	.53	3.8	.02	.11	.24	124
1	125	13.58	13.56	33.612	25.205	278.8	.439	5.33	90.2							126
1	148	12.54	12.52	33.665	25.454	255.5	.502	4.90	81.2	8.6	.75	7.9	.01	.05	.12	149
1	150	12.41	12.39	33.665	25.479	253.2	.506	4.84	79.9							151
1	178	10.28	10.26	33.705	25.897	213.4	.572	3.73	58.9	19.8	1.40	18.7	.00			179
1	200	9.79	9.76	33.848	26.093	195.2	.616	3.31	51.7							201
1	200	9.71	9.69	33.902	26.147	190.2	.632	3.22	50.3	25.7	1.71	22.7	.00			209
1	240	9.01	8.99	33.996	26.334	172.8	.689	3.03	46.6	30.5	1.85	25.0	.00			241
1	250	8.74	8.71	34.005	26.385	168.1	.707	3.02	46.2							252
1	279	8.00	7.97	34.017	26.506	156.7	.753	2.96	44.5	37.9	1.99	27.6	.00			280
1	300	7.64	7.61	34.034	26.572	150.6	.786	2.72	40.5							302
1	339	7.15	7.12	34.064	26.665	142.2	.843	2.16	31.8	50.1	2.34	32.2	.00			341
1	400	6.46	6.42	34.088	26.779	131.8	.927	1.55	22.5							403
1	415	6.31	6.28	34.094	26.802	129.6	.946	1.42	20.5	63.4	2.67	36.7	.00			417
1	490	5.80	5.75	34.180	26.936	117.5	1.039	.68	9.7	76.6	2.95	39.9	.00			493
1	500	5.74	5.70	34.192	26.952	116.1	1.051	.62	8.8							504
1	567	5.50	5.45	34.274	27.047	107.7	1.126	.38	5.4	85.5	3.09	41.4	.00			571

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
29 31.8 N	118 03.5 W	21/07/84	1836 GMT	3597 M	250 11 KT	320 05 05	1	1013.4 MB	20.1 C	19.1 C	5/8		CU			
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	19.92	19.91	33.468	23.617	427.0	.000	5.42	103.8							0
1	1	19.92	19.91	33.468	23.617	426.6	.004	5.42	103.8	2.3	.27	.0	.00	.09	.04	1
1	11	19.78	19.78	33.474	23.656	423.2	.043	5.46	104.2							10
1	11	19.77	19.77	33.474	23.660	422.8	.047	5.46	104.3	2.2	.26	.0	.00	.09	.04	11
1	20	18.73	18.73	33.536	23.971	393.5	.083	5.58	104.7							20
1	22	18.50	18.50	33.549	24.039	387.1	.091	5.61	104.7	2.4	.24	.0	.00	.07	.04	22
1	30	18.19	18.18	33.539	24.110	380.6	.122	5.62	104.2							30
1	32	18.15	18.15	33.534	24.114	380.3	.129	5.62	104.2	2.4	.24	.0	.00	.06	.04	32
1	42	17.92	17.92	33.552	24.185	373.9	.167	5.67	104.6	2.5	.23	.0	.00	.08	.04	42
1	50	17.44	17.43	33.486	24.252	367.8	.197	5.73	104.8							50
1	53	17.27	17.21	33.458	24.283	364.8	.207	5.76	104.8	2.5	.26	.0	.00	.10	.05	53
1	63	16.29	16.28	33.418	24.468	347.5	.243	5.89	105.2	2.5	.27	.0	.00	.12	.06	63
1	73	15.61	15.59	33.463	24.657	329.7	.277	5.94	104.7	2.5	.28	.0	.00	.15	.14	73
1	75	15.41	15.40	33.467	24.704	325.3	.284	5.92	103.9							75
1	89	14.33	14.32	33.489	24.954	301.8	.327	5.63	96.7	3.4	.41	.8	.13	.31	.24	89
1	100	13.91	13.89	33.523	25.069	291.1	.360	5.28	89.9							101
1	104	13.80	13.78	33.533	25.099	288.2	.371	5.16	87.7	5.2	.58	3.6	.08	.24	.16	104
1	124	12.70	12.68	33.578	25.354	264.4	.426	4.58	76.1	9.0	.87	9.1	.02	.09	.23	124
1	125	12.61	12.60	33.583	25.375	262.4	.430	4.55	75.5							126
1	148	11.30	11.28	33.663	25.684	233.3	.488	4.16	67.1	14.4	1.20	14.9	.01	.04	.09	149
1	150	11.22	11.20	33.669	25.703	231.6	.491	4.13	66.6							151
1	179	9.99	9.97	33.765	25.993	204.3	.555	3.67	57.6	21.6	1.57	21.0	.01			180
1	200	9.42	9.40	33.836	26.144	190.2	.596	3.43	53.1							201
1	209	9.26	9.24	33.876	26.201	184.0	.613	3.29	50.8	27.4	1.80	24.6	.00			210
1	239	9.21	9.18	34.100	26.385	168.1	.666	2.39	36.0	34.1	2.15	28.1	.00			240
1	250	9.07	9.05	34.139	26.437	163.4	.684	2.18	35.6							252
1	279	8.64	8.61	34.186	26.543	153.7	.729	1.80	27.5	41.4	2.42	31.2	.00			280
1	300	8.34	8.30	34.206	26.605	148.0	.762	1.58	23.9							302
1	339	7.82	7.79	34.220	26.693	140.0	.818	1.28	19.2	50.8	2.70	34.6	.00			341
1	400	7.16	7.12	34.226	26.793	131.0	.901	.96	14.2							403
1	415	7.03	6.99	34.229	26.813	129.2	.920	.90	13.2	60.9	2.92	37.8	.00			417
1	491	6.60	6.55	34.315	26.940	118.1	1.014	.44	6.4	70.8	3.15	40.3	.00			494
1	500	6.53	6.48	34.319	26.953	116.9	1.025	.43	6.3							504
1	568	5.84	5.79	34.314	27.037	109.1	1.102	.36	5.2	81.4	3.26	42.6	.00			572

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 10.6 N	118 41.4 W	21/07/84	1015 GMT	3166 M	310 10 KT			1013.4 MB	18.9 C	17.4 C					
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	20.10	33.485	23.583	430.9	.000	5.37	103.2							0
1	1	20.10	33.485	23.583	429.9	.004	5.37	103.2	2.6	.27	.0	.00	.08	.03	1
1	10	19.50	33.474	23.728	416.3	.042	5.50	104.5							10
1	11	19.42	33.474	23.750	414.3	.046	5.51	104.6	2.6	.26	.0	.00	.06	.02	11
1	20	18.43	33.484	24.007	390.1	.083	5.65	105.2							20
1	22	18.24	33.487	24.057	385.3	.090	5.67	105.2	2.6	.24	.0	.00	.07	.03	22
1	30	17.94	33.488	24.132	378.5	.121	5.71	105.4							30
1	32	17.88	33.485	24.144	377.5	.128	5.72	105.4	2.6	.25	.0	.00	.07	.04	32
1	42	17.14	33.429	24.279	364.9	.165	5.82	105.7	2.6	.25	.0	.00	.12	.03	42
1	50	16.78	33.469	24.395	354.1	.194	5.98	107.9							50
1	52	16.70	33.479	24.420	351.7	.201	6.01	108.3	2.6	.23	.0	.00	.14	.04	52
1	63	16.02	33.443	24.548	339.8	.239	5.92	105.2	2.7	.27	.0	.00	.13	.06	63
1	73	15.45	33.430	24.667	328.7	.272	5.87	105.1	2.9	.28	.0	.00	.15	.07	73
1	75	15.31	33.429	24.697	325.9	.279	5.85	102.5							75
1	88	14.57	33.446	24.871	309.7	.320	5.66	97.7	3.3	.35	.0	.01	.33	.31	88
1	100	13.98	33.500	25.037	294.2	.357	5.28	90.0							101
1	103	13.85	33.513	25.073	290.8	.365	5.18	88.1	5.2	.52	2.8	.05	.25	.33	103
1	124	12.67	33.590	25.371	262.8	.422	4.45	73.9	10.0	.89	9.5	.02	.08	.24	124
1	125	12.57	33.600	25.396	260.4	.426	4.39	72.7							126
1	148	11.27	33.770	25.772	224.9	.483	3.50	56.5	18.0	1.35	17.6	.00	.03	.07	149
1	150	11.21	33.780	25.792	223.1	.487	3.46	55.8							151
1	178	10.35	33.930	26.061	198.0	.546	2.95	46.7	24.8	1.72	22.4	.00			179
1	200	9.76	34.023	26.233	181.9	.588	2.71	42.4							201
1	238	9.60	34.056	26.286	177.0	.602	2.61	40.7	30.8	1.93	25.2	.00			209
1	258	9.43	34.201	26.427	164.2	.653	1.85	28.8	36.2	2.18	28.1	.00			239
1	278	9.33	34.233	26.470	160.4	.673	1.66	25.7							252
1	300	9.03	34.272	26.548	153.4	.716	1.36	21.0	41.7	2.39	30.1	.00			279
1	338	8.77	34.285	26.600	148.8	.750	1.20	18.4							302
1	400	8.28	34.286	26.677	141.9	.805	1.02	15.5	49.4	2.60	32.7	.00			340
1	414	7.41	34.277	26.798	130.8	.889	.78	11.5							403
1	414	7.23	34.275	26.822	128.6	.907	.73	10.8	60.9	2.84	35.9	.00			416
1	490	6.63	34.298	26.923	119.7	1.002	.47	6.9	69.9	2.98	35.2	.00			493
1	500	6.55	34.302	26.935	118.6	1.014	.45	6.5							504
1	567	6.10	34.330	27.017	111.3	1.091	.35	5.0	78.2	3.09	40.1	.00			571

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
28 50.4 N	119 20.5 W	21/07/84	0426 GMT	3694 M	320 12 KT	310 D?		1014.0 MB	19.2 C	18.1 C					
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	20.19	33.612	23.655	422.9	.000	5.38	103.7	2.6	.25	.0	.00	.10	.04	0
1	10	20.17	33.609	23.659	423.0	.042	5.41	104.2	2.6	.24	.0	.00	.10	.03	10
1	20	19.54	33.585	23.804	409.5	.084	5.50	104.7	2.5	.24	.0	.00	.10	.03	20
1	30	18.30	33.533	24.077	383.7	.123	5.68	105.6	2.5	.25	.0	.00	.11	.04	30
1	40	17.87	33.514	24.168	375.4	.161	5.72	105.4	2.5	.25	.0	.00	.12	.04	40
1	50	17.33	33.484	24.275	365.6	.198	5.76	105.1	2.5	.26	.0	.00	.15	.03	50
1	60	17.06	33.482	24.337	359.9	.234	5.77	104.7	2.5	.26	.0	.00	.14	.04	60
1	70	16.56	33.468	24.446	349.9	.269	5.82	104.5	2.6	.27	.0	.00	.16	.05	70
1	75	16.27	33.459	24.504	344.4	.288	5.81	103.8							75
1	85	15.73	33.446	24.618	333.8	.321	5.80	102.5	2.7	.30	.0	.00	.17	.14	85
1	99	14.90	33.444	24.798	317.0	.366	5.72	99.4	2.9	.35	.0	.05	.40	.47	99
1	100	14.82	33.448	24.818	315.1	.370	5.69	98.7							101
1	119	13.78	33.529	25.100	288.7	.426	5.11	86.8	5.7	.59	4.0	.04	.13	.21	119
1	125	13.37	33.554	25.202	279.0	.444	4.94	83.2							126
1	142	12.36	33.641	25.470	253.8	.491	4.38	72.3	11.1	.97	10.6	.02	.06	.11	143
1	150	12.04	33.698	25.574	244.0	.510	4.00	65.7							151
1	171	11.43	33.887	25.835	219.6	.559	2.91	47.2	21.2	1.63	19.9	.01			172
1	200	11.13	34.168	26.108	194.3	.619	1.91	30.8	28.0	2.03	24.7	.01			201
1	229	10.62	34.247	26.261	180.3	.673	1.70	27.1	31.4	2.17	26.5	.00			230
1	250	10.35	34.295	26.348	172.5	.710	1.52	24.2							252
1	269	10.10	34.326	26.414	166.4	.742	1.37	21.6	35.8	2.34	28.2	.00			270
1	300	9.49	34.336	26.525	156.4	.792	1.18	18.4							302
1	326	8.95	34.326	26.604	149.0	.832	1.06	16.3	44.3	2.54	30.7	.00			328
1	399	7.79	34.281	26.746	136.1	.936	.86	12.9	54.6	2.73	33.8	.00			401
1	400	7.78	34.282	26.749	135.9	.937	.85	12.8							403
1	476	7.08	34.315	26.875	124.5	1.036	.49	7.2	64.9	2.91	36.6	.00			479
1	500	6.84	34.321	26.912	121.2	1.066	.42	6.2							504
1	554	6.28	34.326	26.990	113.9	1.129	.35	5.1	76.0	3.05	39.2	.00			557

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
28 31.4 N	119 59.9 W	20/07/84	2305 GMT	4128 M	310	12 KT	330 02 03	1	1014.9 MB	20.5 C	19.0 C	3/8		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI0X	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	20.25	20.25	33.592	23.623	427.8	.000	5.42	104.5							0
1	1	20.25	20.25	33.592	23.623	426.1	.004	5.42	104.5	2.5	.25	.0	.00	.10	.03	1
1	10 ISL	19.56	19.55	33.590	23.804	409.2	.042	5.56	105.8							10
1	11	19.47	19.46	33.587	23.825	407.2	.046	5.57	105.9	2.5	.24	.0	.00	.09	.03	11
1	20 ISL	18.42	18.42	33.534	24.048	386.2	.082	5.70	106.2							20
1	22	18.21	18.21	33.522	24.090	382.2	.089	5.72	106.1	2.6	.24	.0	.00	.09	.03	22
1	30 ISL	17.77	17.77	33.500	24.181	373.8	.120	5.74	105.6							30
1	32	17.70	17.69	33.497	24.196	372.4	.127	5.74	105.4	2.6	.25	.0	.00	.12	.03	32
1	42	17.28	17.27	33.485	24.288	364.0	.163	5.81	105.9	2.6	.25	.0	.00	.14	.03	42
1	50 ISL	16.78	16.77	33.465	24.390	354.5	.193	5.84	105.4							50
1	52	16.68	16.67	33.460	24.411	352.6	.199	5.85	105.3	2.6	.27	.0	.00	.17	.05	52
1	62	16.47	16.46	33.453	24.453	348.9	.234	5.87	105.2	2.6	.28	.0	.00	.16	.09	62
1	73	16.02	16.01	33.471	24.571	338.0	.272	5.89	104.7	2.6	.29	.0	.00	.21	.14	73
1	75 ISL	15.91	15.90	33.462	24.589	336.3	.279	5.89	104.4							75
1	88	15.27	15.26	33.413	24.693	326.7	.321	5.87	102.7	2.7	.31	.0	.00	.25	.29	88
1	100 ISL	14.70	14.68	33.440	24.839	313.1	.361	5.69	98.5							101
1	103	14.56	14.55	33.452	24.877	309.6	.369	5.63	97.2	3.3	.39	.4	.12	.21	.33	103
1	123	13.13	13.11	33.568	25.263	273.1	.427	4.84	81.1	7.4	.74	6.7	.03	.08	.17	123
1	125 ISL	12.99	12.97	33.577	25.298	269.9	.434	4.75	79.5							126
1	147	11.92	11.90	33.671	25.576	243.7	.491	4.01	65.6	13.6	1.15	13.7	.01	.05	.11	148
1	150 ISL	11.81	11.79	33.692	25.614	240.2	.497	3.92	63.9							151
1	177	10.85	10.83	33.926	25.970	206.7	.558	2.99	47.9	22.9	1.69	21.4	.00			178
1	200 ISL	10.46	10.44	34.065	26.146	190.4	.603	2.41	38.3							201
1	207	10.38	10.35	34.098	26.188	186.6	.617	2.27	36.0	28.6	1.99	25.0	.00			208
1	237	9.89	9.86	34.191	26.344	172.2	.670	1.90	29.8	33.2	2.17	27.1	.00			238
1	250 ISL	9.91	9.88	34.272	26.404	166.9	.692	1.59	24.9							252
1	277	10.04	10.01	34.431	26.506	157.9	.736	.95	15.0	38.8	2.56	29.6	.00			278
1	300 ISL	9.91	9.87	34.476	26.565	152.8	.772	.66	10.5							302
1	335	9.47	9.43	34.468	26.632	146.9	.825	.47	7.3	45.0	2.73	30.7	.00			337
1	400 ISL	8.10	8.06	34.369	26.769	134.2	.916	.52	7.9							403
1	410	7.88	7.84	34.351	26.788	132.4	.929	.53	8.0	56.1	2.85	34.5	.00			412
1	484	6.69	6.64	34.301	26.917	120.3	1.023	.49	7.2	68.9	2.98	38.1	.00			487
1	500 ISL	6.50	6.46	34.300	26.941	118.0	1.042	.47	6.8							504
1	560	6.02	5.98	34.323	27.021	110.8	1.111	.34	4.9	79.3	3.12	40.5	.00			564

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
28 11.4 N	120 38.6 W	20/07/84	1712 GMT	3350 M	300	09 KT	320 03 06	1	1017.9 MB	20.4 C	19.1 C	7/9		SC		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI0X	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	20.52	20.52	33.668	23.610	427.6	.000	5.37	104.1							0
1	1	20.52	20.52	33.668	23.610	427.3	.004	5.37	104.1	3.0	.22	.0	.00	.10	.04	1
1	10 ISL	20.37	20.37	33.660	23.644	424.4	.043	5.36	103.7							10
1	11	20.35	20.35	33.659	23.648	424.1	.047	5.36	103.6	3.0	.20	.0	.00	.09	.04	11
1	20 ISL	19.08	19.07	33.601	23.935	397.0	.084	5.52	104.2							20
1	21	18.93	18.93	33.595	23.967	394.0	.088	5.54	104.3	2.9	.22	.0	.00	.10	.04	21
1	30 ISL	18.45	18.44	33.575	24.074	384.1	.123	5.63	104.9							30
1	32	18.38	18.37	33.572	24.088	382.8	.130	5.64	105.0	2.8	.21	.0	.00	.10	.03	32
1	42	17.67	17.66	33.533	24.232	369.4	.168	5.76	105.8	2.8	.23	.0	.00	.11	.04	42
1	50 ISL	16.85	16.84	33.484	24.389	354.7	.197	5.85	105.7							50
1	52	16.67	16.66	33.473	24.424	351.3	.203	5.87	105.7	2.9	.24	.0	.00	.17	.09	52
1	62	15.93	15.92	33.437	24.565	338.2	.238	5.90	104.6	2.9	.27	.0	.00	.15	.10	62
1	72	15.40	15.39	33.431	24.677	327.7	.271	5.92	103.9	3.0	.28	.0	.00	.18	.14	72
1	75 ISL	15.22	15.20	33.434	24.721	323.7	.282	5.90	103.2							75
1	88	14.42	14.41	33.464	24.915	305.5	.321	5.65	97.2	3.9	.35	.0	.06	.35	.25	88
1	100 ISL	13.60	13.59	33.531	25.137	284.5	.358	5.06	85.7							101
1	103	13.42	13.41	33.545	25.185	280.1	.365	4.93	83.2	6.9	.66	5.0	.04	.16	.25	103
1	123	12.18	12.17	33.599	25.470	253.2	.418	4.45	73.2	10.9	.92	10.4	.01	.08	.14	123
1	125 ISL	12.05	12.03	33.609	25.504	250.0	.424	4.38	71.8							126
1	147	11.00	10.98	33.719	25.782	223.9	.478	3.80	60.9	17.5	1.30	16.8	.01	.02	.04	148
1	150 ISL	10.91	10.89	33.732	25.808	221.5	.483	3.75	60.1							151
1	178	10.14	10.12	33.864	26.046	199.3	.543	3.35	52.8	23.5	1.60	21.0	.01			179
1	200 ISL	9.62	9.60	33.950	26.199	185.0	.585	3.09	48.1							201
1	207	9.45	9.43	34.078	26.250	180.4	.599	3.00	46.6	28.9	1.80	24.0	.00			209
1	237	8.94	8.91	34.059	26.396	166.9	.651	2.71	41.6	33.8	1.95	26.3	.00			239
1	250 ISL	8.84	8.83	34.102	26.443	162.7	.671	2.50	38.3							252
1	278	8.72	8.69	34.188	26.532	154.7	.715	1.98	30.3	40.7	2.27	29.3	.00			279
1	300 ISL	8.42	8.39	34.214	26.598	148.7	.749	1.66	25.2							302
1	338	7.87	7.83	34.231	26.695	139.9	.804	1.22	18.3	51.2	2.57	32.8	.00			340
1	400 ISL	7.30	7.26	34.269	26.808	129.8	.887	.76	11.3							403
1	414	7.18	7.14	34.274	26.828	128.0	.905	.70	10.3	61.6	2.81	35.8	.00			416
1	491	6.21	6.17	34.262	26.948	116.9	1.000	.52	7.5	74.4	2.98	39.1	.00			494
1	500 ISL	6.14	6.09	34.265	26.961	115.7	1.010	.50	7.2							504
1	567	5.81	5.76	34.326	27.050	107.8	1.085	.36	5.1	82.6	3.10	40.5	.00			571

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 110 32.4

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 57.4 N	115 49.5 W	22/07/84	2251 GMT	41 M	310	DR KT	270 D1 D4	1	1011.2 MB	21.5 C	19.8 C	7/8		ST		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0	19.90	19.90	33.485	23.635	424.9	.000	5.98	114.5	5.7	.24	.1	.01	1.24	.42	0
1	10	18.93	18.93	33.524	23.913	398.7	.041	6.37	119.8	5.6	.22	.1	.00	1.76	.62	10
	20 ISL	16.77	16.77	33.526	24.439	348.9	.079	6.10	110.0							20
1	21	16.57	16.57	33.525	24.485	344.6	.082	6.06	108.9	4.8	.30	.1	.00	1.86	.82	21
	30 ISL	15.76	15.75	33.475	24.631	330.9	.112	5.95	105.2							30
1	31	15.71	15.70	33.470	24.639	330.2	.115	5.94	104.9	3.3	.31	.1	.00	1.06	.50	31
1	41	14.89	14.89	33.476	24.822	312.9	.147	5.79	100.6	3.6	.37	.2	.05	.76	.44	41

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 110 35

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 47.3 N	115 59.8 W	23/07/84	0118 GMT	977 M	280	DR KT	270 D1 D7	1	1010.9 MB	21.9 C	19.8 C	7/8		SC		
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	21.77	21.77	33.600	23.220	466.0	.000	5.35	106.1							0
	1	21.77	21.77	33.600	23.220	464.6	.005	5.35	106.1	2.9	.21	.0	.00	.19	.09	1
	1L ISL	20.72	20.72	33.581	23.491	439.0	.045	5.47	106.3							10
1	11	20.54	20.54	33.575	23.534	434.9	.050	5.49	106.4	2.6	.24	.0	.00	.17	.08	11
	20 ISL	18.23	18.22	33.520	24.085	382.6	.086	5.83	108.1							20
1	21	17.98	17.97	33.514	24.142	377.2	.090	5.86	108.2	2.5	.25	.0	.00	.13	.03	21
	30 ISL	16.47	16.46	33.391	24.406	352.3	.123	5.97	106.9							30
1	31	16.36	16.36	33.380	24.421	350.9	.126	5.97	106.8	2.5	.28	.0	.00	.14	.04	31
1	42	15.83	15.83	33.366	24.531	340.7	.164	6.05	107.1	2.5	.29	.0	.00	.15	.05	42
	50 ISL	15.27	15.27	33.374	24.661	328.6	.191	6.05	105.9							50
1	52	15.15	15.14	33.381	24.694	325.5	.197	6.05	105.6	2.6	.30	.0	.00	.19	.10	52
1	62	14.67	14.66	33.482	24.875	308.6	.229	5.72	99.0	3.9	.36	.2	.08	.58	.48	62
1	72	13.99	13.98	33.508	25.040	293.1	.259	5.38	91.8	4.5	.47	1.6	.26	.36	.27	72
	75 ISL	13.83	13.82	33.517	25.080	289.3	.268	5.27	89.7							75
1	87	13.31	13.29	33.552	25.213	276.8	.301	4.88	82.1	7.3	.70	5.8	.22	.25	.25	87
	100 ISL	12.58	12.56	33.604	25.398	259.6	.337	4.34	72.0							101
1	102	12.49	12.47	33.611	25.421	257.4	.341	4.28	70.8	11.2	1.00	10.8	.10	.16	.19	102
1	121	11.62	11.61	33.721	25.670	234.1	.390	3.69	60.0	16.2	1.31	15.9	.02	.09	.12	122
	125 ISL	11.46	11.44	33.739	25.715	229.9	.398	3.61	58.4							126
1	147	10.51	10.50	33.839	25.960	206.8	.447	3.14	49.9	23.2	1.55	20.8	.00	.02	.07	148
	150 ISL	10.43	10.41	33.842	25.978	205.2	.453	3.08	48.9							151
1	177	9.86	9.84	33.904	26.124	191.8	.507			25.9	1.75	22.9	.00			178
	200 ISL	9.89	9.86	34.098	26.271	178.3	.549	2.15	33.7							201
1	207	9.89	9.87	34.154	26.313	174.5	.561	2.05	32.2	32.5	2.12	26.5	.00			208
1	238	9.49	9.47	34.218	26.431	163.9	.613	1.79	27.9	36.5	2.26	28.1	.00			239
	250 ISL	9.26	9.23	34.216	26.468	160.5	.633	1.77	27.4							252
1	278	8.74	8.71	34.201	26.538	154.1	.676	1.73	26.5	41.0	2.32	29.7	.00			279
	300 ISL	8.51	8.48	34.222	26.590	149.6	.710	1.55	23.5							302
1	338	8.26	8.23	34.266	26.664	143.1	.766	1.18	17.9	48.7	2.61	32.3	.01			340
	400 ISL	7.85	7.81	34.296	26.750	135.8	.853	.83	12.5							403
1	415	7.75	7.71	34.300	26.768	134.2	.872	.77	11.5	55.9	2.78	34.3	.00			417
1	491	7.07	7.02	34.324	26.883	124.0	.971	.50	7.4	65.5	2.91	36.8	.00			494
	500 ISL	6.98	6.93	34.324	26.896	122.8	.982	.49	7.2							504
1	568	6.22	6.16	34.315	26.991	114.0	1.063	.43	6.2	76.2	3.09	39.5	.00			572

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 37.3 N	116 20.2 W	23/07/84	1415 GMT	2410 M	310	12 KT	320 03 06	2	1014.3 MB	20.9 C	19.9 C	8/8		ST		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	21.50	21.50	33.604	23.298	458.1	.000	5.40	106.6							0
1	1	21.50	21.50	33.604	23.298	457.1	.005	5.40	106.6	3.0	.21	.0	.00	.36	.00	1
1	11	21.09	21.09	33.600	23.395	448.1	.045	5.37	105.3							10
1	21	18.87	18.86	33.600	23.406	447.2	.050	5.37	105.2	2.7	.20	.0	.00	.20	.07	11
1	31	17.70	17.69	33.554	23.998	391.0	.091	5.70	106.6	2.4	.23	.0	.00	.10	.04	20
1	31	17.70	17.69	33.519	24.214	370.6	.126	5.79	106.4							21
1	41	16.31	16.31	33.517	24.229	369.5	.129	5.80	106.4	2.4	.25	.0	.00	.11	.04	30
1	51	15.59	15.58	33.458	24.493	344.4	.165	5.98	106.9	2.4	.27	.0	.00	.12	.05	31
1	51	15.59	15.58	33.489	24.669	327.9	.196	6.02	106.1							41
1	61	14.72	14.71	33.493	24.683	326.5	.198	6.02	106.1	2.5	.28	.0	.00	.14	.05	50
1	61	14.72	14.71	33.465	24.868	309.2	.230	5.95	103.0	3.0	.33	.0	.00	.19	.14	51
1	71	13.89	13.88	33.502	25.056	291.5	.260	5.60	95.3	4.2	.45	1.1	.12	.44	.37	61
1	75	13.64	13.63	33.519	25.120	285.4	.272	5.45	92.3							71
1	86	13.11	13.10	33.566	25.262	272.2	.302	5.12	85.8	6.4	.64	5.5	.07	.26	.21	75
1	100	12.38	12.37	33.610	25.440	255.5	.340	4.84	79.9							86
1	101	12.35	12.34	33.611	25.447	254.9	.341	4.83	79.7	8.7	.78	8.3	.04	.14	.15	101
1	121	11.37	11.35	33.589	25.614	239.3	.390	4.40	71.1	12.5	1.02	12.5	.02	.07	.10	121
1	125	11.15	11.13	33.604	25.665	234.5	.401	4.32	69.5							126
1	145	10.22	10.20	33.707	25.909	211.6	.446	3.97	62.6	18.7	1.32	17.7	.02	.00	.03	146
1	150	10.07	10.01	33.735	25.964	206.4	.456	3.85	60.5							151
1	175	9.14	9.12	33.877	26.219	182.4	.505	3.29	50.7	27.7	1.60	23.4	.01			176
1	200	8.11	8.09	33.958	26.367	168.7	.549	3.18	48.5							201
1	205	8.54	8.52	33.970	26.388	166.8	.557	3.17	48.2	32.7	1.89	25.8	.01			206
1	235	8.34	8.32	34.049	26.479	158.6	.606	2.76	41.8	37.2	1.98	27.4	.02			236
1	251	8.12	8.09	34.067	26.528	154.2	.629	2.62	39.5							252
1	275	7.74	7.71	34.087	26.599	147.7	.666	2.40	35.9	44.7	2.25	30.1	.01			276
1	300	7.62	7.59	34.121	26.644	143.8	.703	2.00	29.8							302
1	334	7.55	7.51	34.167	26.691	139.9	.752	1.49	22.2	51.8	2.48	33.1	.00			336
1	400	7.10	7.06	34.220	26.796	130.8	.841	1.31	19.3							403
1	410	7.02	6.98	34.226	26.812	129.3	.853	1.30	19.1	61.3	2.72	35.7	.00			412
1	484	6.40	6.36	34.299	26.952	116.6	.945	.50	7.3	72.6	3.00	38.5	.00			487
1	500	6.32	6.27	34.317	26.978	114.4	.963	.45	6.5							504
1	560	6.15	6.10	34.385	27.054	107.8	1.030	.25	3.6	79.6	3.14	39.9	.01			564

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
29 27.3 N	116 39.8 W	23/07/84	1748 GMT	752 M	300	14 KT	320 04 05	1	1016.2 MB	22.1 C	19.0 C	1/3		CU		
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAE0	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	1	21.77	21.77	33.611	23.229	468.0	.000	5.22	103.5							0
1	1	21.77	21.77	33.611	23.229	463.7	.005	5.22	103.5	2.6	.21	.0	.00	.11	.04	1
1	11	20.64	20.63	33.773	23.624	426.3	.045	5.39	105.0							10
1	11	20.64	20.63	33.779	23.664	422.5	.049	5.41	105.2	2.5	.22	.0	.00	.10	.04	11
1	20	18.86	18.85	33.659	24.034	387.5	.085	5.67	106.7							20
1	30	16.86	16.85	33.483	24.385	354.3	.122	5.93	107.2							30
1	32	16.47	16.47	33.445	24.445	348.7	.129	5.98	107.2	2.3	.25	.0	.00	.10	.04	32
1	47	14.81	14.81	33.406	24.786	316.6	.179	6.07	105.3	2.7	.32	.0	.00	.16	.16	47
1	50	14.58	14.57	33.398	24.831	312.4	.189	6.03	104.2							50
1	57	14.19	14.18	33.394	24.909	305.1	.210	5.92	101.4	3.0	.40	.6	.20	.34	.29	57
1	73	14.00	13.99	33.533	25.056	291.5	.257	5.55	94.7	3.9	.48	2.4	.18	.29	.22	73
1	75	13.90	13.89	33.544	25.085	288.9	.264	5.50	93.7							75
1	88	13.26	13.25	33.584	25.248	273.7	.300	5.26	88.4	5.4	.60	5.0	.04	.16	.21	88
1	100	12.66	12.65	33.604	25.380	261.2	.333	5.12	85.0							101
1	103	12.54	12.52	33.607	25.408	258.7	.339	5.08	84.1	7.1	.73	7.4	.02	.08	.13	103
1	125	11.34	11.32	33.653	25.668	234.2	.394	4.31	69.6							126
1	127	11.22	11.20	33.659	25.696	231.7	.400	4.22	68.0							128
1	147	10.53	10.51	33.729	25.873	215.1	.445	3.91	62.1	18.1	1.34	17.2	.01	.01	.03	148
1	150	10.47	10.45	33.744	25.895	213.1	.450	3.85	61.0							151
1	177	9.95	9.93	33.898	26.104	193.7	.506	3.20	50.2	25.1	1.64	22.0	.00	.00	.02	178
1	200	9.44	9.42	33.992	26.262	179.0	.548	2.85	44.3							201
1	206	9.32	9.29	34.014	26.300	175.5	.559	2.77	42.9	30.7	1.86	25.0	.00	.00	.02	207
1	236	8.94	8.91	34.130	26.451	161.7	.609	2.21	34.0	36.8	2.14	27.8	.00			237
1	250	8.69	8.66	34.152	26.508	156.4	.632	2.02	30.9							252
1	276	8.23	8.20	34.171	26.593	148.6	.671	1.75	26.5	44.2	2.38	30.7	.00			277
1	300	7.94	7.91	34.191	26.652	143.3	.706	1.51	22.7							302
1	334	7.66	7.63	34.219	26.715	137.7	.754	1.20	17.9	53.0	2.63	33.4	.00			336
1	390	7.33	7.29	34.283	26.813	129.1	.828	.71	10.5	60.0	2.85	35.4	.00			392
1	400	7.26	7.22	34.285	26.825	128.2	.842	.69	10.3							403
1	451	6.85	6.83				.906									453
1	500	6.28	6.23	34.271	26.947	117.2	.965	.54	7.8							504
1	512	6.12	6.07	34.270	26.967	115.5	.979	.52	7.5	75.8	3.03	39.1	.00			515



## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 110 50

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
29 17.2 N	116 59.2 W	23/07/84	2132 CMT	3136 M	330 15 KT	310 04 04	0	1014.9 MB	21.2 C	19.2 C						
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	21.47	21.47	33.610	23.311	456.0	.000	5.32	104.9							0
1	1	21.47	21.47	33.610	23.311	455.8	.005	5.32	104.9	2.3	.25	.0	.00	.08	.03	1
1	10 ISL	21.38	21.38	33.607	23.331	454.3	.046	5.33	104.9							10
1	11	21.38	21.37	33.606	23.333	454.1	.050	5.33	104.9	2.3	.24	.0	.00	.08	.04	11
1	20 ISL	18.76	18.76	33.538	23.967	393.9	.088	5.69	106.7							20
1	21	18.45	18.45	33.533	24.039	387.0	.092	5.73	106.8	2.3	.25	.0	.00	.08	.03	21
1	30 ISL	17.08	17.08	33.444	24.303	362.2	.126	5.88	106.8							30
1	32	16.91	16.90	33.429	24.333	359.4	.133	5.90	106.7	2.3	.28	.0	.00	.08	.04	32
1	42	16.17	16.16	33.468	24.533	340.6	.168	5.96	106.2	2.3	.28	.0	.00	.11	.05	42
1	50 ISL	15.50	15.49	33.416	24.644	330.2	.195	6.02	105.8							50
1	58	14.85	14.84	33.357	24.741	321.2	.220	6.05	105.0	2.5	.32	.0	.00	.18	.13	58
1	68	14.08	14.07	33.356	24.903	306.0	.251	6.01	102.6	3.0	.41	.7	.24	.36	.21	68
1	75 ISL	13.96	13.94	33.439	24.993	297.6	.273	5.73	97.6							75
1	78	13.94	13.93	33.475	25.025	294.7	.281	5.61	95.6	3.8	.48	2.4	.11	.33	.27	78
1	94	13.32	13.31	33.552	25.211	277.3	.327	5.30	89.2	5.2	.61	4.9	.02	.16	.24	94
1	100 ISL	12.99	12.98	33.577	25.295	269.4	.344	5.05	84.4							101
1	114	12.28	12.26	33.625	25.472	252.9	.380	4.46	73.5	10.3	.94	10.3	.02	.09	.17	114
1	125 ISL	11.81	11.79	33.664	25.592	241.7	.408	4.10	66.9							126
1	133	11.48	11.47	33.699	25.678	233.6	.428	3.87	62.7	15.6	1.27	15.3	.01	.05	.10	134
1	150 ISL	10.79	10.77	33.806	25.888	213.9	.465	3.47	55.4							151
1	158	10.48	10.46	33.865	25.987	204.5	.482	3.28	52.1	22.4	1.60	20.6	.01	.01	.03	159
1	189	10.01	9.99	34.036	26.201	184.8	.542	2.59	40.7	28.3	1.91	24.4	.01			190
1	200 ISL	9.68	9.66	34.050	26.267	178.6	.562	2.58	40.3							201
1	219	9.12	9.09	34.062	26.369	169.1	.595	2.57	39.6	32.9	2.01	26.4	.01			220
1	250 ISL	8.71	8.69	34.145	26.499	157.3	.646	2.05	31.4							252
1	254	8.69	8.66	34.156	26.511	156.2	.652	1.98	30.3	39.5	2.25	29.0	.00			255
1	300 ISL	8.36	8.33	34.215	26.608	147.7	.722	1.45	22.1							302
1	303	8.34	8.31	34.216	26.613	147.3	.727	1.43	21.7	45.3	2.46	31.1	.00			305
1	357	7.66	7.62	34.216	26.713	138.2	.804	1.35	20.2	49.9	2.57	32.5	.00			359
1	400 ISL	7.33	7.29	34.251	26.788	131.7	.862	.99	14.7							403
1	441	7.03	6.99	34.280	26.854	125.9	.915	.63	9.3	63.3	2.90	36.4	.00			444
1	500 ISL	6.27	6.23	34.261	26.940	117.8	.986	.51	7.3							504
1	527	5.96	5.91	34.256	26.976	114.4	1.017	.49	7.0	77.3	3.05	39.7	.00			530
1	600 ISL	5.75	5.70	34.331	27.062	107.1	1.099	.31	4.5							604
1	612	5.72	5.67	34.340	27.073	106.2	1.111	.28	4.0	84.3	3.16	40.9	.00			616

## RV NEW HORIZON

## CALCOFI CRUISE 8407

STATION 110 55

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
29 07.1 N	117 20.0 W	24/07/84	0415 CMT	3169 M	340 16 KT	320 04 04	0	1013.2 MB	20.1 C	19.0 C						
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	21.03	21.03	33.617	23.436	443.9	.000	5.30	103.7							0
1	1	21.03	21.03	33.617	23.436	443.9	.004	5.30	103.7	2.1	.25	.0	.00	.08	.03	1
1	10 ISL	21.03	21.03	33.623	23.439	444.0	.044	5.35	104.8							10
1	11	21.03	21.03	33.624	23.439	444.0	.049	5.36	104.9	2.1	.23	.0	.00	.08	.03	11
1	20 ISL	19.69	19.68	33.577	23.761	413.6	.087	5.63	107.4							20
1	22	19.31	19.31	33.564	23.846	405.6	.095	5.69	107.8	2.4	.22	.0	.00	.11	.04	22
1	30 ISL	18.01	18.00	33.488	24.115	350.2	.127	5.78	106.8							30
1	32	17.73	17.72	33.470	24.169	335.0	.134	5.79	106.4	2.0	.23	.0	.00	.08	.04	32
1	42	16.79	16.79	33.411	24.346	358.4	.171	5.90	106.4	2.0	.26	.0	.00	.09	.03	42
1	50 ISL	16.06	16.05	33.422	24.524	341.7	.199	5.98	106.4							50
1	52	15.90	15.89	33.425	24.561	338.2	.205	6.00	106.4	2.1	.28	.0	.00	.15	.05	52
1	62	15.19	15.18	33.372	24.678	327.3	.239	6.05	105.7	2.2	.30	.0	.00	.16	.10	62
1	72	14.46	14.45	33.349	24.818	314.2	.271	6.08	104.6	2.5	.33	.0	.00	.29	.22	72
1	75 ISL	14.43	14.42	33.373	24.843	311.9	.281	6.03	103.8							75
1	87	14.29	14.28	33.488	24.960	301.0	.317	5.63	96.6	3.4	.39	.2	.07	.60	.63	87
1	100 ISL	13.07	13.06	33.573	25.276	271.2	.355	4.66	78.1							101
1	102	12.90	12.89	33.582	25.317	267.3	.359	4.54	75.8	8.8	.85	8.3	.08	.20	.25	102
1	122	11.82	11.81	33.678	25.599	240.8	.410	3.84	62.7	14.3	1.20	14.5	.02	.11	.20	122
1	125 ISL	11.68	11.66	33.695	25.639	237.1	.418	3.77	61.3							126
1	146	11.01	10.99	33.806	25.848	217.6	.467	3.39	54.4	19.3	1.51	18.8	.01	.05	.09	147
1	150 ISL	10.94	10.92	33.832	25.881	214.6	.474	3.29	52.7							151
1	176	10.49	10.47	34.010	26.098	194.4	.528	2.61	41.5	26.1	1.83	23.0	.01			177
1	200 ISL	9.83	9.81	34.101	26.283	177.2	.572	2.32	36.4							201
1	205	9.69	9.67	34.115	26.317	174.0	.581	2.28	35.6	32.0	2.08	26.0	.01			206
1	235	9.15	9.13	34.185	26.460	160.8	.631	1.96	30.3	37.0	2.23	28.1	.00			236
1	250 ISL	9.01	8.98	34.208	26.501	157.2	.655	1.81	27.8							252
1	275	8.83	8.81	34.235	26.550	153.0	.693	1.57	24.1	41.2	2.39	29.7	.00			276
1	300 ISL	8.56	8.53	34.259	26.612	147.5	.731	1.31	20.0							302
1	334	8.15	8.12	34.284	26.695	140.0	.780	.99	15.0	50.3	2.67	32.5	.00			336
1	400 ISL	7.37	7.33	34.316	26.833	127.4	.868	.58	8.7							403
1	408	7.29	7.25	34.319	26.847	126.2	.878	.55	8.1	61.7	2.92	35.7	.00			410
1	486	6.77	6.72	34.352	26.946	117.6	.974	.32	4.7	69.6	3.06	37.7	.00			489
1	500 ISL	6.67	6.62	34.357	26.964	116.1	.990	.29	4.3							504
1	564	6.20	6.15	34.379	27.044	109.0	1.062	.23	3.3	78.0	3.17	39.6	.00			568

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
28 57.0 N	117 38.8 W	24/07/84	0754 GMT	3636 M	330	25 KT	320 D6 D6		1016.9 MB	19.2 C	17.5 C					
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	21.31	21.31	33.656	23.387	448.5	.000	5.29	104.1							0
1	1	21.31	21.31	33.656	23.387	448.5	.004	5.29	104.1	2.8	.21	.0	.00	.09	.04	1
1	10 ISL	21.32	21.31	33.656	23.387	448.9	.045	5.33	104.8							10
1	11	21.32	21.31	33.656	23.387	449.0	.049	5.33	104.9	2.8	.20	.0	.00	.08	.04	11
1	20 ISL	20.42	20.42	33.652	23.609	428.1	.089	5.54	107.1							20
1	22	20.17	20.16	33.625	23.672	422.2	.097	5.58	107.5	2.5	.19	.0	.00	.07	.03	22
1	30 ISL	19.17	19.16	33.588	23.903	400.4	.130	5.62	106.2							30
1	32	18.92	18.92	33.579	23.958	395.3	.138	5.63	105.9	2.5	.20	.0	.00	.10	.05	32
1	42	17.77	17.76	33.531	24.207	371.8	.176	5.86	107.8	2.6	.21	.0	.00	.15	.05	42
1	50 ISL	17.19	17.18	33.534	24.348	358.6	.206	5.86	106.6							50
1	57	17.06	17.05	33.533	24.378	355.7	.212	5.86	106.3	2.6	.22	.0	.00	.15	.11	57
1	62	15.83	15.82	33.461	24.606	334.3	.247	5.98	105.9	2.9	.26	.0	.00	.19	.13	62
1	73	14.95	14.94	33.483	24.816	314.4	.282	5.78	100.6	3.5	.33	.0	.00	.36	.41	73
1	75 ISL	14.72	14.71	33.493	24.873	309.1	.289	5.66	98.0							75
1	88	13.46	13.45	33.558	25.187	279.4	.327	4.93	83.2	7.2	.66	4.7	.22	.29	.45	88
1	100 ISL	12.57	12.56	33.598	25.394	259.9	.360	4.54	75.3							100
1	103	12.41	12.40	33.606	25.431	256.5	.367	4.47	73.8	10.4	.92	9.9	.05	.16	.23	103
1	123	11.48	11.46	33.717	25.693	231.9	.415	3.67	59.5	16.3	1.31	16.2	.02	.09	.14	123
1	125 ISL	11.39	11.37	33.735	25.724	229.0	.421	3.59	58.1							125
1	147	10.62	10.60	33.879	25.973	205.6	.469	3.13	49.8	22.2	1.61	20.7	.01	.02	.07	147
1	150 ISL	10.51	10.49	33.882	25.996	203.6	.475	3.13	49.8							150
1	179	9.54	9.52	33.933	26.200	184.5	.531	3.16	49.1	27.0	1.75	23.0	.08			179
1	200 ISL	9.54	9.52	34.096	26.327	172.9	.569	2.41	37.5							200
1	205	9.54	9.52	34.156	26.374	168.7	.584	2.06	32.1	33.5	2.14	27.0	.00			210
1	239	9.21	9.19	34.227	26.478	159.3	.633	1.73	26.8	37.7	2.29	28.7	.00			240
1	250 ISL	9.14	9.12	34.243	26.507	156.8	.651	1.58	24.4							252
1	279	8.94	8.91	34.284	26.573	151.0	.695	1.23	18.9	42.2	2.47	30.4	.00			280
1	300 ISL	8.60	8.57	34.282	26.624	146.4	.726	1.13	17.2							302
1	338	7.92	7.88	34.259	26.709	138.5	.781	1.05	15.8	51.3	2.64	33.1	.00			340
1	400 ISL	7.01	6.97	34.243	26.826	127.7	.863	.78	11.5							403
1	413	6.86	6.82	34.245	26.848	125.8	.879	.72	10.6	63.7	2.86	36.7	.00			415
1	490	6.50	6.46	34.342	26.974	114.8	.972	.40	5.8	72.5	3.06	38.6	.01			493
1	500 ISL	6.45	6.40	34.350	26.987	113.6	.984	.37	5.4							504
1	567	6.00	5.95	34.370	27.061	107.1	1.058	.22	3.2	80.9	3.15	40.3	.00			571

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND	SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE		
28 47.2 N	117 58.5 W	24/07/84	1015 GMT	3606 M	250	19 KT	350 D7 D5		1016.6 MB	19.9 C	17.8 C					
CST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	P04	N03	N02	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
	0 ISL	21.06	21.06	33.677	23.473	440.3	.000	5.28	103.4							0
1	1	21.06	21.06	33.677	23.473	440.3	.004	5.28	103.4	3.0	.21	.0	.00	.10	.04	1
1	10	21.06	21.06	33.678	23.473	440.8	.044	5.32	104.2	3.0	.19	.0	.00	.10	.04	10
1	20	20.67	20.66	33.657	23.563	432.5	.087	5.39	104.8	3.0	.18	.0	.00	.09	.06	20
1	25	19.38	19.38	33.623	23.874	403.2	.125	5.60	106.3	3.0	.17	.0	.00	.11	.05	29
1	30 ISL	19.21	19.21	33.616	23.913	399.5	.129	5.64	106.7							30
1	39	17.78	17.77	33.555	24.222	370.2	.164	5.92	108.9	3.2	.20	.0	.00	.16	.10	39
1	50 ISL	16.15	16.14	33.434	24.512	342.9	.203	5.91	105.3							50
1	53			33.471			.213	5.91	104.9	3.2	.28	.0	.00	.28	.16	53
1	63	14.68	14.67	33.492	24.881	308.0	.245	5.71	98.8	4.1	.34	.0	.00	.54	.47	63
1	73	14.01	14.00	33.524	25.048	292.3	.275	5.34	91.2	5.3	.45	1.2	.17	.91	.68	73
1	75 ISL	13.82	13.80	33.532	25.094	288.0	.281	5.20	88.5							75
1	87	12.84	12.83	33.589	25.335	265.3	.314	4.44	74.0	9.6	.82	8.3	.06	.27	.47	87
1	100 ISL	12.14	12.13	33.700	25.556	244.5	.348	3.72	61.2							101
1	107	11.91	11.89	33.750	25.639	236.7	.363	3.47	56.8	16.4	1.35	16.3	.01	.09	.21	107
1	125	11.43	11.42	33.783	25.753	226.2	.407	3.34	54.1	18.3	1.39	17.5	.01	.08	.14	126
1	150	10.24	10.22	33.922	26.073	196.2	.460	2.99	47.2	24.7	1.67	22.0	.00	.01	.11	151
1	179	9.98	9.96	34.082	26.243	180.6	.514	2.47	38.8	29.2	1.94	24.7	.00			180
1	200 ISL	9.74	9.72	34.178	26.358	170.1	.550	2.06	32.3							201
1	209	9.63	9.61	34.210	26.401	166.1	.566	1.90	29.7	34.7	2.19	27.4	.00			210
1	243	9.20	9.18	34.262	26.512	156.1	.620	1.52	23.5	39.5	2.37	29.1	.00			244
1	250 ISL	9.13	9.10	34.276	26.536	154.0	.631	1.41	21.8							252
1	292	8.69	8.66	34.341	26.656	143.3	.694	.87	13.3	46.7	2.64	31.5	.00			294
1	300 ISL	8.61	8.58	34.343	26.671	142.0	.705	.85	13.0							302
1	346	8.04	8.01	34.326	26.744	135.5	.769	.72	10.9	53.9	2.79	33.5	.00			348
1	400 ISL	7.22	7.18	34.280	26.826	128.0	.840	.69	10.2							403
1	430	6.80	6.76	34.261	26.869	124.0	.878	.67	9.8	65.1	2.90	36.9	.00			433
1	500 ISL	6.39	6.34	34.304	26.960	116.1	.962	.42	6.1							504
1	516	6.33	6.28	34.320	26.980	114.4	.980	.36	5.2	74.5	3.06	39.1	.00			519
1	599	5.85	5.80	34.382	27.089	104.6	1.071	.24	3.4	83.4	3.17	40.8	.00			603

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
28 37.3 N	118 18.1 W	24/07/84	1353 GMT	3636 M	330 24 KT	340 06 05	0	1016.4 MB	19.8 C	17.0 C						
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	21.02	21.02	33.701	23.502	437.5	.000	5.29	103.5							0
1	2	21.02	21.02	33.701	23.502	437.7	.009	5.29	103.5	3.2	.22	.00	.00	.11	.04	2
1	10 ISL	21.02	21.02	33.697	23.499	438.2	.044	5.36	104.8							10
1	12	21.02	21.02	33.696	23.499	438.4	.052	5.38	105.3	3.3	.20	.00	.00	.11	.05	12
1	20 ISL	20.59	20.59	33.688	23.593	429.7	.087	5.50	106.9							20
1	22	20.42	20.42	33.659	23.631	426.1	.096	5.54	107.2	3.3	.19	.00	.00	.12	.05	22
1	30 ISL	19.38	19.38	33.625	23.876	403.0	.129	5.71	108.4							30
1	32	19.06	19.05	33.613	23.950	396.0	.137	5.76	108.7	3.5	.19	.00	.00	.16	.05	32
1	42	16.79	16.78	33.500	24.416	351.8	.174	6.09	109.9	3.7	.24	.00	.00	.21	.12	42
1	50 ISL	15.70	15.69	33.490	24.657	329.0	.202	5.95	105.2							50
1	57	15.04	15.03	33.502	24.811	314.5	.223	5.84	101.8	4.6	.31	.00	.00	.41	.35	57
1	67	14.02	14.01	33.522	25.043	292.6	.254	5.51	94.1	5.7	.46	.2	.06	1.23	.56	67
1	75 ISL	13.34	13.33	33.561	25.212	276.6	.277	5.01	84.3							75
1	77	13.22	13.20	33.570	25.245	273.5	.282	4.89	82.1	8.3	.69	4.9	.42	.49	.77	77
1	93	12.25	12.23	33.656	25.502	249.4	.324	3.99	65.7	13.3	1.11	12.7	.04	.19	.32	93
1	100 ISL	11.98	11.97	33.687	25.576	242.6	.342	3.77	61.8							101
1	113	11.61	11.60	33.738	25.685	232.4	.371	3.53	57.4	17.3	1.37	16.5	.02	.11	.22	113
1	125 ISL	11.08	11.06	33.803	25.833	218.6	.399	3.32	53.3							126
1	132	10.78	10.76	33.846	25.920	210.4	.415	3.19	51.0	21.8	1.57	20.1	.01	.04	.10	133
1	150 ISL	10.41	10.40	33.964	26.076	195.9	.451	2.79	44.2							151
1	157	10.33	10.31	34.016	26.130	190.9	.465	2.60	41.2	27.1	1.82	23.4	.01	.01	.06	158
1	187	10.19	10.16	34.228	26.322	173.4	.520	1.77	28.0	32.7	2.17	26.7	.01			188
1	200 ISL	9.91	9.89	34.243	26.380	168.1	.542	1.68	26.4							201
1	217	9.52	9.49	34.240	26.444	162.2	.570	1.64	25.5	36.9	2.29	28.3	.01			218
1	250 ISL	9.14	9.11	34.303	26.555	152.2	.621	1.27	19.6							252
1	252	9.12	9.10	34.307	26.561	151.7	.624	1.25	19.3	41.7	2.47	29.8	.00			253
1	300 ISL	8.59	8.55	34.345	26.675	141.5	.695	.84	12.8							302
1	301	8.57	8.54	34.345	26.678	141.3	.697	.83	12.7	48.7	2.65	31.6	.00			303
1	356	7.90	7.86	34.330	26.768	133.3	.772	.64	9.6	55.4	2.81	33.9	.00			358
1	400 ISL	7.34	7.31	34.318	26.839	126.9	.829	.55	8.1							403
1	439	6.88	6.84	34.312	26.899	121.4	.878	.48	7.0	67.2	2.96	37.1	.00			442
1	500 ISL	6.29	6.24	34.321	26.985	113.6	.949	.37	5.3							504
1	524	6.10	6.06	34.329	27.015	110.9	.976	.33	4.8	78.6	3.06	39.6	.00			527
1	600 ISL	5.75	5.70	34.371	27.093	104.1	1.058	.25	3.6							604
1	608	5.74	5.69	34.377	27.100	103.6	1.066	.25	3.6	85.5	3.18	41.0	.00			612

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WET	CLOUD	AMT	TYPE			
28 17.3 N	118 58.1 W	24/07/84	1942 GMT	3487 M	330 24 KT	350 05 04	1	1017.4 MB	19.6 C	17.5 C	7/8	5T				
CAST	DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI03	PO4	NO3	NO2	CHL-A	PHAEO	PRESS
M	M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR
1	0 ISL	21.09	21.09	33.695	23.479	439.7	.000	5.30	103.9							0
1	1	21.09	21.09	33.695	23.479	439.8	.004	5.30	103.9	3.4	.18	.00	.00	.11	.04	1
1	10 ISL	21.08	21.08	33.691	23.477	440.3	.044	5.32	104.2							10
1	11	21.08	21.08	33.691	23.477	440.4	.048	5.32	104.2	3.5	.15	.00	.00	.11	.04	11
1	20 ISL	21.06	21.06	33.687	23.480	440.5	.088	5.32	104.2							20
1	21	21.06	21.06	33.686	23.480	440.5	.092	5.32	104.2	3.4	.11	.00	.00	.11	.04	21
1	30 ISL	18.31	18.30	33.563	24.099	381.7	.129	5.04	110.4							30
1	31	17.98	17.97	33.554	24.173	374.6	.133	6.00	110.8	3.5	.16	.00	.00	.16	.10	31
1	41	15.63	15.62	33.504	24.683	326.2	.168	6.02	106.2	4.3	.26	.00	.00	.32	.15	41
1	51 ISL	14.45	14.45	33.525	24.955	300.6	.196	5.73	98.8							50
1	54	13.96	13.89	33.549	25.089	287.9	.214	5.38	91.7	6.6	.42	.25	.07	.88	.54	56
1	66	12.67	12.66	33.602	25.377	260.6	.241	4.42	73.4	10.2	.82	8.9	.09	.32	.59	66
1	75 ISL	12.06	12.05	33.690	25.563	243.1	.264	3.77	61.8							75
1	76	12.02	12.01	33.696	25.575	242.0	.266	3.73	61.2	14.8	1.14	14.3	.01	.13	.28	76
1	91	11.48	11.47	33.731	25.704	230.1	.301	3.59	58.2	17.0	1.28	16.2	.02	.09	.18	91
1	100 ISL	10.97	10.96	33.776	25.830	218.2	.322	3.43	55.0							101
1	110	10.50	10.49	33.837	25.960	206.0	.342	3.22	51.1	22.4	1.55	20.4	.01	.03	.08	110
1	125 ISL	10.28	10.26	33.962	26.097	193.3	.373	2.76	43.6							126
1	129	10.25	10.24	33.996	26.128	190.5	.382	2.63	41.6	26.7	1.77	23.3	.00	.00	.05	130
1	150 ISL	9.96	9.94	34.089	26.250	179.3	.420	2.34	36.8							151
1	157	9.91	9.90	34.099	26.266	177.8	.426	2.31	36.3	30.2	1.89	25.1	.01	.00	.04	154
1	183	9.57	9.54	34.187	26.394	166.3	.477	1.99	31.0	34.2	1.82	25.9	.01			184
1	200 ISL	9.28	9.26	34.203	26.453	160.9	.504	1.88	29.2							201
1	217	9.09	9.07	34.212	26.490	157.5	.523	1.79	27.6	38.3	2.21	28.5	.00			213
1	245	8.88	8.85	34.280	26.578	149.8	.574	1.25	19.2	43.4	2.46	30.2	.00			246
1	295 ISL	8.27	8.26	34.285	26.592	148.6	.582	1.20	18.4							295
1	295	8.29	8.26	34.304	26.688	140.0	.644	.91	13.8	49.2	2.62	32.1	.00			295
1	300 ISL	8.23	8.20	34.307	26.700	139.0	.654	.87	13.1							302
1	346	7.85	7.81	34.323	26.770	132.9	.716	.61	9.2	55.3	2.68	33.8	.01			348
1	400 ISL	7.27	7.23	34.329	26.858	125.0	.786	.43	6.4							403
1	427	6.98	6.94	34.332	26.901	121.1	.819	.37	5.4	66.3	2.90	36.6	.00			430
1	500 ISL	6.39	6.35	34.354	26.998	112.5	.904	.26	3.7							504
1	509	6.35	6.28	34.357	27.009	111.6	.914	.25	3.6	75.8	2.99	38.9	.00			512
1	592	5.75	5.74	34.370	27.098	104.6	1.004	.22	3.1	84.5	3.16	40.8	.01			596

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WFT	CLOUD AMT	TYPE				
27 57.0 N	119 36.4 W	25/07/84	0020 GMT	4932 M	350 18 KT	350 05 04	1	1016.5 MB	19.2 C	17.2 C	7/3	ST				
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI0 <sub>2</sub>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0	20.42	20.42	33.564	23.558	432.3	.000	5.39	104.3	2.7	.23	.0	.00	.09	.04	0
1	10	20.43	20.43	33.566	23.557	432.8	.043	5.45	105.4	2.8	.19	.0	.00	.09	.04	10
1	20	19.98	19.98	33.552	23.665	422.8	.086	5.46	104.8	2.7	.19	.0	.00	.10	.06	20
1	30	19.10	19.09	33.543	23.886	402.0	.127			2.7	.18	.0	.00	.09	.03	30
1	40	18.17	18.17	33.522	24.101	381.8	.166	6.03	111.8	2.7	.22	.0	.00	.11	.04	40
1	50	17.43	17.42	33.511	24.273	365.7	.203	6.10	111.5	3.2	.20	.0	.00	.14	.05	50
1	59	16.32	16.31	33.487	24.514	342.9	.235	6.11	109.2	3.1	.23	.0	.00	.16	.12	59
1	69	15.31	15.29	33.480	24.737	322.0	.268	5.98	104.8	3.6	.27	.0	.00	.18	.14	69
1	75 ISL	14.71	14.70	33.488	24.872	309.2	.288	5.79	100.2							75
1	84	13.93	13.92	33.515	25.057	291.7	.314	5.40	92.0	5.1	.46	1.6	.31	.40	.45	84
1	98	12.80	12.79	33.592	25.345	264.6	.353	4.58	76.3	9.7	.85	8.7	.05	.22	.29	98
1	100 ISL	12.62	12.61	33.603	25.389	260.5	.359	4.49	74.6							101
1	117	11.52	11.51	33.693	25.666	234.3	.400	4.01	65.0	14.9	1.18	14.4	.01	.05	.10	117
1	125 ISL	11.12	11.11	33.767	25.796	222.1	.419	3.72	59.9							126
1	139	10.63	10.62	33.892	25.981	204.7	.450	3.26	51.9	22.8	1.63	20.8	.01	.02	.07	140
1	150 ISL	10.45	10.43	33.952	26.061	197.4	.471	3.02	48.0							151
1	167	10.23	10.21	34.029	26.158	188.4	.504	2.70	42.7	27.2	1.82	23.7	.01			168
1	195	9.66	9.64	34.152	26.351	170.6	.554	2.16	33.7	33.0	2.06	26.4	.00			196
1	200 ISL	9.57	9.54	34.159	26.372	168.7	.563	2.12	33.1							201
1	223	9.19	9.17	34.178	26.448	161.8	.601	1.97	30.5	36.8	2.18	28.1	.00			224
1	251 ISL	9.00	8.97	34.243	26.531	154.4	.643	1.54	23.8							252
1	260	8.95	8.92	34.268	26.558	152.0	.658	1.38	21.2	41.8	2.41	30.0	.00			261
1	300 ISL	8.57	8.54	34.312	26.652	143.7	.718	.99	15.1							302
1	314	8.41	8.40	34.321	26.681	141.2	.738	.89	13.5	48.9	2.64	32.1	.00			316
1	384	7.95	7.91	34.400	26.816	129.3	.832	.40	6.0	57.3	2.89	34.0	.00			386
1	400 ISL	7.77	7.68	34.397	26.847	126.6	.853	.35	5.2							403
1	454	6.96	6.92	34.376	26.939	118.1	.919	.27	4.0	68.1	3.01	37.2	.00			457
1	500 ISL	6.57	6.52	34.386	27.000	112.5	.972	.25	3.6							504
1	528	6.42	6.37	34.400	27.031	109.9	1.003	.23	3.3	75.5	3.09	39.1	.00			531

LATITUDE	LONGITUDE	DAY/MO/YR	MESSENGER	BOTTOM	WIND SPEED	WAVES	WEATHER	BAROMETER	DRY	WFT	CLOUD AMT	TYPE				
27 37.1 N	120 15.9 W	25/07/84	0516 GMT	4138 M	340 22 KT	340 06 05		1017.1 MB	18.5 C	17.0 C						
CAST DEPTH	TEMP	POT TEMP	SALINITY	SIGMA	SVA	DYN HT	OXYGEN	OXY	SI0 <sub>2</sub>	PO4	NO3	NO2	CHL-A	PHAEO	PRESS	
M	DEG C	DEG C		THETA			ML/L	PCT	UM/L	UM/L	UM/L	UM/L	UG/L	UG/L	D.BAR	
1	0 ISL	19.60	19.60	33.583	23.787	410.4	.000	5.47	104.2							0
1	1	19.60	19.60	33.583	23.787	410.4	.004	5.47	104.2	2.5	.18	.0	.00	.07	.04	1
1	11 ISL	19.59	19.59	33.581	23.788	410.7	.041	5.54	105.5							10
1	11	19.59	19.59	33.581	23.788	410.7	.045	5.54	105.5	2.6	.18	.0	.00	.08	.03	11
1	21 ISL	19.54	19.54	33.581	23.800	409.9	.082	5.54	105.4							20
1	21	19.54	19.53	33.580	23.802	409.8	.086	5.54	105.4	2.6	.17	.0	.00	.08	.04	21
1	30 ISL	18.81	18.81	33.555	23.967	394.3	.122	5.62	105.5							30
1	31	18.73	18.72	33.553	23.986	392.5	.126	5.63	105.5	2.6	.17	.0	.00	.09	.05	31
1	41	18.19	18.18	33.537	24.108	381.2	.165	5.67	105.2	2.6	.17	.0	.00	.10	.06	41
1	50 ISL	17.40	17.40	33.503	24.273	365.8	.199	5.78	105.6							50
1	51	17.34	17.33	33.500	24.287	364.5	.202	5.79	105.6	2.6	.19	.0	.00	.16	.05	51
1	61	17.02	17.01	33.487	24.351	358.6	.238	5.85	106.0	2.6	.19	.0	.00	.09	.16	61
1	71	16.55	16.54	33.495	24.467	347.9	.273	5.85	105.1	2.7	.21	.0	.00	.15	.07	71
1	75 ISL	16.24	16.24	33.474	24.520	342.9	.287	5.87	104.9							75
1	85	15.51	15.50	33.435	24.656	330.1	.320	5.90	103.8	2.9	.25	.0	.00	.25	.17	85
1	100	14.56	14.54	33.503	24.917	305.7	.368	5.70	98.4	4.6	.32	.0	.02	.32	.25	100
1	119	12.83	12.81	33.599	25.345	245.1	.422	4.75	79.2	8.4	.73	7.6	.03	.11	.19	119
1	125 ISL	12.37	12.36	33.623	25.453	255.0	.438	4.51	74.5							126
1	142	11.39	11.37	33.697	25.695	232.7	.481	3.95	63.9	15.2	1.16	14.6	.02	.05	.12	143
1	150 ISL	11.09	11.08	33.754	25.792	223.0	.498	3.67	59.0							151
1	171	10.41	10.39	33.910	26.034	200.3	.543	3.03	48.0	24.3	1.66	21.6	.00			172
1	194	9.38	9.35	33.998	26.277	177.5	.596	2.85	44.2	30.0	1.83	24.7	.00			200
1	200 ISL	9.36	9.34	34.002	26.282	177.1	.597	2.84	43.9							201
1	227	9.11	9.08	34.107	26.402	166.2	.644	2.38	36.7	34.5	2.02	26.8	.00			229
1	250 ISL	8.66	8.63	34.119	26.486	158.4	.681	2.27	34.6							252
1	264	8.38	8.35	34.119	26.530	154.5	.702	2.23	33.8	39.8	2.15	28.7	.01			265
1	300 ISL	7.95	7.92	34.151	26.618	146.5	.757	1.83	27.6							302
1	319	7.78	7.75	34.168	26.658	142.9	.785	1.59	23.8	48.7	2.42	31.9	.00			321
1	389	6.96	6.93	34.208	26.805	129.5	.880	.95	14.0	61.0	2.76	35.9	.00			391
1	400 ISL	6.86	6.82	34.215	26.825	127.8	.894	.87	12.8							403
1	462	6.37	6.32	34.256	26.923	118.0	.971	.55	8.0	71.3	2.98	38.5	.00			465
1	500 ISL	6.08	6.04	34.281	26.980	113.8	1.015	.41	5.9							504
1	535	5.81	5.76	34.308	27.035	108.8	1.058	.31	4.4	82.1	3.11	40.5	.00			542





RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 70 53

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
36°06.8'N	121°52.4'W	07/24/84	1919 GMT	9 m	1212 - 1954 PST	1213 PST	1950 PST	1393.4 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	58.2	87.0	72.6	0.39					1.82	0.10
7	34	70.2	71.6	70.9	0.46					1.36	0.82
8	28	62.3	84.3	73.3	0.53					1.68	0.18
12	15	58.7	60.9	59.8	0.53					1.84	0.18
22	3.5	28.6	29.1	28.9	0.34					2.09	0.35
29	0.75	2.0	2.1	2.1	0.22					1.36	0.55

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 70 93

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
34°47.1'N	124°41.1'W	07/23/84	1944 GMT	31 m	1222 - 1954 PST	1225 PST	1953 PST	254.5 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	0.93	0.99	0.96	0.14	2.1	0.34	0.0	0.00	0.07	0.02
22	34	2.6	2.6	2.6	0.18	2.1	0.34	0.0	0.00	0.08	0.02
26	28	2.7	2.6	2.6	0.20	2.1	0.33	0.0	0.00	0.09	0.03
38	15	2.7	2.7	2.7	0.18	2.1	0.38	0.0	0.00	0.12	0.04
71	3.5	4.4	4.1	4.2	0.16	2.1	0.37	0.0	0.00	0.43	0.25
98	0.75	0.25	0.25	0.25	0.12	2.9	0.49	2.3	0.05	0.10	0.19

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 73 70

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
34°58.6'N	122°39.9'W	07/22/84	1848 GMT	19 m	1215 - 1956 PST	1217 PST	1956 PST	447.2 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	6.2	6.7	6.4	0.17					0.19	0.08
13	34	12.3	13.1	12.7	0.19					0.22	0.08
16	28	12.8	13.8	13.3	0.21					0.24	0.09
23	15	11.2	10.5	10.9	0.20					0.22	0.09
43	3.5	4.8	4.6	4.7	0.17					0.27	0.17
60	0.75	0.71	0.83	0.77	0.13					0.32	0.14

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 77 51

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
35°01.3'N	120°55.1	07/21/84	1933 GMT	11 m	1215 - 1947 PST	1210 PST	1947 PST	622.0 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	18.6	18.1	18.3	0.37					0.41	0.03
8	34	19.3	19.8	19.5	0.48					0.48	0.06
9	28	18.8	19.7	19.3	0.50					0.55	0.11
14	15	25.5	23.8	24.6	0.43					0.92	0.13
25	3.5	19.5	18.3	18.9	0.25					1.80	0.49
35	0.75	1.5	2.0	1.7	0.21					1.09	0.64

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 77 83

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
33°57.7'N	123°08.6'W	07/20/84	1940 GMT	27 m	1218 - 1948 PST	1218 PST	1948 PST	211.5 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	3.3	3.3	3.3	0.13	2.2	0.35	0.0	0.00	0.11	0.02
19	34	2.7	2.7	2.7	0.18	2.2	0.32	0.0	0.00	0.08	0.03
22	28	2.6	2.6	2.6	0.16	2.2	0.32	0.0	0.00	0.08	0.02
33	15	2.6	2.6	2.6	0.19	2.1	0.32	0.0	0.00	0.13	0.03
62	3.5	3.2	2.8	3.0	0.13	2.4	0.36	0.0	0.07	0.42	0.14
84	0.75	0.30	0.32	0.31	0.12	3.2	0.45	1.3	0.10	0.23	0.17

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 80 60

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
34°09.0'N	121°09.0'W	07/17/84	1909 GMT	14 m	1207 - 1948 PST	1210 PST	1945 PST	498.9 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	14.4	15.8	15.1	0.24					0.30	0.05
10	34	13.5	13.5	13.5	0.29					0.31	0.04
12	28	12.4	16.0	14.2	0.29					0.30	0.05
17	15	13.2	13.1	13.1	0.35					0.51	0.14
32	3.5	11.9	11.5	11.7	0.29					1.51	0.34
44	0.75	0.58	0.41	0.49	0.25					0.95	0.38

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 80 70

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
33°49.0'N	121°50.6'W	07/18/84	1913 GMT	20 m	1215 - 1946 PST	1213 PST	1944 PST	519.9 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	11.4	11.3	11.4	0.20					0.19	0.02
14	34	12.5	12.5	12.5	0.24					0.36	0.01
17	28	12.3	9.7	11.0	0.41					0.34	0.03
25	15	12.1	12.4	12.3	0.22					0.52	0.13
46	3.5	5.0	4.3	4.7	0.21					0.44	0.21
63	0.75	0.59	0.87	0.73	0.22					0.10	0.12

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 80 90

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
33°09.0'N	123°13.1'W	07/19/84	2007 GMT	28 m	1225 - 1949 PST	1220 PST	1949 PST	383.4 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	8.6	9.0	8.8	0.14					0.14	0.10
20	34	4.8	4.9	4.8	0.20					0.11	0.11
23	28	4.5	4.5	4.5	0.32					0.16	0.06
35	15	5.7	5.5	5.6	0.22					0.31	0.15
64	3.5	3.2	3.2	3.2	0.21					0.47	0.34
87	0.75	0.56	0.56	0.56	0.13					0.17	0.18

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 83 60

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
33°34.7'N	120°45.3'W	07/15/84	1924 GMT	14 m	1204 - 1946 PST	1209 PST	1940 PST	457.3 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	15.1	14.9	15.0	0.22					0.26	0.04
10	34	14.7	14.5	14.6	0.23					0.27	0.04
12	28	13.3	12.7	13.0	0.23					0.28	0.03
17	15	9.9	9.3	9.6	0.23					0.21	0.07
32	3.5	11.2	10.3	10.8	0.23					0.72	0.10
44	0.75	1.3	1.2	1.2	0.19					1.48	0.57

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 83 100

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
32°14.7'N	123°29.5'W	07/14/84	1908 GMT	38 m	1215 - 1949 PST	1219 PST	1947 PST	297.7 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	3.6	3.2	3.4	0.11					0.08	0.02
26	34	2.9	3.0	2.9	0.12					0.08	0.02
31	28	2.7	2.7	2.7	0.12					0.08	0.02
46	15	2.5	2.3	2.4	0.13					0.10	0.02
86	3.5	3.1	3.0	3.1	0.11					0.35	0.15
119	0.75	0.14	0.13	0.13	0.09					0.10	0.10

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 87 35

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
33°49.4'N	118°37.7'W	07/11/84	1855 GMT	16 m	1155 - 1939 PST	1200 PST	1938 PST	320.4 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	8.0	15.3	11.7	0.17					0.19	0.08
11	34	10.4	11.4	10.9	0.14					0.31	0.05
13	28	6.9	10.3	8.6	0.14					0.27	0.08
20	15	6.8	6.4	6.6	0.17					0.20	0.06
37	3.5	4.1	3.8	3.9	0.17					0.26	0.10
50	0.20	0.97	1.5	1.3	0.14					0.79	0.30

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 87 60

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
32°59.4'N	120°21.0'W	07/12/84	1800 GMT	13 m	1200 - 1946 PST	1208 PST	1944 PST	419.0 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	14.6	12.6	13.6	0.19					0.56	0.00
9	34	16.9	16.7	16.8	0.23					0.50	0.07
11	28	15.6	15.9	15.7	0.24					0.47	0.07
16	15	13.3	14.9	14.1	0.18					0.49	0.12
30	3.5	6.0	6.0	6.0	0.17					0.40	0.12
41	0.75	0.63	0.50	0.56	0.16					0.28	0.18

RV DAVID STARR JORDAN

CALCOFI CRUISE 8407

STATION 87 100

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
31°40.8'N	123°06.7'W	07/13/84	1920 GMT	31 m	1218 - 1945 PST	1218 PST	1945 PST	102.6 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	93	1.4	1.7	1.5	0.14					0.05	0.01
22	34	1.6	1.5	1.5	0.14					0.05	0.01
26	28	1.4	1.5	1.4	0.14					0.05	0.01
38	15	1.2	1.0	1.1	0.18					0.05	0.02
70	3.5	0.84	0.83	0.84	0.11					0.14	0.04
98	0.75	0.37	0.49	0.43	0.08					0.31	0.16

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 90 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
33°21.1'N	118°02.3'W	07/12/84	1911 GMT	14 m	1159 - 1930 PST	1159 PST	1930 PST	180.9 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	4.1	5.9	5.0	0.20	0.9	0.23	0.0	0.00	0.42	0.10
9	38	1.0	0.82	0.92	0.21	1.9	0.33	0.0	0.00	0.48	0.24
11	30	1.7	1.3	1.5	0.19	3.1	0.36	0.0	0.00	0.40	0.24
17	17	9.8	6.6	8.2	0.16	4.7	0.45	0.0	0.00	0.46	0.34
30	4	3.4	3.1	3.3	0.11	6.8	0.66	3.4	0.36	1.00	0.73
50	0.52	1.4	1.6	1.5	0.07	12.8	1.15	13.1	0.05	0.41	0.48

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 90 45

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
32°55.2'N	118°56.2'W	07/11/84	1915 GMT	21 m	1201 - 1934 PST	1201 PST	1934 PST	279.2 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	2.9	3.4	3.2	0.13					0.16	0.06
12	38	1.7	1.1	1.4	0.15					0.18	0.08
15	30	2.9	3.0	2.9	0.16					0.16	0.08
24	17	5.2	4.1	4.7	0.14					0.17	0.11
44	4	6.5	5.2	5.9	0.19					0.56	0.36
72	0.52	1.6	1.6	1.6	0.09					0.47	0.66

RV NEW HORIZON				CALCOFI CRUISE 8407						STATION 90 70	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
32°05.0'N	120°38.1'W	07/10/84	1913 GMT	16 m	1205 - 1930 PST	1207 PST	1937 PST	211.2 mg C/m2			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m3	mgC/m3	mgC/m3	mgC/m3	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	4.9	5.8	5.4	0.19					0.21	0.11
9	38	7.4	7.5	7.5	0.19					0.23	0.11
12	30	4.9	4.0	4.5	0.18					0.22	0.11
17	17	5.5	4.8	5.2	0.20					0.24	0.11
34	4	3.3	2.5	2.9	0.18					0.27	0.14
55	0.52	1.2	0.97	1.1	0.11					0.33	0.19

RV NEW HORIZON				CALCOFI CRUISE 8407						STATION 90 80	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
31°46.1'N	121°21.5'W	07/09/84	1927 GMT	21 m	1210 - 1930 PST	1210 PST	1937 PST	319.8 mg C/m2			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m3	mgC/m3	mgC/m3	mgC/m3	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	1.6	1.3	1.4	0.12					0.15	0.09
12	38	6.2	6.0	6.1	0.17					0.18	0.10
15	30	3.4	3.7	3.6	0.17					0.16	0.12
23	17	7.1	7.0	7.1	0.20					0.18	0.11
44	4	5.5	5.9	5.7	0.23					0.34	0.23
71	0.52	0.44	0.46	0.45	0.10					0.14	0.18

RV NEW HORIZON				CALCOFI CRUISE 8407						STATION 93 30	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
32°09.9'N	117°30.4'W	07/06/84	1904 GMT	26 m	1148 - 1918 PST	1149 PST	1922 PST	316.5 mg C/m2			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m3	mgC/m3	mgC/m3	mgC/m3	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	6.4	7.4	6.9	0.17					0.18	0.09
15	38	4.1	3.8	4.0	0.16					0.16	0.07
20	30	0.93	1.0	0.97	0.18					0.16	0.06
30	17	2.7	3.0	2.8	0.19					0.21	0.10
56	4	5.3	5.2	5.3	0.14					0.91	0.64
91	0.52	0.34	0.27	0.31	0.08					0.12	0.22

RV NEW HORIZON				CALCOFI CRUISE 8407						STATION 93 50	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
32°09.3'N	118°53.5'W	07/07/84	1907 GMT	24 m	1153 - 1916 PST	1155 PST	1928 PST	390.7 mg C/m2			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m3	mgC/m3	mgC/m3	mgC/m3	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	1.6	2.2	1.9	0.16					0.14	0.04
14	38	3.2	2.3	2.8	0.19					0.18	0.09
19	30	2.7	3.0	2.9	0.18					0.19	0.08
28	17	4.2	3.8	4.0	0.22					0.27	0.09
51	4	9.0	9.4	9.2	0.19					1.19	0.37
84	0.52	0.53	0.55	0.54	0.08					0.20	0.26

RV NEW HORIZON				CALCOFI CRUISE 8407						STATION 93 90	
LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
30°52.4'N	121°36.6'W	07/08/84	1840 GMT	26 m	1205 - 1920 PST	1209 PST	1935 PST	217.6 mg C/m2			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m3	mgC/m3	mgC/m3	mgC/m3	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	1.8	1.7	1.7	0.11					0.13	0.04
15	38	2.5	2.4	2.4	0.12					0.13	0.04
20	30	1.9	1.8	1.8	0.11					0.14	0.04
30	17	4.4	2.7	3.6	0.12					0.35	0.06
56	4	3.3	3.4	3.3	0.09					0.52	0.40
91	0.52	0.11	0.11	0.11	0.07					0.09	0.11

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 97 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
32°11.9'N	117°18.5'W	07/13/84	1914 GMT	14 m	1159 - 1926 PST	1159 PST	1927 PST	226.7 mg C/m <sup>2</sup>

DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	7.7	8.9	8.3	0.23	3.4	0.26	0.0	0.00	0.50	0.15
9	38	6.6	6.9	6.7	0.33	3.2	0.25	0.0	0.00	0.49	0.20
11	30	7.3	4.8	6.1	0.45	3.5	0.24	0.0	0.00	0.52	0.18
16	17	5.9	7.0	6.4	0.36	3.4	0.25	0.0	0.00	0.59	0.22
30	4	1.7	2.2	1.9	0.17	3.3	0.37	0.0	0.00	0.54	0.32
49	0.52	3.9	4.3	4.1	0.18	6.8	0.63	3.2	0.24	1.22	1.10

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 97 65

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31°03.3'N	119°36.3'W	07/14/84	1915 GMT	22 m	1204 - 1931 PST	1204 PST	1931 PST	92.5 mg C/m <sup>2</sup>

DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	1.6	1.5	1.5	0.14	1.0	0.32	0.0	0.00	0.09	0.03
13	38	2.2	2.1	2.2	0.18	1.0	0.30	0.0	0.00	0.11	0.03
16	30	2.0	1.9	2.0	0.13	1.0	0.31	0.0	0.00	0.11	0.03
25	17	1.5	0.90	1.2	0.15	1.2	0.33	0.0	0.00	0.13	0.04
46	4	0.73	1.2	0.73	0.12	0.9	0.36	0.1	0.00	0.17	0.08
76	0.52	0.95	1.2	1.1	0.10	4.3	0.70	4.8	0.00	0.16	0.08

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 100 50

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31°01.9'N	118°07.7'W	07/17/84	1908 GMT	28 m	1200 - 1924 PST	1159 PST	1924 PST	92.8 mg C/m <sup>2</sup>

DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	95	0.43	0.36	0.40	0.10					0.09	0.03
19	38	0.63	0.78	0.71	0.14					0.08	0.04
23	30	1.8	1.6	1.7	0.12					0.08	0.04
33	17	1.3	1.1	1.2	0.12					0.10	0.04
61	4	1.5	1.2	1.3	0.09					0.29	0.14
99	0.52	0.19	0.17	0.18	0.06					0.09	0.24

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 100 100

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
29°20.2'N	121°26.4'W	07/15/84	1928 GMT	33 m	1212 - 1932 PST	1212 PST	1932 PST	116.2 mg C/m <sup>2</sup>

DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	1.2	1.1	1.2	0.22					0.06	0.02
20	38	0.30	0.32	0.31	0.20					0.06	0.02
26	30	0.98	1.2	1.1	0.14					0.08	0.02
38	17	0.93	0.80	0.87	0.16					0.07	0.03
68	4	1.6	1.3	1.5	0.14					0.15	0.11
114	0.52	0.62	0.68	0.65	0.07					0.17	0.24

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 103 32

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE
31°02.4'N	116°34.5'W	07/18/84	1930 GMT	12 m	1155 - 1923 PST	1153 PST	1923 PST	79.4 mg C/m <sup>2</sup>

DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SI03	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
0	95	14.0	12.5	13.3	0.47	3.3	0.21	0.0	0.00	0.63	0.21
8	38	1.3	1.7	1.5	0.21	2.0	0.28	0.0	0.00	0.17	0.04
9	30	1.4	1.4	1.4	0.17	2.0	0.29	0.0	0.00	0.14	0.04
14	17	0.37	0.31	0.34	0.17	1.9	0.29	0.0	0.00	0.11	0.04
26	4	0.14	0.14	0.14	0.20	1.2	0.30	0.0	0.00	0.15	0.04
42	0.52	1.4	1.2	1.3	0.15	4.2	0.48	1.7	0.08	0.73	0.54



RV NEW HORIZON CALCOFI CRUISE 8407 STATION 103 70

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
29°46.9'N	119°04.3'W	07/19/84	1904 GMT	29 m	1203 - 1927 PST	1203 PST	1927 PST	92.1 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	S103	P04	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/1	um/1	um/1	um/1	ug/1	ug/1
1	95	1.6	1.4	1.5	0.10					0.09	0.03
19	38	1.5	1.4	1.5	0.12					0.10	0.04
24	30	1.7	1.6	1.7	0.11					0.08	0.04
34	17	0.77	0.67	0.72	0.16					0.07	0.03
63	4	0.53	0.45	0.49	0.13					0.10	0.07
102	0.52	0.86	0.82	0.84	0.08					0.35	0.54

RV NEW HORIZON CALCOFI CRUISE 8407 STATION 104 70

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
29°39.5'N	119°10.1'W	07/25/84	1942 GMT	23 m	1203 - 1920 PST	1203 PST	1920 PST	77.1 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	S103	P04	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/1	um/1	um/1	um/1	ug/1	ug/1
1	95	0.76	0.51	0.64	0.12					0.07	0.03
14	38	1.1	1.4	1.3	0.12					0.07	0.03
18	30	2.0	1.6	1.8	0.13					0.07	0.02
28	17	1.4	1.5	1.4	0.14					0.08	0.04
49	4	0.70	0.54	0.62	0.20					0.11	0.06
80	0.52	0.70	0.70	0.70	0.14					0.22	0.22

RV NEW HORIZON CALCOFI CRUISE 8407 STATION 107 31

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
30°26.9'N	116°04.4'W	07/22/84	1909 GMT	7 m	1151 - 1911 PST	1151 PST	1911 PST	391.3 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	S103	P04	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/1	um/1	um/1	um/1	ug/1	ug/1
1	95	22.8	19.4	21.1	0.57					1.12	0.46
5	38	8.6	8.9	8.8	0.68					1.37	0.50
6	30	26.1	26.8	26.5	0.59					1.33	0.58
9	17	30.3	27.8	29.0	0.48					1.43	0.64
17	4	8.5	9.7	9.1	0.34					1.36	0.76
26	0.52	3.9	3.3	3.6	0.26					1.67	0.86

RV NEW HORIZON CALCOFI CRUISE 8407 STATION 107 60

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
29°31.6'N	118°03.6'W	07/21/84	1913 GMT	32 m	1158 - 1918 PST	1159 PST	1918 PST	93.0 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	S103	P04	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/1	um/1	um/1	um/1	ug/1	ug/1
1	95	0.75	0.42	0.58	0.10					0.10	0.03
21	38	0.90	0.95	0.92	0.08					0.07	0.02
26	30	1.2	1.2	1.2	0.13					0.07	0.03
38	17	1.1	0.91	1.0	0.13					0.07	0.03
68	4	0.98	0.94	0.96	0.08					0.13	0.05
112	0.52	0.41	0.35	0.38	0.12					0.17	0.22

RV NEW HORIZON CALCOFI CRUISE 8407 STATION 107 98

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
28°16.1'N	120°30.1'W	07/20/84	1932 GMT	26 m	1208 - 1921 PST	1208 PST	1921 PST	91.4 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	S103	P04	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/1	um/1	um/1	um/1	ug/1	ug/1
1	95	2.1	1.5	1.8	0.11	2.6	0.22	0.1	0.00	0.09	0.03
16	38	1.1	2.5	1.8	0.13	2.5	0.23	0.1	0.00	0.08	0.03
20	30	1.7	1.4	1.6	0.13	2.5	0.22	0.1	0.00	0.10	0.03
30	17	1.1	0.68	0.91	0.15	2.5	0.22	0.1	0.00	0.10	0.03
56	4	0.74	0.64	0.69	0.14	2.5	0.26	0.1	0.00	0.14	0.04
90	0.52	0.69	0.57	0.63	0.09	3.2	0.33	0.1	0.00	0.26	0.22

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 110 45

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
29°28.2'N	116°40.0'W	07/23/84	1905 GMT	26 m	1153 - 1911 PST	1153 PST	1911 PST	79.1 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	95	0.88	0.74	0.81	0.12					0.10	0.05
16	38	2.1	2.1	2.1	0.14					0.11	0.04
21	30	1.9	1.9	1.9	0.13					0.11	0.04
31	17	0.59	0.59	0.59	0.14					0.09	0.04
57	4	0.55	0.58	0.57	0.13					0.26	0.18
92	0.52	0.57	0.45	0.51	0.08					0.16	0.24

RV NEW HORIZON

CALCOFI CRUISE 8407

STATION 110 80

LATITUDE	LONGITUDE	MO/DAY/YR	MESSENGER	SECCHI DEPTH	INCUBATION TIME	LAN	CIVIL TWILIGHT	INTEGRATED VALUE			
28°17.4'N	118°57.5'W	07/24/84	1900 GMT	23 m	1202 - 1918 PST	1202 PST	1918 PST	174.4 mg C/m <sup>2</sup>			
DEPTH	LIGHT	UPTAKE 1	UPTAKE 2	MEAN	DARK	SIO3	PO4	NO3	NO2	CHL	PHAEO
m	%	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	mgC/m <sup>3</sup>	um/l	um/l	um/l	um/l	ug/l	ug/l
1	95	0.80	0.82	0.81	0.13					0.12	0.05
14	38	2.8	2.4	2.6	0.13					0.12	0.05
18	30	3.2	3.1	3.2	0.14					0.14	0.06
28	17	3.4	2.6	3.0	0.16					0.15	0.10
49	4	2.5	2.7	2.6	0.14					0.45	0.38
80	0.52	0.76	0.51	0.63	0.08					0.13	0.27

## RV DAVID STARR JORDAN

CalCOFI Cruise 8407

MACROZOOPLANKTON BIOMASS  
Net Mesh Size: 0.505 mm

Line	Sta.	Position	Date Mo/Day	Time (GMT)		Water Volume Strained (m <sup>3</sup> )	Max. Tow Depth (m)	Volume per 1000 m <sup>3</sup> Strained	
				Start	End			Total (cm <sup>3</sup> )	Small (cm <sup>3</sup> )
60	50	37 56.6N 122 52.9W	7/28	0540	0544	75	36	591	591
60	52.5	37 51.8N 123 03.8W	7/28	0730	0738	141	71	554	554
60	55	37 46.8N 123 14.7W	7/28	0925	0937	269	105	1554	1554
60	60	37 36.8N 123 36.5W	7/28	1310	1332	428	213	477	477
60	70	37 16.8N 124 19.9W	7/28	1820	1842	404	208	237	237
60	80	36 57.0N 125 03.0W	7/29	0005	0027	400	209	662	662
60	90	36 36.8N 125 46.3W	7/29	0705	0727	410	213	229	229
60	100	36 17.0N 126 29.0W	7/29	1240	1302	410	211	110	110
63	50	37 22.6N 122 28.4W	7/28	0040	0044	63	29	608	608
63	52	37 18.6N 122 37.1W	7/27	2320	2329	156	78	308	308
63	55	37 12.6N 122 50.1W	7/27	2055	2117	388	214	206	206
63	60	37 02.6N 123 11.7W	7/27	1720	1742	395	214	121	121
63	70	36 42.6N 123 54.8W	7/27	1150	1212	391	219	386	386
63	80	36 22.6N 124 37.7W	7/27	0530	0552	399	217	384	384
63	90	36 02.6N 125 20.5W	7/26	2345	0007	415	215	125	125
63	100	35 42.6N 126 03.1W	7/26	1745	1807	410	211	605	605
67	49	36 49.2N 121 59.1W	7/25	0435	0457	381	213	404	404
67	50	36 47.2N 122 03.4W	7/25	0700	0721	372	199	248	248
67	55	36 37.2N 122 24.9W	7/25	1040	1102	410	212	217	217
67	60	36 27.2N 122 46.4W	7/25	1420	1442	395	199	180	180
67	70	36 07.2N 123 29.1W	7/25	1938	2000	388	210	994	994
67	80	35 47.1N 124 11.8W	7/26	0108	0130	364	216	541	541
67	90	35 27.2N 124 54.2W	7/26	0620	0642	373	211	118	118
67	100	35 07.3N 125 36.3W	7/26	1205	1227	402	212	152	152
70	51	36 10.6N 121 44.3W	7/24	2320	2342	395	205	170	170
70	53	36 06.8N 121 52.4W	7/24	2015	2037	410	213	58	58
70	60	35 52.9N 122 21.9W	7/24	1600	1622	370	215	197	197
70	70	35 32.9N 123 04.5W	7/24	0950	1012	390	203	831	831
70	80	35 12.8N 123 46.4W	7/24	0357	0419	398	210	173	173
70	90	34 52.9N 124 29.0W	7/23	2230	2252	409	205	73	73
70	100	34 32.8N 125 10.9W	7/23	1625	1647	386	212	200	200
73	50	35 38.6N 121 15.3W	7/22	0310	0315	74	35	511	511
73	53	35 32.6N 121 28.1W	7/22	0615	0637	408	214	189	189
73	60	35 18.6N 121 57.7W	7/22	1200	1222	400	209	372	372
73	70	34 58.6N 122 39.9W	7/22	1805	1827	400	208	372	350
73	80	34 38.6N 123 21.9W	7/22	2345	0007	396	210	217	217
73	90	34 18.6N 124 03.7W	7/23	0450	0512	398	211	178	178
73	100	33 58.5N 124 45.4W	7/23	1005	1027	406	211	197	197
77	48	35 07.3N 120 42.4W	7/21	2200	2204	59	28	1149	1149
77	51	35 01.3N 120 55.1W	7/21	1945	2006	396	213	141	141
77	55	34 53.5N 121 11.9W	7/21	1555	1617	392	211	151	151
77	60	34 43.3N 121 33.0W	7/21	1100	1122	390	214	208	208
77	70	34 23.4N 122 14.8W	7/21	0425	0447	382	218	304	304
77	80	34 03.1N 122 56.7W	7/20	2203	2225	389	207	573	573
77	90	33 43.3N 123 38.0W	7/20	1545	1607	402	209	553	553
77	100	33 23.1N 124 19.4W	7/20	0945	1007	402	214	922	922
80	51	34 27.0N 120 31.4W	7/17	0428	0437	139	66	317	317
80	55	34 19.0N 120 48.1W	7/17	0740	0802	379	210	203	203
80	60	34 09.1N 121 08.9W	7/17	1205	1227	386	210	158	158
"	"	"	7/17	1230	1251	387	191	168	168
80	60	34 09.1N 121 08.9W	7/17	1325	1346	393	191	254	254
"	"	"	7/17	1940	2001	393	195	168	168
"	"	"	7/17	2015	2036	380	204	124	124
"	"	"	7/17	2045	2106	383	204	131	131

## RV DAVID STARR JORDAN

CalCOFI Cruise 8407

## MACROZOOPLANKTON BIOMASS

Net Mesh Size: 0.505 mm

Line	Sta.	Position		Date Mo/Day	Time (GMT)		Water Volume Strained (m <sup>3</sup> )	Max. Tow Depth (m)	Volume per 1000 m <sup>3</sup> Strained	
					Start	End			Total (cm <sup>3</sup> )	Small (cm <sup>3</sup> )
"	"	"	"	7/18	0200	0221	381	189	147	147
"	"	"	"	7/18	0230	0251	408	184	147	147
"	"	"	"	7/18	0305	0326	377	191	212	212
"	"	"	"	7/18	0655	0717	397	209	297	297
"	"	"	"	7/18	0725	0747	391	216	322	322
"	"	"	"	7/18	0750	0811	379	198	343	343
80	70	33 49.0N	121 50.6W	7/18	1230	1252	416	208	209	209
"	"	"	"	7/18	1300	1321	392	205	270	270
"	"	"	"	7/18	1330	1352	397	195	224	224
"	"	"	"	7/18	1945	2006	390	212	308	308
"	"	"	"	7/18	2015	2036	394	205	140	140
"	"	"	"	7/18	2050	2111	399	207	190	190
"	"	"	"	7/19	0205	0226	403	198	253	253
"	"	"	"	7/19	0234	0255	397	198	222	222
"	"	"	"	7/19	0308	0330	371	219	361	361
"	"	"	"	7/19	0715	0737	375	216	995	995
"	"	"	"	7/19	0750	0811	381	208	357	357
"	"	"	"	7/19	0820	0841	382	207	401	401
80	80	33 29.0N	122 32.0W	7/19	1535	1557	375	214	365	365
80	90	33 09.0N	123 13.1W	7/19	2214	2236	381	209	315	315
80	100	32 49.0N	123 54.5W	7/20	0418	0440	412	209	534	534
82	46	34 16.2N	119 56.3W	7/16	0630	0652	366	214	150	150
83	40.6	34 13.5N	119 24.7W	7/16	1450	1454	62	28	373	373
83	42	34 10.7N	119 30.6W	7/16	1310	1325	256	141	141	141
83	51	33 52.7N	120 08.0W	7/16	0140	0151	184	92	104	104
83	55	33 44.6N	120 24.7W	7/15	2237	2259	398	209	148	148
83	60	33 34.7N	120 45.3W	7/15	1840	1901	402	215	144	144
83	70	33 15.0N	121 26.8W	7/15	1320	1342	398	210	191	171
83	80	32 54.7N	122 07.7W	7/15	0700	0722	410	205	363	334
83	90	32 34.7N	122 48.7W	7/15	0145	0207	398	211	184	184
83	100	32 14.7N	123 29.5W	7/14	0215	0237	410	214	139	139
"	"	"	"	7/14	0300	0321	420	226	188	188
"	"	"	"	7/14	0335	0357	403	195	228	228
"	"	"	"	7/14	0725	0747	414	196	176	176
"	"	"	"	7/14	0755	0817	379	198	193	193
"	"	"	"	7/14	0820	0842	399	198	273	273
"	"	"	"	7/14	1200	1222	403	205	134	134
"	"	"	"	7/14	1230	1252	411	201	148	148
"	"	"	"	7/14	1300	1321	405	198	84	84
"	"	"	"	7/14	1935	1956	399	191	115	95
"	"	"	"	7/14	2007	2028	396	198	154	154
"	"	"	"	7/14	2035	2056	399	204	145	145
87	33	33 53.4N	118 29.8W	7/11	1555	1600	92	42	523	523
87	35	33 49.4N	118 37.7W	7/11	1935	1958	398	213	48	48
87	40	33 39.6N	118 58.3W	7/12	0055	0117	383	212	39	39
87	45	33 29.4N	119 19.1W	7/12	0445	0507	397	214	136	136
87	50	33 19.6N	119 39.7W	7/12	0830	0836	104	51	328	328
87	55	33 09.5N	120 00.5W	7/12	1325	1347	420	210	253	253
87	60	32 59.4N	120 21.0W	7/12	1715	1737	377	217	167	167
87	70	32 39.4N	121 01.7W	7/12	2340	0002	417	217	175	175
87	80	32 19.4N	121 42.9W	7/13	0538	0600	397	216	345	345
87	90	31 59.5N	122 23.3W	7/13	1240	1302	407	211	39	39
87	100	31 39.4N	123 04.2W	7/13	1830	1852	417	215	53	53

## RV NEW HORIZON

CalCOFI Cruise 8407

## MACROZOOPLANKTON BIOMASS

Net Mesh Size: 0.505 mm

Line	Sta.	Position	Date Mo/Day	Time (GMT)		Water Volume Strained (m <sup>3</sup> )	Max. Tow Depth (m)	Volume per 1000 m <sup>3</sup> Strained	
				Start	End			Total (cm <sup>3</sup> )	Small (cm <sup>3</sup> )
90	28	33 28.7N 117 46.9W	7/12	2250	2312	404	214	37	37
90	30	33 25.1N 117 55.2W	7/12	2100	2122	393	211	51	51
90	35	33 14.9N 118 14.8W	7/12	1705	1727	416	204	53	53
90	37	33 10.8N 118 24.6W	7/12	1255	1317	395	201	56	56
90	45	32 55.8N 118 55.9W	7/11	1420	1442	416	161	41	41
"	"	32 56.3N 118 57.1W	7/11	1450	1512	410	202	39	39
"	"	32 56.3N 118 57.1W	7/11	1525	1547	415	185	51	51
"	"	32 55.5N 118 57.1W	7/11	2000	2021	410	160	56	56
"	"	32 55.5N 118 57.6W	7/11	2030	2053	395	184	56	56
"	"	32 55.3N 118 58.3W	7/11	2100	2122	408	194	49	49
"	"	32 54.2N 118 57.1W	7/12	0200	0222	412	205	61	61
"	"	32 54.2N 118 57.7W	7/12	0225	0246	414	179	53	53
"	"	32 54.1N 118 58.5W	7/12	0255	0317	395	159	84	84
"	"	32 55.1N 118 56.3W	7/12	0705	0727	414	176	138	138
"	"	32 55.0N 118 57.0W	7/12	0730	0752	391	201	125	125
"	"	32 55.0N 118 58.0W	7/12	0800	0822	402	183	147	147
90	53	32 38.9N 119 29.6W	7/11	0655	0717	432	203	100	100
90	60	32 26.0N 119 58.7W	7/11	0225	0247	443	200	52	52
90	70	32 06.9N 120 40.0W	7/10	0205	0227	426	205	237	237
"	"	32 07.4N 120 40.4W	7/10	0230	0251	443	155	153	153
"	"	32 07.9N 120 40.9W	7/10	0300	0321	437	163	748	748
"	"	32 04.5N 120 38.3W	7/10	0715	0737	423	216	291	291
"	"	32 04.6N 120 39.1W	7/10	0745	0807	417	207	211	211
"	"	32 04.7N 120 39.7W	7/10	0825	0847	422	198	735	735
"	"	32 07.0N 120 42.4W	7/10	1430	1452	518	141	266	266
"	"	32 07.3N 120 42.8W	7/10	1500	1522	490	148	71	71
"	"	32 08.2N 120 43.5W	7/10	1535	1557	445	140	198	198
"	"	32 05.8N 120 38.3W	7/10	2005	2027	423	197	151	151
"	"	32 06.4N 120 38.7W	7/10	2035	2057	421	205	135	135
"	"	32 07.2N 120 39.1W	7/10	2100	2122	423	187	293	293
90	80	31 45.6N 121 19.9W	7/9	1815	1837	426	214	155	155
90	90	31 25.4N 122 01.1W	7/9	1130	1152	429	213	278	278
93	26.7	32 57.4N 117 18.8W	7/5	2210	2217	116	57	163	163
93	29	32 51.3N 117 29.2W	7/6	0055	0117	427	207	28	28
93	30	32 50.4N 117 32.0W	7/6	0706	0728	386	212	62	62
"	"	32 50.3N 117 32.5W	7/6	0734	0756	399	212	70	70
"	"	32 50.4N 117 33.4W	7/6	0805	0826	403	180	65	65
"	"	32 50.9W 117 32.2W	7/6	1410	1431	418	159	24	24
"	"	32 50.8N 117 33.9W	7/6	1445	1506	427	163	23	23
"	"	32 50.9N 117 34.6W	7/6	1520	1541	407	181	15	15
"	"	32 50.7N 117 29.5W	7/6	2005	2026	418	174	29	29
"	"	32 50.2W 117 29.9W	7/6	2030	2051	414	175	22	22
"	"	32 50.0N 117 30.1W	7/6	2100	2121	428	208	26	26
"	"	32 50.0N 117 30.8W	7/7	0200	0221	454	150	22	22
"	"	32 49.6N 117 31.7W	7/7	0230	0252	456	172	26	26
"	"	32 49.5N 117 32.6W	7/7	0300	0322	463	141	43	43
93	35	32 39.9N 117 52.8W	7/7	0610	0632	412	202	121	121
93	40	32 30.8N 118 12.4W	7/7	1005	1027	402	195	117	117
93	45	32 21.2N 118 35.1W	7/7	1420	1442	450	183	22	22
93	50	32 10.2N 118 53.1W	7/7	1820	1842	439	207	34	34



## RV NEW HORIZON

CalCOFI Cruise 8407

## MACROZOOPLANKTON BIOMASS

Net Mesh Size: 0.505 mm

Line	Sta.	Position	Date Mo/Day	Time (GMT)		Water Volume Strained (m <sup>3</sup> )	Max. Tow Depth (m)	Volume per 1000 m <sup>3</sup> Strained	
				Start	End			Total (cm <sup>3</sup> )	Small (cm <sup>3</sup> )
93	55	32 00.8N 119 15.0W	7/7	2200	2222	418	210	34	34
93	60	31 50.3N 119 35.2W	7/8	0105	0127	408	214	49	49
93	70	31 30.5N 120 15.0W	7/8	0625	0647	402	211	196	196
93	80	31 10.8N 120 56.0W	7/8	1135	1157	410	212	210	188
93	90	30 51.2N 121 36.0W	7/8	1730	1752	409	214	176	176
93	100	30 30.4N 122 16.1W	7/8	2330	2352	400	215	670	670
97	29	32 17.2N 117 04.9W	7/13	1445	1451	102	43	246	246
97	30	32 15.7N 117 09.8W	7/13	1625	1631	108	52	84	84
97	32	32 11.6N 117 17.4W	7/13	1815	1837	432	210	42	42
97	35	32 05.3N 117 29.4W	7/13	2120	2142	423	207	43	43
97	40	31 55.7N 117 50.6W	7/14	0055	0117	424	213	38	38
97	45	31 45.3N 118 10.1W	7/14	0420	0442	431	207	74	74
97	50	31 35.5N 118 30.8W	7/14	0745	0807	417	205	154	154
97	55	31 25.0N 118 50.8W	7/14	1125	1147	408	211	61	61
97	60	31 15.6N 119 11.8W	7/14	1535	1557	418	205	110	110
97	70	30 55.8N 119 50.9W	7/14	2145	2207	401	209	272	239
97	80	30 35.4N 120 31.7W	7/15	0315	0337	404	215	1023	726
97	90	30 15.6N 121 11.2W	7/15	0840	0902	402	202	615	615
97	100	29 55.0N 121 50.5W	7/15	1450	1512	416	209	17	17
100	29.2	31 42.6N 116 44.2W	7/18	1105	1119	272	127	77	77
100	30	31 40.9N 116 46.1W	7/18	0905	0927	441	198	154	154
100	35	31 31.0N 117 06.2W	7/18	0540	0602	409	209	95	95
100	40	31 21.4N 117 26.7W	7/18	0200	0222	443	201	56	56
100	45	31 11.2N 117 47.1W	7/17	2240	2302	401	214	60	60
100	50	31 02.1N 118 07.9W	7/17	1915	1937	401	211	110	110
100	55	30 51.1N 118 27.3W	7/16	2115	2137	399	214	110	110
100	60	30 41.5N 118 47.4W	7/16	1745	1807	394	209	223	223
100	70	30 21.7N 119 27.5W	7/16	1225	1247	420	207	43	43
100	80	30 01.5N 120 07.8W	7/16	0710	0732	403	208	82	82
100	90	29 41.5N 120 47.7W	7/16	0155	0217	422	211	24	24
100	100	29 20.5N 121 27.1W	7/15	2030	2052	430	207	21	21
103	29	31 08.5N 116 22.6W	7/18	1545	1549	60	29	400	400
103	30	31 07.7N 116 24.1W	7/18	1735	1741	97	50	227	227
103	35	30 57.3N 116 44.9W	7/18	2135	2157	417	210	29	29
103	40	30 46.6N 117 05.3W	7/19	0045	0107	386	215	23	23
103	45	30 36.4N 117 25.2W	7/19	0400	0422	404	213	62	62
103	50	30 26.7N 117 45.2W	7/19	0715	0737	389	210	285	285
103	55	30 16.6N 118 05.0W	7/19	1035	1057	418	210	38	38
103	60	30 07.7N 118 26.6W	7/19	1435	1457	396	211	56	56
103	70	29 46.5N 119 04.2W	7/19	2005	2027	436	203	30	30
103	80	29 26.7N 119 44.9W	7/20	0115	0137	430	204	23	23
103	90	29 06.8N 120 23.8W	7/20	0635	0657	428	202	58	58
103	100	28 47.2N 121 03.9W	7/20	1145	1207	423	205	40	40
107	31	30 27.4N 116 04.7W	7/22	1835	1837	38	15	185	185
107	32	30 26.7N 116 09.6W	7/22	1640	1656	311	145	135	135
107	35	30 21.8N 116 20.9W	7/22	1405	1427	402	202	27	27
107	40	30 10.5N 116 42.1W	7/22	1020	1042	443	200	86	86
107	45	30 01.2N 117 01.5W	7/22	0630	0652	418	209	76	76
107	50	29 50.9N 117 21.6W	7/22	0205	0227	393	207	79	79
107	55	29 41.8N 117 41.5W	7/22	2220	2242	410	211	17	17

## RV NEW HORIZON

CalCOFI Cruise 8407

## MACROZOOPLANKTON BIOMASS

Net Mesh Size: 0.505 mm

Line	Sta.	Position		Date Mo/Day	Time (GMT)		Water Volume Strained (m <sup>3</sup> )	Max. Tow Depth (m)	Volume per	
					Start	End			1000 m <sup>3</sup> Strained Total (cm <sup>3</sup> )	Small (cm <sup>3</sup> )
107	60	29 31.7N	118 02.1W	7/21	1725	1747	417	212	43	43
107	70	29 10.8N	118 41.6W	7/21	1040	1102	412	215	39	39
107	80	28 50.1N	119 20.9W	7/21	0500	0522	434	206	37	37
107	90	28 31.7N	120 00.2W	7/20	2325	2347	420	213	17	17
107	100	28 11.0N	120 38.8W	7/20	1735	1757	433	210	25	25
110	32.4	29 52.3N	115 49.6W	7/22	2255	2300	87	36	2125	2125
110	35	29 47.1N	115 59.7W	7/23	0140	0201	383	219	65	65
110	40	29 37.6N	116 20.7W	7/23	1435	1457	437	198	18	18
110	45	29 27.4N	116 38.8W	7/23	1815	1837	420	209	43	43
110	50	29 17.3N	116 59.8W	7/23	2155	2217	405	208	49	49
110	55	29 06.3N	117 19.3W	7/24	0305	0327	413	215	85	85
110	60	28 56.9N	117 38.9W	7/24	0715	0737	405	215	52	52
110	65	28 47.3N	117 58.6W	7/24	1045	1107	400	215	60	60
110	70	28 37.6N	118 18.2W	7/24	1420	1442	422	202	33	33
110	80	28 17.4N	118 59.0W	7/24	2005	2027	398	215	45	45
110	90	27 56.9N	119 37.2W	7/25	0045	0107	420	196	24	24
110	100	27 38.0N	120 17.2W	7/25	0610	0632	418	213	50	50

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