OCEANOGRAPHICAL OBSERVATIONS
IN THE PACIFIC OCEAN IN 1960
H.M.A.S. *GASCOYNE*
Cruises G 1/60 and G 2/60

OCEANOGRAPHICAL CRUISE REPORT NO. 5

DIVISION OF FISHERIES AND OCEANOGRAPHY
COMMONWEALTH SCIENTIFIC AND INDUSTRIAL
RESEARCH ORGANIZATION, AUSTRALIA 1962

OCEANOGRAPHICAL CRUISE REPORT

No. 5

OCEANOGRAPHICAL OBSERVATIONS IN THE PACIFIC OCEAN IN 1960

H.M.A.S. GASCOYNE

Cruises G 1/60, G 2/60

COMMONWEALTH SCIENTIFIC AND INDUSTRIAL RESEARCH

ORGANIZATION, AUSTRALIA

MELBOURNE, 1962

CONTENTS

When citing this report, abbreviate as follows
C.S.I.R.O. Aust. Oceanogr. Cruise Rep. No. 5

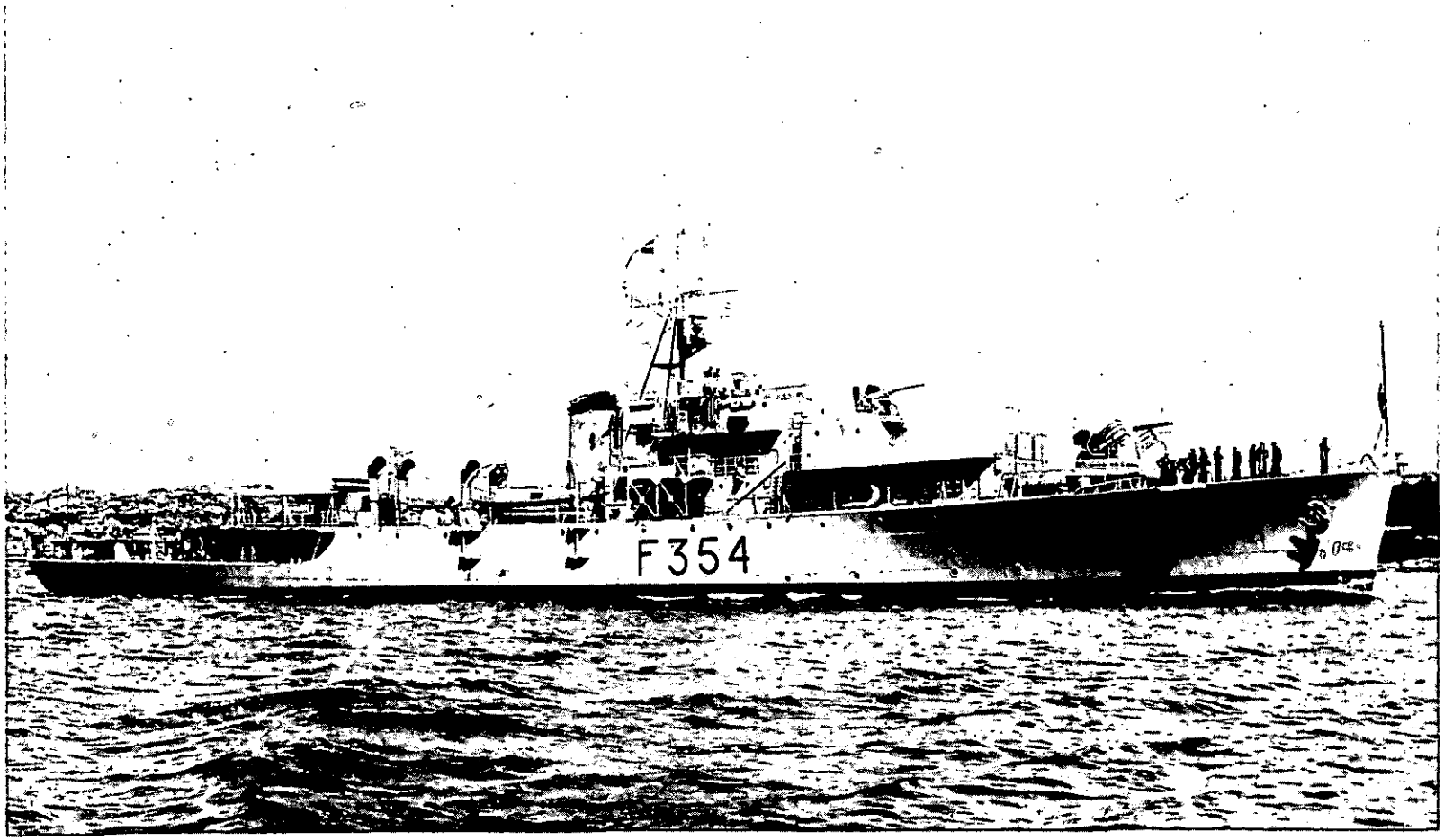

Fig. 1. H.M.A.S. Gascoyne

OCEANOGRAPHICAL CRUISE REPORT

No. 5

Oceanographical Observations in the Pacific Ocean in 1960

H.M.A.S. GASCOYNE

Cruises G 1/60, G 2/60

I. INTRODUCTION

In this volume data are recorded from the first two cruises in 1960 of H.M.A.S. Gascoyne, Royal Australian Navy frigate, which undertakes oceanographical cruises in the Pacific Ocean.

II. SHIP AND OCEANOGRAPHIC EQUIPMENT

Gascoyne is equipped with a standard Admiralty type 765 echosounder with a depth range of 300 fathoms; greater depths are chronographed with Asdic equipment.

The oceanographic equipment of the ship includes a 25 h.p. electric oceanographic winch stowing 10,000 m of 4 mm diam. wire sited on fo'c'sle deck above the laboratory, and commanding a bipod davit with manual retraction stepped on the deck below. Equipment is handled from chains on deck at laboratory level. A bathythermograph winch (with foot-brake) for biological sampling, is sited abreast the mainmast, on the starboard side of the fo'c'sle deck. The coring derrick is stepped on the quarter deck and is used from a position adjacent to the laboratory with fall lead from steam winch. Zooplankton samplers are towed from a steam winch and a radial davit at the stern. The ship has a laboratory of 378 sq. ft on the quarterdeck. This is divided into two sections, one forward for hydrology, zooplankton, and phytoplankton and one aft for physics, productivity and biochemistry. There is accommodation aboard for six scientists. Figure 1 (frontispiece) shows the ship.

III. METHODS OF COLLECTION AND ANALYSIS OF SAMPLES

1. Physics

See C.S.I.R.O. Aust. (1962 a)

2. Chemistry

See C.S.I.R.O. Aust. (1962 a)

3. Primary Production

See C.S.I.R.O. Aust. (1962 a)

4. Pigments

See C.S.I.R.O. Aust. (1962 a)

5. Phytoplankton

See C.S.I.R.O. Aust. (1962 b)

For Cruise G 2/60 the methods used for quantitative examination of phytoplankton were the same as those described for Cruise Dm 1/60 (C.S.I.R.O. Aust. 1962 b).

On both G 1/60 and G 2/60 the modified Hardy Indicator was towed as usual, the collections were examined and the organisms are listed in Tables 6 and 7 with the station number and an (H).

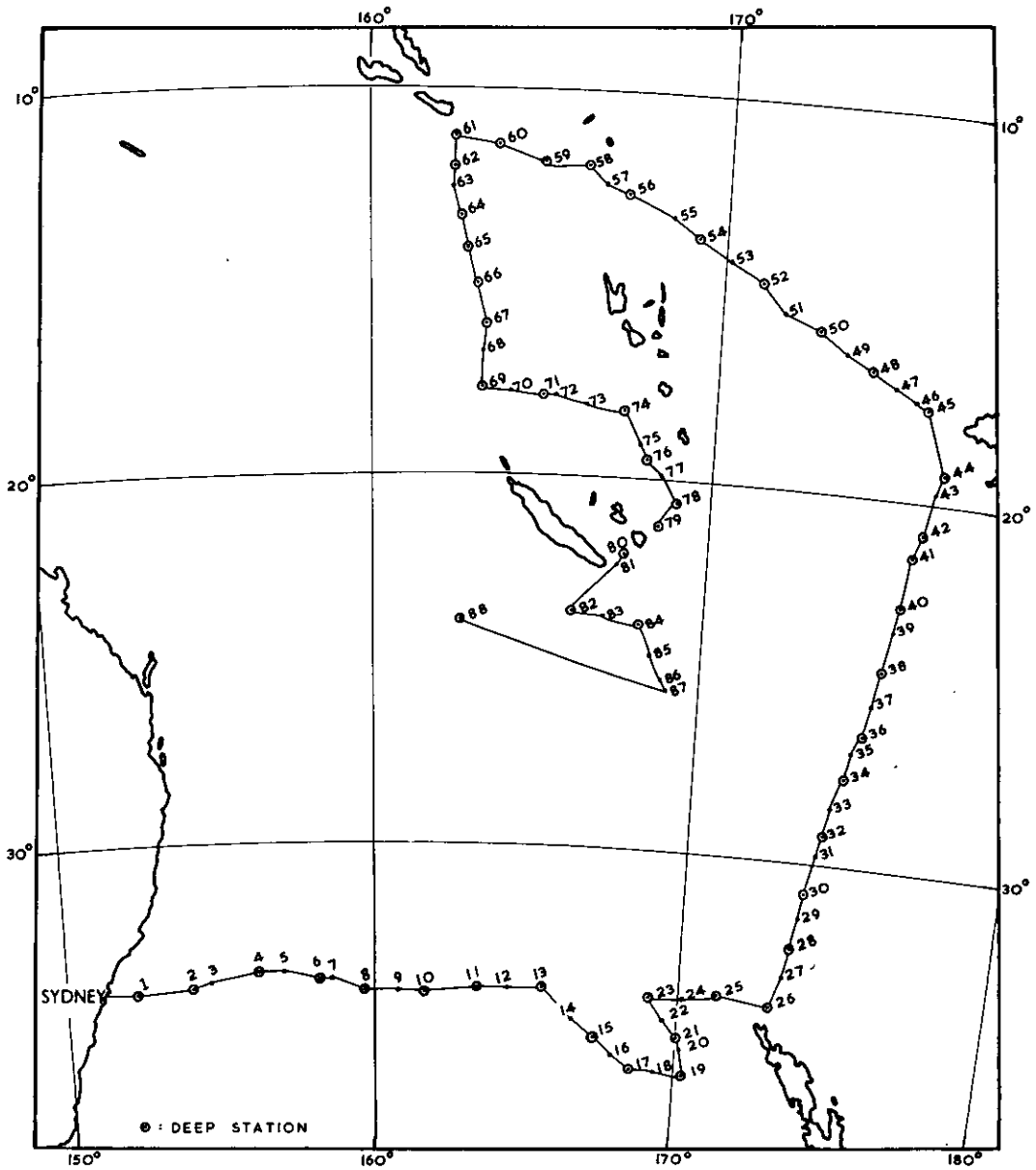

Fig. 2. Track Chart of Cruise G 1/60

On Cruise G 2/60 quantitative samples taken at depths to 100 m were also examined on board the ship for species of diatoms and dinoflagellates; these are listed with the station number followed by the depth (0 - 150 m) in brackets. On occasions when the number of species was great, the centrifugates from all hauls taken at a station were stored together and returned to Cronulla for further examination; the species from this mixed centrifugate are indicated by (M). At Stations G 2/191/60 and G 2/192/60 a high speed sampler was tested; species of diatoms taken by this sampler are indicated by (HS) in Table 6.

6. Zooplankton

On these cruises methods used were as previously described C.S.I.R.O. Aust. (1962 a). The average volume filtered for each tow was 16 m^3.

IV CRUISES G 1/60 and G 2/60

Objectives

Cruises G 1/60 and G 2/60 were planned to study the surface and deep circulation in the area bounded by Eastern Australia, northern New Zealand, Fiji, Solomon Is., and New Guinea. Positions of stations and sections were fixed to give good coverage particularly in the neighbourhood of sills of various entrances which influence deep circulation.

Itinerary

On Cruise G 1/60, 88 stations were occupied (Fig. 2). The cruise commenced at Sydney on February 2, occupied 26 stations across the Tasman Sea to the north of New Zealand, and a series of 19 stations to Fiji, then north-west to Solomon Is., then south-east and south to Noumea, and concluded in Sydney on March 8. Bathythermograph casts were made at 82 stations. Primary production, pigment, and zooplankton samples were taken at 21 stations, quantitative phytoplankton samples at 33 stations and qualitative samples at 68 stations. Surface hydrology samples were taken at 80 stations and, at 50 of these deep casts were also made (Table 1).

TABLE 1

WORK DONE AT EACH STATION

Station Number	Hydrology BT	Surface	Deep	Primary Production	Pig-ments	Phytoplankton Qual.	Quant.	Zoo-plankton
1	+	+	+			+	+	
2	+	+	+			+		
3	+	+		+	+		+	+
4	+	+	+			+	+	
5	+	+						
6	+	+	+			+		
7	+	+		+	+	+	+	+
8	+	+	+			+	+	
9	+	+				+		
10	+	+	+			+		
11	+	+	+	+	+	+	+	+
12	+	+				+	+	
13	+	+	+			+	+	
14	+	+						
15	+	+	+	+	+	+	+	+
16	+	+				+	+	
17	+	+	+			+	+	
18	+	+				+		
19	+	+	+			+		
20	+	+						
21	+	+	+	+	+	+	+	+
22	+	+				+	+	
23	+	+	+			+	+	
24	+	+				+		
25	+	+	+					
26	+	+	+	+	+	+	+	+
27	+	+				+	+	
28	+	+	+			+	+	
29	+	+				+		
30	+	+	+			+		
31	+	+		+	+	+	+	+
32	+	+	+			+	+	
33	+	+				+		
34	+	+	+			+		
35	+	+						

Station Number	Hydrology BT	Surface	Deep	Primary Production	Pig-ments	Phytoplankton Qual.	Quant.	Zoo-plankton
36	+	+	+	+	+	+	+	+
37	+	+				+		
38	+	+	+			+		
39	+	+						
40	+	+	+	+	+	+		+
41		+	+			+		
42	+	+	+			+		
43	+	+						
44	+	+	+	+	+	+		+
45	+	+	+					
46	+			+	+	+		+
47	+	+				+		
48	+	+	+			+		
49	+	+				+		
50	+	+	+			+		
51	+			+	+	+		+
52	+	+	+			+		
53	+	+						
54	+	+	+					
55	+	+		+	+	+		+
56	+	+	+			+		
57	+	+						
58	+	+	+			+		
59	+	+	+	+	+	+		+
60	+	+	+			+		
61	+	+	+			+		
62	+		+			+		
63		+		+	+			+
64		+	+			+	+	
65	+	+	+			+		
66	+		+			+		
67	+	+	+	+	+	+	+	+
68	+	+					+	
69	+	+	+			+	+	
70	+	+						
71	+	+	+			+		
72				+	+	+	+	+
73	+	+				+	+	
74	+	+	+			+	+	
75	+	+						

Station Number	BT	Hydrology Surface	Deep	Primary Production	Pig- ments	Phytoplankton Qual.	Quant.	Zoo- plankton
76	+	+	+			+		
77				+	+		+	+
78	+	+	+			+	+	
79	+	+	+			+		
80	+	+	+			+		
81				+	+		+	+
82	+	+	+			+		
83	+	+						
84	+	+	+	+	+	+	+	+
85	+	+				+	+	
86	+	+				+		
87	+	+						
88	+	+	+	+	+	+	+	+

On Cruise G 2/60 112 stations were occupied (Fig. 3). The cruise commenced at Sydney on March 17, worked a series of stations across the Tasman Sea along the 30°S parallel, worked north and north-east to Port Moresby thence to Manus I., Kavieng and Rabaul and returned across the Coral Sea to Cairns; the cruise concluded in Sydney on April 25. Bathythermograph casts were made at 190 stations. Primary production and pigment samples were taken at 37 stations, zooplankton samples at 18 stations, quantitative phytoplankton samples at 56 stations and qualitative at 14 stations. Surface hydrology samples were taken at 39 stations and deep casts were made at 47 stations. Transparency measurements were made at 27 stations and submarine daylight measurements at 8 stations (Table 2). Bottom cores were taken at 10 stations by an officer from the Bureau of Mineral Resources.

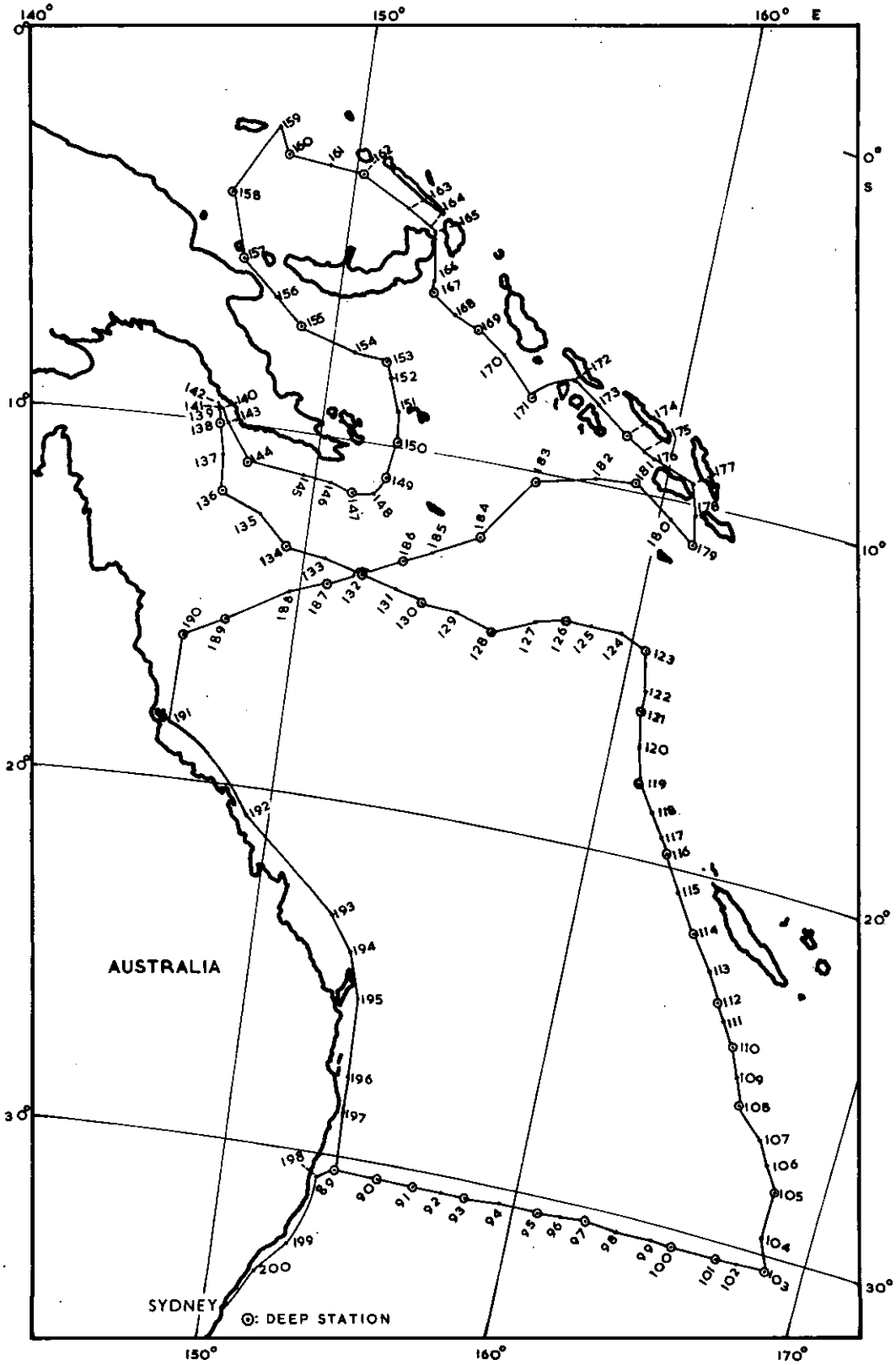

Fig. 3. Track Chart of Cruise G 2/60

TABLE 2

WORK DONE AT EACH STATION

Station Number	Hydrology BT	Surface	Deep	Tr	SD	PP	Pigments	Phyto. 1	2	Z	Cores
89	+		+					+	+		
90	+		+						+		
91	+		+			+	+	+	+	+	
92	+										
93	+		+					+	+		
94	+	+						+			
95	+		+		+	+	+		+	+	+
96	+	+						+			
97	+		+					+			
98	+	+						+			
99		+						+			
100	+		+			++	+	+	+	+	
101	+		+						+		
102	+	+									
103	+		+						+		
104	+				+	+	+		+	+	+
105	+		+			++	+	+	+		
106	+	+									
107											+
108	+		+			+	+			+	
109	+	+							+		

BT	Bathythermograph
Tr	Transparency measurement
SD	Submarine daylight measurement
PP	Primary Production
Phyto. 1	Modified Hardy Indicator for qualitative phytoplankton sampling
Phyto. 2	Quantitative phytoplankton sampling
Z	Zooplankton with Clarke-Bumpus sampler
Cores	Bottom cores
++	More than one sample taken (see p.164)

Station Number	Hydrology BT	Surface	Deep	Tr	SD	PP	Pigments	Phyto. 1	2	Z	Cores
110	+		+						+		
111	+	+									
112	+		+						+		
113	+					++	+		+	+	
114	+		+			+	+		+		
115	+	+									
116	+		+								
117	+					+	+		+	+	
118	+	+									
119	+		+				+		+		
120	+	+									
121	+		+						+		
122	+					+	+		+		
123	+		+			+	+		+		
124	+	+									+ !
125	+	+									
126	+		+			+	+		+		
127	+										
128	+		+			+	+		+		
129	+										
130	+		+						+		
131						+	+		+	+	
132	+		+			+	+		+		
133	+	+									
134	+		+			+	+		+		
135	+										
136	+		+			+	+		+		
137	+										
138			+						+		
139					+	+	+				
140										+	+
141											+
142											+
143	+										
144	+		+	+				+	+		
145		+						+			
146		+									
147	+		+	+		+	+		+	+	
148	+	+									

Station Number	Hydrology BT	Surface	Deep	Tr	SD	PP	Pigments	Phyto. 1	2	Z	Cores
149	+		+	+		+	+		+		+
150	+		+	+					+		
151	+	+									
152	+				+	+	+		+	+	
153	+		+	+		+	++				
154	+	+							+		
155	+		+	+		+	+		+	+	
156	+	+									
157	+		+	+		+	+		+	+	
158			+	+		+	+				
159	+										
160	+		+	+		+	+		+		
161	+										
162	+		+	+					+		
163	+	+									
164	+	+									+
165	+	+		+		+	+		+		
166	+										
167	+		+	+					+		
168	+										
169	++		+	+		++	++		+		
170	+										
171	+		+	+	+	+	+		+	+	
172	+	+									
173	+	+									
174	+		+	+				+	+		
175	+	+			+	+	+			+	
176											+
177	+	+									
178	+	+									
179	+		+	+				+	+		
180	+			+	+	+	++		+	+	
181	+		+	+		+	+		+		
182	+	+									
183	+		+	+		+	+	+	+	+	
184	+		+	+					+		
185	+			+		+	+		+		
186	+		+	+					+		
187	+		+	+					+		

Station Number	Hydrology BT	Surface	Deep	Tr	SD	PP	Pigments	Phyto. 1	2	Z	Cores
188	+			+	+	+	+		+		
189	+		+	+					+		
190	+		+	+					+		
191		+									
192		+									
193		+									
194		+									
195		+									
196		+									
197		+									
198		+									
199		+									
200		+									

Scientific Personnel
Cruise G 1/60

B. Hamon (Cruise Leader)
R. Desrosieres (Institut Francais d'Oceanie, Noumea)
C. Middleton
W. Prothero
D. Rochford (2/2/60 - 13/2/60)
J. Staniforth

The analyses of hydrological samples were done in the ship's laboratory by Messrs Prothero and Staniforth. Phytoplankton samples were taken and counted aboard by Mr C.Middleton who was also responsible for the collection of primary production, pigment and zooplankton samples. At Cronulla, counts of primary production samples were made by Mr B. Scott, analyses of pigment samples by Mr M. Wootton, and zooplankton samples were weighed by Mr D.J. Tranter.

Scientific Personnel
Cruise G 2/60

K. Wyrtki (Cruise Leader)
R. Bastion (Bureau of Mineral Resources)
N. Dyson
G. Janovsky
J. Staniforth
E.J.F. Wood

The analyses of hydrological samples were done in the ship's laboratory by Messrs Janovsky and Staniforth. Phytoplankton samples were taken and counted aboard by Mr E.J.F. Wood. The primary production and pigment samples were taken and filtered aboard by Mr N. Dyson, at Cronulla, the primary production counts were made by Mr B.D. Scott and the analyses of pigment samples by Mr M. Wootton. The measurements of transparency and submarine daylight were made by Dr K. Wyrtki. The zooplankton samples were weighed at Cronulla by Mr D.J. Tranter. The bottom cores were taken with a 3 m core by Mr R. Bastion.

The data for both cruises were processed under the direction of Mr A.D. Crooks by Misses L. Lalor and F. Luce and Mrs E. Wood. The plots were prepared for publication by Mr R. Breach and Mrs B. Walters, and the master sheets were typed by Mrs D. Schmitzer.

V. DATA SHEETS AND TABLES

The data for Cruise G 1/60 are arranged in six parts. Part 1 for deep hydrology stations, Part 2 for temperature and salinity of surface samples, Part 3 for primary production, Part 4 for pigments, Part 5 for qualitative phytoplankton and Part 6 for zooplankton.

The data for Cruise G 2/60 are arranged in six parts. Part 1 for deep hydrology stations, Part 2 for primary production, Part 3 for pigments, Part 4 for quantitative and qualitative phytoplankton, Part 5 for zooplankton, and Part 6 for bottom cores.

Explanation of Headings on Data Sheets

The following notes are supplied to help explain the headings used on the data sheets. The short vertical lines below some of the column headings indicate the positions of decimal points.

Part 1 Hydrology - Deep Stations

Part 2 Hydrology - Surface Sampling

SHIP All cruises aboard Gascoyne are designated by the letter G or the figures 20.

CRUISE The letter G is followed by the number of the cruise and the year. Cruise numbers are allotted each year beginning with 1 for the first cruise.

STATION Stations are numbered consecutively for each ship, for each year.

TIME Given in Local Mean Time and is the time at the beginning of the first cast. The code letter used for the time zone (Table 3) follows the time.

TABLE 3

CODE FOR TIME ZONES

Longitude Exceeding	Up to but not exceeding	Time Zone (hrs)	Code
67°30'E	22°30'E	-1	A
22°30'E	37°30'E	-2	B
37°30'E	52°30'E	-3	C
52°30'E	67°30'E	-4	D
67°30'E	82°30'E	-5	E
82°30'E	97°30'E	-6	F
97°30'E	112°30'E	-7	G
112°30'E	127°30'E	-8	H
127°30'E	142°30'E	-9	I
142°30'E	157°30'E	-10	K
157°30'E	172°30'E	-11	L
172°30'E	180°	-12	M

180°	-	172°30'W	+12	Y
172°30'W	-	157°30'W	+11	X
157°30'W	-	142°30'W	+10	W
142°30'W	-	127°30'W	+9	V
127°30'W	-	112°30'W	+8	U
112°30'W	-	97°30'W	+7	T
97°30'W	-	82°30'W	+6	S
82°30'W	-	67°30'W	+5	R
67°30'W	-	52°30'W	+4	Q
52°30'W	-	37°30'W	+3	P
37°30'W	-	22°30'W	+2	O
22°30'W	-	07°30'W	+1	N
07°30'W	-	07°30'E	0	Z

LATITUDE LONGITUDE	The position of each station is given in degrees and minutes.
SONIC DEPTH	Given in metres, measured at standard sound velocity of 800 fm (1463 m) per second.
MAX. SAM. DEPTH	Maximum sampling depth is given to the nearest 100 m, and is in 100 m units.
AIR TEMP. WET DRY	Air temperatures are recorded from wet and dry bulb thermometers in centigrade degrees and tenths.
WIND DIR. SPEED	Wind direction and speed are coded using Tables 8 and 9 in U.S. Hydrogr. Office (1955).
ANEM. HEIGHT	The average height of the anemometer above sea level is given in metres.
CLOUD TYPE AMOUNT	Cloud type and amount are coded using Tables 2 and 3 in U.S. Hydrogr. Office (1955).
VIS.	Visibility is coded using Table 4 in U.S. Hydrogr. Office (1955).

SEA DIR. AMOUNT	Sea direction and amount are coded using Tables 5 and 8 in U.S. Hydrogr. Office (1955).
SWELL DIR. AMOUNT	Sea swell direction and amount are coded using Tables 6 and 8 in U.S. Hydrogr. Office (1955).
ATMOS. PRESSURE	Atmospheric pressure is recorded in millibars to one decimal place; 1000 should be added to the figures given.
WIRE ANGLES CAST 1 CAST 2	Measured at the surface and expressed in degrees for each cast. No more than two wire angles are recorded; if there is a third cast, the shallow cast angle is neglected.
CAST	The cast numbers (corresponding to the wire angles) are shown.
DEPTH	Actual sampling depth given in metres, a blank indicates 0 m.
TEMP.	Sea temperatures are recorded in degrees centigrade, to 2 decimal places.
S ‰	Salinities are recorded in parts per thousand, to 3 decimal places.
σ_t	Sigma-t recorded to 3 decimal places.
O_2	Oxygen is recorded in ml/l to 2 decimal places.
O_2 % Sat.	Oxygen, percentage saturation.
INORG. P	Inorganic phosphate values are given in µg at./l to 2 decimal places.

Part 3 Primary Production

MAX. SAMP. DEPTH	Depth of deepest observation to nearest 10 m, and is in 10 m units.
DIST. FROM COAST	Distance of nearest land in miles.
METHOD OF INCUBATION	A zero indicates light bath incubation.
STOCK NUMBER	Number of ^{14}C stock used.
STOCK ACTIVITY	The activity of ^{14}C stock used is recorded in millions of counts/min i.e. 9.11×10^6 counts/min.
BACKGROUND	Background count is recorded in counts/min.
LIGHT COUNT	The counts/min of the filter from the clear bottle.
DARK COUNT	The counts/min of the filter from the dark bottle.
NET COUNT	The difference between light and dark counts.
INCUBATION PERIOD	Given in hours, and varies from 3.5 to 5.0.
RATE OF PRODUCTION A	A is given in $mgC/hr/m^3$ to 2 decimal places.
B	B is given in $gC/day/m^2$ to 2 decimal places.
	A day has been taken to be equal to 10 hours. The value of each depth is the value from the surface to that depth.

Part 4	Pigments
	As asterisk in the body of the table indicates the value was negative. A blank indicates that the value was zero.
DEPTH	Given in m. A blank denotes Om.
CHLOROPHYLL a b c	Chlorophyll a and b are given in mg/m^3 and chlorophyll c in $MSPU/m^3$, to 2 decimal places.
ASTACIN NON-ASTACIN	Astacin and non-astacin are given in $MSPU/m^3$ to 2 decimal places.
Part 5	Phytoplankton
ORGANISMS WITH CHLOROPHYLL WITHOUT CHLOROPHYLL	The counts of organisms with and without chlorophyll are expressed as log numbers per litre.
TOTAL PARTICLES	The counts of total particles are expressed as log numbers per litre.
Part 6	Zooplankton
BIOMASS mg/m^3	Wet weight.

REFERENCES

C.S.I.R.O. Aust. (1962 a).- Oceanographical observations in the Indian Ocean in 1959.
H.M.A.S. Diamantina Cruises Dm 1/59, Dm 2/59.
C.S.I.R.O. Aust. Oceanogr. Cruise Rep. No. 1

C.S.I.R.O. Aust. (1962 b).- Oceanographical observations in the Indian Ocean in 1960.
H.M.A.S. Diamantina Cruise Dm 1/60.
C.S.I.R.O. Aust. Oceanogr. Cruise Rep. No. 2.

United States Navy Hydrographic Office (1955).- Instruction manual for oceanographic observations. Publ. No. 607.

DATA

CRUISE G 1/60

PART 1

HYDROLOGY

DEEP STATIONS

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	2	60	2	03	0340 K	3341 S	154 5 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4700	43	17|2	22|8	06	2	16	9	8	5	6	2	6	1	10|1	15	25

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		26|11	35|614	23|460	4|69	104	15		
2	23	2604	35613	23520	463	102	19		
2	45	2596	35615	23530	466	102	22		
2	68	2424	35676	24100	473	102	21		
2	91	2243	35706	24650	474	97	23		
2	137	2034	35744	25310	437	88	43		
2	183	1971	35774	25420	449	90	41		
2	277	1894	35748	25640	464	91	39		
2	470	1439	35320	26350	444	79	74		
2	667	1015	34834	26800	446	73	117		
2	866	738	34558	27040	431	66	150		
1	1076	586	34484	27180	416	61	170		
1	1270	451	34503	27360	381	54	190		
1	1765	284	34625	27610	317	43	213		
1	2260	225	34705	27740	381	50	201		
1	2758	186	34738	27810	413	55	193		
1	3258	148	34743	27840	423	56	195		2
1	3757	122	34731	27850	410	54	190		4
1	4257	115	34729	27840	423	55	198		4

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	4	60	2	03	1610 K	3318 S	15619 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2560	19	189	233	13	4	16	9	7	8	13	2	16	4		18	20

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2314	35704	24450	493	104	12		
2	25	2291	35693	24510	495	104	10		
2	50	1969	35613	25340	533	106	16		
2	75	1715	35567	25950	471	90	37		
2	99	1644	35520	26090	451	84	49		
2	148	1490	35431	26330	502	91	47		1
2	198	1392	35374	26500	495	88	57		
1	284	1234	35153	26670	505	87	70		
1	469	1040	34873	26810	495	81	93		
1	654	788	34581	26980	438	68	137		
1	837	656	34497	27090	432	65	164		
1	1020	552	34470	27210	413	60	175		
1	1204	458	34487	27350	387	55	186		
1	1390	364	34540	27470	354	49	191		
1	1862	247	34652	27670	360	49	200		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	6	60	2	04	0530 L	3337 S	15821 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3660	29	167	222	25	3	16	9	9	9	25	3	21	4		45	42

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2297	35677	24460	493	105	13		
2	21	2300	35678	24470	486	102	12		
2	35	2154	35597	24800	529	108	17		
2	58	1770	35559	25740	473	91	32		
2	75	1645	35514	26070	452	85	57		
2	114	1548	35401	26200	438	80	63		
2	153	1408	35294	26420	449	81	72		
2	227	1202	35055	26620	448	77	92		
2	370	921	34725	26900	438	70	129		
2	512	736	34554	27020	438	67	157		
1	720	629	34484	27120	430	64	166		
1	880	526	34475	27250	417	60	185		
1	1020	450	34491	27350	334	48	198		4
1	1170	376	34529	27450	368	51	204		
1	1560	278	34623	27620	355	48	213		
1	1989	226	34698	27730	384	52	198		
1	2432	189	34739	27800	410	55	191		
1	2881	147	34738	27820	383	51	196		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	8	60	2	04	1540 L	3353 S	159.53 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2305	19	161	228	19	3	16	9	9	3			20	1		20	15

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2541	35648	23500	465	102	12		
2	25	2537	35656	23740	478	104	10		
2	50	2481	35656	23920	455	98	11		
2	74	2031	35619	25150	422	85	33		
2	99	1876	35556	25520	388	76	53		
2	148	1683	35417	25900	387	73	61		
2	195	1590	35409	26110	435	81	59		
2	284	1369	35266	26470	450	80	73		
2	460	974	34780	26850	457	74	117		
1	667	722	34539	27030	454	69	156		
1	763	647	34496	27100	431	64	169		
2	860	565	34474	27200	414	61	173		1
1	957	504	34480	27270	408	58	185		
2	1055	447	34491	27350	390	55	191		
2	1252	360	34547	27480	365	51	195		
1	1450	296	34605	27600	346	47	212		
1	1948	235	34688	27710	372	50	202		1

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	10	60	2	05	0110 L	3357 S	16150 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1500	9	150	222	22	4	16	9	9	9	22	3	22	1		40	40

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2389	35797	24290	474	101	12		
2	25	2389	35782	24270	476	103	10		
2	50	2388	35778	24290	486	103	8		
2	75	2081	35696	25100	475	97	24		
2	98	1931	35708	25500	445	88	32		
1	138	1911	35698	25550	471	93	33		
2	180	1813	35567	25690	435	85	50		
1	200	1694	35521	25930	440	83	51		
1	340	1313	35182	26500	451	79	81		
1	520	1059	34880	26770	450	74	109		
1	705	859	34642	26910	457	72	134		
1	892	707	34533	27050	442	67	150		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	11	60	2	05	1116 L	3348 S	16329 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
970	9	15|6	22|2	24	*3	16	7	8	2	27	2	24	4	8|6	10	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		23|22	35|686	24|400	5|08	107	11		
2	25	2312	35686	24450	502	106	13		
2	50	2056	35602	25100	542	109	13		
2	75	1713	35578	25970	481	92	38		
2	100	1680	35556	26030	480	91	40		
2	150	1536	35422	26240	465	85	60		
1	194	1449	35334	26360	458	82	63		
1	294	1225	35075	26610	452	78	91		
1	494	928	34751	26900	442	71	113		
1	693	746	34568	27030	444	68	124		
1	893	595	34504	27190	425	63	170		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	13	60	2	05	2146 L	3344 S	16539 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2980	24	17|8	23|9	14	4	16	9	8	4	14	2	22	4	11|3	16	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		23|49	35|741	24|350	4|95	105	10		
2	25	2348	35744	24350	4|87	103	12		
2	50	2303	35758	24540	493	104	11		
2	75	2057	35754	25230	516	104	13		
2	100	1879	35710	25640	495	97	22		
2	150	1786	35670	25850	474	91	40		
2	200	1690	35600	26020	477	90	39		1
2	300	1489	35371	26300	450	81	65		
2	400	1276	35141	26550	4|60	80	79		
2	500	1115	34953	26750	450	75	101		
1	688	896	34696	26900	4|50	71	122		
1	885	688	34532	27070	4|45	67	150		
1	1081	542	34491	27230	4|15	60	182		
1	1278	432	34520	27370	394	56	187		
1	1474	352	34577	27500	3|71	51	193		2
1	1956	243	34647	27670	351	48	199		
1	2432	212	34683	27740	352	47	208		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	15	60	2	06	0705 L	3501 S	16714 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2090	25	18.9	23.3	17	3	16						25	5	13.5	00.0	

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		22.00	35.669	24.650	5.05	105	11		
2	25	21.67	35.653	24.830	5.20	106	10		
2	50	17.69	35.566	25.800	5.36	103	23		
2	75	16.13	35.507	26.140	5.00	93	37		
2	100	15.25	35.429	26.250	4.70	86	48		
2	150	14.08	35.322	26.460	4.76	85	63		
2	200	13.28	35.216	26.520	4.75	83	68		
2	300	11.48	35.006	26.720	4.60	77	89		
1	500	8.90	34.680	26.900	4.66	74	133		
1	700	7.11	34.528	27.040	4.45	68	153		
1	899	5.68	34.483	27.200	4.29	63	185		
1	1098	4.61	34.494	27.340	3.97	57	190		
1	1296	3.73	34.534	27.460	3.79	53	202		
1	1490	3.18	34.582	27.550	3.64	49	207		
1	1990	2.24	34.662	27.700	3.55	48	214		
1	2488	1.99	34.684	27.750	3.51	41	212		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	17	60	2	06	1620 L	3547 S	16839 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2400	23			11	1	16				11	2	21	1	143	20	22

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2133	35571	24870	517	106	12		
2	24	2097	35570	24960	507	103	14		
2	48	1873	35493	25480	552	108	13		
2	72	1690	35496	25940	535	101	28		
2	96	1601	35489	26150	509	95	35		
2	144	1474	35380	26340	490	88	49		
2	192	1413	35322	26420	491	88	54		
2	285	1280	35172	26580	483	84	66		
1	485	936	34746	26890	455	73	116		
1	680	752	34562	27010	437	67	143		
1	880	601	34489	27160	425	63	165		
1	1077	478	34485	27310	405	58	182		
1	1275	390	34515	27430	371	52	188		
1	1475	324	34568	27530	345	48	193		
1	1975	228	34659	27700	344	46	188		
1	2275	205	34684	27730	333	45			

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	19	60	2	07	0105 L	3553 S	17025 E

SONIC DEPTH	MAX. SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2010	19	17|2	21|7	07	2	16				31	2	31	1		00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		21|20	35|488	24|830	5|20	106	11		
2	25	2092	35464	24890	528	107	12		
2	50	1890	35486	25430	543	106	14		
2	75	1660	35428	25970	540	101	21		
2	100	1553	35408	26200	512	94	37		
2	150	1428	35302	26380	506	91	55		
2	200	1349	35220	26480	477	84	66		
2	300	1183	35031	26660	453	77	91		
2	400	1033	34883	26820	437	72	112		1
1	480	922	34744	26900	440	70	128		
1	664	746	34602	27050	433	66	151		
1	870	626	34544	27160	417	62	172		
1	1069	490	34491	27300	398	57	190		
1	1268	385	34523	27430	374	52	214		
1	1467	312	34586	27560	355	49	212		
1	1864	237	34646	27660	346	47	220		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	21	60	2	07	0730 L	3456 S	170 4 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1719	02	178	233	31	2	16	7	9	9	31	2	1	2	169		8

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		21139	35543	24830	5118	116	12		
2	25	1961	35494	25250	544	108	16		
2	50	1757	35473	25760	542	104	22		
2	75	1580	35384	26110	535	99	35		
2	100	1505	35361	26250	491	89	48		
2	150	1370	35235	26440	495	88	66		
2	200	1309	35175	26530	475	83	71		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE	
20	1	23	60	2	07	1555	L	3349	S	169 6	E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2012	16	99	99	32	3	16	8	8	2	34	2	24	1		17	10

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2241	35611	24590	514	106	9		
2	25	2106	35507	24900	522	104	11		
2	50	1962	35483	25250	533	105	18		
2	75	1663	35423	25950	530	99	28		
2	100	1549	35364	26150	522	96	32		
2	150	1425	35306	26380	484	87	44		
2	200	1337	35220	26500	480	84	57		
1	275	1218	35082	26630	468	80	77		
1	466	924	34737	26890	439	70	119		
1	659	739	34584	27050	430	66	145		
1	852	594	34518	27190	394	58	169		
1	1047	469	34505	27340	384	55	186		
1	1242	380	34543	27460	369	52	190		
1	1438	331	34572	27520	356	49	195		
1	1635	288	34606	27600	348	48	187		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	25	60	2	08	0237 L	3338 S	17126 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1554	13	17|2	22|2	00	1	16						26	1	18|6	5 00	

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		20|81	35|442	24|890	5|23	106	12		
2	25	2038	35435	25010	545	110	11		
2	50	1977	35436	25160	554	110	13		
2	75	1838	35449	25530	533	103	20		
2	100	1639	35397	25990	517	96	28		
2	150	1428	35289	26360	504	90	51		
2	200	1392	35266	26420	493	87	54		
1	300	1252	35115	26590	473	81	76		
1	500	952	34768	26870	441	71	122		
1	700	757	34601	27030	441	68	150		
1	900	619	34505	27150	425	63	171		
1	1100	486	34504	27310	406	58	184		
1	1300	351	34571	27520	373	51	202		1

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	26	60	2	08	1015 M	3349 S	173 2 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1800	15	18|9	23|3	23	3	16	8	1				14	1	19|5	20	15

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		23|08	35|773	24|510	4|98	105	10		
2	25	2249	35773	24690	518	108	11		
2	50	205.8	35750	25200	530	106	14		
2	75	1839	35681	24710	494	96	34		
2	100	1803	35663	25790	480	93	39		
2	150	1704	35576	25970	465	88	40		
2	200	1604	35471	26120	460	86	44		
1	295	1383	35258	26430	468	83	78		
1	490	1036	35256	27100	438	72	118	2	
1	685	852	35090	27270	445	70	148	2	
1	880	692	34581	27110	435	66	168		
1	1075	557	34511	27230	424	62	177		
1	1270	462	34522	27370	402	57	193		
1	1460	357	34568	27510	372	52	198		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	28	60	2	08	1925 M	3212 S	17330 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2652	25	200	239	21	2	16	7			21	2	13	1	173	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2392	35900	24350	507	109	12		
2	25	2253	35820	24710	532	111	13		
2	50	2099	35760	25100	546	111	11		
2	75	1997	35724	25350	555	111	14		
2	100	1828	35653	25720	535	104	21		
2	150	1689	35593	26010	503	95	40		
2	200	1579	35462	26170	481	89	51		
2	300	1372	35216	26410	465	82	72		
1	488	1068	34875	26750	455	75	104		
1	682	830	34625	26950	462	72	130		
1	876	652	34473	27070	467	70	153		
1	1075	540	34486	27230	436	63	175		
1	1275	436	34504	27380	408	58	192		
1	1474	349	34546	27490	383	53	200		
1	1975	244	34632	27650	360	49	205		
1	2475	193	34676	27740	358	48	212		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	30	60	2	09	342 M	3044 S	17353 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2600	24	183	256	15	4	16				15	2	15	1	1418	05	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2401	35950	24370	483	104	9		
2	25	2368	35926	24450	490	104	13		
2	50	2077	35756	25150	527	107	14		
2	75	1864	35674	25640	530	104	13		
2	100	1774	35642	25840	500	96	26		
2	150	1680	35565	26010	480	91	42		
2	200	1617	35495	26120	448	83	44		
2	300	1387	35220	26400	445	79	71		
2	500	995	34789	26810	443	72	118		
1	700	776	34563	26980	455	70	138		
1	900	627	34430	27080	465	69	149		
1	1100	516	34473	27250	420	61	162		
1	1300	401	34506	27420	390	55	198		
1	1500	324	34560	27530	381	53	199		
1	2000	241	34623	27660	363	49	221		
1	2400	200	34662	27720	356	48	210		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	32	60	2	09	1412 M	2912 S	17414 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
3146	28	20.0	26.7	15	2	16	8	8	9	16	2	18	1	1511	25	33

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		24.11	35.912	24.310	5.02	108	1.12		
2	20	22.90	35.859	24.640	5.33	112	1.13		
2	40	21.53	35.804	24.990	5.43	111	1.11		
2	48	21.16	35.805	25.100	5.38	110	1.11		7
2	55	20.57	35.757	25.200	5.45	110	1.13		
2	80	19.20	35.712	25.530	5.36	106	1.15		
2	83	18.97	35.712	25.600	5.43	109	1.16		7
2	150	16.94	35.596	26.000	4.86	95	1.35		7
2	300	13.90	35.335	26.480	4.71	89	1.62		7
1	630	8.67	34.647	26.910	4.60	73	1.23		
1	825	6.72	34.481	27.060	4.26	64	1.50		
1	1002	5.39	34.441	27.200	4.41	64	1.74		
1	1194	4.12	34.482	27.380	4.00	56	1.89		
1	1385	3.42	34.540	27.490	3.86	53	2.04		
1	1870	2.41	34.628	27.650	3.48	47	2.08		
1	2355	2.05	34.667	27.710	3.50	47	2.14		
1	2842	1.87	34.684	27.750	3.59	48	2.12		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	34	60	2	09	2254 M	2739 S	17446 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4023	34	200	256	14	3	16	8			15	2	13	1	1315	1500	

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2497	35837	23990	485	105	7		
2	25	2404	35775	24230	506	108	6		
2	50	2325	35855	24520	516	109	5		
2	75	2163	35738	24900	525	108	11		
2	100	2050	35750	25220	522	105	17		
2	150	1945	35714	25470	470	93	29		
2	200	1887	35705	25620	449	88	31		
2	300	1702	35526	25940	459	87	43		
2	500	1194	34965	26590	443	75	92		
2	700	834	34605	26930	464	73	129		
1	1263	390	34475	27390	396	55	191		
1	1458	328	34545	27500	373	52	196		
1	1943	238	34635	27660	350	47	198		
1	2422	201	34659	27710	350	47	203		
1	2913	187	34680	27740	350	47	194		
1	3400	185	34687	27750	355	47	200		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	36	60	2	10	955 M	2621 S	17510 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4350	39	20|0	24|4	11	3	16	6					13	1	11|7	10	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		25|72	35|413	23|450	4|81	105	15		
3	25	2554	35497	23570	480	105	18		
3	50	2354	35619	24260	528	112	14		
3	75	2171	35683	24840	542	112	15		
3	100	2064	35689	25130	527	107	17		
3	150	1920	35631	25470	454	90	22		
3	200	1835	35615	25680	460	89	39		
2	300	1581	35391	26100	460	85	57		
2	500	1060	34810	26720	452	75	114		
2	700	750	34508	26980	485	74	149		
2	900	574	34389	27110	470	69	153		
2	1100	462	34406	27270	424	61	185		
2	1300	351	34511	27470	385	53	218		
1	1455	318	34554	27530	382	50	223		
1	1942	238	34633	27670	348	47	230		
1	2430	207	34667	27710	351	47	227		
1	2920	188	34681	27740	348	46	243		
1	3410	187	34686	27750	355	48	235		
1	3900	185	34690	27750	361	48	218		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	38	60	2	10	1945 M	2443 S	17531 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4481	43	200	267	12	2	16	7			12	2	10	1	99	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2599	35332	23300	464	107	8		
2	25	2592	35332	23330	488	107	9		
2	50	2539	35429	23560	500	109	7		
2	75	2226	35686	24680	540	112	9		
2	100	2087	35686	25070	528	106	7		
2	150	1972	35686	25380	495	98	18		
2	200	1873	35658	25630	473	93	30		
2	300	1605	35351	26030	440	81	56		
2	500	1103	34862	26680	461	77	109		
2	700	706	34457	27000	490	74	145		
2	900	536	34395	27170	455	66	182		
2	1100	426	34441	27320	414	59	186		
1	1300	349	34526	27480	377	52	203		
1	1500	302	34576	27560	363	50	207		
1	2000	237	34633	27660	349	47	200		
1	2500	207	34667	27710	354	48	196		
1	2995	192	34682	27750	364	49	190		
1	3490	186	34689	27750	360	48	203		
1	3882	186	34691	27750	360	48	200		
1	4273	191	34690	27760	366	49	197		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	40	60	2	11	739 M	2245 S	17550 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4100	39	211	256	09	2	16	8			9	2	6	1	713	08	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2671	35145	22950	465		19		2
2	25	2664	35145	22950	461	102	16		
2	50	2579	35268	23320	466	102	17		
2	75	2377	35649	24210	466	99	19		
2	100	2263	35695	24590	445	93	21		
2	150	2069	35705	25140	468	95	24		
2	200	1893	35567	25490	442	87	41		
2	300	1695	35481	25910	452	85	50		
2	500	1074	34799	26680	442	73	108		
2	700	687	34424	27000	476	72	152		
2	900	515	34381	27180	437	63	182		
1	1095	409	34441	27350	389	55	222		
1	1292	333	34532	27490	362	50	212		
1	1488	287	34584	27570	353	48	219		
1	1978	232	34633	27660	335	45	211		
1	2468	203	34662	27710	344	46	222		
1	2958	189	34679	27740	352	47	222		
1	3457	185	34690	27750	351	47	221		
1	3855	186	34685	27750	352	47	229		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	41	60	2	11	1740 M	2119 S	176 3 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2560	20	161	211	11	1	16				11	2	9	1	68	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2738	35151	22720	477	107	15		
2	25	2688	35140	22880	469	104	16		
2	50	2614	35238	23190	500	110	14		
2	75	2476	35556	23840	520	113	10		
2	100	2319	35690	24410	490	104	17		
2	150	2129	35692	24960	440	90	30		
2	200	2011	35667	25260	443	89	28		
1	300	1729	35468	25820	445	85	37		
1	500	1094	34803	26650	415	69	89		
1	700	650	34437	27050	450	67	139		
1	900	493	34417	27250	424	61	185		
1	1100	394	34482	27400	384	54	198		
1	1300	345	34527	27480	356	49	204		
1	1500	307	34567	27550	349	48	208		
1	2000	231	34640	27670	345	47	210		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	42	60	2	11	2353 M	2047 S	17620 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3050	28	23|3	27|8	08	1	16				8	2	9	1	8|1	04	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		27|08	35|156	22|830	4|65	104	13		
2	25	2630	35268	23160	466	103	12		
2	50	2604	35341	23300	474	104	13		
2	75	2426	35562	24000	477	102	17		
2	100	2281	35665	24510	474	100	21		
2	150	2158	35689	24870	436	90	26		
2	200	2022	35671	25240	430	86	33		
2	300	1731	35510	25850	447	85	44		
2	500	987	34707	26760	447	73	124		
1	685	652	34430	27040	455	68	147		
1	885	458	34426	27290	397	56	178		
1	1085	383	34475	27400	374	52	216		
1	1285	324	34546	27500	352	48	215		
1	1485	290	34577	27570	339	46	217		
1	1985	227	34637	27670	339	46	218		
1	2485	205	34659	27700	340	46	224		
1	2785	197	34675	27740	343	46	234		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	44	60	2	12	636 M	1908 S	17648 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3475	30	233	278	14	2	16	8	9	9	14	2	9	1	69	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2754	35000	22570	458	103	14		
2	25	2744	35020	22600	471	105	8		
2	50	2698	35042	22770	475	106	13		
2	75	2512	35470	23670	469	102	15		
2	100	2400	35680	24170	430	92	24		
2	150	2217	35770	24780	410	85	31		
2	200	2040	35693	25200	398	82	45		
2	300	1700	35377	25830	416	82	56		
2	500	902	34631	26850	445	77	126		
1	685	629	34424	27070	468	70	159		
1	884	476	34431	27270	399	57	183		
1	1082	380	34493	27410	369	52	205		
1	1281	332	34504	27470	351	48	203		
1	1479	290	34584	27570	340	47	212		
1	1977	226	34641	27680	333	45	216		
1	2477	204	34666	27720	352	47	211		
1	2977	202	34677	27730	350	47	208		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	45	60	2	17	619 M	1733 S	176 7 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3100	27	244	278	35	1	16	6	9	9	99	9	32	1	85	08	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2807	34814	22240	455	103	10		
2	25	2793	34850	22310	462	104	14		
2	50	2689	35154	22890	479	106	11		
2	75	2491	35459	23720	482	104	8		
2	100	2420	35549	24000	476	102	9		
2	150	2302	35673	24460	437	92	24		
2	200	2124	35714	25000	387	79	40		
2	300	1504	35177	26100	384	70	73		
2	400	1138	34834	26590	400	67	105		
1	492	917	34619	26800	398	63	135		
1	692	606	34419	27100	423	63	168		
1	890	465	34428	27280	389	56	187		
1	1090	390	34472	27400	362	51	192		
1	1290	333	34533	27490	347	48	204		
1	1490	289	34579	27580	335	46	202		
1	2090	220	34648	27700	336	45	203		
1	2690	208	34660	27710	337	45	198		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	48	60	2	17	1710 M	1641 S	17429 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2800	25	25|6	28|3	00	3	16	8	9	9		2	1	1	8|8	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		28|25	34|712	22|110	4|90	112	13		
2	25	2827	34717	22110	463	105	9		
2	50	2815	34793	22200	463	105	13		
2	75	2623	35568	23410	452	100	27		
2	100	2492	35672	23890	447	97	22		
2	150	2277	35836	24650	360	75	44		
2	200	2108	35778	25090	365	74	51		
2	250	1910	35579	25460	370	73	55		
2	300	1623	3529.5	25950	383	71	62		
1	490	886	34592	26830	397	63	156		
1	690	595	34415	27100	421	61	171		
1	890	466	34433	27280	378	54	200		
1	1092	379	34494	27410	352	49	207		
1	1292	329	34533	27500	339	47	220		
1	1494	285	34577	27580	335	46	217		
1	2000	228	34634	27670	330	44	218		
1	2500	196	34658	27730	332	44	221		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	50	60	2	18	235 M	1547 S	17254 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2880	24	256	289	32	3	16	7	9	9	32	2		1	1016	25	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2831	34505	21930	445	103	15		
2	25	2834	34506	21930	448	104	12		
2	50	2710	35299	22920	477	106	14		
2	75	2618	35654	23490	443	98	21		
2	100	2512	35840	23950	408	89	29		
2	150	2289	35926	24690	357	75	45		
2	200	2100	35840	25150	358	73	52		
2	250	1843	35523	25580	367	71	56		
2	300	1644	35291	25890	369	69	64		
1	465	991	34685	26730	355	58	137		
1	655	641	34435	27060	410	62	157		
1	850	469	34440	27290	373	54	184		
1	1045	388	34496	27410	357	50	193		
1	1240	338	34536	27500	336	47	196		
1	1435	294	34574	27570	329	45	206		
1	1925	224	34643	27680	319	43	199		
1	2425	198	34660	27730	322	43	204		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	52	60	2	18	1612 L	1438 S	171 6 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3100	29	256	283	19	2	16	8	9	9	19	2	30	1	7|3	05	08

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2892	34388	21650	444	101	14		
2	25	2870	34457	21780	454	103	23		
2	50	2808	34845	22260	463	105	24		
2	75	2648	35337	23150	460	102	23		
2	100	2498	35559	23770	443	96	26		
2	150	2233	35826	24770	382	79	49		
2	200	2040	35741	25240	360	73	65		
2	300	1509	35145	26080	335	61	108		
2	500	774	34522	26950	404	62	176		
1	693	556	34432	27170	392	57	211		
1	893	432	34460	27340	368	52	209		
1	1092	369	34531	27460	339	47	233		
1	1291	318	34561	27520	327	43	244		
1	1490	283	34596	27590	321	44	245		
1	1988	222	34640	27670	325	44	245		
1	2470	191	34656	27710	317	42	247		
1	2860	178	34667	27740	328	44	236		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	54	60	2	19	414 L	1337 S	16913 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3070	29	26|1	27|8	22	3	16	7	9	9	22	2	34	1	9|6	03	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		28|77	34|398	21|700	4|50	103	17		
2	25	2879	34530	21800	446	101	15		
2	50	2706	35179	22860	462	104	19		
2	75	2528	35598	23710	433	95	23		
2	100	2414	35833	24250	328	74	52		
2	125	2313	35932	24620	293	62	71		
2	150	2209	35907	24950	317	66	65		
2	200	2041	35766	25260	319	64	69		
2	300	1440	35095	26180	307	61	109		
2	500	794	34542	26930	364	60	146		
1	689	536	34429	27200	391	57	182		
1	886	445	34486	27350	345	49	199		
1	1084	381	34521	27440	340	48	201		
1	1282	320	34562	27530	327	45	211		
1	1480	290	34577	27570	322	44	209		
1	1978	228	34626	27670	320	43	214		
1	2474	189	34659	27730	317	42	210		
1	2871	176	34676	27750	327	43	209		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	56	60	2	19	1604 L	1234 S	16723 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2524	17	261	294	16	1	16	9	9	9	99	9	4	1	61	15	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2921	34647	21750	444	102	23		
2	20	2880	34627	21870	448	103	20		
2	30	2870	35618	21900	445	102	21		
2	40	2805	35161	22520	446	103	24		
2	50	2790	35190	22600	380	86	24		2
2	88	2499	35733	23910	363	79	50		
2	126	2171	35826	24950	307	63	77		
1	290	1534	35194	26060	296	54	115		
1	483	833	34600	26930	341	53	158		
1	676	568	34481	27200	358	52	180		
1	869	430	34496	27370	351	50	220		
1	1062	380	34531	27460	328	46	221		
1	1255	326	34564	27520	319	44	215		
1	1448	299	34586	27580	317	43	236		
1	1738	259	34613	27640	318	43	231		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	58	60	2	19	2310 L	1158 S	166 4 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4830	47	256	283	18	4	16	7	8	9	99	9	7	1	86	00	10

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2938	34710	21740	445	103	17		
2	24	2924	34729	21800	448	103	19		
2	48	2810	35037	22400	456	103	21		
2	71	2720	35444	23000	370	83	52		
2	95	2628	35452	23300	344	76	59		
2	142	2386	35863	24350	342	74	56		
2	190	2013	35722	25310	338	68	62		
2	285	1374	35027	26280	323	57	111		
2	476	793	34563	26950	375	58	162		
2	670	594	34500	27180	299	44	189		
2	864	478	34514	27340	327	47	198		
2	1064	407	34534	27420	313	44	219		
2	1264	350	34573	27510	312	43	218		
1	1500	298	34593	27570	318	44	213		
1	2000	235	34639	27660	322	43	204		
1	2500	191	34669	27730	324	43	200		
1	2990	175	34688	27760	325	43	189		
1	3485	172	34685	27760	333	44	203		
1	3980	169	34691	27760	333	44	189		
1	4440	179	34690	27760	335	44	203		
1	4720	183	34691	27760	344	46	196		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	59	60	2	20	655 L	1150 S	16455 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4200	39	261	283	07	1	16	6	9	9	15	2	6	1	87	08	06

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2924	34523	21650	465	107	18		
2	25	2905	34542	21720	458	105	14		
2	50	2842	34884	22180	476	108	19		
2	75	2640	35454	23280	447	98	21		
2	100	2486	35687	23910	381	82	52		
2	150	2230	35768	24740	311	64	79		
2	200	1894	35563	25490	327	64	86		
2	298	1367	35049	26300	275	49	137		
2	497	812	34609	26970	349	54	165		
2	695	581	34509	27200	347	50	167		
2	893	458	34511	27360	339	48	222		
1	1084	390	34540	27450	315	44	221		
1	1282	340	34565	27520	318	44	219		
1	1479	296	34590	27570	318	44	224		
1	1970	230	34633	27670	335	45	220		
1	2464	193	34660	27730	320	43	218		
1	2956	176	34669	27740	321	43	220		
1	3446	173	34675	27750	328	44	222		
1	3942	173	34686	27760	346	46	211		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	60	60	2	20	1620 L	1119 S	16334 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4400	41	26|7	30|6	15	2	16	8	9	9	99	9	3	1	6|6	20	05

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		29|47	34|582	21|610	4|6.0	106	10		
2	25	2914	34617	21750	465	107	17		
2	50	2864	34918	22150	466	102	12		
2	75	2803	35131	22500	467	106	22		
2	98	2590	35525	23450	408	92	37		
2	147	2346	35754	24390	316	67	72		
2	196	1975	35515	25320	289	58	98		
2	294	1350	35049	26340	274	48	136		
2	492	741	34558	27030	366	56	166		
2	691	550	34502	27240	356	52	184		
2	890	464	34509	27390	351	50	203		
1	1050	404	34537	27430	310	44	219		
1	1245	349	34559	27500	318	44	218		
1	1440	301	34589	27580	318	44	225		
1	1925	243	34624	27660	316	43	216		
1	2415	203	34670	27710	321	43	226		
1	2905	181	34685	27760	344	46	220		
1	3495	174	34685	27760	343	43	225		
1	4090	176	34693	27760	351	47	196		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	61	60	2	21	3 L	1110 S	16225 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3070	29	261	294	08	2	16	7	9	9	99	9	5	1	68	03	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2982	34692	21570	455	106	14		
2	25	2940	34733	21750	452	104	17		
2	50	2841	35065	22330	466	106	17		
2	75	2602	35392	23340	462	102	22		
2	100	2525	35472	23640	443	97	26		
2	150	2299	35848	24600	323	68	27		
2	200	1922	35619	25460	310	61	81		
2	300	1371	35054	26300	335	59	106		
2	500	705	34492	27020	393	60	161		
1	696	561	34491	27200	379	56	183		
1	895	475	34499	27330	368	53	186		
1	1093	401	34550	27450	328	46	206		
1	1292	337	34579	27520	322	45	210		
1	1490	295	34604	27600	317	43	216		
1	1985	220	34648	27700	314	42	221		
1	2480	197	34678	27740	341	46	212		
1	2875	188	34689	27750	352	47	208		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	62	60	2	21	535 L	1201 S	16222 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4260	41	267	294	00	0	16	8	9	9	99	9	7	1	78	00	04

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P	0	DOUBTFUL
2		2982	34811	21670	453	105	14		
2	25	2929	34806	21850	460	106	15		
2	50	2843	35206	22430	460	105	25		
2	75	2694	35423	23080	419	94	37		
2	100	2573	35593	23580	321	70	72		
2	150	2234	35790	24740	305	63	76		
2	200	1927	35636	25460	285	56	94		
2	300	1372	35041	26270	344	61	108		
2	500	813	34607	26960	362	56	142		
2	700	593	34502	27180	376	54	156		
2	900	468	34529	27360	323	45	212		
1	1095	386	34561	27470	312	44	221		
1	1294	336	34577	27540	310	43	215		
1	1493	291	34598	27590	312	43	217		
1	1988	235	34635	27670	309	42	219		
1	2482	200	34666	27720	334	45	212		
1	2974	181	34685	27760	339	45	218		
1	3463	174	34691	27760	342	46	217		
1	4051	182	34696	27770	369	49	209		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	64	60	2	21	1415 L	1311 S	16231 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3860	34	267	306	25	2	16	8	9	9	99	9	7	1	63	12	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		3009	34638	21430	442	103	19		
2	25	2920	34702	21800	443	102	21		
2	49	2826	34852	22210	459	104	16		
2	74	2639	35393	23230	451	100	21		
2	98	2517	35582	23740	425	92	22		
2	147	2274	35808	24640	307	64	53		
2	196	2042	35740	25250	341	69	55		
2	295	1509	35174	26100	338	61	74		
2	491	837	34541	26870	370	58	124		
2	687	579	34484	27190	379	56	152		
2	883	458	34491	27330	359	51	200		
1	1075	406	34542	27430	328	46	211		
1	1272	343	34572	27520	319	44	218		
1	1470	299	34598	27580	309	42	220		
1	1955	234	34650	27680	301	41	221		
1	2440	198	34670	27740	318	43	221		
1	2910	184	34687	27750	334	45	221		
1	3386	176	34689	27760	337	45	220		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	65	60	2	21	2012 L	1403 S	16245 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3560	33	256	283	24	2	16	8	9	9	99	9	18	1	61	07	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2928	34638	21500	452	104	12		
2	25	2902	34816	21940	459	105	14		
2	50	2898	34811	21940	462	106	12		
2	75	2820	34921	22290	465	105	11		
2	100	2674	35338	23060	453	101	18		
2	150	2373	35832	24370	363	77	42		
2	200	2100	35761	25090	355	72	50		
2	300	1626	35289	25940	338	63	83		
2	500	856	34600	26900	386	61	144		
2	700	552	34464	27200	384	56	173		
1	888	436	34495	27360	344	48	199		
1	1085	362	34537	27470	343	48	200		
1	1283	319	34584	27560	325	45	204		
1	1480	292	34599	27590	328	45	200		
1	1973	233	34639	27670	318	43	201		
1	2466	205	34681	27730	340	46	200		
1	2960	189	34700	27760	355	47	196		
1	3256	183	34700	27760	359	48	206		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	66	60	2	22	225 L	1500 S	163 1 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
4650	43	26|1	27|2	02	3	16	6	9	9	2	2	19	1	6|0	20	10

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		29|14	34|755	21|900	4|61	106	12		
2	25	2853	34784	22120	469	107	13		
2	49	2740	35085	22670	473	106	10		
2	74	2617	35406	23300	454	100	18		
2	98	2516	35761	23880	445	100	41		
2	147	2284	35937	24710	337	71	61		
2	196	2062	35782	25220	345	70	62		
2	294	1606	35272	25970	352	65	88		
2	490	838	34585	26910	369	61	165		
2	688	594	34466	27150	392	58	217		
2	886	463	34469	27320	377	54	201		
2	1086	380	34528	27450	353	49	191		
1	1210	351	34556	27500	345	48	218		
1	1400	308	34586	27570	336	46	221		
1	1876	245	34639	27660	328	44	234		
1	2355	214	34668	27720	320	43	214		
1	2835	196	34684	27750	354	47	223		
1	3314	186	34695	27760	366	49	221		
1	3795	180	34698	27770	361	48	221		
1	4280	188	34697	27770	363	49	217		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	67	60	2	22	950 L	1603 S	16317 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4520	42	267	300	14	1	16	9	9	9	14	9	20	1	60	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2861	34982	22200	446	102	12		
2	25	2828	35070	22330	448	102	11		
2	50	2716	35217	22860	462	103	9		
2	75	2504	35490	23710	465	101	11		
2	100	2397	35595	24120	444	95	16		
2	150	2209	35759	24790	378	77	44		
2	200	2033	35680	25220	379	76	45		
2	300	1658	35379	25930	382	72	62		
2	500	825	34582	26920	392	61	156		
2	700	550	34429	27180	419	61	173		
2	900	439	34478	27350	372	52	201		
2	1100	368	34525	27470	354	49	204		
1	1292	332	34562	27520	339	47	200		
1	1492	298	34592	27580	340	47	201		
1	1988	236	34646	27670	329	44	194		
1	2482	202	34676	27740	350	47	192		
1	2975	184	34689	27740	351	47	183		
1	3466	181	34693	27760	355	47	191		
1	3952	183	34697	27770	354	48	184		
1	4243	188	34696	27760	354	48	192		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	69	60	2	22	1932 L	1737 S	16312 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM. HEIGHT	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED		TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
3750	33	244	283	09	2	16	7	9	9	10	2	14	1	60	22	25

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2839	35029	22310	483	110	13		
2	25	2811	35048	22420	464	104	13		
2	50	2725	35108	22740	467	104	12		
2	75	2555	35405	23490	462	101	14		
2	100	2403	35628	24130	416	88	23		
2	150	2219	35741	24740	381	79	40		
2	199	2083	35712	25110	370	74	51		
2	297	1704	35382	25820	354	67	66		
2	495	1047	34791	26730	427	70	105		
2	695	596	34428	27120	444	66	152		
2	850	518	34420	27220	432	63	181		
1	1040	405	34474	27390	391	55	198		
1	1227	343	34536	27490	364	50	201		
1	1415	309	34575	27570	354	49	201		
1	1888	246	34629	27670	337	46	217		
1	2360	208	34665	27720	348	47	216		
1	2833	192	34681	27740	356	48	215		
1	3307	184	34688	27750	357	48	222		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	71	60	2	23	600 L	1752 S	16500 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4480	42	250	278	00	1	16	8	9	9	99	9	11	1	50	18	05

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2869	35066	22240	461	105	12		
2	24	2822	35093	22410	458	104	9		
2	48	2661	35275	23040	487	108	13		
2	72	2501	35486	23710	484	105	17		
2	96	2383	35628	24180	444	93	21		
2	144	2245	35714	24660	424	88	32		
2	192	2109	35717	25040	423	86	32		
2	287	1773	35524	25760	424	81	52		
2	479	945	34680	26800	412	66	141		
2	671	638	34465	27100	407	61	177		
2	863	489	34441	27260	404	58	199		
2	1056	391	34491	27410	363	51	211		
1	1240	339	34542	27490	356	49	219		
1	1432	298	34584	27570	345	47	220		
1	1915	233	34640	27670	338	46	217		
1	2400	204	34671	27730	347	47	223		
1	2885	190	34686	27750	358	48	220		
1	3373	181	34691	27760	342	46	217		
1	3860	182	34694	27760	345	46	226		
1	4155	186	34695	27760	352	47	212		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	74	60	2	23	1941 L	1810 S	16726 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM.	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED	HEIGHT	TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
4940	44	24.4	27.8	12	2	16	7	9	9	11	2	14	1	6.8	22	12

CAST	DEPTH	TEMP.	$S‰$	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		28.63	34.754	22.030	4.54	103	16		
2	24	28.25	34.871	22.230	464	105	15		
2	48	27.65	35.041	22.500	474	107	13		
2	72	26.88	35.221	22.940	473	105	19		
2	96	25.31	35.520	23.650	455	98	20		
2	144	22.41	35.809	24.740	374	78	45		
2	192	20.52	35.733	25.200	373	75	55		
2	288	16.28	35.324	25.960	379	71	76		
2	479	8.52	34.602	26.900	410	64	159		
2	671	5.59	34.416	27.160	442	65	199		
2	865	4.54	34.469	27.330	359	51	215		
2	1058	3.76	34.523	27.450	363	51	219		
1	1265	3.29	34.566	27.530	355	49	221		
1	1460	2.91	34.596	27.590	346	47	224		
1	1950	2.37	34.645	27.680	341	46	226		
1	2440	2.04	34.675	27.730	350	47	215		
1	2928	1.88	34.689	27.750	349	47	228		
1	3420	1.79	34.692	27.760	357	48	226		
1	3914	1.83	34.697	27.760	363	48	228		
1	4410	1.87	34.697	27.760	354	47	230		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	76	60	2	24	441 L	1923 S	168 6 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4750	44	23|9	26|7	14	1	16	8	9	9	15	2	19	1	4|2	15	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		27|26	35|240	22|820	4|60	103	9		
2	25	2706	35290	22940	461	103	6		
2	50	2632	35281	23160	478	106	9		
2	75	2426	35625	24050	485	105	11		
2	100	2236	35657	24640	491	103	10		
2	150	2086	35697	25080	418	85	28		
2	200	1965	35626	25360	421	84	36		
2	300	1614	35329	26000	399	74	61		
2	500	939	34682	26830	427	68	117		
2	700	612	34428	27100	457	68	156		
2	900	462	34454	27310	398	57	201		
2	1100	374	34526	27460	375	52	208		
1	1272	338	34559	27510	361	50	207		
1	1467	300	34590	27580	354	49	218		
1	1960	236	34651	27690	348	47	217		
1	2455	202	34680	27740	355	48	210		
1	2950	188	34690	27750			214		
1	3442	182	34694	27760			222		
1	3933	185	34696	27770	341	45	218		
1	4424	190	34700	27760	356	48	214		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	78	60	2	24	1440 L	2031 S	169 1 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2870	24	239	278	16	3	16	8	9	9	16	2	16	1	55	23	15

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2762	35382	22920	459	104	13		
2	25	2764	35454	22870	469	105	12		
2	49	2564	35519	23560	490	107	16		
2	74	2308	35686	24450	500	105	19		
2	98	2173	35715	24870	469	96	23		
2	147	2068	35715	25150	450	91	26		
2	196	1952	35692	25430	450	89	31		
2	295	1610	35405	26070	404	75	58		
1	468	1109	34843	26650	428	71	123		
1	655	684	34459	27020	450	68	155		
1	846	484	34423	27260	416	60	188		
1	1027	400	34481	27400	385	54	189		
1	1210	338	34540	27500	359	50	201		
1	1396	297	34581	27570	350	48	212		
1	1858	241	34634	27660	336	45	218		
1	2421	202	34672	27720	342	46	218		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	79	80	2	24	2010 L	2111 S	16831 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4100	19	24.4	28.9	14	3	16	8	9	9	14	2	14	1	61	20	15

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		27.39	35.103	22.690	4.49	100	1.0		
2	23	27.30	35.133	22.740	4.73	106	7		
2	47	26.28	35.652	23.460	4.74	105	9		
2	71	24.02	35.620	24.120	4.73	101	8		
2	94	22.89	35.738	24.550	4.82	101	8		
2	139	21.40	35.731	24.970	4.43	91	19		
2	186	19.95	35.677	25.320	4.15	83	32		
2	278	17.59	35.509	25.790	4.14	79	46		
2	462	12.47	35.014	26.530	4.16	71	88		
2	644	7.41	34.501	26.990	4.50	69	150		
2	830	5.27	34.499	27.260	4.54	66	156		
1	1026	4.18	34.504	27.400	4.04	57	207		
1	1220	3.54	34.522	27.480	3.67	51	212		
1	1413	3.09	34.574	27.560	3.47	48	218		
1	1895	2.41	34.639	27.660	3.38	46	219		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	80	60	2	25	339 L	2159 S	16738 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2010	18	228	272	13	2	16	8	9	9	13	2	14	1	56	18	14

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2786	35079	22510	455	103	12		
2	24	2786	35082	22510	451	102	10		
2	48	2584	35387	23400	472	104	13		
2	72	2461	35589	23910	476	103	11		
2	95	2286	35702	24530	483	101	12		
2	142	2096	35716	25080	449	90	21		
2	190	1966	35663	25380	430	85	35		
1	271	1755	35498	25770	414	79	50		
1	454	1186	34955	26600	429	73	114		
1	636	739	34495	26980	466	71	159		
1	820	566	34404	27150	435	64	180		
1	1005	549	34404	27170	425	62	188		
1	1190	368	34511	27450	381	53	204		
1	1385	302	34573	27570	351	48	223		
1	1775	254	34630	27650	338	46	222		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	82	60	2	29	2237 L	2331 S	166 5 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2780	25	239	272	12	6	16	6	9	9	123		154		60	2200	

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2686	35391	23060	451	100	10		
2	25	2689	35795	23370	465	104	8		
2	50	2350	35867	24470	533	113	9		
2	75	2158	35816	24990	534	110	11		
2	100	2036	35775	25300	480	97	15		
2	150	1941	35758	25510	470	93	28		2
2	200	1870	35720	25670	447	87	33		
2	300	1662	35495	26010	434	81	69		
1	480	1143	34938	26670	435	73	106		
1	675	726	34507	27010	472	72	150		
1	868	528	34442	27220	435	63	182		
1	1063	429	34505	27390	392	55	213		
1	1256	350	34558	27500	365	51	212		
1	1450	303	34595	27580	352	48	223		
1	1937	236	34650	27690	343	46	219		
1	2522	205	34684	27740	354	47	226		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	84	60	3	01	940 L	2353 S	168 7 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1010.	9	239	267	11	4	16	7	9	9	11	3	17	4	79	10	

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
1		2521	35607	23780	458		9		
1	25	2521	35692	23800	481	105	10		
1	50	2267	35728	24600	494	103	13		
1	75	2248	35723	24660	498	104	16		
1	100	2224	35725	24730	514	107	19		
1	150	1982	35714	25380	468	93	23		
1	200	1853	35635	25640	444	86	34		
1	300	1581	35383	26110	435	80	56		
1	500	902	34673	26890	458	73	131		
1	695	640	34450	27130	445	66	165		
1	890	517	34422	27220	429	62	187		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	88	60	3	04	920 L	2354 S	16246 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1870	17	244	272	00	3	16	8	9	9		3	30	4	43	00	00

CAST	DEPTH	TEMP.	$S\,‰$	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2613	35807	23620	464	107	10		
2	25	2603	35861	23700	464	107	9		
2	50	2349	35849	24450	539	114	11		
2	75	2170	35800	24940	530	109	13		
2	99	2113	35787	25080	514	105	14		
2	149	2050	35776	25250	488	99	17		
2	198	1963	35761	25460	485	97	19		
2	297	1850	35726	25720	498	97	47		
1	491	1306	35101	26480	448	78	94		
1	682	806	34576	26950	472	73	149		
1	875	616	34438	27100	470	70	172		
1	1067	470	34461	27300	425	61	197		
1	1260	364	34547	27480	385	54	201		
1	1653	285	34610	27610	356	49	225		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	1	60	2	02	1755 K	3353 S	15213 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2700.	25	18.3	22.6	10	3	16	9	8	6	10	2	17	1	10.5	20	20

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		23.24	35.449	24.220	4.44	94	1.3		
2	23	20.69	35.610	25.070	3.46	77	36		
2	47	18.47	35.534	25.560	3.66	74	57		
2	71	16.08	35.485	25.950	4.16	78	53		
2	94	15.94	35.492	26.180	4.58	85	55		
2	141	14.10	35.321	26.430	4.56	81	55		
2	189	13.24	35.237	26.550	4.60	81	69		
2	283	11.21	34.963	26.720	4.33	73	91		
2	474	8.71	34.669	26.940	4.60	73	122		
2	670	7.03	34.528	27.060	4.24	64	153		
1	882	5.35	34.480	27.250	4.07	59	173		
1	1080	4.33	34.503	27.300	3.88	55	198		
1	1276	3.41	34.567	27.540	3.50	49	200		
1	1471	2.90	34.614	27.610	3.40	47	189		
1	1960	2.26	34.697	27.730	3.82	52	197		
1	2466	1.95	34.737	27.790	4.17	56	198		

DATA

CRUISE G 1/60

PART 2

HYDROLOGY

SURFACE SAMPLING

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	S‰
3	60	2	3	1030K	3337S	15445E	2420	3572
4	60	2	3	1800K	3318S	15619E	2314	3570
5	60	2	3	2400K	3327S	15710E	2270	3554
6	60	2	4	525L	3337S	15821E	2297	3567
7	60	2	4	930L	3337S	15847E	2240	3566
8	60	2	4	1535L	3353S	15953E	2541	3564
9	60	2	4	2130L	3355S	16057E	2220	3582
10	60	2	5	100L	3357S	16150E	2389	3579
11	60	2	5	945L	3349S	16329E	2322	3568
12	60	2	5	1625L	3343S	16432E	2322	3568
13	60	2	5	2100L	3344S	16539E	2349	3574
14	60	2	6	330L	3425S	16631E	2020	3556
15	60	2	6	645L	3500S	16714E	2200	3566
16	60	2	6	1330L	3526S	16758E	2120	3565
17	60	2	6	1600L	3547S	16839E	2133	3557
18	60	2	6	2100L	3550S	16920E	2060	3558
19	60	2	7	100L	3553S	17025E	2120	3548
20	60	2	7	500L	3514S	17010E	2100	3554
21	60	2	7	715L	3456S	17004E	2139	3554
22	60	2	7	1215L	3427S	16957E	2150	3552
23	60	2	7	1430L	3349S	16906E	2241	3561
24	60	2	7	2100L	3353S	17004E	2200	3556
25	60	2	8	230L	3338S	17126E	2081	3544
26	60	2	8	1000M	3349S	17302E	2308	3577
27	60	2	8	1530M	3303S	17318E	2400	3584
28	60	2	8	1930M	3212S	17330E	2392	3590
29	60	2	9	30M	3128S	17343E	2420	3599
30	60	2	9	340M	3044S	17352E	2401	3575
31	60	2	9	930M	2946S	17402E		
32	60	2	9	1410M	2912S	17414E	2411	3591
33	60	2	9	1945M	2826S	17428E	2500	3592
34	60	2	9	2300M	2739S	17446E	2497	3583
35	60	2	10	615M	2657S	17457E	2440	3541
36	60	2	10	945M	2621S	17510E	2572	3541
37	60	2	10	1600M	2535S	17520E	2610	3537
38	60	2	10	1940M	2443S	17537E	2599	3533
39	60	2	11	330M	2335S	17549E	2400	3515
40	60	2	11	730M	2245S	17558E	2671	
41	60	2	11	1745M	2119S	17603E	2738	3515
42	60	2	11	2350M	2047S	17620E	2708	3515
43	60	2	12	400M	1940S	17639E	2700	3487.
44	60	2	12	630M	1908S	17648E	2754	3500
45	60	2	17	600M	1733S	17607E	2807	3481
46	60	2	17	930M	1721S	17546E		
47	60	2	17	1315M	1702S	17508E	2880	3447
48	60	2	17	1700M	1641S	17429E	2825	3471

STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE	TEMP.	S‰
49	60	2	17	2220M	1617S	17344E	2880	3462
50	60	2	18	220M	1547S	17254E	2831	3450
51	60	2	18	930L	1520S	17148E		
52	60	2	18	1600L	1438S	17106E	2892	3438
53	60	2	18	2300L	1407S	17006E	2900	3436
54	60	2	19	405L	1337S	16913E	2877	3439
55	60	2	19	930L	1309S	16831E	2960	3446
56	60	2	19	1530L	1235S	16723E	2921	3464
57	60	2	19	1945L	1215S	16637E	3000	3374
58	60	2	19	2305L	1158S	16604E	2938	3471
59	60	2	20	650L	1150S	16456E	2924	3452
60	60	2	20	1600L	1120S	16334E	2947	3458
61	60	2	21	3L	1110S	16225E	2982	3469
62	60	2	21	535L	1201S	16222E	2982	3481
63	60	2	21	930L	1228S	16221E		
64	60	2	21	1415L	1312S	16232E	3009	3463
65	60	2	21	2005L	1403S	16245E	2928	3463
66	60	2	22	215L	1500S	16301E	2914	3475
67	60	2	22	950L	1603S	16317E	2861	3498
68	60	2	22	1530L	1648S	16311E	2950	3501
69	60	2	22	1925L	1737S	16312E	2839	3402
70	60	2	23	130L	1744S	16402E	2820	3408
71	60	2	23	600L	1752S	16500E	2869	3406
72	60	2	23	930L	1752S	16523E		
73	60	2	23	1505L	1803S	16619E	2930	3406
74	60	2	23	1940L	1810S	16726E	2863	3475
75	60	2	24	230L	1901S	16755E	2750	3404
76	60	2	24	435L	1923S	16806E	2726	3424
77	60	2	24	930L	1955S	16832E		
78	60	2	24	1440L	2031S	16901E	2762	3438
79	60	2	24	2005L	2111S	16831E	2739	3410
80	60	2	25	330L	2200S	16738E	2786	3407
81	60	2	25	740L	2213S	16723E		
82	60	2	29	2215L	2331S	16605E	2686	3439
83	60	3	1	502L	2342S	16706E	2690	3468
84	60	3	1	930L	2353S	16807E		3460
85	60	3	1	1600L	2440S	16830E	2620	3484
86	60	3	1	2000L	2516S	16850E	2610	
87	60	3	1	2240L	2542S	16904E	2590	3487
88	60	3	4	930L	2354S	16246E	2615	3480

DATA

CRUISE G 1/60

PART 3

PRIMARY PRODUCTION

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0003	60	2	03	1000 L	3337 S	15445 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	155	0	6	9 | 110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	167	10	157	0400	0011	0000
25	212	24	188	0400	0013	0003
50	420	18	402	0400	0027	0008
100	50	12	30	0400	0003	0016

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0007	60	2	04	1000 L	3337 S	15847 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	145	0	6	9 | 110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	295	20	275	0400	0019	0000
25	407	24	383	0400	0026	0006
50	108	5	103	0400	0007	0010
100	8	5	3	0400	0000	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0011	60	2	05	1000 L	3348 S	16329 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	270	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	208	12	196	0400	0013	0000
25	435	90	345	0400	0023	0005
50	870	15	855	0400	0058	0015
100	5	4	1	0400	0000	0030

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0015	60	2	06	0830 L	3501 S	16714 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	340	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	219	13	206	0400	0014	0000
25	471	35	436	0400	0029	0005
50	338	16	322	0400	0022	0011
100	27	25	2	0400	0000	0017

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0021	60	2	07	800 L	3456 S	17004 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	160	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT		INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	228	98	130		0400	0009	0000
25	363	20	343		0400	0023	0004
50	295	26	269		0400	0018	0009
100	25	43	18	*	0400	0000	0014

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0026	60	2	08	1015 M	3349 S	17302 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	40	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	231	45	186	0400	0013	0000
25	305	54	251	0400	0017	0004
50	410	39	371	0400	0025	0009
100	340	23	317	0400	0021	0021

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0031	60	2	09	930 M	2946 S	17402 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	330	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT		INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	195	64	131		0400	0009	0000
25	251	26	225		0400	0015	0003
50	334	40	294		0400	0020	0007
100	9	48	39	*	0400	0000	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0036	60	2	10	940 M	2621 S	17510 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	500	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT		INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	269	69	200		0400	0013	0000
25	362	67	295		0400	0020	0004
50	238	61	177		0400	0012	0008
100	27	66	39	*	0400	0000	0011

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0040	60	2	11	840 M	2245 S	17558 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	265	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	257	112	145	0400	0010	0000
25	268	107	161	0400	0011	0003
50	163	70	93	0400	0006	0005
100	29	16	13	0400	0001	0007

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0044	60	2	12	820 M	1908 S	-17648 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	80	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	740	76	664	0400	0044	0000
25	628	47	581	0400	0039	0010
50	682	45	637	0400	0043	0021
100	21	30	9 *	0400	0000	0031

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0046	60	2	17	1000 M	1721 S	17546 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	140	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	295	42	253	0400	0017	0000
25	451	34	417	0400	0028	0006
50	25	00	00	0400	0002	0010
100	51	20	31	0400	0002	0011

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0051	60	2	18	1000 M	1520 S	17148 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	210	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	592	50	542	0400	0037	0000
25	918	42	876	0400	0059	0012
50	326	28	298	0400	0020	0022
100	51	36	15	0400	0001	0027

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0055	60	2	19	945 M	1309 S	16831 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	60	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	316	33	283	0400	0019	0000
25	307	33	274	0400	0018	0005
50	495	36	459	0400	0031	0011
100	23	21	2	0400	0001	0019

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0059	60	2	20	845 M	1150 S	- 16456 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	60	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	362	34	328	0400	0022	0000
25	426	39	387	0400	0026	0006
50	520	32	488	0400	0033	0013
100	78	25	53	0400	0004	0022

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0063	60	2	21	935 M	1228 S	16221 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	100	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	237	88	149	0400	0010	0000
25	148	91	57	0400	0004	0002
50	379	37	342	0400	0023	0005
100	16	10	6	0400	0000	0011

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0067	60	2	22	1000 M	1603 S	16317 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	120	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	236	49	187	0400	0013	0000
25	295	138	157	0400	0011	0003
50	266	38	228	0400	0015	0006
100	206	57	149	0400	0010	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0072	60	2	23	930 M	1752 S	16523 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	120	0	6	9|110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT		INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	28	58	222		0400	0015	0000
25	409	34	375		0400	0025	0005
50	409	34	375		0400	0025	0011
100	33	90	57	*	0400	0000	0017

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0077	60	2	24	945 M	1955 S	16832 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	80	0	6	9|110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT		INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	331	50	281		0400	0019	0000
25	397	50	347		0400	0023	0005
50	479	32	447		0400	0030	0012
100	22	36	14	*	0400	0000	0020

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0081	60	2	25	845 M	2213 S	16723 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	20	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT		INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	347	51	296		0400	0020	0006
25	398	92	306		0400	0021	0005
50	630	21	609		0400	0041	0013
100	16	27	11	*	0400	0000	0023

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0084	60	3	01	930 M	2353 S	16807 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	85	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT		INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	463	31	432		0400	0029	0000
25	463	31	432		0400	0029	0007
50	707	20	687		0400	0045	0016
100	11	25	14	*	0400	0000	0028

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	0088	60	3	04	913 M	2354 S	16246 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	210	0	6	9110	016

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	321	22	299	0400	0020	0000
25	360	17	343	0400	0023	0005
50	304	31	273	0400	0018	0011
100	392	35	357	0400	0024	0021

DATA

CRUISE G 1/60

PART 4

PIGMENTS

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	3	60	2	03	1000 L	3337 S	15445 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
25	09	05	33	06	02
50	09	07	42	09	01
100	26	12	74	10	03

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	7	60	2	04	1000 L	3337 S	15847 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	10	07	45	08	01 *
25	13	11	99	16	05 *
50	15	07	86	12	00
100	22	13	98	15	01 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	11	60	2	05	1000 L	3348 S	16329 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	06	06	23	05	01	
25	07	06	38	07	01	
50	09	06	38	10	01	*
100	12	08	40	07	02	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	15	60	2	06	830 L	3501 S	16714 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	09	09	54	09	01	
25	09	09	42	08	01	*
50	16	13	70	10	01	
100	05	03	21	01	01	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	21	60	2	07	800 L	3456 S	17004 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	08	06	51	09	02	
25	11	07	45	04	01	*
50	17	11	72	09	02	
100	09	10	45	07	01	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	26	60	2	08	1015 M	3349 S	17302 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	06	04	38	06	00	
25	04	06	19	02	01	
50	13	10	59	11	02	*
100	00	01 *	15	00	03	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	31	60	2	9	930 M	2946 S	17402 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	0 8	0 8	4 9	0 7	0 0
25	0 9	0 2	4 1	0 8	0 2
50	0 9	0 8	4 9	1 0	0 1
100	2 0	1 7	9 7	1 5	0 3 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	36	60	2	10	40 M	2621 S	17510 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
25	0 0	0 3 *	3 1	0 5	0 1
50	1 0	0 8 *	5 2	1 1 *	0 3 *
100	1 0	0 7	4 7	0 5	0 3 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	40	60	2	11	840 M	2245 S	17558 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	13	10	66	10	02 *
25	09	07	56	08	01
50	09	08	49	09	01
100	18	10 *	82	17 *	01 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	44	60	2	12	820 M	1908 S	17648 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
25	11	06	30	04	02
50	05	03	19	03	04 *
100	15	10 *	67	08 *	02

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	46	60	2	17	1000 M	1721 S	17546 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	00	03 *	31	03	01
25	05	02	27	04	02 *
50	09	02	43	07 *	00
100	11	03 *	54	06	01

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	51	60	2	18	1000 M	1520 S	17148 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	03	04	38	06	00
25	08	07	43	06	03
50	02	05	28	03	02
100	18	18 *	76	09 *	04 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	55	60	2	19	945 M	1309 S	16831 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	08	06	52	06	00
25	00	04 *	43	04	04
50	05	04	37	06	03
100	14	08 *	51	08 *	04 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	59	60	2	20	845 M	1150 S	16456 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	03	05 *	37	06	02 *
25	06	04	25	06	01
50	05	04	23	05	01
100	19	10 *	11	12 *	00

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE	
20	1	63	60	2	21	935	M	1228	S	16221	E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	09	07	55	06	00
25	08	06	28	07	01
50	08	02	35	06	02 *
100	10	07 *	36	08 *	01

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE	
20	1	67	60	2	22	1000	M	1603	S	16317	E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	06	03	35	06	00
25	04	03	45	07	03
50	08	07 *	44	12 *	01 *
100	11	06	67	06	04 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	72	60	2	23	930 M	1752 S	16523 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	09	08 *	39	07	02 *
25	06	04	26	06	01
50	09	05	24	07	00
100	14	07 *	46	07 *	02 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	77	60	2	24	945 M	1955 S	16832 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	11	07	33	06	01
25	06	05	34	06	01
50	08	06	23	06	00
100	11	09	57	07 *	02 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	81	60	2	25	845 M	2213 S	16723 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	05	05	17	05	02 *
25	06	05	33	12	01 *
50	06	02	24	07	00
100	20	10 *	70	14 *	00

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	1	84	60	3	01	930 M	2353 S	16807 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
25	21	06	27	06	00
50	20	10	70	09	02
100	02	11 *	62	10 *	02 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE
20	1	81	60	2	25	845	M	2213	S	16723 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN		NON ASTACIN	
	05	06	17	05		02	*
25	06	05	33	12		01	*
50	06	02	24	07		00	
100	20	10 *	70	14	*	00	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME		LATITUDE		LONGITUDE
20	1	84	60	3	01	930	M	2353	S	16807 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN		NON ASTACIN	
25	21	06	27	06		00	
50	20	10	70	09		02	
100	02	11 *	62	10	*	02	*

DATA

CRUISE G 1/60

PART 5

PHYTOPLANKTON

TABLE 4

OCCURRENCE OF DIATOMS

Numbers refer to the stations at which each organism was found

Asterionella japonica 1, 2, 78
Asterolampra dallasiana 36, 45, 51, 52, 61, 74, 80
Asteromphalus clevei 1, 21
flabellatus 44
heptactis 36, 44, 59, 63
humboldti 38, 60
Aulacodiscus crater 40
margaritaceus
nigricans 26
Bellerochea malleus 1
Biddulphia aurita 1
mobiliensis 4
pulchella
sansibarica 63
Cerataulina compacta 1, 78, 84
Chaetoceros affine 1, 38
coarctatum 8, 10, 11, 13, 27, 55, 63, 67, 69, 74, 86, 89
danicus 27
decipiens 67, 84
denticulatum 1
difficile 1, 78
lauderi 56
lorenzianum 1, 64
pendulum 69, 84
peruvianum 36, 49
secundum 1
teres 1, 67
vanheurcki 74
Climacodium biconcavum 55
frauenfeldianum 1, 2, 4, 6, 8, 9, 10, 11, 12, 13, 23, 36, 38, 40, 41, 42, 44, 45, 46, 47, 48, 49, 50, 51, 52, 55, 56, 58, 59, 60, 61, 63, 64, 66, 67, 69, 72, 77, 78, 79, 80, 81, 84, 85, 86, 88, 89
Corethron criophilum 56
Coscinodiscus centralis 56
concillans 64
concinnus 84
gazellae 86
lineatus 44, 63, 71, 88

Rhizosolenia alata 1, 6, 7, 8, 11, 21, 26, 38, 44, 48, 56, 59, 63, 64, 69, 84, 88
bergonii 1, 8, 44, 55
cylindrus 1, 36, 44, 84
delicatula 1, 8, 84, 86
Rhizosolenia imbricata 38, 44
setigera 8, 55, 77, 81, 88
stolterforthii 1, 8, 28, 36, 44, 84
styformis 1, 2, 26, 36, 38, 40, 45, 48, 51, 52, 55, 56, 67, 69, 72, 77, 81, 84
Schroederella delicatula 1, 12
Skeletonema costatum 1
Stephanodiscus argus 63
Stephanopyxis palmeriana 1, 6, 8
Streptotheca indica 10
Thalassiosira rotula 1, 6
Thalassiothrix frauenfeldii 1, 8, 44, 56, 63
nitzschioides 1, 21

TABLE 5

OCCURRENCE OF DINOFLAGELLATES

Numbers refer to the stations at which each organism was found

Amphidinum hyalinum 28
Amphisolenia acutissimum 72
bidentata 2, 6, 8, 9, 10, 11, 12, 13, 15, 26, 28, 30, 31, 32, 33, 34, 36, 37, 38, 40, 42, 44, 46, 47, 48, 49, 50, 51, 52, 55, 56, 58, 60, 61, 62, 64, 67, 69, 76, 77, 79, 80, 81, 84, 85, 86, 88
globifera 6, 7, 11, 23
lemmermanni 77
palaeotheroides 72, 85
palmata 51
schauinslandi 88
thrinax 38, 69, 81
Centrodinium intermedium 6, 25
Ceratium arietinum 12, 17, 18, 21, 23, 25, 28, 31, 46, 55, 66, 69, 80, 82, 85, 86, 88
azoricum 32, 49
belone 12, 31, 33, 36, 37, 38, 40, 41, 55, 78, 79, 80, 85, 86

DATA

CRUISE G 1/60

PART 6

ZOOPLANKTON

G 1/60 ZOOPLANKTON BIOMASS 200 - 0 m. CLARKE BUMPUS OBLIQUE HAULS

STATION	DATE	TIME	LATITUDE	LONGITUDE	FILTERED m^3	BIOMASS mg/m^3
G 1/3/60	3.2.60	1100	34°37'S.	154°45'E.	12.6	27
G 1/7/60	4.2.60	1100	33°37'S.	158°47'E.	19.2	6
G 1/11/60	5.2.60	1100	33°48'S.	163°29'E.	18.3	14
G 1/15/60	6.2.60	0900	35°00'S.	167°14'E.	22.2	6
G 1/21/60	7.2.60	0900	34°56'S.	170°04'E.	12.6	10
G 1/26/60	8.2.60	1100	33°49'S.	173°02'E.	18.9	6
G 1/31/60	9.2.60	1000	29°46'S.	174°02'E.	15.1	11
G 1/36/60	10.2.60	1100	26°21'S.	175°10'E.	13.6	7
G 1/40/60	11.2.60	1000	22°45'S.	175°58'E.	20.2	3
G 1/44/60	12.2.60	0900	19°08'S.	176°48'E.	13.8	6
G 1/46/60	17.2.60	1000	17°21'S.	175°46'E.	14.5	7
G 1/51/60	18.2.60	1000	15°20'S.	171°48'E.	12.4	2
G 1/55/60	19.2.60	1000	13°09'S.	168°31'E.	12.2	4
G 1/59/60	20.2.60	0900	11°50'S.	164°56'E.	15.5	9
G 1/63/60	21.2.60	1000	12°28'S.	162°21'E.	11.7	8
G 1/67/60	22.2.60	1200	16°03'S.	163°17'E.	10.1	11
G 1/72/60	23.2.60	1000	17°52'S.	165°23'E.	10.8	12
G 1/77/60	24.2.60	-	19°55'S.	168°32'E.	11.5	12
G 1/81/60	25.2.60	0900	22°13'S.	167°23'E.	10.5	28
G 1/83/60	29.2.60	1100	23°42'S.	167°06'E.	11.8	21
G 1/88/60	4.3.60	1100	23°54'S.	162°46'E.	10.4	5

G 1/60 ZOOPLANKTON BIOMASS 200 - 0 m. CLARKE BUMPUS OBLIQUE HAULS

STATION	DATE	TIME	LATITUDE	LONGITUDE	FILTERED m^3	BIOMASS mg/m^3
G 1/3/60	3.2.60	1100	34°37'S.	154°45'E.	18.3	10
G 1/21/60	7.2.60	0900	34°56'S.	170°04'E.	14.4	9
G 1/26/60	8.2.60	1100	33°49'S.	173°02'E.	18.7	9
G 1/31/60	9.2.60	1000	29°46'S.	174°02'E.	15.0	5
G 1/36/60	10.2.60	1100	26°21'S.	175°10'E.	19.4	4
G 1/40/60	11.2.60	1000	22°45'S.	175°58'E.	20.7	14
G 1/44/60	12.2.60	0900	19°08'S.	176°48'E.	13.9	5
G 1/46/60	17.2.60	1000	17°21'S.	175°46'E.	18.9	4
G 1/51/60	18.2.60	1000	15°20'S.	171°48'E.	14.4	1
G 1/55/60	19.2.60	1200	13°09'S.	168°31'E.	12.2	2
G 1/59/60	20.2.60	0900	11°50'S.	164°56'E.	17.2	8
G 1/67/60	22.2.60	1200	16°03'S.	163°17'E.	11.7	6
G 1/72/60	23.2.60	1000	17°52'S.	165°23'E.	12.3	11
G 1/77/60	24.2.60	-	19°55'S.	168°32'E.	14.6	5
G 1/81/60	25.2.60	0900	22°13'S.	167°23'E.	11.1	9
G 1/83/60	1.3.60	1100	23°42'S.	167°06'E.	9.6	11
G 1/88/60	4.3.60	1100	23°54'S.	162°46'E.	11.2	3

DATA

CRUISE G 2/60

PART 1

HYDROLOGY

DEEP STATIONS

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	89	60	3	18	1803 K	3022 S	15348 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4335	36	140	420	02	39	16			1	42	1	61	8	1899	30	17

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2427	35850	24224	481	108	17		
2	24	2413	35821	24244	481	108	16		
2	48	2382	35751	24283	488	109	19		
2	72	2233	35732	24699	493	107	24		
2	96	2084	35772	25143	457	97	32		
2	143	1980	35746	25401	454	94	35		
2	191	1883	35702	25619	465	95	36		
2	286	1632	35485	26064	428	83	59		
2	481	1163	34985	26666	435	77	84		
2	676	804	34600	26974	450	73	135		
1	873	618	34484	27143	432	67	126		
1	970	547	34472	27223	432	66	145		
1	1146	472	34500	27332	391	59	162		
1	1324	363	34553	27490	365	53	174		
1	1772	255	34648	27666	359	51	180		
1	2225	216	34705	27744	391	55	167		
1	2685	184	34734	27793	428	60	164		
1	3146	138	34731	27824	438	60	162		
1	3605	122	34726	27832	450	62	163		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	90	60	3	19	1214 K	3025 S	15517 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4645	41	1610	4210	02	33	16			1	53	1	41	8	1812	30	10

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2316	35740	24468	489	108	12		
2	24	2317	35742	24466	484	107	8		
2	47	2258	35674	24584	487	106	9		
2	71	2031	35595	25151	467	98	27		
2	94	1807	35587	25722	431	87	42		
2	141	1662	35482	25992	429	84	53		
2	189	1521	35350	26213	434	82	64		
2	283	1335	35198	26493	447	82	75		
2	474	983	34789	26836	443	75	111		
2	666	781	34585	26997	443	72	137		
2	858	616	34484	27146	435	68	166		
2	1052	469	34489	27327	392	59	184		
1	1150	443	34499	27364	393	58	186		
1	1330	369	34549	27481	365	53	191		
1	1775	258	34648	27663	356	51	198		
1	2230	214	34709	27749	397	56	181		
1	2680	183	34737	27796	425	59	175		
1	3140	148	34737	27822	440	61	184		
1	3600	120	34732	27838	445	61	168		
1	4060	119	34729	27836	454	62	183		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	91	60	3	19	934 K	3024 S	15632 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4663	44	140	422	82	94	16			1	42	1	74	9	1818	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2402	35782	24247	450	101	18		
3	25	2397	35772	24254	481	108	17		
3	50	2399	35782	24256	443	99	19		
3	75	2391	35783	24280	476	106	18		
3	100	2204	35756	24800	438	95	21		
3	150	2020	35787	25327	447	94	31		
3	200	1932	35745	25526	447	92	38		
3	300	1718	35561	25919	374	74	53		
2	493	1258	35121	26589	437	79	78		
2	690	893	34694	26910	435	72	114		
2	885	679	34515	27087	443	70	160		
2	1080	518	34479	27263	415	63	175		
2	1275	410	34519	27415	383	57	192		
2	1470	336	34576	27535	356	52	199		
1	1980	241	34664	27691	368	52	202		
1	2474	206	34716	27761	414	58	183		
1	2964	160	34736	27812	435	60	182		
1	3452	133	34730	27827	450	62	188		
1	3936	118	34730	27837	449	61	180		
1	4419	119	34724	27832	453	62	182		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	93	60	3	19	2120 K	3024 S	15820 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3017	29	14|0	31|9	42	39	16			1	42	1	51	8	19|8	10	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		23|63	35|776	24|357	4|71	105	13		
2	25	2362	35782	24365	465	103	19		
2	50	2361	35781	24367	439	98	13		
2	75	2363	35783	24363	441	98	13		
2	100	2064	35703	25145	441	93	32		
2	125	1962	35748	25450	452	94	32		
2	150	1910	35726	25568	402	82	34		
2	200	1820	35629	25722	439	89	47		
2	300	1622	35492	26093	432	84	55		1
2	400	1435	35310	26370	453	85	66		
2	500	1224	35097	26636	465	83	82		
1	666	921	34719	26884	454	76	123		
1	857	726	34547	27046	439	70	149		
1	1048	570	34476	27198	425	65	179		
1	1239	436	34500	27372	391	58	195		
1	1431	344	34564	27517	357	52	212		
1	1910	251	34657	27677	366	52	202		
1	2396	212	34704	27747	398	56	196		
1	2880	170	34730	27800	430	60	197		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	95	60	3	20	904 L	3022 S	16047 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1463	14	120	117	82	22	16			1	22	1	41	8	1760	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2360	35787	24375	405	108	18		
2	25	2350	35792	24408	491	109	18		
2	50	2350	35793	24409	465	103	17		
2	75	2196	35754	24820	479	103	28		
2	100	2105	35786	25097	466	99	28		
2	125	2041	35784	25268	454	95	31		
2	150	1998	35769	25371	455	95	39		
2	200	1914	35724	25556	440	90	38		
1	289	1665	35511	26007	424	83	55		
1	385	1409	35261	26387					
1	482	1225	35083	26624	453	81	79		
1	676	876	34666	26915	447	74	119		
1	870	704	34521	27057	403	64	147		
1	1065	552	34470	27215	422	64	167		
1	1262	458	34501	27349	396	59	175		
1	1410	392	34530	27442	376	55	194		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	97	60	3	20	1920 L	3020 S	16229 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1097	11	13.0	11.8	92	39	16			1	32	1	31	8	19.6	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		22.76	35.725	24.572	5.02	110	1.2		
2	25	22.73	35.721	24.577	4.26	93	1.3		
2	50	22.60	35.732	24.623	4.66	102	1.1		
2	75	22.26	35.742	24.727	4.58	99	1.2		
2	100	20.32	35.648	25.189	4.62	97	2.8		
2	125	18.46	35.607	25.640	4.66	94	3.7		
1	146	17.46	35.553	25.845	3.39	67	5.7		
1	195	15.50	35.387	26.176	4.02	77	6.7		
1	293	13.43	35.169	26.454	4.27	78	8.6		
1	391	11.67	34.992	26.664	4.37	77	10.8		
1	489	9.94	34.802	26.827	4.41	75	12.0		
1	686	7.90	34.590	26.987	4.26	69	14.6		
1	883	6.06	34.491	27.164	4.25	66	17.5		
1	1080	4.93	34.491	27.301	4.00	60	20.0		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	100	60	3	21	933 L	3022 S	16528 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3255	32	150	218	32	33	16		1		52	1	11	8	1611	00	00

CAST	DEPTH	TEMP.	$s‰$	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2388	35807	24307	493	110	11		
2	25	2379	35815	24340	486	108	11		
2	50	2378	35811	24340	486	108	11		
2	75	2128	35761	25015	491	105	22		
2	100	2078	35766	25155	498	105	24		
2	125	1992	35747	25370	458	95	29		
2	150	1928	35725	25521	470	97	39		
2	200	1843	35652	25681	463	94	44		
2	300	1673	35185	25738	448	88	57		
2	500	1223	35031	26587	445	79	95		
2	700	892	34693	26910	453	75	126		
1	881	683	34501	27070	462	73	134		
1	1075	540	34462	27223	439	67	166		
1	1270	432	34504	27380	406	60	182		
1	1465	354	34565	27508	397	58	194		
1	1956	244	34645	27673	353	50	203		
1	2448	211	34678	27727	361	51	203		
1	2942	198	34692	27748	367	51	200		
1	3240	196	34694	27751	367	51	199		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	101	60	3	21	1840 L	3025 S	167 1 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2889	29	170	317	82	28	16			1	72	1	51	8	1518	05	10

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2358	35888	24457	336	75	9		
2	25	2358	35893	24461	459	102	5.		
2	50	2354	35890	24470	473	105	6		
2	75	2285	35859	24647	516	113	10		
2	100	1948	35720	25465	512	106	22		
2	125	1865	35694	25658	475	97	29		
2	150	1813	35667	25768	470	95	35		
2	200	1731	35596	25914	461	91	42		
2	300	1538	35383	26200	400	76	59		
2	500	1156	34972	26669	447	79	96		
1	675	853	34649	26938	460	76	130		
1	869	668	34505	27094	465	73	153		
1	1065	569	34512	27227	434	67	171		
1	1262	452	34513	27365	407	61	188		
1	1459	346	34548	27503	375	54	201		
1	1955	244	34648	27675	376	53	198		2
1	2453	208	34682	27732	364	51	202		
1	2852	198	34691	27747	365	51	203		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	103	60	3	22	320 L	3023 S	16844 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3749	37	160	217	22	22	16			1	62	1	41	7	1512	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
1		2216	35761	24770	505	100	9		
2	25	2215	35771	24780	505	109	10		
2	50	2130	35764	25011	512	109	12		
2	75	1908	35707	25558	452	93	25		
2	100	1862	35687	25660	464	94	20		
2	150	1773	35638	25845	464	93	34		
2	200	1693	35564	25981	453	89	42		
2	297	1482	35327	26281	373	70	54		
2	493	1126	34947	26706	445	78	82		
2	687	853	34662	26948	435	71	111		
2	880	673	34531	27107	388	61	149		
1	1086	550	34485	27229	434	66	154		
1	1281	426	34504	27386	417	62	167		
1	1476	362	34503	27451	392	57	170		
1	1968	250	34627	27653	367	52	180		
1	2461	206	34665	27720	359	50	179		
1	2954	201	34679	27735	356	50	180		
1	3449	201	34682	27738	353	49	180		
1	3696	199	34682	27739	351	49	176		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	105	60	3	22	1754 L	2811 S	16823 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3420	34	10|0	11|7	82	28	16			1	2	1	1	8	14|7	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		22|69	35|823	24|666	4|99	109	|18		
2	25	2249	35824	24724	499	109	15		
2	50	2246	35836	24741	503	110	15		
2	75	2162	35821	24966	511	110	18		
2	100	1936	35734	25507	476	98	30		
2	125	1858	35702	25682	446	91	36		
2	149	1812	35667	25770	452	91	43		
2	197	1759	35630	25873	472	94	45		
2	293	1596	35454	26123	434	88	56		
2	485	1126	34950	26708	443	77	101		
2	676	818	34604	26956	449	73	126		
1	888	618	34445	27112	453	70	150		
1	1081	486	34446	27274	433	65	171		
1	1275	396	34500	27414	393	58	184		
1	1470	326	34560	27532	374	54	184		
1	1963	242	34635	27667	351	50	190		
1	2457	206	34663	27719	353	49	202		
1	2955	190	34680	27745	353	49	187		
1	3404	192	34653	27722	353	49	192		2

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	108	60	3	23	941 L	2604 S	16638 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3365	33	120	119	42	56	16			1	22	1	19		1510	00	05

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2509	35657	23830	460	105	15		
2	25	2494	35659	23877	457	104	10		
2	50	2486	35690	23925	438	99	11		
2	74	2274	35769	24611	465	102	10		
2	99	2083	35770	25144	494	105	20		
2	124	2021	35733	25283	460	96	24		
2	149	1958	35730	25447	470	97	30		
2	199	1872	35692	25639	453	92	38		
2	297	1719	35553	25910	455	90	46		
2	483	1274	35076	26522	430	78	75		
2	660	840	34604	26922	454	74	122		
1	882	631	34423	27078	460	72	139		
1	1086	518	34404	27204	418	63	159		
1	1278	410	34520	27416	396	57	175		
1	1472	325	34582	27550	357	52	179		
1	1960	244	34646	27674	348	49	193		
1	2455	202	34683	27738	352	49	189		
1	2952	193	34695	27754	367	51	189		
1	3300	192	34698	27758	362	51	181		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	110	60	3	23	1950 L	2429 S	16557 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3566	34	120	320	02	44	16			1	22	1	11	7	151	00	20

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2538	35646	23733	453	104	8		
2	25	2541	35654	23730	476	109	7		
2	50	2386	35720	24247	425	95	5		
2	75	2232	35727	24699	371	81	7		
2	100	2048	35909	25345	448	94	11		
2	125	1960	35685	25407	443	92	24		
2	150	1942	35668	25441	443	91	23		
2	200	1842	35624	25663	432	87	34		
2	300	1645	35454	26010	432	84	48		
2	475	1156	34938	26643	388	68	106		
2	650	748	34509	26985	410	66	156		
1	875	559	34419	27166	409	63	195		
1	1066	430	34492	27372	393	58	213		
1	1259	356	34551	27495	357	52	229		
1	1453	308	34586	27569	349	50	226		
1	1941	240	34650	27680	348	49	231		
1	2432	204	34682	27735	388	54	229		
1	2923	195	34693	27751	999	140	207		
1	3418	192	34700	27759	365	51	218		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	112	60	3	24	404 L	2319 S	165 3 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3530	33	150	521	12	50	16			1	62	1	34	7	140	20	05

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2654	35608	23343	447	104	6		
2	24	2679	35615	23268	457	107	8		2
2	49	2641	35618	23391	431	100	4		
2	74	2587	35850	23735	431	99	8		
2	98	2364	35899	24448	476	106	9		
2	123	2130	35822	25055	448	104	3		
2	148	2060	35786	25219	465	102	15		
2	197	1929	35750	25537	442	91	30		
2	296	1788	35671	25833	442	89	40		
2	493	1349	35171	26443	399	73	80		
2	690	872	34663	26919	417	69	127		
1	825	710	34313	27042	442	70	145		1
1	1003	540	34464	27225	419	64	172		
1	1186	427	34507	27387	386	57	183		
1	1370	352	34555	27502	359	52	199		
1	1842	247	34640	27666	345	49	203		
1	2325	205	34676	27730	351	49	210		
1	2815	195	34692	27751	360	50	200		
1	3312	193	34701	27759	357	50	212		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	114	60	3	24	1650 L	2132 S	16343 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3512	34	130	526	12	72	16			1	33	1	14	6	1216	20	20

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2650	35651	23388	440	102	14		
2	22	2656	35552	23294	358	83	10		
2	44	2686	35546	23194	436	102	3		
2	67	2420	35711	24140	427	96	8		
2	88	2240	35765	24705	329	72	11		
2	111	2160	35798	24954	443	95	15		1
2	132	2087	35884	25220	387	82	22		
2	177	2027	35760	25287	418	88	23		
2	265	1842	35601	25645	399	81	40		1
2	442	1242	35000	26526	307	55	91		
2	616	768	34544	26984	358	58	136		
1	925	477	34467	27301	404	61	187		
1	1112	423	34500	27386	371	55	196		
1	1300	361	34544	27485	362	53	207		
1	1492	308	34585	27568	338	49	203		
1	1975	244	34640	27669	354	50	210		
1	2440	208	34674	27726	358	50	213		
1	2938	196	34688	27747	363	51	210		
1	3410	193	34696	27755	369	52	209		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	116	60	3	25	506 L	1937 S	16229 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3493	35	110	423	92	56	16			1	13	1	14	6	1215	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
1		2706	35352	22984	446	105	12		
2	25	2705	35359	22993	468	110	13		
2	50	2647	35433	23233	471	109	13		
2	75	2350	35698	24337	458	102	20		
2	99	2202	35757	24806	460	99	20		
2	123	2139	35781	24999	456	98	29		
2	147	2080	35770	25153	431	91	29		
2	195	1948	35629	25396	414	85	41		
2	291	1639	35420	25998	400	78	55		
2	485	1083	34860	26716	416	72	106		
2	680	683	34519	27084	431	68	152		
1	885	528	34473	27246	431	65	182		
1	1078	412	34509	27405	392	58	188		
1	1270	351	34552	27501	376	55	188		
1	1466	308	34583	27567	365	52	197		
1	1958	236	34648	27682	354	50	209		
1	2452	201	34681	27737	375	52	204		
1	2952	194	34690	27750	375	52	198		
1	3450	191	34694	27755	372	52	198		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	119	60	3	25	1804 L	1755 S	16110 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2889	29	110	523	92	78	16			1	13	1	14	8	1012	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2776	35113	22579	460	109	20		
2	25	2772	35169	22634	457	108	21		
2	49	2570	35501	23525	491	113	20		
2	73	2502	35575	23790	489	111	19		
2	97	2367	35690	24281	464	108	24		
2	121	2255	35743	24645	473	103	27		
2	145	2166	35779	24923	457	98	28		
2	194	2034	35740	25253	432	91	34		
2	292	1640	35457	26024	445	87	58		1
2	391	1224	34968	26536	446	80	86		
2	490	940	34687	26828	425	71	122		
1	700	594	34437	27137	456	70	159		
1	898	482	34440	27274	417	63	166		
1	1095	399	34504	27415	380	56	181		
1	1293	339	34552	27513	370	54	188		
1	1491	304	34583	27570	366	53	191		
1	1983	234	34652	27687	351	50	194		
1	2479	204	34686	27739	368	52	180		
1	2875	193	34697	27756	374	52	184		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	121	60	3	26	436 L	1556 S	16048 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4244	42	120	525	02	78	16			1	23	1	14	7	812	05	30

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2825	35033	22358	465	111	21		
3	25	2826	34998	22329	469	112	22		
3	50	2693	35255	22953	459	107	28		
3	75	2536	35461	23600	478	109	27		
3	100	2442	35630	24013	443	100	33		
2	120	2348	35742	24376	394	87	46		
3	125	2328	35763	24450	382	84	50		
2	162	2200	35829	24866	363	78	59		
2	242	1873	35531	25513	354	72	77		
2	324	1560	35278	26070	396	76	77		
2	407	1192	34939	26576	429	76	103		
2	579	736	34520	27011	429	69	153		
2	760	524	34433	27219	437	66	179		
2	946	404	34492	27400	398	59	196		
1	1230	330	34588	27550	368	53	187		
1	1415	284	34605	27606	345	49	197		
1	1885	232	34653	27689	354	50	198		
1	2362	200	34677	27735	363	51	198		
1	2841	186	34693	27758	321	45	188		
1	3320	178	34698	27768	388	54	188		
1	3804	184	34702	27767	385	54	172		
1	4193	190	34711	27770	393	55	203		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	123	60	3	26	1600 L	1413 S	16030 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4390	38	1810	5256	72	89	16			1	83	1	74	7	1016	10	15

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2906	34724	21857	445	107	27		
2	25	2906	34718	21853	463	112	27		
2	30	2892	34768	21937	467	112	34		
2	75	2863	35171	22336	466	112	36		
2	99	2627	35449	23308	444	103	38		
2	138	2384	35791	24307	350	78	49		
2	181	2248	35854	24749	356	78	64		
2	270	1774	35481	25722	383	76	67		
2	456	979	34721	26789	428	72	123		
2	648	600	34435	27128	437	68	153		
2	845	468	34449	27296	416	62	177		
1	1035	396	34508	27421	363	53	191		
1	1222	344	34563	27517	350	51	191		
1	1410	305	34586	27572	345	50	192		
1	1885	248	34630	27658	331	47	163		5
1	2360	212	34663	27714	339	48	200		
1	2830	191	34681	27745	358	50	190		
1	3300	176	34686	27760	358	50	194		
1	3760	178	34688	27760	361	50	203		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	126	60	3	27	510 L	1353 S	158 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4298	06	150	626	12	72	16			1	52	1	64	7	61		50

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2860	34996	22215	438	105	27		
2	32	2867	34950	22157	449	108	26		
2	58	2770	35110	22596	456	108	26		
2	88	2486	35700	23933	387	88	49		
2	162	2153	35790	24968	366	78	61		
2	250	1898	35580	25487	364	74	63		
2	344	1594	35271	25987	288	55	96		
2	441	1301	35057	26453	415	75	94		
2	539	1008	34760	26770	427	73	114		
2	638	782	34560	26976	373	60	163		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	128	60	3	27	1634 K	1433 S	15556 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2926	27	150	526	12	83	16			1	23	1	67	7	63	10	10

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2878	34758	21976	460	110	17		
2	24	2878	34754	21973	463	111	18		
2	48	2786	35206	22616	459	109	21		
2	70	2584	35455	23447	417	96	24		
2	92	2460	35610	23943	394	89	30		
2	116	2328	35736	24430	364	80	45		
2	140	2245	35758	24685	430	94	34		2
2	187	2154	35734	24922	369	79	48		
2	274	1857	35587	25597	381	77	57		
2	356	1530	35321	26170	398	76	70		
2	427	1194	34976	26600	417	74	97		
1	582	705	34508	27045	405	64	158		
1	755	540	34461	27222	387	59	186		
1	940	465	34487	27330	377	56	197		1
1	1127	382	34536	27457	357	52	206		
1	1313	326	34575	27544	331	48	215		
1	1782	259	34630	27648	319	45	214		
1	2250	222	34669	27710	338	48	212		
1	2722	204	34695	27746	379	53	205		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	130	60	3	28	410 K	1408 S	15339 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4481	44	140	526	12	78	16			1	33	1	57	8	88	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2807	34927	22338	383	91	13		
3	25	2806	34927	22341	460	109	90		
3	50	2551	35543	23615	442	101	13		
3	75	2418	35690	24130	422	95	17		
3	100	2304	35731	24495	380	84	40		
3	125	2178	35759	24875	317	68	71		
2	139	2112	35715	25024	341	73	59		
2	186	1918	35579	25435	354	73	62		
2	285	1467	35165	26189	364	68	87		
2	384	1122	34842	26631	392	68	127		
2	483	834	34581	26914	437	71	156		
2	682	560	34447	27187	400	61	191		
2	881	446	34480	27345	380	57	208		
2	1080	382	34524	27448	364	52	210		
1	1256	333	34563	27527	398	58	202		
1	1441	299	34591	27581	330	47	200		
1	1960	239	34646	27678	337	48	192		
1	2952	196	34702	27758	409	57	180		
1	3440	189	34715	27774	417	58	177		
1	3913	184	34720	27782	391	54	166		
1	4380	189	34722	27779	376	52	178		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	132	60	3	28	1603 K	1338 S	15148 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4481	44	140	525	02	83	16			1	43	1	34	8	84	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2757	35092	22624	477	113	16		
3	25	2755	35095	22633	471	111	12		
3	50	2604	35509	23425	497	115	17		
3	75	2447	35666	24025	489	110	22		
3	100	2316	35734	24463	381	84	50		
3	125	2199	35745	24805	362	78	55		
2	149	2151	35714	24915	355	76	56		
2	199	1985	35590	25269	369	77	63		
2	298	1528	35235	26109	378	72	88		
2	398	1104	34837	26660	398	69	121		
2	497	832	34564	26903	422	69	157		
2	696	551	34455	27204	416	64	190		
2	895	450	34484	27344	387	58	198		
2	1094	378	34536	27461	373	55	214		
1	1273	336	34578	27536	325	47	222		
1	1468	296	34597	27589	329	47	224		
1	1960	240	34646	27677	334	47	229		
1	2455	212	34682	27729	363	51	208		
1	2948	198	34709	27762	393	55	198		
1	3440	190	34720	27777	379	53	187		
1	3926	184	34728	27788	424	59	180		
1	4400	189	34731	27786	436	61	179		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	134	60	3	29	525 K	1309 S	14925 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4500	45	120	523	92	78	16			1	23	1	44	8	910	00	05

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2773	35142	22610	462	109	17		
3	25	2726	35344	22914	485	114	17		
3	50	2388	35517	24088	461	103	29		
3	75	2272	35567	24539	391	85	45		
3	100	2181	35740	24852	363	78	56		
3	125	1996	35609	25255	348	72	51		
2	147	1946	35595	25375	378	78	55		
2	194	1763	35443	25720	368	73	70		
2	294	1310	35019	26406	366	67	107		
2	384	950	34708	26828	426	72	119		
2	481	761	34542	26992	437	70	143		
2	678	569	34466	27191	420	64	162		
2	877	465	34474	27320	395	59	179		
2	1076	389	34522	27439	368	54	190		
1	1300	324	34576	27546	404	58	190		
1	1500	294	34596	27590	332	48	199		
1	2000	238	34644	27677	337	48	190		
1	2500	207	34686	27736	370	52	191		
1	3000	196	34714	27767	413	58	176		
1	3500	188	34723	27780	431	60	176		
1	3985	182	34725	27787	431	60	170		
1	4470	186	34726	27785	431	60	209		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	136	60	3	29	1853 K	1151 S	14721 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3329	30	130	425	02	78	16			1	33	1	44	7	96	05	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2813	34271	21825	452	107	8		
2	25	2778	35105	22566	466	110	7		
2	50	2465	35567	23896	467	105	11		
2	75	2322	35681	24405	420	93	23		
2	100	2224	35727	24721	383	83	36		
2	125	2115	35694	24999	366	78	49		
2	150	2016	35640	25225	372	78	51		
2	200	1745	35438	25760	375	74	61		
2	300	1257	34999	26496	394	71	102		
2	400	1044	34799	26738	414	71	121		
2	500	824	34604	26947	427	70	153		
1	700	623	34481	27134	438	68	172		
1	899	483	34471	27297	405	61	183		
1	1097	394	34516	27429	381	56	205		
1	1294	342	34565	27520	347	50	206		
1	1491	302	34595	27582	336	48	217		
1	1985	238	34649	27680	342	48	212		
1	2478	207	34687	27737	372	52	198		
1	2970	190	34713	27771	427	60	196		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	138	60	3	30	600 K	1003 S	147 8 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2286	20	30	124	42	61	16			1	22	1	24	7	1012	10	15

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2754	34450	22152	462	108	12		
2	25	2788	34633	22179	465	110	12		
2	50	2794	34828	22306	458	108	11		
2	75	2750	35396	22876	484	114	17		1
2	100	2465	35580	23906	471	106	24		
2	125	2307	35600	24388	369	86	41		
2	150	2170	35672	24831	362	82	49		
2	200	1885	35525	25478	382	78	66		
2	300	1466	35182	26204	401	75	83		
2	400	1298	35023	26433	414	75	98		
1	470	1090	34782	26643	422	73	120		2
1	652	710	34508	27038	439	70	152		
1	831	516	34455	27246	409	62	186		
1	1010	422	34483	27374	401	59	194		
1	1186	366	34526	27466	366	53	211		
1	1355	322	34567	27541	344	50	204		
1	1737	248	34623	27652	347	49	204		
1	1960	221	34653	27698	347	49	200		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	144	60	4	02	2046 K	1105 S	148 5 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2140	20	160	325	62	72	16			1	62	1	41	7	61	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		28.15	34.953	22.331	4.66	111	19		
2	25	27.41	35.235	22.784	4.50	106	17		
2	50	26.74	35.340	23.077	4.48	104	20		
2	75	25.20	35.464	23.651	4.36	99	22		1
2	100	23.37	35.654	24.341	4.04	89	35		
2	125	22.46	35.682	24.625	3.83	83	47		
2	150	22.01	35.703	24.768	3.80	82	49		
2	200	19.59	35.601	25.346	3.56	74	64		
2	300	14.79	35.205	26.194	3.85	72	91		
1	400	12.96	35.037	26.448	3.85	70	106		
1	500	10.96	34.843	26.679	4.05	70	125		
1	700	7.03	34.526	27.062	4.32	68	164		
1	898	5.20	34.463	27.248	4.04	61	187		
1	1095	4.10	34.508	27.406	3.75	55	202		
1	1292	3.56	34.551	27.495	3.51	51	219		
1	1487	2.94	34.603	27.596	3.34	48	214		
1	1969	2.30	34.653	27.691	3.44	48	212		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	147	60	4	03	934 K	1126 S	15112 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2433	15	100	226	12	89	16			1	82	1	64	7	65	05	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
1		2809	34647	22121	431	102	11		
1	25	2775	34765	22320	438	103	8		
1	50	2660	35418	23180	483	112	6		
1	75	2510	35472	23688	414	94	19		
1	100	2435	35536	23963	414	93	23		
1	150	2218	35642	24674	371	80	44		
1	200	1938	35544	25357	360	74	61		
1	297	1528	35248	26119	376	72	83		
1	490	1087	34840	26693	398	69	123		
1	686	745	34528	27004	427	68	166		
1	882	518	34457	27245	400	61	187		
1	1078	400	34509	27417	365	54	208		
1	1274	345	34566	27518	333	48	223		
1	1468	304	34591	27577	305	44	230		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	149	60	4	03	1648 K	1058 S	152 6 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1829	13	200	126	13		16			1	82	1	81	7	69	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2776	34941	22449	444	105	8		
2	25	2725	35115	22745	462	108	9		
2	50	2703	35205	22883	460	108	11		
2	75	2617	35327	23247	457	106	12		
2	100	2600	35400	23356	418	96	11		
2	125	2204	35571	24659	400	86	40		
2	150	2101	35574	24946	376	80	51		
2	200	1728	35341	25726	376	74	76		
1	289	1528	35202	26083	384	73	81		
1	384	1287	35015	26449	386	70	110		
1	479	1061	34850	26748	371	64	121		
1	669	760	34650	27078	376	60	165		
1	858	570	34579	27279	366	56	189		
1	1049	507	34552	27334	360	54	194		
1	1235	484	34544	27354	359	54	197		
1	1327	476	34541	27360	355	53	206		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	150	60	4	03	2326 K	956 S	15220 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2843	28	190	226	12	83	16			1	82	1	70	7	84	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2827	34542	21983	441	105	11		
2	25	2827	34696	22099	440	105	15		
2	50	2772	34944	22465	437	103	18		
2	75	2586	35323	23341	372	86	34		
2	100	2466	35458	23810	389	88	33		
2	125	2380	35541	24130	375	83	45		
2	150	2231	35677	24663	365	79	49		
2	200	1936	35564	25377	367	76	62		
2	300	1360	35083	26353	388	71	99		
2	400	1121	34866	26652	396	69	120		
2	500	912	34680	26868	383	64	140		
1	695	691	34520	27074	351	55	163		
1	893	546	34467	27220	334	51	189		
1	1091	417	34523	27411	417	62	213		
1	1290	350	34569	27516	404	59	212		
1	1489	305	34394	27578	318	46	223		
1	1980	228	34651	27691	330	46	217		
1	2465	203	34683	27737	353	49	210		
1	2750	197	34693	27750	371	52	208		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	153	60	4	04	1332 K	752 S	15134 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
5486	55	17|0	22|6	73		16			1	70	1	51	8	7|0	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		29|23	34|385	21|546	3|78	91	21		
3	25	2933	34624	21695	413	100	22		
3	50	2939	35026	21973	443	107	31		
3	75	2892	35249	22298	400	96	44		
3	100	2834	35374	22585	355	85	60		
3	125	2777	35393	22786	341	81	65		
3	150	2626	35638	23453	330	77	85		
3	200	2170	35644	24810	326	70	62		
2	292	1415	35168	26303	333	62	109	1	
2	390	968	34733	26817	386	65	147		
2	489	743	34562	27034	404	65	165		
2	688	586	34493	27191	395	61	188		
2	887	495	34516	27319	337	51	204		
2	1086	412	34537	27427	339	50	213		
2	1286	354	34581	27521	305	44	234		
2	1484	306	34605	27586	292	42	233		
2	1980	234	34640	27677	298	42	230		
1	2500	193	34682	27744	324	45	228		
1	3000	190	34702	27762	352	49	218		
1	3500	195	34709	27764	367	51	213		
1	4000	201	34711	27761	364	51	202		
1	4500	207	34712	27757	372	52	204		
1	5000	213	34713	27753	371	52	195		
1	5480	218							

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	155	60	4	05	935 K	713 S	149 7 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6400	63	300	226	12	67	16			3	22	61	4		111	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3	-	2860	33926	21412	442	105	14		
3	25	2867	34628	21915	440	105	27		
3	50	2811	35227	22550	390	93	45		
3	75	2659	35518	23259	362	84	67		
3	100	2486	35550	23819	342	77	53		
3	125	2324	35644	24372	355	78	51		
3	150	2172	35643	24803	341	73	56		
3	200	1846	35502	25559	335	68	73		
3	300	1454	35175	26225	352	66	92		
2	400	1254	34997	26500	376	68	107		
2	500	987	34751	26799	403	68	137		
2	700	648	34519	27131	383	60	181		
2	900	494	34511	27316	350	53	199		
2	1100	423	34546	27423	307	45	214		
2	1300	351	34579	27523	295	43	219		
2	1500	305	34609	27590	287	41	218		
2	2000	224	34652	27695	293	41	223		
2	2500	194	34678	27740	325	45	222		
1	2980	190	34703	27763	334	47	204		
1	3475	195	34706	27762	360	50	201		
1	3973	201	34708	27759	366	51	196		
1	4472	207	34711	27756	355	50	191		
1	4971	214	34711	27751	361	51	189		
1	5470	221	34711	27745	361	51	181		
1	5970	227	34709	27738	366	52	178		
1	6270	231	34711	27737	347	49	181		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	157	60	4	06	655 K	539 S	14720 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1335	12		1215	02	67	16			3	20		8		9[8	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		28[48	33[884	21[420	4[42	105	15		
2	25	2870	34540	21839	454	109	18		
2	50	2805	34824	22267	419	99	28		
2	75	2777	34964	22463	400	95	42		
2	100	2748	35117	22672	387	91	45		
2	125	2550	35452	23550	359	82	53		
2	150	2413	35630	24099	331	74	67		
1	194	2125	35639	24930	382	81	55		
1	291	1407	35124	26286	355	66	103		
1	387	1000	34761	26785	366	62	135		
1	483	869	34662	26923	336	55	152		
1	674	604	34507	27179	335	52	180		
1	864	519	34512	27288	335	51	200		
1	1050	414	34556	27440	277	41	215		
1	1230	361	34582	27515	267	39	224		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	158	60	4	06	1620 K	358 S	14642 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2012	20		126	12	89	16			3		3	11	7	88	00	00

CAST	DEPTH	TEMP.	S ‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2875	34226	21587	455	109	10		
2	25	2892	34573	21791	449	108	11		
2	50	2861	34723	22007	443	106	16		
2	75	2864	34928	22150	432	104	24		
2	100	2823	35236	22517	400	95	38		
2	125	2721	35352	22936	372	87	49		
2	150	2575	35622	23601	324	75	66		
2	200	1919	35481	25358	341	70	68		
2	300	1268	35001	26476	364	66	118		
2	400	1046	34794	26731	367	63	134		
1	487	840	34640	26951	346	57	169		
1	682	596	34570	27239	332	51	195		
1	877	505	34523	27313	316	48	208		
1	1072	410	34565	27451	260	38	238		
1	1268	364	34581	27511	256	37	235		
1	1464	316	34605	27577	251	36	238		
1	1710	256	34630	27651	247	35	223		
1	1957	231	34644	27683	254	36	235		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	160	60	4	08	1604 K	244 S	14818 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2359	22	180	127	23	6	16			1	90	2	18		55	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2977	34265	21274	425	103	19		
2	25	2856	34699	22005	456	109	13		
2	50	2808	34872	22293	407	98	31		
2	75	2793	35019	22453	388	92	35		
2	100	2793	35369	22716	387	92	43		
2	125	2689	35491	23143	336	79	57		
2	150	2644	35474	23273	349	81	58		
2	200	2068	35549	25017	329	69	64		
2	300	1324	35014	26373	338	62	112		1
2	400	979	34747	26810	310	52	163		
1	490	834	34641	26961	277	45	186		
1	686	637	34552	27172	284	44	203		
1	880	508	34537	27321	286	43	213		
1	1075	424	34555	27429	276	41	220		
1	1270	355	34583	27522	258	38	232		
1	1466	313	34605	27580	246	35	235		
1	1955	295	34615	27604	238	34	228		
1	2249	297	34615	27602	238	34	232		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	162	60	4	09	530 K	300 S	15018 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
2378	22	240	126	12	89	16			2	22	2	20	8	74	10	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2960	33702	20842	464	112	24		
2	25	2914	34509	21669	456	110	22		
2	50	2834	34617	22016	454	108	20		
2	75	2793	34613	22148	417	99	42		
2	100	2754	35165	22689	368	87	70		
2	125	2683	35270	22996	359	84	71		
2	150	2640	35353	23195	353	82	76		
2	200	2048	35547	25069	342	72	101		
2	300	1302	35038	26436	366	66	127		
2	400	998	34765	26791	335	57	149		
1	475	894	34671	26890	337	56	178		
1	666	633	34538	27166	327	51	212		
1	857	519	34536	27307	302	46	217		
1	1050	438	34553	27412	280	42	217		
1	1243	363	34586	27516	267	39	223		
1	1437	313	34607	27581	242	35	219		
1	1924	294	34621	27610	242	35	220		
1	2220	294	34614	27604	236	34	221		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	167	60	4	11	2315 K	551 S	15239 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
7315	56	280	225	62	83	16			2	80	2	18		96	10	10

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2948	34804	21776	445	108	21		
3	25	2953	34860	21801	436	106	22		
3	50	2940	35057	21993	449	109	20		
3	74	2899	35252	22277	433	105	33		
3	99	2880	35429	22473	415	100	41		
3	123	2843	35428	22596	405	97	45		
3	147	2756	35460	22905	377	89	58		
3	196	2210	35689	24732	305	66	89		
3	293	1500	35178	26127	312	59	111		
2	377	969	34729	26812	360	64	133		
2	475	752	34564	27023	393	63	147		
2	671	581	34495	27199	369	57	170		
2	869	514	34536	27313	285	43	214		
2	1067	433	34551	27416	280	42	217		
2	1267	355	34578	27518	276	40	218		
2	1467	304	34601	27585	281	40	226		
2	1967	239	34641	27674	281	40	228		
1	2320	194	34668	27732	303	42	226		
1	2772	188	34679	27746	332	46	209		
1	3230	193	34703	27761	363	51	196		
1	3700	196	34708	27763	376	53	203		
1	4175	202	34708	27758	374	52	207		
1	4656	206	34708	27755	373	52	201		
1	5135	216	34709	27747	326	46	191		
1	5620	223	34710	27742	343	48	198		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	169	60	4	12	1117 K	633 S	154 3 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
8202	77	20	226	72	89	16				22	3	11	7	98	10	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2930	34694	21754	443	107	25		
3	24	2930	34640	21714	442	107	17		
3	47	2934	34730	21768	450	109	15		
3	70	2918	35277	22232	449	109	26		
3	93	2831	35357	22582	379	91	47		
3	142	2781	35418	22792	364	86	50		
3	190	2427	35589	24026	354	79	48		
3	288	1527	35232	26109	350	67	90		
3	386	1007	34769	26779	364	62	136		
3	484	802	34610	26985	374	61	161		
3	681	617	34507	27163	400	62	183		
3	878	500	34511	27309	366	55	185		
3	1075	419	34534	27417	327	48	187		
2	1250	347	34573	27522	317	46	184		
2	1450	296	34608	27598	292	42	198		
2	1950	224	34649	27693	302	43	193		
2	2450	194	34682	27743	326	46	187		
4	2745	191	34689	27751	338	47	214		
4	3245	194	34700	27758	351	49	210		
4	3745	198	34706	27759	368	51	209		
4	4245	203	34706	27755	374	52	210		
1	5000	213	34707	27748	352	49	160		
1	5500	218	34708	27745	373	52	166		
4	6243	231	34709	27735	373	53	203		
4	6741	236	34709	27731	365	52	213		
4	7233	245	34708	27722	355	50	184		
4	7720	257	34710	27714	373	53	191		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	171	60	4	13	705 K	809 S	15551 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4179	39	100	325	02	61	16			1	21		51	5	105	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2924	34206	21408	427	103	20		
3	25	2936	34698	21737	430	104	29		
3	50	2997	35222	21923	429	105	33		
3	75	2860	35330	22466	400	96	47		
3	100	2811	35378	22663	377	90	53		
3	125	2771	35414	22821	363	86	62		
3	150	2671	35468	23183	363	85	56		
2	200	2426	35567	24013	373	84	48		
2	300	1554	35222	26040	292	56	120		
2	400	852	34634	26927	399	65	154		
2	500	739	34559	27037	380	61	166		
2	700	566	34510	27230	430	66	183		
2	888	504	34515	27308	355	54	198		
2	1075	420	34531	27414	340	50	217		
1	1270	341	34578	27531	316	46	218		
1	1462	286	34608	27607	305	44	225		
1	1945	217	34659	27707	313	44	220		
1	2429	197	34682	27741	336	47	219		
1	2918	191	34695	27756	350	49	212		
1	3412	193	34708	27765	382	53	203		
1	3910	198	34714	27766	370	52	208		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	174	60	4	14	315 L	837 S	15842 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1646	15		25	62	72	16					1	21	8	84	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2940	34026	21220	449	108	9		
2	25	2939	34340	21458	436	105	10		
2	50	2929	34506	21617	449	108	17		
2	75	2965	34842	21747	449	109	20		
2	100	2918	35004	22027	486	118	19		
2	125	2782	35165	22598	417	99	32		
2	150	2632	35323	23194	383	89	34		
2	200	2414	35554	24039	373	83	44		
2	300	1458	35146	26194	289	54	123		
1	400	946	34722	26845	368	62	143		
1	500	821	34625	26968	373	61	152		
1	700	616	34521	27175	386	60	175		
1	900	506	34519	27309	368	56	193		
1	1100	422	34537	27417	344	51	198		
1	1300	375	34566	27488	323	47	212		1
1	1500	347	34577	27525	321	47	216		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	179	60	4	15	1105 L	1104 S	16114 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
6583	62		26	12	83	16					2	11	7	90	10	05

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
3		2849	34546	21913	449	107	16		
3	25	2832	34748	22121	435	104	13		
3	50	2784	35109	22550	440	104	15		
3	75	2697	35321	22990	444	104	18		
3	100	2604	35432	23367	430	99	23		
3	125	2455	35534	23901	423	95	28		
3	150	2283	35681	24518	341	75	58		
3	200	1970	35624	25334	306	63	75		
3	300	1490	35163	26137	291	55	113		
2	383	968	34739	26822	331	56	153		
2	480	828	34637	26967	336	55	157		
2	675	605	34506	27177	386	60	161		
2	872	526	34509	27277	290	44	205		4
2	1065	436	34535	27400	329	49	206		
2	1260	365	34555	27490	331	48	208		1
2	1456	311	34589	27569	311	45	212		
2	1947	232	34643	27681	319	45	214		
2	2440	199	34678	27736	345	48	208		
1	2860	191	34694	27755	342	48	206		
1	3310	186	34712	27774	366	51	205		
1	3770	183	34714	27777	341	47	197		
1	4252	187	34718	27778	348	49	195		
1	4750	186	34701	27765	334	47	206		
1	5246	188	34696	27759	336	47	208		
1	5731	195	34696	27754	343	48	201		
1	6230	202	34694	27747	334	47	209		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	181	60	4	15	1632 L	951 S	15913 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4617	44	120	226	72	94	16			1	22	1	61	7	105	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2900	34703	21862	445	107	26		
2	25	2908	34680	21818	443	107	28		
2	50	2916	34768	21857	442	107	20		
2	75	2920	35086	22082	434	105	27		
2	98	2895	35263	22299	424	102	37		
2	120	2834	35334	22555	395	94	49		
2	142	2776	35397	22792	374	89	56		
2	185	2644	35439	23247	368	85	58		
2	265	2009	35718	25303	315	66	72		2
2	343	1299	35145	26525	315	57	117		
2	420	1029	34851	26805	288	49	165		
2	560	751	34576	27033	373	60	188		
2	675	613	34521	27176	390	61	179		
1	1090	416	34524	27413	348	51	215		
1	1282	350	34578	27523	317	46	226		
1	1473	291	34607	27601	311	45	234		
1	1935	222	34654	27698	323	45	229		
1	2410	198	34683	27741	336	47	227		
1	2895	192	34708	27766	377	53	213		
1	3390	190	34721	27778	408	57	208		1
1	3885	186	34725	27784	402	56	197		
1	4380	190	34726	27782	419	58	205		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	183	60	4	16	1030 K	1024 S	15621 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3329	23	110	326	72	94	16			1	12	1	54	8	1015	50	15

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2895	34293	21571	431	103	10		
2	20	2868	34457	21784	416	99	8		1
2	40	2838	34709	22072	451	107	11		
2	61	2816	35069	22415	446	106	15		
2	81	2712	35284	22914	399	94	24		
2	101	2643	35471	23274	342	79	57		
2	120	2521	35499	23674	319	73	45		
2	157	2315	35646	24399	351	77	44		
2	228	1912	35568	25442	341	70	72		
2	290	1646	35342	25922	328	64	78		
2	348	1218	34918	26509	339	60	127		
1	390	987	34716	26772	396	67	138		
1	567	692	34504	27060	411	65	170		
1	700	584	34475	27179	392	60	184		1
1	840	504	34484	27283	377	57	203		
1	990	420	34523	27408	345	51	208		
1	1350	344	34566	27519	323	47	226		
1	1700	318	34616	27584	311	45	216		1
1	2060	228	34647	27688	319	45	203		
1	2270	210	34669	27720	326	46	211		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	184	60	4	17	35 K	120 2 S	155 5 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
3768	36		126	12	83	16			1	42	1	51	8	111	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2797	35014	22436	456	108	14		
2	25	2749	35147	22692	479	113	13		
2	50	2508	35529	23737	479	109	17		
2	75	2351	35661	24306	433	96	26		
2	100	2235	35693	24664	372	81	50		
2	125	2137	35728	24965	353	75	59		
2	149	2053	35687	25162	339	71	66		
2	198	1898	35554	25467	351	72	75		
2	297	1370	35052	26308	358	62	106		
2	395	956	34700	26812	358	60	155		
2	493	765	34547	26990	401	64	171		
2	690	544	34455	27213	395	60	188		
1	900	432	34492	27370	356	53	203		
1	1100	361	34549	27489	331	48	213		
1	1286	335	34571	27532	293	42	222		
1	1472	295	34597	27590	320	46	224		
1	1955	238	34636	27671	306	43	223		
1	2446	215	34668	27715	342	48	214		
1	2935	199	34698	27752	387	54	204		
1	3318	186	34719	27779	385	54	187		
1	3605	184	34719	27781	417	58	200		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	186	60	4	17	1400 K	1306 S	15259 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4390	43	60	226	12	83	16				62	1	34	7	81	10	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2830	34880	22227	452	108	17		
2	24	2720	34987	22665	455	107	10		1
2	48	2561	35540	23582	489	112	12		
2	72	2428	35550	23994	456	102	20		
2	95	2315	35691	24433	419	92	32		
2	119	2238	35726	24681	383	77	48		
2	143	2134	35705	24956	346	74	55		
2	191	1859	35535	25552	336	68	71		
2	288	1472	35186	26194	377	71	87		
2	385	1041	34841	26776	383	66	129		
2	482	746	34551	27100	404	65	159		
2	676	552	34461	27208	366	56	188		
2	871	445	34495	27358	375	56	207		
1	1060	388	34526	27443	360	53	214		
1	1250	347	34570	27519	336	49	224		
1	1443	310	34595	27574	327	47	228		
1	1925	240	34644	27675	321	45	226		
1	2418	210	34680	27729	353	50	221		
1	2915	198	34710	27763	390	55	204		
1	3413	191	34724	27779	407	57	201		
1	3910	180	34730	27793	426	59	189		
1	4307	184	34728	27786	421	59	193		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	187	60	4	18	445 K	1402 S	15041 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
4445	42	120	325	62	72	16			1	22	1	64	6	1000	10	20

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P	DOUBTFUL
2		2820	34588	22040	460	109	18	
2	25	2815	35161	22487	473	113	2	
2	48	2652	35293	23112	476	111	4	
2	70	2510	35542	23740	460	105	11	
2	92	2388	35572	24130	436	97	17	
2	112	2288	35718	24532	384	84	38	
2	132	2203	35699	24759	371	80	46	
2	172	2000	35619	25252	369	77	54	
2	250	1579	35291	26037	351	67	82	
2	344	1220	34977	26551	349	62	105	
2	417	945	34677	26812	416	70	139	
2	590	638	34481	27115	426	66	176	
2	769	492	34462	27280	413	62	202	
1	1048	396	34522	27432	319	47	214	
1	1240	348	34357	27508	337	49	215	
1	1433	306	34588	27573	334	48	226	
1	1920	241	34637	27669	334	47	229	
1	2407	212	34678	27726	352	49	214	
1	2893	196	34710	27764	400	56	206	
1	3380	192	34715	27771	416	58	202	
1	3864	185	34725	27785	406	57	192	
1	4248	186	34725	27784	434	60	195	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	189	60	4	18	2000 K	1524 S	14758 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP.		WIND		ANEM.	CLOUD		VIS.	SEA		SWELL		ATMOS. PRESSURE	WIRE ANGLES	
		WET	DRY	DIR.	SPEED	HEIGHT	TYPE	AMT.		DIR.	AMT.	DIR.	AMT.		CAST 1.	CAST 2.
1069	10	100	425	62	78	16			1	2	1	31	8	1014	00	99

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
1		2680	35324	23046	464	108	16		
1	25	2681	35293	23020	468	109	9		
1	48	2640	35339	23184	475	110	8		
1	72	2431	35616	24035	484	109	12		
1	96	2306	35698	24465	457	101	18		
1	143	2111	35744	25048	381	81	47		
1	191	1944	35631	25408	381	79	49		
1	287	1583	35319	26049	400	77	67		
1	384	1220	34965	26542	416	74	104		
1	483	953	34707	26822	420	71	129		
1	682	617	34469	27133	444	69	168		
1	881	443	34487	27354	403	60	199		
1	980	410	34513	27410	385	57	206		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	190	60	4	19	425 K	1600 S	14646 E

SONIC DEPTH	MAX SAMP. DEPTH	AIR TEMP. WET	AIR TEMP. DRY	WIND DIR.	WIND SPEED	ANEM. HEIGHT	CLOUD TYPE	CLOUD AMT.	VIS.	SEA DIR.	SEA AMT.	SWELL DIR.	SWELL AMT.	ATMOS. PRESSURE	WIRE ANGLES CAST 1.	WIRE ANGLES CAST 2.
1829	16	130	315	02	61	16			1	33	1	518.		96	00	00

CAST	DEPTH	TEMP.	S‰	σ_t	O_2	O_2 % SAT.	INORG. P		DOUBTFUL
2		2649	35323	23144	477	111	8		
2	25	2647	35330	23155	473	110	9		
2	50	2645	35328	23160	473	110	13		
2	75	2638	35341	23192	480	111	12		
2	100	2370	35663	24251	476	106	22		
2	150	2175	35722	24855	418	90	42		
2	200	2025	35659	25216	406	85	50		
2	300	1676	35363	25867	414	81	69		
1	394	1359	35110	26376	423	78	94		
1	482	881	34649	26894	435	72	145		
1	679	595	34462	27155	434	67	182		
1	870	457	34478	27332	400	60	203		
1	1060	383	34526	27448	372	55	218		
1	1248	335	34571	27532	352	51	230		
1	1415	298	34604	27593	339	49	226		
1	1605	254	34640	27660	339	48	231		

DATA

CRUISE G 2/60

PART 2

PRIMARY PRODUCTION

PRIMARY PRODUCTION

An additional cast to collect duplicate light bottle samples was made with twin light bottles at Stations G 2/100, 105, and 113/62, and two additional casts were made with single light bottles at Station G 2/169/62. These duplicate samples were incubated in the fluorescent light incubator for four hours. The results are given in the following Table.

TABLE 6

DUPLICATE SAMPLES

Station No.	Depth	Counts per minute	
100	0	260	286
	25	136	313
	50	218	382
	100	415	259
105	0	86	27
	25	79	27
	50	57	94
	100	230	100
113	0	491	632
	25	319	262
	50	294	163
	100	234	217
169	0	149	295
	25	222	334
	50	155	561
	100	95	71

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0091	60	3	19	1000 K	3024 S	15632 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	180	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	9	13	4	* 0400	0000	0000
25	201	13	188	0400	0000	0001
50	385	20	365	0400	0022	0005
100	45	10	35	0400	0002	0010

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0095	60	3	20	930 L	3030 S	16047 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	110	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	278	14	264	0400	0016	0000
25	242	6	236	0400	0014	0004
50	401	12	389	0400	0023	0009
100	79	6	73	0400	0004	0016

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0100	60	3	21	945 L	3022 S	16528 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	180	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	240	10	230	0400	0014	0000
25	258	6	252	0400	0015	0004
50	269	13	256	0400	0015	0008
100	176	22	154	0400	0009	0014

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0104	60	3	22	945 L	2933 S	-16824 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	30	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	232	9	223	0400	0013	0000
25	318	10	308	0400	0018	0004
50	469	22	447	0400	0026	0010
100	38	3	35	0400	0002	0017

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0105	60	3	22	1800 L	2811 S	16823 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	60	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	187	15	172	0400	0010	0000
25	60	24	36	0400	0002	0002
50	74	29	45	0400	0003	0003
100	282	7	275	0400	0016	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0108	60	3	23	1000 L	2604 S	16638 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	210	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	208	15	193	0400	0011	0000
25	237	14	223	0400	0013	0003
50	308	30	278	0400	0016	0007
100	266	4	262	0400	0015	0015

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0113	60	3	24	930 L	2234 S	16433 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	60	0	7	10|390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	345	13	332	0400	00|20	00|00
25	406	8	398	0400	0024	0006
50	337	17	320	0400	0019	0011
100	275	13	262	0400	0015	0020

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0114	60	3	24	1745 L	2132 S	16343 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	60	0	7	10|390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	132	27	105	0400	00|06	00|00
25	166	25	141	0400	0008	0002
50	130	25	105	0400	0006	0004
100	322	24	298	0400	0018	0010

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0117	60	3	25	945 L	1912 S	16211 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	80	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	504	15	489	0400	0029	0000
25	378	15	363	0400	0021	0006
50	493	30	463	0400	0027	0012
100	581	27	554	0400	0033	0027

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0122	60	3	26	930 L	1522 S	16042 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	140	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	419	16	403	0400	0024	0000
25	464	16	448	0400	0026	0006
50	395	18	377	0400	0022	0012
100	516	16	500	0400	0030	0025
150	93	12	81	0400	0005	0034

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0123	60	3	26	1600 L	1413 S	16030 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	80	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	302	14	288	0400	0017	0000
25	360	11	349	0400	0021	0005
50	448	32	416	0400	0025	0011
100	220	35	185	0400	0011	0020
150	140	6	134	0400	0008	0025

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0126	60	3	27	730 L	1353 S	-15800 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	160	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	393	19	374	0400	0022	0000
25	434	18	416	0400	0025	0006
50	407	23	384	0400	0023	0012
100	468	10	458	0400	0027	0025
150	13	7	6	0400	0000	0032

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0128	60	3	27	1630 K	1433 S	15556 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	220	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	123	49	74	0250	0007	0000
25	94	34	60	0250	0006	0002
50	65	28	37	0250	0003	0003
100	117	20	97	0250	0009	0005
150	234	18	216	0250	0020	0013

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0131	60	3	28	930 K	1355 S	15253 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	140	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	335	49	286	0400	0017	0000
25	354	25	329	0400	0019	0005
50	409	21	388	0400	0023	0010
100	506	18	488	0400	0029	0023
150	209	9	200	0400	0012	0033

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0132	60	3	28	1600 K	1338 S	15148 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	140	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	152	12	140	0400	0008	0000
25	164	25	139	0400	0008	0002
50	157	24	133	0400	0008	0004
100	218	9	209	0400	0012	0009
150	28	7	21	0400	0001	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0134	60	4	29	600 K	1309 S	-14925 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	140	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	430	3	427	0400	0025	0000
25	376	12	364	0400	0021	0006
50	214	24	190	0400	0011	0010
100	125	11	114	0400	0007	0015
150	31	11	20	0400	0001	0017

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0136	60	3	29	1650 K	1151 S	14721 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	100	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	369	31	338	0300	0027	0000
25	178	35	143	0300	0011	0005
50	195	13	182	0300	0014	0008
100	17	4	13	0300	0001	0012
150	6	2	4	0300	0000	0012

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0139	60	3	30	1000 K	0940 S	14709 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	15	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
25	2871	8	2863	0400	0169	
50	607	16	591	0400	0035	
100	379	10	369	0400	0022	
150	33	7	26	0400	0002	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0147	60	4	03	1000 K	1126 S	15112 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	10	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	669	28	641	0400	0038	0000
25	1172	26	1146	0400	0068	0013
50	590	8	582	0400	0034	0026
100	63	6	57	0400	0003	0035
150	47	10	37	0400	0002	0036

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0149	60	4	03	1645 K	1058 S	15206 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	5	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	160	22	138	0300	0011	0000
25	759	19	740	0300	0058	0009
50	778	18	760	0300	0060	0024
100	354	8	346	0300	0027	0046
150	75	8	67	0300	0005	0054

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0152	60	4	04	1000 K	0821 S	15140 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	30	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	337	7	330	0400	0019	0000
25	687	10	677	0400	0040	0007
50	266	14	252	0400	0015	0014
100	49	11	38	0400	0002	0018
150	85	5	80	0400	0005	0020

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0155	60	4	05	1000 K	0731 S	14907 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	60	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	743	95	648	0400	0038	0000
25	869	8	861	0400	0051	0011
50	674	7	667	0400	0039	0022
100	10	7	3	0400	0000	0032
150	22	3	19	0400	0001	0032

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0157	60	4	06	700 K	0539 S	14720 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	10	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	528	64	464	0400	0027	0000
25	1296	15	1281	0400	0076	0013
50	656	7	649	0400	0038	0027
100	26	15	11	0400	0001	0037
150	39	8	31	0400	0002	0038

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0158	60	4	06	1700 K	0358 S	-14642 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	70	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	732	20	712	0400	0042	0000
25	606	69	537	0400	0032	0009
50	751	31	720	0400	0043	0018
100	39	6	33	0400	0002	0029
150	24	2	22	0400	0001	0030

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0160	60	4	08	1200 K	0244 S	14818 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	55	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	1505	60	1445	0400	0085	0000
25	198	68	130	0400	0008	0012
50	1207	43	1164	0400	0069	0022
100	36	4	32	0400	0002	0040
150	29	8	21	0400	0001	0041

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0165	60	4	11	1500 K	0418 S	15224 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	15	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	2898	32	2866	0400	0169	0000
25	2887	71	2816	0400	0166	0042
50	1562	27	1535	0400	0091	0074
100	86	9	77	0400	0005	0098
150	13	15	2 *	0400	0000	0099

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0169	60	4	12	1100 K	0633 S	15403 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
10	55	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	528	17	511	0400	0030	0000
25	833	15	818	0400	0048	0010
50	711	5	706	0400	0042	0021
100	70	4	66	0400	0004	0033

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0169	60	4	12	1800 K	0633 S	-15403 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	55	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	174	14	160	0400	0009	0000
25	173	35	138	0400	0008	0002
50	127	40	87	0400	0005	0004
100	29	12	17	0400	0001	0006
150	122	7	115	0400	0007	0008

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0171	60	4	13	700 K	0809 S	15551 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	40	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	488	19	469	0400	0028	0000
25	172	26	146	0400	0009	0005
50	878	11	867	0400	0051	0013
100	104	6	98	0400	0006	0027
150	21	5	16	0400	0001	0029

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0175	60	4	14	900 L	0854 S	15912 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	25	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	441	9	432	0400	0026	0000
25	565	15	550	0400	0032	0007
50	668	21	647	0400	0038	0016
100	182	9	173	0400	0010	0028
150	49	8	41	0400	0002	0031

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0180	60	4	15	930 L	1032 S	16024 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	25	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	323	12	311	0400	0018	0000
25	279	21	258	0400	0015	0004
50	511	17	494	0400	0029	0010
100	555	14	541	0400	0032	0025
150	31	4	27	0400	0002	0034

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0183	60	4	16	1030 K	1024 S	-15621 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	120	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	304	4	300	0400	0018	0000
25	282	17	265	0400	0016	0004
50	375	40	335	0400	0020	0009
100	51	5	46	0400	0003	0015
150	13	6	7	0400	0000	0016

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0185	60	4	17	930 K	1242 S	15342 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	70	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	522	6	516	0400	0030	0000
25	301	14	287	0400	0017	0006
50	322	11	311	0400	0018	0010
100	56	5	51	0400	0003	0015
150	10	10		0400	0000	0016

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	0188	60	4	18	930 K	1423 S	14947 E

MAX. SAMP. DEPTH	DIST. FROM COAST	METHOD OF INCUBATION	STOCK NUMBER	STOCK ACTIVITY	BACKGROUND
15	170	0	7	10390	014

DEPTH	LIGHT COUNT	DARK COUNT	NET COUNT	INCUBATION PERIOD	RATE OF PRODUCTION A	RATE OF PRODUCTION B
	705	15	690	0400	0041	0000
25	721	10	711	0400	0042	0010
50	602	11	591	0400	0035	0020
100	189	7	182	0400	0011	0032
150	8	8		0400	0000	0035

DATA

CRUISE G 2/60

PART 3

PIGMENTS

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	91	60	3	19	1000 K	3024 S	15632 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	07	02	29	08	00
25	01	13	58	09	03 *
50	00	00	00	05	02 *
100	20	09	41	06	04

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	95	60	3	20	930 L	3030 S	16047 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	00	05	26	05	01 *
25	06	01	33	07	01
50	05	09	22	05	01
100	06	05	32	05	00

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	100	60	3	21	945 L	3022 S	16528 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	04	02	23	05	01	
25	05	06	26	07	01	
50	00	00	00	01	04	
100	12	17	161	09	04	*

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	104	60	3	22	945 L	2933 S	16824 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	04	05	30	09	00
25	07	06	49	07	00
50	07	07	31	06	01
100	09	06	51	07	01

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	105	60	3	22	1800 L	2811 S	16823 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	03	03	18	01	03	
25	06	07	32	06	01	*
50	03	04	25	03	02	
100	19	10	68	07	02	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	108	60	3	23	1000 L	2604 S	16638 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	07	06	39	05	00
25	06	03	35	05	01
50	07	06	35	05	00
100	04	00	00	02	02

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	113	60	3	24	930 L	2234 S	16433 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	04	03	30	05	01	*
25	06	04	18	02	02	
50	02	01	28	06	01	*
100	09	07	45	11	02	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	114	60	3	24	1745 L	2132 S	16343 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	04	03	31	03	02	
25	04	08	12	06	01	*
50	00	00	00	01	02	
100	09	06	40	15	01	*

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	117	60	3	25	945 L	1912 S	16211 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	00	00	00	04	02	
25	04	03	21	02	01	
50	06	11	39	10	05	*
100	08	07	44	07	01	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	119	60	3	25	1800 L	1755 S	16110 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	09	07	58	08	
25	05	05	19	07	
50	05	06	39	08	
100	10	09	44	10	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	122	60	3	26	930 L	1522 S	16042 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	01	01	03	00	00
25	03	08	12	04	00
50	00	00	00	01	03
100	10	08	51	08	02
150	06	05	30	15	04 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	123	60	3	26	1600 L	1413 S	16030 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	05	04	26	10	01 *
25	05	05	32	05	03
50	09	08	17	05	02
100	09	07	56	06	03
150	08	15	54	12	01 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	126	60	3	27	730 L	1353 S	15800 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	0.4	0.4	45	0.5	0.1	
25	0.9	0.8	62	1.3	0.3	*
50	0.5	0.6	38	0.7	0.1	
100	0.8	0.4	36	0.2	0.4	
150	0.5	0.6	35	0.8	0.0	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	128	60	3	27	1720 K	1433 S	15556 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN	
	a	b	c			
	0.5	0.4	50	0.5	0.2	
25	0.5	0.2	22	0.7	0.1	
50	0.9	0.6	26	0.7	0.4	*
100	1.3	1.1	68	1.6	0.1	*
150	1.2	0.6	52	0.9	0.1	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	131	0	3	28	930 K	1355 S	15253 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	07	08	23	26	02 *
25	10	08	53	10	00
50	03	05	17	05	04
100	13	10	62	09	01
150	05	06	23	05	02

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	132	60	3	28	1600 K	1338 S	15148 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	04	03	40	05	02
25	08	07	34	07	02
50	05	03	21	05	03
100	11	10	61	06	04
150	03	05	17	01	04

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	134	60	4	29	600 K	1309 S	14925 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	04	01 *	00	00	00
25	05	03	21	05	02
50	06	05	19	04	03
100	12	08	63	08	02
150	06	05	43	08	01

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	136	60	3	29	1650 K	1151 S	14721 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	08	06	38	05	01
25	08	00	44	09	05
80	12	11	68	15	0.4
100	91	105	532	166	36
150	08	06	51	05	09

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	139	60	3	30	1000 K	940 S	14709 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	12	06	39	04	02
25	17	11	56	14	01
50	09	07	46	09	03
100	14	10	77	13	02
150	07	01	53	10	02

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	147	60	4	03	1000 K	1126 S	15112 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	09	07	36	05	01
25	12	04	42	08	02
50	18	12	79	10	03
100	04	06	44	06	00
150	09	07	67	13	01 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	149	60	4	03	1645 K	1058 S	15206 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	04	05	32	03	02
25	20	12	67	08	03
50	14	08	32	07	02
100	12	09	20	08	02
150	07	07	46	07	01

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	152	60	4	04	1000 K	821 S	15140 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	05	04	05	00	00
25	12	07	33	07	00
50	08	06	27	04	04
100	10	07	47	06	03
150	04	02	07	05	02

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	153	60	4	04	1330 K	752 S	15134 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	04	04	23	03	01
25	04	04	15	03	02
50	01	02	02	04	02
100	04	04	23	02	02
150	04	03	21	03	03
25	06	08	12	07	00
50	12	03	26	06	02
100	09	03	35	09	01
150	00	00	00	06	04
25	00	00	00	07	04
50	09	06	66	10	01
100	03	04	23	04	02

The additional samples were taken within three hours of the first sample

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	155	60	4	05	1000 K	731 S	14907 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	06	05	30	05	00
25	04	01 *	03	02	06
50	11	08	09	05	01
100	06	02	18	13	02 *
150	00	00	00	01	03

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	157	60	4	06	700 K	539 S	14720 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	09	06	28	11	04 *
25	08	06	60	07	01 *
50	20	12	54	16	02 *
100	04	20	34	07	01 *
150	08	05	19	08	01 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	158	60	4	06	1700 K	358 S	14642 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	14	06	42	07	02 *
25	10	15	66	10	02 *
50	28	14	73	16	04 *
100	09	09	11	07	02
150	00	03 *	27	05	00

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	160	60	4	08	1800 K	244 S	14618 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	26	10	28	12	00
25	04	01 *	41	05	00
50	49	21	95	14	06
100	06	05	18	07	02 *
150	11	06	51	11	02 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	165	60		11	1500 K	418 S	15224 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	42	12	32	13	02 *
25	28	01	64	11	03 *
50	29	10	57	07	03
100	11	05	36	08	00
150	04	01 *	03	12	02 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	169	60	4	12	1100 K	633 S	15403 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN	
	13	08	39	08	01	*
25	10	05	21	06	01	*
50	13	06	43	06	00	
100	05	04	25	04	01	
150	10	09	47	08	01	*
	07	03	35	05	01	*
25	11	11	36	07	03	*
50	04	03	03	08	00	
100	14	10	67	03	02	*
150	00	00	00	04	02	

The additional sample was taken within eight hours of the first sample

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	171	60	4	13	700 K	809 S	15551 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	04	03	21	03	01
25	05	05	16	04	01
50	24	10	50	05	05
100	18	08	44	04	05
150	09	06	41	05	02

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	175	60	4	14	900 L	854 S	15912 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	07	04	25	05	01 *
25	08	06	37	05	01 *
50	05	05	29	04	03
100	16	08	44	07	02
150	08	06	38	04	01

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	180	60	4	15	930 L	1032 S	16024 E

DEPTH	CHLOROPHYLL a	CHLOROPHYLL b	CHLOROPHYLL c	ASTACIN	NON ASTACIN
	04	05	20	05	01
25	05	01 *	04	01	03
50	09	06	28	05	00
100	25	09	56	06	05
150	09	06	27	04	00
	05	04	27	03	01 *
25	08	03	46	05	01 *
50	05	05	29	04	00
100	08	05	31	04	00
	04	03	29	05	01 *
25	04	02	17	01	01
50	07	07	44	05	01 *
100	04	02	21	03	01
	00	00	00	03	01
25	07	07	31	06	01 *
50	06	05	34	06	01 *
100	07	03	19	04	01

The additional samples were taken within two hours of the first sample

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	183	60	4	16	1030 K	1024 S	15621 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	03	03	17	03	00
25	06	05	30	06	01 *
50	07	04	25	04	01
100	10	03	23	02	04
150	13	07	49	07	00

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	185	60	4	17	930 K	1242 S	15342 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	17	08	43	06	02 *
25	01	00	01	02	03
50	01	01 *	49	04	02
100	16	05	09	03	05
150	00	00	00	06	02 *

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	188	60		18	930 K	1423 S	14947 E

DEPTH	CHLOROPHYLL			ASTACIN	NON ASTACIN
	a	b	c		
	13	07	27	05	00
25	09	01	26	04	01
50	09	03	22	03	02
100	22	12	62	06	03
150	13	11	35	07	00

DATA

CRUISE G 2/60

PART 4

PHYTOPLANKTON

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	89	60	3	18	1530 K	3022 S	15348 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5040	4480	
25	4000		
50	4480	4000	
75	4780	5040	
100	5590	4780	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	90	60	3	19	11.5 K	3025 S	15517 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000		
25	5000	4600	
50	5000	4700	
75	5340	5260	
100	5700	5000	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	91	60	3	19	930 K	3024 S	15632 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5000	
25	4600	5510	
50	4600	5380	
75	4850	5750	
100	4300	5000	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	93	60	3	19	2115 L	3024 S	15820 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5000		
25	5960		
50	4600		
75	5000		
100	5960		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	95	60	3	20	900 L	3022 S	16047 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5000	
25	5000	5360	
50	5700	5480	
75	5800	5110	
100	4900	4300	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	97	60	3	20	1920 L	3020 S	16229 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4780	4780	
25	3700	5040	
50	5000	5890	
75	6080	6010	
10.0	5780	4600	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	100	60	3	21	930 L	3022 S	16528 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	4300	
25	4480	4780	
50	5700	5080	
75	6180	5480	
100	6000		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	101	60	3	21	1840 L	3025 S	16701 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4780	4900	
25	4000	4950	
50	4700	4480	
75	5540	4780	
100	5790		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	103	60	3	22	320 L	3023 S	16844 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5000	
25	4850	5360	
50	5580	5200	
75	5200	5150	
100	4300	5780	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	104	60	3	22	930 L	2933 S	16924 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	4850	
25	4900	4950	
50	5080	5080	
75	5040	6030	
100	5000	5610	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	105	60	3	22	1755 L	2811 S	16823 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	4900	
25	4600	5080	
50	5510	6150	
75	5880	5360	
100	5980	4850	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	109	60	3	23	1545 L	2518 S	16619 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000		
25			
50	5150	6100	
75	4300	5320	
100	5300	5200	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	110	60	3	23	1945 L	2429 S	16557 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
		5080	
25	4300	5110	
50	5000	5230	
75	4700	5780	
100	5780	5040	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	112	60	3	24	401 L	2319 S	16503 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
25	4700		
50	4000		
75	5200		
100	4300		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	113	60	3	24	930 L	2234 S	16433 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4480		
25	5040	5300	
50	5700	5380	
75	6180	5560	
100	5360		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	114	60	3	24	1644 L	2132 S	16343 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5320		
25	4300		
50	5540		
75	5790		
100	5080		
150	5200		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	117	60	3	25	930 L	1912 S	16211 E

DEPTH	ORGANISMS	
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL
	4000	
25	4000	
50	5600	
75	5600	
100	5510	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	119	60	3	25	1800 L	1755 S	16110 E

DEPTH	ORGANISMS	
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL
	4600	4300
25	4300	4900
50		5000
75	5320	5080
100	6180	4950
150	5400	4850

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	121	60	3	26	435 L	1556 S	16048 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4850		
25			
50	4300		
75	5480		
100	6050		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	122	60	3	26	930 L	1522 S	16042 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
25	4600	5300	
50	4600	5420	
75	5000	5630	
100	5200	4780	
150	4600		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	123	60	3	26	1555 L	1413 S	16030 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	4300	
25	5200	4780	
50	5950	5000	
75	5960	5360	
100	5340	5200	
150	5700		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	126	60	3	27	510 L	1353 S	15800 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	4850	
25	4300	4950	
50	5000	5360	
75	5300	5040	
100	5710	4950	
150	4000	4850	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	128	60	3	27	1720 K	1433 S	15556 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5080	
25	5300	5560	
50	6000	5620	
75	5600	5110	
100	5480	5000	
150	5480	4780	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	130	60	3	28	405 K	1408 S	15339 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	5000	
25	5650	5360	
50	5340	5000	
75	6040	4950	
100	6280	4480	
150	5110		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	131	60	3	28	930 K	1355 S	15253 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	4300	
25	4900	4600	
50	4000	4900	
75	5620	4850	
100	6180		
150	5000		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	132	60	3	28	1600 K	1338 S	15148 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4900	5560	
25	4850	5620	
50	6040	5320	
75	6020	5110	
100	6180	4780	
150	4480		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	134	60	3	29	515 K	1309 S	14925 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5080	4950	
25	4700	4840	
50	5110	5040	
75	5600	5230	
100	6180	4480	
150		4480	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	136	60	3	29	1845 K	1151 S	14721 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5840	4000	
25	6000	4300	
50	5810	4780	
75	6020	5320	
100	4900	5110	
150	4300	4840	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	138	60	3	30	555 K	1003 S	14708 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5490	5080	
25	5960	5110	
50	6320	5380	
75	6200	5490	
100	5840	5340	
150	5000	5000	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	144	60	4	02	2035 K	1105 S	14805 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4480	5080	
25	5300	5260	
50	5950	5320	
75	6200	4780	
100	5380	4600	
150	5040	4000	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	147	60	4	03	930 K	1126 S	15112 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	5700	
25	5700	5790	
50	5570	6090	
75	5620	5510	
100	5360	5510	
150	4300	5610	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	149	60	4	03	1640 K	1058 S	15206 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5790	
25	6560	5900	
50	6450	6180	
75	6460	5510	
100	6530	5610	
150	5510	5510	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	150	60	4	03	2320 K	0956 S	15220 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5360	
25	6080	5510	
50	6400	5200	
75	5040	5040	
100	4700	4780	
150	4700	4480	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	152	60	4	04	930 K	0821 S	15149 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5600	5300	
25	4480	5480	
50	6050	4950	
75	6000	4850	
100	6090	5000	
150	4780	5000	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	154	60	4	04	2300 K	0740 S	15038 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4950	5430	
25	4700	5620	
50	5080	5040	
75	6130	4950	
100	6790	4950	
150	4300	4850	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	155	60	4	05	935 K	0713 S	14907 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4850	5280	
25	5420	5420	
50	6110	5480	
75	5430	5230	
100	5850	5080	
150	4600	5000	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	157	60	4	06	652 K	0539 S	14720 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4780		
25	5110		
50	6540		
75	5620		
100	4700		
150	4600		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	159	60	4	08	1330 K	0201 S	14751 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4600		
25	5110		
50	6240		
75	5180		
100	5930		
150	5150		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	160	60	4	08	1800 K	0244 S	14818 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4480	5200	
25	5300	5080	
50	6260	5360	
75	6080	5400	
100	5480	5490	
150	4950		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	162	60	4	09	525 K,	0300 S	15018 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4780	5810	
25	4900	5720	
50	4480	5860	
75	5850	5910	
100	5110	5280	
150	4700	4780	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	165	60	4	11	1500 K	0418 S	15225 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5230	4780	
25	5860	4480	
50	5860	4900	
75	4000	5110	
100	5180	5420	
150	4480	5040	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	167	60	4	11	2300 K	0551 S	15239 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5340		
25	6000		
50	5300		
75	5570		
100	5700		
150	5360		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	169	60	4	12	1110 K	0633 S	15403 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5230		
25	5080		
50	6080		
75	5450		
100	6080		
150	6080		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	171	60	4	13	650 K	0809 S	15551 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	5000	
25	5150	5110	
50	6150	5420	
75	5000	5150	
100	5480	4780	
150	6100	4300	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	174	60	4	14	310 L	0837 S	15842 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5380	
25		5560	
50	5000	6100	
75	5000	5110	
100	6080	5660	
150	4780	5610	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	175	60	4	14	700 L	0854 S	15912 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4480		
25	4300		
50	4780		
75	5650		
100	5480		
150	5000		

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	179	60	4	15	100 L	1104 S	16114 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5040	5000	
25	5230	5080	
50	5480	5000	
75	5630	4780	
100	6110	4300	
150	4300	4850	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	180	60	4	15	930 L	1032 S	16024 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4700	5320	
25	5780	5200	
50	5300	5110	
75	6110	5320	
100	6360	4780	
150	5110	4850	

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	181	60	4	15	1832 L	0951 S	15913 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4480	5000	5540
25	4700	5000	5620
50	4780	5000	5930
75	6110	5360	5950
100	6020	5040	5700
150	5380	4850	5600

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	183	60	4	16	1025 K	1024 S	15621 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4300	5710	5510
25	5000	5720	5590
50	5080	5900	5680
75	5420	4780	5580
100	5700	4300	5930
150	4950		5620

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	184	60	4	17	30 K	1202 S	15505 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5040	5200	5850
25	4700	4300	5920
50	5400	4900	5660
75	5600	4950	5760
100	4850	4600	5900
150	4300	5040	5540

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	185	60	4	17	930 K	1242 S	15342 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4000	5300	5940
25	4480	5380	5820
50	5420	5150	5740
75	5760	4780	5790
100	5700	4300	5910
150	5600		5460

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	186	60	4	17	1355 K	1306 S	15259 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4900	5530	6020
25	4300	5150	5850
50	5860	5000	5800
75	6000	4780	5760
100	5740	5450	5670
150	4850	4950	5300

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	187	60	4	18	310 K	1402 S	15041 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5260	5080	5770
25	4950	5200	5760
50	5320	4850	5540
75	5610	4900	5850
100	5560	4600	5280
150	5600	4000	5000

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	188	60	4	18	930 K	1423 S	14947 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	4700	5660	6010
25	4600	5620	5750
50	5540	5850	5610
75	4600	5080	5760
100	4600	5110	5700
150	4480	4850	5320

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	189	60	4	18	2000 K	1524 S	14758 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
	5150	5700	5800
25	5110	5080	5740
50	5300	5320	5910
75	5300	5110	5930
100	5560	4850	5800

SHIP	CRUISE	STATION	YEAR	MONTH	DAY	TIME	LATITUDE	LONGITUDE
20	2	190	60	4	19	425 K	1600 S	14646 E

DEPTH	ORGANISMS		TOTAL PARTICLES
	WITH CHLOROPHYLL	WITHOUT CHLOROPHYLL	
150	4850	4950	5620
	4000	5930	
25	5000	6000	
50	5510	5880	
75	4900	5940	
100	5520	6000	
150	4480	5600	

TABLE 7

OCCURRENCE OF DIATOMS

Numbers refer to stations at which each organism was found. Number in brackets gives depth in metres at which organism was collected. H = Hardy indicator. M = mixed centrifugate. HS = high-speed sampler.

Asteriolampra marylandica 100 (M)
Asteromphalus elegans 175 (50), 162 (0), 160 (0), 158 (50), 157 (M), 109 (0, 50)
hookeri 162 (25)
roperianus 174 (M)
Bacillaria paxillifer 152 (25), 150 (25)
Bacteriastrum comosum 154 (M)
delicatulum 95 (M)
hyalinum 149 (50, 75)
varians 171 (50), 169 (75), 186 (M)
Bellerochea malleus 100 (25)
Biddulphia chinensis 147 (5)
mobiliensis 192 (HS), 139 (25)
Cerataulina pelagica 192 (HS), 180 (5), 175 (75), 165 (0,25,50), 152 (M), 139 (0, 75), 169 (150)
Chaetoceros aequatoriale 165 (50), 149 (50, 75), 104 (M),91 (M)
affine 136 (0), 110 (M), 100 (25)
atlanticum 162 (M), 158 (M)
cinctum 169 (25)
coarctatum 165 (25), 149 (25), 147 (M), 139 (0), 112 (75), 105 (0), 104 (M), 103 (100), 97 (M), 93 (0), 169 (M)
debile 139 (100)
decipiens 149 (25), 136 (M)
didymum 147 (M)
difficile 149 (0)
eibenii 192 (HS), 149 (0, 50, 75), 122 (M)
laciniosum 149 (25)
laeve 192 (HS), 191 (HS), 139 (25), 136 (M)
lauderi 149 (M)
lorenzianum 192 (HS), 179 (75), 162 (75), 157 (38), 152 (0), 149 (25), 147 (25), 186 (75)
paradoxum 192 (HS), 152 (0)
pendulum 189 (M), 158 (75), 104 (0, 25, 50)
secundum 192 (HS), 152 (0), 149 (100)
teres 185 (0), 175 (75), 152 (0), 139 (100)

Chaetoceros vanheurckii 180 (75), 169A (25), 167 (75), 150 (25), 149 (25), 136 (75)
Climacodium biconcavum 187 (150), 155 (M), 154 (0), 149 (0), 136 (0, 25), 128 (100), 126 (0), 123 (0), 122 (0, 25)
frauenfeldianum 189 (150), 188 (M), 187 (75, 150), 185 (75), 184 (75), 181, 180 (M), 175 (M), 174 (M), 169A (25, 50, 75), 149 (M), 147 (M), 136 (0, 75), 128 (150), 126 (25, 50, 100), 123 (75), 122 (0, 25), 121 (M), 114 (100, H), 113 (25, 100), 112 (0), 110 (75, 100), 108 (H), 105 (M), 104 (M), 101, 100 (75), 97 (100), 95 (25, 50, 100), 93 (50), 90 (M), 169 (0), 186 (M)
Corethron criophilum 192 (HS), 165 (25), 169 (75)
Coscinodiscus argus 157 (0), 147 (25, 100)
centralis 192 (HS), 189 (75), 188 (25), 180 (75, 100), 179 (75, 100), 175 (75), 169A (75), 167 (0, 25, 50), 160 (25, 50, 100), 157 (25, 50, 100, 150), 155 (100), 144 (100), 171 (0, 50, 150), 169 (50)
concinnus 165 (25, 50), 157 (38), 131 (150)
excentricus 192 (HS), 184 (M), 154 (100), 131 (M), 100 (M)
lineatus 175 (25), 165 (0), 134 (100), 128 (100), 101 (M)
marginatus 192 (M), 180 (25, 50, 100), 179 (75), 175 (25, 50, 75, 100), 165 (25, 100), 162 (50), 160 (25, 50), 158 (25, 75), 157 (25), 155 (0, 25), 154 (50, 75), 150 (50,100), 139 (0, 100, 150), 136 (0, 100), 132 (100), 128 (75, 150), 123 (0, 150), 122 (75), 104 (75), 171 (25), 169 (25, 50, 75)
nitidus 128 (0)
radiatus 155 (25, 50), 154 (75), 147 (50), 144 (75), 139 (0, 25), 122 (M)
rex 108 (M)
rothii 192 (M), 165 (150), 171 (150), 169 (50)
Eucampia cornuta 191, 183 (0), 174 (25), 171 (75)
zoodiacus 188 (0, 25), 187 (0), 181 (50), 179 (25)
Fragilaria oceanica 167 (0), 100 (75)
striatula 189 (0), 157 (0, 25), 147 (0, 50, 75)
Gossleriella tropica 183 (100), 180 (M)
Grammatophora marina 180 (M), 155 (M), 140 (0)
Guinardia flaccida 192 (M), 149 (50, 75), 147 (50), 139 (M), 101 (M), 171 (50)
Hemiaulus hauckii 191, 190 (50), 180 (M), 165 (25), 136 (M), 130 (M), 123 (0), 112 (0), 110 (25), 108 (0), 104 (M), 100 (0), 97 (M), 95 (100)
indicus 192 (M), 132 (0), 123 (M)
membranaceus 191 (M), 188 (M), 187 (150), 184 (M), 174 (M), 165 (25), 158 (25), 157 (25), 155 (M), 152 (M), 150 (0), 149 (0, 25, 50, 75), 147 (0, 25), 144 (0), 139 (0), 136 (0), 134(M), 132 (0), 123 (50), 114 (M), 113 (25), 97 (0), 186(M)

Hemiaulus sinensis 187 (25), 175 (M), 165 (50), 126 (M), 122 (M), 121 (0, 25), 169 (M), 186 (100)
Hyalodiscus subtilis 149 (25)
Lauderia annulata 149 (50, 75)
Leptocylindrus danicus 169A (25), 152 (M), 150 (25, 50), 132 (M), 130 (M), 121 (M), 169 (75)
Mastogloia brunii 192 (HS), 188 (0), 183 (75), 180 (25, 50), 160 (25), 157 (0), 150 (25), 144 (0), 132 (25), 131 (0), 128 (0), 123 (100), 122 (0), 121 (0), 113 (0), 110 (0), 108 (0), 105 (75), 100 (75), 93 (50), 90 (0), 186 (75)
rostrata 188 (0, 25, 50, 100), 187 (0, 25), 185 (150, M), 184 (M), 181 (25), 175 (25), 174 (M), 169A (50), 167 (0), 165 (0, 25, 50), 162 (0, 25, 150), 160 (0, 4M), 158 (0, 25), 155 (M), 154 (0), 135 (M), 134 (25), 132 (0), 128 (50), 123 (25, 50, 75), 121 (0, 25), 110 (50), 108 (0), 105 (M), 104 (0), 101 (M), 100 (25), 95 (M), 169 (50), 186 (M)
Melosira crenulata 121 (0)
Nitzschia closterium 165 (150), 121 (75), 90 (M)
longissima 192 (HS), 160 (100), 154 (25, 50, 75), 149 (25, 50, 75), 132 (25), 123 (150), 108 (25), 93 (100), 91 (100)
pacifica 180 (75), 179 (75), 175 (75, 150), 157 (25, 50), 154 (25, 75), 150 (25), 147 (0, 75), 144 (75), 139 (100), 186 (75)
seriata 152 (0, 25), 150 (50), 149 (25, 50, 75, 100, 150), 136 (75), 128 (100), 122 (100), 95 (0), 93 (100)
Planktoniella sol 189 (100), 188 (75, 100), 187 (100), 185 (100) 184 (75), 181 (75), 180 (75, 100, 150), 179 (100), 175 (M), 174 (100, 150), 169A (25, 50), 167 (50, 150), 165 (25, 50, 75, 100), 162 (100), 160 (25, 100), 158 (25, 50, 75), 157 (50), 155 (25, 50), 154 (25, 50, 75, 100), 152 (0, 50, 75, 100), 150 (75, 100), 149 (25, 50, 75, 100, 150), 147 (50), 144 (75), 139 (M), 136 (75, 100, 150), 134 (100 M) 132 (100), 131 (100, 150), 130 (150), 128 (100, 150), 126 (100), 123 (100), 122 (100), 121 (100 M), 114 (150), 113 (100), 110 (M), 103 (75, 100), 100 (M), 97 (M), 95 (100) 93 (M), 90 (75), 171 (50, 75, 100), 186 (75, 150)
Rhizosolenia alata 189 (50), 188 (25, 50), 187 (0), 184 (25), 183 (50, 75), 181 (0), 180 (0, 50, 75, 100), 179 (M), 175 (75), 174 (M), 169A (0, 25, 150), 167 (50, 75), 165 (0, 25, 50, 150), 162 (M), 158 (25, 50, 75), 155 (25, 75), 154 (75), 152 (25, 100), 150 (25, 75), 149 (0, 25, 100), 147 (0, 50, 100), 144 (0, 25, 50), 139 (0, 25, 50, 75, 100), 136 (0, 25, 50), 134 (M), 131 (0, 100), 130 (M), 128 (75, 150), 122 (75), 121 (M), 113 (M), 112 (M), 110 (75), 103 (M), 100 (0), 95 (75), 90 (M), 171 (0), 169 (0, 25, 50, 75) 186 (M)

Rhizosolenia bergonii 192 (HS), 191, 169A (50, 75), 167 (0, 25, 50), 165 (150), 160 (100), 158 (M), 154 (M), 152 (50, 75, 100), 149 (25, 100), 147 (0, 25), 169 (75)
calcar avis 191, 167 (50), 158 (M), 147 (25), 169 (75)
castracanei 191, 165 (75), 147 (50), 171 (50)
clevei 165 (25), 162 (0), 158 (100), 169 (0, 50)
cylindrus 188 (25), 187 (0), 185 (25), 169A (25), 165 (25, 50), 122 (0), 186 (0)
delicatula 147 (M)
hebetata f. semispina 108 (0), 103 (75)
imbricata 192 (HS), 185 (100), 149 (75, 100), 147 (25), 171 (50)
robusta 139 (0)
stolterforthii 181 (M), 180 (M), 169 (75), 139 (M), 136 (0), 95 (M), 90 (M)
styliformis 191, 189 (0), 188 (0, 25, 50, 150), 187 (25), 185 (25, 50), 184 (50, 75), 183 (25), 181 (0, 25), 167 (M), 165 (0, 150), 162 (0, 150), 160 (0), 158 (0), 155 (75), 152 (0), 150 (0), 149 (0), 147 (0, 25, 100, 150), 136 (75), 123 (150), 122 (M), 121 (100), 119 (0, 25, 100), 113 (M), 112 (100), 91 (25), 171 (50), 169 (0, 25), 186 (M)
Schroederella delicatula 179 (75), 174 (100), 150 (50), 186 (75)
Skeletonema costatum 158 (75), 152 (0), 150 (50), 149 (25, 50, 75), 139 (0)
Stephanopyxis turris 165 (0), 171 (50)
Thalassiothrix frauenfeldii 180 (M)
longissima 192 (HS), 191, 187 (100), 181 (100), 180 (100), 169A (75), 167 (50, 100, 150), 165 (75), 158 (0), 157 (50), 155 (50, 75), 139 (0, 50, 75), 136 (25), 130 (0, 50), 122 (100), 121 (100), 110 (25), 108 (0), 104 (150), 103 (75), 171 (150), 169 (75)
nitzschioides 192 (HS), 191, 150 (0), 149 (50, 75, 100), 139 (0, 25, 50, 100), 136 (0, 50), 91 (100), 171 (50)
Thalassiosira aestivalis 150 (100), 149 (25, 50, 75, 100), 139 (50, 75), 136 (0, 75, 100), 132 (0), 130 (25), 114 (25, 50), 104 (75), 95 (100)
decipiens 150 (50)
subtilis (H)
Trachyneis aspera 150 (0), 139 (0, 50)
Microflagellates 190 (0, 25, 50, 75), 189 (25, 50, 75), 188 (0, 25, 50, 75), 174 (0, 25, 100, 150)

TABLE 8

OCCURRENCE OF DINOFLAGELLATES

Numbers refer to stations at which each organism was found. Number in brackets gives depth in metres at which organism was collected. H = Hardy indicator. M = mixed centrifugate.

Amphidinium acutissimum 89 (0), 110 (75)
kesslitzi 91 (25), 179 (50, 75), 183 (50)
bipes 93 (0)
turbo 95 (25), 104 (0), 113 (25), 121 (100), 122 (75), 144 (0), 106 (100), 187 (25), 188 (25)
rotundata 110 (0)

Amphisolenia bidentata 89 (H), 90 (M), 95 (H), 97 (0), 101 (M), 104 (M), 105 (H), 108 (M), 110 (50), 112 (M), 113 (M), 114 (M), 119 (25), 123 (M), 126 (100), 128 (75), 131 (75), 134 (M), 139 (M), 147 (M), 152 (M), 155 (M), 165 (25, 50), 169 (M), 174 (M), 175 (M), 181 (M), 184 (M), 185 (50), 186 (M), 187 (M), 188 (M), 189 (M)
thrinax 91 (M), 131 (75), 162 (M), 179 (M), 187 (150)
globifera 97 (M), 121 (M), 152 (M), 158 (M), 169 (M),181 (M)
palaeotheroides 100 (50)
schauinslandi 119 (H)
extensa 119 (H)
quadrispina 121 (100), 167 (0)
palmata 184 (M)

Ceratium arietinum 104 (M), 105 (75), 130 (50), 136 (0), 174 (100), 184 (M)
azoricum 139 (M)
belone 95 (H), 100 (H, M), 101 (H, M), 112 (M), 119 (H), 189 (75)
breve 119 (25), 134 (0), 139 (0, 25), 144 (M), 150 (50), 152 (0, 25), 160 (4), 165 (25), 169 (25, 50), 174 (M)
buceros 89 (M), 90 (0), 91 (75), 93 (25, 75), 95 (75), 100 (75), 101 (M), 103 (75), 110 (50, H), 113 (75), 114 (H), 122 (M), 126 (100, 150), 130 (50), 132 (50, 75), 134 (50), 139 (50, 75), 149 (M), 155 (0, 25, 50), 162 (M), 167 (M), 169 (100), 171 (M), 185 (50), 187 (50)
candelabrum 104 (M), 131 (M), 165 (50), 167 (M), 169 (50), 174 (150)
carriense 93 (H), 101 (H), 108 (M), 110 (H), 113 (H),114 (H), 119 (H), 144 (0), 149 (50, 75), 165 (50), 167 (50),189 (M)

Ceratium cephalotum 186 (25)
concilians 95 (H, M), 100 (H), 110 (H)
contortum 90 (M), 93 (0), 101 (H), 104 (M), 105 (H), 110 (H), 113 (H), 114 (M, H), 119 (H), 123 (M), 134 (M), 165 (25), 169 (25), 186 (M)
contrarium 89 (M), 95 (H), 97 (M), 100 (H), 101 (M, H), 104 (M), 105 (H), 112 (M), 113 (75), 114 (25), 119 (M, H), 126 (100), 130 (50, 100), 131 (50, 75), 132 (M), 134 (M), 139 (M), 147 (M), 152 (M), 165 (50), 167 (M), 174 (M), 180 (M), 181 (M), 183 (M), 184 (M), 188 (M)
declinatum 89 (M), 90 (50), 91 (M), 93 (0), 95 (M), 103 (0), 104 (0, 25, 50), 105 (0, 25), 110 (H), 114 (M), 119 (H), 123 (150), 131 (50), 136 (25), 144 (0), 152 (M), 155 (M), 167 (100), 175 (50), 179 (0)
deflexum 110 (H), 112 (H), 113 (0), 119 (25, H), 126 (0), 144 (0), 174 (0)
extensum 89 (75), 90 (M), 91 (75), 93 (0, 75), 95 (M, H), 97 (M), 100 (H), 101 (H, M), 104 (50), 105 (H), 108 (0), 110 (50), 112 (M), 113 (H), 119 (H), 123 (75), 126 (75), 128 (150), 130 (M), 132 (M), 136 (25), 139 (100), 144 (0), 149 (25), 150 (75), 169 (75), 174 (0, 50, 75), 179 (M), 180 (100), 184 (50), 187 (50), 188 (M), 189 (M)
falcatiforme 97 (75), 114 (H), 132 (75), 174 (0), 189 (M)
falcatum 105 (H), 110 (H), 119 (25), 184 (25), 186 (0)
furca 90 (25), 93 (0), 95 (M), 97 (50), 101 (M), 104 (M), 105 (H), 108 (0), 110 (H), 112 (H), 113 (M), 114 (M), 119 (H), 132 (50), 136 (25, 50), 139 (0, 25), 144 (25), 147 (25), 149 (M), 150 (0), 152 (0), 154 (0), 155 (50), 157 (0, 25, 38), 160 (0, 50), 162 (0), 165 (25, 50, 100), 167 (0), 171 (M), 174 (150), 175 (0), 179 (M), 180 (75), 181 (M)
fusus 89 (75), 90 (0, 25), 91 (0), 93 (50), 95 (25, 50, 75), 97 (75), 100 (H), 101 (H), 103 (0, 25), 104 (0, 75), 105 (H), 108 (75), 110 (75), 112 (75), 113 (25), 114 (100), 119 (25, 50), 121 (75), 122 (0, 50), 126 (100), 128 (75, 150), 130 (25), 131 (M), 136 (25), 139 (0, 25), 149 (0, 25), 150 (0), 152 (M), 154 (0), 155 (0, 50), 158 (0, 150), 160 (25), 162 (M), 167 (0, 50), 169 (75), 171 (M), 175 (50), 179 (M), 180 (M), 181 (M), 184 (M), 185 (25, 75), 187 (50), 188 (25), 189 (25, 50, 75), 192 (0)
gallicum 93 (M), 97 (50), 112 (75), 121 (50), 122 (50), 131 (50), 132 (25)
gibberum 139 (75), 155 (50), 167 (M), 175 (M), 180 (75)
gravidum 128 (75), 130 (M), 147 (50, 75), 167 (0, 150), 188 (M)

Ceratium teres 91 (M), 93 (M), 95 (M), 97 (25),100 (0, 50, 75), 101 (0), 103 (0, 25, 50), 104 (0, 25, 50), 105 (0, 50, 75), 108 (50), 110 (25), 112 (25, 75), 113 (25), 114 (25, 50), 119 (25, 50), 121 (25), 122 (0, 75), 123 (0, 75),126 (0,75), 128 (0, 25, 50, 100), 130 (0, 75), 131 (25, 50), 132 (M), 134 (0, 25), 136 (0, 25), 144 (0), 149 (0), 152 (0, 25), 162 (M), 165 (25), 167 (0, 25, 75), 171 (0, 25, 75),174 (25), 175 (25), 179 (0, 25), 181 (25, 50), 183 (0, 50),185 (25,50), 186 (0), 187 (0), 188 (0, 50), 189 (75)
trichoceros 91 (M), 95 (M), 97 (0, 25), 100 (50, 75),101 (25), 104 (0), 105 (H), 110 (100), 114 (H), 119 (25), 122 (50,75), 130 (75), 132 (M), 136 (0, 25), 139 (0), 144 (0), 149 (25, 50, 75), 150 (0), 152 (50), 154 (25), 155 (M), 158 (M), 162 (50), 165 (0), 167 (0, 25, 50, 75), 169 (0, 50),171 (M), 181 (0, 25, 50), 184 (M), 188 (25)
tripos 95 (M), 100 (H), 101 (0, 25), 103 (M), 105 (75), 113 (0), 114 (H), 119 (H), 122 (75), 128 (25), 131 (150), 132 (0), 136 (0), 149 (0, 25), 152 (0, 25), 154 (25),162 (M), 165 (M), 167 (25, 50), 169 (0), 174 (0), 175 (50), 181 (25, 100), 184 (25), 186 (0), 187 (150), 188 (M)
vultur 89 (M), 101 (H), 114 (M), 119 (H), 126 (M), 131 (M), 139 (M), 154 (100), 160 (H), 165 (M), 169 (25), 184 (M)
axiale 90 (M)
inflexum 101 (M), 105 (H), 119 (M), 134 (M), 181 (M)
reflexum 112 (25), 121 (75)
digitatum 113 (25)
schroeteri 114 (H)
longinum 119 (M), 186 (M)
praelongum 130 (50, 75), 158 (50), 165 (25)
bucephalum 139 (M)
longissimum 162 (M)
pacifica 171 (50)
euarcuatum 189 (0)

Ceratocorys armata 121 (25), 155 (M), 167 (0), 181 (M)
gourretti 103 (0), 105 (M), 108 (M)
horrida 89 (H), 95 (H), 100 (H), 101 (H), 119 (H), 122 (M), 126 (100), 130 (M), 131 (50), 134 (25), 136 (M), 152 (0), 155 (0, 25, 50), 175 (50), 158 (0), 160 (0, 25), 162 (0), 165 (0), 167 (0), 174 (50), 175 (50), 179 (M), 180 (75), 183 (M), 184 (0), 186 (M), 187 (0), 189 (M)

Cochlodinium 91 (0), 93 (100), 97 (0), 100 (75), 104 (75), 108 (0), 110 (0), 113 (0), 126 (25), 131 (75, 100),134 (50), 152 (25), 155 (25), 158 (25), 160 (0, 25), 165 (50), 169 (25), 180 (75), 185 (0), 187 (75), 188 (25)

Dinophysis caudata 97 (M), 139 (0), 144 (0)

Gymnodinium simplex 89 (0, 25, 50), 90 (0, 50, 75, 100), 93 (25), 97 (50, 75, 100), 100 (50), 101 (0), 104 (75), 105 (25), 108 (50), 110 (0), 112 (25, 50, 75), 113 (0, 25), 114 (0, 50, 75), 119 (50, 75, 100), 121 (0, 25), 122 (0, 25, 50),123 (50, 75), 126 (75,100), 128 (50), 130 (M), 131 (0, 25, 50), 134 (50, 75, 100), 132 (25, 150), 139 (100), 144 (25), 147 (25), 149 (0), 150 (25, 50), 154 (0, 75), 155 (0, 50), 157 (25), 158 (25, 50), 160 (25), 162 (0, 75), 165 (25, 50), 167 (25, 50, 75), 169 (0, 50), 169A (0), 171 (50), 175 (0, 25, 50), 179 (0, 75), 180 (25, 75), 181 (0, 25), 183 (75, 100), 184 (0, 75), 185 (75), 186 (0, 50, 75), 187 (0, 75),189 (25,50)
sphaericum 93 (0)
splendens 183 (75, 100)
Gyrodinium 136 (50), 149 (0, 100), 150 (50), 175 (25), 179 (0, 75), 184 (25), 186 (25), 187 (75), 188 (150), 189 (75)
Heterodinium 95 (75), 108 (H), 121 (M), 128 (M), 134 (M), 139 (100), 154 (25), 175 (50), 186 (150), 187 (75)
Histioneis 89 (H), 90 (M), 100 (H), 105 (H), 112 (M), 113 (H), 114 (M), 119 (100), 119 (H), 121 (M), 122 (M), 131 (M), 136 (M), 134 (M), 132 (75), 139 (M), 154 (M), 155 (M), 169 (50), 171 (25), 174 (M), 181 (M), 183 (M), 184 (M), 185 (M), 186 (60), 187 (50), 188 (M)
Nematodinium torpedo 97 (50), 104 (50), 108 (57), 114 (50, 75), 184 (75), 185 (25), 186 (100)
Ornithocercus biclavatus 101 (0), 110 (M), 112 (M), 122 (50), 174 (M)
heteroporus 95 (H), 100 (50), 101 (50), 114 (M), 122 (50), 123 (150), 132 (25), 139 (25), 152 (0), 171 (M), 175 (25)
magnificus 90 (0), 91 (50), 93 (0), 95 (0), 97 (M), 100 (H), 103 (50), 108 (H), 110 (25, 50), 112 (0), 113 (H), 114 (50), 119 (H), 121 (25), 122 (75), 123 (M), 126 (25), 131 (M), 136 (0), 134 (M), 132 (0), 139 (M), 147 (25), 149 (25), 152 (M), 154 (50), 157 (M), 165 (50), 167 (M), 171 (M), 179 (75), 184 (75), 185 (25), 186 (M), 187 (0, 25), 188 (0, 25)
quadratus 92 (0), 100 (0), 114 (H), 131 (M), 139 (0, 25), 185 (50)
splendidus 113 (H), 128 (75), 136 (50), 139 (M), 181 (75)
steini 108 (0), 114 (H), 136 (0), 139 (25), 155 (M), 167 (0)
thurni 95 (H), 105 (H), 108 (0), 110 (M), 112 (M), 113 (H), 114 (50), 119 (0), 122 (M), 123 (25), 125 (M), 131 (M), 134 (50), 132 (0), 147 (M), 149 (50, 75), 165 (50), 167 (0), 171 (25), 174 (M), 179 (75), 185 (50), 187 (0)
Oxyrrhis marina 91 (75)

Oxytoxum 89 (75), 91 (25), 93 (0), 95 (0, H), 97 (25), 100 (25, 50, 75, M), 101 (0, M), 103 (50, M), 104 (50), 105 (0, H, M), 108 (0, 25, 70), 110 (50), 112 (100, 50, 75), 113 (H), 114 (M), 119 (M), 121 (M), 122 (M), 123 (M), 126 (M), 128 (100), 130 (M), 131 (M), 136 (0, 50, 100), 134 (M), 132 (50), 136 (M), 139 (M), 144 (M), 147 (25), 149 (M), 150 (100), 152 (M), 154 (50), 155 (0, 50), 157 (25), 158 (M), 160 (M), 162 (25), 165 (25), 167 (M), 169 (M), 169A (50), 171 (M), 174 (M), 175 (M), 179 (M), 180 (75), 181 (M), 183 (M), 184 (M), 186 (M), 187 (M), 188 (M), 189 (M)

scolopax 90 (75), 91 (25), 93 (M), 95 (50), 97 (50), 100 (M), 101 (0, 50), 103 (50), 104 (0, 75), 105 (0), 108 (H), 110 (50), 112 (75), 113 (M), 114 (M), 119 (M), 121 (M), 122 (50), 123 (M), 126 (75, 100), 130 (M), 131 (50, 75), 136 (50, 75), 134 (M), 132 (50, 75), 139 (0, 25), 144 (0), 147 (M), 149 (25, 100), 150 (50), 152 (M), 154 (50), 155 (50), 157 (25), 158 (25, 50), 162 (M), 165 (25), 167 (M), 169 (M), 169A (0, 25, 50, 75), 171 (50), 174 (75), 175 (M), 179 (75), 180 (25, 75), 181 (M), 183 (M), 184 (50), 185 (75), 186 (100), 187 (75), 188 (50, 75, 100), 189 (50)

Parahistioneis 108 (25), 113 (M), 122 (100), 123 (50), 134 (M), 132 (50), 139 (25), 184 (25)

Peridinium 91 (50), 97 (M), 104 (75), 108 (H), 114 (0, 50), 119 (H), 121 (25, 50), 122 (0), 126 (50), 128 (50), 130 (M), 136 (50), 134 (50), 139 (0), 152 (0), 157 (0), 158 (0), 165 (25), 167 (M), 174 (50), 181 (M)

abei 104 (0), 113 (25), 121 (25)

brevipes 154 (75), 162 (100), 169 (25)

brochi 185 (25), 180 (75), 136 (0)

claudicans 122 (0)

crassipes 188 (50)

curtipes 121 (100), 158 (M)

depressum 114 (H), 95 (0)

diabolus 128 (100), 152 (0), 154 (M)

elegans 100 (H), 101 (H), 105 (M)

globulus 90 (M), 100 (M), 103 (M), 104 (25), 105 (H), 108 (M), 110 (100), 112 (M), 119 (M), 121 (M), 126 (M), 136 (100), 132 (0), 144 (0), 152 (0), 155 (0), 158 (0,25,50), 160 (H, M), 169 (75), 169A (0), 175 (75), 184 (75), 185 (25), 187 (150), 188 (0, 100)

grande 97 (25), 100 (50), 131 (50), 139 (25), 147 (25), 152 (50), 157 (75), 181 (75)

grani 95 (H), 100 (50), 119 (M), 155 (0), 165 (25), 181 (M), 184 (M), 185 (0), 186 (M), 188 (25)

Peridinium hirobis 149 (25), 160 (M), 162 (150), 165 (25), 188 (75), 192 (M)
oblongum 158 (0)
oceanicum 147 (50)
okamurai 91 (0), 93 (75), 95 (0), 108 (25), 144 (0), 165 (50), 175 (M), 181 (M)
pendunculatum 108 (100), 123 (0), 160 (100), 169 (25), 169A (25), 174 (25), 175 (50), 181 (75), 185 (0), 186 (M), 188 (0)
pellucidum 93 (50), 95 (50), 97 (M), 123 (0), 134 (25), 149 (50, 75), 154 (50)
pyriforme 185 (M)
quarnerense 112 (M), 132 (0), 149 (50, 75), 154 (150), 189 (M)
steini 93 (100), 97 (50), 108 (0), 119 (25), 122 (75), 123 (75), 136 (M), 134 (75), 147 (0), 155 (M), 158 (0), 169A (0), 179 (150), 188 (0)
tenuissimum 112 (75), 123 (50), 128 (100), 131 (50), 149 (M), 183 (M)
Phalacroma 91 (100), 93 (25, 75), 95 (25), 97 (50), 100 (50), 104 (0), 105 (0), 112 (50), 114 (M), 126 (100), 131 (M), 136 (M), 132 (0), 157 (38), 160 (75), 167 (0), 169A (100), 171 (M), 185 (75), 186 (75), 188 (M)
argus 101 (25), 110 (M), 150 (50), 154 (M), 175 (M), 186 (M)
cuneus 132 (150), 136 (M), 154 (75), 160 (75), 169A (50), 171 (50), 180 (100), 185 (M)
doryphorum 97 (25), 100 (M), 104 (0), 105 (100), 110 (0), 119 (M), 123 (25), 126 (0), 131 (25), 132 (25), 139 (0), 144 (M), 152 (50), 154 (75), 165 (25), 169 (50), 169A (50), 185 (25)
favus 104 (100), 123 (50), 128 (100), 139 (50)
hindmarchi 101 (M), 104 (0), 122 (25), 123 (75), 186 (60)
mitra 103 (M), 104 (25), 110 (M), 113 (M), 130 (M),165 (25)
ovum 90 (25, 50, 75), 114 (M), 123 (25), 128 (100),131 (50), 134 (75), 154 (75), 155 (0), 165 (0, 50), 169A (0), 171 (M), 180 (100), 186 (0), 187 (50, 150)
pulchellum 90 (25), 97 (M), 101 (25), 104 (25, 75)
rapa 121 (75), 134 (M), 174 (100), 183 (M)
Podolampas bipes 100 (M), 108 (H), 119 (0), 121 (M), 123 (H), 130 (50, 75), 136 (M), 134 (M), 139 (0, 25), 154 (0),158 (0), 160 (150), 165 (0, 25), 167 (0), 169 (25), 171 (M), 174 (50)
palmipes 89 (H), 90 (25, 75), 91 (25), 95 (H), 97 (50), 100 (M), 101 (M), 103 (M), 104 (M), 105 (100), 108 (25), 110 (M), 112 (M), 113 (M), 114 (25, 50, 100), 119 (M), 121 (M), 122 (M), 123 (0), 128 (75), 130 (50, 75, 100),

palmipes (contd.) 131 (100), 136 (0, 50), 134 (M), 132 (50), 139 (25), 144 (50, 75), 147 (25), 149 (M), 154 (M), 155 (M), 157 (50), 158 (M), 162 (M), 165 (50), 167 (0), 169 (M), 169A (0), 171 (50), 174 (M), 175 (25, 50), 179 (75), 180 (100), 181 (50, 75), 183 (0), 184 (50), 186 (M), 187 (75), 188 (25, 100), 189 (75)
spinifer 89 (M), 90 (0), 91 (0, 25), 93 (0), 95 (50), 97 (50), 100 (50), 101 (0), 103 (0), 104 (0), 105 (M), 108 (0, 25), 110 (0), 112 (M), 113 (M), 114 (50), 119 (25, 75), 119 (H), 121 (0), 122 (0), 123 (0, 25, 50, 75), 126 (0, 25, 75), 130 (50), 131 (50), 136 (50, 75), 134 (50), 132 (50), 139 (25), 144 (50, 75), 147 (M), 149 (25, 50, 75), 150 (25), 152 (0), 155 (50), 157 (100), 158 (25), 162 (M), 167 (0), 169 (25), 169A (75), 171 (25), 174 (150), 175 (50), 179 (M), 180 (50, 150), 181 (25), 184 (M), 185 (50), 186 (M), 187 (75), 188 (M), 189 (75)
elegans 90 (M), 95 (100), 100 (75), 101 (M), 121 (75), 122 (M), 123 (150), 131 (M), 136 (50), 132 (50), 134 (M), 144 (75), 152 (75), 158 (50), 162 (M), 165 (100), 171 (150), 180 (M), 181 (M), 183 (100), 184 (25), 186 (75)

Porella perforata 119 (150), 131 (75), 136 (0), 147 (M), 165 (150), 169 (M), 171 (150), 180 (100), 184 (0, 25, 50), 185 (25), 186 (M)

Prorocentrum dentatum 93 (M), 95 (75), 97 (M), 104 (0), 105 (0), 112 (0), 114 (M), 121 (M), 167 (50), 180 (75)
micans 89 (0, 25, 100), 139 (0), 157 (0), 158 (0), 160 (0, 100, 150), 162 (0), 174 (M)

Protoceratium reticulatum 122 (50), 136 (0)

Pyrocystis lunula 152 (M), 165 (50), 169 (50), 171 (50),104 (25)

Pyrophacus horologicum 100 (0), 101 (0), 104 (M), 105 (H), 108 (0, 25), 110 (H), 112 (M), 113 (H), 114 (H), 114 (50), 167 (75), 169 (M), 171 (75), 175 (25), 179 (25), 181 (M),184 (M), 185 (25), 186 (0), 189 (M)

Spiraulax jolliffei 100 (75), 123 (50), 131 (M), 136 (0), 169 (50), 186 (M)

Warnowia 95 (75), 100 (100), 113 (0), 154 (75), 155 (50), 175 (75), 180 (75)

DATA

CRUISE G 2/60

PART 5

ZOOPLANKTON

G 2/60 ZOOPLANKTON BIOMASS 200 - 0 m. CLARKE BUMPUS OBLIQUE HAULS

STATION	DATE	TIME	LATITUDE	LONGITUDE	FILTERED m^3	BIOMASS mg/m^3
G 2/91/60	19.3.60	1155	30°24'S.	156°32'E.	11.1	14
G 2/95/60	20.3.60	1004	30°22'S.	160°47'E.	14.6	19
G 2/100/60	21.3.60	1117	30°22'S.	165°28'E.	10.9	16
G 2/104/60	22.3.60	0930	29°33'S.	168°24'E.	21.7	11
G 2/108/60	23.3.60	1120	26°04'S.	166°38'E.	14.8	19
G 2/113/60	24.3.60	0930	22°34'S.	164°33'E.	24.5	12
G 2/117/60	25.3.60	0930	19°12'S.	162°11'E.	21.4	15
G 2/131/60	28.3.60	0930	13°55'S.	152°53'E.	28.9	14
G 2/140/60	30.3.60	1030	09°40'S.	147°10'E.	14.5	19
G 2/147/60	3.4.60	1025	11°26'S.	151°12'E.	19.7	14
G 2/155/60	5.4.60	1305	07°13'S.	149°07'E.	22.2	18
G 2/157/60	6.4.60	1754	05°39'S.	147°20'E.	24.3	19
G 2/171/60	13.4.60	0920	08°09'S.	155°51'E.	21.9	5
G 2/180/60	15.4.60	0930	10°32'S.	160°24'E.	17.3	23
G 2/183/60	16.4.60	1315	10°24'S.	156°21'E.	9.5	13
G 2/188/60	18.4.60	0930	14°23'S.	149°47'E.	19.2	27

G 2/60 ZOOPLANKTON BIOMASS 400 - 200 m. CLARKE BUMPUS OBLIQUE HAULS

STATION	DATE	TIME	LATITUDE	LONGITUDE	FILTERED m^3	BIOMASS mg/m^3
G 2/91/60	19.3.60	1155	30°24'S.	156°32'E.	8.1	4
G 2/95/60	20.3.60	1004	30°22'S.	160°47'E.	16.5	10
G 2/100/60	21.3.60	1117	30°22'S.	165°28'E.	10.7	6
G 2/104/60	22.3.60	0930	29°33'S.	168°24'E.	29.4	8
G 2/171/60	13.4.60	0920	08°09'S.	155°51'E.	16.3	6
G 2/180/60	15.4.60	0930	10°32'S.	160°24'E.	12.9	8
G 2/183/60	16.4.60	1315	10°24'S.	156°21'E.	21.4	8
G 2/188/60	18.4.60	0930	14°23'S.	149°47'E.	24.8	5

DATA

CRUISE G 2/60

PART 6

BOTTOM CORES

DATA ON CORES TAKEN ON THE GASCOYNE CRUISE G 2/60

Core 1

Station : G 2/95/60 Date 20.3.60
Position : 30°21.9'S. 160°47.0'E. (near Norfolk Island)
Depth : 820 fathoms
Penetration : 11 inches. Core length 7 inches (+2½" in cutter)
Time : lowering 12 minutes - raising 32 minutes
Core : Globigerina ooze

Core 2

Station : G 2/140/60 Date 30.3.60
Position : 09°40'S. 147°10.2'E. (south of Port Moresby)
Depth : 560 fathoms
Penetration : 38 inches. Core length 16 inches (+2½" in cutter)
Time : lowering 33 minutes - raising 25 minutes
Core : interbedded silt and mud: grey green silt 7 inches
grey mud 1 "
grey-green silt 3½ "
grey mud 4½ "

Core 3

Station : G 2/141/60 Date 30.3.60
Position : 9°35.3'S. 147°06.4'E. (south of Port Moresby)
Depth : 360 fathoms
Penetration : 45 inches. Core length 24½ inches
Time : lowering 5 minutes - raising 20 minutes
Core : interbedded silt and mud: upper 2/3 grey-green silt
lower 1/3 grey mud

Core 4

Station : G 2/149/60 Date 3.4.60
Position : 10°57.5'S. 152°06'E. (near Misima)
Depth : 750 fathoms
Penetration : 10 feet. Core length 54½ inches
Core : Organic ooze with Globigerina, diatoms, coccolithophores and sponge spicules.
Diatoms identified by E.J. Ferguson Wood

Auliscus sculptus
C. argus
Coscinodiscus lineatus
C. marginatus
Dictyoneis marginata
Diploneis chersonensis
D. fusca
Navicula lyra
Pyxidicula cruciata
Stephanodiscus argus
S. hardmanianus
Stictodiscus argus
Surirella fastuosa

Core 5

Station : G 2/164/60 Date 11.4.60
Position : 04°12.7'S. 152°18.5'E. (north of Rabaul)
Depth : 350 fathoms
Penetration : Core length 9 inches
Core : interbedded grey sand and green silt; now considerably distorted; some material lost from top of core when laid flat on deck.

VI. FIGURES

Cruises G 1/60 and G 2/60

Figs. 4 - 21

VERTICAL SECTIONS

Vertical sections for temperature (°C), salinity (‰), oxygen (ml/l) and inorganic phosphate (µg at./l, without salt correction) were prepared from the data given in Section V, and appear as Figures 4 - 21, and Figures 22 - 33.

Cruise G 1/60

Figs. 4-9.	Vertical sections for the line of Stations 1-13, 23-26. Degrees of longitude (S) indicated at bottom of section.
Fig. 4.	Temperature to 500 m.
Fig. 5.	Temperature 400 m to bottom.
Fig. 6.	Salinity to 500 m.
Fig. 7.	Salinity 400 m to bottom.
Fig. 8.	Oxygen concentration surface to bottom.
Fig. 9.	Inorganic phosphate surface to bottom.
Figs. 10-15.	Vertical sections for the line of Stations 45-26. Properties as for Figures 4-9 above.
Figs. 16-21.	Vertical sections for the line of Stations 61-45. Properties as for Figures 4-9 above.

Cruise G 2/60

Figs. 22-27.	Vertical sections for the line of Stations 155, 167-171, 181, 179. Properties as for Figures 4-9 above.
Figs. 28-33.	Vertical sections for the line of Stations 190-179. Properties as for Figures 4-9 above.

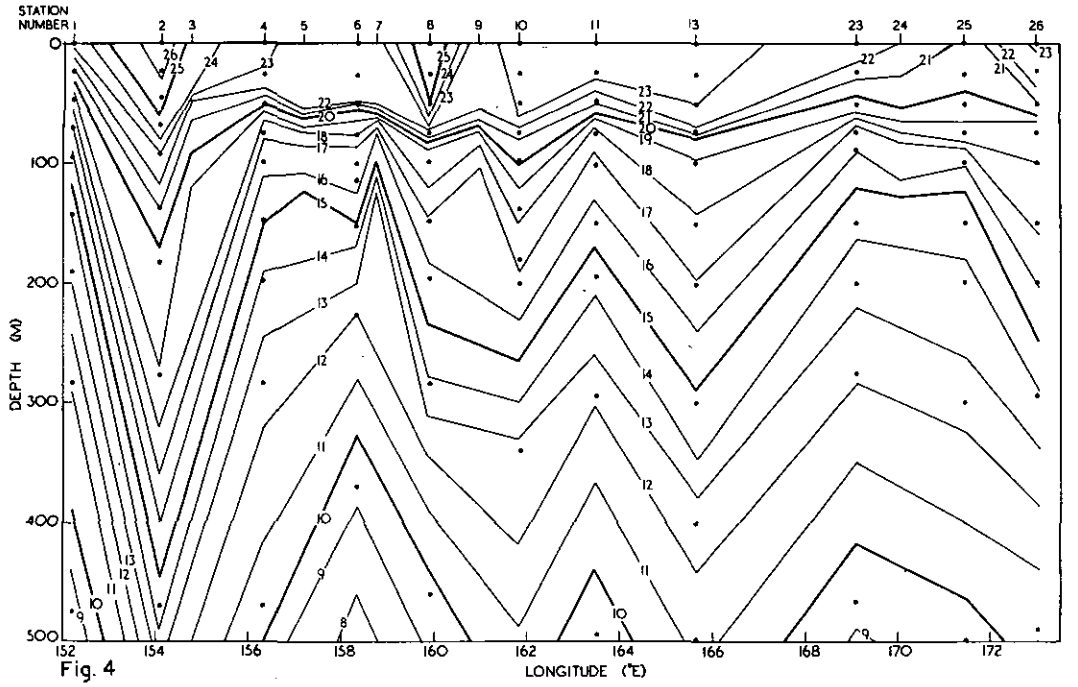
STATION NUMBER
DEPTH (M)
LONGITUDE (°E)

Fig. 4

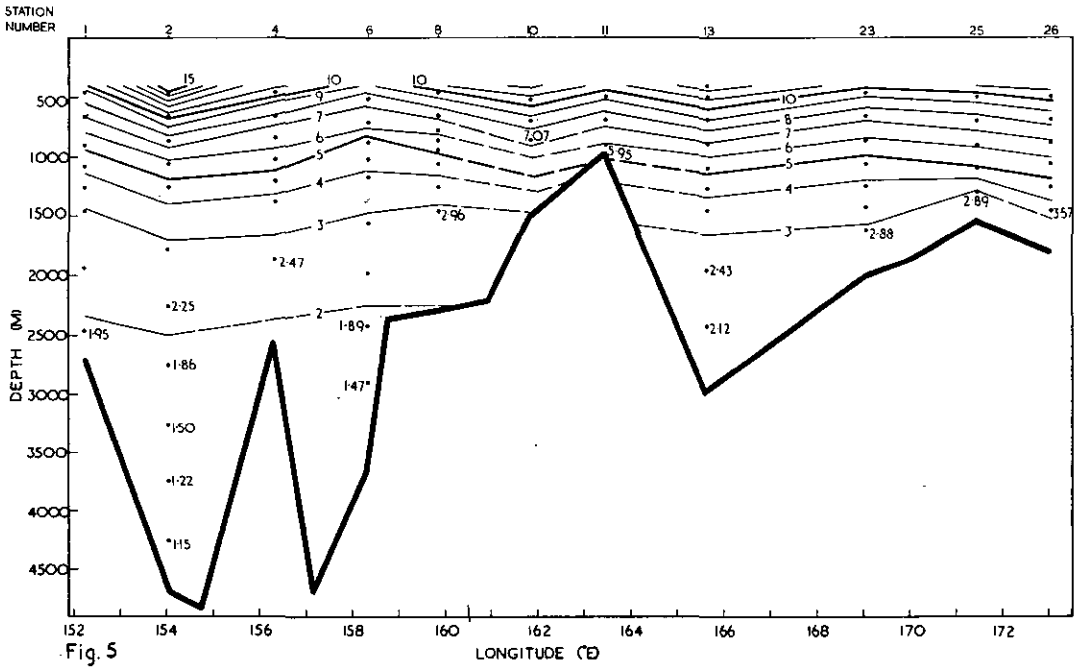
STATION NUMBER
DEPTH (M)
LONGITUDE (°E)

Fig. 5

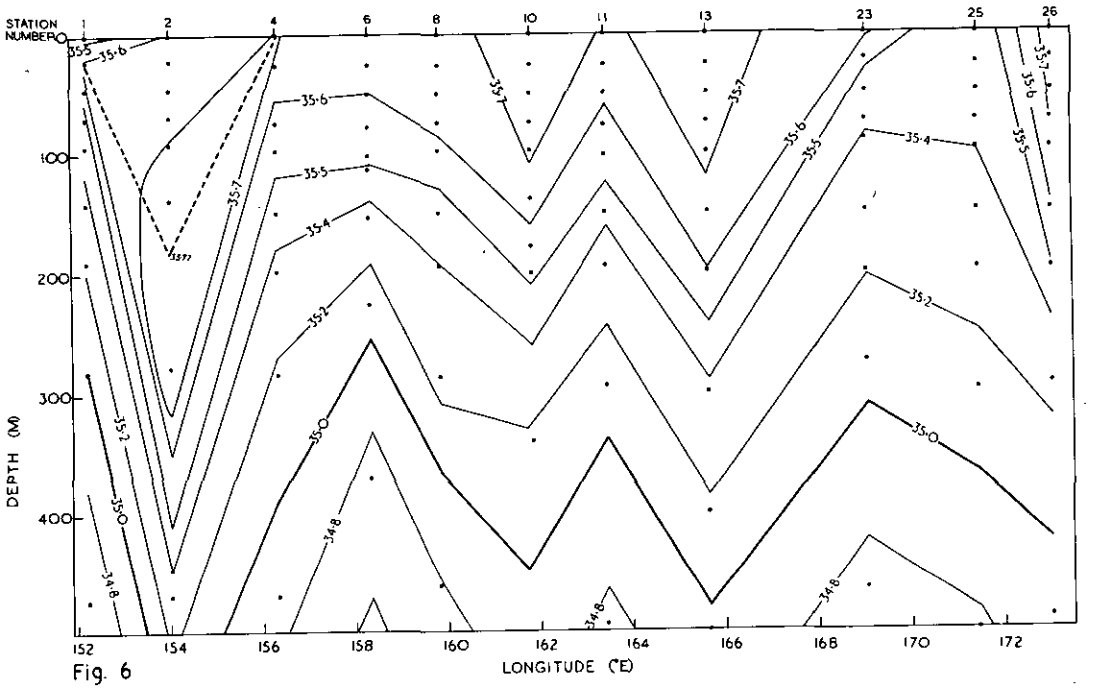
STATION NUMBER
1
2
4
6
8
10
11
13
23
25
26
DEPTH (M)
100
200
300
400
35·6
35·7
35·5
35·4
35·2
35·0
34·8
152
154
156
158
160
162
164
166
168
170
172
LONGITUDE (°E)

Fig. 6

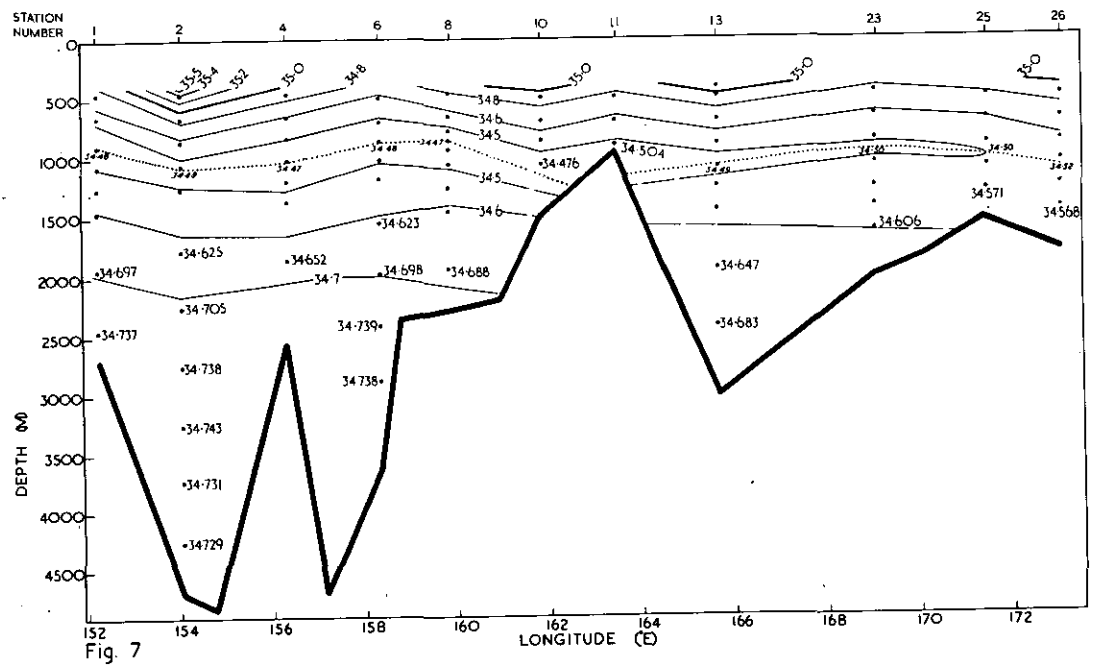
STATION NUMBER
1
2
4
6
8
10
11
13
23
25
26
DEPTH (M)
500
1000
1500
2000
2500
3000
3500
4000
4500
35·5
35·4
35·2
35·0
34·8
34·6
34·5
34·504
34·476
34·623
34·625
34·652
34·7
34·698
34·688
34·697
34·705
34·737
34·738
34·739
34·743
34·731
34·729
34·606
34·571
34·568
34·647
34·683
152
154
156
158
160
162
164
166
168
170
172
LONGITUDE (°E)

Fig. 7

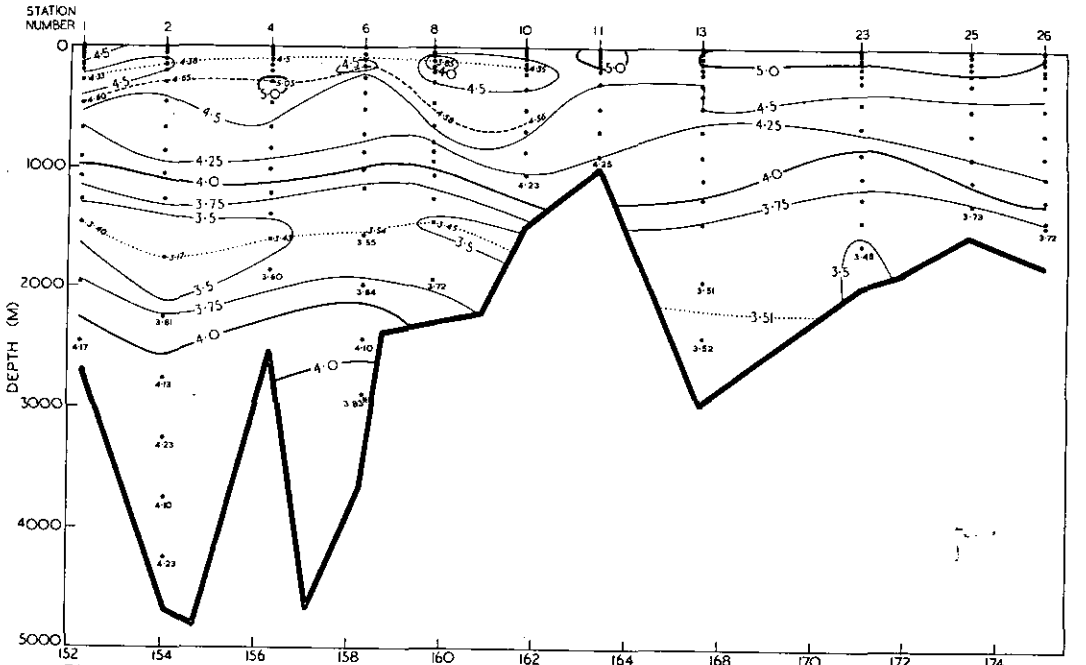
STATION NUMBER
1
2
4
6
8
10
11
13
23
25
26
DEPTH (M)
0
1000
2000
3000
4000
5000
LONGITUDE (°E)
152
154
156
158
160
162
164
168
170
172
174

Fig. 8

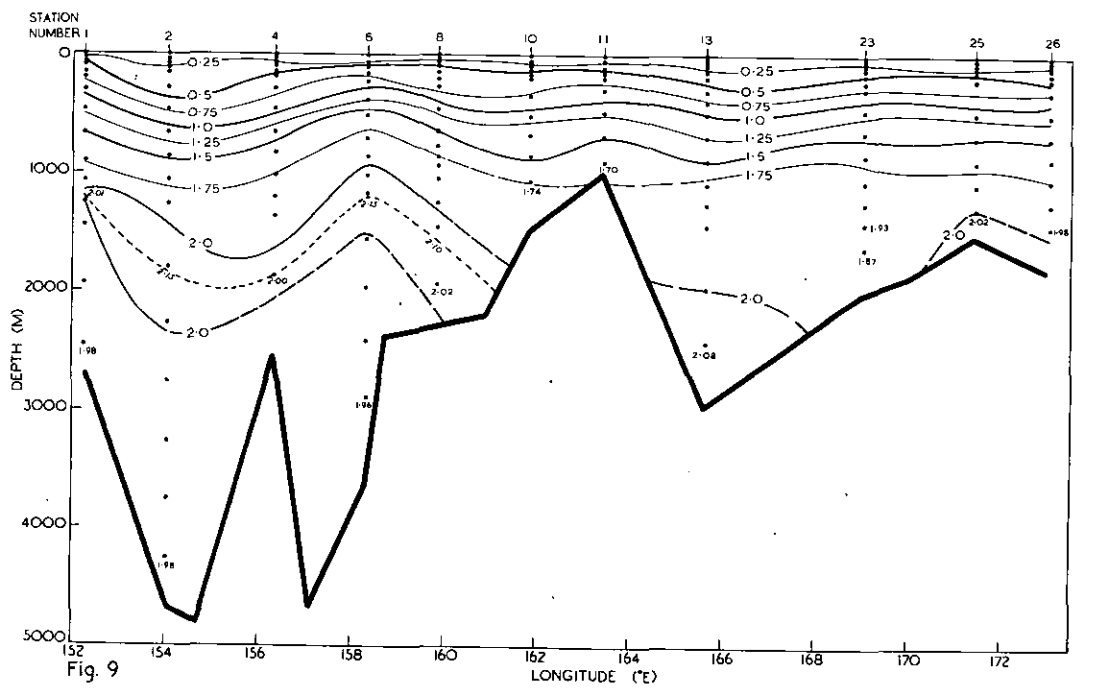
STATION NUMBER
1
2
4
6
8
10
11
13
23
25
26
DEPTH (M)
0
1000
2000
3000
4000
5000
LONGITUDE (°E)
152
154
156
158
160
162
164
166
168
170
172

Fig. 9

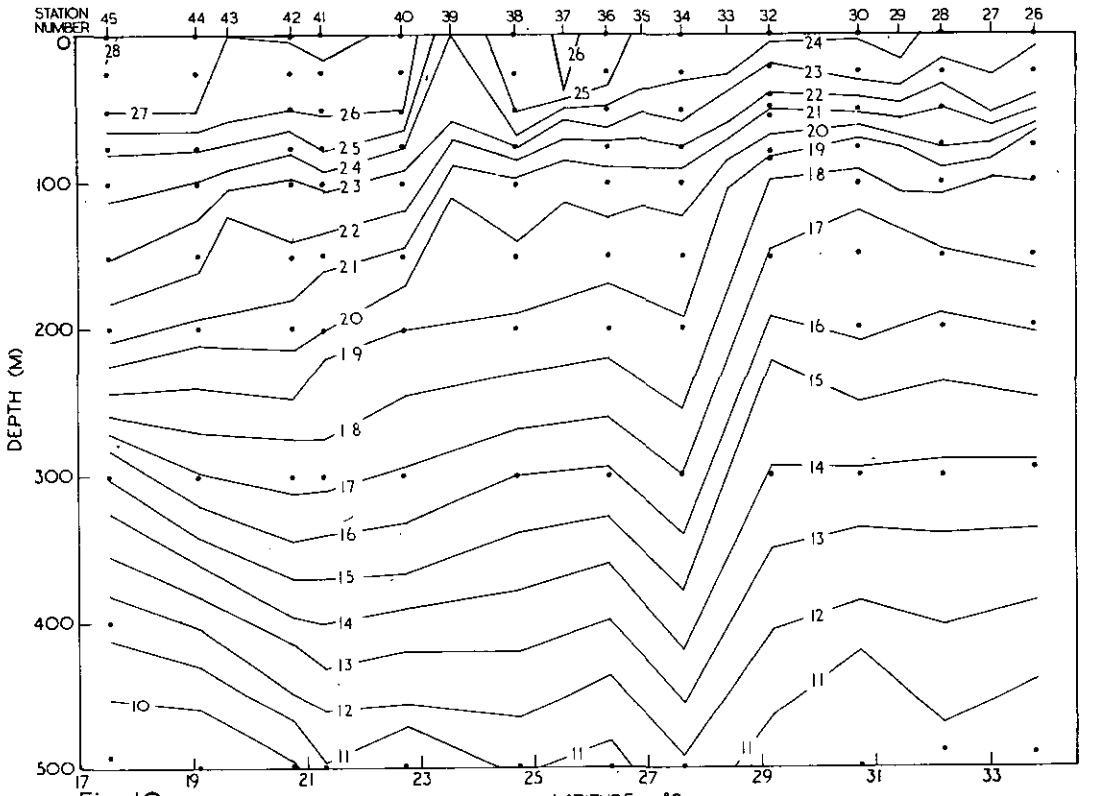
STATION NUMBER
45 44 43 42 41 40 39 38 37 36 35 34 33 32 30 29 28 27 26
DEPTH (M)
0
100
200
300
400
500
17 19 21 23 25 27 29 31 33
LATITUDE °S

Fig. 10

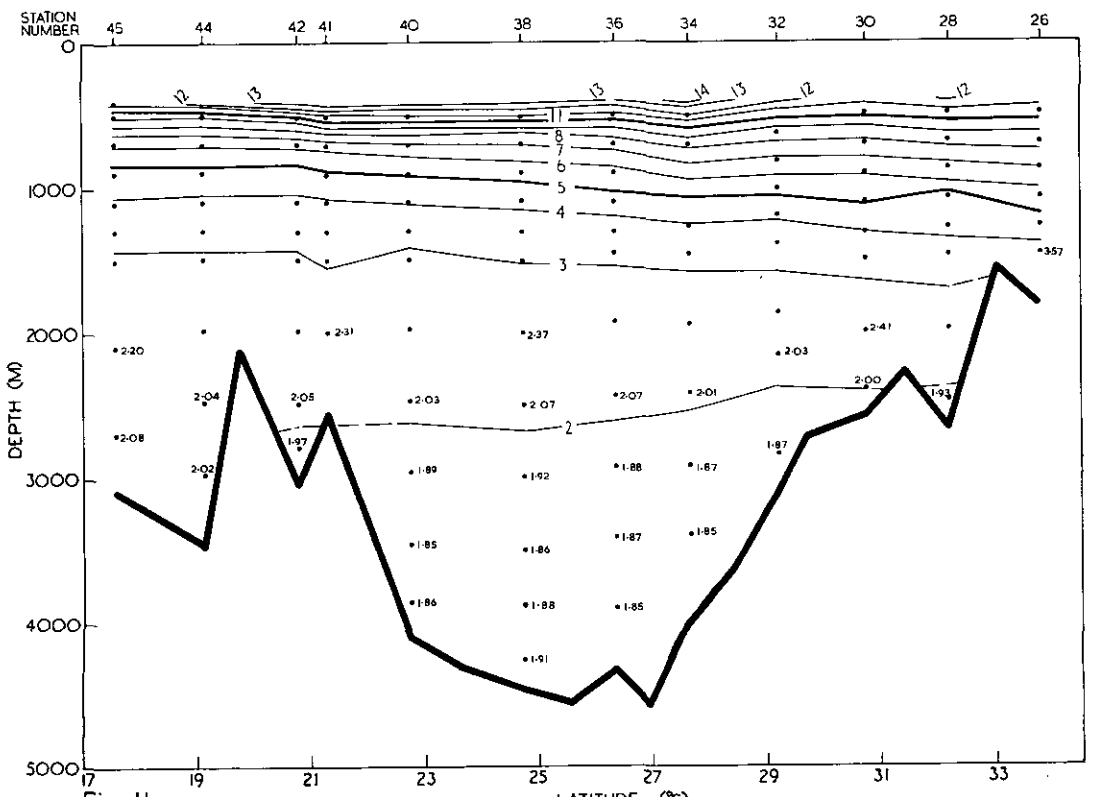
STATION NUMBER
45 44 42 41 40 38 36 34 32 30 28 26
DEPTH (M)
0
1000
2000
3000
4000
5000
17 19 21 23 25 27 29 31 33
LATITUDE (°S)

Fig. 11

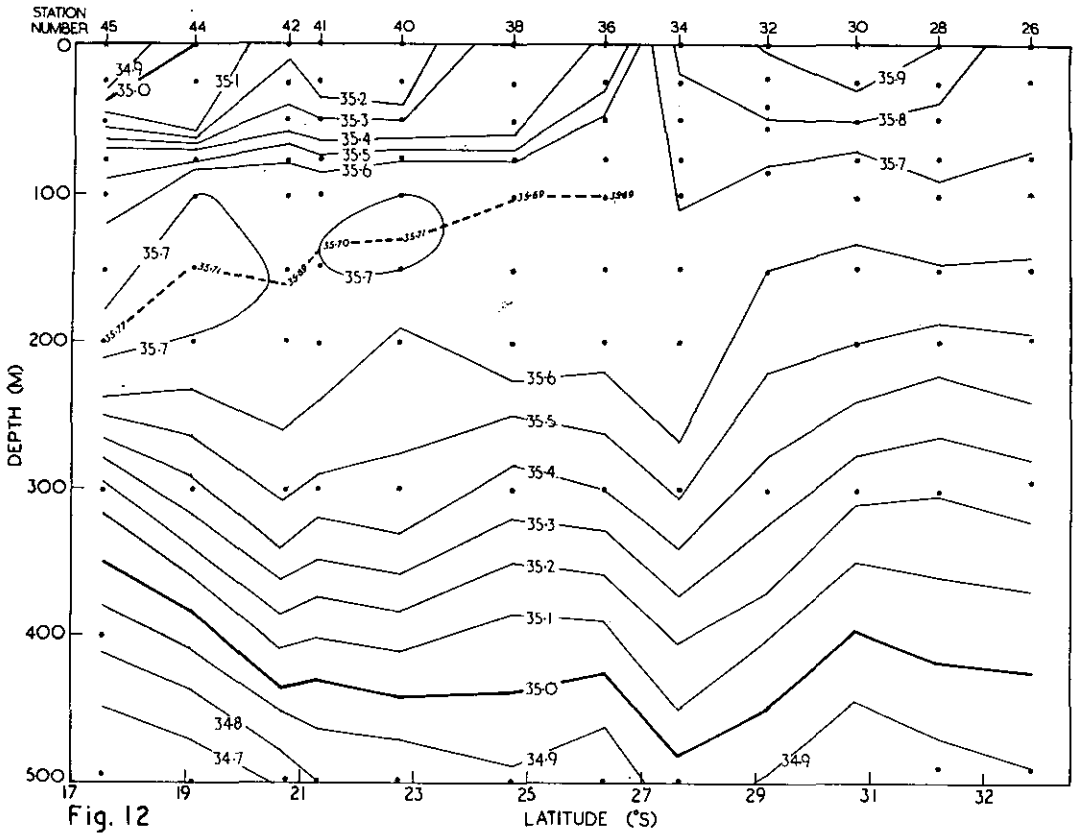
STATION NUMBER
45 44 42 41 40 38 36 34 32 30 28 26
DEPTH (M)
0 100 200 300 400 500
17 19 21 23 25 27 29 31 32
LATITUDE (°S)
34·9
35·0
35·1
35·2
35·3
35·4
35·5
35·6
35·7
35·8
35·9
35·69
35·70
35·71
34·8
34·7

Fig. 12

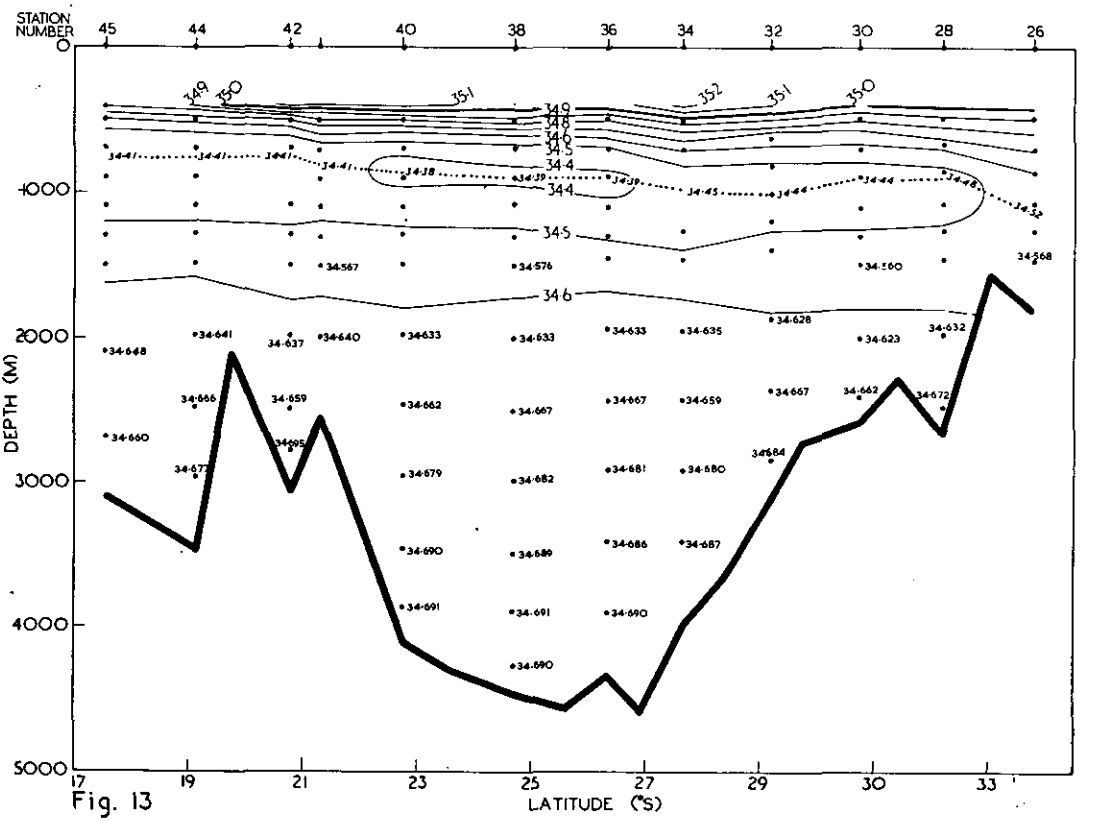
STATION NUMBER
45 44 42 40 38 36 34 32 30 28 26
DEPTH (M)
0 1000 2000 3000 4000 5000
17 19 21 23 25 27 29 30 33
LATITUDE (°S)
34·9
35·0
35·1
35·2
34·8
34·7
34·6
34·5
34·4
34·567
34·576
34·560
34·568
34·628
34·623
34·632
34·648
34·641
34·637
34·640
34·633
34·635
34·660
34·666
34·659
34·667
34·662
34·672
34·684
34·679
34·682
34·681
34·680
34·690
34·689
34·686
34·687
34·691
34·690

Fig. 13

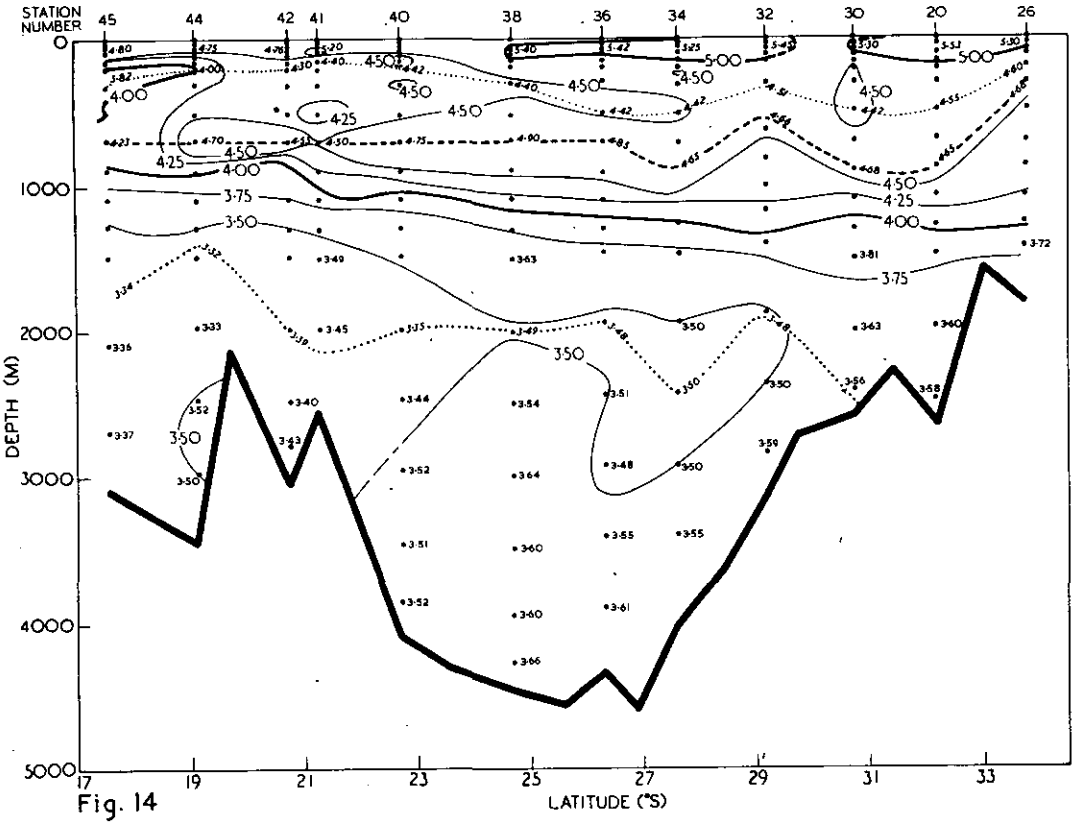
STATION NUMBER
45 44 42 41 40 38 36 34 32 30 20 26
0
1000
2000
3000
4000
5000
DEPTH (M)
17 19 21 23 25 27 29 31 33
LATITUDE (°S)

Fig. 14

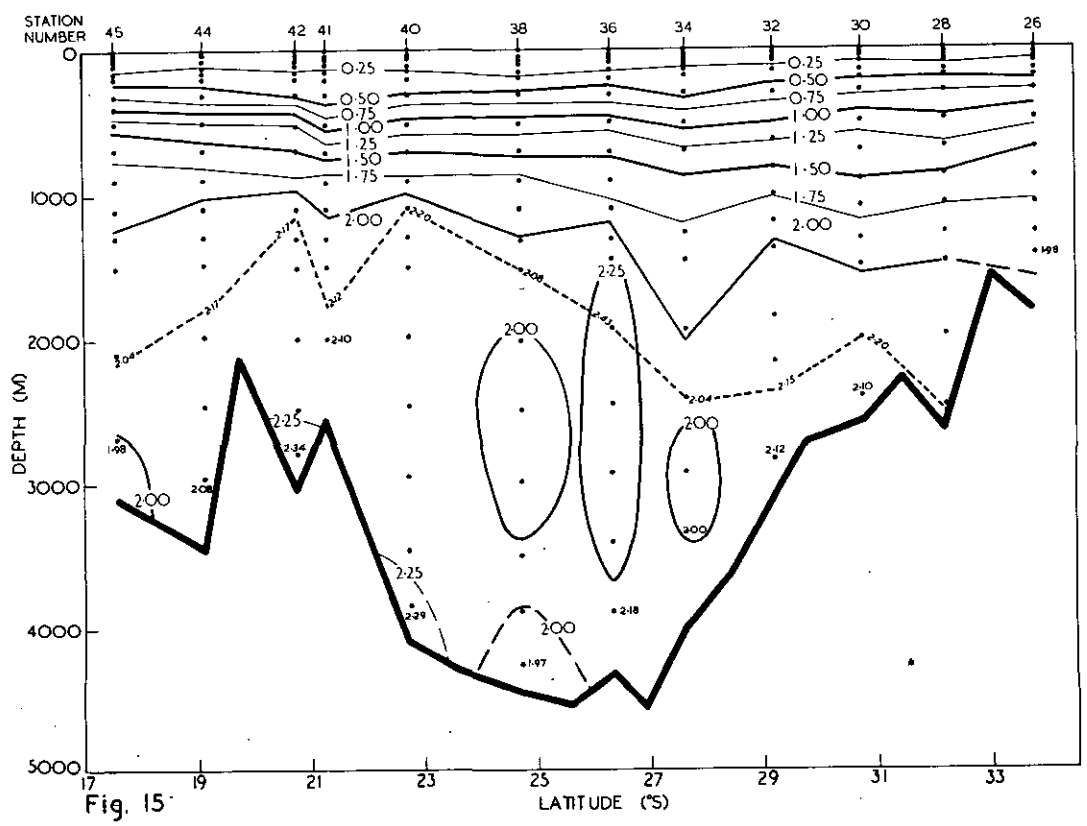
STATION NUMBER
45 44 42 41 40 38 36 34 32 30 28 26
0
1000
2000
3000
4000
5000
DEPTH (M)
17 19 21 23 25 27 29 31 33
LATITUDE (°S)

Fig. 15

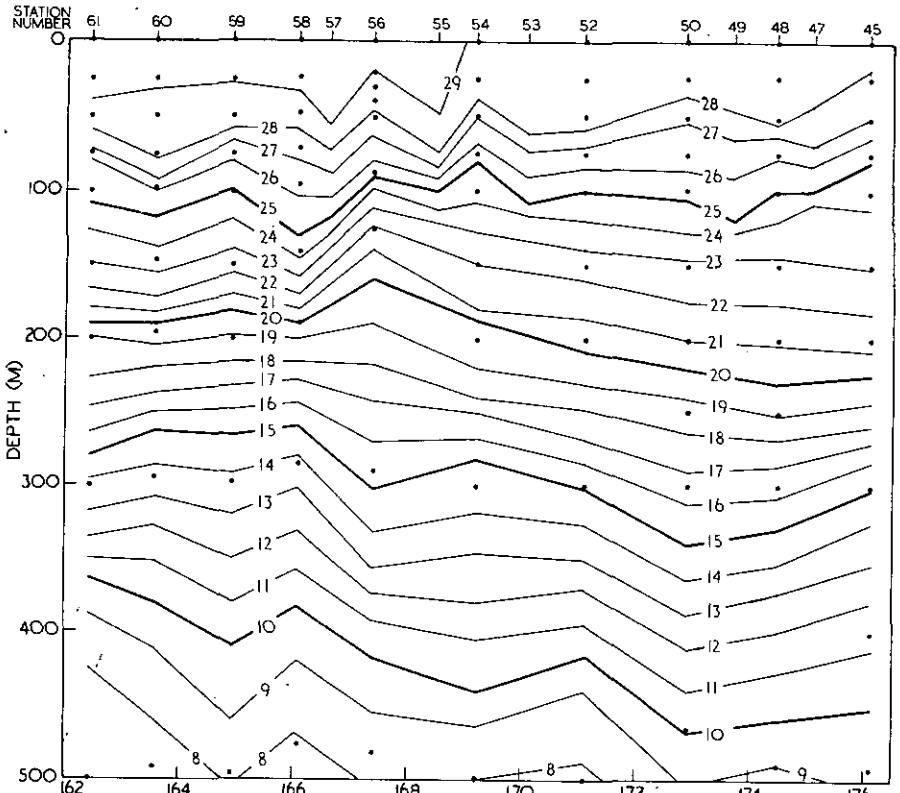
STATION NUMBER
61 60 59 58 57 56 55 54 53 52 50 49 48 47 45
DEPTH (M)
0 100 200 300 400 500
29 28 27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8
162 164 166 168 170 172 174 176
LONGITUDE (°E)

Fig. 16

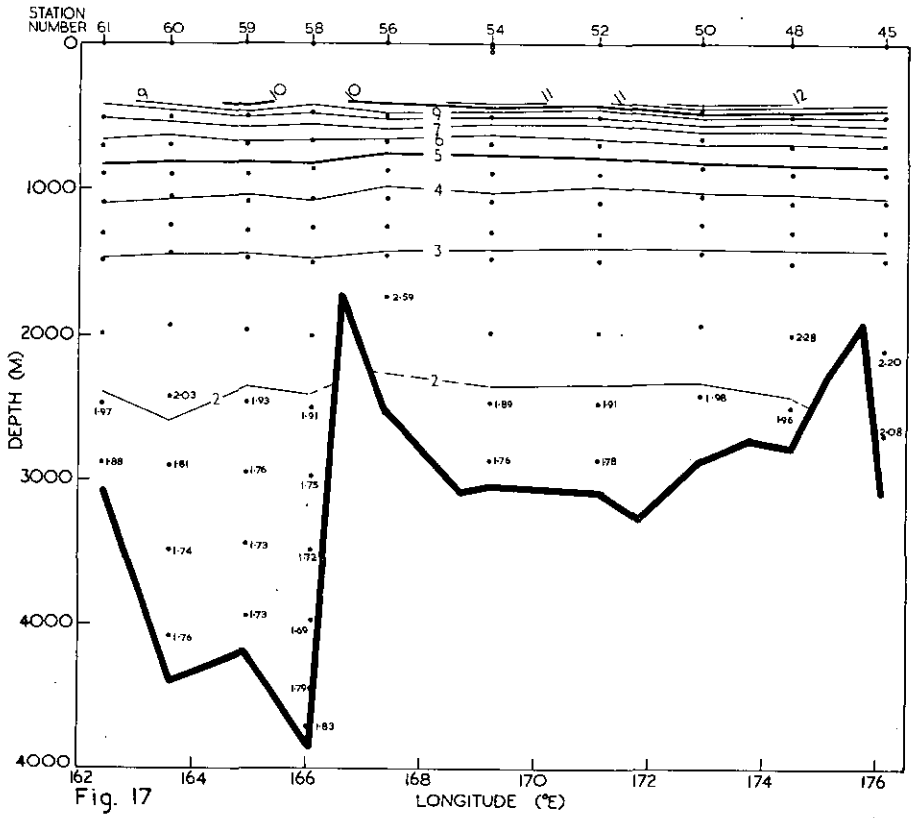
STATION NUMBER
61 60 59 58 56 54 52 50 48 45
DEPTH (M)
0 1000 2000 3000 4000 4000
9 10 10 11 11 12
9 7 6 5 4 3 2
2·59 2·03 1·97 1·93 1·91 1·89 1·91 1·98 2·28 2·20 2·08 1·96
1·88 1·81 1·76 1·75 1·78 1·74 1·73 1·72 1·73 1·76 1·69 1·79 1·83
162 164 166 168 170 172 174 176
LONGITUDE (°E)

Fig. 17

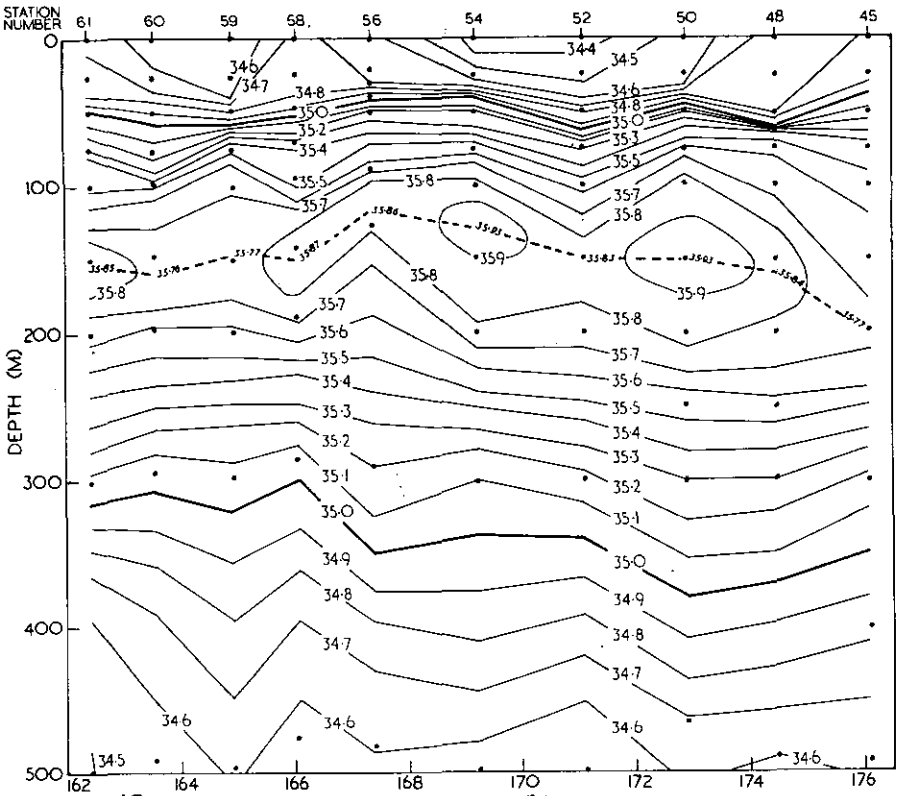
STATION NUMBER
61
60
59
58
56
54
52
50
48
45
DEPTH (M)
LONGITUDE (°E)
162
164
166
168
170
172
174
176

Fig. 18

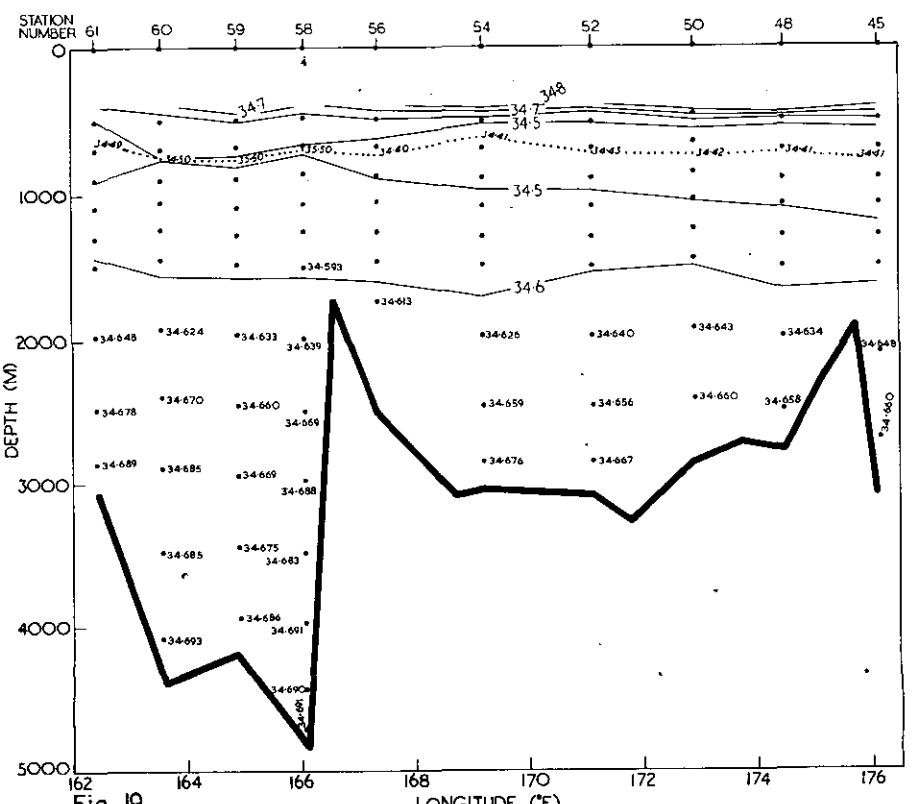
STATION NUMBER
61
60
59
58
56
54
52
50
48
45
DEPTH (M)
LONGITUDE (°E)
162
164
166
168
170
172
174
176

Fig. 19

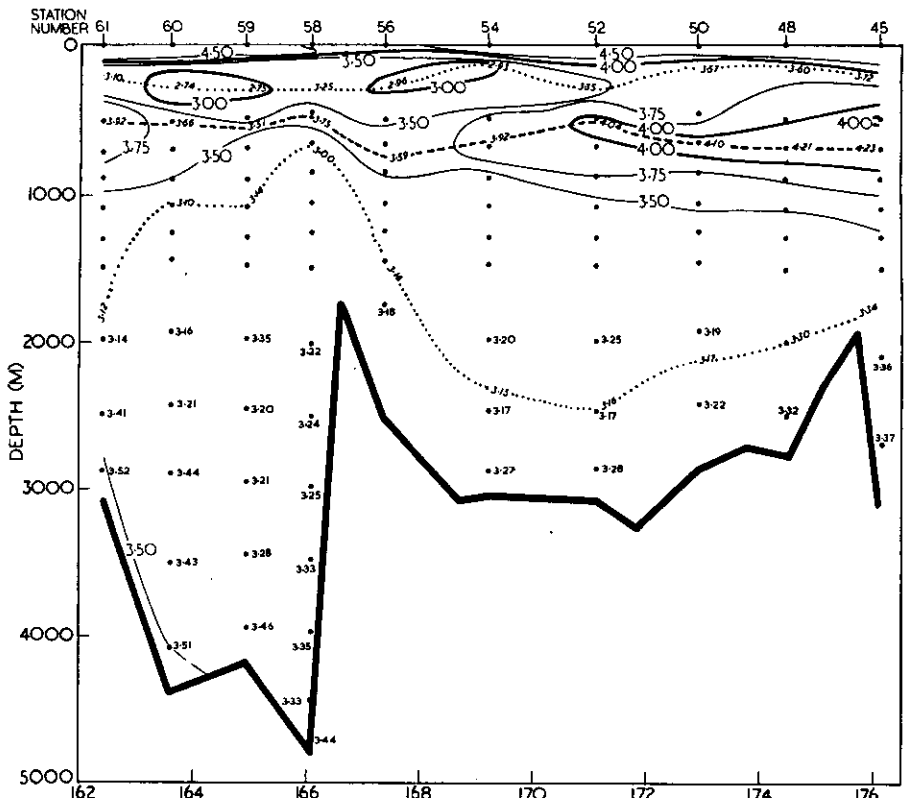
STATION NUMBER
61
60
59
58
56
54
52
50
48
45
DEPTH (M)
0
1000
2000
3000
4000
5000
162
164
166
168
170
172
174
176
LONGITUDE (°E)

Fig. 20

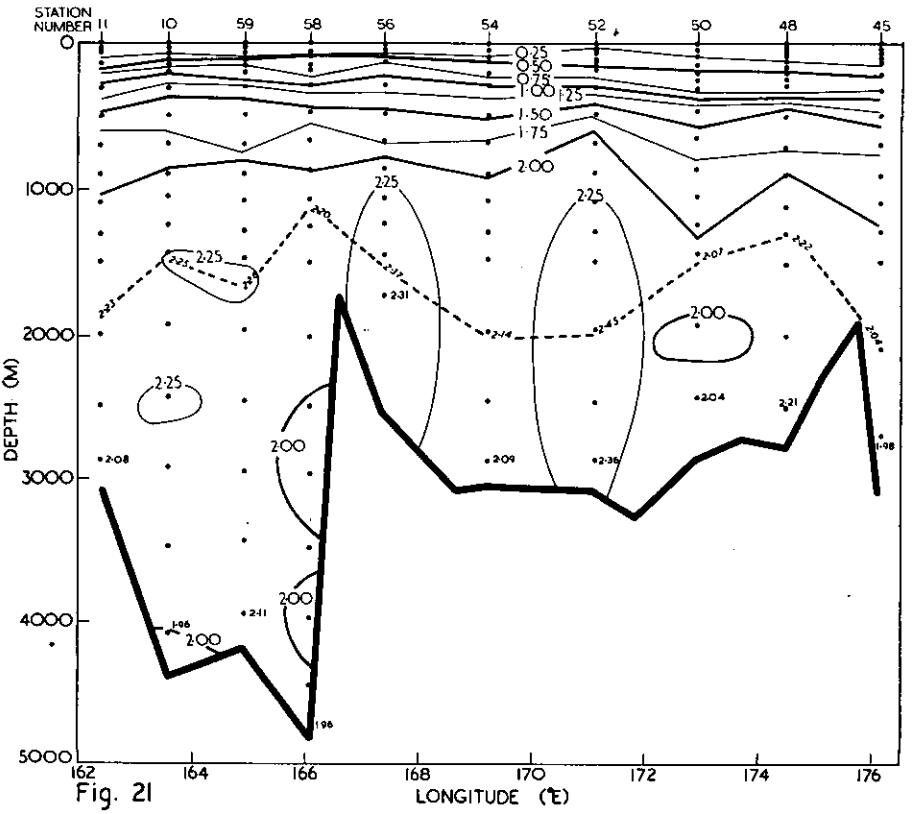
STATION NUMBER
11
10
59
58
56
54
52
50
48
45
DEPTH (M)
0
1000
2000
3000
4000
5000
162
164
166
168
170
172
174
176
LONGITUDE (°E)

Fig. 21

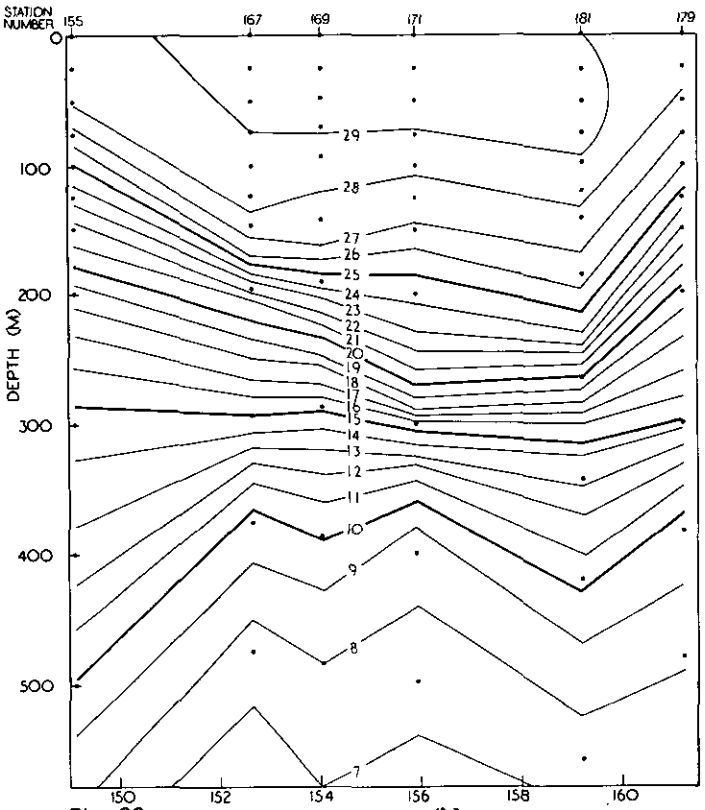
STATION NUMBER
155
167
169
171
181
179
DEPTH (M)
100
200
300
400
500
29
28
27
26
25
24
23
22
21
20
19
18
17
16
15
14
13
12
11
10
9
8
7
150
152
154
156
158
160
LONGITUDE (°E)

Fig. 22

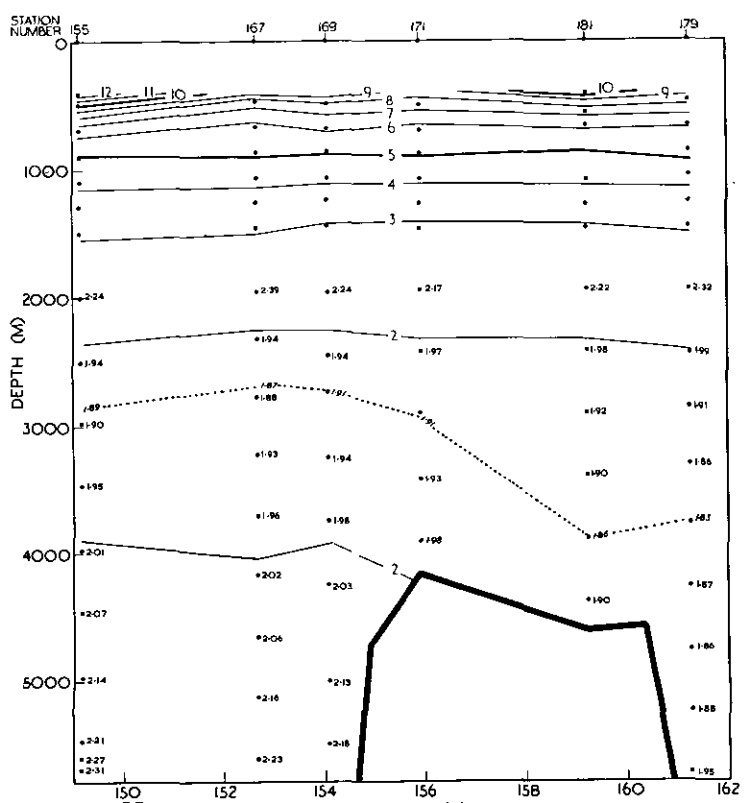
STATION NUMBER
155
167
169
171
181
179
DEPTH (M)
1000
2000
3000
4000
5000
12
11
10
9
8
7
6
5
4
3
2
150
152
154
156
158
160
162
LONGITUDE (°E)

Fig. 23

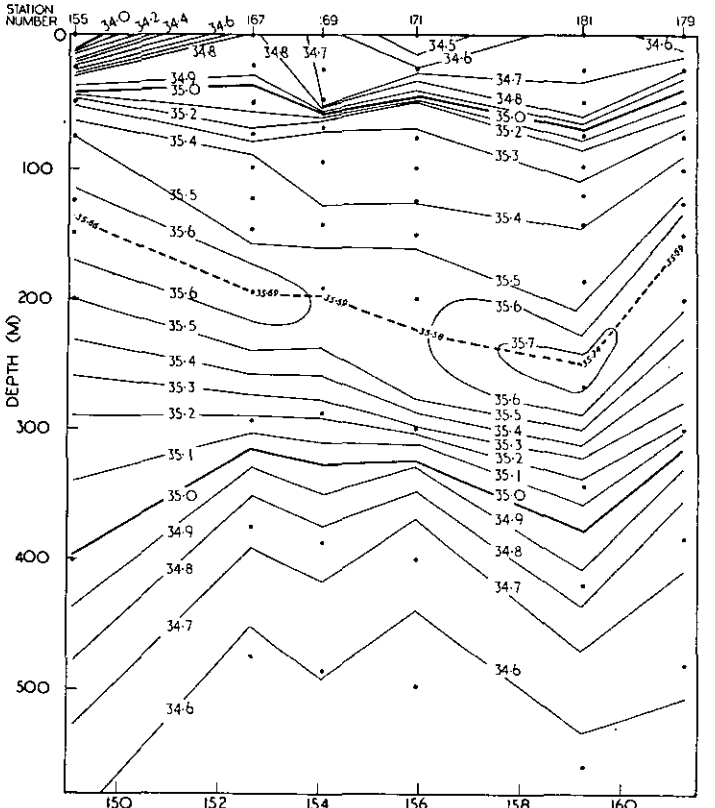
STATION NUMBER
155
167
169
171
181
179
DEPTH (M)
0
100
200
300
400
500
150
152
154
156
158
160
LONGITUDE (°E)

Fig. 24

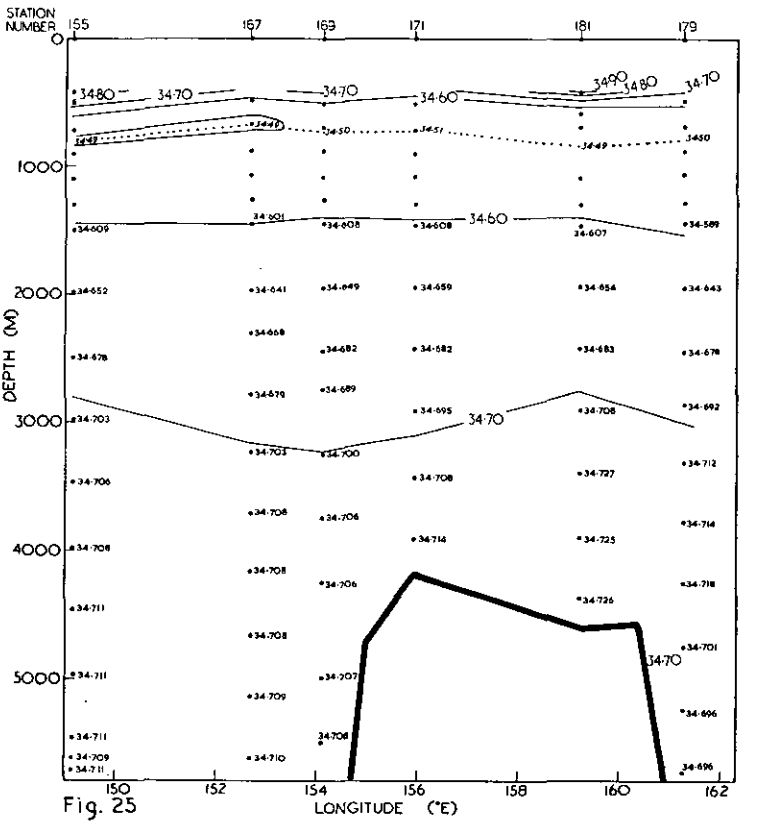
STATION NUMBER
155
167
169
171
181
179
DEPTH (M)
0
1000
2000
3000
4000
5000
150
152
154
156
158
160
162
LONGITUDE (°E)

Fig. 25

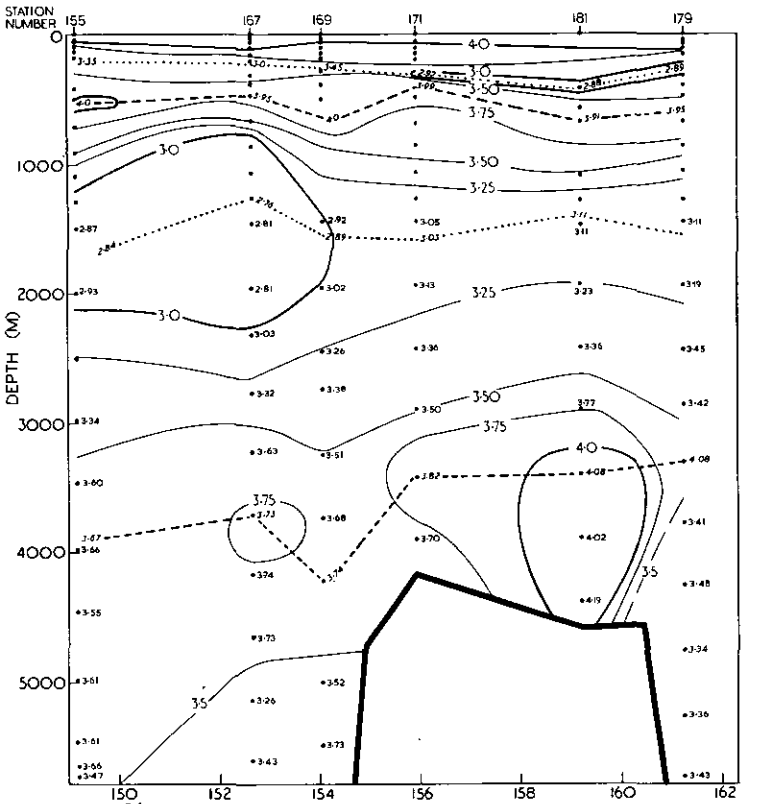
STATION NUMBER
155
167
169
171
181
179
DEPTH (M)
0
1000
2000
3000
4000
5000
150
152
154
156
158
160
162
LONGITUDE (°E)

Fig. 26

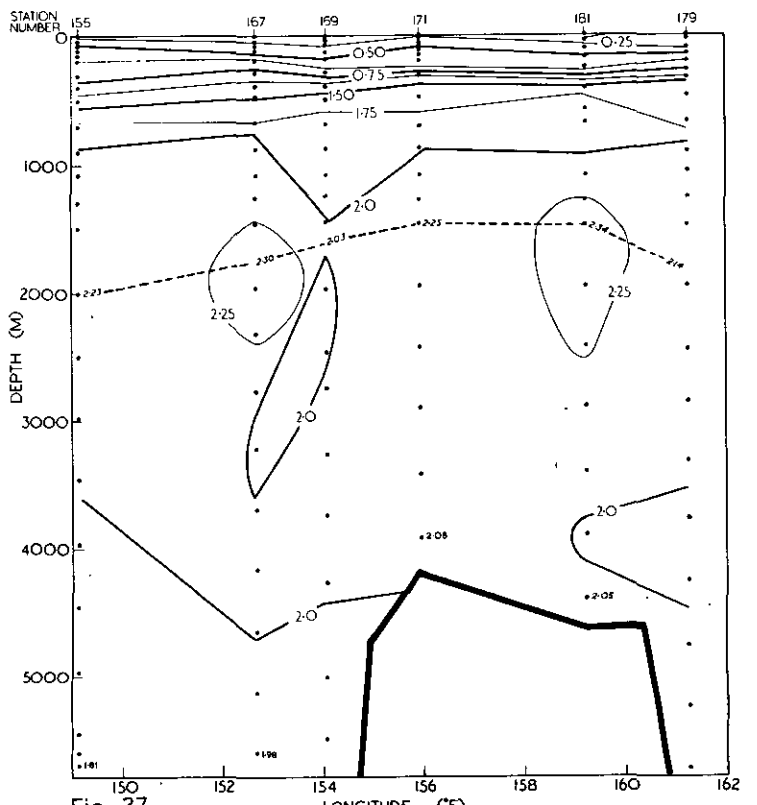
STATION NUMBER
155
167
169
171
181
179
DEPTH (M)
0
1000
2000
3000
4000
5000
150
152
154
156
158
160
162
LONGITUDE (°E)

Fig. 27

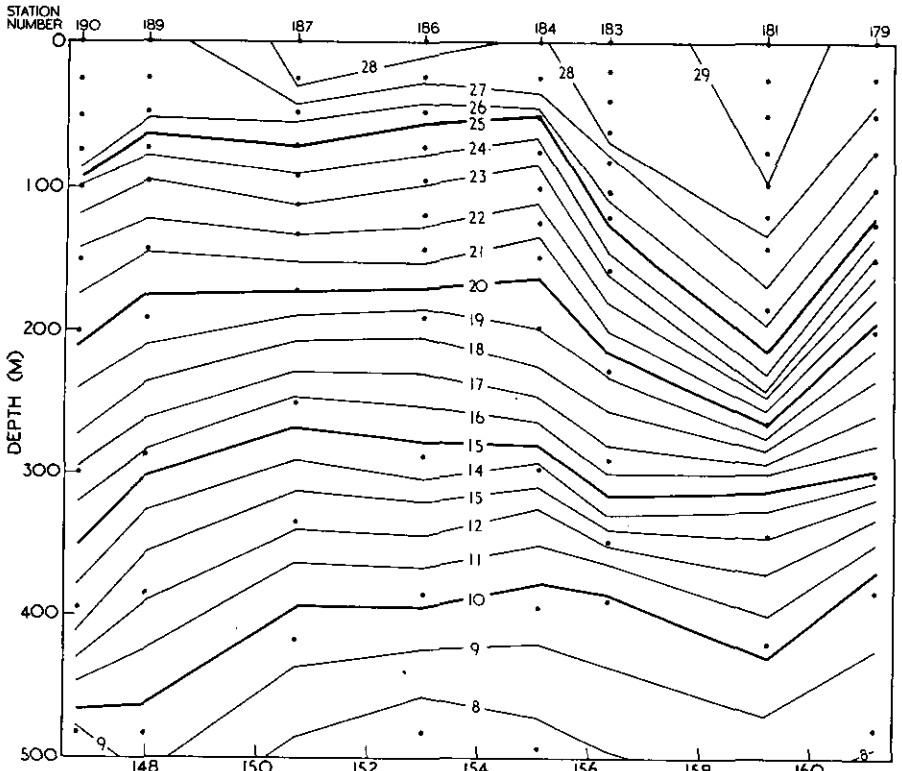
STATION NUMBER
190
189
187
186
184
183
181
179
DEPTH (M)
0
100
200
300
400
500
LONGITUDE (°E)
148
150
152
154
156
158
160

Fig. 28

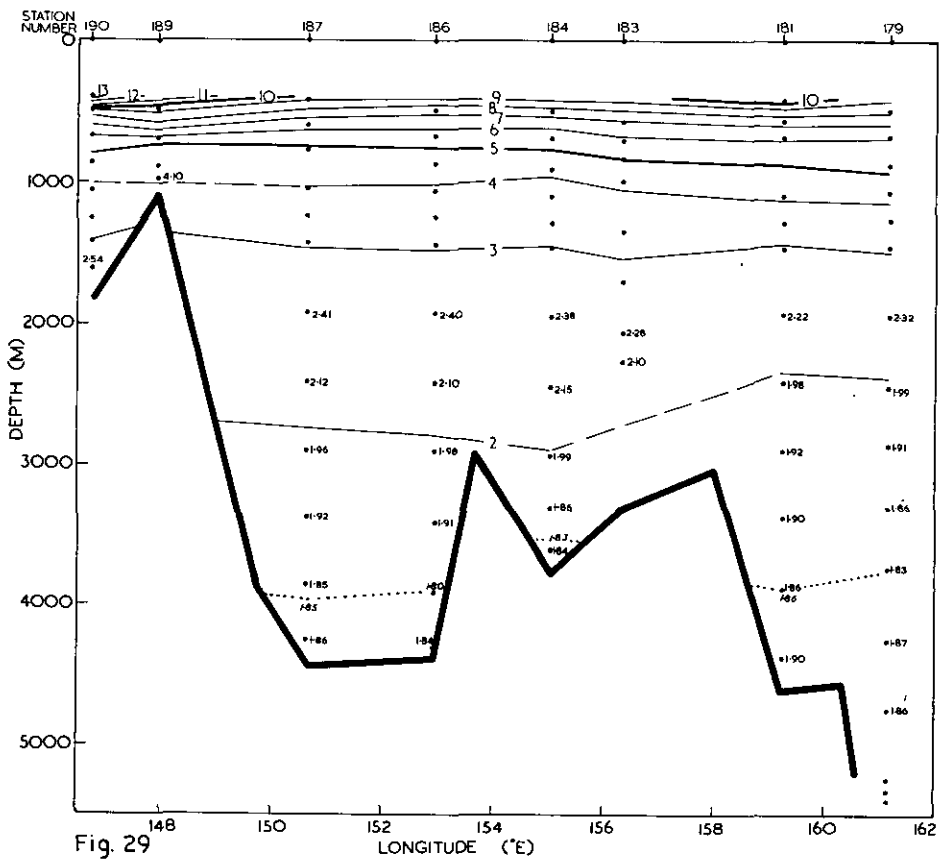
STATION NUMBER
190
189
187
186
184
183
181
179
DEPTH (M)
0
1000
2000
3000
4000
5000
LONGITUDE (°E)
148
150
152
154
156
158
160
162

Fig. 29

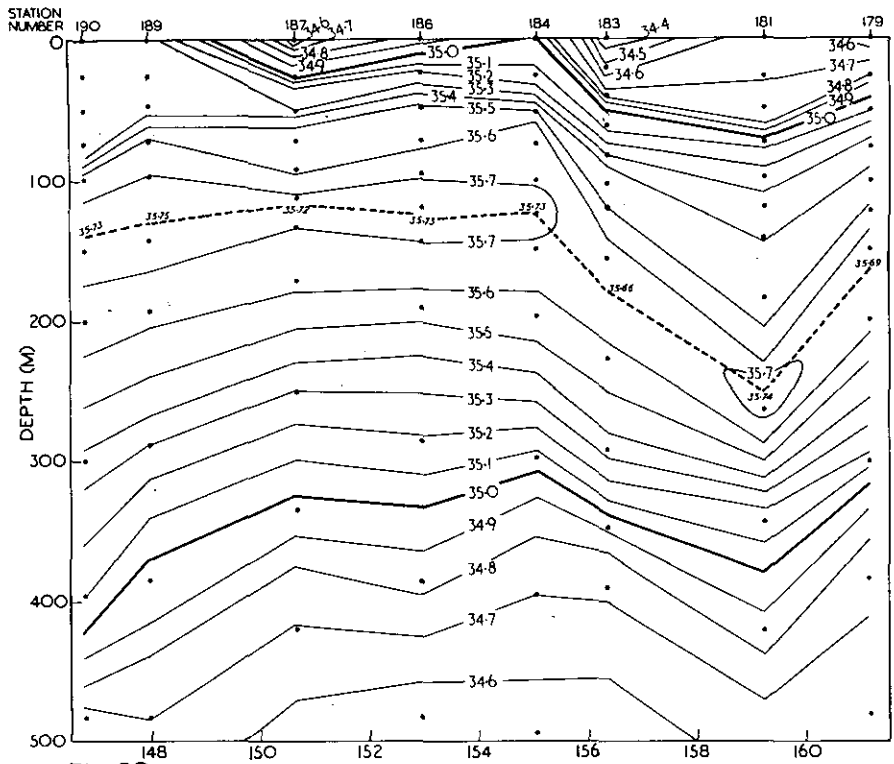
STATION NUMBER
190
189
187
186
184
183
181
179
DEPTH (M)
LONGITUDE (°E)

Fig. 30

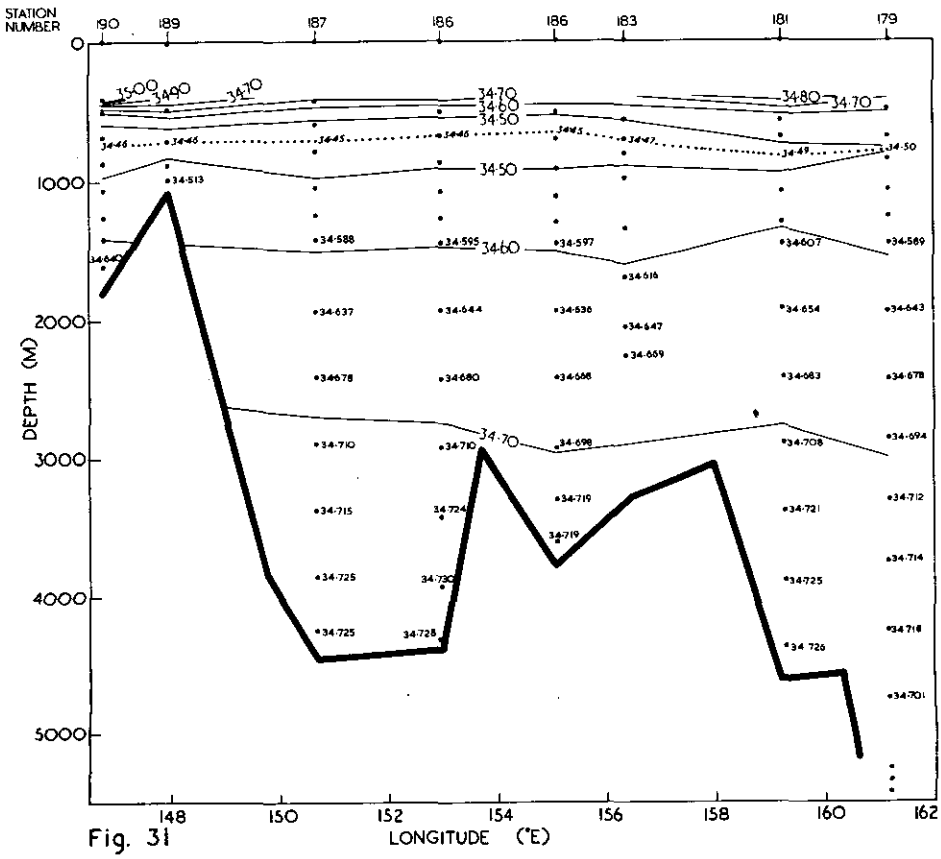
STATION NUMBER
190
189
187
186
186
183
181
179
DEPTH (M)
LONGITUDE (°E)

Fig. 31

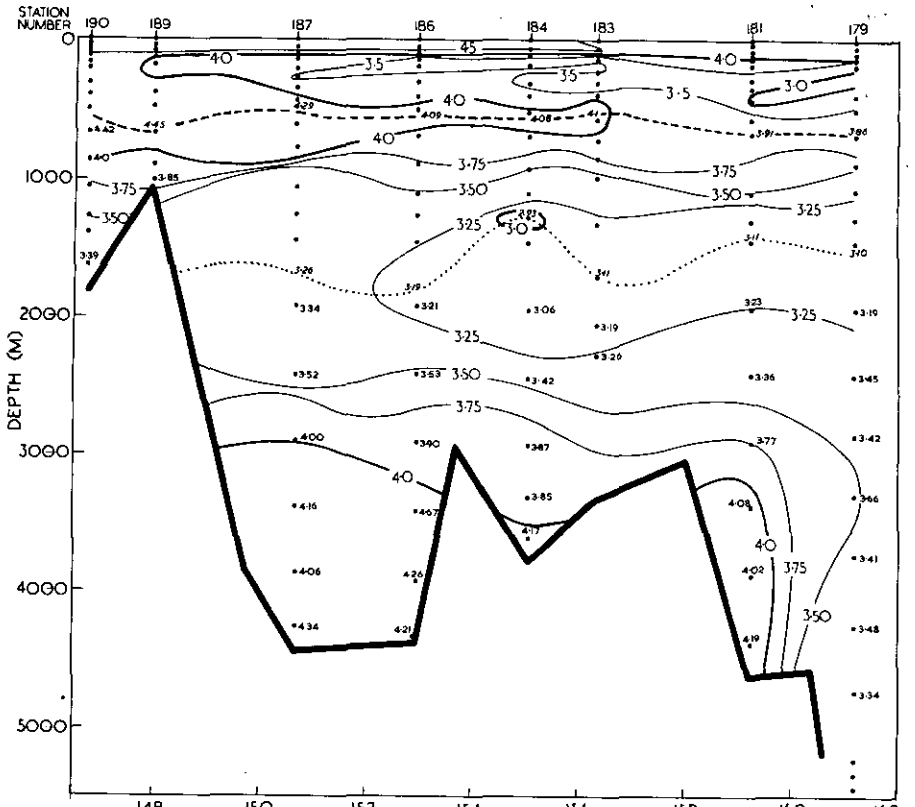
STATION NUMBER
190
189
187
186
184
183
181
179
DEPTH (M)
0
1000
2000
3000
4000
5000
LONGITUDE (°E)
148
150
152
154
156
158
160
162

Fig. 32

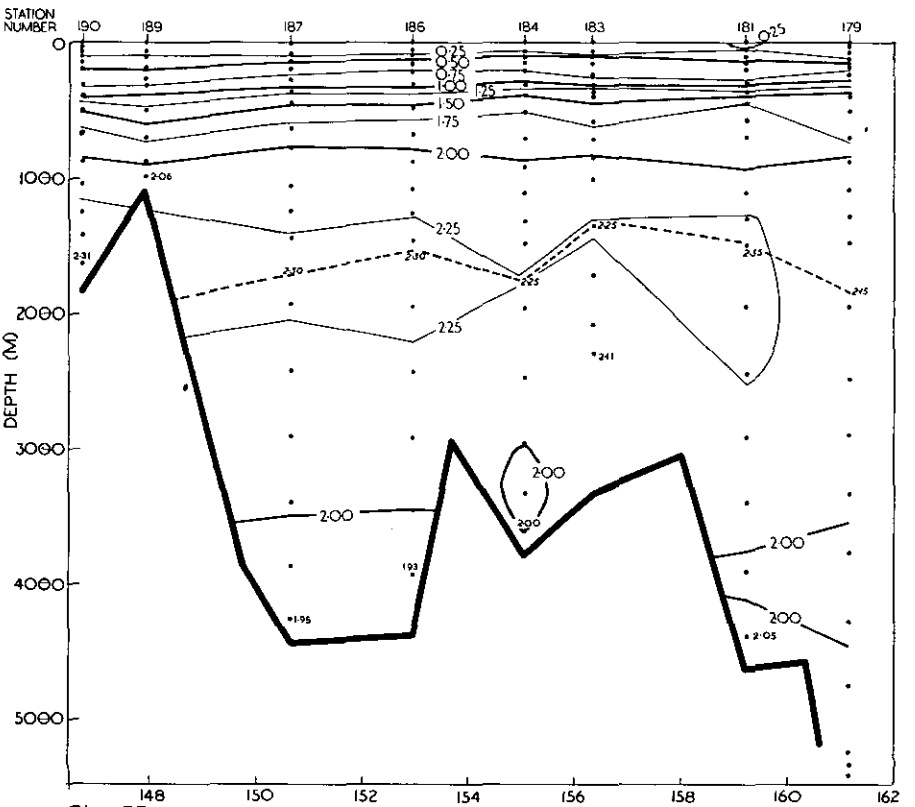
STATION NUMBER
190
189
187
186
184
183
181
179
DEPTH (M)
0
1000
2000
3000
4000
5000
LONGITUDE (°E)
148
150
152
154
156
158
160
162

Fig. 33

Cruises G 1/60 and G 2/60

Figs. 34 - 45

HORIZONTAL DISTRIBUTION OF PROPERTIES

Figures illustrating the horizontal distribution of properties at the surface, 50 m and 150 m were prepared from the data of the Cruises G 1/60 and G 2/60 given in Section V.

Figs. 34-45. Horizontal distribution of properties
The positions of stations are indicated by + for G 1/60 and . for G 2/60.

Fig. 34.	Surface	Temperature
Fig. 35.		Salinity
Fig. 36.		Percentage oxygen saturation
Fig. 37.		Inorganic phosphate
Fig. 38.	50 m	Temperature
Fig. 39.		Salinity
Fig. 40.		Percentage oxygen saturation
Fig. 41.		Inorganic phosphate
Fig. 42.	150 m	Temperature
Fig. 43.		Salinity
Fig. 44.		Percentage oxygen saturation
Fig. 45.		Inorganic phosphate

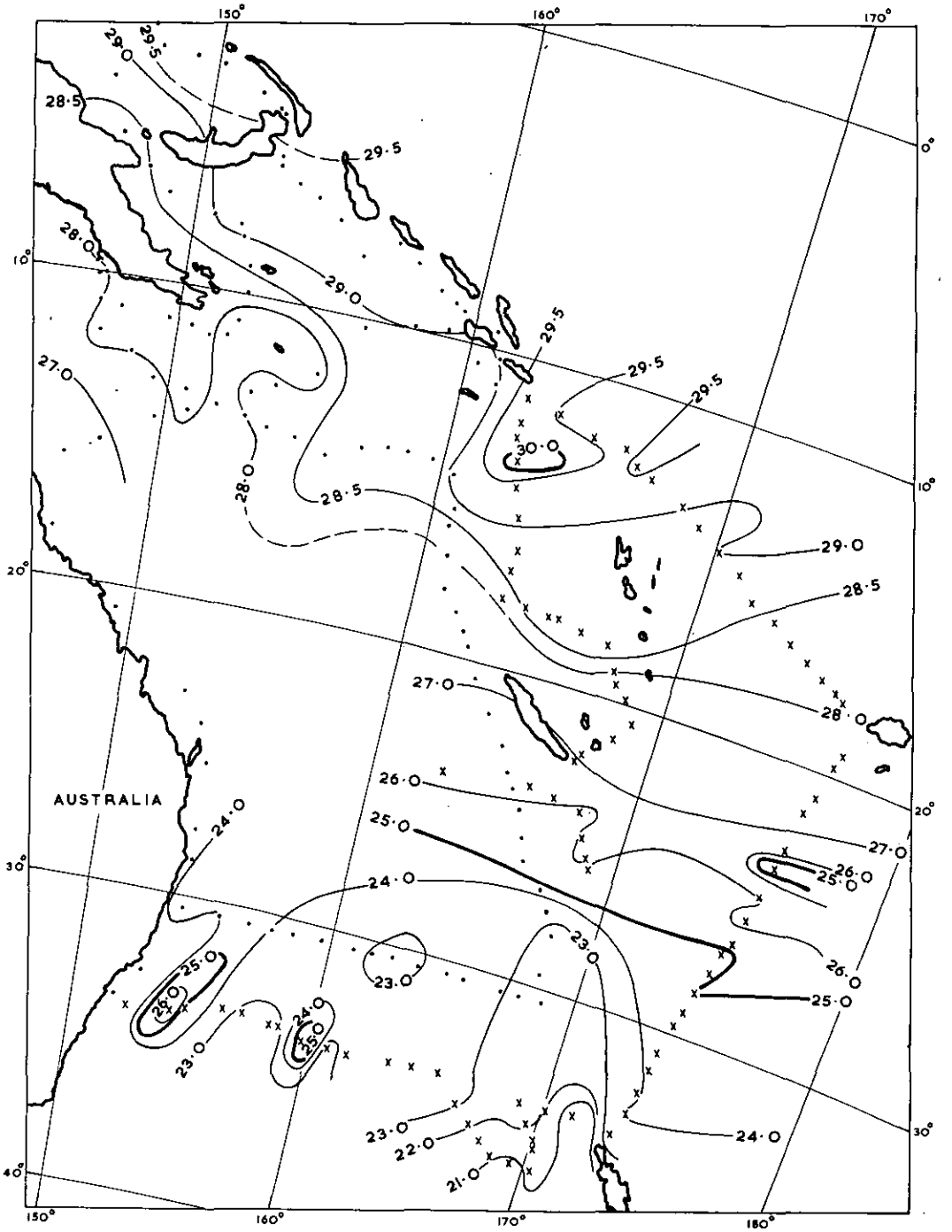
150°
160°
170°
0°
10°
20°
30°
40°
180°
AUSTRALIA
29·0
29·5
28·5
28·0
27·0
30·0
26·0
25·0
24·0
23·0
22·0
21·0

Fig. 34

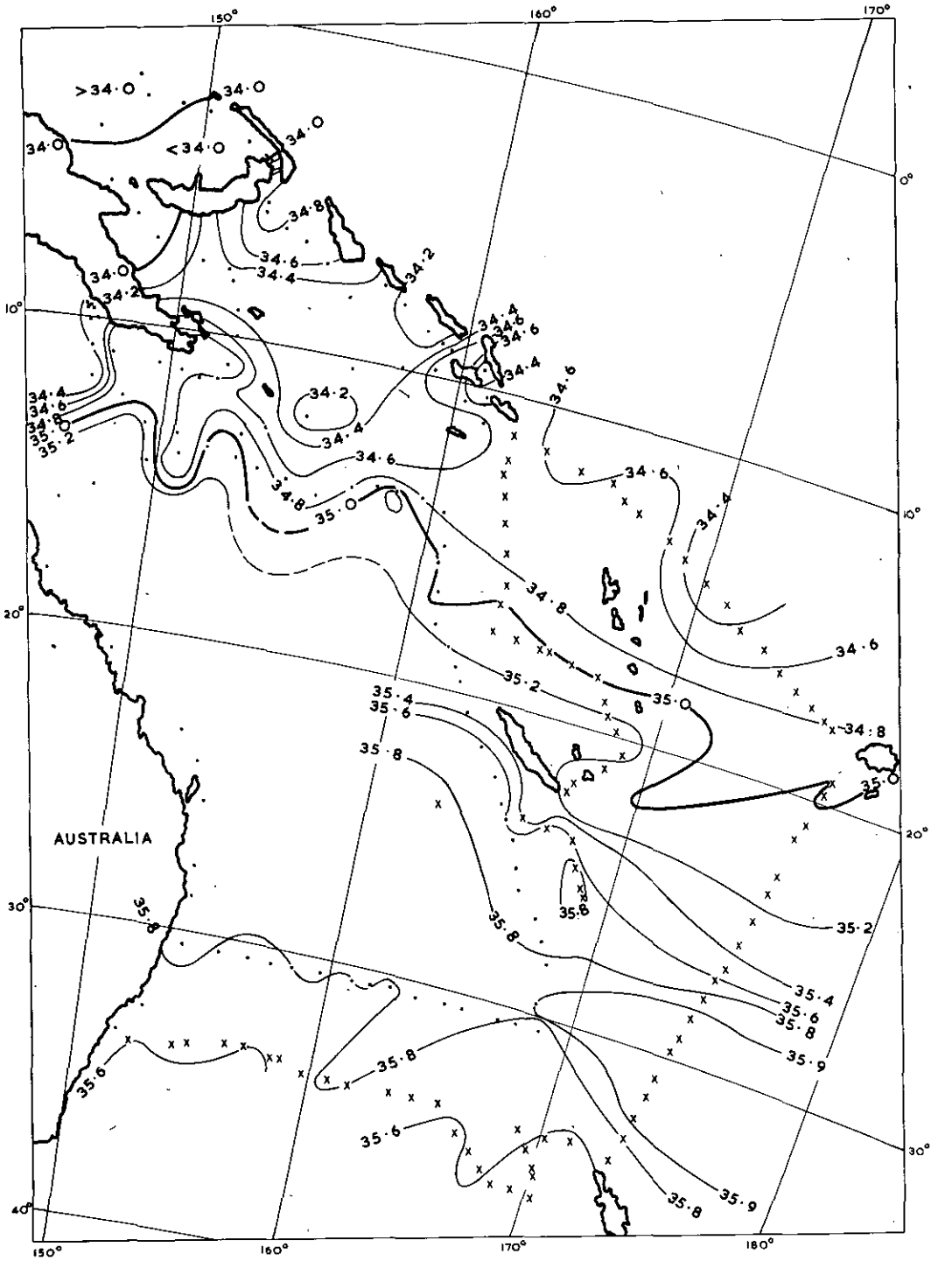
150°
160°
170°
0°
10°
20°
30°
40°
180°
>34·0
<34·0
34·0
34·2
34·4
34·6
34·8
35·0
35·2
35·4
35·6
35·8
35·9
AUSTRALIA

Fig. 35

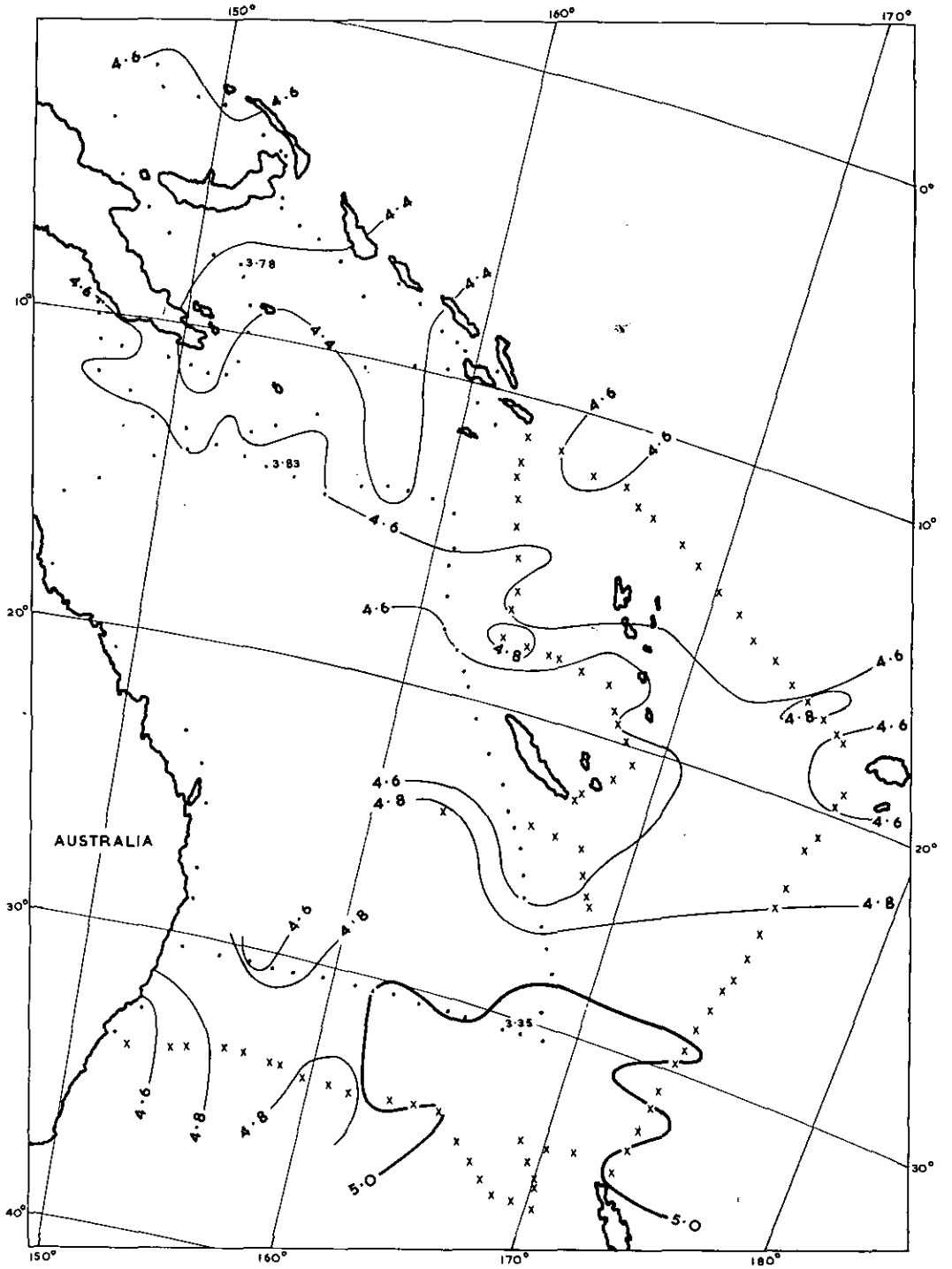

Fig. 36

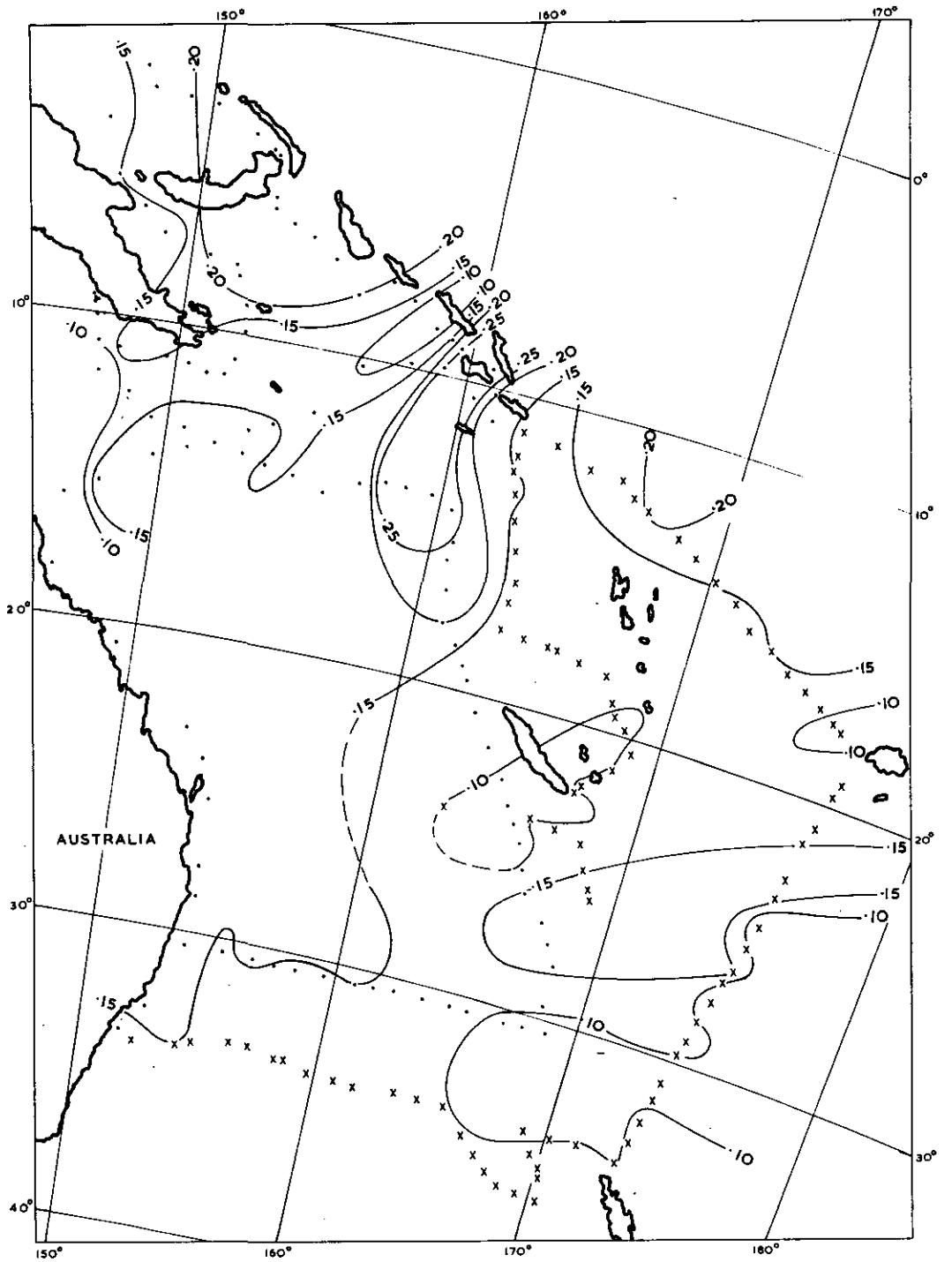

Fig. 37

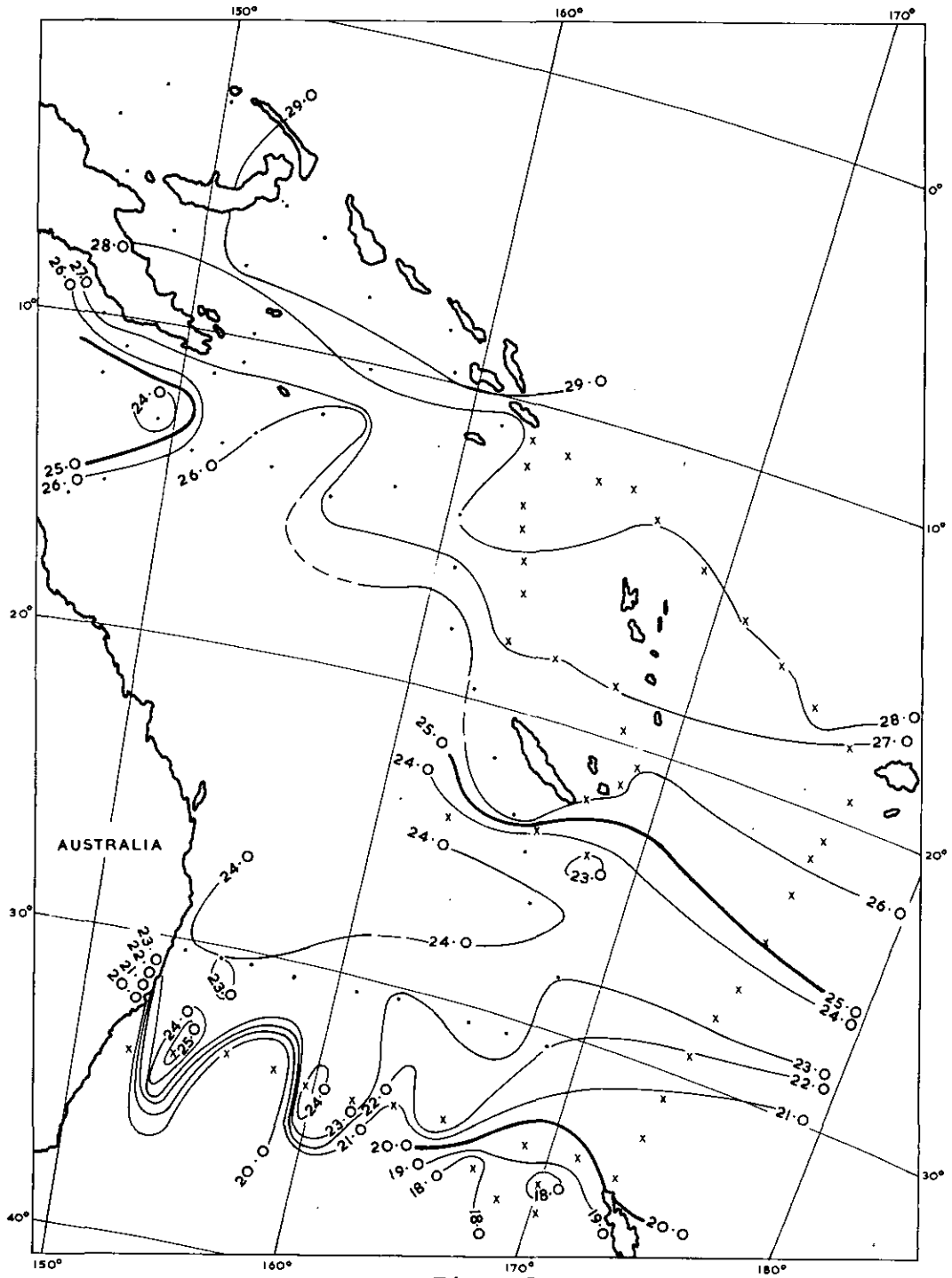
150°
160°
170°
0°
10°
20°
30°
40°
150°
160°
170°
180°
AUSTRALIA
29·0
28·0
27·0
26·0
25·0
24·0
23·0
22·0
21·0
20·0
19·0
18·0

Fig. 38

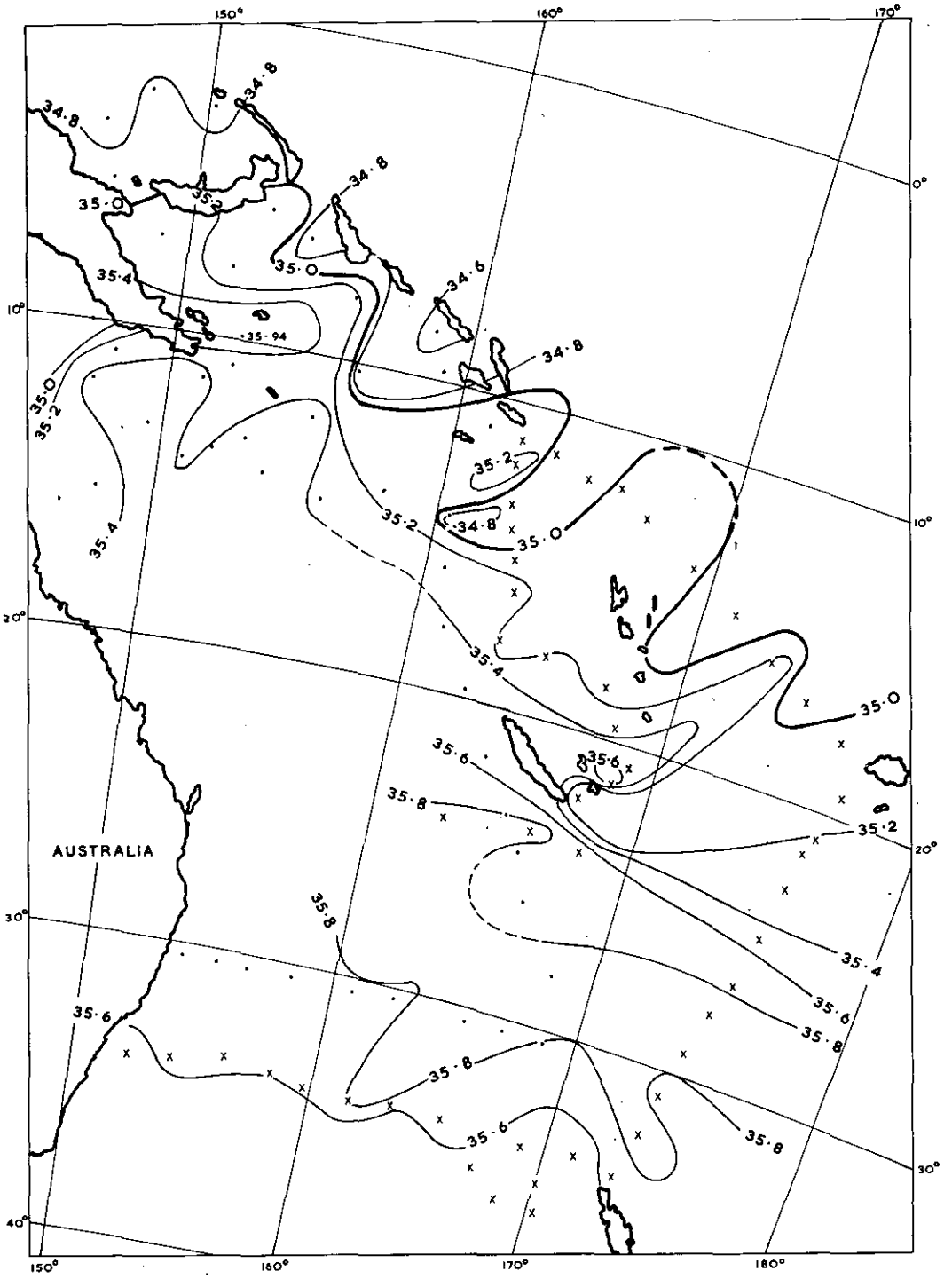
150°
160°
170°
180°
0°
10°
20°
30°
40°
AUSTRALIA
34·8
35·0
35·2
35·4
35·94
34·6
35·6
35·8

Fig. 39

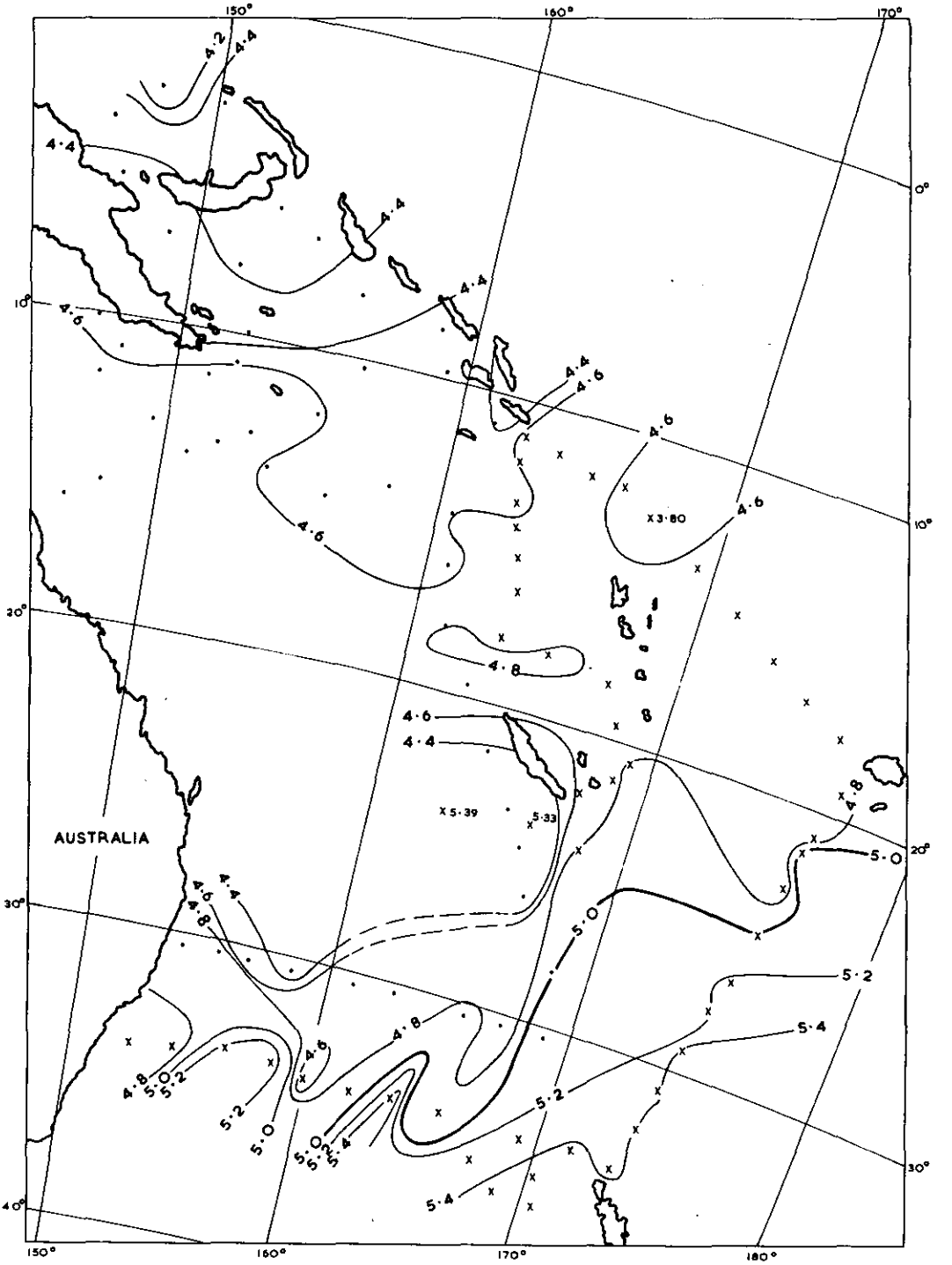
150°
160°
170°
0°
10°
20°
30°
40°
180°
AUSTRALIA
4·2
4·4
4·6
4·8
5·0
5·2
5·4
x3·80
x5·39
5·33

Fig. 40

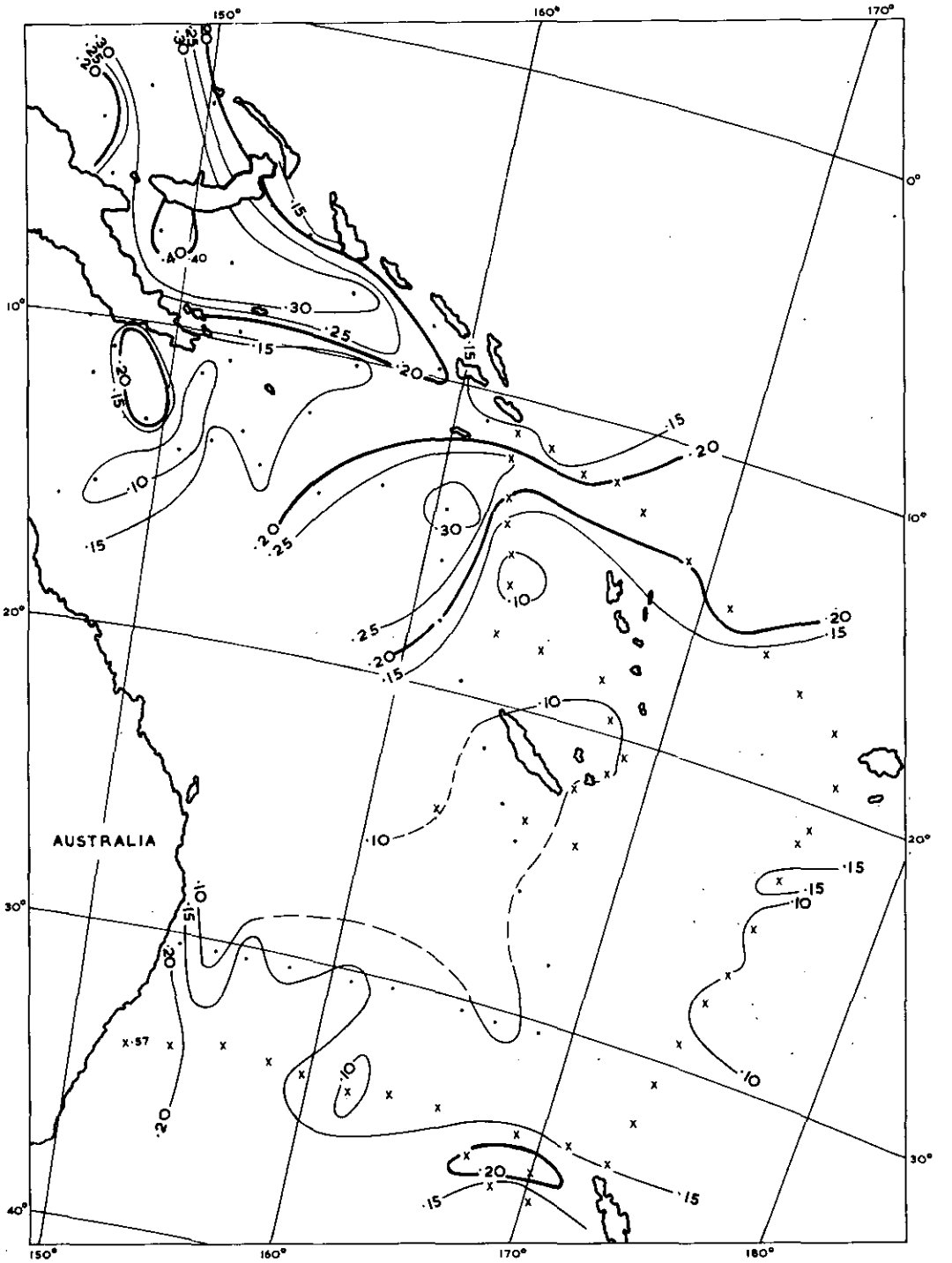

Fig. 41

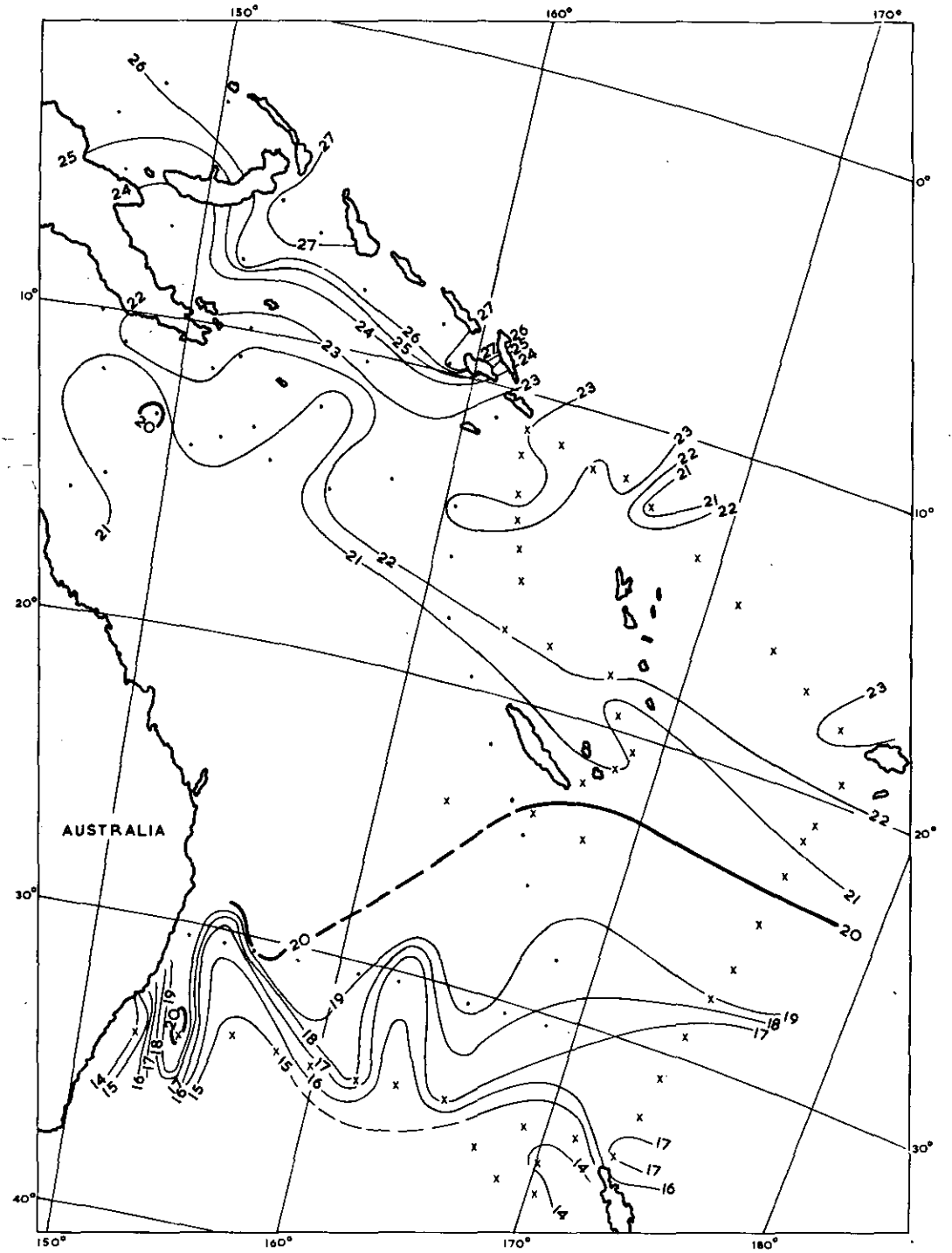

Fig. 42

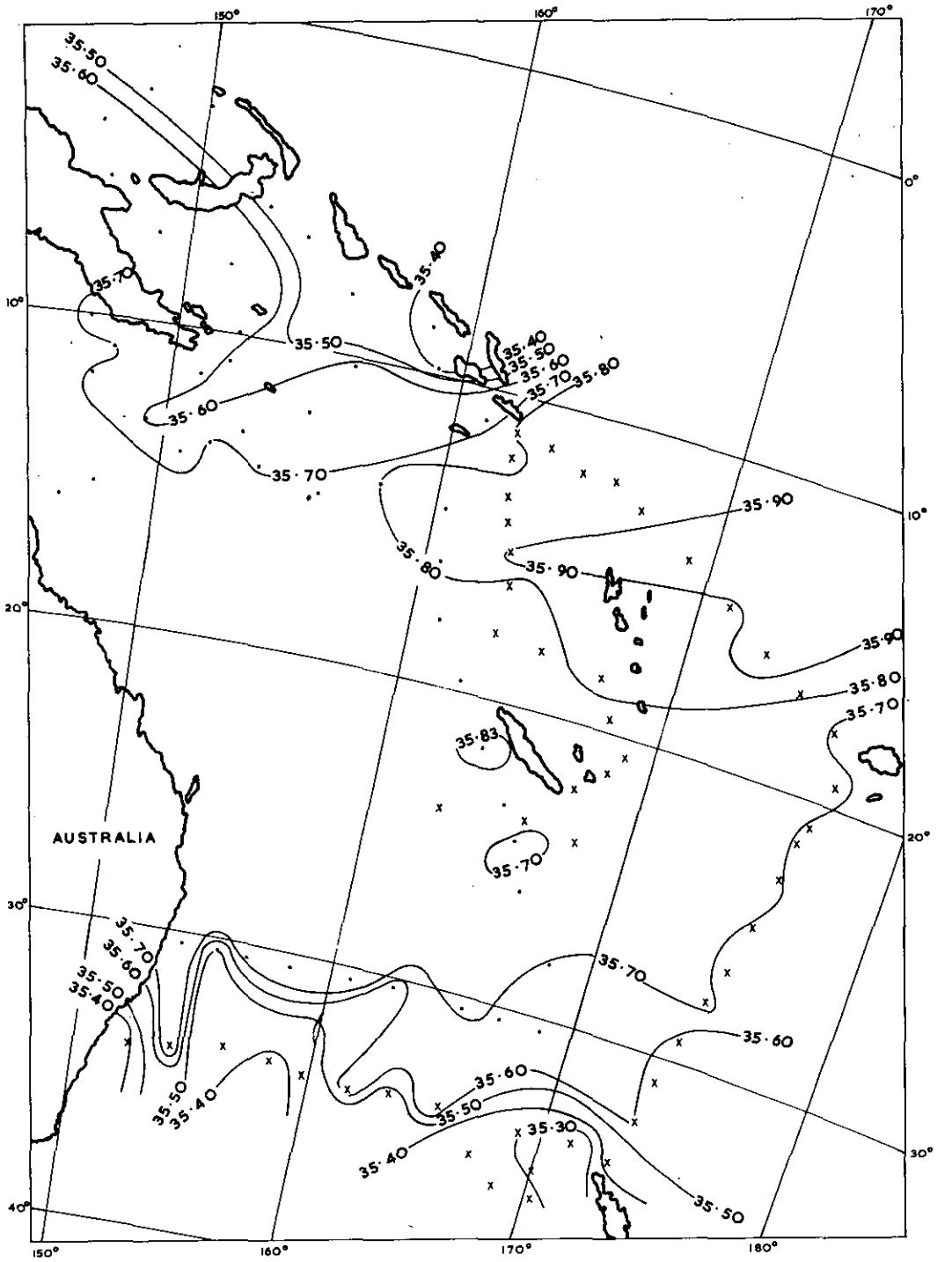
150°
160°
170°
0°
10°
20°
30°
40°
180°
35·50
35·60
35·40
35·70
35·80
35·90
35·83
35·30
AUSTRALIA

Fig. 43

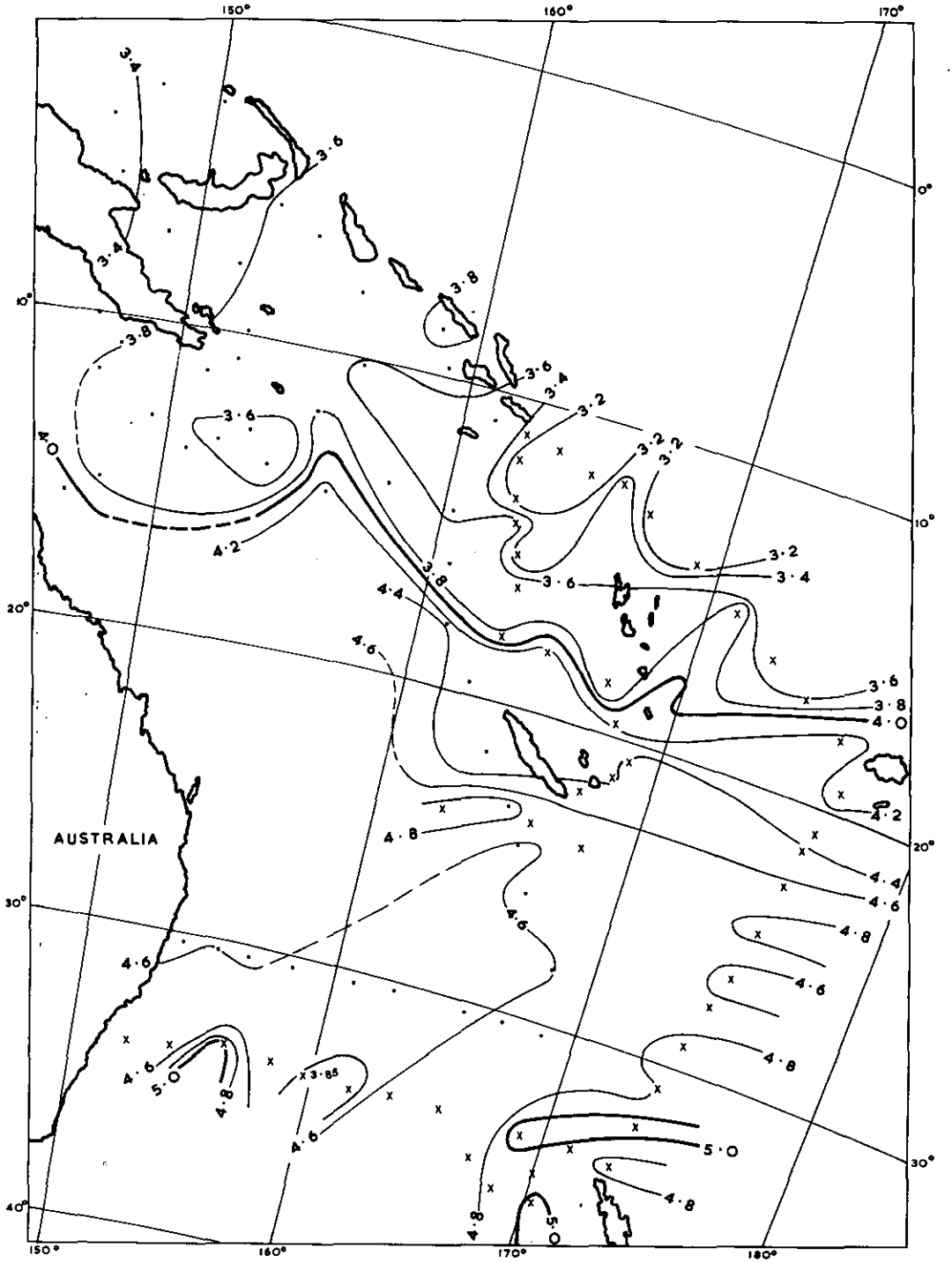
150°
160°
170°
0°
10°
20°
30°
40°
180°
AUSTRALIA
3·4
3·6
3·8
4·0
4·2
4·4
4·6
4·8
5·0
3·2
3·85

Fig. 44

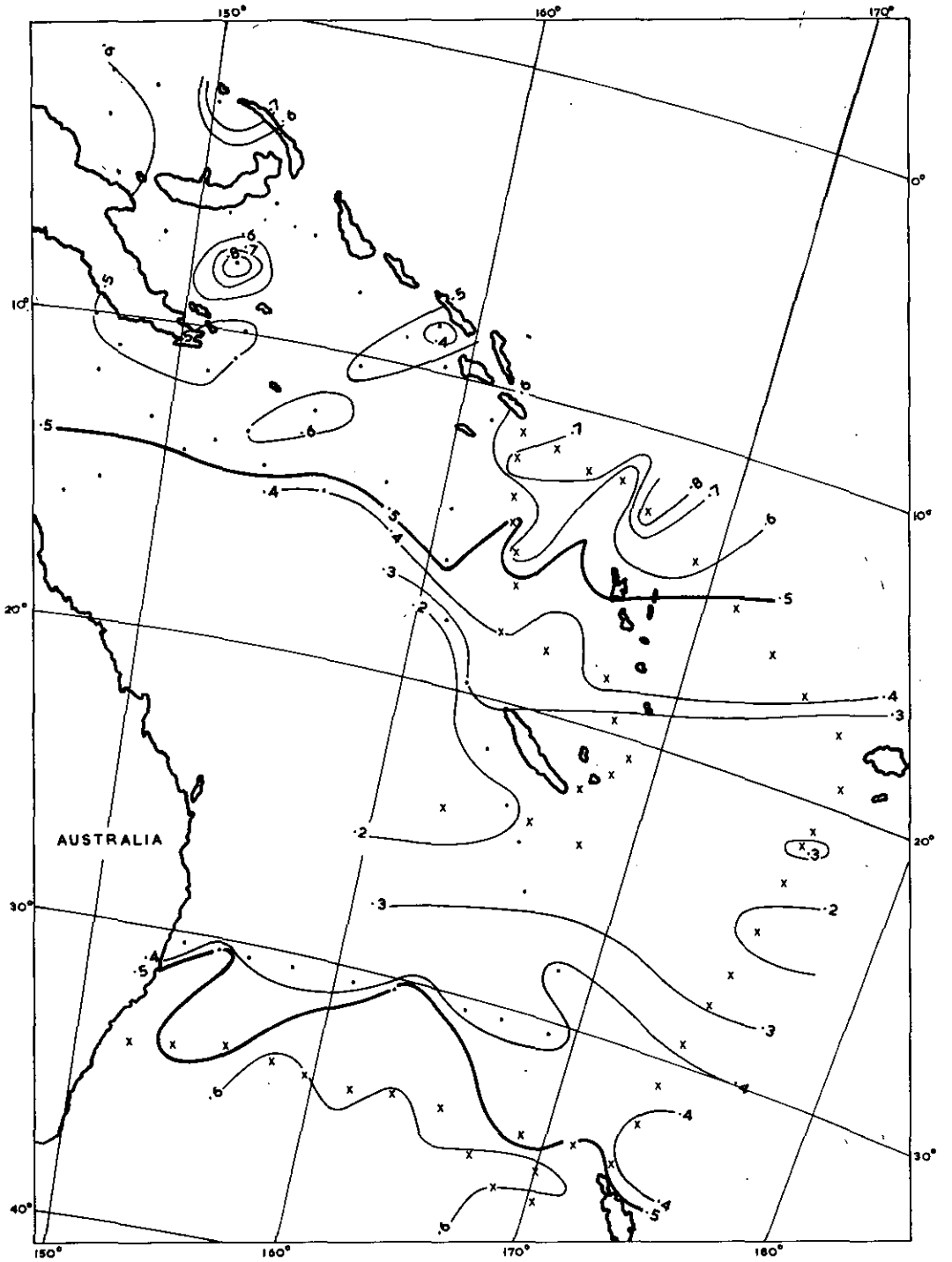

Fig. 45

Cruises G 1/60 and G 2/60

Figs. 46 - 49

PRIMARY PRODUCTION

Fig. 46. Daily rates of primary production ($gC/day/m^2$), calculated for the columns under 1 metre square from 0 to 150 m (except those marked *, which are to 100 m. Figures are arranged with station number at the top, value in the centre, and the time of sampling at the bottom.

Figs. 47-49. Vertical properties of hourly rates of primary production. Sampling times are given below the station number.

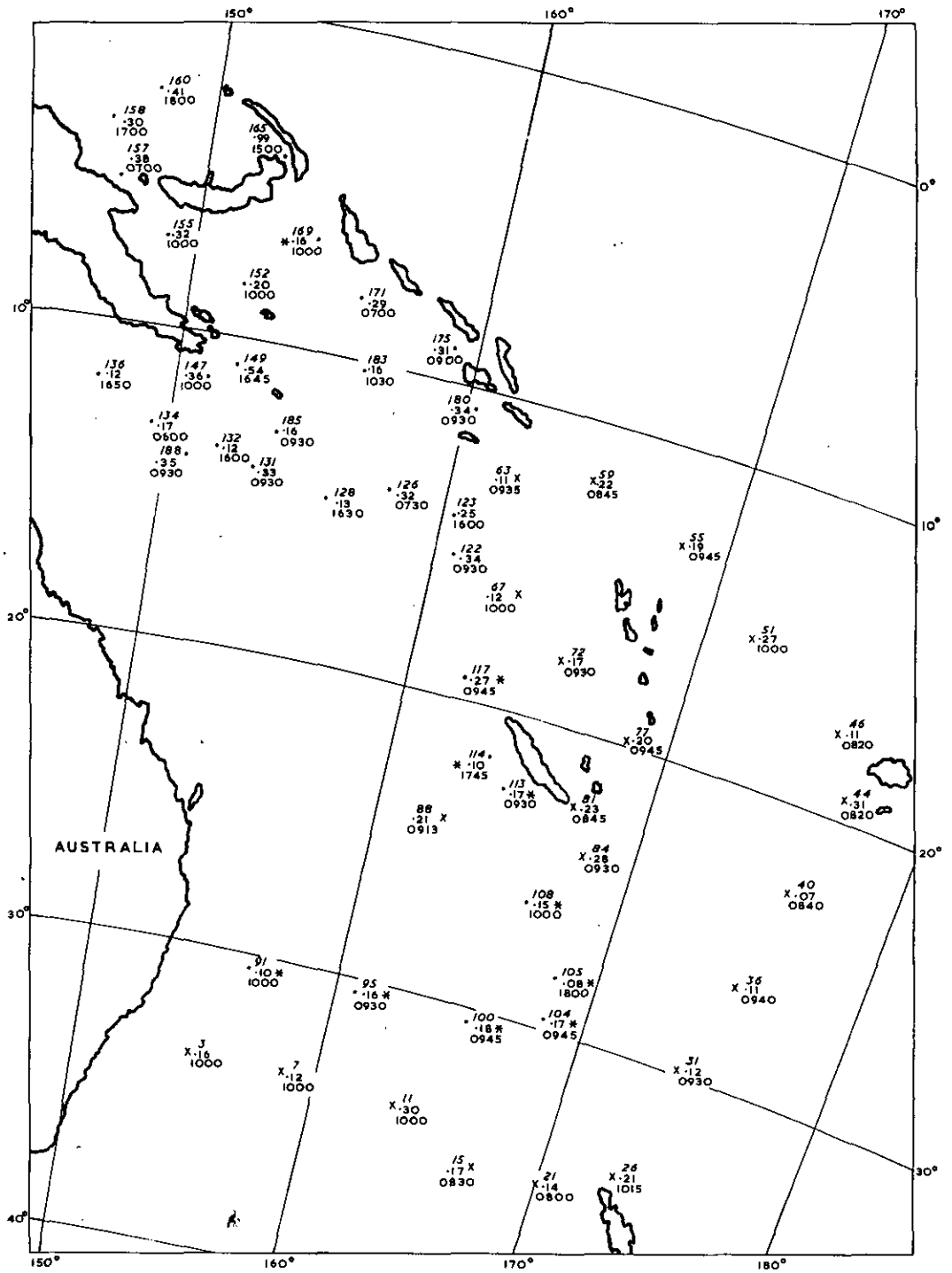
150°
160°
170°
0°
10°
20°
30°
40°
AUSTRALIA
160 ·41 1800
158 ·30 1700
157 ·38 0700
165 ·99 1500
155 ·32 1000
169 ·16 1000
152 ·20 1000
171 ·29 0700
175 ·31 0900
136 ·12 1650
147 ·36 1000
149 ·54 1645
183 ·16 1030
180 ·34 0930
134 ·17 0600
188 ·35 0930
185 ·16 0930
132 ·12 1600
131 ·33 0930
128 ·13 1630
126 ·32 0730
123 ·25 1600
63 ·11 X 0935
59 X·22 0845
55 X·19 0945
122 ·34 0930
67 ·12 X 1000
51 X·27 1000
72 X·19 0930
117 ·27 * 0945
77 X·20 0945
46 X·11 0820
114 * ·10 1745
113 ·17 * 0930
87 X·23 0845
44 X·31 0820
88 ·21 X 0913
84 X·28 0930
108 ·15 * 1000
40 X·07 0840
91 ·10 * 1000
95 ·16 * 0930
105 ·08 * 1800
36 X·11 0940
100 ·18 * 0945
104 ·17 * 0945
3 X·16 1000
7 X·12 1000
31 X·12 0930
11 X·30 1000
15 X·17 0830
21 X·14 0800
26 X·21 1015

Fig. 46

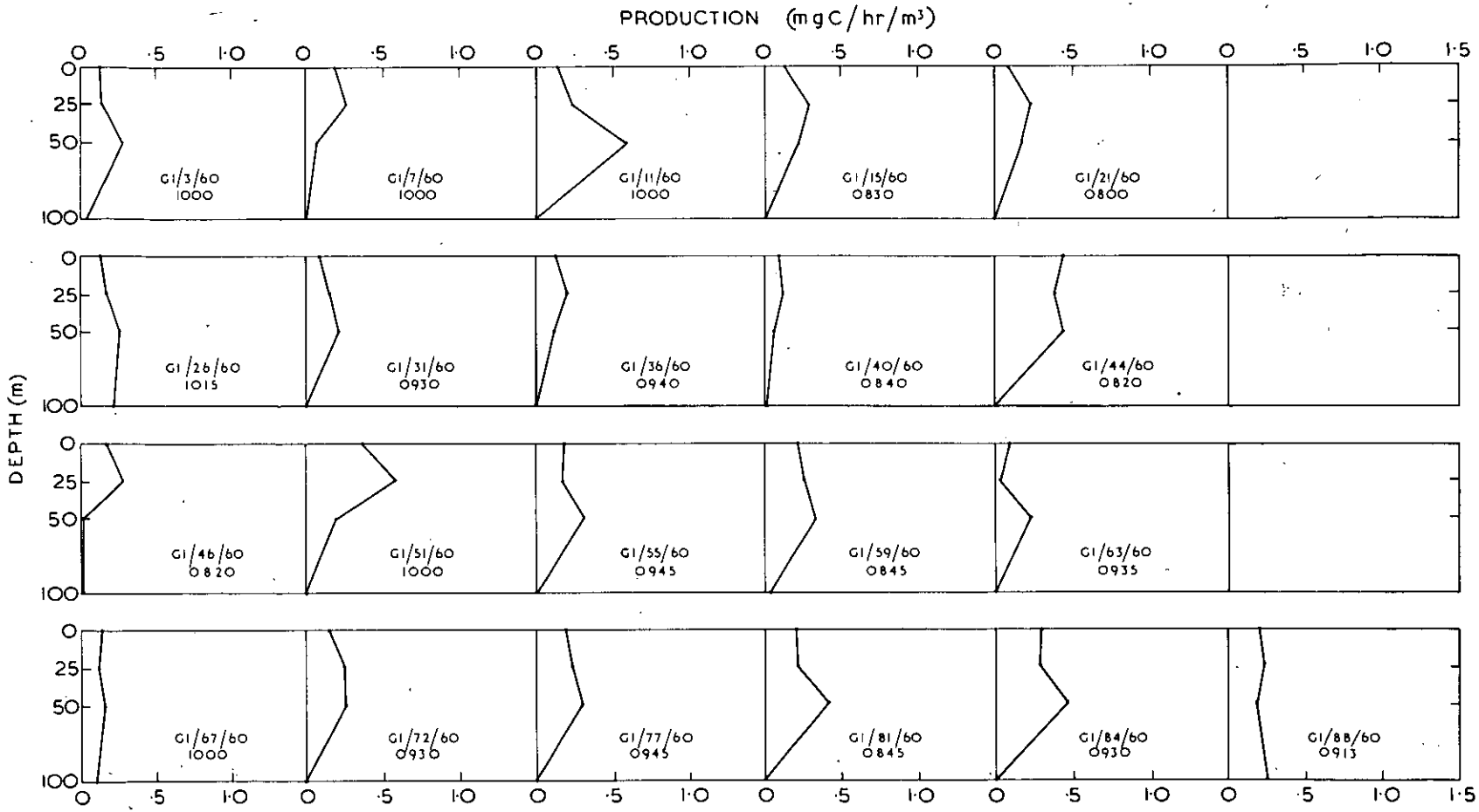
PRODUCTION (mgC/hr/m³)
DEPTH (m)
0
·5
1·0
1·5
0
25
50
100
G1/3/60 1000
G1/7/60 1000
G1/11/60 1000
G1/15/60 0830
G1/21/60 0800
G1/26/60 1015
G1/31/60 0930
G1/36/60 0940
G1/40/60 0840
G1/44/60 0820
G1/46/60 0820
G1/51/60 1000
G1/55/60 0945
G1/59/60 0845
G1/63/60 0935
G1/67/60 1000
G1/72/60 0930
G1/77/60 0945
G1/81/60 0845
G1/84/60 0930
G1/88/60 0913

Fig. 47

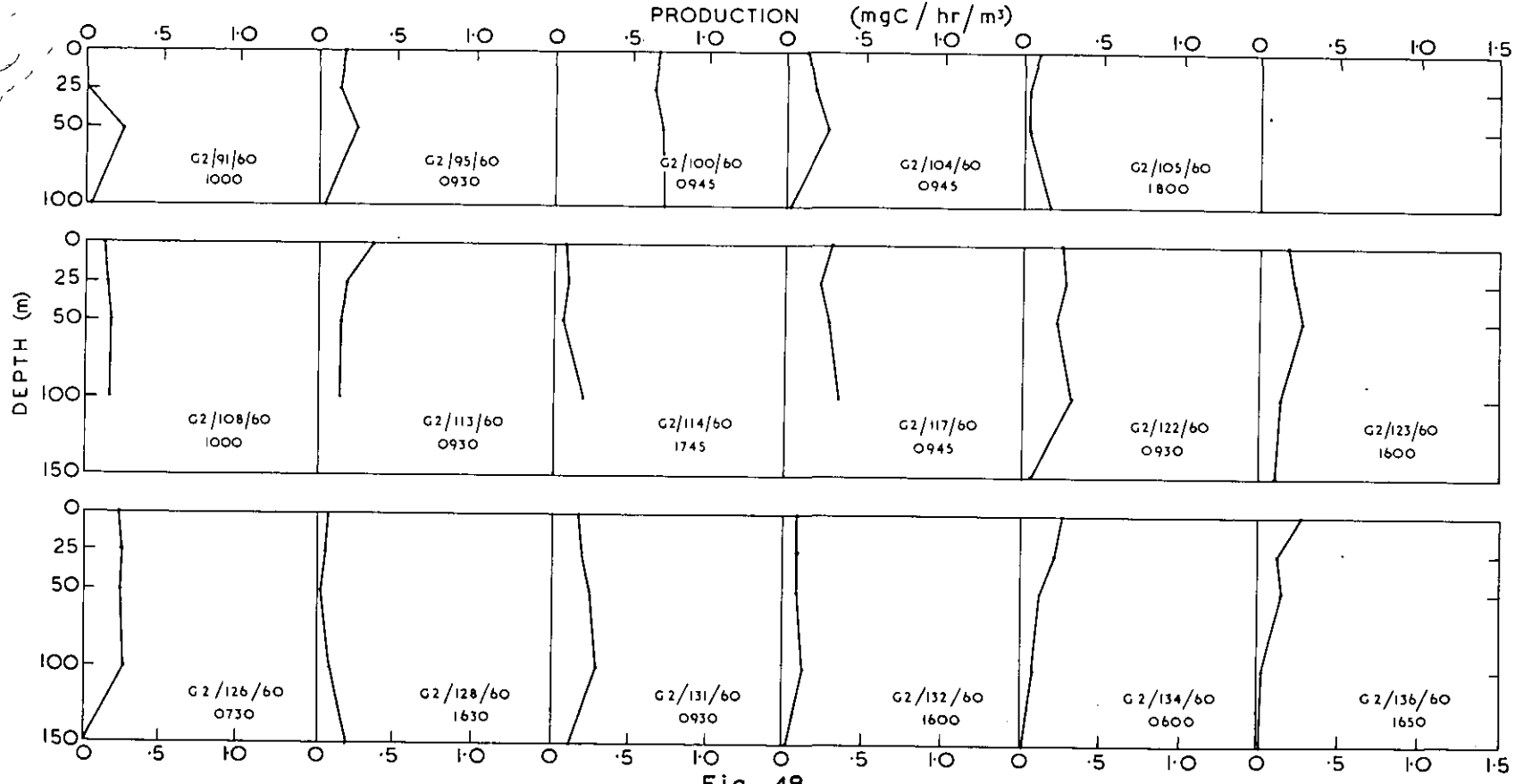
PRODUCTION (mgC / hr / m³)
DEPTH (m)
G2/91/60 1000
G2/95/60 0930
G2/100/60 0945
G2/104/60 0945
G2/105/60 1800
G2/108/60 1000
G2/113/60 0930
G2/114/60 1745
G2/117/60 0945
G2/122/60 0930
G2/123/60 1600
G2/126/60 0730
G2/128/60 1630
G2/131/60 0930
G2/132/60 1600
G2/134/60 0600
G2/136/60 1650

Fig. 48

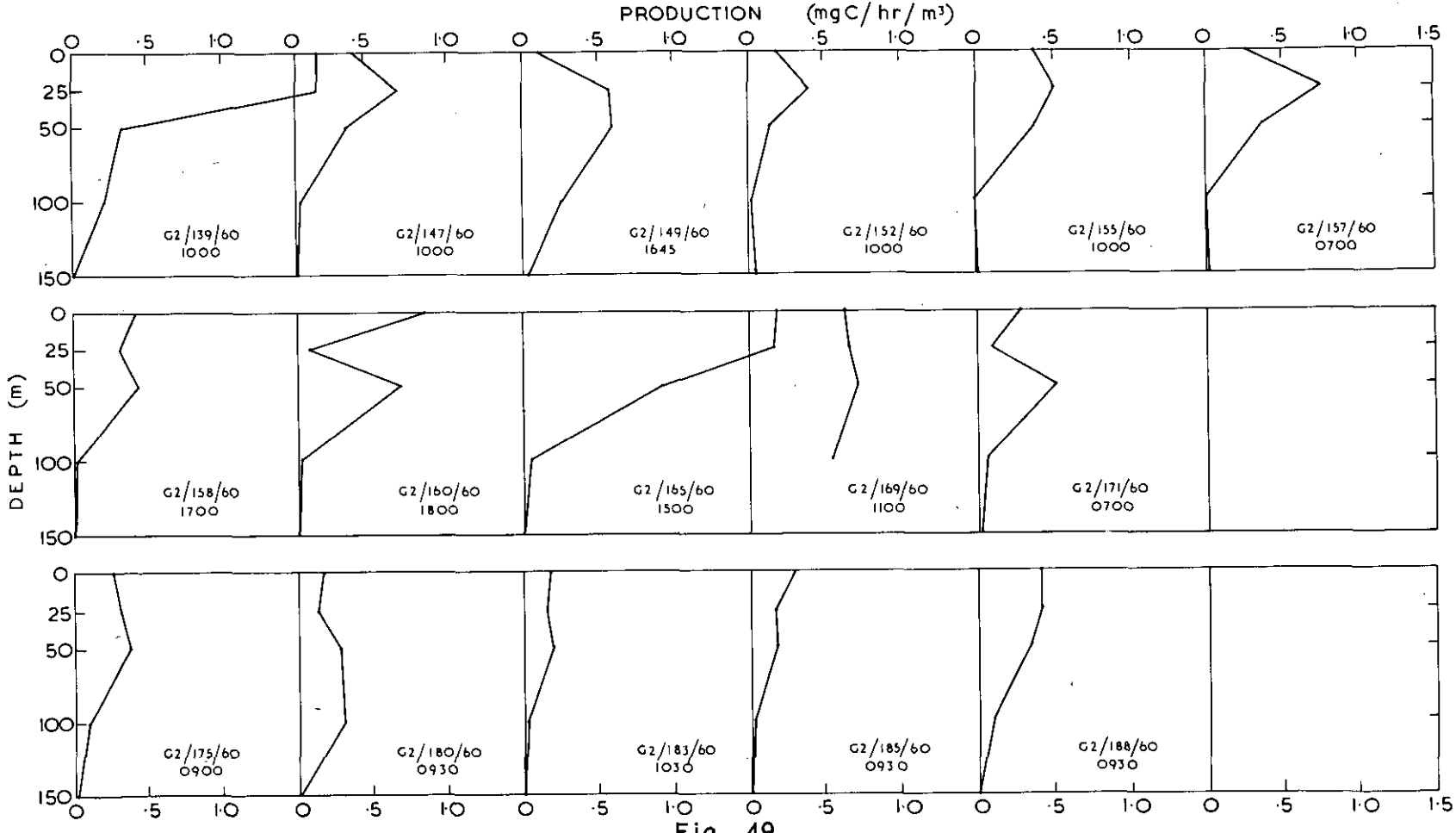
PRODUCTION (mgC/hr/m³)
DEPTH (m)
G2/139/60 1000
G2/147/60 1000
G2/149/60 1645
G2/152/60 1000
G2/155/60 1000
G2/157/60 0700
G2/158/60 1700
G2/160/60 1800
G2/165/60 1500
G2/169/60 1100
G2/171/60 0700
G2/175/60 0900
G2/180/60 0930
G2/183/60 1030
G2/185/60 0930
G2/188/60 0930

Fig. 49

OCEANOGRAPHICAL CRUISE REPORTS

1. Oceanographic observations in the Indian Ocean in 1959. H.M.A.S. *Diamantina* Cruises Dm1/59 and Dm2/59.
2. Oceanographic observations in the Indian Ocean in 1960. H.M.A.S. *Diamantina* Cruise Dm1/60.
3. Oceanographical observations in the Indian Ocean in 1960. H.M.A.S. *Diamantina* Cruise Dm2/60.
4. Oceanographical observations in the Indian Ocean in 1960. H.M.A.S. *Diamantina* Cruise Dm3/60.
5. Oceanographical observations in the Pacific Ocean in 1960. H.M.A.S. *Gascoyne* Cruises G1/60 and G2/60.