PHYSICAL, CHEMICAL, AND BIOLOGICAL OBSERVATIONS IN CONTINENTAL SHELF WATERS BETWEEN NOVA SCOTIA AND LONG ISLAND, SEPTEMBER, 1964

John B. Colton, Robert R. Marak, and Samuel R. Nickerson

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Introduction

This report lists results obtained during an environmental survey of Continental Shelf waters in an area bounded by longitudes 64°30' W. and 72°30' W. (ALBATROSS IV, Cruise 64-11, 31 August - 13 September, 1964). This is the first of a series of cruises being undertaken on a quarterly basis (January, March, June, and September) to measure the seasonal and annual variations in temperature, salinity, dissolved oxygen, and chlorophyll. The cruise track and station and section locations are shown in Figure 1.

Procedures

At each station a surface temperature reading, bathythermograph lowering, and Nansen bottle cast was made. At stations designated by a square in Figure 1, the Nansen bottle depths were 1, 10, 20, 30, 40, 50, 75, 100, 150, 200, 300, 400, 500, 750, and 1000 meters where the depth of water permitted. At stations designated by a circle, samples were obtained to a maximum depth of 100 meters. Dissolved oxygen determinations were made at sea. All other determinations were made ashore.

Methods

Temperature

Temperature was measured with a bucket thermometer, standard reversing thermometers, and bathythermographs.

Salinity

Salinity was determined by electrical conductivity using a Hytech Model 621 Salinometer.

Dissolved oxygen

Dissolved oxygen was determined polargraphically (Carritt and Kanwisher, 1959) using a Jarrell Ash Model 26-601 dissolved oxygen analyzer.

Chlorophyll (within the upper 100 meters of the water column) was determined by fluorescence according to the method of Yentsch and Menzel (1963) from frozen extracts of 125 ml. of sea water. The specific absorption value (k) used was 66.7 (Richards, 1952). A G. K. Turner Model 110 fluorometer was used for these determinations.

Data

Values of all parameters measured are tabulated by station and depth down to 200 meters in Table 1. In addition, the temperature at 250 meters (maximum B. T. depth) and at the bottom are included where obtained.

The surface temperature and salinity distributions are shown in Figure 2. Vertical profiles of temperature, salinity, dissolved oxygen, and chlorophyll for sections A through H are presented in Figures 3 - 8.

References

Carritt, D. E. and Kanwisher, J. W. (1959). An electrode system for measuring dissolved oxygen. Analytical Chemistry, 31: 5-9.

Richards, F. A. (1952). The estimation and characterization of plankton populations by pigment analysis. I. The absorption spectra of some

pigments occurring in diatoms, dinoflagellates, and brown algae. J. Mar. Res., 11: 147-155.

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

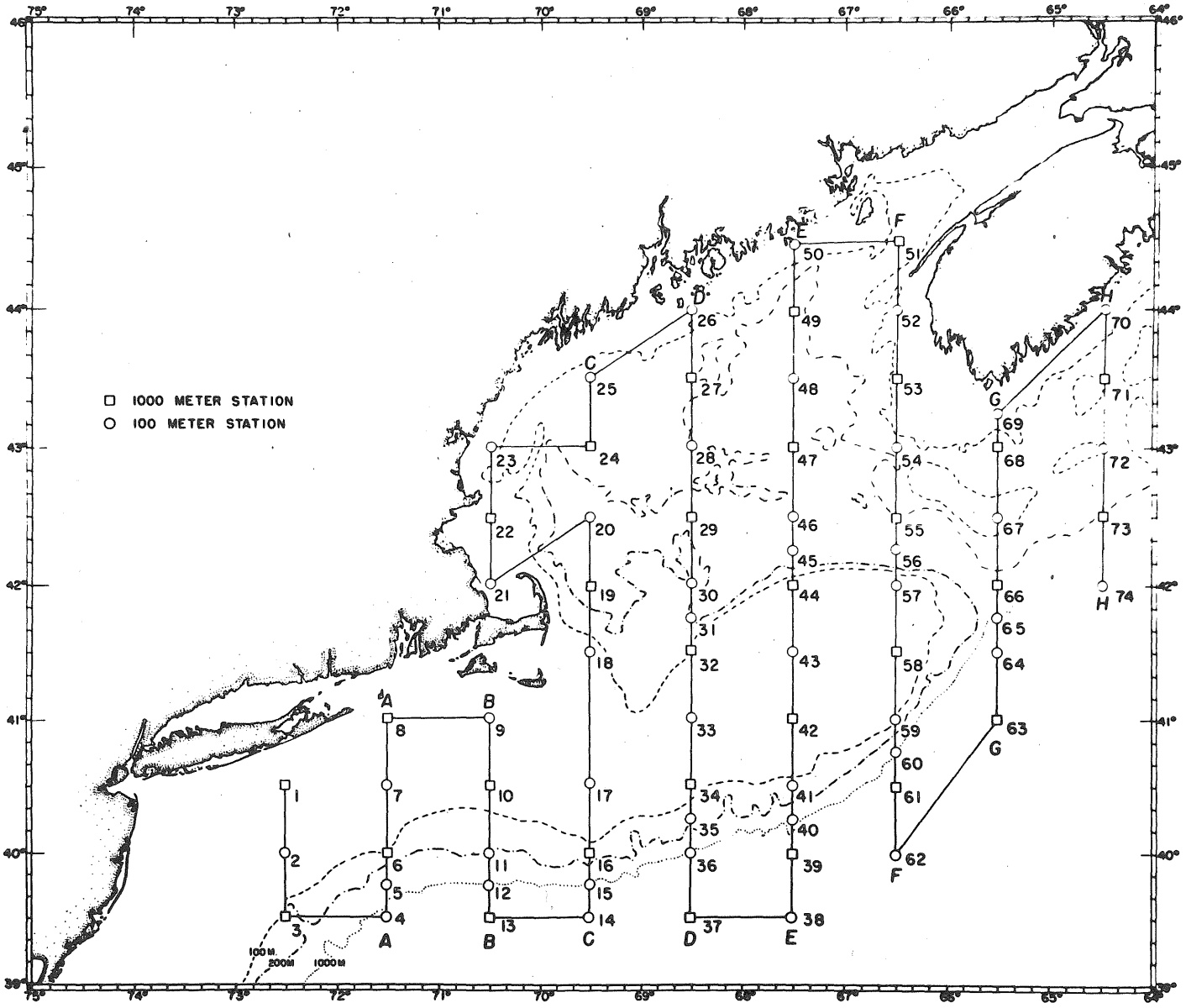
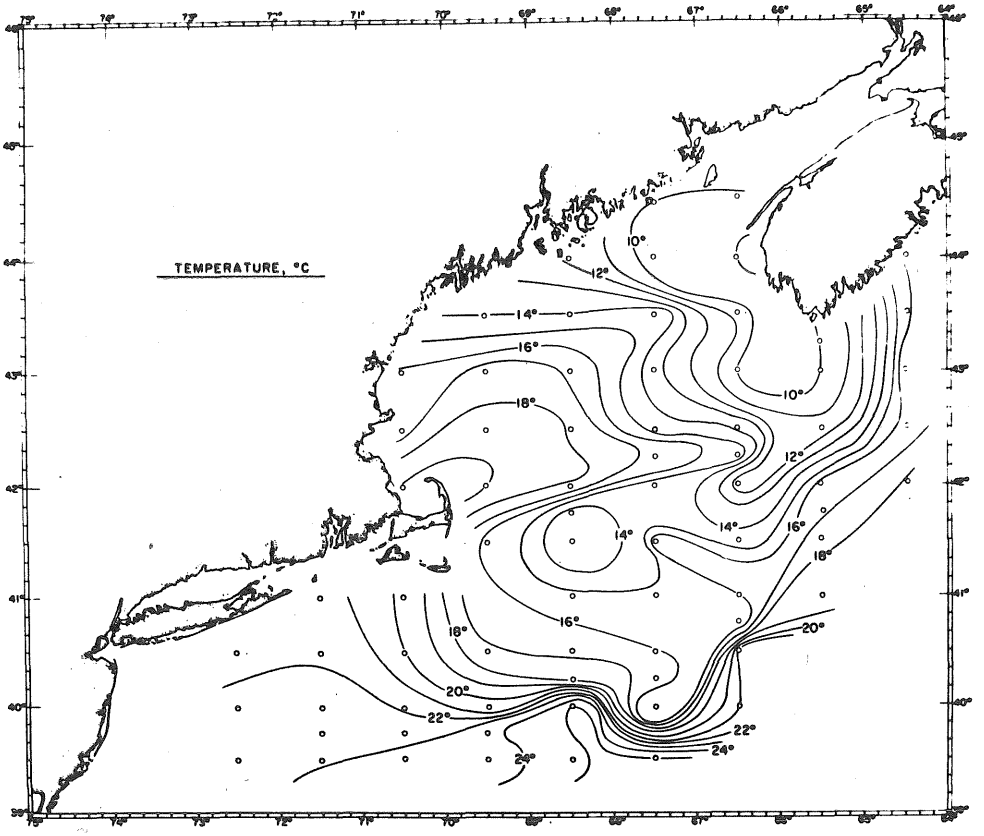


FIGURE I


TEMPERATURE, °C
10°
12°
14°
16°
18°
20°
22°
24°

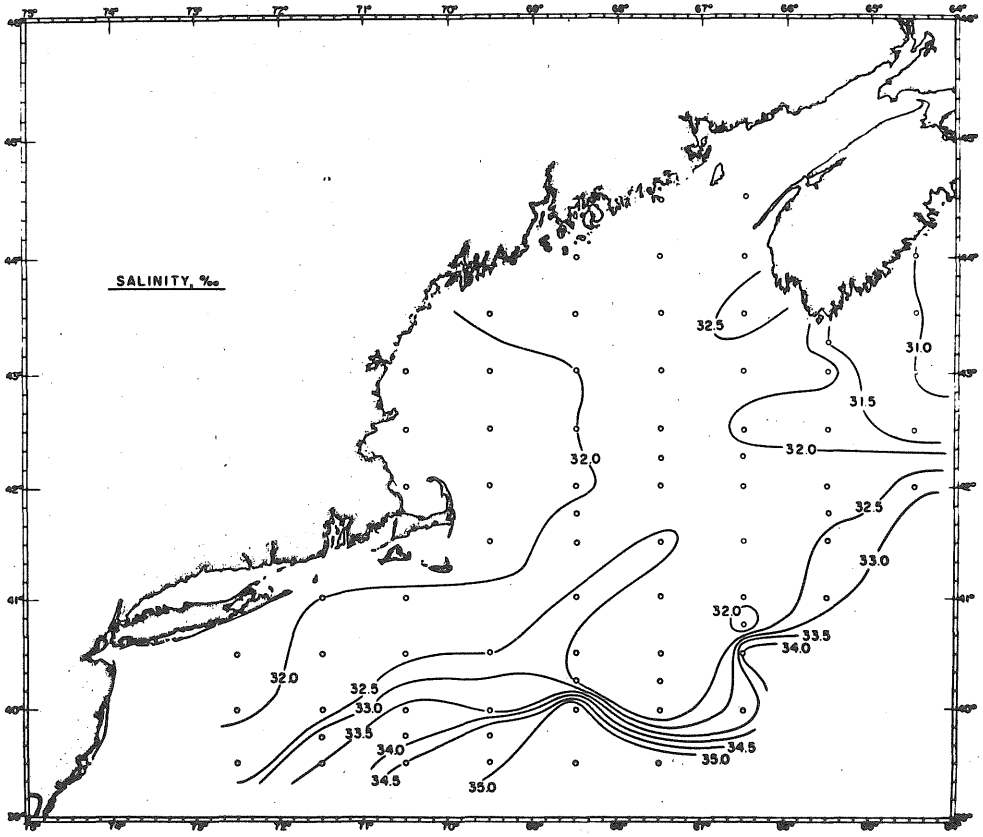

SALINITY, ‰
31.0
31.5
32.0
32.5
33.0
33.5
34.0
34.5
35.0

FIGURE 2

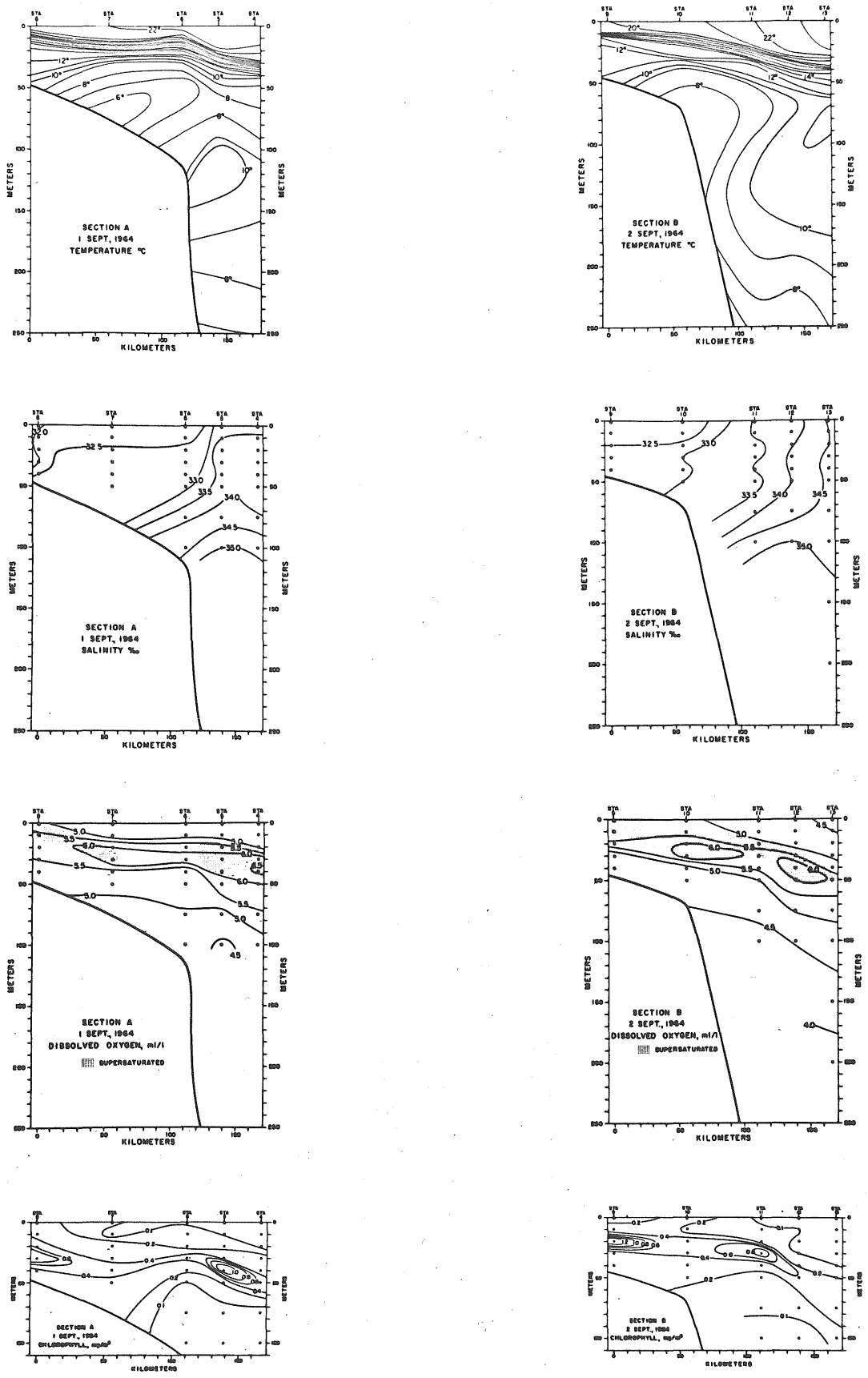

SECTION A
1 SEPT, 1964
TEMPERATURE °C
SECTION B
2 SEPT, 1964
TEMPERATURE °C
SECTION A
1 SEPT, 1964
SALINITY ‰
SECTION B
2 SEPT, 1964
SALINITY ‰
SECTION A
1 SEPT, 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
SECTION B
2 SEPT, 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
METERS
KILOMETERS

FIGURE 3

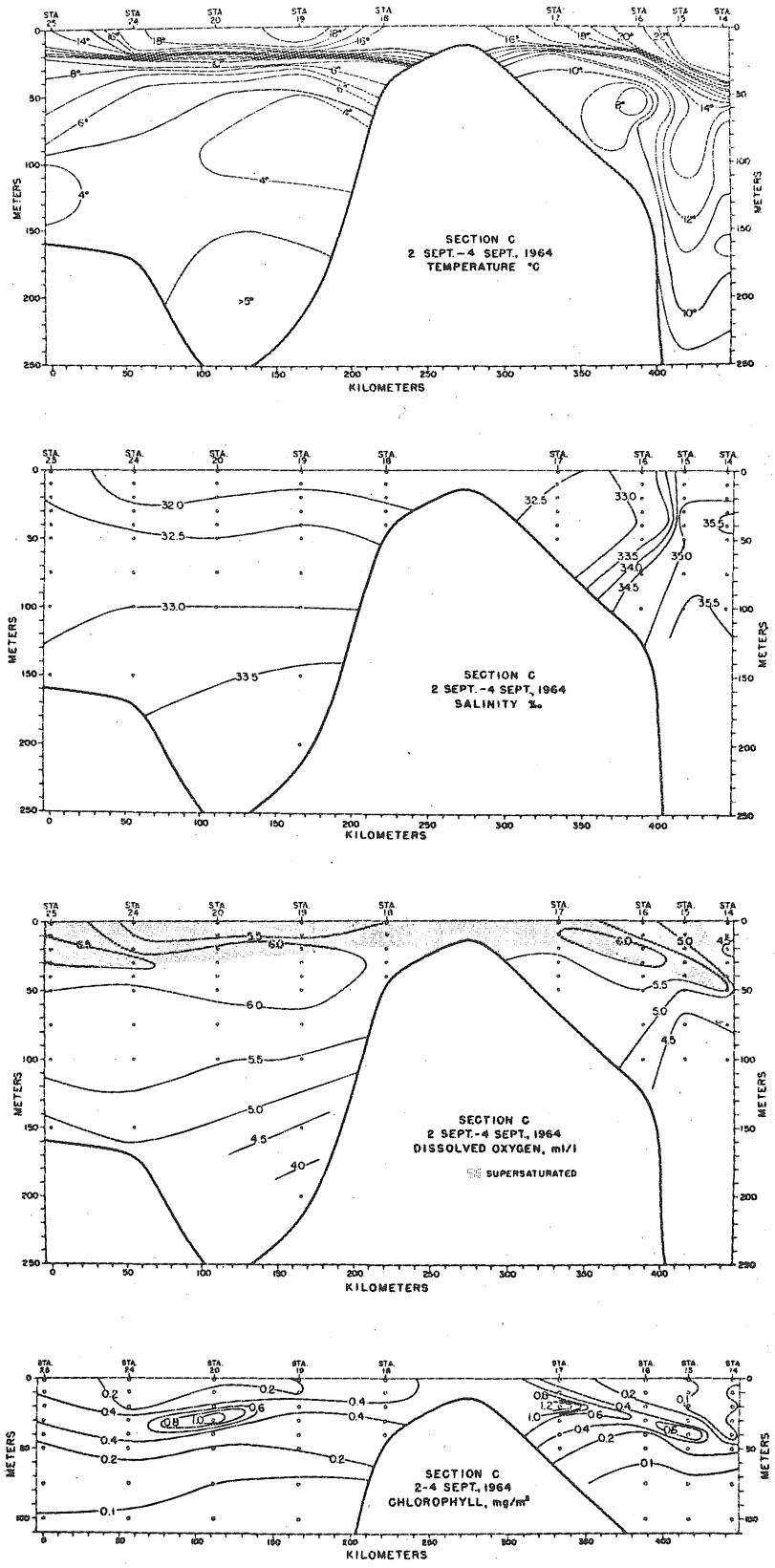

SECTION C
2 SEPT.–4 SEPT., 1964
TEMPERATURE °C
SECTION C
2 SEPT.-4 SEPT., 1964
SALINITY ‰
SECTION C
2 SEPT.-4 SEPT., 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
SECTION C
2-4 SEPT., 1964
CHLOROPHYLL, mg/m³
METERS
KILOMETERS

FIGURE 4

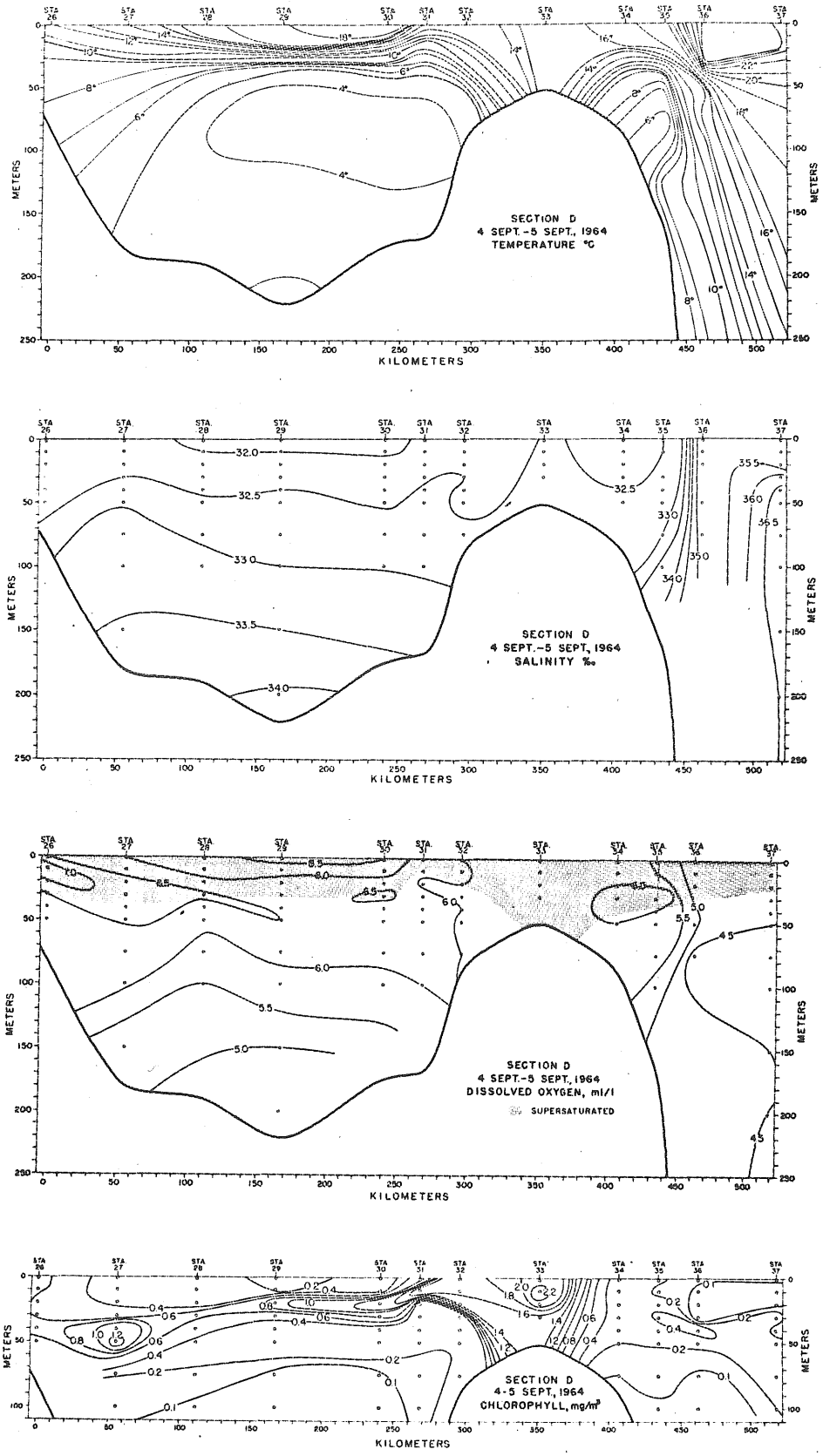

SECTION D
4 SEPT.-5 SEPT., 1964
TEMPERATURE °C
SECTION D
4 SEPT.-5 SEPT, 1964
SALINITY ‰
SECTION D
4 SEPT.-5 SEPT, 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
SECTION D
4-5 SEPT, 1964
CHLOROPHYLL, mg/m³
METERS
KILOMETERS

FIGURE 5

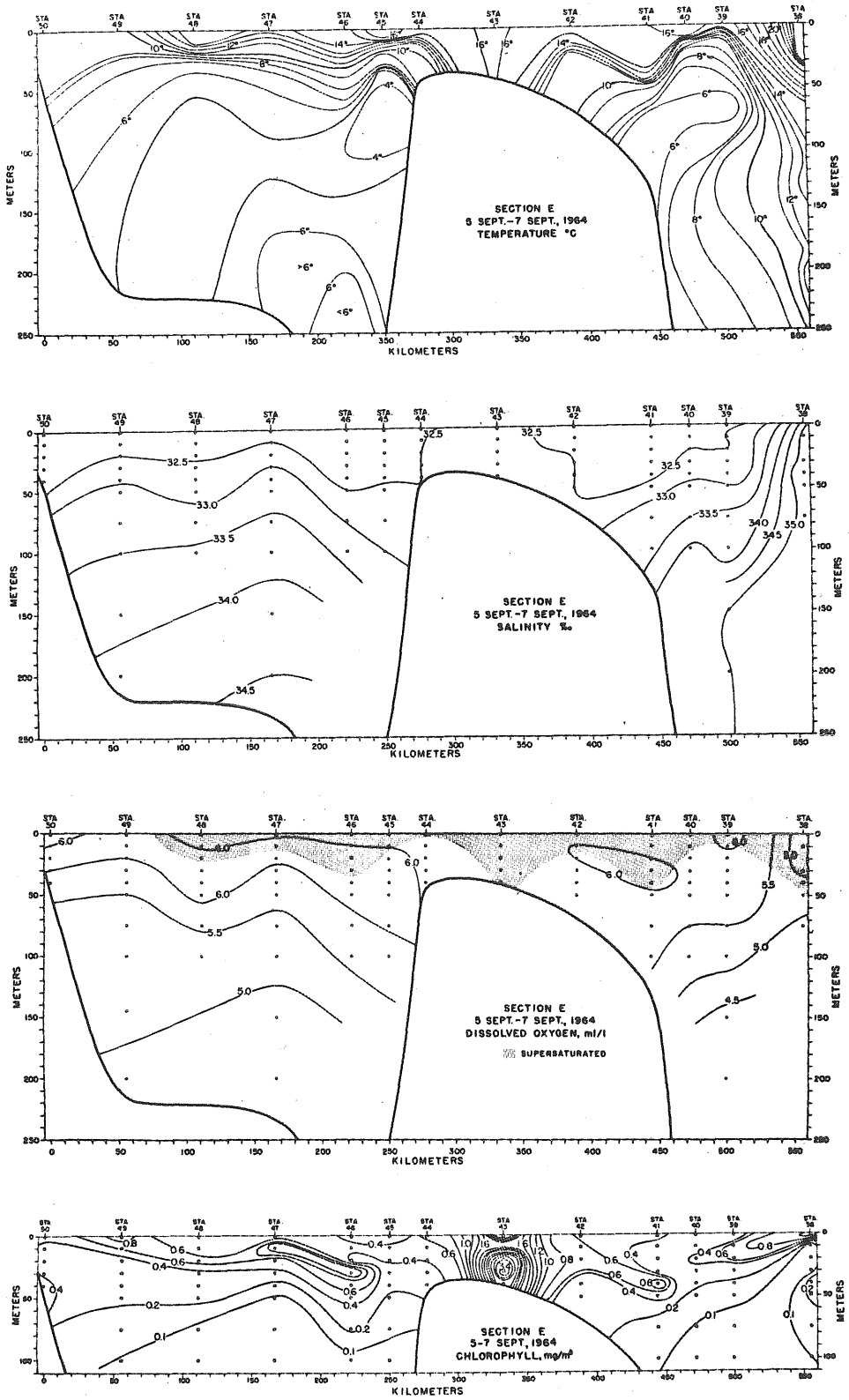

SECTION E
5 SEPT.-7 SEPT., 1964
TEMPERATURE °C
SECTION E
5 SEPT.-7 SEPT., 1964
SALINITY ‰
SECTION E
5 SEPT.-7 SEPT., 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
SECTION E
5-7 SEPT, 1964
CHLOROPHYLL, mg/m³
METERS
KILOMETERS

FIGURE 6

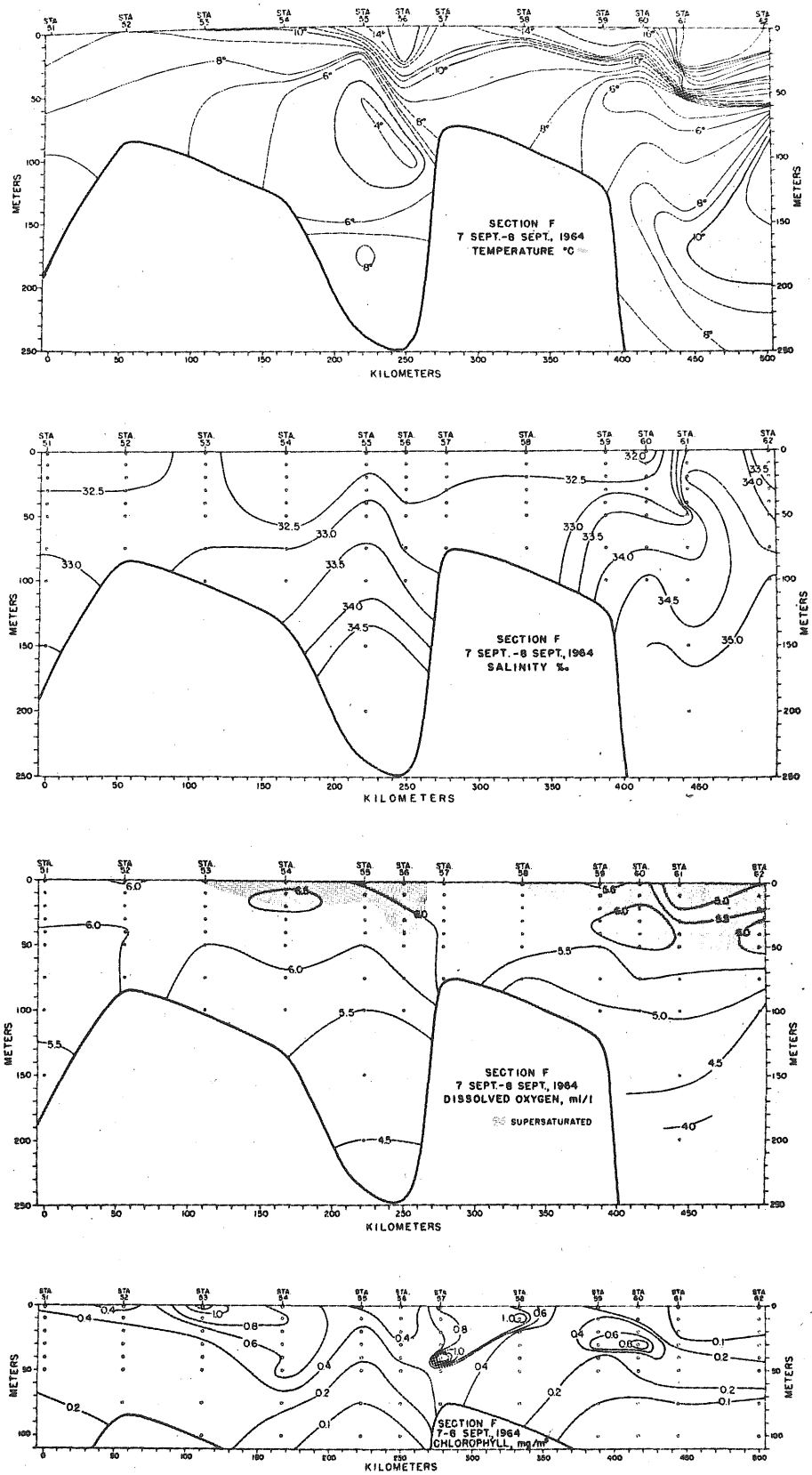

SECTION F
7 SEPT.-8 SEPT., 1964
TEMPERATURE °C
SECTION F
7 SEPT.-8 SEPT., 1964
SALINITY ‰
SECTION F
7 SEPT.-8 SEPT., 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
SECTION F
7-8 SEPT., 1964
CHLOROPHYLL, mg/m³
METERS
KILOMETERS

FIGURE 7

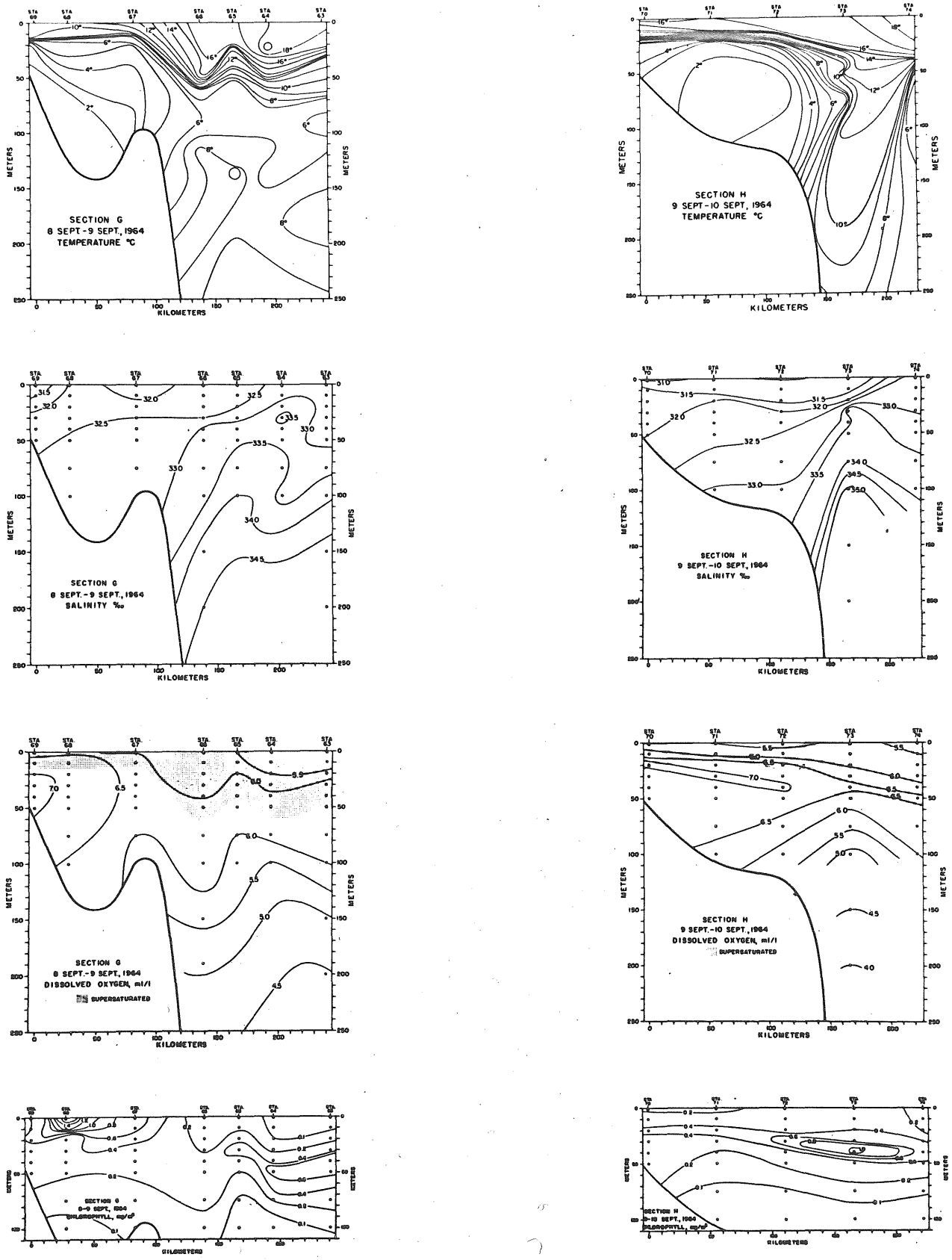

SECTION G
8 SEPT-9 SEPT, 1964
TEMPERATURE °C
SECTION H
9 SEPT-10 SEPT, 1964
TEMPERATURE °C
SECTION G
8 SEPT.-9 SEPT, 1964
SALINITY ‰
SECTION H
9 SEPT.-10 SEPT, 1964
SALINITY ‰
SECTION G
8 SEPT.-9 SEPT, 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
SECTION H
9 SEPT.-10 SEPT, 1964
DISSOLVED OXYGEN, ml/l
SUPERSATURATED
METERS
KILOMETERS

FIGURE 8

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
1	1·IX·64	0525	40° 30'	72° 30'	1	21.6	31.77	4.86	0.15				
					10	20.0	32.53	5.32	0.15				
					20	10.6	31.92	6.32	0.22				
					30	8.5	32.97	5.01	0.49				
					40	8.2	32.82	5.27	0.17				
					50								
					75								
					100								
					150								
					200								
					250								
					BOTTOM	8.0(44M)							
2	1·IX·64	0845	40° 00'	72° 30'	1	22.4	31.86	4.88	0.20				
					10	22.3	31.82	4.94	0.22				
					20	7.3	32.80	6.70	0.61				
					30	6.3	32.72	4.70	0.27				
					40	5.8							
					50	5.7	32.81	4.13	0.20				
					75								
					100								
					150								
					200								
					250								
					BOTTOM	5.4(66M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
3	1·IX·64	1145	39°30'	72°29'	1	22.2	32.33	4.94	0.09				
					10	20.6	32.90	4.96	0.08				
					20	10.6	32.67	6.25	0.34				
					30	7.9	32.73	6.01	0.36				
					40	6.9	32.83	5.49	0.27				
					50	6.4	32.93		0.12				
					75	8.8	33.90	5.26	0.10				
					100	8.5	34.28	4.97	0.06				
					150								
					200								
					250								
					BOTTOM	8.9 (114M)							
4	1·IX·64	1605	39°30'	71°30'	1	22.8	33.47	4.64	0.15				
					10	22.8	33.45	4.69	0.09				
					20	21.2	33.78	4.93	0.08				
					30	17.7	33.87	6.34	0.23				
					40	11.5	33.71	6.53	0.32				
					50	8.8	33.61	5.98	0.49				
					75	8.1	34.09	5.41	0.07				
					100	8.4	34.83	4.82	0.03				
					150	9.5							
					200	8.2							
					250	7.1							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
5	1-IX-64	1805	39°45'	71°30'	1	22.7	33.43	4.69	0.08				
					10	22.4	33.45	4.55	0.09				
					20	21.2	33.77	5.64	0.15				
					30	15.0	33.89	6.40	0.38				
					40	11.0	33.58	6.39	1.19				
					50	8.6	33.79	5.87	0.25				
					75	8.3	34.29	5.19	0.03				
					100	10.2	34.96	4.47	0.04				
					150	9.7							
					200	8.1							
					250	7.0							
					BOTTOM								
6	1-IX-64	1950	40°00'	71°30'	1	22.0	32.14	4.77	0.04				
					10	19.8	32.22	4.64	0.14				
					20	11.5	32.77	5.86	0.15				
					30	8.9	32.77	6.02	0.45				
					40	7.3	32.83	5.14	0.22				
					50	6.4	32.88	5.24	0.10				
					75	7.0	33.88	4.87	0.09				
					100	8.1	34.41	4.86	0.06				
					150								
					200								
					250								
					BOTTOM	8.4 (106M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
7	1·IX·64	2320	40°30'	71°30'	1	22.0	32.17	4.78	0.18				
					10	21.3	32.18	4.83	0.09				
					20	11.8	32.60	5.95	0.26				
					30	9.0	32.77	6.44	0.29				
					40	7.7	32.78	5.39	0.54				
					50	6.7	32.84	5.08	0.32				
					75								
					100								
					150								
					200								
					250								
					BOTTOM	5.8(74M)							
8	2·IX·64	0200	40°01'	71°30'	1	21.3	32.00	5.06	0.24				
					10	16.7	32.13	5.58	0.29				
					20	12.4	32.35	5.89	0.56				
					30	11.8	32.40	5.48	0.95				
					40	10.6	32.48	5.14	0.41				
					50	9.8							
					75								
					100								
					150								
					200								
					250								
					BOTTOM	9.8(50M)							

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
9	2·IX·64	0600	41°00'	70°30'	1	19.9	32.14	5.21	0.19				
					10	17.5	32.30	5.40	0.24				
					20	12.0	32.45	5.52	1.38				
					30	11.2	32.48	4.79	0.35				
					40	10.9	32.49	4.64	0.24				
					50								
					75								
					100								
					150								
					200								
					250								
					BOTTOM	10.8 (46m)							
10	2·IX·64	0835	40°30'	70°30'	1	20.3	32.33	5.14	0.27				
					10	19.9	32.33	5.21	0.17				
					20	13.3	32.62	6.04	0.50				
					30	12.0	32.95	6.13	0.54				
					40	8.8	32.82	4.86	0.21				
					50	8.4	32.99	4.81	0.21				
					75								
					100								
					150								
					200								
					250								
					BOTTOM	7.4 (70m)							

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
11	2·IX·64	1155	40°01'	70°31'	1	21.9	33.60	4.59	0.09				
					10	21.8	33.63	4.56	0.11				
					20	20.9	33.18	5.17	0.14				
					30	14.5		5.82	0.82				
					40	11.0	33.63	5.63	0.29				
					50	9.0	33.32	4.98	0.14				
					75	8.5	33.92	4.72	0.11				
					100	9.7	34.76	4.33	0.05				
					150	9.3							
					200	8.9							
					250	7.2							
					BOTTOM								
12	2·IX·64	1350	39°45'	70°30'	1	22.4	33.75	4.56	0.08				
					10	22.3	33.74	4.65	0.10				
					20	22.2	33.90	4.60	0.05				
					30	20.0	34.35	5.48	0.14				
					40	15.0	34.12	6.26	0.18				
					50	11.8	34.04	6.04	0.37				
					75	9.8	34.43	5.09	0.13				
					100	10.7	34.95	4.59	0.05				
					150	10.4							
					200	8.8							
					250	7.7							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
13	2·IX·64	1600	39°30'	70°30'	1	23.3	34.55	4.52	0.09				
					10	23.2	34.55	4.45	0.10				
					20	23.2	34.55	4.65	0.06				
					30	21.7	34.75	4.75	0.09				
					40	16.5	34.89	5.26	0.11				
					50	13.4	34.55	5.78	0.20				
					75	11.4	34.58	5.22	0.27				
					100	10.8	34.78	4.67	0.15				
					150	10.7	35.19	4.24					
					200	9.1	35.22	3.78					
					250	7.9							
					BOTTOM								
14	2·IX·64	1700	39°30'	69°30'	1	23.6	34.94	4.58	0.07				
					10	23.7	34.94	4.58	0.17				
					20	23.7	34.94	4.53	0.09				
					30	23.3	35.42	4.70	0.15				
					40	22.5	35.93	4.70	0.08				
					50	17.0	35.23	5.46	0.29				
					75	11.7		4.57	0.04				
					100	11.8	35.29	4.11	0.[illegible]				
					150	10.9							
					200	9.7							
					250	8.3							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
15	3·IX·64	0115	39°45'	69°31'	1	23.9	34.80	4.78	0.10				
					10	23.9	34.88	4.75	0.13				
					20	23.9	34.80	5.10	0.09				
					30	21.3	35.40	5.66	0.23				
					40	15.5	35.08	5.62	0.16				
					50	12.8	34.95	5.02	0.09				
					75	13.4	35.37	4.19	0.08				
					100	13.4	35.52	4.06	0.03				
					150	11.7							
					200	10.2							
					250	8.7							
					BOTTOM								
16	3·IX·64	0315	40°00'	69°30'	1	20.7	33.41	5.05	0.11				
					10	20.7	33.40	5.12	0.15				
					20	15.2	33.18	5.95	0.24				
					30	12.9	33.18	6.20	0.25				
					40	10.3	33.06	5.61	0.19				
					50	7.3	33.35	5.51	0.13				
					75	10.1	34.59	5.09	0.07				
					100	9.3	34.59	4.87	0.03				
					150								
					200								
					250								
					BOTTOM	9.1 (1231')							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
17	3·IX·64	0630	40°30'	69°30'	1	17.2	32.45	5.79	0.[illegible]				
					10	17.1	32.46	6.02	0.44				
					20	11.2	32.56	5.72	1.26				
					30	10.1	32.59	5.34	0.55				
					40	9.8	32.62	5.30	0.40				
					50	9.4	32.64	5.30	0.27				
					75								
					100								
					150								
					200								
					250								
					BOTTOM	9.2(62M)							
18	3·IX·64	1255	41°30'	69°30'	1	16.0	31.77	5.48	0.[illegible]				
					10	15.9	31.76	5.66	0.[illegible]				
					20	14.0	31.85	5.74	0.[illegible]				
					30	8.2	32.16	5.81	0.40				
					40	8.0	32.17	5.66	0.34				
					50								
					75								
					100								
					150								
					200								
					250								
					BOTTOM	8.0(42M)							

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
19	3-7X-64	1535	42°00'	69°30'	1	19.0	31.87	5.28	0.23				
					10	19.0	31.85	5.31	0.20				
					20	13.0	32.08	6.15	0.[illegible]				
					30	7.2	32.36	6.02	0.[illegible]				
					40	5.7	32.46	6.04	0.[illegible]				
					50	4.0	32.53	6.10	0.[illegible]				
					75	3.3	32.79	5.89	0.[illegible]				
					100	3.7	33.01	5.41	0.[illegible]				
					150	4.9	33.57	4.42					
					200	5.4	33.85	3.82					
					250								
					BOTTOM	5.4(3127)							
20	3-7X-64	1845	42°30'	69°30'	1	18.2	31.74	5.62	0.[illegible]				
					10	18.2	31.72	5.58	0.[illegible]				
					20	13.0	32.03	6.13	0.[illegible]				
					30	8.9	32.31	6.[illegible]	[illegible]				
					40	6.0	32.33	6.[illegible]	0.[illegible]				
					50	5.0	32.53	6.11	0.[illegible]				
					75	4.1	32.79	5.74	0.[illegible]				
					100	3.9	32.95	5.[illegible]	0.[illegible]				
					150	5.0							
					200	5.2							
					250	5.1							
					BOTTOM								

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
21	4-IX-64	0005	42°0'	70°30'	1	19.0	31.67	5.42	0.[illegible]				
					10	16.3	31.71	6.13	0.[illegible]				
					20	8.9	31.96	6.14	1.[illegible]				
					30	7.0	32.03	5.88	0.44				
					40								
					50								
					75								
					100								
					150								
					200								
					250								
					BOTTOM	6.9 (34 m)							
22	4-IX-64	0315	42°30'	70°30'	1	17.1	31.56	5.72	0.[illegible]				
					10	15.1	31.60	6.17	0.[illegible]				
					20	8.8	32.17	6.60	1.[illegible]				
					30	7.7	32.34	6.43	0.[illegible]				
					40	6.3	32.30	5.98	0.[illegible]				
					50	[illegible]	32.29	5.93	0.15				
					75	[illegible]	32.30	5.94	0.[illegible]				
					100								
					150								
					200								
					250								
					BOTTOM	5.1 (151 m)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
23	4·IX·64	0615	43°00'	70°30'	1	16.0	31.58	5.85	0.29				
					10	10.3	32.07	6.08	2.46				
					20	8.2	32.17	5.90	0.35				
					30	7.2	32.18	5.72	0.17				
					40	7.0	32.26	5.74	0.21				
					50	6.6	32.30	5.62	0.14				
					75	5.4	32.57	5.54	0.11				
					100								
					150								
					200								
					250								
					BOTTOM	4.5 (96M)							
24	4·IX·64	1010	43°00'	69°30'	1	17.8	31.81	5.45	0.18				
					10	17.7	31.81	5.45	0.17				
					20	11.4	31.81	5.55	0.17				
					30	8.2	32.21	6.60	0.58				
					40	6.2	32.42	6.37	0.57				
					50	5.8	32.61	5.84	0.25				
					75	5.3	32.87	5.77	0.13				
					100	4.2	32.98	5.67	0.08				
					150	4.2	33.27	5.31					
					200								
					250								
					BOTTOM	4.4 (162M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
25	4·IX·64	1310	43°30'	69°30'	1	14.0	32.17	6.35	0.23				
					10	13.9	32.18	6.39	0.35				
					20	9.5	32.44	6.87	0.54				
					30	8.2	32.55	6.53	0.44				
					40	7.5	32.58	6.25	0.28				
					50	7.2	32.64	6.01	0.17				
					75	6.3	32.80	5.87	0.13				
					100	3.9	32.74	5.87	0.09				
					150	4.2	33.26	4.94					
					200								
					250								
					BOTTOM	4.2(160M)							
26	4·IX·64	1810	44°00'	68°30'	1	11.9	32.24	6.47	0.60				
					10	10.8	32.25	7.19	0.64				
					20	9.2	32.32	6.96	0.45				
					30	8.9	32.35	6.48	0.54				
					40	8.8	32.38	6.22	0.64				
					50	8.2	32.43	6.28	0.53				
					75	7.9							
					100								
					150								
					200								
					250								
					BOTTOM	7.9(80M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
27	4·IX·64	2129	43°30'	68°30'	1	14.0	32.33	5.95	0.32				
					10	12.3	32.35	6.34	0.36				
					20	11.2	32.41	6.55	0.34				
					30	8.4	32.53	6.60	0.48				
					40	8.0	32.71	6.52	1.13				
					50	7.1	32.94	6.58	1.26				
					75	6.7	33.16	6.05	0.21				
					100	5.3	33.18	6.10	0.13				
					150	4.9	33.59	5.05					
					200								
					250								
					BOTTOM	4.8(180 M)							
28	5·IX·64	0020	42°59'	68°30'	1	16.6	31.99	5.62	0.25				
					10	16.3	31.99	5.72	0.29				
					20	11.8	32.08	6.24	0.32				
					30	9.4	32.26	6.59	0.60				
					40	6.0	32.43	6.28	0.55				
					50	5.5	32.57	6.10	0.30				
					75	4.4	32.80	5.92	0.18				
					100	4.1	33.28	5.46	0.08				
					150	4.2							
					200								
					250								
					BOTTOM	4.3(190 M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
29	5.IX.64	0300	42°30'	68°30'	1	17.9	31.99	5.35	0.17				
					10	17.6	31.98	5.59	0.18				
					20	13.5	32.17	6.37	0.95				
					30	8.7	32.32	6.44	0.46				
					40	4.5	32.49	6.37	0.26				
					50	3.8	32.54	6.49	0.25				
					75	3.3	32.80	6.16	0.08				
					100	3.8	33.01	5.76	0.05				
					150	4.7	33.49	4.97					
					200	4.9		5.07					
					250								
					BOTTOM	5.0(222 M)							
30	5.IX.64	0615	42°00'	68°30'	1	18.1	31.87	5.49	0.24				
					10	17.0	31.90	5.61	0.29				
					20	9.9	32.07	6.43	1.34				
					30	8.9	32.16	6.59	0.82				
					40	5.8	32.34	6.36	0.24				
					50	4.4	32.44	6.30	0.24				
					75	3.3	32.76	6.20	0.09				
					100	3.3	32.92	5.81	0.07				
					150	4.2							
					200								
					250								
					BOTTOM	4.2(175 M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
31	5·IX·64	0800	41°45'	68°30'	1	13.8	32.18	6.26	0.76				
					10	11.0	32.20	6.27	1.77				
					20	8.5	32.43	5.80	0.32				
					30	6.3	32.37	6.08	0.29				
					40	5.2	32.55	5.96	0.24				
					50	4.2	32.56	6.02	0.21				
					75	4.0	32.62	6.03	0.16				
					100	3.4	32.66	5.97	0.14				
					150	4.2							
					200								
					250								
					BOTTOM	4.4(172M)							
32	5·IX·64	0955	41°30'	68°30'	1	13.1	32.31	6.01	1.69				
					10	13.1	32.31	6.27	1.69				
					20	11.3	32.41	6.03	1.43				
					30	9.9	32.48	5.74	0.32				
					40	7.4	32.42	5.97	0.32				
					50	4.9	32.44	5.80	0.21				
					75	4.4	32.56	5.98	0.24				
					100	4.3	32.62	5.89	0.32				
					150								
					200								
					250								
					BOTTOM	4.3(90M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
33	5·IX·64	1350	41°00'	68°30'	1	15.2	32.47	5.66	2.08				
					10	15.2	32.47	5.72	2.38				
					20	15.1	32.47	5.73	2.17				
					30	15.1	32.47	5.73	1.56				
					40	15.1							
					50	15.1							
					75								
					100								
					150								
					200								
					250								
					BOTTOM	15.1 (51M)							
34	5·IX·64	1615	40°30'	68°30'	1	16.6	32.36	5.88	0.29				
					10	15.3	32.36	5.94	0.24				
					20	14.7	32.35	5.95	0.31				
					30	12.5	32.39	6.28	0.32				
					40	9.4			0.33				
					50	8.4	32.62	5.95	0.20				
					75	7.1			0.10				
					100								
					150								
					200								
					250								
					BOTTOM	6.9 (90M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
35	5·IX·64	1850	40°15'	68°30'	1	17.9	32.53	5.39	0.21				
					10	17.8	32.53	5.50	0.15				
					20	16.2			0.32				
					30	13.0	32.56	6.29	0.45				
					40	10.0	32.72	5.99	0.24				
					50	7.6	32.79	5.81	0.21				
					75	5.7	33.04	5.79	0.13				
					100	7.7	33.70	5.28	0.09				
					150	8.0							
					200								
					250								
					BOTTOM	7.5 (160M)							
36	5·IX·64	2050	40°00'	68°30'	1	25.0	35.34	4.69	0.14				
					10	25.0	35.36	4.71	0.09				
					20	25.0	35.36	4.76	0.08				
					30	24.0			0.08				
					40	18.5			0.44				
					50	14.5	35.27	5.24	0.24				
					75	14.1	35.10	4.25	0.06				
					100	12.3			0.05				
					150	10.9							
					200	9.7							
					250	8.7							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
37	6.IX.64	0105	39°30'	68°30'	1	24.5	35.38	4.66	0.11				
					10	24.9	35.40	4.74	0.08				
					20	24.5	35.40	4.67	0.08				
					30	22.1	36.16	4.66	0.26				
					40	20.8	36.67	4.70	0.15				
					50	19.7	36.57	4.49	0.33				
					75	18.5	36.57	4.27	0.25				
					100	18.2	36.58	4.38	0.20				
					150	17.3	36.55	4.50					
					200	16.1	36.52	4.50					
					250								
					BOTTOM								
38	6.IX.64	0505	39°30'	67°30'	1	25.2			0.07				
					10	25.1	35.10	4.60	0.08				
					20	25.1			0.08				
					30	24.0	35.09	4.70	0.08				
					40	20.0	35.76	5.40	0.27				
					50	17.7	35.28	5.16	0.21				
					75	14.2	35.13	4.92	0.13				
					100	13.2			0.10				
					150	12.7							
					200	11.9							
					250	9.7							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
39	6.IX.64	0855	40°00'	67°30'	1	15.2	32.23	5.95	0.34				
					10	11.0	32.64	6.04	0.76				
					20	9.2	32.49	5.78	0.67				
					30	8.3	32.68	5.71	0.24				
					40	7.2	32.80	5.60	0.18				
					50	6.3	32.98	5.57	0.11				
					75	5.7	33.63	5.49	0.09				
					100	7.0	33.62	5.34	0.04				
					150	9.2	34.96	4.31					
					200	8.2	34.89	4.10					
					250	7.4							
					BOTTOM								
40	6.IX.64	1130	40°15'	67°30'	1	16.5	32.06	5.55	0.24				
					10	15.5	32.14	5.94	0.29				
					20	9.4	32.50	5.66	0.41				
					30	8.0	32.61	5.59	0.30				
					40	6.4	32.78	5.72	0.24				
					50	6.1	33.17	5.64	0.15				
					75	5.8	33.51	5.46	0.09				
					100	6.3	34.07	5.24	0.04				
					150	7.6							
					200	7.4							
					250	6.5							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
41	6.IX.64	1325	40°30'	67°30'	1	16.0	32.25	5.55	0.41				
					10	16.0	32.24	5.68	0.32				
					20	15.7	32.23	5.95	0.29				
					30	15.3	32.13	6.19	0.32				
					40	14.8	32.33	6.15	0.89				
					50	9.1	32.59	5.94	0.49				
					75	5.7	33.28	5.64	0.15				
					100	5.7	33.43	5.56	0.13				
					150								
					200								
					250								
					BOTTOM	5.7(131M)							
42	6.IX.64	1615	41°00'	67°30'	1	15.2	32.24	5.85	0.50				
					10	14.8	32.24	5.99	0.67				
					20	10.8	32.41	5.96	0.70				
					30	10.4	32.47	5.78					
					40	10.2	32.48	5.72	0.27				
					50	10.2	32.48	5.70	0.26				
					75								
					100								
					150								
					200								
					250								
					BOTTOM	10.2(66M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
43	6.IV.64	1600	41°30'	67°30'	1	16.1	32.46	5.66	2.43				
					10	16.1	32.46	5.62	1.74				
					20	16.0	32.46	5.67	3.20				
					30	16.0	32.46	5.57	3.51				
					40	16.0	32.46	5.66	2.81				
					50								
					75								
					100								
					150								
					200								
					250								
					BOTTOM	16.0(43M)							
44	6.IV.64	2245	42°00'	67°30'	1	14.9	32.21	5.68	0.65				
					10	12.5	32.48	5.68	0.46				
					20	10.0	32.48	5.84	0.41				
					30	9.6	32.51	5.80	0.37				
					40	9.2	32.51	5.84	0.37				
					50								
					75								
					100								
					150								
					200								
					250								
					BOTTOM	9.1(43M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
45	7.IX.64	0035	42°15'	67°30'	1	16.8	32.05	5.62	0.21				
					10	14.0	32.09	5.91	0.48				
					20	8.9	32.29	6.20	0.44				
					30	7.5	32.38	6.29	0.29				
					40	4.2	32.43	6.08	0.33				
					50	3.9	32.58	6.31	0.17				
					75	3.3	32.66	6.11	0.11				
					100	3.7	33.00	5.80	0.07				
					150	5.7							
					200	5.9							
					250	6.0							
					BOTTOM								
46	7.IX.64	0215	42°30'	67°30'	1	14.6	32.24	5.75	0.37				
					10	14.2	32.23	6.01	0.44				
					20	12.9	32.24	6.10	0.35				
					30	10.5	32.33	6.33	1.03				
					40	9.2	32.38	6.24	0.67				
					50	7.8	32.50	6.19	0.48				
					75	4.9	32.88	5.82	0.21				
					100	3.9	33.16	5.67	0.07				
					150	5.7							
					200	6.2							
					250	5.3							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
47	7-IX-64	0500	43°00'	67°30'	1	13.5	32.40	5.90	0.58				
					10	11.0	32.52	6.20	1.18				
					20	10.0	32.65	6.17	0.50				
					30	7.7	32.96	5.80	0.33				
					40	6.2	33.22	5.66	0.13				
					50	5.9	33.29	5.66	0.09				
					75	5.3	33.58	5.32	0.08				
					100	4.9	33.66	5.08	0.05				
					150	5.9	34.37	4.90					
					200	6.0	34.53	4.89					
					250								
					BOTTOM	6.0(235M)							
48	7-IX-64	0805	43°30'	67°30'	1	14.5	32.32	5.81	0.25				
					10	14.3	32.31	5.86	0.26				
					20	11.0	32.43	6.32	0.74				
					30	6.7	32.56	6.07	0.37				
					40	5.3	32.66	5.96	0.33				
					50	5.1	32.75	6.09	0.22				
					75	5.2	33.24	5.63	0.08				
					100	4.8	33.61	5.17	0.05				
					150	4.8							
					200	4.9							
					250								
					BOTTOM	4.9(222M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
49	7.IX.64	1130	44°00'	67°30'	1	9.5	32.40	6.06	0.82				
					10	9.2	32.38	6.29	0.60				
					20	9.0	32.48	5.97	0.35				
					30	7.3	32.69	5.83	0.30				
					40	7.0	32.88	5.84	0.32				
					50	6.7	33.06	5.54	0.23				
					75	6.3	33.26	5.37	0.09				
					100	5.3	33.45	5.30	0.10				
					150	5.2	33.93	5.18					
					200	5.0	34.06	4.80					
					250								
					BOTTOM	5.0(218M)							
50	7.IX.64	1430	44°28'	67°30'	1	10.1	32.29	5.92	0.50				
					10	9.5	32.29	5.96	0.34				
					20	9.3	32.31	6.13	0.29				
					30	9.1	32.32	5.97	0.35				
					40	9.0	32.32	5.66	0.49				
					50								
					75								
					100								
					150								
					200								
					250								
					BOTTOM	9.0(43M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
51	7·IX·64	1824	44°30'	66°30'	1	10.1	32.34	6.08	0.42				
					10	9.4	32.40	6.07	0.39				
					20	9.1	32.43	6.12	0.33				
					30	8.3	32.49	6.31	0.33				
					40	8.2	32.64	5.93	0.32				
					50	8.1	32.83	5.81	0.29				
					75	7.4	32.94	5.67	0.19				
					100	7.0	33.15	5.64	0.18				
					150	6.2	33.46	5.39					
					200								
					250								
					BOTTOM	6.1(175M)							
52	7·IX·64	2123	44°00'	66°30'	1	9.0	32.40	5.96	0.34				
					10	8.8	32.40	6.27	0.46				
					20	8.4	32.42	6.15	0.29				
					30	8.3	32.50	6.13	0.32				
					40	8.0	32.62	5.93	0.36				
					50	7.9	32.61	6.01	0.33				
					75	7.8	32.62	6.02	0.34				
					100								
					150								
					200								
					250								
					BOTTOM	7.7(86M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
53	8.IV.64	0005	43°30'	66°30'	1	10.2	32.60	6.17	1.39				
					10	8.9	32.60	6.28	0.92				
					20	8.4	32.64	6.43	0.55				
					30	7.7	32.68	6.13	0.34				
					40	7.9	32.73	6.08	0.29				
					50	7.2	32.85	5.99	0.29				
					75	7.0	32.97	5.87	0.27				
					100	6.8	33.08	5.79	0.29				
					150								
					200								
					250								
					BOTTOM	6.7(105M)							
54	8.IV.64	0245	43°00'	66°30'	1	10.1	32.15	6.27	0.71				
					10	9.0	32.17	6.47	0.82				
					20	8.8	32.20	6.46	0.70				
					30	8.3	32.25	6.40	0.64				
					40	7.2	32.26	6.36	0.60				
					50	6.1	32.28	6.31	0.65				
					75	5.7	32.95	5.92	0.21				
					100	5.7	33.16	5.78	0.15				
					150								
					200								
					250								
					BOTTOM	5.7(135M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
55	8·IX·64	0530	42°30'	66°30'	1	13.8	31.75	5.93	0.39				
					10	12.5	32.08	6.29	0.54				
					20	8.2	32.55	6.37	0.30				
					30	5.3	32.75	6.39	0.34				
					40	5.0	33.06	6.17	0.22				
					50	4.0	33.22	5.99	0.17				
					75	4.2	33.55	5.64	0.10				
					100	4.8	33.71	5.46	0.09				
					150	6.0	34.68	4.73					
					200	7.9	34.81	4.46					
					250								
					BOTTOM	8.0(235M)							
56	8·IX·64	0726	42°15'	66°30'	1	15.3	32.22	5.89	0.32				
					10	15.3	32.21	5.93	0.30				
					20	15.2	32.21	6.01	0.27				
					30	15.1	32.33	6.14	0.53				
					40	12.0	32.47	6.16	0.45				
					50	9.8	32.59	6.17	0.25				
					75	5.8	32.92	6.02	0.19				
					100	3.9	33.30	5.59	0.08				
					150	6.7							
					200	7.2							
					250								
					BOTTOM	7.3(245M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
57	8·IX·64	0920	42°00'	66°30'	1	12.2	32.33	5.78	0.87				
					10	12.1	32.42	5.87	0.63				
					20	10.4	32.49	5.90	0.60				
					30	9.6	32.53	5.82	0.51				
					40	9.2	32.55	5.87	0.55				
					50	9.0	32.57	5.80	0.42				
					75	8.8	32.58	5.78	0.45				
					100								
					150								
					200								
					250								
					BOTTOM	8.8 (80M)							
58	8·IX·64	1200	41°30'	66°30'	1	14.6	32.21	5.76	0.64				
					10	12.0	32.29	5.88	1.00				
					20	9.2	32.50	5.82	0.39				
					30	9.0	32.52	5.78	0.39				
					40	8.9	32.54	5.82	0.26				
					50	8.8	32.55	5.77	0.30				
					75	8.3	32.60	5.02	0.27				
					100								
					150								
					200								
					250								
					BOTTOM	8.2 (93M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
59	8·IX·64	1425	41°00'	66°30'	1	16.1	32.07	5.43	0.18				
					10	15.3	32.14	5.73	0.40				
					20	14.8	32.23	5.86	0.46				
					30	9.8	32.72	5.98	0.76				
					40	7.2	33.23	5.96	0.18				
					50	6.3	33.45	5.50	0.13				
					75	6.0	33.73	5.19	0.10				
					100	6.3	34.09	4.94	0.09				
					150								
					200								
					250								
					BOTTOM	6.8 (123M)							
60	8·IX·64	1545	40°45'	66°30'	1	15.8	31.99	5.62	0.15				
					10	15.1	31.95	5.71	0.17				
					20	12.3	32.41	6.08	0.42				
					30	9.0	32.80	6.39	0.93				
					40	6.5	33.07	6.14	0.33				
					50	5.8	33.36	6.03	0.24				
					75	6.1	33.94	5.52	0.08				
					100	7.3	34.55	5.00	0.05				
					150	8.2							
					200	7.2							
					250	6.7							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
61	8.IX.64	1715	40°30'	66°30'	1	21.0	34.00	4.97	0.07				
					10	21.0	34.18	5.00	0.06				
					20	21.8	34.48	5.04	0.09				
					30	20.9	34.08	5.46	0.11				
					40	15.0	34.33	5.83	0.28				
					50	12.7		5.93	0.37				
					75	6.0	33.79	5.42	0.10				
					100	6.7	34.22	5.13	0.04				
					150	9.0	34.66	4.67					
					200	8.9	35.36	3.79					
					250	7.2							
					BOTTOM								
62	8.IX.64	2111	40°00'	66°30'	1	21.0	33.17	5.04	0.08				
					10	20.2	33.15	5.11	0.08				
					20	19.0	33.22	5.25	0.09				
					30	15.8	33.55	5.97	0.15				
					40	14.8	33.88	6.01	0.15				
					50	11.3	33.95	6.06	0.39				
					75	8.2	34.32	5.31	0.08				
					100	11.3	35.24	4.46	0.03				
					150	11.0							
					200	9.9							
					250	8.2							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
63	9·IX·64	0405	41°00'	65°30'	1	18.5	32.67	5.06	0.12				
					10	18.0	32.65	5.27	0.09				
					20	17.3	32.57	5.61	0.15				
					30	14.1	32.75	6.17	0.33				
					40	11.2	32.86	6.24	0.74				
					50	10.3	32.92	6.30	0.65				
					75	6.4	33.33	6.25	0.24				
					100	6.0	33.85	5.96	0.12				
					150	7.8	34.69	4.93					
					200	8.1	34.92	4.47					
					250	6.9							
					BOTTOM								
64	9·IX·64	0710	41°30'	65°30'	1	17.8	32.68	5.21	0.09				
					10	18.2	32.94	5.35	0.09				
					20	19.2	33.21	5.45	0.10				
					30	17.9	33.54	5.71	0.18				
					40	15.7	33.28	6.06	0.29				
					50	12.2	33.10	6.27	0.85				
					75	7.0	33.64	6.23	0.21				
					100	6.2	34.37	5.50	0.05				
					150	7.0							
					200	7.1							
					250	6.3							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
65	9-IX-64	0907	41°45'	65°30'	1	16.8	32.27	5.47	0.15				
					10	16.8	32.25	5.60	0.15				
					20	15.2	32.45	5.99	0.34				
					30	12.1	32.85	6.24	0.50				
					40	10.3	33.13	6.28	0.27				
					50	7.5	33.39	6.27	0.20				
					75	6.3	33.68	5.95	0.08				
					100	6.5	34.02	5.72	0.08				
					150	8.4							
					200	6.9							
					250	6.1							
					BOTTOM								
66	9-IX-64	1036	42°00'	65°30'	1	16.5	32.34	5.65	0.15				
					10	16.1	32.33	5.64	0.15				
					20	16.1	32.36	5.77	0.13				
					30	15.8	32.46	5.76	0.18				
					40	14.9	33.14	5.84	0.35				
					50	14.0	33.36	6.35	0.33				
					75	6.5	33.26	6.30	0.24				
					100	6.7	33.40	6.35	0.15				
					150	7.6	34.15	5.55					
					200	8.2	34.54	5.16					
					250	6.8							
					BOTTOM								

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
67	9·IX·64	1420	42°30'	65°30'	1	11.7	31.80	5.99	0.60				
					10	10.2	31.84	6.33	0.64				
					20	6.0	32.20	6.10	0.45				
					30	4.0	32.52	6.25	0.24				
					40	3.9	32.53	6.01	0.23				
					50	3.8	32.53	5.99	0.22				
					75	3.1	32.64	5.99	0.16				
					100	3.1	32.64	5.92	0.16				
					150								
					200								
					250								
					BOTTOM	3.1 (102M)							
68	9·IX·64	1715	43°00'	65°30'	1	10.0	32.08	6.36	1.65				
					10	9.4	32.20	6.70	1.34				
					20	5.3	32.25	6.70	0.25				
					30	5.1	32.30	6.67	0.35				
					40	4.1	32.40	6.63	0.28				
					50	3.2	32.67	6.79	0.22				
					75	1.7	32.86	6.66	0.11				
					100	1.8	32.85	6.42	0.08				
					150								
					200								
					250								
					BOTTOM	1.8 (126M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
69	9·IX·64	1850	43°15'	65°30'	1	10.5	31.51	6.27	0.40				
					10	10.2	31.49	6.65	0.40				
					20	3.6	31.87	7.04	0.50				
					30	2.3	32.16	7.11	0.33				
					40	2.0	32.28	7.03	0.30				
					50	2.0	32.31	7.06	0.25				
					75								
					100								
					150								
					200								
					250								
					BOTTOM	2.0 (57M)							
70	10·IX·64	0025	44°00'	64°30'	1	16.2	31.03	5.66	0.19				
					10	14.1	31.63	6.06	0.33				
					20	7.0	31.69	6.95	0.42				
					30	4.4	31.72	6.71	0.21				
					40	3.7	31.89	6.79	0.31				
					50	3.0	31.96	6.79	0.29				
					75								
					100								
					150								
					200								
					250								
					BOTTOM	2.9 (57M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
71	10.IX.64	0315	43°30'	64°30'	1	16.0	31.11	5.45	0.16				
					10	15.3	31.18	5.79	0.27				
					20	3.2	32.00	6.74	0.43				
					30	2.6	32.07	6.97	0.38				
					40	1.8	32.23	6.84	0.19				
					50	1.4	32.38	6.74	0.17				
					75	1.3	32.62	6.68	0.07				
					100	1.8	33.07	6.20	0.05				
					150								
					200								
					250								
					BOTTOM	1.8 (102M)							
72	10.IX.64	0707	43°00'	64°30'	1	16.5	31.04	5.44	0.29				
					10	16.2	31.06	5.63	0.24				
					20	9.7	31.40	6.57	0.34				
					30	4.0	31.96	7.05	0.76				
					40	2.8	32.33	6.98	0.37				
					50	1.7	32.48	6.93	0.25				
					75	1.5	32.77	6.28	0.09				
					100	2.3	33.11	5.81	0.06				
					150								
					200								
					250								
					BOTTOM	2.4 (123M)							

TABLE 1

ALB. IV CRUISE NO. 64-11

STA. NO.	DATE	TIME G.C.T.	LOCATION N. LAT	LOCATION W. LONG	DEPTH m.	T. °C	S. ‰	O_2 ml./l.	CHLOROPHYLL mg./m³	PO_4-P µg.at./l			
73	10·IX·64	0858	42°30'	64°30'	1	16.8	31.20	5.62	0.24				
					10	16.7	31.31	5.66	0.24				
					20	16.4	32.01	5.90	0.40				
					30	15.2	33.59	6.30	0.41				
					40	10.3	33.31	6.50	1.13				
					50	12.0	33.66	6.21	0.30				
					75	7.0	33.99	5.73	0.13				
					100	11.2	35.14	4.79	0.06				
					150	10.2	35.09	4.47					
					200	9.7	35.14	4.01					
					250	8.3							
					BOTTOM								
74	10·IX·64	1220	42°00'	64°30'	1	18.2	32.87	5.42	0.18				
					10	18.2	32.85	5.48	0.19				
					20	18.0	32.85	5.62	0.17				
					30	17.1	32.90	5.73	0.40				
					40	13.2	33.26	6.19	0.73				
					50	10.7	33.26	6.47	0.30				
					75	5.8	33.55	6.31	0.11				
					100	5.4	33.88	6.03	0.06				
					150	6.5							
					200	6.3							
					250	6.2							
					BOTTOM								