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CHEMICAL DATA FROM THE NW AFRICAN UPWELLING REGION

(Auftrieb '75" and "Ostatlantik-Biozirkel 1983")

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K. Kremling and A. Wenck

Institut für Meereskunde
Abt. Meereschemie
Düsternbrooker Weg 20
2300 Kiel

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Contents

1. Abstract

This report contains chemical data of nearly 1200 water samples collected during cruises No. 36 and 64 of RV "Meteor" to the NW African upwelling area. The material was gathered during the expeditions "Auftrieb '75" (18.1. - 15.2.1975) and "Ostatlantik-Biozirkel" (30.1. - 18.2.1983) at several profiles in the region from about 16 °N to 23 °N. Together with the temperature and salinity profiles, the concentrations of oxygen and the nutrients were analyzed in water samples down to 1150 m. During cruise No. 64 additional measurements of the pH and alkalinity were made.

The report presents also a brief description of the sampling and analytical techniques.

Zusammenfassung

Dieser Datenbericht enthält chemische Meßdaten von annähernd 1200 Wasserproben, die auf der 36. und 64. Reise von FS "Meteor" im Rahmen von "Auftrieb '75" (Probennahme: 28.1. - 15.2.1975) und "Ostatlantik-Biozirkel" (Probennahme: 30.1. - 18.2.1983) im Auftriebsgebiet vor Nordwestafrika gesammelt wurden. Die Probennahme erfolgte auf mehreren Vertikalschnitten und umfaßte das Gebiet zwischen etwa 16 °N und 23 °N. Zusammen mit den Tiefenprofilen der Temperatur- und Salzgehaltsverteilung wurde der Gehalt an Sauerstoff und Nährstoffen in Wasserproben bis zu 1150 m Tiefe gemessen. Während der 64. Reise sind außerdem der pH-Wert und die Alkalinität bestimmt worden.

Der Bericht enthält außerdem eine kurze Beschreibung der Probennahme- und Analysenverfahren.

2. Foreword

Several reasons initiated the investigations on chemical oceanography in the upwelling region: (i) to study the chemical processes prevailing in the area of interest; (ii) to identify the water masses together with the temperature and salinity data; and (iii) to describe the chemical environment of the plankton species. This data report contains hydrochemical observations which were gathered during two expeditions with RV "Meteor" to the upwelling region off NW Africa.

The cruises were conducted in 1975 ("Auftrieb '75") and 1983 ("Ostatlantik-Biozirkel") and covered a region from about 16 ^{o}N to 23 ^{o}N. The report contains the values for temperature, salinity, oxygen, pH, alkalinity, and the nutrient components. Most of the individual results are presented in the data sheets, some are given as isolines only (temperature and salinity data from the 1983 cruise).

We like to thank all those who helped us in preparing the expedition, in collecting and analysing the various samples, and in processing the data of this report. Our special thanks go to A. Eisele, R. Gollembiewski, I. Hamann, H. Johannsen and K.-U. Wolf. These thanks have to be expanded to the scientific cruise leaders G. Hempel and H. Weikert as well as to the officers and crew of RV "Meteor".

We also acknowledge the financial support by the "Deutsche Forschungesgemeinschaft".

3. Methods

Sampling procedures differed slightly during expeditions. In 1975 ("Auftrieb '75") samples were collected with 1.8 dm^3 TPN-bottles (Hydro-Bios, Kiel) from which also subsamples for salinity measurements (by salinometer) were taken. In 1983 ("Ostatlantik-Biozirkel") water was collected with 10 dm^3 Niskin bottles mounted together with a CTD sonde in a rosette sampler. Subsamples were drawn for the determination of pH, oxygen content, alkalinity and for the analysis of nutrients (ammonia, nitrite, nitrate, phosphate, silicate). Not all the parameters mentioned here were determined throughout the cruises which may be seen from the data sheets.

The analytical methods followed the standard procedures outlined in detail by GRASSHOFF (1976), with the autoanalyzer techniques for the determination of the nutrient components during both cruises. In 1983 the temperature and salinity profiles were registrated with a Neil-Brown CTD sonde, which has a precision of about $\pm$ 0.01 ^{o}C and $\pm$ 0.01 x 10^{-3} (according to J. SCHMIDT, pers. communication). These data are presented as isolines only in the report.

Literature

GRASSHOFF, K. (1976):
Methods of seawater analysis. Verlag Chemie, Weinheim, 317 p.

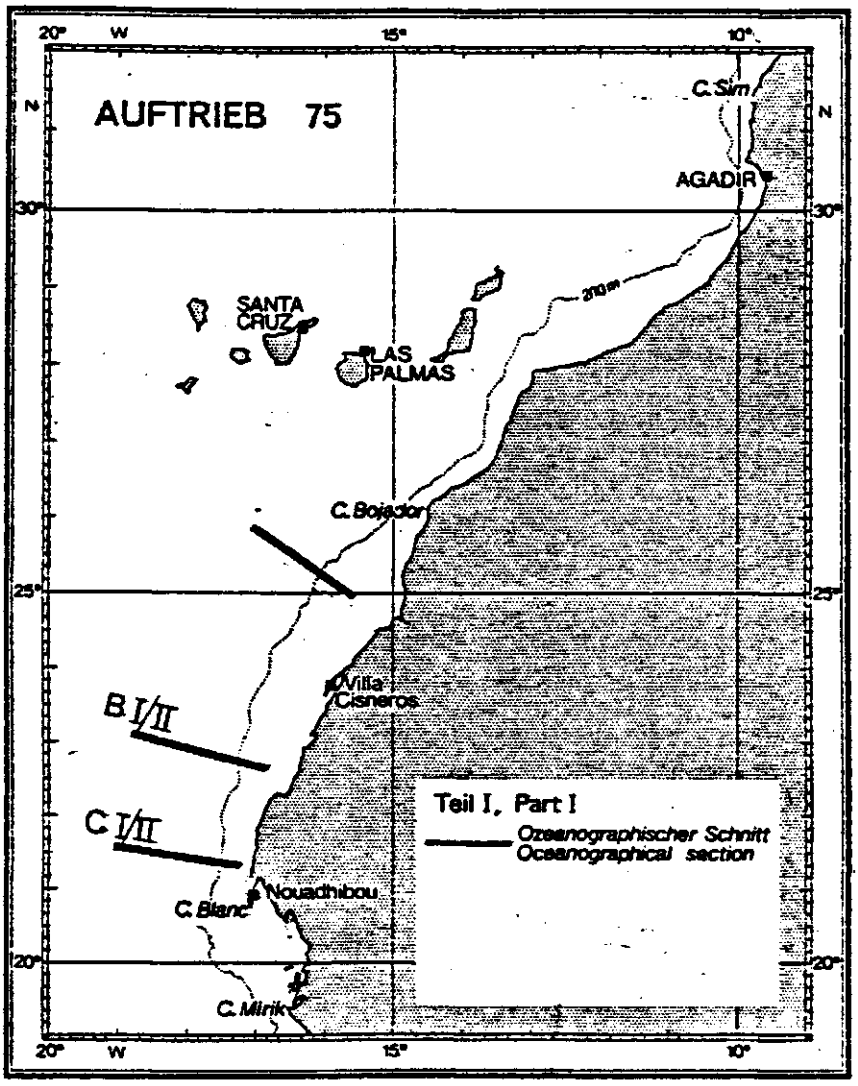

Figure 1: Sampling sections C and B of the expedition (with Stat. No. 18-25 and 46-54, respectively).

Station: 18
Date: 28/1/75
Time: 04.30 - 05.15
Latitude: 21°31,3′ N
Longitude: 18°43,2′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	18.60	36.49	239.8	3.3	0.26	3.2	0.5	3.4
5	18.62	36.43	239.4	3.0	0.23	0.7	0.4	0.4
10	18.62	36.44	240.3	3.0	0.21	0.6	0.4	0.1
20	18.62	36.41	240.3	3.0	0.21	0.6	0.3	1.9
50	18.63	36.51	238.5	2.0	0.18	1.0	0.2	0.0
75	18.54	36.65	180.4	1.5	0.17	1.0	0.2	0.2
100	18.13	36.61	223.3	4.4	0.16	0.7	0.4	1.2
150	17.30	36.62	203.6	3.7	0.06	0.9	0.7	1.6
200	15.65	36.27	165.2	9.8	0.02	0.9	0.8	6.4
300	13.63	35.90	129.5	16.8	0.02	1.0	1.0	7.9
400	11.64	35.57	100.5	22.6	0.01	1.0	1.4	12.7
500	10.09	35.33	100.5	25.9	0.00	0.5	1.7	15.5

Station: 19
Date: 28/1/75
Time: 19.15 - 20.05
Latitude: 21°27,8′ N
Longitude: 18°12′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.63	36.07	228.2	10.1	0.42	0.2	0.8	3.6
5	17.62	36.05	230.0	10.0	0.42	0.2	0.8	2.2
10	17.62	36.05	227.8	10.0	0.41	0.5	0.7	2.1
20	17.63	36.04	226.9	10.0	0.41	0.5	0.7	2.2
50	17.67	36.12	225.5	8.7	0.38	0.6	0.7	1.7
75	18.47	36.62	228.2	4.4	0.31	0.4	0.3	0.0
100	17.15	36.41	173.1	9.9	0.06	0.0	0.6	1.9
150	17.27	36.57	187.1	6.6	0.06	0.1	0.4	0.4
200	16.25	36.40	189.8	7.7	0.05	0.2	0.4	0.9
300	13.54	35.87	121.5	18.0	0.04	0.0	1.2	5.6
400	11.98	35.61	107.6	22.1	0.03	0.0	1.5	7.5
500	10.53	35.44	119.7	22.5	0.02	0.0	1.7	8.7

Station: 20
Date: 29/1/75
Time: 00.30 - 01.20
Latitude: 21°25,3′ N
Longitude: 17°54,6′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.30	35.94	200.5	11.1	0.45	1.6	1.0	7.8
5	16.30	35.93	206.3	12.3	0.50	0.3	1.0	6.5
10	16.30	35.90	204.5	15.2	0.59	0.4	1.1	6.2
20	16.30	35.90	197.8	15.4	0.61	0.3	1.1	6.5
50	16.04	35.88	80.8	19.4	0.06	0.0	1.4	8.6
75	14.68	35.72	65.2	22.9	0.04	0.0	1.6	8.5
100	14.27	35.74	66.1	12.4	0.02	0.4	0.9	7.1
150	14.16	35.76	67.0	13.1	0.02	0.3	1.0	6.4
200	13.46	35.66	67.4	23.9	0.02	0.0	1.6	9.8
300	12.64	35.58	67.4	14.5	0.02	0.1	1.0	8.5
400	11.83	35.48	64.8	16.4	0.02	0.2	1.1	9.7
500	10.26	35.30	63.0	28.0	0.03	0.0	2.0	14.9

Station: 21
Date: 29/1/75
Time: 05.30 - 06.15
Latitude: $21^{o}22,3'$ N
Longitude: $17^{o}40,1'$ W

Depth (m)	Temp. (^{o}C)	Salinity (x 10^{3})	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.71	35.94	190.3	12.9	0.57	0.7	1.4	7.0
5	16.69	35.91	194.7	12.7	0.57	0.2	1.3	5.6
10	16.69	36.91	193.8	13.8	0.57	0.3	1.2	5.7
20	16.65	35.92	185.3	13.7	0.57	0.3	1.2	5.7
50	16.49	36.04	188.5	13.3	0.79	0.2	1.2	6.9
75	16.06	36.01	148.3	15.5	0.79	0.0	1.5	8.5
100	15.21	35.85	138.0	17.4	0.52	0.2	1.4	8.8
150	13.64	35.67	63.0	21.9	0.09	0.3	1.7	9.5
200	13.27	35.64	76.8	21.2	0.09	0.2	2.7	10.2
300	11.79	35.57	77.3	21.3	0.10	-	-	10.9
400	11.43	35.51	87.1	23.2	0.08	0.0	2.2	13.0

Station: 22
Date: 29/1/75
Time: 17.30 - 17.55
Latitude: 21°20,7' N
Longitude: 17°31,7' W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.57	35.94	173.7	15.3	0.59	0.2	1.3	6.0
5	16.56	35.89	180.4	15.3	0.56	0.4	1.1	5.9
10	16.55	35.85	179.5	15.2	0.58	0.3	1.1	5.8
20	16.43	35.89	185.3	14.8	0.71	0.2	1.1	6.2
50	16.30	35.95	172.8	15.6	0.67	0.3	1.2	6.1
75	16.14	35.90	150.1	17.3	0.60	0.2	1.5	6.2
100	15.75	35.88	138.0	18.6	0.61	0.1	1.4	7.8
150	14.98	35.81	110.8	20.4	0.43	0.0	1.4	8.0
200	13.94	35.68	82.2	22.9	0.11	0.0	1.6	9.4
300	12.89	35.61	64.3	24.6	0.05	0.0	1.7	11.0

Station: 23
Date: 29/1/75
Time: 22.45 - 23.00
Latitude: 21°19,8′ N
Longitude: 17°23,3′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.39	36.04	-	14.0	0.77	-	1.1	7.5
5	16.40	35.98	205.9	14.1	0.77	-	1.6	7.1
10	16.39	35.99	204.5	13.2	0.76	-	1.1	6.3
20	16.31	36.00	207.7	14.0	0.79	-	1.1	6.5
40	16.07	35.97	218.4	17.1	0.85	-	1.3	10.5
50	15.91	35.97	167.9	17.0	0.99	-	1.2	10.8
75	15.67	35.98	190.3	17.4	1.01	-	1.2	10.8

Station: 24
Date: 30/1/75
Time: 04.10 - 04.20
Latitude: 21°19,1′ N
Longitude: 17°15,9′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.23	36.05	194.7	15.4	0.86	0.0	1.1	9.2
5	16.23	36.06	213.0	15.4	0.85	0.0	1.1	9.2
10	16.23	36.08	214.4	15.4	0.86	0.0	1.1	5.3
20	16.24	36.08	211.7	15.3	0.87	0.0	1.0	8.8
50	16.36	36.18	197.4	14.6	1.10	0.0	1.0	9.6

Station: 25
Date: 30/1/75
Time: 07.00 - 07.10
Latitude: 21°16,2′ N
Longitude: 17°04,5′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.41	36.00	190.7	14.1	0.66	0.4	0.9	5.1
5	16.41	35.95	191.6	14.1	0.64	0.4	0.9	4.9
10	16.41	35.94	184.4	14.5	0.64	1.0	1.0	5.1
20	16.40	35.88	188.5	14.2	0.79	1.0	1.1	8.0

Station: 30
Date: 30/1/75
Time: 23.00 - 23.20
Latitude: $20^{\circ}32{,}2'$ N
Longitude: $17^{\circ}49{,}5'$ W

Depth (m)	Temp. ($^{\circ}C$)	Salinity ($\times 10^3$)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			($\mu mol\ dm^{-3}$)					
1	17.60	35.99	184.9	10.9	0.64	-	0.9	3.8
5	17.60	35.96	200.5	11.3	0.65	-	0.9	1.9
10	17.60	35.96	206.3	11.8	0.68	-	1.0	2.0
20	17.58	35.95	197.4	13.7	0.75	-	1.1	2.7
50	17.13	35.94	113.9	17.7	0.38	-	1.3	6.2
75	16.95	35.92	69.7	21.1	0.17	-	1.5	7.6
100	16.43	35.85	59.4	22.0	0.13	-	1.6	7.6
150	15.37	35.74	60.3	22.4	0.13	-	1.5	8.5
200	13.71	35.63	68.3	21.1	0.10	-	1.4	6.8
300	12.34	35.50	107.2	18.9	0.11	-	1.3	6.3
400	11.74	35.45	71.0	26.0	0.11	-	1.8	8.2
500	-	-	82.2	26.3	0.11	-	1.8	13.1

Station: 46
Date: 2/2/75
Time: 04.25 - 05.30
Latitude: $23^{\circ}04{,}8'$ N
Longitude: $18^{\circ}16{,}8'$ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.41	36.14	247.4	7.7	0.61	0.5	0.6	0.7
5	17.40	36.12	246.1	8.8	0.61	0.6	0.6	0.0
10	17.40	36.12	245.6	7.9	0.59	0.7	0.7	1.8
20	17.36	36.06	237.6	9.2	0.75	0.5	0.6	0.7
50	17.12	36.20	218.4	10.2	0.86	0.5	0.7	1.1
75	17.01	36.23	208.1	10.9	0.90	0.5	0.7	1.5
100	17.73	36.56	190.7	6.5	0.11	0.3	0.4	0.3
150	17.19	35.58	197.0	6.2	0.09	0.3	0.3	0.0
200	16.23	36.40	195.2	7.8	0.09	0.2	0.4	0.5
300	14.21	36.02	158.1	14.4	0.08	0.0	0.8	3.8
400	12.79	35.81	167.9	15.3	0.08	0.0	0.8	4.6
500	11.22	35.55	134.4	21.5	0.08	0.0	1.4	10.2

Station: 47
Date: 2/2/75
Time: 19.50 - 21.00
Latitude: 22°56′ N
Longitude: 17°45′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.60	36.17	246.5	8.6	0.71	0.0	0.7	1.2
5	17.59	36.14	238.5	9.1	0.74	0.0	0.7	0.4
10	17.34	36.14	225.1	10.0	0.94	0.0	0.6	0.7
20	17.18	36.15	217.9	9.7	0.95	0.0	0.7	0.8
50	16.94	36.16	210.8	10.2	0.88	0.0	0.7	1.0
75	16.53	36.08	205.0	9.0	0.88	0.0	0.5	0.0
100	16.93	36.33	216.6	8.8	0.99	0.0	0.5	0.1
150	16.42	36.27	202.3	10.2	0.86	0.0	0.6	0.9
200	14.28	35.67	62.5	20.4	0.07	0.0	1.6	8.0
300	14.30	35.98	137.1	15.7	0.06	0.0	1.0	4.1
400	13.31	35.88	155.4	16.3	0.06	0.0	1.0	4.9
500	11.32	35.25	103.2	24.1	0.05	0.0	1.5	10.7

Station: 48
Date: 2/2/75
Time: 23.15 - 24.00
Latitude: 22°48′ N
Longitude: 17°31′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.55	36.35	251.0	5.1	0.42	0.0	0.5	0.8
5	17.54	36.31	247.9	5.0	0.40	0.1	0.4	0.0
10	17.54	36.29	241.6	5.6	0.49	0.1	0.4	0.9
20	17.36	36.38	229.1	6.7	0.63	0.2	0.4	0.3
50	17.17	36.39	209.9	9.0	0.87	0.3	0.5	2.0
75	16.85	36.30	208.1	9.3	0.84	0.3	0.6	2.1
100	16.73	36.33	198.3	9.6	0.86	0.2	0.7	3.2
150	15.86	36.12	136.7	15.6	0.15	0.4	1.0	5.8
200	14.50	36.85	100.0	19.8	0.15	0.4	1.3	7.7
300	13.98	35.90	130.4	15.6	0.11	0.3	1.0	5.6
400	13.13	35.81	97.4	19.1	0.08	0.3	1.2	7.4
500	11.17	35.60	142.9	15.3	0.08	0.6	0.9	5.6

Station: 49
Date: 3/2/75
Time: 03.20 - 04.00
Latitude: $22^{\circ}48,3'$ N
Longitude: $17^{\circ}12,4'$ W

Depth (m)	Temp. ($^{\circ}C$)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			($\mu mol\ dm^{-3}$)					
1	17.01	36.00	230.9	10.9	0.56		0.8	0.0
5	17.02	35.79	221.1	11.4	0.56		0.8	0.0
10	17.02	36.00	217.0	11.6	0.56		0.8	0.0
20	17.02	35.98	205.9	12.4	0.67		0.9	0.3
50	16.35	36.09	141.1	15.4	0.65		1.1	3.3
75	15.86	36.08	142.5	16.1	0.76		1.2	4.2
100	15.67	36.04	121.0	16.9	0.37		1.2	3.7
150	14.88	35.86	88.0	20.7	0.27		1.4	5.1
200	14.20	35.75	77.4	21.5	0.18		1.5	5.2
300	13.02	35.66	86.6	22.6	0.10		1.6	6.9
400	11.98	35.57	96.5	22.7	0.10		1.5	8.0

Station: 50
Date: 3/2/75
Time: 05.00 - 05.13
Latitude: 22°44′ N
Longitude: 17°08′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.74	36.05	202.3	12.4	0.75		1.0	1.9
5	16.72	35.87	201.4	12.5	0.77		1.0	1.6
10	16.73	36.03	206.3	12.0	0.78		0.9	1.8
20	16.47	36.04	205.9	12.4	0.77		0.9	1.2
50	-	-	209.0	12.0	1.07		0.8	1.9
75	-	-	187.1	12.9	1.16		0.9	3.0

Station: 51
Date: 3/2/75
Time: 11.00 - 11.15
Latitude: $22^{\circ}43{,}5'$ N
Longitude: $17^{\circ}03{,}5'$ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.95	36.12	213.9	10.4	0.60		0.7	0.9
5	16.81	36.07	214.4	10.3	0.62		0.7	0.4
10	16.52	36.06	214.4	10.5	0.62		0.7	0.4
20	15.82	36.00	176.9	13.1	0.62		0.9	1.5
50	-	-	146.9	15.0	0.95		1.1	4.4

Station: 52
Date: 3/2/75
Time: 16.00 - 16.20
Latitude: 22°43,7′ N
Longitude: 16°54,0′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.25	36.38	240.7	5.1	0.81		0.4	1.5
5	17.23	36.47	237.1	4.8	0.82		0.4	1.2
10	17.21	36.48	238.5	4.9	0.85		0.3	1.1
20	17.33	36.72	236.7	4.9	0.86		0.4	0.9
50	-	-	239.8	4.9	0.87		0.3	1.0

Station: 53
Date: 3/2/75
Time: 18.40 - 18.50
Latitude: $22^{o}41{,}5'$ N
Longitude: $16^{o}45{,}2'$ W

Depth (m)	Temp. (^{o}C)	Salinity ($\times 10^{3}$)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			($\mu mol\ dm^{-3}$)					
1	17.56	36.75	255.5	2.2	0.18		0.2	0.6
5	17.54	36.70	253.2	2.1	0.17		0.2	0.1
10	17.55	36.72	252.3	2.1	0.17		0.1	0.0
20	-	-	252.3	2.1	0.18		0.1	0.2

Station: 54
Date: 3/2/75
Time: 22.15 - 22.20
Latitude: 22°40,7′ N
Longitude: 16°36,2′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.10	36.78	251.9	3.7	0.41		0.4	0.5
5	17.09	36.79	252.3	3.7	0.39		0.3	0.0
10	17.10	36.78	252.3	3.7	0.40		0.3	0.0
20	17.09	36.80	252.3	3.7	0.40		0.3	0.0

Station: 55
Date: 4/2/75
Time: 04.55 - 05.40
Latitude: 22°47,2′ N
Longitude: 17°10,6′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.11	36.01	230.0	9.9	0.82		0.8	0.0
5	17.11	36.00	230.0	10.9	0.83		0.8	0.0
10	17.11	35.99	231.8	10.9	0.82		0.8	0.0
20	17.10	35.98	227.3	11.1	0.82		0.8	0.0
50	16.43	35.98	238.0	16.9	0.60		1.1	3.1
75	16.11	36.09	75.9	22.0	0.23		1.5	4.4
100	14.82	35.77	66.5	23.4	0.19		1.6	5.3
150	13.84	35.08	67.0	24.2	0.18		1.6	6.1
200	13.49	35.05	76.8	23.8	0.19		1.6	6.7
300	12.70	35.60	80.8	24.2	0.20		1.6	7.6
400	11.96	35.55	89.8	24.3	0.19		1.7	8.1
500	11.45	35.02	105.8	23.3	0.19		1.6	8.7

Station: 56 (1st series)
Date: 4/2/75
Time: 13.10 - 13.24
Latitude: 22°48,7′ N
Longitude: 17°30,0′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.18	36.18	251.0	6.4	0.72		0.6	1.0
5	17.18	36.17	251.0	6.3	0.73		0.6	0.0
10	17.16	36.19	252.8	6.3	0.75		0.5	0.0
20	17.03	36.22	246.1	6.5	0.75		0.5	0.0
50	16.51	36.28	191.1	10.0	0.94		0.7	3.1
75	16.14	36.18	184.4	11.5	0.62		0.8	4.4
100	15.70	36.10	163.5	13.8	0.37		0.9	5.5
150	14.78	35.91	120.1	17.8	0.21		1.2	7.2
200	14.41	35.88	117.9	17.8	0.20		1.2	7.0

Station: 56 (2nd series)
Date: 5/2/75
Time: 10.40 - 11.13
Latitude: 22°48,7′ N
Longitude: 17°32,7′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.24	36.09	245.2	6.3	0.48		0.6	2.6
5	17.24	36.07	246.5	5.7	0.44		0.4	0.9
10	17.24	36.07	248.3	6.3	0.46		0.5	-
20	17.25	36.16	238.0	5.6	0.60		0.4	0.0
50	17.04	36.33	205.4	9.4	0.72		0.5	1.8
75	16.60	36.28	183.6	10.7	0.40		0.7	2.5
100	16.18	36.19	167.5	12.5	0.16		0.8	3.6
150	15.10	35.99	113.0	16.9	0.10		1.1	4.3
200	14.53	35.87	101.8	18.5	0.06		1.2	5.2

Station: 56 (3^{rd} series)
Date: 6/2/75
Time: 12.00
Latitude: $22^{o}48,7'$ N
Longitude: $17^{o}30,0'$ W

Depth (m)	Temp. (^{o}C)	Salinity (x 10^{3})	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.27	36.07	253.7	7.2	0.47		0.6	0.6
5	17.24	36.04	256.3	7.0	0.46		0.5	0.0
10	17.23	36.03	237.6	8.0	0.54		0.6	0.5
20	17.16	36.06	222.9	8.5	0.57		0.5	0.8
50	16.87	36.31	201.9	9.1	0.80		0.5	1.0
75	16.75	36.32	193.8	9.7	0.76		0.5	1.5
100	16.46	36.26	179.1	10.0	0.33		0.6	2.7
150	15.46	36.09	135.3	14.6	0.19		0.8	2.9
200	14.92	36.01	125.0	15.6	0.09		0.9	3.1

Station: 57
Date: 7/2/75
Time: 00.00
Latitude: 21°30,6′ N
Longitude: 18°42,6′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	18.74	36.48	255.5	0.8	0.20		0.4	1.3
5	18.75	36.45	254.6	0.7	0.18		0.1	0.6
10	18.75	36.46	256.3	0.7	0.18		0.1	0.6
20	18.75	36.50	248.8	0.8	0.22		0.1	0.4
50	19.09	36.70	223.3	1.1	0.33		0.1	0.5
75	18.90	36.68	222.4	3.0	0.35		0.2	0.9
100	17.70	36.52	134.0	7.4	0.09		0.4	1.7
150	16.19	36.27	168.4	7.8	0.08		0.4	1.7
200	15.57	36.25	164.3	9.2	0.08		0.5	2.3
300	13.93	35.94	168.4	9.2	0.08		0.5	2.2
400	12.48	35.75	146.0	13.9	0.07		0.9	3.8
500	10.30	35.36	161.2	14.9	0.07		0.9	4.3

Station: 58
Date: 7/2/75
Time: 11.00
Latitude: 21°28,4′ N
Longitude: 18°11,2′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	18.25	36.28	252.8	3.7	0.33		0.4	0.9
5	18.25	36.26	250.1	3.5	0.30		0.4	0.5
10	18.25	36.28	244.7	3.3	0.32		0.3	0.3
20	18.50	36.45	242.5	1.8	0.25		0.2	0.0
50	18.35	36.55	235.4	2.0	0.43		0.2	0.0
75	18.23	36.59	230.9	2.8	0.56		0.2	0.1
100	17.58	36.47	164.8	8.7	0.10		0.5	1.3
150	16.10	36.30	164.8	9.3	0.08		0.5	1.5
200	14.02	35.85	98.3	17.7	0.07		1.1	3.1
300	12.36	35.57	71.0	21.9	0.07		1.4	5.9
400	11.69	35.52	93.3	21.5	0.07		1.4	6.0
500	10.60	35.37	87.5	24.0	0.07		1.7	7.4

Station: 59
Date: 7/2/75
Time: 21.35
Latitude: 21°55,5′ N
Longitude: 17°53,7′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.41	35.91	216.6	10.5	0.62		0.9	1.6
5	17.41	35.90	220.2	10.6	0.63		0.8	1.0
10	17.40	35.87	220.2	10.7	0.63		0.8	1.5
20	17.20	35.87	213.0	10.9	0.64		0.9	1.5
50	16.82	35.83	146.0	14.8	0.46		1.0	2.5
75	16.50	35.86	79.0	14.9	0.10		1.3	4.2
100	14.89	35.69	73.2	21.3	0.09		1.4	5.3
150	13.90	35.67	67.4	22.1	0.09		1.5	5.6
200	13.19	35.59	75.0	22.6	0.08		1.5	6.5
300	12.63	35.57	68.3	22.4	0.09		1.4	6.4
400	11.54	35.45	78.2	23.5	0.07		1.5	8.1
500	10.26	35.37	106.3	22.7	0.07		1.4	8.5

Station: 60 (1st series)
Date: 8/2/75
Time: 00.00
Latitude: 21°21,4′ N
Longitude: 17°40,8′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.60	35.82	176.9	15.1	0.67		1.1	5.5
5	16.59	35.82	175.5	15.3	0.66		1.1	5.2
10	16.57	35.83	175.5	15.5	0.67		1.1	5.2
20	16.33	35.81	137.6	17.4	0.43		1.2	5.4
50	15.30	35.72	102.3	18.1	0.27		1.4	6.6
75	14.96	35.71	85.7	21.4	0.15		1.4	6.6
100	14.79	35.69	75.0	23.0	0.11		1.5	7.4
150	13.76	35.60	68.3	23.2	0.09		1.5	7.8
200	13.18	35.57	67.0	24.6	0.09		1.7	8.5
300	12.50	35.52	71.0	24.9	0.10		1.7	9.1
400	11.73	35.47	77.3	25.5	0.09		1.7	9.9
500	10.39	35.32	71.0	26.9	0.10		1.8	10.9

Station: 60 (2^{nd} series)
Date: 8/2/75
Time: 13.00
Latitude: $21^{o}20,6'$ N
Longitude: $17^{o}41,7'$ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.78	35.85	203.6	14.3	0.73		0.9	5.4
5	16.74	35.86	204.1	13.8	0.72		0.9	5.1
10	16.71	35.86	196.1	14.2	0.74		0.9	5.1
20	16.67	35.86	194.7	14.4	0.75		0.9	5.0
50	16.64	35.87	168.4	15.8	0.91		1.0	5.2
75	16.11	35.81	86.6	20.8	0.25		1.3	6.4
100	15.09	35.71	68.8	21.6	0.12		1.3	6.2
150	13.83	35.61	62.1	24.1	0.12		1.4	7.7
200	12.73	35.51	63.0	25.2	0.09		1.5	8.5
300	12.26	35.51	62.5	25.3	0.11		1.5	8.8
400	11.68	35.48	70.1	25.3	0.10		1.6	9.7
500	10.86	35.38	70.1	26.6	0.10		1.7	10.4

Station: 61
Date: 8/2/75
Time:
Latitude: 21°20,5′ N
Longitude: 17°32,7′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.62	35.79	202.8	15.5	0.60		1.1	6.0
5	16.60	35.79	201.4	14.6	0.62		1.1	5.7
10	16.61	35.82	204.5	15.2	0.61		1.1	5.9
20	16.50	35.81	203.2	15.3	0.61		1.1	5.9
50	15.95	35.80	176.4	16.8	0.66		1.1	6.3
75	15.69	35.77	163.0	17.7	0.66		1.2	6.6
100	15.07	35.71	159.9	18.0	0.47		1.2	6.9
150	-	-	105.4	21.2	0.11		1.4	7.8
200	-	-	92.4	22.2	0.09		1.5	8.0
300	-	-	76.4	23.8	0.06		1.5	8.4

Station: 62
Date: 8/2/75
Time:
Latitude: 21°19,8′ N
Longitude: 17°23,1′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.40	35.86	210.8	12.2	0.78		1.0	5.8
5	16.39	35.85	210.3	15.3	0.74		1.1	5.5
10	16.39	35.85	210.8	15.4	0.70		1.0	5.5
20	16.36	35.86	210.3	15.4	0.74		1.0	5.2
50	15.60	35.75	137.1	19.0	0.33		1.2	6.0
75	14.82	35.69	102.7	20.8	0.24		1.5	7.0

Station: 63
Date: 9/2/75
Time:
Latitude: 21°19,0′ N
Longitude: 17°15,1′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.59	36.00	215.7	11.0	0.90		0.8	3.0
5	16.57	36.02	201.0	11.3	0.90		0.7	3.2
10	16.57	36.02	223.3	11.2	0.89		0.6	3.0
20	16.58	36.06	223.3	11.2	0.91		0.6	3.0

Station: 64
Date: 8/2/75
Time:
Latitude: 21°17,8′ N
Longitude: 17°09,4′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.39	36.14	192.0	11.6	0.66		0.8	5.4
5	16.38	36.13	190.7	11.6	0.64		0.8	5.0
10	16.47	36.15	189.8	11.8	0.61		0.9	5.0
20	16.36	36.13	187.6	12.4	0.62		0.9	5.0

Station: 65
Date: 9/2/75
Time:
Latitude: 21°20,4′ N
Longitude: 17°41,6′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.48	35.83	174.6	15.3	0.68		1.0	4.7
5	16.47	35.80	175.5	15.6	0.66		1.0	4.5
10	16.47	35.78	174.2	15.6	0.69		1.0	4.5
20	16.47	35.78	171.5	15.7	0.70		1.1	4.8
50	16.27	35.79	148.3	17.0	0.66		1.2	5.0
75	15.96	35.77	138.9	18.2	0.64		1.2	5.3
100	15.30	35.74	125.0	19.6	0.41		1.3	6.5
150	13.97	35.59	66.1	23.4	0.08		1.5	6.5
200	13.47	35.56	62.1	24.1	0.06		1.6	6.8
300	12.68	35.51	61.6	24.6	0.04		1.6	7.4
400	11.91	35.48	59.8	25.5	0.06		1.7	8.0
500	11.04	35.36	68.8	25.3	0.05		1.7	8.6

Station: 67
Date: 10/2/75
Time:
Latitude: 21°20,5′ N
Longitude: 17°41,5′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	-	-	198.7	13.7	0.69		1.0	5.4
5	-	-	200.1	15.2	0.69		1.0	5.3
10	-	-	200.1	15.5	0.65		1.0	5.4
20	-	-	203.2	15.3	0.69		1.1	5.3
50	-	-	116.6	18.8	0.55		1.3	6.0
75	-	-	74.1	22.2	0.11		1.4	6.1
100	-	-	68.3	22.9	0.08		1.5	6.6
150	-	-	55.4	-	-		-	-
200	-	-	57.2	24.7	0.09		1.6	7.5
300	-	-	64.3	25.3	0.07		1.7	8.2
400	-	-	72.8	25.6	0.10		1.6	9.1
500	-	-	67.9	26.6	0.07		1.8	9.6

Station: 68
Date: 10/2/75
Time: 12.00
Latitude: 21°21,9′ N
Longitude: 17°46,5′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	16.49	35.85	128.6	15.2	0.71		1.1	5.2
5	16.49	35.84	131.3	14.9	0.72		1.1	5.0
10	16.50	35.84	85.7	14.8	0.70		1.0	4.9
20	16.48	35.83	77.7	11.0	-		1.0	4.9
50	16.43	35.86	80.8	14.0	0.69		1.0	4.9
75	16.15	35.84	60.7	19.4	0.29		1.2	5.2
100	14.16	35.61	61.6	21.7	0.14		1.4	5.4
150	14.06	35.73	68.8	18.0	-		1.5	6.6
200	13.04	35.57	63.4	24.0	0.08		1.5	6.9
300	12.04	35.46	61.6	25.8	0.08		1.6	8.0
400	11.25	35.41	43.3	26.6	0.07		1.8	8.9
500	9.98	35.26	66.5	26.7	0.08		1.8	10.5

Station: 81
Date: 13/2/75
Time:
Latitude: 22°41,6′ N
Longitude: 16°45,2′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.41	36.56	224.2	2.4	0.60	0.6	0.1	5.5
5	17.41	36.55	222.0	2.3	0.57	0.3	0.1	5.2
10	17.41	36.54	219.7	2.3	0.56	0.1	0.1	5.1
20	17.41	36.53	221.1	2.4	0.55	0.1	0.1	5.1

Station: 83
Date: 13/2/75
Time:
Latitude: $22^{\circ}44{,}9'$ N
Longitude: $17^{\circ}08{,}0'$ W

Depth (m)	Temp. ($^{\circ}$C)	Salinity ($\times 10^3$)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.08	36.07	209.9	9.8	0.69	0.7	0.4	5.4
5	17.08	36.04	207.7	10.0	0.70	0.7	0.7	5.6
10	17.08	36.03	195.6	10.1	0.69	0.7	0.7	5.5
20	16.98	36.05	205.9	10.1	0.69	0.6	0.7	5.5
50	15.97	36.01	166.6	17.0	0.82	0.0	1.2	9.1
75	15.34	35.97	151.0	14.8	0.70	0.0	1.1	8.4

Station: 85
Date: 14/2/75
Time:
Latitude: $22^{\circ}47{,}5'$ N
Longitude: $17^{\circ}14{,}1'$ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.04	36.05	227.8	9.1	0.80		0.8	3.6
5	17.03	36.04	203.6	8.9	0.79		0.7	3.2
10	17.04	36.05	223.3	9.0	0.79		0.6	3.1
20	17.04	36.03	224.6	9.0	0.78		0.6	3.1
50	17.01	36.05	212.6	10.0	0.73		0.7	3.4
75	16.96	36.14	-	15.1	0.23		1.0	6.9
100	16.45	36.20	127.3	15.8	0.15		1.0	7.0
150	14.78	35.90	124.2	15.3	0.16		0.9	6.5
200	14.01	35.72	84.4	21.5	0.13		1.4	9.2
300	12.64	35.51	54.5	25.6	0.12		1.7	11.3
400	12.53	35.62	96.5	22.4	0.14		1.5	10.7
500	11.10	35.46	98.3	23.1	0.11		1.6	12.5

Station: 86
Date: 14/2/75
Time:
Latitude: 22°48,0′ N
Longitude: 17°31,3′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.50	36.04	238.5	7.1	0.98		0.6	3.3
5	17.50	36.03	240.7	6.2	0.99		0.5	2.4
10	17.50	36.05	240.3	6.7	1.01		-	2.6
20	17.50	36.05	232.7	6.8	0.98		1.0	2.5
50	17.28	36.07	204.5	10.1	1.05		1.0	4.1
75	16.63	36.12	180.0	12.1	1.10		1.0	4.9
100	15.24	35.81	160.8	14.0	0.86		1.1	5.6
150	14.41	35.76	62.5	22.7	0.20		1.6	9.5
200	14.39	35.85	109.0	19.3	0.12		1.3	8.7
300	12.80	35.61	86.2	23.6	0.11		1.6	10.6
400	11.94	35.52	72.3	24.5	0.09		1.8	11.7
500	11.17	35.47	80.8	23.3	0.08		1.7	12.4

Station: 91
Date: 15/2/75
Time:
Latitude: 22°54,0′ N
Longitude: 17°46,2′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.98	36.29	245.2	1.9	0.52		0.5	2.9
5	17.99	36.28	243.0	2.0	0.53		0.7	1.6
10	17.98	36.30	241.2	2.0	0.53		0.3	1.3
20	18.01	36.30	239.4	1.9	0.54		0.2	1.0
50	18.33	36.60	217.0	3.7	0.21		0.2	3.6
75	18.19	36.59	211.2	4.7	0.18		0.3	2.3
100	17.51	36.42	180.9	8.2	0.15		0.5	4.0
150	16.38	36.33	158.5	10.3	0.13		0.6	4.4
200	14.03	35.73	81.7	20.9	0.11		1.4	8.9
300	12.95	35.63	82.6	22.0	0.09		1.5	8.8
400	12.66	35.72	137.6	17.7	0.09		1.2	8.6
500	11.03	35.50	126.4	19.0	0.06		1.3	10.2

Station: 92
Date: 15/2/75
Time:
Latitude: 23°06,5′ N
Longitude: 18°16,5′ W

Depth (m)	Temp. (°C)	Salinity (x 10^3)	O_2	NO_3	NO_2	NH_3	PO_4	Si
			(μmol dm^{-3})					
1	17.95	36.33	237.1	3.7	0.46		0.4	4.5
5	17.95	36.33	197.8	10.1	0.25		0.7	5.5
10	17.95	36.35	169.3	12.7	0.16		1.0	5.9
20	17.95	36.38	186.7	10.4	0.12		0.8	6.1
50	17.34	36.25	144.3	15.3	0.11		1.1	6.8
75	16.77	36.16	121.0	22.3	0.08		1.6	11.7
100	16.60	36.17	105.8	24.9	0.08		2.1	20.7
150	16.82	36.26	148.7	26.9	0.08		2.2	18.8
200	15.75	36.10	188.9	22.7	0.08		1.9	18.2
300	13.95	35.81	201.0	20.7	0.07		1.7	19.6
400	13.27	35.84	217.5	27.4	0.09		2.2	16.5
500	10.99	35.43	105.8	26.8	0.08		2.1	17.6

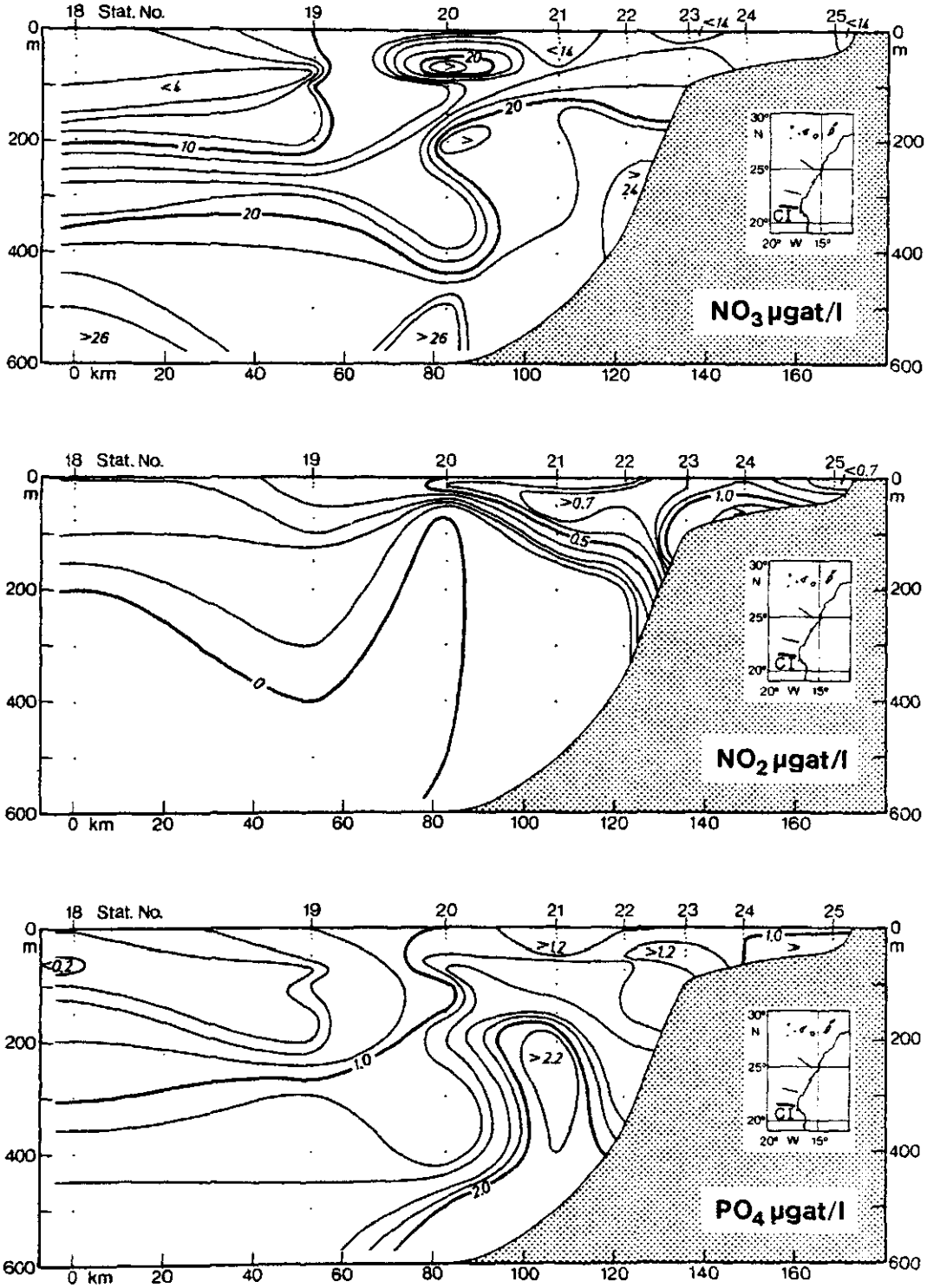

Figure 2: Distribution of nutrients on section C_I, 28-30 January 1975 (see also Fig. 1). The dots correspond to samples from discrete depths.

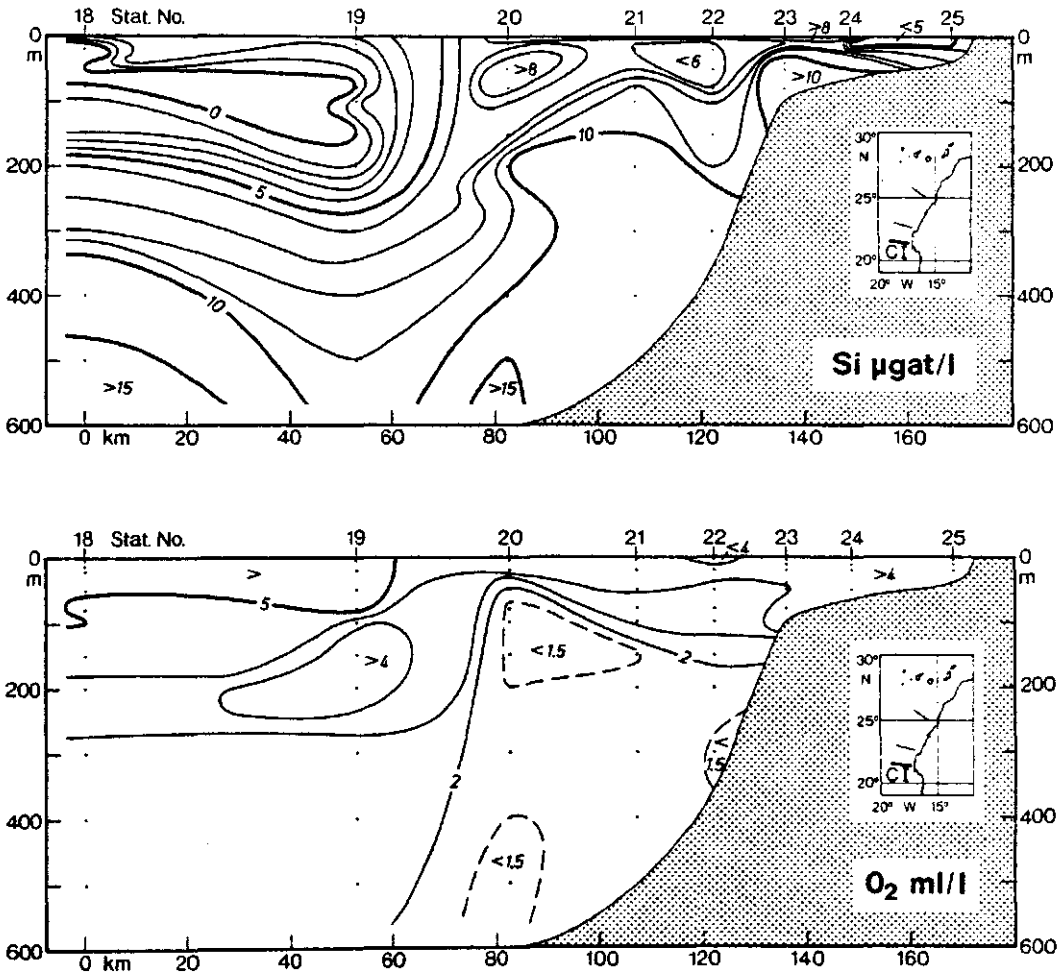

Figure 3: Distribution of oxygen and silicate on section C_I, 28-30 January 1975 (see also Fig. 2).

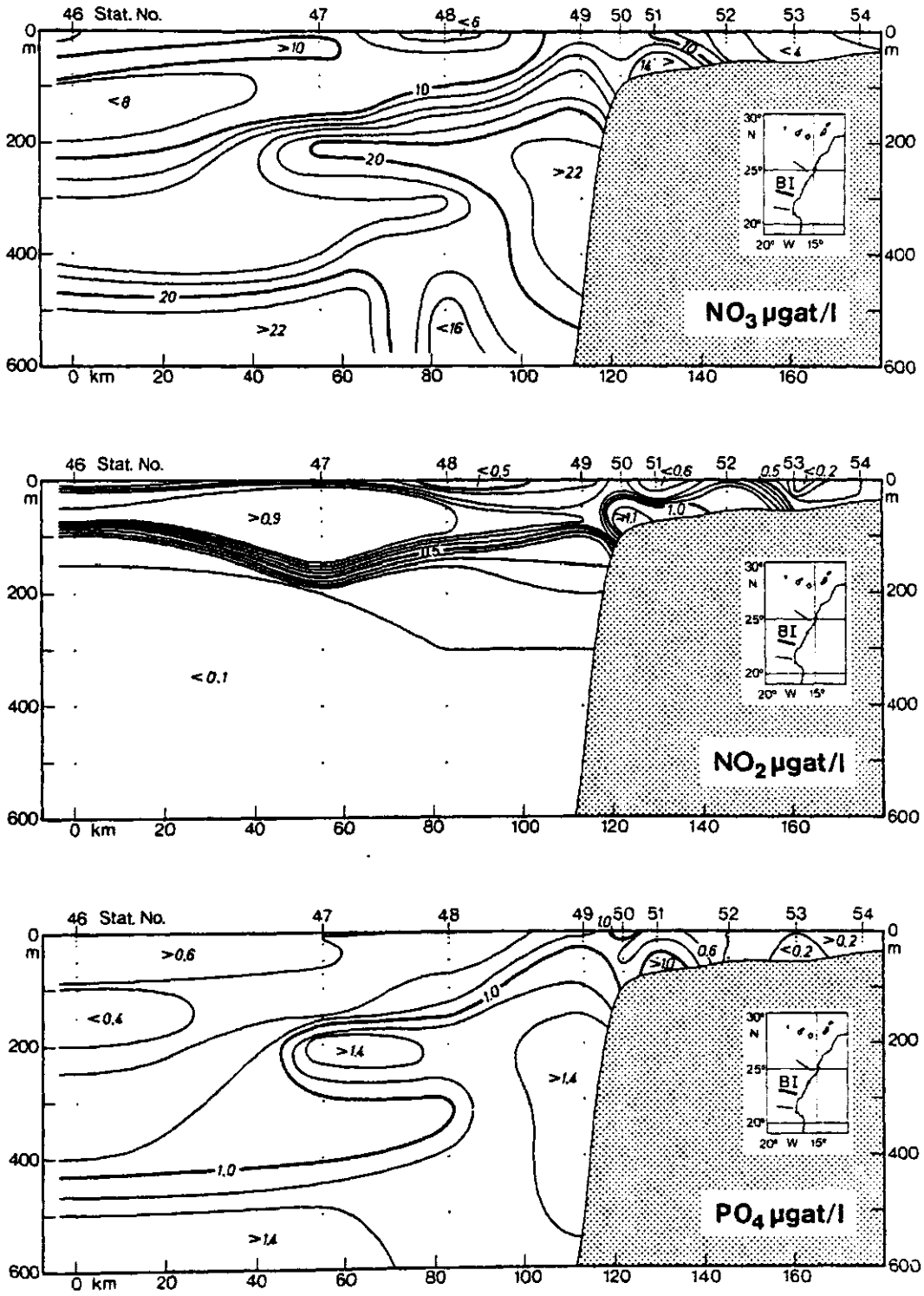

Figure 4: Distribution of nutriemts on section BI, 2-3 February 1955 (see also Fig. 1 and 2).

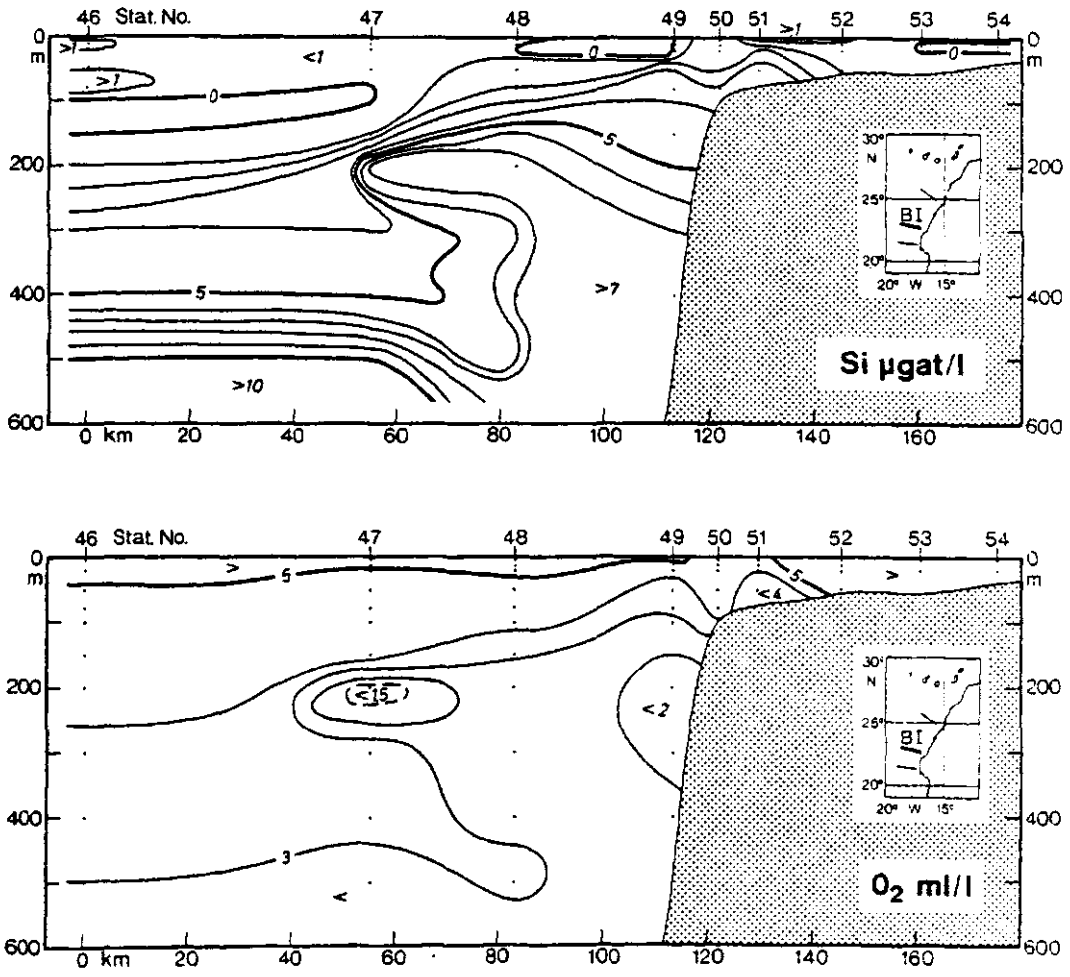

Figure 5: Distribution of oxygen and silicate on section B_I, 2-3 February 1975 (see also Fig. 1 and 2).

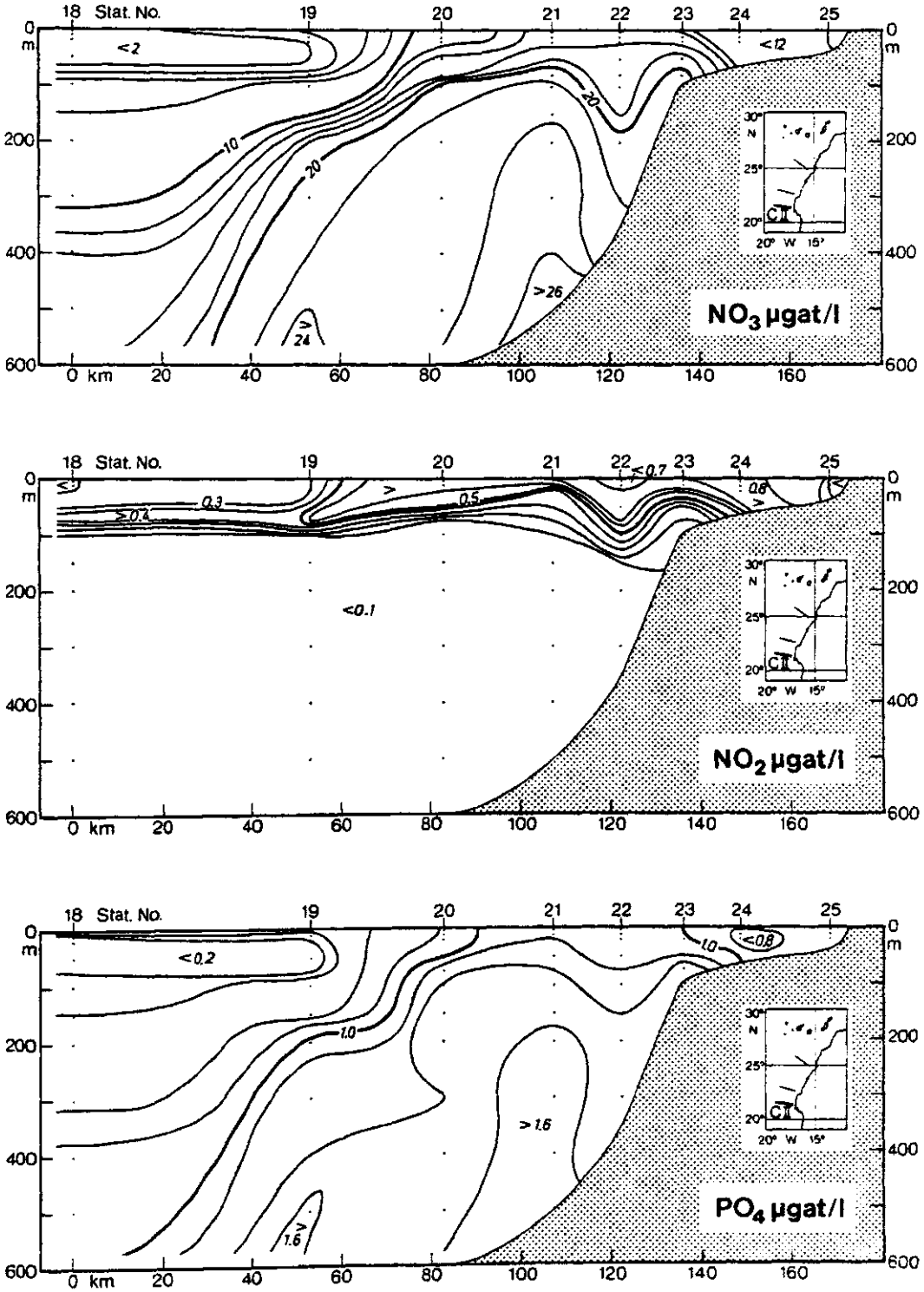

Fig. 6: Distribution of nutrients on section C_{CII}, 4-8 February 1975 (see also Fig. 1 and 2).

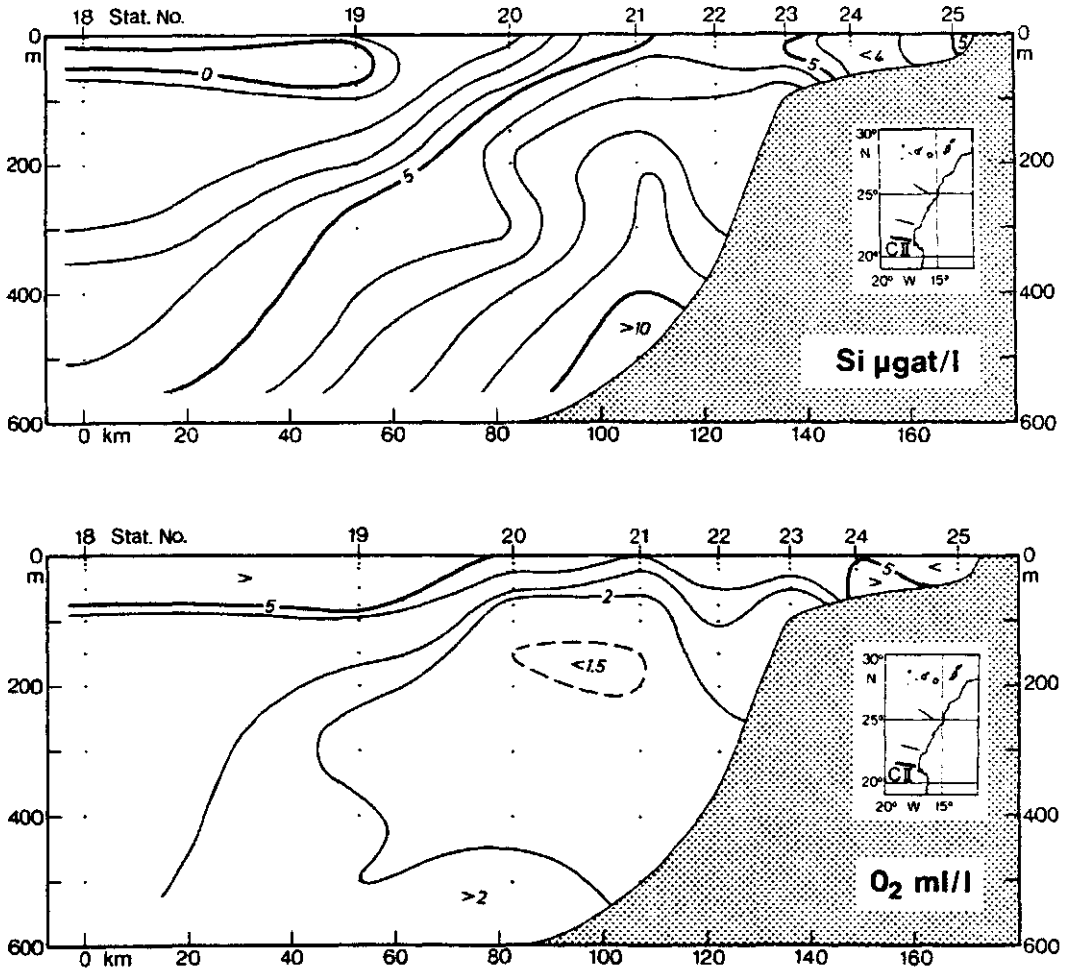

Figure 7: Distribution of oxygen and silicate on section C_{II}, 4-8 February 1975 (see also Fig. 1 and 2).

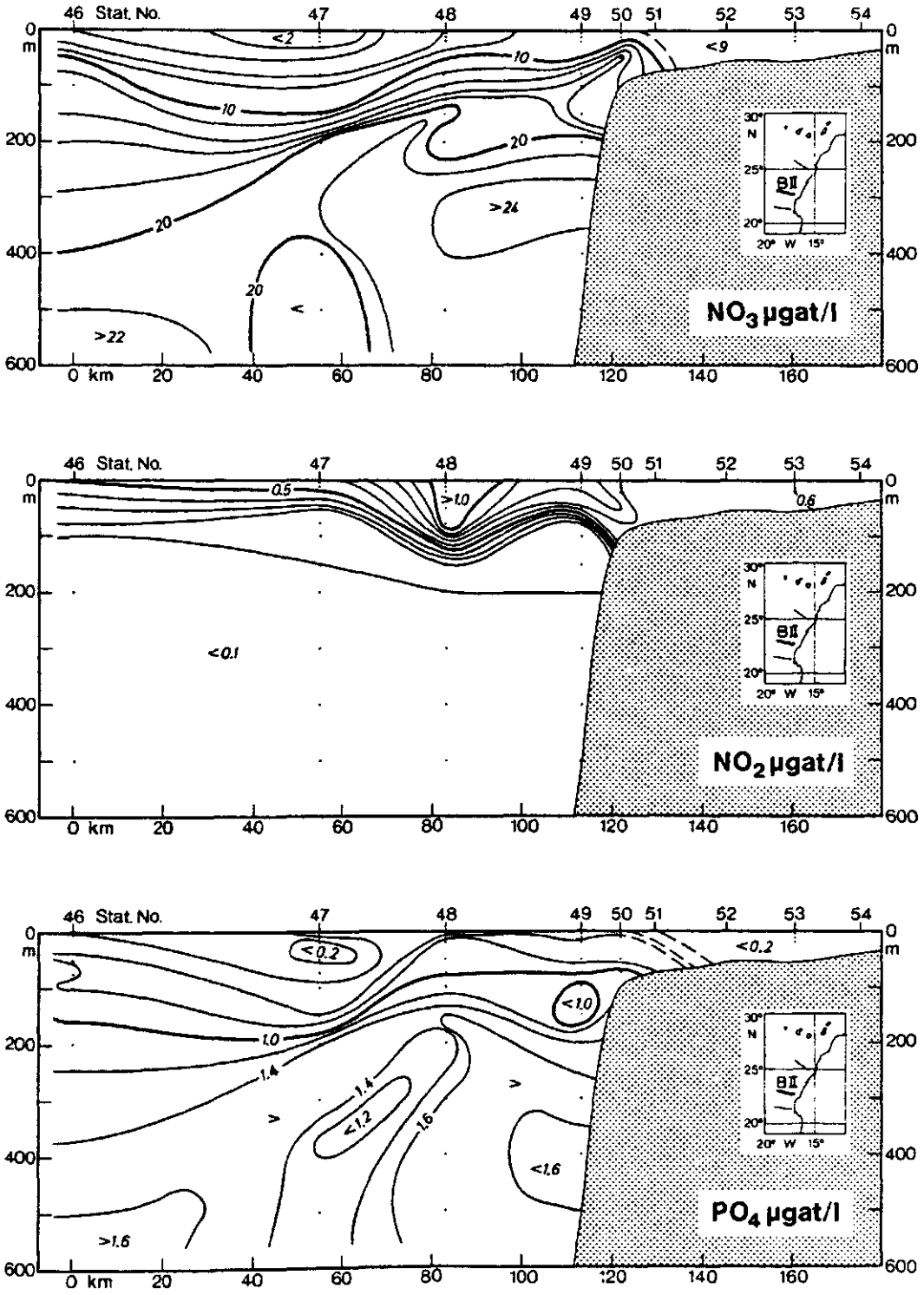

Figure 8: Distribution of nutriments on section B_{II}, 9-13 February 1955 (see also Fig. 1 and 2).

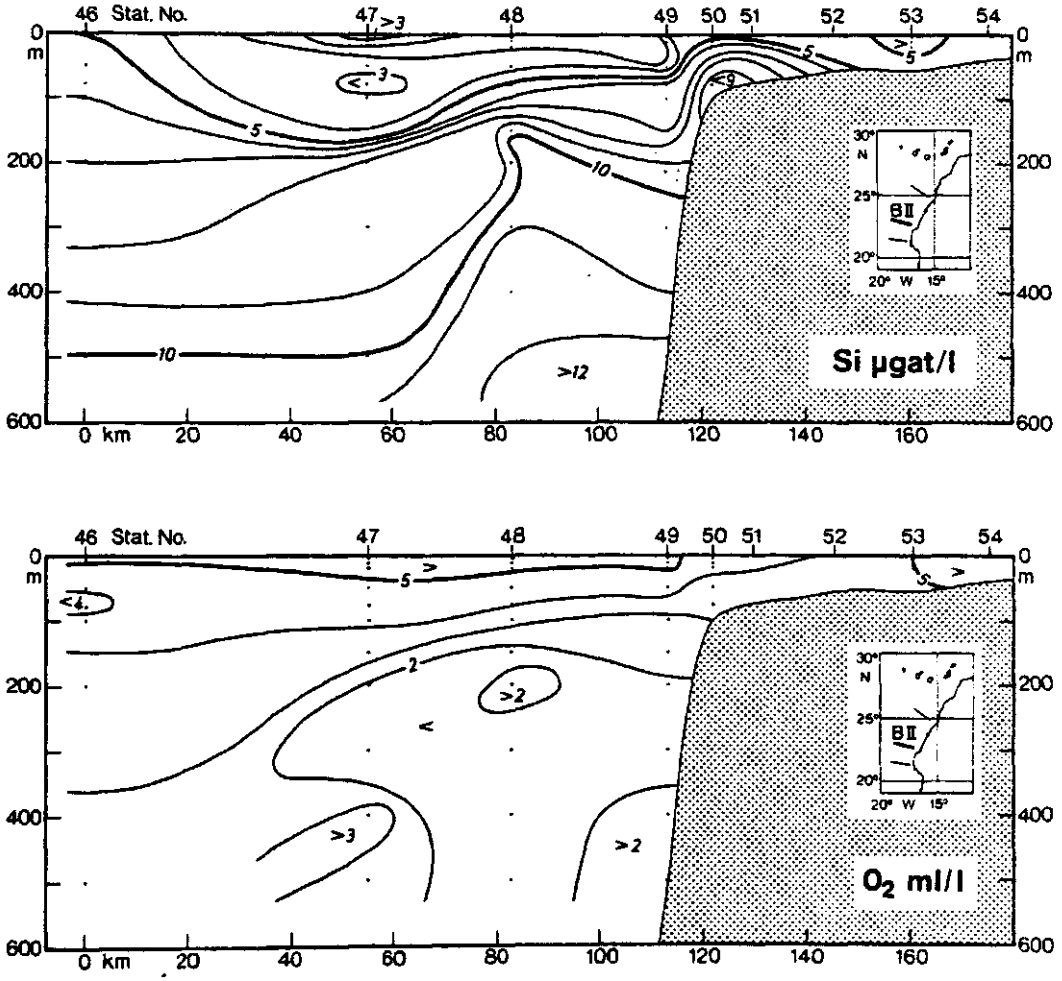

Figure 9: Distribution of oxygen and silicate on section B_{II} 9-13 February 1975 (see also Fig. 1 and 2).

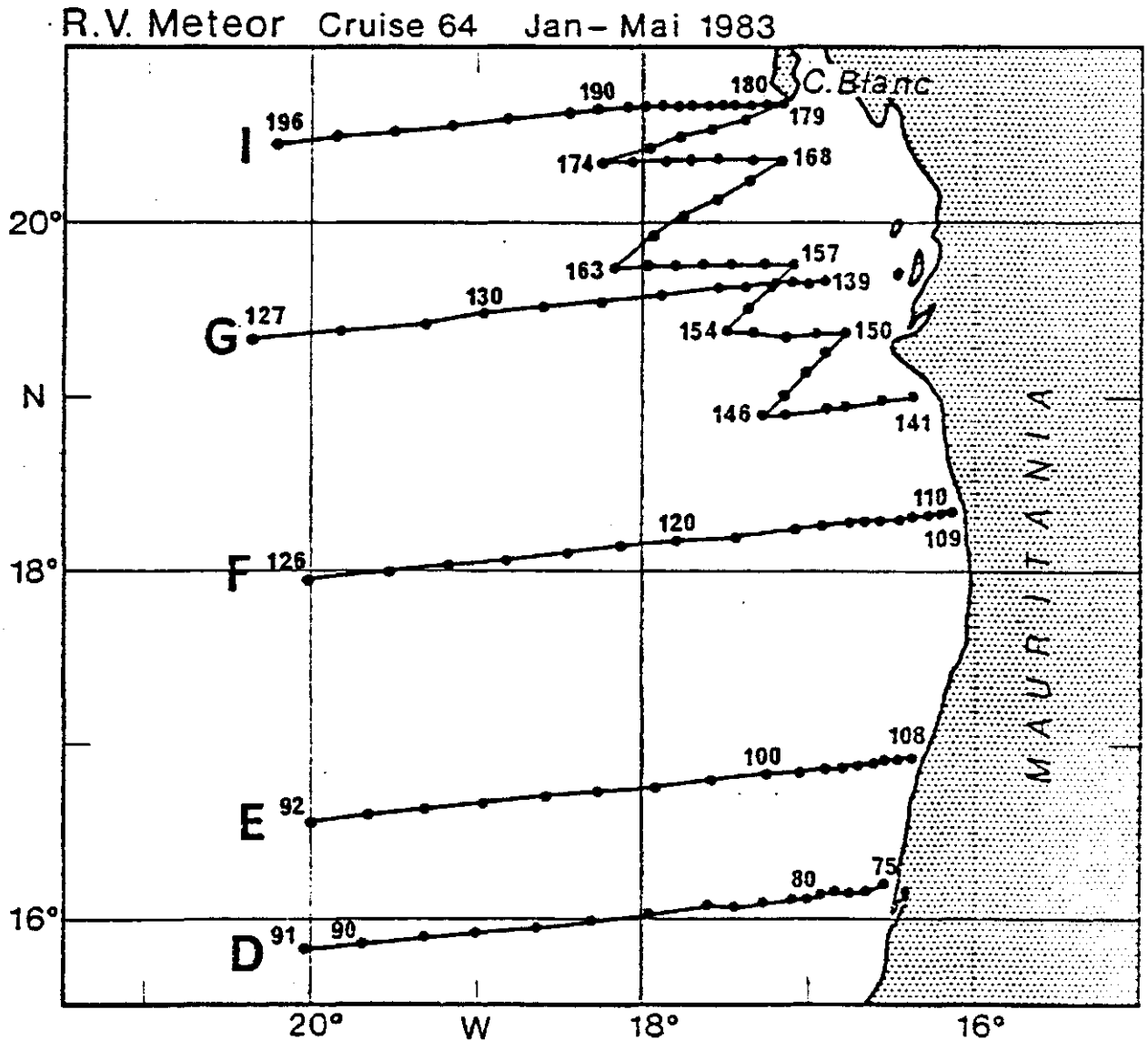

Figure 10: Sampling sections D - I of the expedition (with Stat. No. 75-196).

Station: 75
Date: 30/1/83
Time: 8.18 - 9.54
Latitude: $16^{\circ}12{,}4'$ N
Longitude: $16^{\circ}33{,}8'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
1	8.23	2.43	234.0	2.1	1.1	7.0
10	8.23	2.39	233.6	2.4	0.8	5.7

Station: 77
Date: 30/1/83
Time: 12.06 - 13.00
Latitude: 16°09,0′ N
Longitude: 16°44,4′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
1	8.18	2.35	187.1	5.4	0.6	3.5
10	8.18	2.35	186.7	5.4	0.6	3.0
20	8.20	2.35	180.9	5.6	0.6	3.0
30	8.12	2.37	113.9	13.1	1.1	7.1
50	8.04	2.35	77.3	19.4	1.6	9.2
75	8.02	2.40	72.8	21.1	1.7	11.3

Station: 78
Date: 30/1/83
Time: 13.36 - 14.30
Latitude: $16^{o}08,5'$ N
Longitude: $16^{o}50,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
1	-	-	-	-	-	-
10	8.19	2.35	218.8	2.6	0.4	1.6
20	8.21	2.37	217.0	2.6	0.5	1.8
30	8.21	2.35	212.6	3.0	1.1	1.8
50	8.09	2.37	212.6	21.2	1.6	10.6
75	8.03	2.35	71.0	22.3	1.7	10.8

Station: 79
Date: 30/1/83
Time: 15.06 - 17.12
Latitude: 16°08,0′ N
Longitude: 16°55,4′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
1	-	-	-	-	-	-
10	-	-	-	-	-	-
20	8.16	2.34	213.0	3.6	0.5	2.0
30	8.15	2.32	184.4	5.8	0.8	4.0
50	7.98	2.34	71.9	20.5	1.5	8.8
75	7.98	2.34	62.5	27.0	1.9	10.9
150	7.98	2.34	67.4	29.0	1.8	12.9
250	7.97	2.34	75.5	30.2	1.9	13.8
350	7.89	2.34	54.0	36.2	2.5	20.0
450	7.88	2.39	64.8	37.6	2.5	25.0
550	7.88	2.43	66.5	37.6	2.6	-

Station: 80
Date: 30/1/83
Time: 18.00 - 21.00
Latitude: 16°07,4′ N
Longitude: 17°00,8′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.22	2.38	205.9	-	-	1.8
10	8.23	2.37	205.0	-	-	2.4
20	8.20	2.35	176.9	-	-	5.0
30	8.11	2.37	112.5	-	-	7.7
50	8.08	2.37	76.8	-	-	11.8
75	-	-	-	-	-	-
150	8.04	2.35	65.7	-	-	13.1
250	8.03	2.35	69.2	-	-	16.2
350	7.97	2.35	53.6	-	-	15.6
450	7.95	2.37	60.7	-	-	23.1
550	7.94	2.37	57.2	-	-	25.7

Station: 81
Date: 30/1/83
Time: 21.54 - 06.06
Latitude: 16°07,9′ N
Longitude: 17°06,0′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.25	2.35	219.3	1.5	0.4	1.2
10	8.26	2.37	219.7	1.0	0.4	1.0
20	8.27	2.39	220.6	1.0	0.4	1.0
30	8.27	2.44	217.0	1.2	0.4	1.2
50	8.04	2.38	73.7	20.6	1.5	7.4
75	8.03	2.38	67.9	24.2	1.8	9.4
150	8.01	2.38	66.1	26.0	1.9	11.0
250	7.99	2.40	70.1	27.0	1.9	12.3
350	7.94	2.35	54.0	30.9	2.1	15.3
450	7.92	2.35	50.9	33.4	2.4	18.1
550	7.91	2.35	57.6	35.0	2.5	21.8
650	7.91	2.35	69.2	35.2	2.6	22.2
750	7.91	2.34	84.0	35.0	2.7	22.7
850	7.91	2.34	97.4	35.0	2.7	24.3
950	7.96	2.35	113.4	33.9	2.6	25.7
1050	7.98	2.35	129.1	32.0	2.6	26.0
1150	7.99	2.35	138.0	31.0	2.6	25.8

Station: 82
Date: 31/1/83
Time: 07.00 - 17.00
Latitude: 16°05,8′ N
Longitude: 17°16,5′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.26	2.35	232.7	0.0	0.2	3.4
10	8.27	2.34	234.9	0.0	0.1	2.8
20	8.27	2.35	233.6	0.0	0.2	3.4
30	8.26	2.37	223.7	0.3	0.3	3.0
50	8.13	2.39	148.7	10.3	0.7	4.8
75	7.93	2.35	63.4	23.9	1.6	8.7
150	7.82	2.37	71.0	26.6	1.8	9.4
250	7.82	2.34	67.4	28.1	1.9	10.6
350	7.80	2.39	60.7	30.6	2.1	12.9
450	7.75	2.34	51.8	33.6	2.4	16.2
550	7.75	2.32	59.0	35.3	2.5	18.8
650	7.72	2.35	70.6	36.0	2.7	21.9
750	7.72	2.32	83.5	35.7	2.7	23.5
850	7.72	2.34	96.9	35.3	2.7	25.4
950	7.76	2.35	117.5	33.4	2.6	26.6
1050	7.78	2.38	125.5	30.3	2.5	26.4
1150	7.80	2.34	153.6	29.2	2.4	26.1

Station: 83
Date: 31/1/83
Time: 18.06 - 01.18
Latitude: 16°04,5′ N
Longitude: 17°27,1′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.25	2.37	227.3	0.0	0.2	2.0
10	8.27	2.35	226.9	0.0	0.2	0.5
20	8.27	2.35	226.0	0.0	0.2	0.5
30	8.27	2.37	217.9	0.8	0.2	0.6
50	8.00	2.35	78.6	19.5	1.3	4.7
75	7.91	2.37	54.0	25.9	1.7	6.7
150	7.91	2.35	68.3	26.1	1.7	8.0
250	7.87	2.35	67.4	28.6	1.8	9.9
350	7.83	2.34	60.7	30.9	2.0	11.6
450	7.80	2.34	60.7	33.1	2.2	14.1
550	7.75	2.34	57.2	34.8	2.4	16.8
650	7.73	2.34	68.3	35.3	2.6	19.2
750	7.74	2.34	78.2	35.9	2.6	20.9
800	7.75	2.34	94.7	35.3	2.7	23.0
950	7.75	2.34	105.8	34.2	2.8	23.9
1050	7.76	2.34	125.5	32.0	2.6	25.9
1150	7.81	2.34	148.3	30.6	2.3	23.6

Station: 84
Date: 1/2/83
Time: 02.24 - 08.48
Latitude: 16°04,7′ N
Longitude: 17°36,2′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.31	2.38	232.2	0.0	0.3	0.8
10	8.30	2.37	233.1	0.0	0.2	1.8
20	8.30	2.35	232.7	0.0	0.2	1.1
30	8.31	2.35	230.4	0.0	0.2	1.2
50	8.04	2.35	102.3	17.1	1.3	4.5
75	7.91	2.32	59.0	25.9	1.9	7.3
150	7.88	2.34	70.6	27.0	2.0	9.5
250	7.87	2.34	73.2	27.5	1.9	10.1
350	7.82	2.32	54.5	31.4	2.2	12.3
450	7.76	2.32	54.9	31.4	2.2	12.6
550	7.75	2.32	59.8	34.9	2.6	17.3
650	7.73	2.32	71.0	34.9	2.9	18.4
750	7.74	2.34	82.2	35.2	2.7	22.2
850	7.74	2.34	93.3	35.5	2.8	23.7
950	7.75	2.34	114.3	33.6	2.6	24.0
1050	7.78	2.34	132.2	33.0	2.5	24.5
1150	7.80	2.38	150.1	30.8	2.4	24.1

Station: 85
Date: 1/2/83
Time: 11.00 - 13.42
Latitude: 16°02,1′ N
Longitude: 17°57,5′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.27	2.35	228.7	0.0	0.2	1.6
10	8.30	2.34	227.3	0.0	0.2	1.2
20	8.29	2.37	227.8	0.0	0.2	0.8
30	8.26	2.43	219.3	1.9	0.4	0.8
50	8.08	2.38	117.0	14.3	1.3	3.4
75	7.96	2.35	68.3	25.0	1.7	7.5
150	7.91	2.35	76.4	27.0	1.9	9.0
250	7.79	2.35	69.7	32.5	2.2	12.8
350	7.79	2.35	53.1	32.5	2.2	12.8
450	7.79	2.35	53.1	34.9	2.5	18.6
550	7.75	2.35	59.4	35.2	2.5	18.3

Station: 86
Date: 1/2/83
Time: 15.48 - 00.24
Latitude: $16^{o}00,0'$ N
Longitude: $18^{o}19,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.37	231.3	0.0	0.1	0.9
10	8.29	2.37	231.8	0.0	0.1	1.1
20	8.29	2.38	232.7	0.0	0.2	1.1
30	8.25	2.35	228.7	0.5	0.3	0.6
50	8.16	2.35	164.3	9.1	0.8	2.3
75	-	2.34	59.8	24.5	1.6	6.7
150	8.01	2.39	70.6	26.1	1.7	8.8
250	8.00	2.38	66.1	27.7	1.9	10.0
350	7.95	2.38	53.1	32.2	2.2	14.2
450	7.93	2.37	55.8	34.3	2.4	16.2
550	7.93	2.37	63.4	34.9	2.4	17.9
650	7.92	2.37	76.8	36.6	2.5	19.9
750	7.92	2.37	82.6	35.1	2.6	22.3
850	7.94	2.35	98.3	35.1	2.6	24.3
950	7.98	2.35	114.8	34.0	2.5	24.7
1050	7.98	2.35	129.5	32.0	2.4	24.7
1150	8.02	2.37	148.7	30.3	2.3	24.5

Station: 87
Date: 2/2/83
Time: 01.30 - 04.12
Latitude: $15^{o}58,0'$ N
Longitude: $18^{o}38,5'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.35	230.9	0.0	0.2	0.5
10	8.30	2.35	230.9	0.0	0.2	0.5
20	8.29	2.35	228.7	0.0	0.2	0.5
30	8.29	2.37	230.0	0.0	0.2	0.5
50	8.28	2.39	216.6	0.0	0.3	0.7
75	8.02	2.38	68.3	24.1	1.6	6.5
150	8.01	2.37	74.6	26.4	1.8	8.9
250	7.99	2.35	67.0	28.5	1.9	10.3
350	7.92	2.35	53.6	31.8	2.1	12.4
450	7.90	2.35	52.3	32.8	2.3	14.6
550	7.93	2.35	67.0	32.8	2.3	16.5

Station: 88
Date: 2/2/83
Time: 06.18 - 13.42
Latitude: $15^{\circ}55{,}8'$ N
Longitude: $19^{\circ}00{,}5'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.34	230.4	0.0	0.2	0.9
10	8.30	2.34	230.4	0.0	0.1	0.9
20	8.32	2.34	232.7	0.0	0.1	0.9
30	8.31	2.34	232.2	0.0	0.1	0.9
50	8.30	2.37	226.0	0.0	0.2	0.9
75	8.03	2.35	67.0	21.8	1.6	6.1
150	8.01	2.37	75.0	25.9	1.8	8.6
250	7.94	2.37	102.3	30.2	2.1	14.0
350	7.95	2.35	58.1	30.2	2.0	11.5
450	7.91	2.35	61.2	32.2	2.2	13.5
550	7.89	2.35	56.3	34.3	2.4	16.8
650	7.89	2.35	67.0	34.8	2.6	19.4
750	7.91	2.35	77.3	35.4	2.6	22.0
850	7.92	2.35	92.9	34.6	2.6	23.8
950	7.96	2.35	112.1	33.9	2.6	24.6
1050	7.97	2.35	125.0	32.2	2.6	25.0
1150	8.00	2.35	139.8	30.7	2.3	25.0

Station: 89
Date: 2/2/83
Time: 15.36 - 18.42
Latitude: $15^{o}54,0'$ N
Longitude: $19^{o}20,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.38	230.0	0.0	0.1	0.9
10	8.30	2.37	228.7	0.0	0.1	0.9
20	8.31	2.43	225.1	0.0	0.1	0.9
30	8.28	2.43	.201.9	2.2	0.3	0.9
50	8.10	2.40	63.4	23.4	1.7	6.5
75	8.03	2.40	62.1	26.1	1.7	7.8
150	8.00	2.39	83.5	26.1	1.7	9.3
250	7.96	2.40	68.3	27.7	1.8	10.4
350	7.94	2.38	55.8	28.5	2.0	12.9
450	7.97	2.38	52.7	34.8	2.3	16.4
550	7.92	2.37	61.6	34.8	2.4	18.6

Station: 90
Date: 2/2/83
Time: 20.30 - 00.54
Latitude: 15°52,0′ N
Longitude: 19°41,4′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.33	2.38	234.0	0.0	0.1	0.4
10	8.33	2.39	231.3	0.0	0.1	0.4
20	8.33	2.39	232.2	0.0	0.1	0.4
30	8.33	2.40	230.4	0.0	0.1	0.4
50	8.32	2.42	210.3	1.3	0.3	0.4
75	8.06	2.43	74.6	22.1	1.5	4.7
150	8.02	2.39	76.4	25.6	1.7	7.7
250	8.00	2.38	67.9	28.3	1.8	19.6
350	7.95	2.39	62.5	31.0	2.0	11.7
450	7.91	2.42	59.4	33.9	2.3	15.3
550	7.96	2.35	58.5	35.9	2.5	18.1

Station: 91
Date: 3/2/83
Time: 02.36 - 08.54
Latitude: $15^{\circ}49,7'$ N
Longitude: $20^{\circ}01,5'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.32	2.38	228.7	0.0	0.1	0.3
10	8.32	2.38	228.7	0.0	0.1	0.3
20	8.32	2.35	227.3	0.0	0.1	0.3
30	8.31	2.35	227.8	0.0	0.1	0.3
50	8.28	2.35	205.0	1.2	0.2	0.9
75	8.07	2.38	101.8	17.6	1.2	4.7
150	7.96	2.35	74.1	24.5	1.6	8.4
250	7.95	2.34	62.1	29.1	1.9	11.5
350	7.88	2.34	54.0	31.7	2.0	14.0
450	7.88	2.34	62.5	33.0	2.1	15.8
550	7.90	2.34	67.9	36.1	2.5	21.7
650	7.87	2.34	76.4	35.5	2.5	23.3
750	7.89	2.34	88.9	35.5	2.5	24.7
850	7.91	2.35	124.6	34.1	2.5	24.7
950	7.94	2.35	117.9	32.8	2.4	25.5
1050	7.95	2.35	135.3	30.3	2.3	25.4
1150	8.00	2.37	159.0	28.8	2.4	24.2

Station: 92
Date: 3/2/83
Time: 13.06 - 21.12
Latitude: $16^{o}34,0'$ N
Longitude: $20^{o}00,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.33	2.40	227.3	0.0	0.1	0.4
10	8.32	2.37	226.9	0.0	0.1	0.0
20	8.33	2.37	228.7	0.0	0.1	0.2
30	8.33	2.37	250.1	0.0	0.1	0.4
50	-	2.38	143.4	14.2	1.0	3.5
55	8.20	2.38	108.1	16.7	1.1	3.7
75	8.02	2.37	66.5	22.5	1.5	5.5
150	7.93	2.34	78.2	26.2	1.6	8.1
250	7.93	2.34	66.5	28.9	1.9	10.8
350	7.88	2.34	57.6	32.1	2.2	13.2
450	7.88	2.34	57.6	34.9	2.4	16.0
550	7.90	2.34	68.3	35.2	2.5	18.3
650	7.88	2.34	77.7	35.6	2.6	20.7
750	7.89	2.34	89.8	35.7	2.6	22.5
850	7.90	2.34	103.6	35.1	2.8	23.9
950	7.93	2.34	120.6	34.2	2.5	24.5
1050	7.94	2.34	135.3	32.3	2.4	25.4
1150	7.98	2.34	152.3	30.2	2.3	24.1

Station: 93
Date: 3/2/83
Time: 23.18 - 05.54
Latitude: $16^{\circ}36{,}7'$ N
Longitude: $19^{\circ}39{,}1'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.33	2.38	232.2	0.0	0.2	0.8
10	8.33	2.38	232.7	0.0	0.1	0.4
20	8.33	2.38	230.4	0.0	0.1	0.4
30	8.33	2.35	230.4	0.0	0.0	0.2
50	8.24	2.32	202.3	2.7	0.4	0.8
75	8.06	2.35	104.5	16.2	0.8	4.3
150	8.02	2.35	77.3	23.8	1.5	7.5
250	7.98	2.34	64.8	28.0	1.7	10.4
350	7.93	2.34	55.4	32.0	1.9	12.6
450	7.89	2.32	54.9	34.1	2.1	15.2
550	7.92	2.32	59.0	35.5	2.3	17.7
650	7.90	2.32	159.4	35.0	2.5	20.5
750	7.93	2.32	88.4	35.1	2.5	22.0
850	7.95	2.32	100.5	35.4	2.5	23.7
950	7.98	2.32	116.1	34.5	2.4	24.3
1050	7.98	2.32	133.5	32.9	2.3	24.2
1150	8.00	2.32	155.4	30.1	2.2	24.0

Station: 94
Date: 4/2/83
Time: 07.54 - 10.18
Latitude: $16^{o}38,2'$ N
Longitude: $19^{o}18,3'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.25	2.38	231.8	0.0	0.2	1.1
10	8.26	2.35	231.8	0.0	0.1	0.4
20	8.26	2.37	231.8	0.0	0.1	0.4
30	8.27	2.37	233.1	0.0	0.1	0.4
50	8.28	2.37	226.9	0.0	0.1	0.6
75	8.01	2.37	82.6	20.9	1.4	5.0
150	7.98	2.34	75.0	27.0	1.7	8.5
250	7.95	2.34	66.5	31.4	1.9	11.2
350	7.92	2.34	61.6	32.5	1.9	12.6
450	7.89	2.27	57.2	36.5	2.2	15.2
550	7.88	2.31	60.3	38.0	2.4	18.2

Station: 95
Date: 4/2/83
Time: 12.06 - 18.00
Latitude: $16^{\circ}40,2'$ N
Longitude: $18^{\circ}57,7'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.37	234.0	0.0	0.3	1.1
10	8.30	2.37	232.7	0.0	0.2	0.7
20	8.31	2.37	233.1	0.0	0.2	0.4
30	8.29	2.37	223.3	0.0	0.2	0.7
50	8.04	2.35	88.4	19.4	1.2	4.4
75	8.01	2.35	74.1	24.5	1.4	6.2
150	8.00	2.34	75.9	27.3	1.7	8.4
250	7.96	2.34	70.6	30.1	1.8	10.6
350	7.93	2.34	58.1	32.3	2.0	11.9
450	7.91	2.34	60.7	34.7	2.1	14.4
550	7.89	2.32	56.7	37.5	2.4	17.2

Station: 96
Date: 4/2/83
Time: 19.48 - 01.24
Latitude: $16^{\circ}41{,}4'$ N
Longitude: $18^{\circ}35{,}9'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.39	238.5	-	0.1	-
20	8.31	2.38	239.4	-	0.4	-
40	8.30	2.38	236.3	1.1	0.6	0.2
50	8.28	2.38	224.6	2.7	0.7	0.4
75	8.07	2.35	68.3	23.9	1.5	5.3
150	8.03	2.34	73.2	27.0	1.6	8.2
250	8.01	2.34	68.8	29.9	1.8	9.8
350	7.95	2.34	58.1	33.3	2.1	12.3
450	7.93	2.32	61.6	34.4	2.2	14.1
550	7.93	2.31	67.0	36.6	2.3	16.8

Station: 98
Date: 5/2/83
Time: 11.12 - 14.18
Latitude: 16°45,7′ N
Longitude: 17°55,7′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.33	2.39	232.7	0.0	0.2	0.4
20	8.32	2.39	234.5	0.0	0.1	0.4
50	8.21	2.40	178.6	10.9	0.8	1.6
75	8.07	2.39	77.3	23.0	1.4	5.4
150	8.00	2.37	67.9	28.0	1.7	8.1
250	7.99	2.35	63.4	31.6	1.8	9.8
350	7.95	2.35	60.3	34.0	2.0	11.8
450	7.92	2.35	62.5	36.0	2.2	14.1
550	7.95	2.35	70.6	36.7	2.3	16.5

Station: 99
Date: 5/2/83
Time: 16.12 - 19.54
Latitude: $16^{\circ}48,3'$ N
Longitude: $17^{\circ}35,1'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.33	2.35	234.9	0.0	0.2	0.8
20	8.30	2.37	230.9	0.0	0.1	0.4
50	8.10	2.38	132.2	15.2	1.0	2.7
75	8.04	2.38	87.5	20.9	1.2	4.6
150	7.99	2.37	74.1	27.5	1.6	7.6
250	7.94	2.37	66.5	31.3	1.8	10.0
350	7.89	2.35	59.4	34.3	2.0	12.5
450	7.86	2.34	58.1	36.5	2.2	14.4
550	7.86	2.34	63.4	38.3	2.4	17.0

Station: 100
Date: 5/2/83
Time: 22.12 - 05.36
Latitude: 16°50,2' N
Longitude: 17°14,6' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.31	2.37	232.7	0.0	0.3	0.0
20	8.31	2.37	235.4	0.0	0.3	0.0
30	8.30	2.38	239.8	0.2	0.2	0.0
40	8.30	2.39	232.7	-	0.2	0.0
50	8.25	2.39	206.3	5.4	0.5	0.7
75	8.03	2.39	67.4	24.5	1.5	5.9
150	7.94	2.37	74.6	26.8	1.6	7.4
250	7.94	2.37	72.3	29.1	1.7	9.4
350	7.90	2.35	56.7	33.3	2.0	12.1
450	7.88	2.35	51.8	35.8	2.2	14.7
550	7.88	2.35	55.4	38.1	2.3	17.5
650	7.88	2.35	67.9	38.9	2.4	19.7
750	7.89	2.35	89.8	38.1	2.5	22.0
850	7.92	2.35	98.3	38.3	2.5	24.0
950	7.95	2.35	114.8	36.7	2.4	24.2
1050	7.96	2.35	128.2	34.7	2.3	25.3
1150	7.99	2.35	150.5	32.7	2.2	25.3

Station: 101
Date: 6/2/83
Time: 06.36 - 13.00
Latitude: $16^{\circ}51{,}3'$ N
Longitude: $17^{\circ}03{,}6'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.23	2.37	241.2	0.0	0.2	0.8
20	8.25	2.37	240.7	-	-	-
30	8.25	2.38	239.4	0.0	0.3	1.1
40	8.26	2.38	222.9	0.0	0.2	1.1
50	8.21	2.38	186.7	4.6	0.5	1.6
75	7.98	2.37	67.0	25.2	1.6	7.0
150	7.93	2.37	74.6	27.0	1.6	7.8
250	7.92	2.37	71.0	28.7	1.7	9.3
350	7.87	2.35	49.1	32.9	2.0	12.1
450	7.87	2.35	51.4	36.2	2.2	14.2
550	7.87	2.35	59.0	38.1	2.4	17.7
650	7.86	2.35	72.8	37.9	2.4	20.3
750	7.89	2.35	87.1	37.2	2.5	22.3
850	7.91	2.35	101.4	37.0	2.5	25.2
950	7.94	2.35	118.3	36.0	2.4	24.8
1050	7.98	2.35	131.7	34.3	2.3	24.8
1150	7.98	2.37	148.3	32.7	2.2	24.8

Station: 102
Date: 6/2/83
Time: 13.48 - 22.00
Latitude: 16°52,5′ N
Longitude: 16°53,0′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	-	-	-	-	-	-
10	-	-	-	-	-	-
20	8.24	2.37	227.3	1.5	0.4	2.0
30	8.11	2.37	124.2	11.8	0.8	2.2
40	8.07	2.37	101.8	17.0	1.2	4.2
50	8.06	2.37	89.3	19.7	1.2	5.2
75	8.02	2.37	63.0	26.1	1.7	7.4
350	7.98	2.35	60.3	27.1	1.5	8.2
450	7.99	2.35	78.6	28.4	1.5	9.4
550	7.95	2.35	58.1	33.0	2.0	13.9
650	7.92	2.35	55.8	36.5	2.2	16.7
750	7.89	2.34	65.2	37.7	2.3	19.4
850	7.89	2.34	94.7	37.2	2.4	23.9
950	7.92	2.34	112.5	36.3	2.4	24.7
1050	7.95	2.34	128.2	33.8	2.2	24.7

Station: 103
Date: 6/2/83
Time: 22.30 - 03.30
Latitude: 16°52,6′ N
Longitude: 16°47,9′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.22	2.39	211.2	5.7	0.6	1.1
10	8.22	2.39	192.0	6.0	0.7	1.1
20	8.20	2.39	194.3	7.6	0.7	1.3
30	8.09	2.39	96.5	16.5	1.1	4.3
40	8.04	2.38	72.3	22.4	1.5	5.8
50	8.03	2.37	71.0	23.6	1.6	6.8
75	8.02	2.37	76.4	24.5	1.6	7.7
150	8.00	2.37	67.0	28.4	1.8	8.8
250	8.00	2.37	75.0	28.2	1.7	9.0
350	8.00	2.37	78.2	28.8	1.8	9.2
450	7.94	2.38	61.2	34.0	2.1	14.1

Station: 104
Date: 7/2/83
Time: 03.42 - 04.36
Latitude: $16^{o}53,5'$ N
Longitude: $16^{o}42,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.17	2.39	191.1	9.4	0.8	3.8
10	8.17	2.38	194.3	9.4	0.8	3.8
20	8.18	2.38	195.6	9.4	0.8	3.8
30	8.15	2.38	132.6	16.5	1.1	5.2
40	8.03	2.38	90.7	21.2	1.4	8.0
50	8.03	2.38	77.7	22.4	1.5	8.0
75	8.05	2.38	97.4	20.8	1.4	7.5

Station: 105
Date: 7/2/83
Time: 05.24 - 06.30
Latitude: $16^{o}54,1'$ N
Longitude: $16^{o}37,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.14	2.39	206.8	8.7	0.7	3.2
10	8.15	2.38	204.5	8.7	0.7	3.2
20	8.16	2.38	203.6	8.5	0.7	3.4
30	8.16	2.39	207.7	8.7	0.8	4.1
40	8.14	2.39	184.0	10.4	1.0	4.8
50	8.15	2.39	167.0	9.7	0.9	5.1
75	8.13	2.39	-	13.0	1.0	5.6

Station: 107
Date: 7/2/83
Time: 08.48 - 10.18
Latitude: 16°55,1′ N
Longitude: 16°26,7′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.22	2.40	231.8	4.5	0.7	2.7
10	8.23	2.40	236.3	4.7	0.6	2.7
15	8.22	2.40	235.4	4.7	0.6	2.7

Station: 108
Date: 7/2/83
Time: 08.48 - 10.18
Latitude: 16°55,1′ N
Longitude: 16°23,2′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.20	2.40	219.7	7.8	0.7	3.9
10	8.20	2.40	225.5	7.8	0.7	3.9
15	8.20	2.40	226.0	7.8	0.7	3.9

Station: 109
Date: 7/2/83
Time: 21.42 - 22.42
Latitude: 18°20,4' N
Longitude: 16°08,7' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.39	171.5	0.0	0.2	0.7
10	8.30	2.39	222.9	0.0	0.1	0.7

Station: 110
Date: 7/2/83
Time: 22.54 - 24.00
Latitude: 18°20,0′ N
Longitude: 16°11,6′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.38	304.6	0.0	0.2	0.7
10	8.30	2.38	321.2	0.0	0.2	0.7
20	8.27	2.39	293.4	0.0	0.2	0.7

Station: 111
Date: 8/2/83
Time: 00.30 - 01.30
Latitude: 18°18,4' N
Longitude: 16°17,4' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.13	2.38	324.2	12.7	1.0	7.0
10	8.13	2.37	191.6	13.5	1.0	7.0
20	8.13	2.37	190.7	13.3	1.0	7.0
30	8.21	2.38	234.9	8.1	0.7	4.8

Station: 112
Date: 8/2/83
Time: 02.06 - 03.06
Latitude: $18^{o}18,8'$ N
Longitude: $16^{o}23,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.14	2.38	209.9	8.9	0.7	3.4
10	8.15	2.38	212.1	8.7	0.7	3.4
20	8.14	2.38	207.2	10.0	0.8	4.4
30	8.13	2.38	196.5	12.0	1.0	5.4
50	8.13	2.42	231.3	10.0	0.8	5.8

Station: 113
Date: 8/2/83
Time: 03.42 - 06.06
Latitude: $18^{o}18,0'$ N
Longitude: $16^{o}27,4'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.15	2.35	204.5	8.7	0.8	2.5
10	8.15	2.35	204.1	8.7	0.8	2.5
20	8.15	2.38	201.9	8.9	0.8	3.0
30	8.16	2.37	197.4	9.4	0.8	3.0
50	8.15	2.37	185.3	10.9	0.9	3.9
75	8.06	2.37	135.3	16.7	1.3	6.5

Station: 114
Date: 8/2/83
Time: 06.12 - 07.18
Latitude: 18°17,6′ N
Longitude: 16°34,1′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.17	2.35	230.9	4.2	0.6	2.0
10	8.17	2.34	230.4	4.5	0.6	1.5
20	8.18	2.32	231.3	4.7	0.6	1.8
30	8.20	2.32	224.2	4.5	0.6	2.2
50	8.12	2.32	176.4	10.0	0.9	3.7
75	8.06	2.32	114.3	17.8	1.3	5.4
150	7.97	2.29	66.5	25.4	1.8	8.7
250	7.98	2.37	63.4	27.4	1.9	10.2

Station: 115
Date: 8/2/83
Time: 07.54 - 11.18
Latitude: $18^{o}17,0'$ N
Longitude: $16^{o}40,0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.09	2.39	228.2	4.7	0.6	2.6
10	8.09	2.37	222.9	4.7	0.6	2.0
20	8.11	2.35	215.7	4.7	0.6	2.0
30	8.12	2.35	219.3	7.8	0.6	2.0
50	8.10	2.35	196.5	15.4	0.8	2.6
75	8.03	2.34	148.7	25.2	1.2	6.0
150	7.96	2.34	63.4	27.4	1.8	8.0
250	7.93	2.34	66.1	29.6	1.9	9.5
350	7.93	2.35	61.6	31.9	2.0	11.0
450	7.91	2.31	61.6	34.3	2.3	15.6
550	7.87	2.31	67.4	36.8	2.4	17.9

Station: 116
Date: 8/2/83
Time: 12.00 - 16.24
Latitude: $18^{o}17,6'$ N
Longitude: $16^{o}45,4'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.18	2.26	228.2	5.1	0.7	2.0
10	8.17	2.26	225.1	5.9	0.6	2.0
20	8.17	2.26	219.3	9.3	0.7	2.0
30	8.13	2.25	195.2	10.3	0.8	3.3
40	8.11	2.25	189.8	10.3	0.9	3.3
50	8.10	2.26	190.3	15.2	0.9	3.8
75	7.97	2.26	92.9	21.3	1.6	6.8
150	7.94	2.25	68.3	22.5	1.7	8.5
250	7.90	2.21	68.8	27.4	1.9	10.2
350	7.87	2.21	57.2	31.6	2.0	12.2
450	7.83	2.21	54.5	34.1	2.3	15.0
550	7.83	2.21	57.2	35.5	2.4	18.6
650	7.82	2.25	72.8	35.0	2.5	20.8
750	7.81	2.25	84.0	36.3	2.6	22.9
850	7.80	2.25	94.7	35.8	2.6	23.7
950	7.80	2.25	111.2	33.8	2.5	23.8

Station: 117
Date: 8/2/83
Time: 17.18 - 01.18
Latitude: $18^{o}15,6'$ N
Longitude: $16^{o}55,6'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.18	2.26	217.9	8.6	0.8	3.2
10	8.18	2.26	210.8	9.1	0.8	3.2
20	8.17	2.26	212.6	9.6	0.8	3.2
30	8.16	2.25	204.5	9.8	0.8	3.2
40	8.12	2.25	160.8	12.7	1.0	4.7
50	7.95	2.23	80.4	21.3	1.5	5.9
75	7.89	2.21	73.7	25.0	1.7	7.5
150	7.86	2.26	61.6	27.0	2.0	8.2
250	7.87	2.25	65.7	29.3	2.0	9.5
350	7.84	2.25	54.9	31.6	2.2	11.0
450	7.83	2.23	52.3	35.0	2.4	13.6
550	7.85	2.23	67.9	35.7	2.4	15.6
650	7.85	2.23	80.4	36.6	2.6	18.2
750	7.86	2.23	92.9	36.8	2.6	20.8
850	7.88	2.23	98.3	36.6	2.6	22.4
950	7.90	2.23	116.1	34.5	2.5	23.4
1050	7.92	2.23	130.4	34.1	2.5	23.4
1150	7.93	2.23	149.6	31.6	2.4	24.0

Station: 118
Date: 9/2/83
Time: 02.54 - 09.12
Latitude: 18°14,5' N
Longitude: 17°05,5' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.20	2.26	217.0	5.5	0.7	2.2
10	8.20	2.26	208.1	6.2	0.7	2.2
20	8.20	2.26	212.1	6.2	0.7	2.2
30	8.13	2.26	154.1	11.8	1.0	3.2
40	8.10	2.26	104.1	16.2	1.2	3.4
50	8.04	2.26	88.0	19.4	1.3	4.2
75	8.01	2.26	70.6	23.6	1.6	6.4
150	7.95	2.21	71.9	28.2	1.9	8.9
250	7.95	2.23	63.0	30.2	2.0	9.9
350	7.90	2.23	48.7	33.4	2.2	11.9
450	7.90	2.23	51.8	35.2	2.4	13.7
550	7.90	2.23	65.2	35.9	2.4	16.2
650	7.90	2.23	71.0	36.4	2.6	18.3
750	7.90	2.23	79.5	37.6	2.7	21.2
850	7.92	2.23	169.7	36.7	2.7	23.4
950	7.95	2.23	110.3	35.4	2.6	23.8
1050	7.95	2.23	128.2	34.4	2.5	24.6
1150	7.96	2.23	139.3	32.4	2.5	25.1

Station: 119
Date: 9/2/83
Time: 11.00 - 16.54
Latitude: 18°11,5′ N
Longitude: 17°26,6′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.25	2.28	235.8	0.0	0.3	1.3
10	8.26	2.28	232.2	0.0	0.3	1.7
20	8.26	2.28	239.4	0.5	0.3	1.7
30	8.26	2.28	234.0	0.5	0.4	1.7
40	8.26	2.28	224.2	0.7	0.4	1.7
50	8.21	2.28	187.1	6.2	0.6	2.2
75	8.07	2.28	92.9	18.9	1.3	5.7
250	7.87	2.28	54.9	30.8	2.1	14.5
350	7.86	2.28	46.4	32.3	2.2	17.1
450	7.88	2.26	55.4	35.0	2.4	20.6
550	7.87	2.25	59.8	35.2	2.5	22.5
650	7.87	2.23	72.3	36.7	2.6	25.0
750	7.87	2.23	83.5	37.0	2.6	26.5
850	7.87	2.23	98.3	35.3	2.6	26.5
950	7.91	2.25	116.6	34.6	2.6	28.0
1050	7.93	2.25	130.9	33.2	2.4	27.3
1150	7.95	2.25	138.4	31.2	2.4	27.3

Station: 120
Date: 9/2/83
Time: 18.36 - 00.06
Latitude: $18^{o}10,0'$ N
Longitude: $17^{o}47,5'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.28	2.39	239.4	0.0	0.2	0.0
20	8.28	2.39	235.8	0.0	0.2	0.0
30	8.29	2.39	233.1	0.0	0.2	0.0
40	8.25	2.40	195.6	3.5	0.5	1.1
50	8.01	2.38	71.0	22.1	1.6	6.5
75	7.97	2.38	55.8	26.5	1.9	8.3
150	7.97	2.38	67.0	28.5	1.9	11.0
250	7.94	2.38	55.8	31.4	2.1	13.1
350	7.90	2.38	54.0	33.4	2.3	14.9
450	7.89	2.38	51.8	35.0	2.4	18.3
550	7.89	2.38	56.7	36.0	2.5	19.6

Station: 121
Date: 10/2/83
Time: 00.30 - 07.24
Latitude: 18°08,0′ N
Longitude: 18°08,3′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.42	238.5	0.0	0.2	0.0
10	8.30	2.42	238.0	0.0	0.2	0.0
20	8.30	2.42	239.8	0.0	0.2	0.0
30	8.30	2.42	230.9	0.8	0.3	0.8
40	8.23	2.42	197.4	6.8	0.6	3.4
50	8.13	2.42	124.2	14.8	1.1	6.6
75	7.98	2.42	65.2	24.0	1.7	8.2
150	7.95	2.38	72.8	25.5	1.7	8.9
250	7.94	2.38	58.1	30.8	2.0	11.6
350	7.92	2.38	60.7	32.0	2.1	13.4
450	7.94	2.38	72.3	32.6	2.2	13.7
550	7.95	2.38	70.1	34.0	2.4	17.9
650	7.94	2.37	86.6	34.9	2.5	21.8
750	7.94	2.35	96.5	36.1	2.6	23.7
850	7.94	2.37	105.0	35.0	2.6	25.8
950	7.97	2.37	123.7	33.9	2.5	26.8
1050	7.96	2.38	133.5	32.8	2.4	26.8
1150	7.99	2.38	145.6	30.8	2.3	26.8

Station: 122
Date: 10/2/83
Time: 08.54 - 12.36
Latitude: 18°05,2′ N
Longitude: 18°28,4′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.23	2.40	240.7	0.4	0.2	1.0
20	8.23	2.40	254.6	0.6	0.2	0.3
30	8.23	2.40	238.0	0.4	0.2	0.3
40	8.23	2.40	235.4	0.4	0.2	0.9
50	8.22	2.40	222.9	2.3	0.3	1.6
75	8.06	2.40	111.7	14.7	1.0	5.1
150	8.02	2.39	94.2	20.4	1.2	7.9
250	8.00	2.38	93.3	23.3	1.4	10.3
350	7.94	2.37	76.4	27.7	1.4	13.4
450	7.91	2.37	67.0	31.9	2.0	17.1
550	7.89	2.37	70.6	33.8	2.2	20.5

Station: 123
Date: 10/2/83
Time: 14.42 - 19.12
Latitude: 18°04,0′ N
Longitude: 18°50,0′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.26	2.40	240.3	0.0	0.3	2.2
10	8.26	2.40	242.1	0.0	0.2	2.2
20	8.26	2.40	246.1	0.0	0.1	2.2
30	8.25	2.40	240.3	0.0	0.2	2.2
40	8.25	2.40	233.6	0.4	0.3	2.2
50	8.26	2.40	227.3	1.1	0.3	3.6
75	8.10	2.40	132.2	14.5	1.1	6.2
150	7.97	2.37	78.6	24.8	1.5	10.2
250	7.94	2.37	68.3	28.4	1.8	13.1
350	7.90	2.37	59.8	31.7	2.0	15.6
450	7.88	2.37	51.8	34.0	2.2	18.9
550	7.88	2.37	62.1	34.9	2.3	21.0
650	7.88	2.37	78.2	35.5	2.4	23.7
750	7.90	2.37	94.7	35.5	2.4	26.8
850	7.91	2.37	102.7	35.3	2.4	27.2
950	7.94	2.37	120.1	33.6	2.4	28.4
1050	7.96	2.37	134.4	31.5	2.3	28.4
1150	7.98	2.37	154.5	29.4	2.1	27.8

Station: 124
Date: 10/2/83
Time: 20.54 - 01.18
Latitude: $18^{\circ}01{,}1'$ N
Longitude: $19^{\circ}11{,}0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.27	2.40	241.6	0.0	0.0	0.0
20	8.26	2.40	238.5	0.0	0.0	0.0
40	8.25	2.40	234.5	0.7	0.1	0.7
50	8.22	2.38	210.8	3.3	0.2	0.9
75	8.02	2.37	82.6	19.3	1.1	5.2
150	7.96	2.37	74.1	26.0	1.2	8.4
250	7.97	2.37	67.9	28.6	1.7	10.7
350	7.90	2.37	59.0	30.3	1.7	13.0
450	7.86	2.37	50.0	34.1	2.1	15.3
550	7.87	2.37	57.6	35.6	2.2	18.7

Station: 125
Date: 11/2/83
Time: 03.00 - 07.12
Latitude: 17°59.8′ N
Longitude: 19°32.0′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.26	2.42	233.6	0.0	0.1	0.3
20	8.26	2.40	238.0	0.0	0.0	0.8
30	8.27	2.40	232.2	0.0	0.0	0.8
40	8.21	2.40	187.6	5.4	0.4	1.3
50	8.06	2.39	103.6	17.1	1.1	3.8
75	8.01	2.39	78.2	22.4	1.3	6.4
150	7.99	2.39	73.2	25.0	1.5	8.8
250	7.95	2.38	61.6	28.4	1.7	11.2
350	7.89	2.37	51.4	32.3	1.9	13.5
450	7.86	2.37	52.7	34.3	2.1	16.4
550	7.84	2.37	60.3	35.4	2.3	19.6

Station: 126
Date: 11/2/83
Time: 09.42 - 16.42
Latitude: 17°56,0′ N
Longitude: 20°00,8′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.30	2.40	233.6	0.0	0.2	3.4
20	8.30	2.40	233.6	0.0	0.1	3.4
30	8.30	2.40	234.9	0.0	0.1	4.0
40	8.23	2.40	231.8	0.0	0.1	4.8
50	8.01	2.40	247.0	3.9	0.6	8.8
75	7.97	2.38	77.3	19.3	1.4	12.1
150	7.96	2.37	72.8	26.0	1.7	13.4
250	7.90	2.37	70.6	28.4	2.0	16.1
350	7.88	2.37	50.9	32.3	2.2	18.5
450	7.87	2.37	54.9	34.3	2.4	20.9
550	7.89	2.37	58.5	35.4	2.6	23.5
650	7.91	2.35	90.2	36.0	2.6	25.2
750	7.92	2.37	93.8	35.2	2.7	25.6
850	7.93	2.37	108.1	34.1	2.6	26.4
950	7.95	2.37	122.8	34.1	2.6	26.2
1050	7.98	2.37	135.3	31.7	2.4	26.0
1150	7.99	2.37	152.3	29.3	2.3	26.0

Station: 127
Date: 12/2/83
Time: 01.48 - 04.12
Latitude: 19°20,0′ N
Longitude: 20°21,0′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.29	2.44	239.8	0.0	0.2	1.0
20	8.29	2.44	248.8	0.0	0.2	1.0
30	8.28	2.44	236.7	0.6	0.2	1.0
40	8.28	2.44	231.8	1.2	0.2	1.7
50	8.27	2.44	229.1	1.7	0.5	2.2
75	8.25	2.43	215.3	4.0	0.5	2.4
150	8.09	2.42	107.6	18.1	1.2	7.0
250	8.03	2.40	86.2	23.5	1.6	9.7
350	8.01	2.39	86.2	26.2	1.9	11.4
450	7.98	2.38	84.0	28.7	2.0	13.6
550	7.94	2.38	43.3	32.9	3.8	18.3

Station: 128
Date: 12/2/83
Time: 07.42 - 14.06
Latitude: $19^{o}22,5'$ N
Longitude: $19^{o}49,4'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.27	2.43	244.7	0.0	0.2	1.0
10	8.27	2.43	245.6	0.0	0.2	1.0
20	8.28	2.43	245.6	0.0	0.2	1.0
30	8.27	2.43	242.5	0.0	0.2	1.0
40	8.24	2.43	226.9	1.7	0.4	1.0
50	8.21	2.42	222.9	3.7	0.5	1.6
75	8.14	2.42	160.3	10.8	0.9	4.2
150	8.02	2.40	76.4	21.2	1.5	9.2
250	8.00	2.39	69.2	24.3	1.7	10.0
350	8.04	2.38	109.4	22.3	1.5	10.0
450	8.08	2.38	142.9	20.0	1.3	10.0
550	8.02	2.38	116.1	25.4	1.8	14.7
650	7.96	2.38	99.1	29.3	2.2	19.5
750	7.97	2.38	104.1	30.8	2.4	21.8
850	7.97	2.38	115.7	30.6	2.3	23.4
950	7.98	2.38	125.0	30.0	2.4	24.7
1050	8.03	2.38	144.3	27.5	2.2	24.2
1150	8.03	2.38	151.8	26.6	2.1	24.5

Station: 129
Date: 12/2/83
Time: 17.06 - 23.54
Latitude: 19°24,8′ N
Longitude: 19°19,6′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.26	2.42	243.8	3.2	0.4	0.3
10	8.26	2.42	241.6	3.2	0.4	0.0
20	8.25	2.42	245.6	3.2	0.4	0.0
30	8.26	2.42	243.4	3.2	0.4	0.0
40	8.26	2.42	238.9	3.6	0.5	0.0
50	8.20	2.43	197.0	8.4	0.7	1.5
75	8.16	2.39	168.8	11.0	0.8	2.5
150	7.99	2.38	68.3	26.4	1.8	10.5
250	7.95	2.38	56.3	29.8	2.0	13.0
350	7.92	2.38	54.9	32.2	2.2	15.5
450	7.92	2.37	61.2	33.0	2.3	18.2
550	7.92	2.37	71.0	34.0	2.4	20.7
650	7.91	2.37	72.3	35.0	2.6	24.3
750	7.91	2.37	83.1	35.8	2.7	26.8
850	7.92	2.37	100.0	33.6	2.7	28.3
950	7.96	2.37	113.9	32.6	2.6	29.0
1050	7.98	2.37	122.8	31.2	2.6	29.3
1150	7.99	2.38	88.4	29.2	2.4	29.3

Station: 130
Date: 13/2/83
Time: 02.00 - 06.12
Latitude: 19°28,1' N
Longitude: 18°57,8' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.25	2.42	240.7	4.4	0.6	0.4
20	8.25	2.42	242.1	4.4	0.5	0.4
30	8.25	2.42	240.7	4.4	0.5	0.4
40	8.24	2.42	231.3	5.2	0.6	0.8
50	8.20	2.42	203.6	9.0	0.8	2.2
75	8.03	2.39	76.4	22.0	1.6	6.1
150	7.95	2.38	52.7	27.2	2.0	10.3
250	7.94	2.37	49.6	30.2	2.4	13.6
350	7.90	2.37	50.5	32.0	2.3	16.0
450	7.90	2.37	59.8	33.0	2.3	17.6
550	7.90	2.37	67.9	34.0	2.6	21.6

Station: 131
Date: 13/2/83
Time: 07.54 - 13.36
Latitude: 19°30,5′ N
Longitude: 18°35,9′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.29	2.42	241.6	0.4	0.4	1.5
10	8.29	2.42	242.1	0.2	0.3	1.5
20	8.29	2.42	241.2	0.2	0.3	1.5
30	8.29	2.42	242.1	0.2	0.2	1.5
40	8.29	2.42	239.4	1.0	0.3	2.1
50	8.23	2.42	221.5	5.6	0.6	4.0
75	8.08	2.39	114.3	18.6	1.5	8.3
250	7.93	2.39	54.9	29.1	2.1	10.9
350	7.85	2.39	48.7	31.8	2.3	14.0
450	7.85	2.39	58.5	32.7	2.3	15.7
550	7.86	2.39	61.6	33.9	2.5	18.1
650	7.85	2.39	74.1	34.9	2.6	21.0
750	7.87	2.39	86.2	35.0	2.7	23.1
850	7.88	2.39	99.1	34.4	2.7	24.2
950	7.90	2.39	120.6	32.8	2.6	25.5
1050	7.95	2.39	141.6	30.2	2.5	25.2
1150	7.98	2.39	162.1	28.6	2.3	24.5

Station: 132
Date: 13/2/83
Time: 16.54 - 19.18
Latitude: 19°32,0′ N
Longitude: 18°16,0′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.24	2.40	240.3	2.1	0.3	2.0
20	8.24	2.40	238.5	1.7	0.3	2.0
30	8.26	2.40	241.2	1.3	0.3	2.0
40	8.26	2.40	236.3	1.5	0.3	2.0
50	8.24	2.40	221.5	3.4	0.3	2.0
75	8.00	2.40	71.5	21.6	1.3	6.6
150	8.01	2.39	68.8	24.0	1.4	8.7
250	8.01	2.38	74.1	25.7	1.5	10.6
350	7.96	2.37	74.6	28.9	1.7	12.8
450	7.91	2.37	60.7	32.7	2.1	16.1
550	7.92	2.37	78.6	33.6	2.1	18.5

Station: 133
Date: 14/2/83
Time: 21.18 - 05.24
Latitude: 19°34,0′ N
Longitude: 17°54,5′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.25	2.40	233.1	2.0	0.3	2.4
10	8.25	2.40	231.3	2.0	0.3	2.4
20	8.26	2.40	231.8	2.0	0.3	2.4
30	8.25	2.40	231.8	2.0	0.3	2.4
40	8.25	2.40	228.2	2.0	0.3	2.4
50	8.21	2.40	196.5	6.3	0.5	3.3
75	7.98	2.38	70.1	24.7	1.5	8.4
250	7.97	2.37	65.7	27.8	1.7	11.0
350	7.90	2.38	50.0	32.5	2.0	14.8
450	7.94	2.39	63.9	33.0	2.0	16.1
550	7.90	2.39	67.9	33.4	2.3	20.1
650	7.90	2.39	75.5	36.0	2.4	22.1
750	7.92	2.37	86.2	36.0	2.5	23.7
850	7.92	2.37	100.9	35.3	2.4	25.3
950	7.93	2.37	116.6	34.0	2.3	26.2
1050	7.96	2.37	130.9	32.6	2.2	26.2
1150	7.98	2.37	150.5	30.5	2.1	25.6

Station: 134
Date: 14/2/83
Time: 07.00 - 13.42
Latitude: $19^{o}36{,}4'$ N
Longitude: $17^{o}33.5'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(μmol dm^{-3})			
5	8.21	2.39	226.0	7.3	0.6	2.6
10	8.21	2.40	225.5	7.5	0.6	2.6
20	8.21	2.40	223.3	7.7	0.6	2.6
30	8.21	2.40	221.5	7.7	0.6	2.6
40	8.18	2.40	205.4	9.4	0.7	3.6
50	8.13	2.40	71.5	14.3	1.0	4.8
75	8.00	2.38	70.6	25.5	1.6	8.1
150	7.92	2.38	67.4	27.6	1.7	9.8
250	7.93	2.39	63.4	28.9	1.8	11.5
350	7.88	2.38	54.5	31.0	1.9	13.0
450	7.88	2.38	53.6	34.9	2.1	16.1
550	7.89	2.37	59.8	35.5	2.2	19.0
650	7.87	2.37	73.2	36.2	2.4	22.8
750	7.8[illegible]	2.37	86.2	36.8	2.5	25.6
[illegible]	7.9[illegible]	2.37	105.4	35.5	2.5	25.7
[illegible]	7.93	2.37	113.9	34.2	2.3	26.0
1[illegible]	7.95	2.37	137.1	32.7	2.2	27.3
11[illegible]	[illegible]	2.37	146.9	31.2	2.1	26.5

Station: 135
Date: 14/2/83
Time: 14.42 - 21.00
Latitude: 19°37,5' N
Longitude: 17°23,5' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.21	2.40	210.8	7.0	0.7	2.0
10	8.21	2.40	205.0	7.7	0.8	2.2
20	8.19	2.40	201.4	8.9	0.8	3.0
30	8.19	2.40	266.2	10.1	0.9	3.7
40	8.16	2.40	223.3	11.8	1.0	4.0
50	8.12	2.40	134.4	15.9	1.2	4.7
75	7.98	2.38	79.5	23.0	1.8	9.9
150	7.99	2.40	68.3	26.7	2.1	10.4
250	7.93	2.39	61.6	27.3	1.9	10.2
350	7.92	2.39	50.5	31.9	2.1	12.9
450	7.93	2.39	57.6	32.9	2.3	15.1
[illegible]	7.91	2.39	64.3	34.4	2.6	18.4
650	7.92	2.39	77.3	34.6	2.5	21.1
[illegible]	7.[illegible]	2.39	84.4	34.8	2.5	22.6
[illegible]	7.97	2.39	100.9	34.6	2.5	24.1
[illegible]	7.[illegible]	2.38	135.3	32.9	2.4	24.6
[illegible]	[illegible]	2.39	130.9	32.1	2.5	25.3
[illegible]	[illegible]	2.39	153.6	30.0	2.3	25.5

Station: 136
Date: 15/2/83
Time: 22.00 - 02.42
Latitude: 19°38,7′ N
Longitude: 17°13,5′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.20	2.37	226.9	8.7	0.8	2.4
20	8.20	2.37	220.6	8.7	0.7	2.4
30	8.20	2.35	220.6	9.1	0.7	2.8
50	8.05	2.35	100.9	20.1	1.3	6.7
75	8.01	2.32	73.7	24.0	1.5	8.4
150	7.98	2.32	59.0	27.1	1.7	10.8
250	7.95	2.31	56.3	27.9	1.7	11.7
350	7.98	2.31	79.0	29.0	1.8	12.5
450	7.96	2.31	117.9	31.7	1.9	16.6
540	7.93	2.31	75.9	33.9	2.1	19.7
650	7.93	2.31	86.6	33.9	2.2	22.9

Station: 137
Date: 15/2/83
Time: 02.42 - 04.24
Latitude: 19°39,0′ N
Longitude: 17°07,0′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.22	2.37	259.0	5.2	0.8	1.6
10	8.22	2.37	258.1	5.2	0.7	1.6
20	8.21	2.37	237.1	6.4	0.6	2.4
30	8.09	2.35	159.0	17.0	1.1	7.1
40	8.02	2.32	111.7	21.7	1.4	9.2
50	8.00	2.32	92.0	24.0	-	10.2
75	8.00	2.34	75.0	25.0	1.4	10.8
100	7.99	2.32	73.7	25.5	1.6	10.0
250	7.96	2.32	68.8	28.2	1.8	13.1
350	7.95	2.32	74.6	30.0	1.8	15.8

Station: 138
Date: 15/2/83
Time: 04.42 - 05.42
Latitude: 19°37,9'N
Longitude: 17°01,9'W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.18	2.35	233.6	7.0	0.9	2.4
10	8.18	2.35	238.5	7.2	1.0	2.6
20	8.16	2.35	212.6	8.9	1.1	5.5
30	8.18	2.35	235.4	4.8	0.9	4.1
40	8.12	2.34	188.9	11.2	1.2	6.6
50	8.12	2.34	180.4	12.0	1.3	7.1
75	8.08	2.34	144.3	16.6	1.5	8.4
130	7.98	2.34	69.7	26.5	1.9	11.3

Station: 139
Date: 15/2/83
Time: 06.36 - 07.30
Latitude: 19°39,6' N
Longitude: 16°55,0' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			($umol\ dm^{-3}$)			
5	8.15	2.35	198.3	8.7	1.4	7.2
10	8.15	2.37	201.0	7.4	1.4	6.8
20	8.15	2.37	220.2	7.7	1.4	7.0
30	8.14	2.35	198.7	7.9	1.4	7.1

Station: 179
Date: 16/2/83
Time: 14.15
Latitude: 20°40,0' N
Longitude: 17°10,0' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.28	2.43	318.9	0.0	0.0	0.9
10	8.25	2.43	296.5	0.4	0.1	1.9
20	8.24	2.43	275.6	2.4	0.3	2.8

Station: 180
Date: 18/2/83
Time: 15.30
Latitude: 20°40,0′ N
Longitude: 17°15,5′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.34	2.42	327.8	0.4	0.2	1.2
10	8.32	2.42	297.9	1.5	0.2	1.2
20	8.14	2.39	277.8	12.5	0.9	5.9
30	8.17	2.42	213.5	8.2	0.9	7.7

Station: 180
Date: 18/2/83
Time: 15.30
Latitude: 20°40,0′ N
Longitude: 17°15,5′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.34	2.42	327.8	0.4	0.2	1.2
10	8.32	2.42	297.9	1.5	0.2	1.2
20	8.14	2.39	277.8	12.5	0.9	5.9
30	8.17	2.42	213.5	8.2	0.9	7.7

Station: 181
Date: 14/2/83
Time: 16.30 - 17.18
Latitude: 20°40,0' N
Longitude: 17°21,2' W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	-	2.43	317.1	0.0	0.0	0.6
10	8.35	2.42	291.6	0.0	0.2	2.7
20	8.10	2.40	149.2	4.4	1.1	8.8
30	8.07	2.39	131.3	18.2	1.3	9.9
40	8.07	-	126.8	20.5	1.4	9.9
49	8.20	2.42	221.5	20.8	0.9	7.8

Station: 182
Date: 18/2/83
Time: 17.42 - 18.30
Latitude: $20^{o}39,9'$ S
Longitude: $17^{o}26,7'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.37	2.42	317.1	0.0	0.0	0.9
10	8.34	2.42	300.6	1.3	0.1	1.6
20	8.22	2.40	220.2	2.7	0.6	4.4
30	8.07	2.39	125.0	10.6	1.3	4.8
40	7.95	2.38	113.9	21.1	1.4	10.1
50	8.07	2.39	128.2	22.2	1.5	10.1
60	8.24	2.43	240.3	20.3	0.8	6.9

Station: 183
Date: 18/2/83
Time: 19.00 - 19.42
Latitude: $20^{o}40,0'$ N
Longitude: $17^{o}31,8'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.33	2.43	297.0	0.0	0.2	1.2
10	8.18	2.42	205.0	3.4	0.7	3.7
20	8.15	2.42	183.6	12.5	0.9	5.9
30	8.20	2.42	219.3	10.7	0.7	4.7
40	8.22	2.42	227.8	8.3	0.8	4.7
50	8.10	2.42	141.6	19.0	1.2	9.4

Station: 184
Date: 18/2/83
Time: 20.24 - 21.18
Latitude: 20°39,7′ N
Longitude: 17°37,2′ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.24	2.42	242.1	8.8	0.5	2.0
10	8.24	2.40	242.1	8.9	0.5	2.6
20	8.24	2.40	237.1	9.2	0.5	3.2
30	8.21	2.40	90.7	12.0	0.6	4.6
40	8.18	2.40	202.8	14.3	0.9	6.1
50	8.13	2.40	160.3	18.3	1.4	7.9
75	7.06	2.40	112.1	22.7	1.4	10.7

Station: 185
Date: 18/2/83
Time: 21.48 - 23.12
Latitude: $20^{\circ}39{,}8'$ N
Longitude: $17^{\circ}43{,}0'$ W

Depth (m)	pH (in situ)	Alkalinity (mmol dm^{-3})	O_2	NO_3	PO_4	Si
			(umol dm^{-3})			
5	8.24	2.40	265.7	6.2	0.4	0.8
10	8.25	2.40	258.1	6.4	0.4	0.8
20	8.25	2.40	254.1	6.5	0.5	1.0
30	8.19	2.40	201.9	10.9	0.8	3.9
40	8.13	2.40	175.5	14.5	1.1	5.2
50	8.06	2.39	128.2	19.5	1.4	7.9
75	8.04	2.39	118.8	21.0	1.5	8.8
150	7.99	2.39	76.8	24.4	1.7	11.1
250	8.01	2.39	81.3	25.6	1.7	12.2

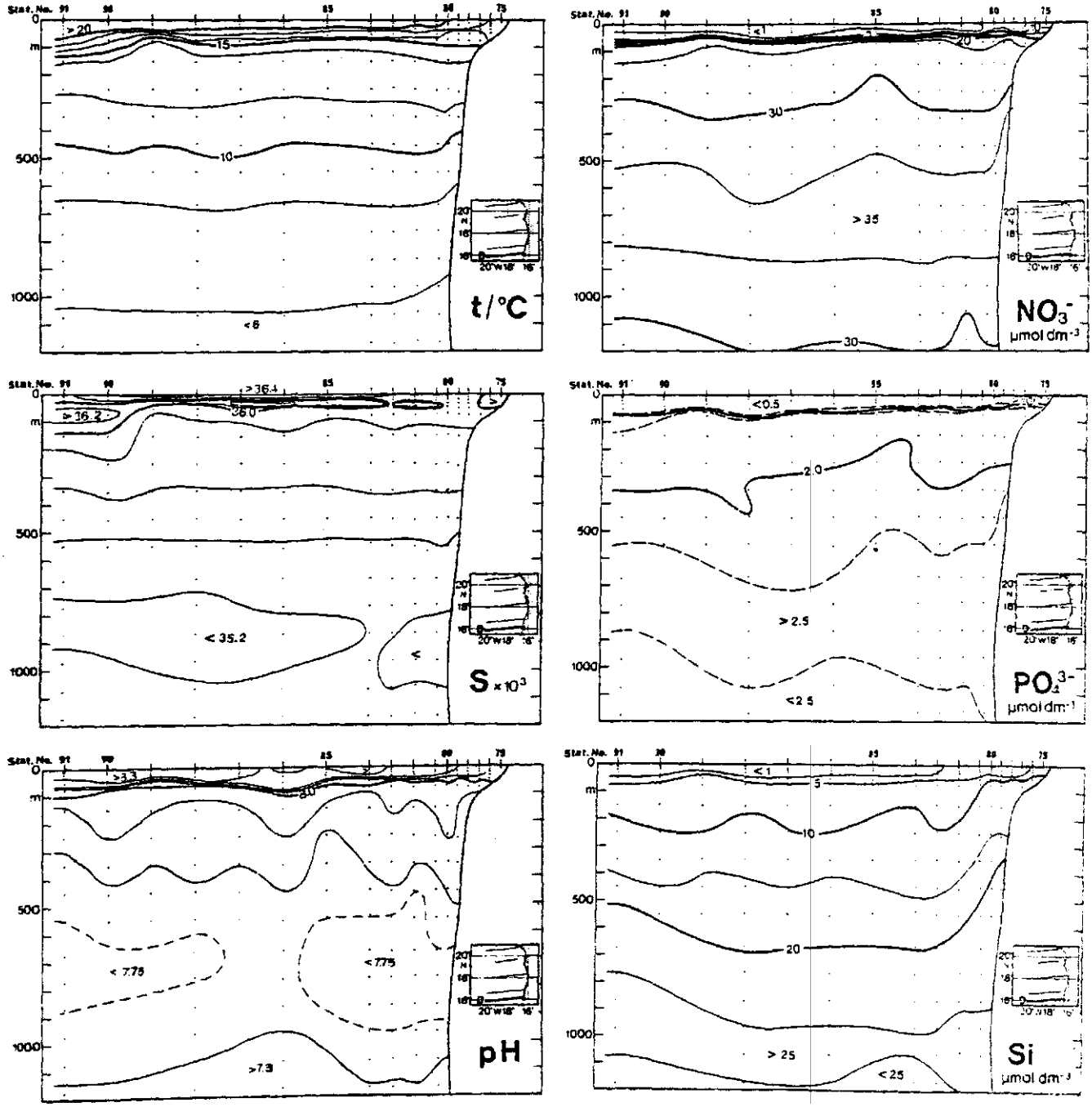

Figure 11: Hydrography and the distribution of chemical parameters on section D, 30 January - 3 February 1983 (see also Fig. 10). The dots correspond to samples from discrete depths.

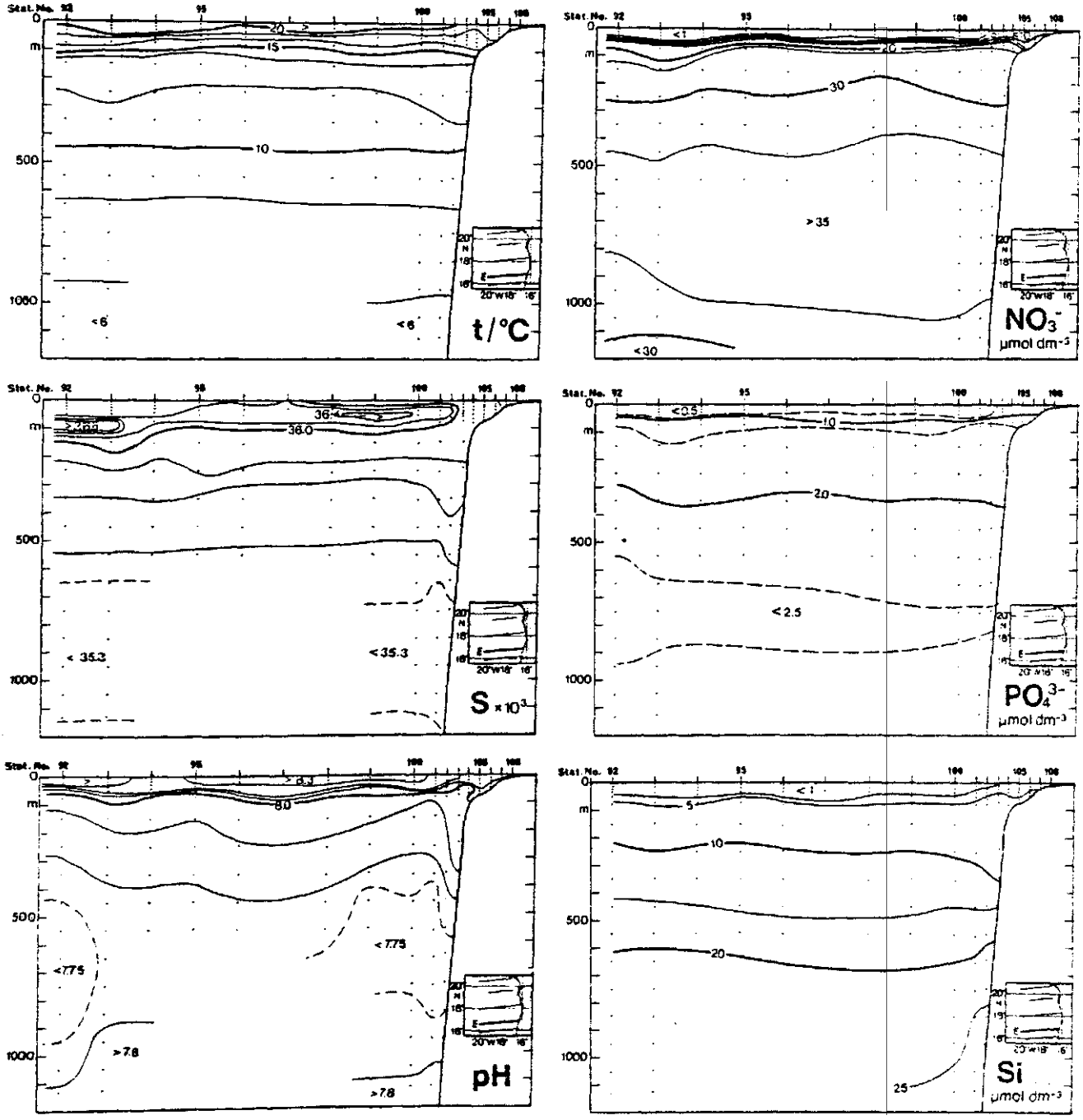

Figure 12: Hydrography and the distribution of chemical parameters on section E, 3-7 February 1983 (see also Fig. 10 and 11).

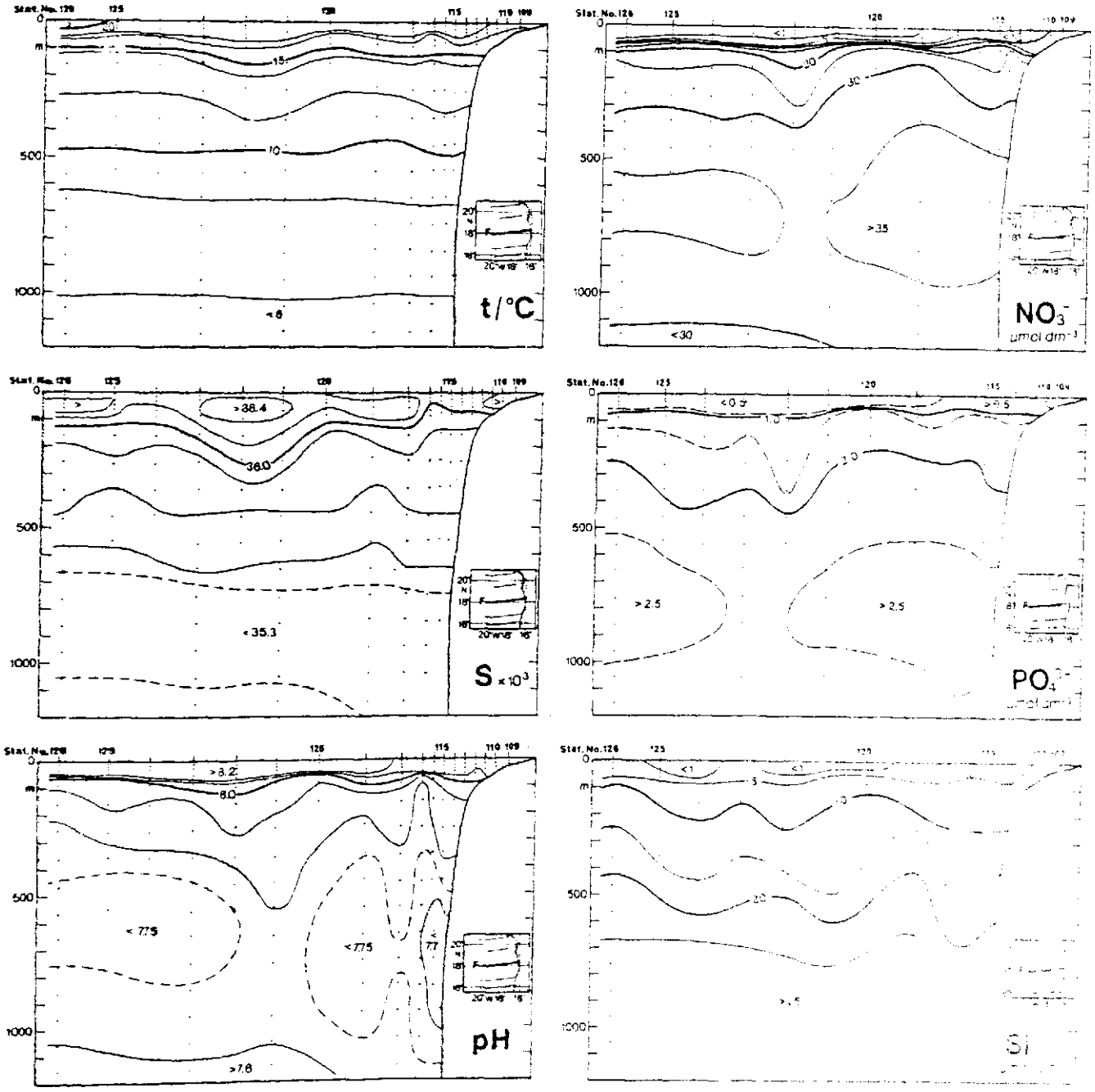

Figure 13: Hydrography and the distribution of chemical parameters on section F, 7-11 February 1983 (see also Fig. 12)

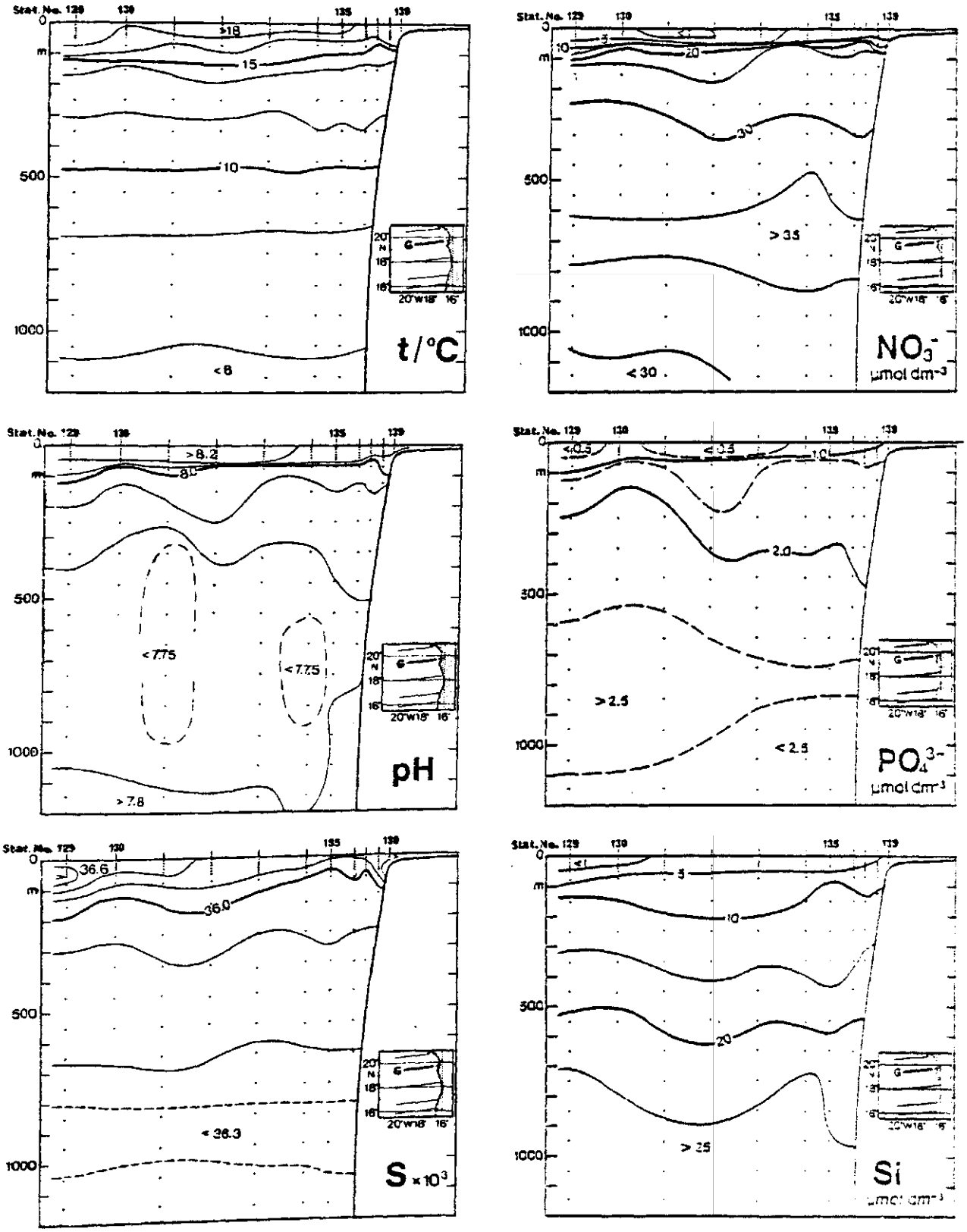

Figure 14: Hydrography and the distribution of chemical parameters on section C, 12-15 February 1983 (see also Fig. 10 and 11).

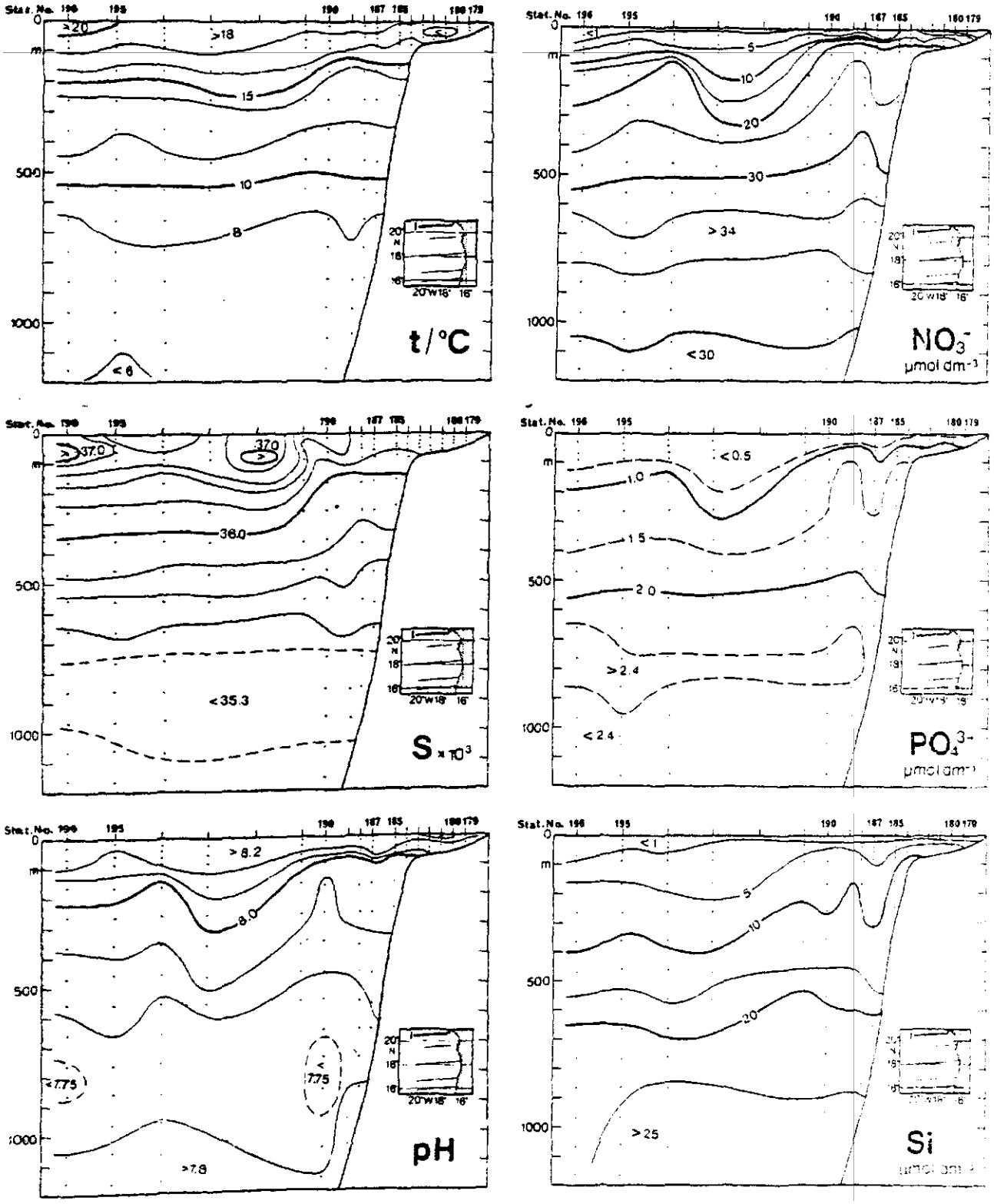

Figure 15: Hydrography and the distribution of chemical parameters on section I, 18-21 February 1983 (see also Fig. 10 and 11).

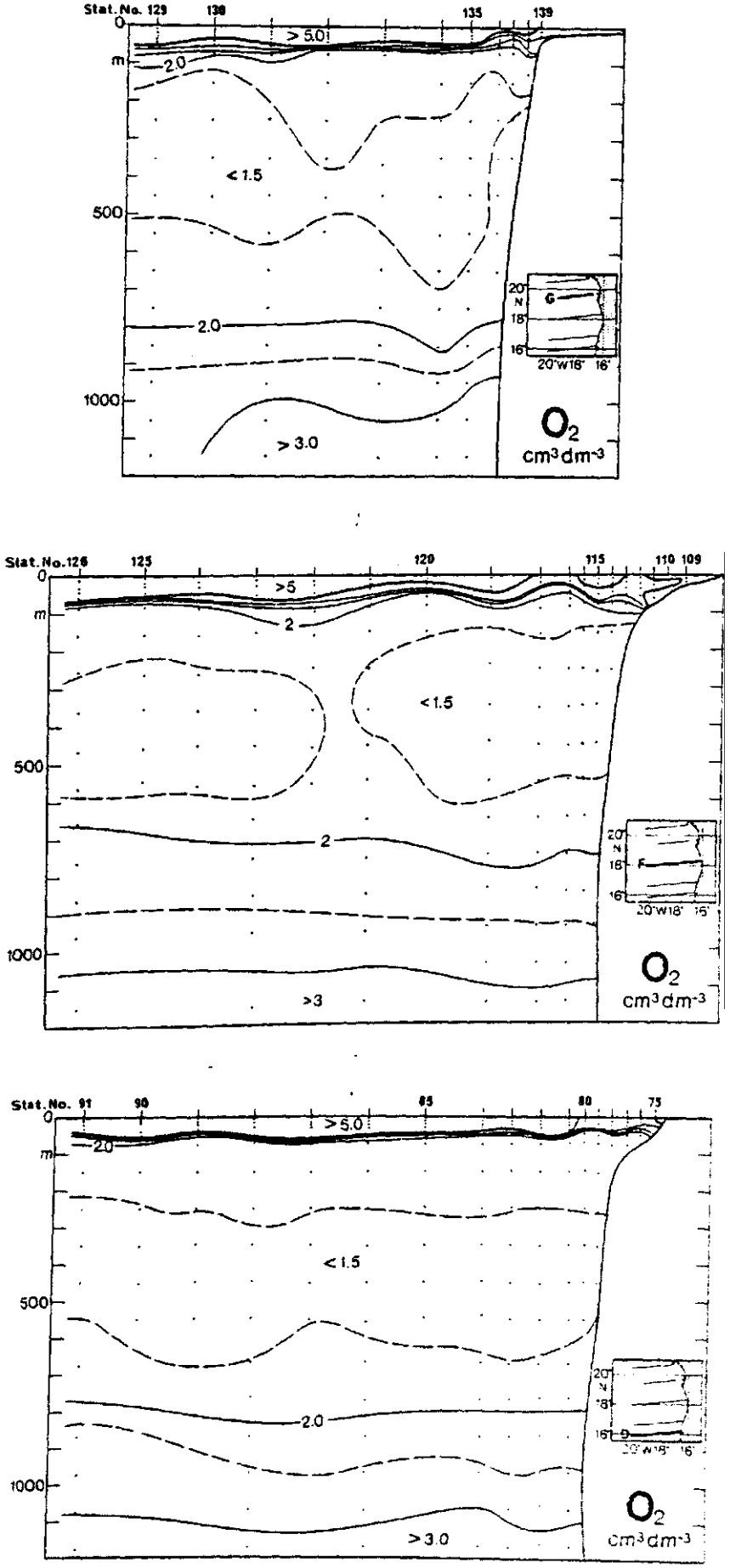

Figure 16: Distribution of oxygen on sections D, F & G (see also Fig. 10 and 11).