

TEE/30



INSTITUTE OF OCEANOGRAPHY AND FISHING RESEARCH

SARONIKOS SYSTEMS PROJECT



SSP - 14 CRUISE

24 FEBRUARY - 1 MARCH 1975

DATA REPORT 14

TEE/30

DATA REPORT
SARONIKOS SYSTEMS PROJECT

CRUISE 14
N/A THALIA 24 FEBRUARY - 1 MARCH 1975



INSTITUTE OF OCEANOGRAPHIC AND
FISHERIES RESEARCH
ATHENS, GREECE

Sponsored by
ENVIRONMENTAL POLLUTION CONTROL PROJECT - ATHENS

Reference:
SSP Data Report 14
July 1975

SSP - Cruise 14

Participants

<u>Scientist</u>	<u>Affiliation</u>	<u>Activity</u>
N. Friligos	IOKAE	Senior Scientist
E. Balopoulos	IOKAE	Hydrography/Data Processing
S. Barbetseas	IOKAE	Hydrography
A. Theoharis	IOKAE	Salinities/Data Processing
H. Barbetsea	IOKAE	Conductivities/Salinities
J. Satsmadjis	IOKAE	Chemistry
F. Taliadouri-Voutsinou	IOKAE	Chemistry
C. Bogdanos	IOKAE	Benthos
A. Zarkanellas	IOKAE - EPCP	Benthos
C. Spyropoulou	IOKAE	Chlorophyll
M. Lambiri	IOKAE	Chlorophyll
G. Skafidas	IOKAE	Chemistry
G. Kalatzis	IOKAE	Navigation
G. Souras	IOKAE	Technician
M. Nikolaou	IOKAE	Technician
G. Veriopoulos	U.A.	Zooplankton

Abbreviations:

IOKAE: Institute of Oceanographic and Fisheries Research

EPCP : Environmental pollution control project

U.A. : University of Athens

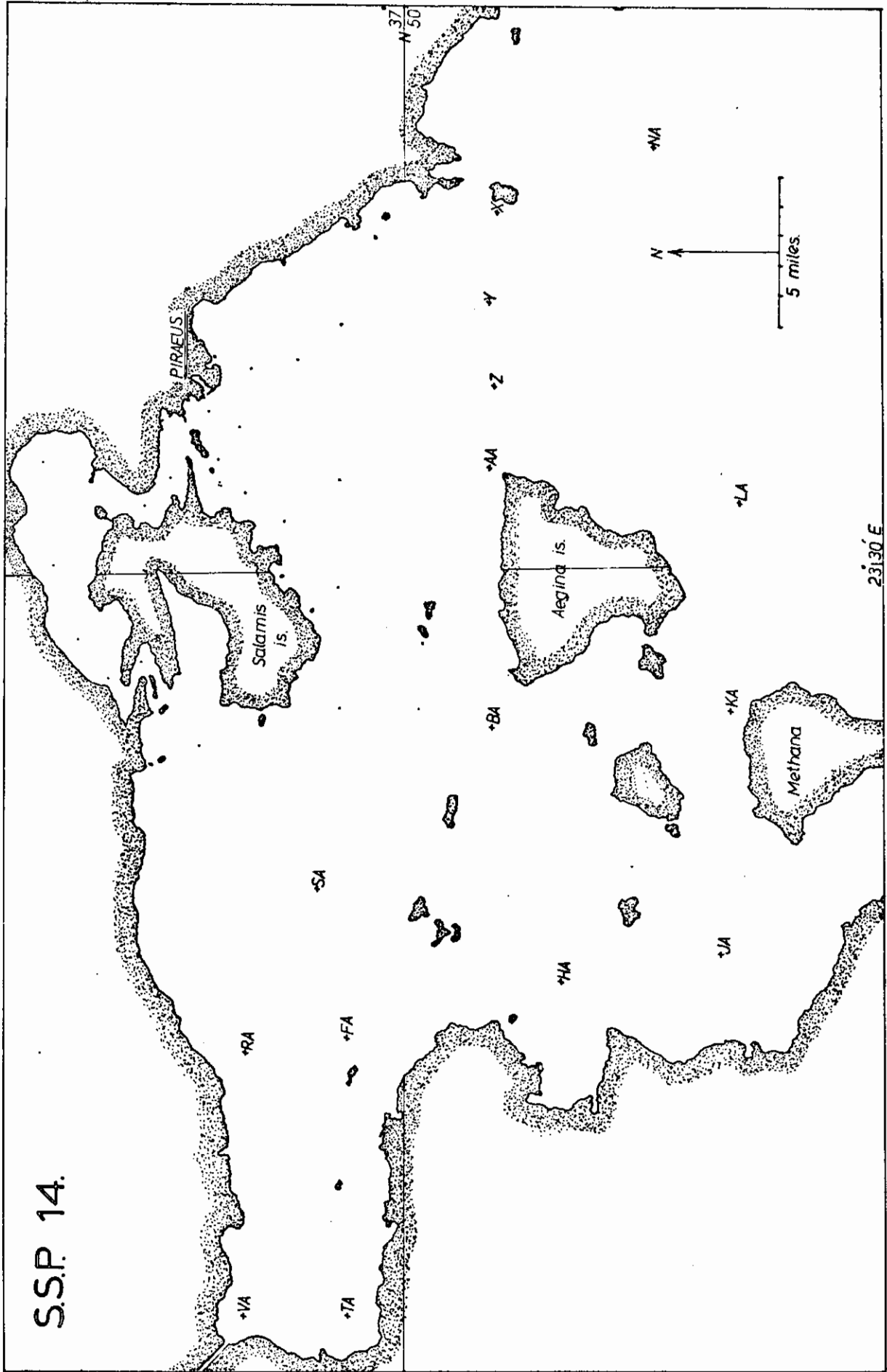
Methods

Hydrographic casts were made using N.I.O. bottles. Oxygen determinations were carried out using the Winkler method. Salinities were measured in the laboratory using a portable Autolab Salinometer MK III model 601. Nutrient analysis were made on a Technicon "Six channel Autoanalyser" using for ammonia, the method of Koroleff (1970) as adapted to the Autoanalyser by Slawyk and Mac Isaac (1972); for nitrate, nitrite the method of Armstrong et al (1967); for phosphate, the method of Murphy and Riley (1962) as automated by Hager et al (1968); and for silicate, the method of Armstrong et al (1967).

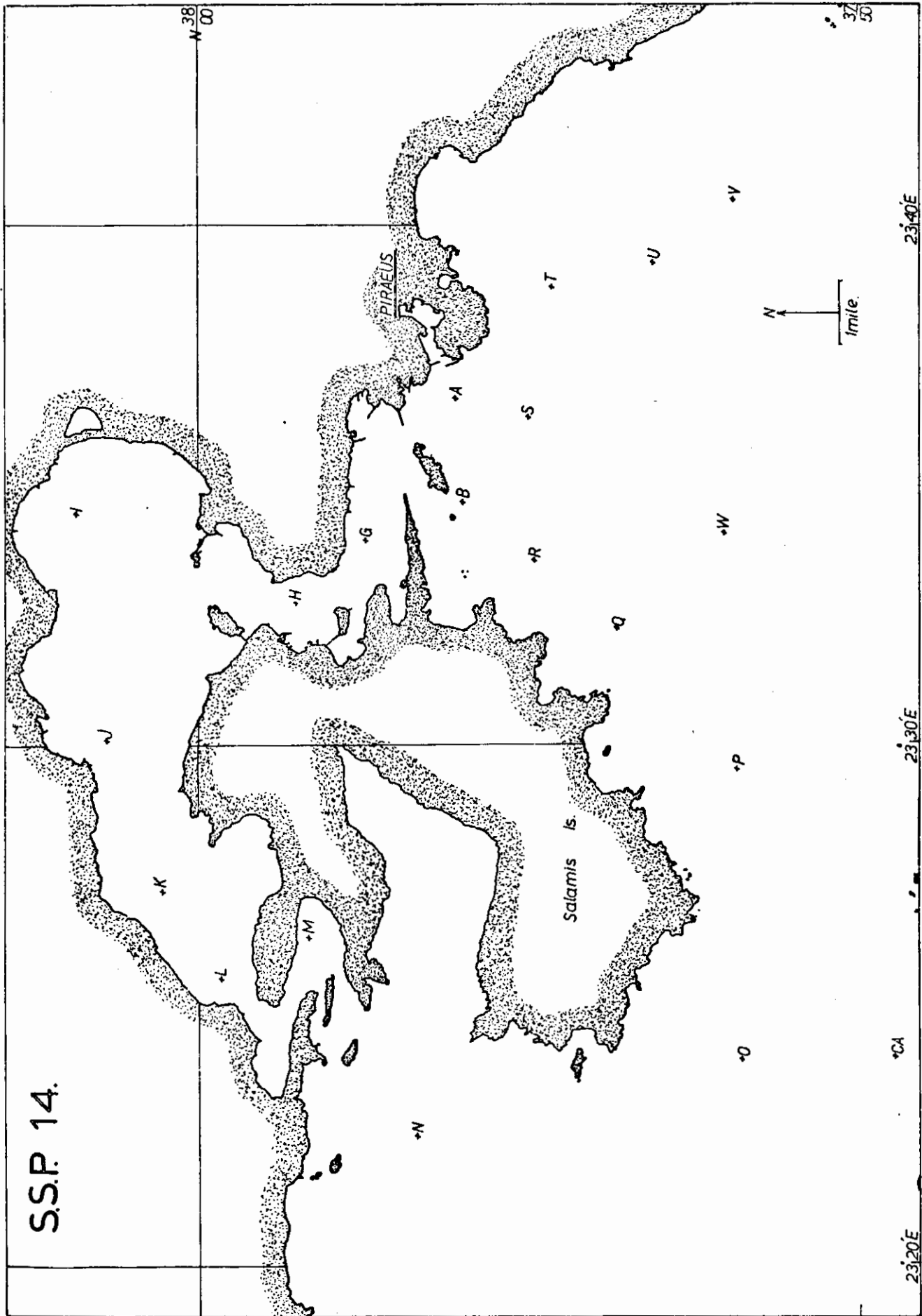
Acknowledgments

The cruise and report was possible through contribution from the Greek Navy by the assignment of N/A THALIA and the cooperation of its personnel.

SS.P 14.



SS.P 14.



D A T A

STATION REPORT

CRUISE SPP014 GRID N LAT 37-56.7N WIND SPEED 06 DATE 75/02/24
 STATION 001 SOUNDING 0085 LONG 23-22.5E WIND DIREC 03 TIME 9.1

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN
					ML/L	MGA/L	
0	13.88	38.81	29.18	5.58	.50	-0.01	102
10	13.89	38.80	29.17	-1.0			
20	13.89	38.81	29.17	.6			
30	13.89	38.80	29.16	-0.7	.53	-0.04	107
50	13.89	38.81	29.17	.4			
75	13.90	38.83	29.19	.6	5.68	.51	-0.02 104

DEPTH	CRUISE STATION	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	DATE TIME	CHLORO-A MG/M3	PHAEO-P MG/M3
0	14 1	.69	1.85	.24	1.49	2.27	24/ 2/75 9.1	.336	.048
10		1.30	3.21	.36	1.06	2.76			
20									
30		.75	2.43	.33	1.09	2.03			
50		.46	1.32	.27	.59	.90			
75		.61	1.55	.23	.32	1.49			

STATION REPORT

CRUISE SPP014 GRID M LAT 37-58.4N WIND SPEED 06 DATE 75/02/24
 STATION 002 SOUNDING 0019 LONG 23-26.3E WIND DIREC 02 TIME 9.9

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN
					ML/L	MGA/L	
0	12.20	38.86	29.56	5.94	.53	-0.02	105
10	11.52	38.83	29.68	10.8			
18	10.85	38.78	29.77	10.8	.53	-0.01	102

DEPTH	CRUISE SSP STATION	PO4 UGAT/L	SI04 UGAT/L	N02 UGAT/L	N03 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0	14 2	1.12	2.23	.24	.61	3.07	.419	.105
10		.49	2.04	.46	1.42	1.93		
18		1.10	4.37	.43	1.26	2.82		

STATION REPORT

CRUISE SPP014 GRID L LAT 37-59.6N WIND SPEED 14 DATE 75/02/24
 STATION 003 SOUNDING 0012 LONG 23-25.5E WIND DIREC 02 TIME 10.4

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	O X Y G E N		SATN
					ML/L	MGA/L	
0	10.46	38.77	29.83	6.15	.55	-0.02	104
10	10.47	38.76	29.82	6.52	.58	-0.06	111

DEPTH	CRUISE 8SP 14		DATE 24/ 2/75		NH4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	SIO4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
	STATION	3	TIME	10.4						
0	PO4 UGAT/L	1.11	3.59	.82	2.96	5.89	1.223	.490		
10		.75	2.72	.56	2.75	5.29				

STATION REPORT

CRUISE SSP014 GRID K LAT 38- .5N WIND SPEED 16 DATE 75/02/24
 STATION 004 SOUNDING 0034 LONG 23-27.2E WIND DIREC 01 TIME 10.9

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	----- O X Y G E N -----	
					ML/L	MGA/L
0	10.51	38.76	29.81	5.86	.52	.00
9	10.52	38.77	29.82			
19	10.50	38.76	29.82			
28	10.48	38.72	29.79	6.22	.56	-0.03

STAB
X1000

.7
-0.4
-2.9

SATN
0/0

AOU
MGA/L

02
MGA/L

02
ML/L

02
MGA/L

01
MGA/L

16
MGA/L

01
MGA/L

99

106

DEPTH	CRUISE STATION	PO4 UGAT/L	SI04 UGAT/L	N02 UGAT/L	N03 UGAT/L	NH4 UGAT/L	DATE TIME	CHLORO-A MG/M3	PHAEO-P MG/M3
	14 4						24/ 2/75 10.9		
0		.56	2.43	.68	2.62	3.73		1.578	.008
9		.73	2.23	.68	2.15	3.39			
19		.50	2.91	.82	2.60	4.28			
28		.76	2.72	.82	2.60	4.36			

STATION REPORT

CRUISE SPP014 GRID J LAT 38- 1.3N WIND SPEED 12 DATE 75/02/24
 STATION 005 SOUNDING 0030 LONG 23-30.1E WIND DIREC 36 TIME 11.4

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	10.60	38.74	29.78	-0.9	5.96	.53	-0.01	101
10	10.56	38.72	29.77	.8				
19	10.52	38.72	29.78	.8				
26	10.49	38.72	29.79	.8	5.96	.53	-0.01	101

DEPTH	CRUISE SSP STATION	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	DATE TIME	CHLORO-A MG/M3	PHAEO-P MG/M3
0	14 5	.66	2.23	.67	2.16	4.36	24/ 2/75 11.4	1.204	.157
10		1.78	3.52	1.04	3.69	4.79			
19									
26		.49	1.85	.73	2.34	4.36			

STATION REPORT

CRUISE SSP014 GRID I LAT 38- 1.8N WIND SPEED 12 DATE 75/02/24
 STATION 006 SOUNDING 0023 LONG 23-34.5E WIND DIREC 36 TIME 12.0

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----	
					ML/L	MGA/L
0	10.53	38.70	29.76	5.93	.53	-0.00
10	10.50	38.71	29.78	1.3		101
20	10.46	38.71	29.78	.7	5.94	-0.00

----- SATN
 0/0

DEPTH	CRUISE STATION	SSP	NO4	NO3	NO2	NO3	NH4	DATE TIME	CHLORO-A	PHAEO-P
	PO4	SI04	NO4	NO3	NO2	NO3	NH4		MG/M3	MG/M3
	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L		MG/M3	MG/M3
0	.49	1.73	.68	2.34	.68	2.34	4.87	24/ 2/75 12.0	1.657	.645
10	.55	1.85	.64	2.28	.64	2.28	3.69			
20	1.44	2.33	.75	2.43	.75	2.43	10.03			

STATION REPORT

CRUISE SPP014 GRID H LAT 37-58.5N WIND SPEED 13 DATE 75/02/24
 STATION 007 SOUNDING 0014 LONG 23-32.7E WIND DIREC 36 TIME 12.5

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		
					ML/L	MGA/L	MGA/L
0	10.71	38.76	29.78	5.97	.53	-0.01	102
10	11.06	38.77	29.72	5.80	.52	.00	100

----- 0 X Y G E N -----
 02 02 AOU SATN
 ML/L MGA/L MGA/L 0/0

CRUISE SSP 14
STATION 7

DATE
TIME

24/ 2/75
12.5

DEPTH

PO4
UGAT/L

SI04
UGAT/L

NO2
UGAT/L

NO3
UGAT/L

NH4
UGAT/L

CHLORO-A
MG/M3

PHAEO-P
MG/M3

0

2.26

2.53

.60

1.95

5.04

.967

.199

10

2.42

2.66

.61

1.82

6.00

STATION REPORT

CRUISE S5P014 GRID G LAT 37-57.5N WIND SPEED 12 DATE 74/02/24
 STATION 008 SOUNDING 0024 LONG 23-33.9E WIND DIREC 36 TIME 13.0

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----		
					ML/L	MGA/L	MGA/L
0	12.86	38.81	29.39	5.47	.49	.01	98
10	13.19	38.79	29.31	-8.1			
20	12.90	38.80	29.38	6.6	.50	.00	100

DEPTH	CRUISE STATION	SSP 14 8	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A NG/M3	PHAEO-P MG/M3
0			2.97	2.35	.52	1.07	4.19	.480	
10			2.40	2.23	.64	1.43	4.19		
20			6.62	4.18	.56	1.35	5.80		

STATION REPORT

CRUISE SPP014 GRID B LAT 37-56.0N WIND SPEED 09 DATE 75/02/25
 STATION 009 SOUNDING 0050 LONG 23-34.7E WIND DIREC 36 TIME 7.0

DEPTH	TEMP DEG C	SAL O/00	SIGMA-T	STAB X1000	02 ML/L	02 MGA/L	02 MGA/L	09 MGA/L	SATN 0/0
0	13.71	38.84	29.24	-0.2	5.64	.50	-0.01	102	
20	13.73	38.84	29.23	.8					
29	13.66	38.83	29.24	.0	5.54	.49	-0.00	101	
39	13.55	38.80	29.24	.6					
49	13.48	38.79	29.25		5.33	.48	.02	96	

----- O X Y G E N -----

DEPTH	CRUISE SSP 14		DATE		NH4	NO3	NO2	SIO4	P04	CHLORO-A	PHAEO-P
	STATION	9	25/	2/75							
	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L
0	4.33	3.59	.31	.26	3.35	.078	.002				
20	5.04	5.15	.50	.39	3.77						
29											
39	5.39	5.15	.57	1.54	3.85						
49	6.87	5.54	.82	1.22	4.36						

STATION REPORT

CRUISE SPP014 GRID R LAT 37-54.9N WIND SPEED 08 DATE 75/02/25
 STATION 010 SOUNDING 0065 LONG 23-33.5E WIND DIREC 33 TIME 7.9

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN 0/0
					02 ML/L	02 MGA/L	
0	13.71	38.82	29.22	5.56	0.50	-0.01	101
10	13.75	38.81	29.20	-1.6			
20	13.78	38.83	29.21	.9			
30	13.80	38.80	29.19	-2.7	5.79	-0.03	105
50	13.73	38.83	29.22	1.8	5.47	.00	99

DEPTH	CRUISE \$SP 14 STATION 10	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	DATE TIME	25/ 2/75 7.9	CHLORO-A MG/M3	PHAEO-P MG/M3
0		8.70	5.65	.40	.73	4.62			.414	
10		.81	1.65	.41	.42	2.33				
20										
30		.81	1.46	.41	.69	3.11				
50		.81	1.36	.42	.46	2.82				

STATION REPORT

CRUISE SPP014 GRID Q LAT 37-53.6N WIND SPEED 11 DATE 75/02/25
 STATION 011 SOUNDING 0090 LONG 23-32.2E WIND DIREC 33 TIME 8.4

----- O X Y G E N -----

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	02 ML/L	02 MGA/L	AOU MGA/L	SATN 0/0
0	13.80	38.84	29.22	-1.6	5.54	.49	-0.00	101
10	13.81	38.82	29.20	.3				
20	13.83	38.83	29.20	-0.1				
30	13.83	38.83	29.20	.0	5.73	.51	-0.02	104
50	13.83	38.83	29.20	.6				
75	13.83	38.85	29.22		5.61	.50	-0.01	102

DEPTH	CRUISE SSP 14		DATE 25/ 2/75		NH4	NO3	NO2	NO3	CHLORO-A	PHAEO-P
	STATION 11	TIME 8.4	MG/M3	MG/M3						
	P04	\$I04	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	MG/M3	MG/M3
0	.82	1.65	.40	.52	2.25	.179	.025			
10	.64	1.26	.43	.32	1.95					
20										
30	.26	.87	.44	1.64	2.40					
50	.30	1.07	.44	.41	1.66					
75	.20	.58	.33	.29	1.32					

STATION REPORT

CRUISE SPP014 GRID P LAT 37-51.8N WIND SPEED 09 DATE 75/02/25
 STATION 012 SOUNDING 0095 LONG 23-29.5E WIND DIREC 33 TIME 9.0

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU
0	13.95	38.84	29.18		5.55	.50	-0.01	101
10	13.83	38.82	29.19	1.0				
20	13.84	38.83	29.20	.7				
29	13.85	38.83	29.20	-0.2	5.54	.49	-0.00	101
49	13.84	38.84	29.21	.4				
73	13.85	38.85	29.21	.3	5.49	.49	-0.00	100

DEPTH	CRUISE STATION	SSP 14 12	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0			.26	1.07	.36	.35	1.23	.251	.129
10			.17	.87	.37	.36	1.00		
20									
29			.18	.49	.36	.23	2.32		
49			.23	1.07	.44	.34	1.89		
73			.21	.76	.47	.31	1.83		

STATION REPORT

CRUISE SSP014 GRID W LAT 37-52.0N WIND SPEED 08 DATE 75/02/25
 STATION 013 SOUNDING 0094 LONG 23-34.1E WIND DIREC 34 TIME 9.8

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N	
					ML/L	MGA/L
0	13.80	38.87	29.24	5.61	.50	-0.01
10	13.78	38.87	29.24	.4		102
20	13.80	38.87	29.24	-0.3		
30	13.80	38.87	29.24	-0.1	.51	-0.02
49	13.78	38.87	29.24	.2		105
74	13.79	38.85	29.23	-0.7	.50	-0.01

 AOU SATN
 MGA/L 0/0

DEPTH	CRUISE SSP 14		DATE 25/ 2/75		NH4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	SIO4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
	STATION	13	TIME	9.8						
0	PO4 UGAT/L	.23	.62	.35	1.74	.05	.30	.19	.286	.068
10		.21	.19	.30	1.84	.09				
20										
30		.20	.29	.36	2.59	.05				
49		.19	.10	.21	.90	.13				
74		.24	.29	.37	2.32	.06				

STATION REPORT

CRUISE SPP014 GRID V LAT 37-51.9N WIND SPEED 08 DATE 75/02/25
 STATION 014 SOUNDING 0069 LONG 23-40.5E WIND DIREC 34 TIME 10.7

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	O X Y G E N		
					ML/L	MGA/L	MGA/L
0	13.72	38.85	29.24	5.57	.50	-0.01	101
10	13.73	38.84	29.23	-1.1			
19	13.74	38.85	29.24	.7			
29	13.76	38.92	29.29	5.0	.51	-0.02	104
48	13.74	38.85	29.24	-2.5			
63	13.75	38.85	29.24	-0.0	.51	-0.02	105

DEPTH	CRUISE SSP 14		DATE 25/ 2/75		PHAEO-P MG/M3	
	STATION 14	TIME 10.7	CHLORO-A MG/M3	TIME		
	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	
0	.32	.58	.44	1.03	2.52	.139
10	.27	.29	.37	.41	2.57	.021
19						
29	.24	.10	.33	.18	2.76	
48						
63	.32	.68	.40	.17	1.74	

STATION REPORT

CRUISE SSP014 GRID U LAT 37-53.1N WIND SPEED 08 DATE 75/02/25
 STATION 015 SOUNDING 0070 LONG 23-39.3E WIND DIREC 34 TIME 11.4

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----	
					ML/L	MGA/L
0	13.77	38.84	29.22	5.96	.53	-0.04 108
10	13.73	38.84	29.23	.9		
20	13.73	38.84	29.23	.1		
29	13.73	38.84	29.23	-0.0	.47	.02 96
49	13.74	38.84	29.23	-0.1	.51	-0.02 103

DEPTH	CRUISE SSP		DATE		NH4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
	STATION	14 15	25/	2/75 11.4					
	PO4 UGAT/L	SI04 UGAT/L							
0	.28	.68			1.49	.24	.37	.268	.051
10	.35	.68			2.50	.15	.42		
20									
29	.23	.29			1.66	.14	.26		
49	.20	.87			1.15	.40	.55		

STATION REPORT

CRUISE SSP014 GRID T LAT 37-54.6N WIND SPEED 08 DATE 75/02/25
 STATION 016 SOUNDING 0065 LONG 23-38.8E WIND DIREC 34 TIME 12.0

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	ML/L	02 MGA/L	02 MGA/L	AOU MGA/L	SATN 0/0
0	13.66	38.85	29.25	-2.6	5.60	.50	-0.01	102	
10	13.71	38.83	29.23	.0					
20	13.71	38.83	29.23	3.3					
29	13.74	38.88	29.26	-1.2	5.85	.52	-0.03	106	
49	13.74	38.85	29.24		6.11	.55	-0.05	111	

----- O X Y G E N -----

DEPTH	CRUISE SSP 14		DATE		NH4	NO3	NO2	SIO4	PHARO-P
	STATION	16	TIME	25/ 2/75					
0	PO4	UGAT/L	.28	.68	.44	.32	.32	2.00	.197
10	PO4	UGAT/L	.25	.48	.33	.25	.25	.90	
20									
29	PO4	UGAT/L	.25	.58	.47	.17	.17	2.00	
49	PO4	UGAT/L	.46	.68	.51	.11	.11	3.35	

STATION REPORT

CRUISE SPP014 GRID 0 LAT 37-51.8N WIND SPEED 03 DATE 75/02/26
 STATION 017 SOUNDING 0103 LONG 23-23.9E WIND DIREC 32 TIME 7.3

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----			
					ML/L	MGA/L	MGA/L	
0	13.87	38.83	29.19		5.90	.53	-0.04	108
10	13.85	38.84	29.21	1.3				
20	13.83	38.84	29.21	.3				
30	13.82	38.81	29.19	-2.1				
50	13.81	38.82	29.20	.5	5.95	.53	-0.04	108
75	13.81	38.81	29.19	-0.3				
98	13.80	38.81	29.19	.1	6.42	.57	-0.08	117

DEPTH	CRUISE STATION	SSP 14 17	DATE TIME	26/ 2/75 7.3	PO4 UGAT/L	SI04 UGAT/L	N02 UGAT/L	N03 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0					.77	2.04	.26	.59	1.83	.155	.020
10					.39	1.03	.28	.52	2.17		
20											
30					1.11	1.65	.54	1.53	6.90		
50					.98	2.04	.46	.66	2.76		
75											
98					.64	1.65	.37	1.43	2.84		

STATION REPORT

CRUISE SSP014 GRID CA LAT 37-49.5N WIND SPEED 02 DATE 75/02/26
 STATION 018 SOUNDING 0096 LONG 23-24.0E WIND DIREC 36 TIME 8.1

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	13.95	38.82	29.17	-0.3	5.90	.53	-0.04	108
10	13.93	38.81	29.16	.8				
20	13.93	38.82	29.17	-1.1				
30	13.95	38.81	29.16	.3				
50	13.92	38.81	29.17	-0.2	5.80	.52	-0.03	106
70	13.94	38.81	29.16	-0.1				
90	13.95	38.81	29.16	-0.1	5.61	.50	-0.01	102

DEPTH	CRUISE SSP		STATION		DATE		TIME		NH4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	SIO4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
	14	18	26/	2/75	8.1									
0	PO4 UGAT/L	.76	SI04 UGAT/L	1.61	NO2 UGAT/L	.36	NO3 UGAT/L	.81	2.00	.063	.013			
10		1.14		2.43		.52		.94	3.10					
20														
30		1.09		2.04		.40		.60	2.00					
50		1.15		1.67		.39		.46	2.08					
70														
90		2.37		4.18		.44		.50	8.59					

STATION REPORT

CRUISE S5P014 GRID BA LAT 37-47.3N WIND SPEED 02 DATE 75/02/26
 STATION 019 SOUNDING 0049 LONG 23-23.8E WIND DIREC 36 TIME 8.8

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N			
					ML/L	MGA/L	AOU MGA/L	SATN 0/0
0	13.88	38.81	29.18		5.86	.52	-0.03	107
10	13.82	38.82	29.20	1.9				
20	13.81	38.81	29.19	-0.5				
30	13.81	38.82	29.20	.7	5.98	.53	-0.04	109

CRUISE SSP 14 DATE 26/ 2/75
STATION 19 TIME 8.8

DEPTH	P04 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0	.95	1.84	.57	.69	3.01	.140	.010
10	.94	1.84	.44	.61	2.67		
20	.79	1.65	.41	.61	1.83		
30	.68	1.46	.44	.60	2.67		

STATION REPORT

CRUISE SPP014 GRID AA LAT 37-47.0N WIND SPEED 01 DATE 75/02/26
 STATION 020 SOUNDING 0065 LONG 23-34.5E WIND DIREC 05 TIME 9.8

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----			
					ML/L	MGA/L	AOU MGA/L	SATN 0/0
0	13.82	38.84	29.21		6.13	.55	-0.06	112
10	13.78	38.84	29.22	.9				
20	13.78	38.84	29.22	-0.0				
30	13.80	38.85	29.22	.4	6.01	.54	-0.05	109
50	13.84	38.87	29.23	.3	6.18	.55	-0.06	113

DEPTH	CRUISE SSP 14		DATE		NH4	NO3	NO2	SIO4	CHLORO-A	PHAEO-P
	STATION	20	TIME	26/ 2/75						
	PO4	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L
0	.77	1.30	.63	.84	2.72	.84	.63	1.30	.476	.009
10	.92	1.06	.27	.59	5.40	.59	.27	1.06		
20										
30	.72	.93	.34	.41	4.43	.41	.34	.93		
50	.23	.75	.33	.83	4.72	.83	.33	.75		

STATION REPORT

CRUISE SPP014 GRID Z LAT 37-46.8N WIND SPEED 00 DATE 75/02/26
 STATION 021 SOUNDING 0088 LONG 23-37.5E WIND DIREC 00 TIME 10.3

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	14.42	38.89	29.12		5.91	.53	-0.04	109
10	13.97	38.89	29.22	9.6				
20	13.73	38.86	29.25	2.6				
30	13.72	38.85	29.24	-0.6	6.11	.55	-0.05	111
50	13.72	38.87	29.26	.8				
75	13.64	38.85	29.26	.1	5.97	.53	-0.04	108

DEPTH	CRUISE STATION	SSP 14 21	DATE TIME	26/ 2/75 10.3	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0					.71	.95	.35	.52	2.52		.414
10					1.08	.93	.25	.45	2.52		
20											
30					.51	.75	.29	.41	2.07		
50					.38	.75	.29	.31	1.90		
75					.53	.81	.32	.38	1.95		

STATION REPORT

CRUISE SSP014 GRID Y LAT 37-46.8N WIND SPEED 00 DATE 75/02/26
 STATION 022 SOUNDING 0095 LONG 23-41.5E WIND DIREC 00 TIME 11.0

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	----- O X Y G E N -----			
					ML/L	MGA/L	AOU	SATN
0	14.43	38.92	29.14		5.98	.53	-0.05	110
10	14.32	38.92	29.16	2.4				
20	14.31	38.91	29.16	-0.6				
30	14.31	38.91	29.16	.0	6.10	.54	-0.06	112
50	14.29	38.91	29.16	.3				
75	14.24	38.90	29.17	.1	6.27	.56	-0.07	115

DEPTH	CRUISE SSP 14		DATE 26/ 2/75		NH4	NO3	NO2	SI04	CHLORO-A	PHAEO-P	
	STATION	22	TIME	11.0							UGAT/L
0	P04				1.97	.61	.23	1.28		.088	.041
10					1.39	.87	.22	1.41			
20											
30					1.55	1.19	.25	1.62			
50					2.48	.72	.27	1.49			
75					30.24	3.30	.78	1.47			

STATION REPORT

CRUISE SPP014 GRID X LAT 37-46.5N WIND SPEED 00 DATE 75/02/26
 STATION 023 SOUNDING 0080 LONG 23-44.7E WIND DIREC 00 TIME 11.5

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----		SATN	
					ML/L	MGA/L		AOU MGA/L
0	14.62	38.90	29.08	9.2	5.85	.52	-0.04	108
10	14.11	38.88	29.18	.4				
20	14.10	38.88	29.18	.0				
30	14.10	38.88	29.18	.2	6.25	.56	-0.07	115
50	14.08	38.88	29.19	-0.2				
75	14.07	38.87	29.18		5.80	.52	-0.03	106

DEPTH	CRUISE SSP 14 STATION 23		DATE TIME		NH4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	SIO4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
	PO4 UGAT/L			26/ 2/75 11.5						
0	1.02	1.84	.35	1.08	4.57				.238	
10	.95	2.49	.42	.57	1.76					
20										
30	.45	.76	.29	.20	1.52					
50	.63	1.41	.46	.23	1.74					
75	.86	.97	.32	.32	2.80					

STATION REPORT

CRUISE SSP014 GRID S LAT 37-55.0N WIND SPEED 02 DATE 75/02/26
 STATION 024 SOUNDING 0077 LONG 23-36.3E WIND DIREC 22 TIME 12.6

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	13.74	38.85	29.24	5.80	5.80	.52	-0.03	105
10	13.78	38.84	29.22	-1.6				
20	13.76	38.84	29.22	.4				
30	13.77	38.84	29.22	-0.1	5.78	.52	-0.03	105
50	13.74	38.90	29.27	2.5				
75	13.44	38.84	29.29	.7	5.51	.49	.00	100

DEPTH	CRUISE SSP 14		DATE 26/ 2/75		NH4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	SIO4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
	STATION 24	TIME 12.6								
0	1.85	2.06	.39	1.06	2.71	1.06	.39	2.06	.399	.103
10	1.82	2.27	.39	1.33	3.38	1.33	.39	2.27		
20										
30	1.04	1.32	.25	.57	1.48	.57	.25	1.32		
50	2.81	2.49	.49	1.53	4.22	1.53	.49	2.49		
75	.98	4.22	.35	.95	1.75	.95	.35	4.22		

STATION REPORT

CRUISE SPP014 GRID A LAT 37-56.1N WIND SPEED 00 DATE 75/02/26
 STATION 025 SOUNDING 0062 LONG 23-36.7E WIND DIREC 00 TIME 13.1

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	13.62	38.80	29.22	-0.3	5.71	.51	-0.02	104
10	13.67	38.81	29.22	1.5				
19	13.66	38.83	29.24	-0.3				
29	13.68	38.83	29.23	.3				
48	13.65	38.83	29.24					

DEPTH	CRUISE \$SP 14 STATION 25	DATE 26/ 2/75 TIME 13.1	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0			2.80	2.49	.53	1.73	5.17	.345	.005
10									
19									
29			.70	1.19	.35	.55	2.86		
48			4.25	5.52	.03	.07	.45		

STATION REPORT

CRUISE SPP014 GRID NA LAT 37-41.2N WIND SPEED 12 DATE 75/02/27
 STATION 026 SOUNDING 0215 LONG 23-47.9E WIND DIREC 02 TIME 7.9

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----		SATN	
					ML/L	MGA/L		
0	14.24	38.91	29.17	.0	5.74	.51	-0.03	105
10	14.24	38.91	29.17	.1				
19	14.23	38.91	29.18	-1.1				
29	14.25	38.90	29.16	.2				
49	14.23	38.90	29.17	-0.1	5.54	.49	-0.01	102
73	14.24	38.90	29.17	1.0				
97	14.24	38.93	29.19	-2.8				
145	14.19	38.74	29.05	1.3	5.57	.50	-0.01	102
193	14.10	38.80	29.12					

DEPTH	CRUISE SSP 14		DATE 27/ 2/75		NH4	NO3	NO2	SI04	CHLORO-A	PHALO-P	
	STATION	26	TIME	7.9							UGAT/L
0					2.05	.88	.29	1.41		.111	.011
10					3.86	.59	.42	1.41			
19											
29					1.94	.45	.45	1.62			
49					1.76	.36	.49	1.84			
73					28.60	6.67	1.25	2.06			
97											
145					2.77	.27	.32	1.02			
193					1.29	.33	.22	1.30			

STATION REPORT

CRUISE SSP014 GRID RA LAT 37-54.9N WIND SPEED 05 DATE 75/02/28
 STATION 027 SOUNDING 0140 LONG 23-10.5E WIND DIREC 34 TIME 8.1

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		
0	13.87	38.75	29.13		5.73	.51	-0.02	104
10	13.89	38.74	29.12	-1.2				
20	13.91	38.73	29.11	-1.2	6.31	.56	-0.07	115
30	13.92	38.70	29.08	-2.4				
50	13.90	38.71	29.09	.5	5.83	.52	-0.03	106
75	13.92	38.72	29.10	.1				
100	13.93	38.72	29.09	-0.1	5.64	.50	-0.01	103

DEPTH	CRUISE SSP STATION	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	DATE TIME	28/ 2/75 8.1	CHLORO-A MG/M3	PHAEO-P MG/M3
0		.76	2.92	.04	.13	.65			.237	.002
10										
20		.63	2.58	.56	3.57	5.65				
30										
50		.31	2.27	.09	.44	2.30				
75										
100		.27	1.62	.37	.44	2.52				

STATION REPORT

CRUISE SPP014 GRID SA LAT 37-52.8N WIND SPEED 03 DATE 75/02/28
 STATION 028 SOUNDING 0075 LONG 23-16.5E WIND DIREC 34 TIME 8.8

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		ADU MGA/L
0	13.91	38.70	29.08	-0.2	5.55	.50	-0.01	101
10	13.92	38.70	29.08	.1	5.52	.49	-0.00	101
20	13.92	38.70	29.08	-2.6				
30	13.94	38.67	29.05	1.0				
50	13.91	38.69	29.08	.5	5.49	.49	-0.00	100
75	13.92	38.71	29.09		5.07	.45	.04	92

DEPTH	CRUISE STATION	SSP 14 28	P04 UGAT/L	SIO4 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	DATE TIME	CHLORO-A MG/M3	PHAEO-P MG/M3
0			.96	3.57	.56	1.95	1.52	28/ 2/75 8.8		.375
10										
20			1.21	3.36	.56	2.99	2.61			
30										
50			.92	3.14	.46	1.69	1.38			
75			.66	2.81	.46	4.26	2.62			

STATION REPORT

CRUISE S5P014 GRID UA LAT 37-54.6N WIND SPEED 02 DATE 75/02/28
 STATION 029 SOUNDING 0040 LONG 23- 1.8E WIND DIREC 34 TIME 9.5

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	----- O X Y G E N -----	
					ML/L	MGA/L
0	13.58	38.69	29.15	5.46	.49	.01
10	13.74	38.69	29.11	5.63	.50	-0.01
20	13.74	38.70	29.12			
30	13.73	38.70	29.12	5.75	.51	-0.02

SATN
0/0

99

102

104

-3.3

.7

.4

DEPTH	CRUISE SSP 14		DATE 28/ 2/75		NH4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	SI04 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
	STATION 29		TIME 9.5							
0	PO4 UGAT/L	.68	2.92	.06	.20	1.48	.631			
10		.70	2.71	.36	1.47	3.38				
20										
30		.40	2.92	.18	1.10	1.76				

STATION REPORT

CRUISE S5P014 GRID TA LAT 37-52.0N WIND SPEED 04 DATE 75/02/28
 STATION 030 SOUNDING 0107 LONG 23- 2.0E WIND DIREC 36 TIME 10.0

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN 0/0
					ML/L	MGA/L	
0	13.67	38.70	29.14	5.67	0.51	-0.01	103
10	13.75	38.70	29.12	-1.6			
20	13.77	38.70	29.11	-0.4	0.45	0.04	92
30	13.77	38.70	29.11	-0.0			
50	13.75	38.70	29.12	0.2	0.50	-0.01	103
75	13.39	38.70	29.20	3.0			
100	13.73	38.70	29.12	-2.8	0.50	-0.01	102

DEPTH	CRUISE SSP 14 STATION 30	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	DATE TIME	CHLORO-A MG/N3	PHAEO-P MG/N3
0		.83	3.79	.53	1.73	1.86	28/ 2/75 10.0	.621	.237
10		3.89	5.96	1.53	21.67	14.53			
20		1.67	3.57	.60	1.84	2.60			
30									
50		.45	2.27	.35	2.77	2.33			
75									
100		.80	3.36	.63	1.66	1.57			

STATION REPORT

CRUISE SPP014 GRID FA LAT 37-52.2N WIND SPEED 07 DATE 75/02/28
 STATION 031 SOUNDING 0227 LONG 23-10.8E WIND DIREC 36 TIME 11.1

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	13.89	38.72	29.10		5.53	.49	-0.00	101
29	13.85	38.72	29.11	.3	5.19	.46	.03	95
49	13.87	38.71	29.10	-0.6	5.78	.52	-0.03	105
73	13.88	38.71	29.10	-0.1				
98	13.89	38.72	29.10	.2	5.59	.50	-0.01	102
147	13.82	38.71	29.11	.1				
196	13.96	38.72	29.09	-0.4	5.39	.48	.01	98

CRUISE SSP 14
STATION 31

DATE 28/ 2/75
TIME 11.1

DEPTH	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0	.67	2.71	.53	3.29	3.10	.335	.091
29	1.23	2.71	.39	1.18	1.29		
49	.42	2.06	.33	1.10	1.10		
73	1.24	3.57	.60	1.62	1.67		
98	1.88	4.01	.97	1.93	3.33		
147	.49	2.92	.53	1.39	1.00		
196	.38	2.71	.51	1.38	1.00		

STATION REPORT

CRUISE SPP014 GRID HA LAT 37-44.9N WIND SPEED 08 DATE 75/02/28
 STATION 032 SOUNDING 0225 LONG 23-12.8E WIND DIREC 36 TIME 12.2

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	13.90	38.70	29.09		5.22	.47	.02	95
29	13.85	38.71	29.10	.6				
48	13.86	38.74	29.13	1.1	5.44	.49	.00	99
72	13.90	38.73	29.11	-0.7				
97	13.85	38.73	29.12	.5	5.34	.48	.01	97
145	13.89	38.72	29.10	-0.3	5.37	.48	.01	98
193	13.91	38.73	29.11	.1	5.34	.48	.01	97

DEPTH	CRUISE SSP 14		DATE 28/ 2/75		NH4	NO3	NO2	SIO4	CHLORO-A	PHAEO-P
	STATION 32	TIME 12.2	UGAT/L	UGAT/L						
0			1.21	4.44	.25	3.26	1.94	3.42		.189
29			.87	3.40	.39	2.45	1.76			
48			.78	3.14	.46	2.69	2.05			
72										
97			.64	2.92	.53	3.27	2.52			
145			.82	2.92	.53	4.28	2.57			
193			.84	3.25	.54	2.28	1.86			

STATION REPORT

CRUISE SSP014 GRID JA LAT 37-39.4N WIND SPEED 13 DATE 75/03/01
 STATION 033 SOUNDING 0424 LONG 23-13.7E WIND DIREC 30 TIME 8.0

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SATN	
					ML/L	MGA/L		AOU MGA/L
0	13.98	38.73	29.09		5.31	.47	.01	97
48	13.86	38.72	29.11	.4	5.63	.50	-0.01	103
96	13.89	38.71	29.10	-0.3	5.27	.47	.02	96
143	13.89	38.71	29.09	-0.0	4.92	.44	.05	90
191	13.89	38.70	29.09	-0.2	4.80	.43	.06	87
287	13.91	38.70	29.08	-0.0	5.26	.47	.02	96
383	13.94	38.72	29.09	.1	5.74	.51	-0.02	105

DEPTH	CRUISE SSP STATION	PO4 UGAT/L	SI04 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0	14 33	.65	2.68	.91	2.19	2.21	.162	.039
48		.51	1.49	.28	1.35	2.16		
96		.51	1.69	.27	1.57	1.43		
143		.40	1.69	.19	1.55	.93		
191		.36	1.69	.23	1.96	2.58		
287		.40	2.08	.28	1.92	2.51		
383		.61	1.88	.35	1.60	3.81		

DATE
TIME

1/ 3/75
8.0

STATION REPORT

CRUISE SSP014 GRID KA LAT 37-39.0N WIND SPEED 06 DATE 75/03/01
 STATION 034 SOUNDING 0050 LONG 23-23.7E WIND DIREC 32 TIME 9.5

DEPTH	TEMP DEG C	SAL 0/00	SIGMA-T	STAB X1000	O X Y G E N		SAIN	
					ML/L	MGA/L		AOU MGA/L
0	13.95	38.71	29.08		5.20	.46	.03	95
10	13.82	38.70	29.10	2.0				
20	13.81	38.71	29.11	1.1				
30	13.80	38.72	29.12	.9	5.45	.49	.00	99
49	13.77	38.71	29.12	-0.1	5.16	.46	.03	94

DEPTH	CRUISE SSP 14		DATE		NH4	NO3	NO2	SIO4	CHLORO-A	PHAEO-P		
	STATION	34	TIME	1/ 3/75							MG/M3	MG/M3
	PO4	UGAT/L	NO3	UGAT/L	NO2	UGAT/L	SIO4	UGAT/L	NH4	UGAT/L	PHAEO-P	MG/M3
0	.29	2.08	2.08	2.08	.35	2.08	2.08	2.08	2.21	2.21	.181	.008
10	.33	1.09	.95	.95	.11	.11	1.09	1.09	3.72	3.72		
20												
30	.32	1.33	1.24	1.24	.20	.20	1.33	1.33	2.25	2.25		
49	.36	1.69	1.26	1.26	.11	.11	1.69	1.69	1.82	1.82		

STATION REPORT

CRUISE SSP014 GRID LA LAT 37-38.7N WIND SPEED 09 DATE 75/03/01
 STATION 035 SOUNDING 0204 LONG 23-32.5E WIND DIREC 36 TIME 11.5

DEPTH	TEMP DEG C	SAL	SIGMA-T	STAB X1000	----- O X Y G E N -----		SATN	
					ML/L	MGA/L		AOU
0	14.33	38.83	29.09		5.55	.50	-0.01	102
20	14.27	38.84	29.11	1.0				
49	14.26	38.84	29.12	.1	5.74	.51	-0.03	105
74	14.26	38.87	29.14	.9				
99	14.25	38.83	29.11	-1.1	5.49	.49	-0.00	101
148	14.24	38.84	29.12	.2				
198	13.92	38.80	29.16	.7	5.45	.49	.00	99

DEPTH	CRUISE STATION	SSP 14 35	DATE TIME	PO4 UGAT/L	SiO4 UGAT/L	NO2 UGAT/L	NO3 UGAT/L	NH4 UGAT/L	CHLORO-A MG/M3	PHAEO-P MG/M3
0			1/ 3/75 11.5	.22	.99	.41	.36	1.90	.105	.043
20				.22	.57	.21	.28	1.95		
49				.23	.85	.37	.28	1.82		
74				.15	.50	.15	.20	.86		
99				.30	.69	.18	.21	1.63		
148				.19	.50	.23	.23	2.07		
198				.19	.30	.18	.13	.86		



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