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PHYSICAL, CHEMICAL, AND PRODUCTIVITY DATA FROM AN INVESTIGATION--ETC(U)

FEB 71 F A RICHARDS, R C OUGDALE, M L HEALY

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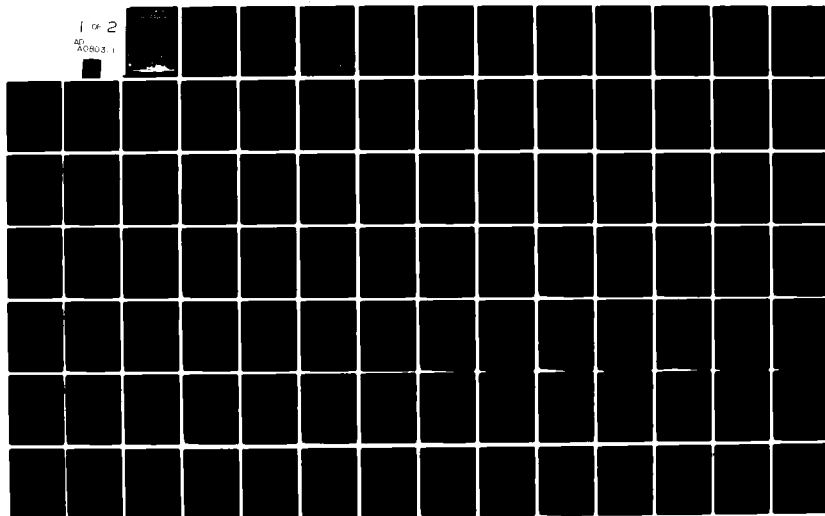
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6 PHYSICAL, CHEMICAL, AND PRODUCTIVITY DATA FROM AN INVESTIGATION
OF THE NORTHEASTERN TROPICAL PACIFIC OCEAN.

RV Thomas G. Thompson Cruise 026 (PONCHO):

3 January - 14 March 1968

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ABSTRACT

This report contains the tabulated physical, chemical, and biological data obtained in the northeastern tropical Pacific Ocean during January, February, and March 1968 during Cruise 026 of RV *Thomas G. Thompson*. Designated PONCHO, the cruise was undertaken to investigate the effects of chemical properties on biological and physical processes in a nutrient rich area. The various observations, and methods of collection, and analyses are described.

ACKNOWLEDGEMENTS

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INTRODUCTION

The PONCHO Cruise was planned to extend the investigations by the Chemical Oceanography group of the chemistry of low-oxygen environments into oceanic waters and to continue studies on nutrient circulation and productivity relationships in the Northeast Tropical Pacific Ocean. The area chosen for the investigations, the waters off Mexico and Central America, is characterized by an extensive layer of low-oxygen water and a wide range in primary productivity levels. The cruise track, Figure 1, was determined by the requirements of the five major projects: (1) Chemistry of Rising Waters, (2) Chemistry of Trench Waters, (3) Chemistry of Oxygen-Deficient Waters, (4) Origin and Fate of Secondary Nitrite Peak and (5) Nutrient-Productivity Studies. The Costa Rica Dome was studied intensively as a region of upwelling, the Mexico Trench was sampled frequently, sections were made south of Acapulco to identify and follow the development of the low-oxygen and core of high-nitrite water, and productivity measurements were made once daily.

The cruise track was made up of four legs, each terminating at a port. The ranges of each leg are outlined below.

CRUISE LEG	DATES	FULL STATIONS	STD STATIONS	TOTAL MILES
Seattle-Acapulco	3 Jan - 17 Jan	9	5	2670
Acapulco-Puntarenas	20 Jan - 6 Feb	31		2288
Puntarenas-Acapulco	10 Feb - 27 Feb	35		2903
Acapulco-Seattle	1 Mar - 14 Mar	3	5	2660

Emphasis was placed upon rapid reduction and analysis of the cruise data, and extensive use was made of the shipboard IBM 1130 Computer

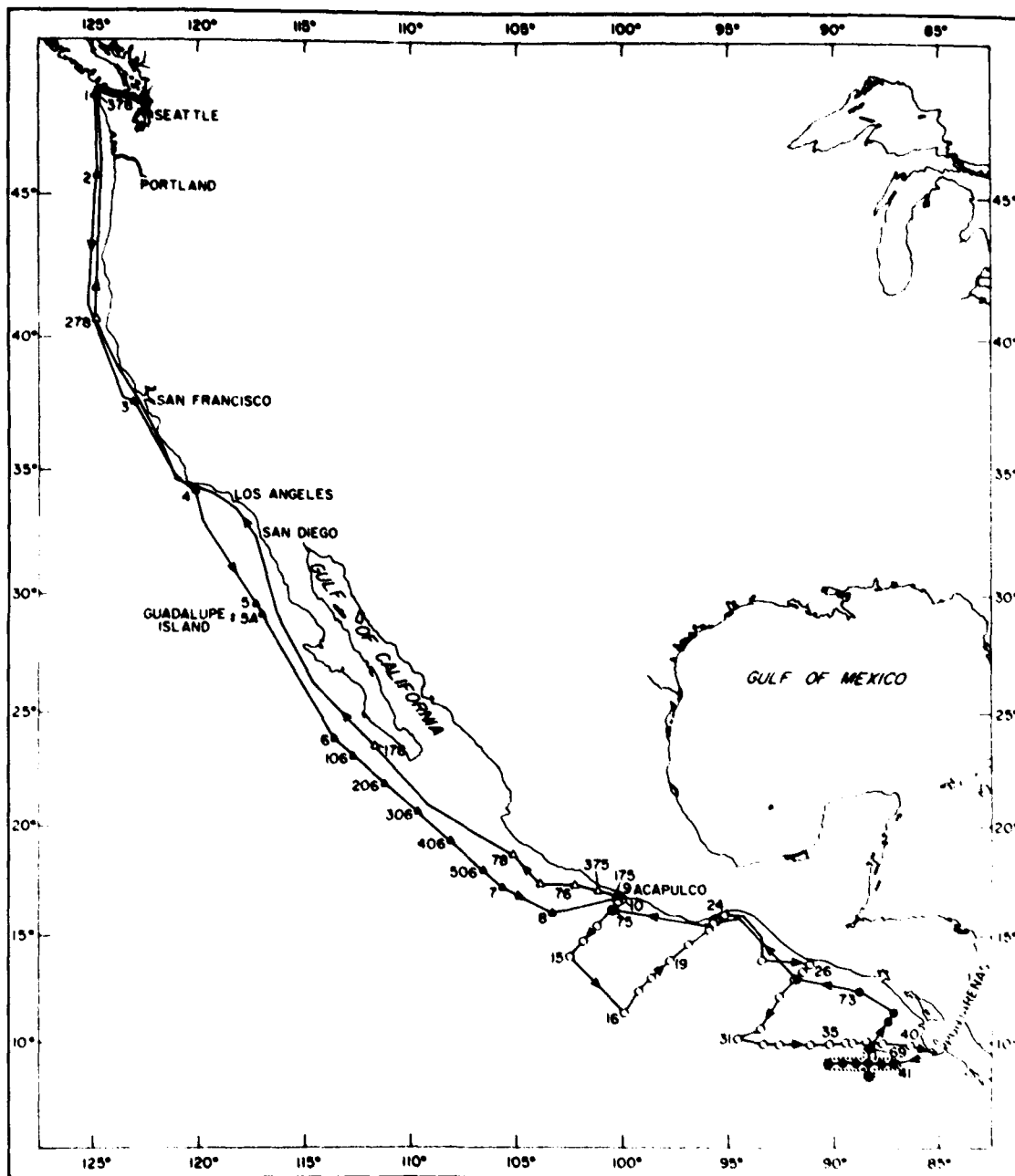


Fig. 1. Thomas G. Thompson Cruise 026, 3 January - 11 March 1968.
(Δ - Leg I, $\circ$ - Leg II, $\bullet$ - Leg III, $\triangle$ - Leg IV.)

and Calcomp plotter. A short course in Fortran programming was conducted on Leg 1 and considerable programming was accomplished onboard by the computer staff and scientific personnel. Routine calculations and a preliminary Chemistry Edit List of the variables measured were made with the computer, usually within 6-12 hours after the end of a station. In addition to this printed output, vertical plots of selected variables and sections were produced on the plotter. Paper tapes punched during routine lowerings of the Bisset-Berman STD unit were read, listed, and plotted by computer.

METHODS

Hydrographic casts were made using 5-liter plastic Niskin bottles equipped with reversing thermometers. Large volume samples were collected with 50-liter Phaobe bottles made of P.V.C. and with a 60-liter teflon-lined Bodman sampler made of metal. Sampling depths were determined from wire angle and unprotected reversing thermometer readings. Standard water drawing procedures were used for all chemical samples except pH and micro- O_2 . pH samples were collected in citrate bottles normally used for salinity. The water was drawn using Winkler oxygen procedure except that CO_2 samples were sealed with a small bubble to allow for water expansion. Micro- O_2 samples were drawn first using a 25 ml syringe to reduce O_2 contamination. A listing of analytical methods, all performed at sea, and their references follows.

A number of parameters were determined routinely throughout the water column at every station. Salinity was measured with a Bissett-Berman STD and with the University of Washington salinometer (Paquette,

1958). Phosphate was determined by the method of Murphy and Riley (1962), and silicate by that of Mullin and Riley (1955). Nitrate, nitrite, and ammonia were analyzed respectively with the methods of Wood *et al.* (1967), Bendschneider and Robinson (1952) and Richards and Kletsch (1964) or for productivity work, Průchasková (1964).

In the oxygen-minimum zone, attention was devoted to careful definition of the zone by precise oxygen determinations. The dissolved oxygen content of waters containing less than 1 ml/l was determined colorimetrically according to the procedure of Broenkow and Cline (1968). In all other waters, the conventional Winkler analysis was used.

Total CO₂ was determined by gas chromatography, using a Fisher gas partitioner, Model 29 equipped with an external gas stripper modified from the design of Swinnerton *et al.* (1962). Alkalinity was measured by the technique of Strickland and Parsons (1968). pH was measured by an unpublished method.

The routine hydrographic data are on file at the National Oceanographic Data Center and at the University of Washington.

EXPLANATION OF DATA TABLES

The information in the data tables was transcribed directly from IBM cards. The codes used to describe weather, sea conditions, etc., can be found in NODC Publication M-2 (National Oceanographic Data Center, 1964), and the abbreviations and column headings are described below.

Abbreviations and Headings Used in Data Tables

DATE	Expressed as Greenwich day/month/year.
HOURL	Greenwich mean time to the nearest tenth of an hour of the messenger drop on the first cast
LAT LONG	Latitude and longitude in degrees and minutes; or in degrees, minutes, and tenths of minutes
BARO	In millibars (To obtain barometric pressure, add 900 if this number is above 50 and 1000 if below 50.)
TEMP DRY and TEMP WET	In degrees Celsius
REL HUMID	Relative humidity expressed in percent
WEATHER	State of present weather (Coded in accordance with WMO Code 4501). A preceding X has no significance except to avoid confusion with previously used two-digit codes.)
VISIBILITY	Range of visibility (WMO code 4300)
CLOUD TYPE	Cloud type (WMO code 0500)
CLOUD AMT	Amount of cloud cover (WMO code 2700)
WIND VELOC	Wind velocity in knots
WIND DIREC	Wind direction (from NODC Publication M-2)
WAVE DIREC	Direction from which dominant waves approached (from NODC Publication M-2)
WAVE HEIGHT	Height of dominant waves (WMO code 1555)

WAVE PERIOD	Period of dominant waves (WMO code 3155)
SECCHI	Depth in meters to which a 12-inch (30.5 cm) Secchi disk could be seen on daylight stations
SOUNDING	Depth of water in meters in the station as determined by the ship's echo sounder
CAST	Cast number
DEPTH	Depth in meters from which sample was obtained
TEMP	Temperature in degrees Celsius
SAL	Salinity in parts per thousand (‰)
SIGMA-T	An expression for the density of seawater at atmospheric pressure at the indicated temperature and salinity (To convert sigma-t values to density, divide by 1000 and add 1; thus, sigma-t 22.42 = density 1.02242)
02 (Dissolved oxygen)	
UGAT/L	In microgram-atoms per liter, by the Winkler method in the first column, and by the micro method in the second.
AOU	Apparent oxygen utilization in microgram-atoms per liter (µgm-atoms/liter)
SATN	Percent of oxygen saturation
PO4	Reactive phosphorus in microgram-atoms per liter (µg-atoms/liter)
NO3	Nitrate-nitrogen in microgram-atoms per liter (µg-atoms/liter)
SiO4	Reactive-silicate in microgram-atoms per liter (µg-atoms/liter)
NO2	Nitrite-nitrogen in microgram-atoms per liter (µg-atoms/liter)
pH	pH corrected for <i>in situ</i> temperature
ALK	Alkalinity in millequivalents per liter
NH3	Ammonia-nitrogen in microgram-atoms per liter (µg-atoms/liter)

CO2

Total carbon dioxide as determined directly
by gas chromatography in millimoles per liter
(mmole/liter)

* AND ●

Indicate questionable values

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PHYSICAL AND CHEMICAL DATA

T G THOMPSON CRUISE 026				STATION 002				OBSERVED VALUES				WAVE PERIOD 2			
DATE	05/01/68	BARO	1030.4	WEATHER	X1	WIND VELOC	14	SECCHI	13	SOUNDING	650	PH			
HOUR	17.08	TEMP DRY	9.2	VISIBILITY	8	WIND DIREC	03								
LAT	45-33.5N	TEMP WET	7.7	CLOUD TYPE	8	WAVE DIREC	34								
LONG	124-45.5W	REL HUMID	82	CLOUD AMT	2	WAVE HEIGHT	4								
CAST	DEPTH	TEMP DEG.C	SAL	SIGMAT	O2	UGAT/L	O2	UGAT/L	0/0 O2 SATN	ACU	UGAT/L	NO3	UGAT/L		
			0/00												
1	3	9.43	32.415	25.05	567	-2	101	0.81	10.42	7.61					
1	10	9.43	32.413	25.05	566	-1	100	0.78	9.54	7.61					
1	25	9.38	32.420	25.06	567	-2	100	0.68	6.65	3.91					
1	100	8.38	32.499	25.28	302	276	52	1.83	32.50	25.00					
1	251	6.65	33.677	26.45	198	399	33	2.29	51.45	28.78					

DATE 07/01/69
 HOUR 22:2
 LAT 37-32.5N
 LONG 122-56.0W

T G THOMPSON CRUISE 026 STATION 003 OBSERVED VALUES
 BARO DRY 1023.5 WEATHER X1
 TEMP WET 8.9 VISIBILITY 7
 REL HUMID 7.7 CLOUD TYPE 2
 85 CLOUD AMT 2

CAST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	O2		AOU UGAT/L	O/O O2 SATN	PO4 UGAT/L	SI04 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
					UGAT/L	UGAT/L							
1	1	11.84	33.417	25.41	530	1	100	0.58	5.65	4.83	8.37		
1	10	11.80	33.423	25.42	531	1	100	0.60	6.27	4.83	8.37		
1	11	11.82	33.422	25.42	532	0	100	0.60	6.78	4.92	8.36		
1	59	10.39	33.600	25.81	349	199	64	1.54	21.71	18.07	8.27		
1	89	9.75	33.699	26.00	314	241	57	1.62	25.98	20.97	8.15		

WAVE PERIOD 2
 SECCHI 17
 SOUNDING 100

OBSERVED VALUES

STATION 003

CRUISE 026

T G THOMPSON

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	1		2.38	
1	10		2.36	
1	11		2.39	
1	59		2.38	
1	89		2.44	

T G THOMPSON CRUISE 026				STATION 004				OBSERVED VALUES				WAVE PERIOD 2 SECCHI SOUNDING 571						
DATE	09/01/68	BARO	1020.0	WEATHER	X2	WIND VELOC	02	WIND DIREC	09	WAVE DIREC	03	WAVE HEIGHT	03	PO4	SI04	NO3	NO2	PH
HOUR	2.1	TEMP DRY	12.9	VISIBILITY	7	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	UGAT/L	UGAT/L	UGAT/L	
LAT	34-13.3N	TEMP WET	10.8	CLOUD TYPE	2	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	UGAT/L	UGAT/L	UGAT/L	
LONG	120-32.6W	REL HUMID	77	CLOUD AMT	7	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	UGAT/L	UGAT/L	UGAT/L	
CAST	DEPTH	TEMP	SAL	SIGMAT	02	02	02	02	02	02	02	02	02	02	02	02	02	02
		DEG.C	0/00		UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L
1	1	13.51	33.386	25.06	554	554	554	554	554	554	554	554	554	554	554	554	554	554
1	25	13.22	33.383	25.12	521	521	521	521	521	521	521	521	521	521	521	521	521	521
1	26	13.22	33.385	25.12	520	520	520	520	520	520	520	520	520	520	520	520	520	520
1	76	10.88	33.492	25.64	387	387	387	387	387	387	387	387	387	387	387	387	387	387
1	151	9.82	33.894	26.13	261	261	261	261	261	261	261	261	261	261	261	261	261	261
1	152	9.81	33.888	26.14	265	265	265	265	265	265	265	265	265	265	265	265	265	265
1	302	8.00	34.158	26.63	103	103	103	103	103	103	103	103	103	103	103	103	103	103
1	503	6.44	34.250	26.92	19	19	19	19	19	19	19	19	19	19	19	19	19	19
1	568	6.39	34.253	26.93	31	31	31	31	31	31	31	31	31	31	31	31	31	31
1	569	6.40	34.256	26.94	14	14	14	14	14	14	14	14	14	14	14	14	14	14

T G THOMPSON CRUISE 026 STATION 004 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	1		2.38	
1	25		2.28	
1	26			
1	76			
1	151		2.38	
1	152			
1	302	0.00		
1	503	0.06	2.47	
1	568	1.06	2.47	
1	569	0.31		

		T G THOMPSON		CRUISE 026	STATION 005	OBSERVED VALUES
CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L		
1	1	0.93				
1	10	0.81				
1	20	0.15				
1	40	0.40				
1	70	0.58				
1	101	0.37				
1	201	1.01				
1	302	0.11				
1	403					
1	514	0.13				

T G THOMPSON CRUISE 026 STATION 006 OBSERVED VALUES

CAST	DEPTH	NH3		ALK	CO2
		UGAT/L	MEG/L		MMOL/L
1	1	0.75			
1	10	0.39			
1	25	0.15			
1	76	0.00			
1	604	0.00			

DATE 15/01/68 14.5 17-08.0N 105-39.0W	CAST	DEPTH	T G THOMPSON CRUISE 026				STATION 007				OBSERVED VALUES						WAVE PERIOD 2 SECCHI 11 SOUNDING 3164			
			TEMP DEG.C	SAL O/00	SIGMAT	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	O2 UGAT/L	O2 UGAT/L	AQU UGAT/L	O/O O2 SATN	WIND VELOC 01 WIND DIREC 30 WAVE DIREC 30 WAVE HEIGHT	P04 UGAT/L	S104 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH				
	1	0	26.13	34.008	22.27	416	416			-7	102		0.26	0.88	0.75	0.22	8.28			
	1	10	26.10	34.014	22.28	414	414			-5	102		0.23	0.88	0.14	0.11				
	1	11	26.09																	
	1	25	26.11	34.009	22.27	417	417			-8	102		0.17	0.63	2.50	0.15	8.27			
	1	50		34.277		425	425						0.28	1.25	2.05	0.05				
	1	75	19.48	34.344	24.42	324	114.96			131	71		0.87	5.52	5.27	0.79				
	1	100	15.70	34.461	25.42	111	78.41			376	23		1.98	17.32	21.61	0.07	7.67			
	1	101	15.56																	
	1	150	12.96	34.776	26.25	16	0.34			497	3		2.60	29.24	25.38	1.49				
	1	201	12.03	34.784	26.43	11	0.85			513	2		2.64	33.51	23.50	2.58	7.77			
	2	246	11.48	34.761	26.52	21	1.19			509	4		2.70	35.64	22.93	2.35	7.70			
	2	294	10.68	34.714	26.63	18	0.51			521	3		2.86	40.41	23.47	1.63	7.67			
	2	394	9.10	34.624	26.83	15	1.02			545	3		3.07	52.46	27.92	0.62	7.67			
	2	495	7.79	34.572	26.99	9	1.19			568	2		3.26	65.89	32.51	0.44	7.62			
	2	594	6.80	34.551	27.11	21	1.61			569	4		3.36	74.17	36.57	0.07	7.60			
	2	795	5.45	34.533	27.27	13	2.63			597	2		3.43	92.37	41.88	0.01				
	2	997	4.39	34.561	27.42	50	18.70			576	8		3.50	107.55	43.77	0.01				
	2	1199	3.75	34.580	27.50	54	41.44			583	8		3.32	122.99	43.65	0.01				
	2	1404	3.21	34.595	27.56	89				557	14		3.29	128.39	41.47	0.00	7.67			
	2	1706	2.59	34.633	27.65	144				512	22		3.11	142.32	41.39	0.01				

T G THOMPSON		CRUISE 026		STATION 007		OBSERVED VALUES	
CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L			
1	0	0.00	2.46	2.01			
1	10	0.13					
1	11						
1	25	0.27	2.40	2.02			
1	50	0.48					
1	75	0.62					
1	100	0.26	2.42	2.31			
1	101						
1	150						
1	201		2.48	2.33			
2	246	0.00	2.43	2.41			
2	294		2.44	2.41			
2	394		2.44	2.49			
2	495	0.00	2.44	2.45			
2	594		2.44	2.48			
2	795	0.15					
2	997			2.52			
2	1199	0.01					
2	1404		2.49	2.54			
2	1706	0.15					

T G THOMPSON CRUISE 026 STATION 008 OBSERVED VALUES

DATE 16/01/58
HOUR 1304
LAT 16-05.0N
LONG 103-22.0WBARO 1012.5
TEMP DRY 25.6
TEMP WET 25.6
REL HUMID 98WEATHER X1
VISIBILITY 9
CLOUD TYPE 0
CLOUD AMT 1WIND VELOC 03
WIND DIREC 05
WAVE DIREC 34
WAVE HEIGHT 2WAVE PERIOD 3
SECHL 41
SOUNDING 0

CAST	DEPTH	TEMP DEG.C	SAL	SIGMAT	O2 UGAT/L	O2 UGAT/L	ACU UGAT/L	O/O O2 SATN	P04 UGAT/L	SIC4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
2	0	27.81	33.989	21.72	413	262	111.01	57	0.16	1.25	0.05	0.00	8.04
2	10	27.72	33.985	21.75	414	49	32.38	10	0.16	0.75	0.00	0.05	
2	25	27.70	33.986	21.75	412	419		104	0.15	0.75	0.07	0.02	8.03
2	50		34.264						0.19	1.38	0.03	0.01	
2	76	19.27	34.384	24.50	262	111.01	194	57	1.17	8.16	9.93	0.71	7.80
2	101	15.32	34.576	25.59	49	32.38	442	10	2.30	20.33	25.95	0.06	7.53
2	151	12.82	34.796	26.29	11	0.89	504	2	2.59	29.24	25.52	2.02	
2	201	11.74	34.784	26.49	15	2.42	512	3	2.65	33.13	25.66	1.84	7.44
1	252	11.31	34.763	26.55	12	0.68	520	2	2.78	34.76	24.99	1.92	7.44
1	298	10.66	34.724	26.64	12	1.23	528	2	2.81	39.53	23.58	1.56	7.43
1	397	9.10	34.633	26.83	11	1.87	548	2	3.05	51.96	28.16	0.63	7.40
1	497	7.85	34.583	26.99	11	1.36	565	2	3.19	64.26	31.58	0.57	7.40
1	596	6.72	34.553	27.13	11	0.85	581	2	3.41	75.93	37.45	0.03	7.46
1	797	5.50	34.554	27.28	11	2.89	599	2	3.41	91.49	41.83	0.02	
1	1000	4.51	34.558	27.40	32	12.45	593	5	3.49	107.68	43.77	0.01	
1	1202	3.70	34.579	27.50	61	36.00	577	10	3.36	125.25	42.94	0.00	
1	1405	3.12	34.599	27.58	96		552	15	3.23	136.29	41.46	0.01	7.41
1	1707	2.59	34.626	27.64	148		508	23	3.08	145.58	41.38	0.01	

		T G THOMPSON		CRUISE 026		STATION 008		OBSERVED VALUES	
CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L					
2	0	0.63	2.38	2.14					
2	10	0.25							
2	25	0.29	2.38	2.12					
2	50	0.41	2.40	2.18					
2	76	0.00	2.40	2.37					
2	101	0.24	2.42	2.49					
2	151	0.00							
2	201	0.00	2.43	2.56					
1	252	0.00	2.43	2.53					
1	298	0.00	2.43	2.54					
1	397	0.03	2.43	2.60					
1	497	0.00	2.44	2.61					
1	596	0.00	2.52	2.64					
1	797	0.10							
1	1000	0.23		2.62					
1	1202	0.08							
1	1405	0.53	2.49	2.66					
1	1707	0.23							

DATE TIME LAT LONG	T G THOMPSON	CRUISE 026	STATION 009				OBSERVED VALUES				WAVE PERIOD 2 SECCHI 33 SOUNDING 924				PH
			BARO TEMP REL HUMID	DRY WET HUMID	1013.2 26.1 25.3 94	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	X0 8	WIND VELOC *IND DIREC WAVE DIREC WAVE HEIGHT	03 36 34 1	02 SATN	PG4 UGAT/L	SIQ4 UGAT/L	NQ3 UGAT/L	NQ2 UGAT/L	
CAST	DEPTH	TEMP DEG.C	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	O2 UGAT/L	ACU UGAT/L	070 02 SATN	02 UGAT/L	02 UGAT/L	02 UGAT/L	02 UGAT/L	02 UGAT/L	02 UGAT/L
1	0	27.61	34.091	21.86	414			-15	104		0.25	2.76	0.25	0.00	
1	48	20.09	34.47C	24.35	198			251	44		1.45	11.42	12.76	0.78	
1	95	14.25	34.847	26.03	17	1.83		493	3		2.44	25.60	28.72	0.02	
1	118		34.845		10						2.43	27.48	30.82	0.02	
1	141	12.90	34.836	26.30	16			493	3		2.46	29.74	28.18	0.74	
1	186	12.38	34.820	26.39	14	1.53		506	3		2.45	30.37	30.28	0.23	
1	234	11.97	34.815	26.49	14			511	3		2.55	32.88	30.34	0.25	
1	281	11.24	34.738	26.55	13	1.61		520	2		2.63	35.89	28.20	0.89	
1	376	10.34	34.718	26.69	12	1.70		532	2		2.77	42.04	25.77	1.18	
1	471	8.64	34.627	26.90	18	1.36		548	3		3.04	57.48	28.70	0.89	
1	869	4.80	34.559	27.37	28			592	5		3.36	103.41	44.16	0.00	

T G THOMPSON CRUISE 026 STATION: 009 OBSERVED VALUES

	CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
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1	0	2.27		
1	48	0.17		
1	95	0.66		
1	118	0.22		
1	141	0.00		
1	186	0.09		
1	234	1.31		
1	281	0.09		
1	376	0.44		
1	471	0.44		
1	869	1.58		

DATE 21/01/68
 HOUR 2.1
 LAT 16-33.0N
 LONG 100-10.5W

T G THOMPSON CRUISE 026 STATION 011 OBSERVED VALUES
 BARO DRY 1011.2
 TEMP WET 27.2
 REL HUMID 25.2
 WAVE PERIOD 2
 SECCHI SOUNDING 2377

CAST	DEPTH	TEMP DEG C	SAL O/100	SIGMAT	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	WIND UGAT/L	WIND DIRECTION SA/N	WAVE UGAT/L	WAVE DIRECTION SA/N	WAVE HEIGHT SA/N	NO2 UGAT/L	NO3 UGAT/L	PH
1	0	28.14	34.004	21.62	414	-18	105	0.45	0.63	0.16	0.01	0.16	8.29
1	49	20.90	34.363	24.06	144	299	33	1.57	11.42	12.36	0.08	12.36	7.78
1	99	14.78	34.824	25.90	17	478	3	2.62	23.97	29.46	0.04	30.07	7.75
1	149	12.86	34.841	26.32	18	496	4	2.48	28.24	31.07	0.02	31.16	7.71
1	198	12.25	34.832	26.43	11	510	2	2.50	30.75	31.16	0.02	31.16	7.73
1	248	11.56	34.783	26.52	10	519	2	2.55	33.01	27.49	1.18	26.74	7.73
1	299	10.75	34.739	26.64	15	524	3	2.71	37.90	30.91	0.78	39.16	0.00
1	401	9.35	34.661	26.82	11	545	2	3.23	49.82	63.00	0.00	0.00	
1	501	8.06	34.597	26.97	5	568	1	3.11	63.00	76.43	0.00	0.00	
1	649	6.46	34.563	27.17	6	590	1	3.25	76.43	0.00	0.00	0.00	

T G THOMPSON CRUISE 026				STATION 012				OBSERVED VALUES				WAVE PERIOD 2			
DATE 21/01/68		BARO 1012.0		WEATHER X0		WIND VELOC 05		WIND DIREC 33		WAVE PERIOD 2		WAVE PERIOD 2			
HOUR 15.9		TEMP DRY 21.8		VISIBILITY 8		WIND DIREC 33		WAVE PERIOD 2		WAVE PERIOD 2		WAVE PERIOD 2			
LAT 16-18.0N		TEMP WET 25.0		CLOUD TYPE 0		WAVE PERIOD 2		WAVE PERIOD 2		WAVE PERIOD 2		WAVE PERIOD 2			
LONG 100-25.3W		REL HUMID 80		CLOUD AMT 0		WAVE PERIOD 2		WAVE PERIOD 2		WAVE PERIOD 2		WAVE PERIOD 2			
CAST	DEPTH	TEMP DEGC	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	ACU UGAT/L	O/O J2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH		
1	0	27.61	34.051	21.83	420		-21	106	0.19	0.75	0.19	0.02	8.28		
1	50	18.78	34.531	24.74	138		322	30	1.61	11.92	18.54	0.84			
1	101	13.48	34.842	26.19	9	0.59	499	2	2.55	25.23	30.29	0.05	7.77		
1	151	12.71	34.845	26.35	9	1.06	507	2	2.50	27.61	31.93	0.01			
1	201	12.03	34.807	26.45	14		509	3	2.35	29.49	28.69	0.09	7.74		
1	252	11.47	34.778	26.54	9	0.55	522	2	2.39	32.88	28.80	0.07			
1	302	10.89	34.748	26.62	11	1.27	526	2	2.54	37.15	23.89	1.42	7.69		
1	403	9.59	34.666	26.78	11	0.42	542	2	2.92	46.81	24.12	1.06	7.68		
1	503	7.87	34.593	26.99	11	0.42	564	2	3.08	62.25	32.10	0.68			
1	655	6.57	34.565	27.16	9	2.42*	585	2	3.98*	75.17	37.69	0.13			
2	694	6.35	34.561	27.18	9	0.55	589	1	3.24	78.56	37.62	0.20	7.63		
2	794	5.65	34.557	27.27	9	1.27	598	2	3.33	86.72	41.18	0.00	7.62		
2	894	5.03	34.555	27.34	13	5.06	603	2	3.30	96.63	43.12	0.08	7.62		
2	994	4.61	34.555	27.39	27	9.56	596	4	3.32	102.28	45.53	0.06	7.62		

DATE TIME LAT LONG	CAST	DEPTH	T G THOMPSON CRUISE 026				STATION 013				OBSERVED VALUES				WAVE PERIOD 2 SECCHI 33 SOUNDING 3400			
			TEMP DEG.C	SAL O/100	STGMAT	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	Q2 UGAT/L	Q1 UGAT/L	Q2 UGAT/L	WIND VELOC WIND DIREC WAVE HEIGHT	Q/O Q2 SATM	Q4 UGAT/L	Q3 UGAT/L	Q104 UGAT/L	Q04 UGAT/L	Q03 UGAT/L	Q02 UGAT/L	PH
21/01/68 1800 15-26.00N 101-09.00W	1	0	27.72	34.253	21.95	419	419			-21	106	0.15	0.20	0.50	0.15	0.20	0.01	8.30
	1	49	18.50	34.518	24.80	125	125			337	27	1.68	13.01	11.92	1.68	13.01	0.31	7.95
	1	97	13.50	34.827	26.18	4	4	0.08		504	1	2.48	28.38	25.98	2.48	28.38	1.09	7.76
	1	146	12.53	34.835	26.38	4	4	0.81		514	1	2.47	21.38*	27.61	2.47	21.38*	0.14	
	1	195	12.05	34.805	26.45	4	4	0.17		519	1	2.48	31.02	31.00	2.48	31.02	0.03	7.70
	1	243	11.57	34.785	25.52	4	4	0.21		525	1	2.54	33.13	33.13	2.54	33.13	0.08	
	2	274	11.35	34.771	26.55	13	13	0.21		519	2	2.63	30.10	33.13	2.63	30.10	0.41	7.77
	2	368	10.14	34.699	26.71	15	15	0.25		531	3	2.86	25.62	43.05	2.86	25.62	1.12	
	2	463	8.68	34.623	26.89	16	16	0.51		549	3	3.12	28.63	55.97	3.12	28.63	0.83	7.70
	2	557	7.48	34.581	27.04	7	7	0.00		574	1	3.19	33.00	65.39	3.19	33.00	0.71	
	2	652	6.65	34.560	27.14	9	9	1.15		584	1	3.31	37.06	76.30	3.31	37.06	0.17	
	2	748	5.91	34.549	27.23	11	11	0.81		592	2	3.35	40.72	82.20	3.35	40.72	0.00	7.65
	2	846	5.40	34.553	27.30	14	14	2.34		597	2	3.54	43.11	89.10	3.54	43.11	0.00	
	2	945	4.81	34.558	27.37	18	18	7.31		603	3	3.41	43.78	97.89	3.41	43.78	0.00	7.72

T G THOMPSON CRUISE 026 STATION 013 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.41	2.13
1	49		2.41	2.43
1	97		2.43	2.47
1	146			
1	195		2.42	2.55
1	243			
2	274		2.42	2.57
2	368			
2	463		2.44	2.61
2	557			
2	652			
2	748		2.44	2.67
2	846			
2	945		2.46	2.63

T G THOMPSON				CRUISE 026		STATION 014			OBSERVED VALUES				
DATE 22/01/68		1011.5		WEATHER X0		WIND VELOC 02		WAVE PERIOD 2					
TIME 1.8		27.3		VISIBILITY 8		WIND DIREC 31		SECCHI					
LAT 14-46.0N		23.6		CLOUD TYPE X		WAVE DIREC 31		SOUNDING		3296			
LONG 101-49.0W		73		CLOUD AMT 9		WAVE HEIGHT 0							
CST	DEPTH	TEMP DEG.C	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	P04 UGAT/L	SIO4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
1	0	28.65	33.958	21.42	412		-19	105	0.36	1.13	0.26	0.00	8.34
1	50	27.75	33.972	21.73	412		-13	104	0.17	1.38	0.77	0.03	8.34
1	101	16.03	34.733	25.55	5	0.93	478	1	2.52	21.08	30.40	0.15	
1	151	13.13	34.819	26.24	9	0.08	503	2	2.47	28.74	27.72	1.97	
1	201	12.21	34.823	26.43	4	0.55	517	1	2.69	30.87	30.86	0.24	7.80
1	252	11.61	34.786	26.52	4	1.02	524	1	2.57	33.51	29.57	0.69	
2	284	11.26	34.769	26.57	3	1.02	530	1	2.58	35.64	27.26	1.58	7.78
2	380	10.13	34.674	26.69	6	0.68	541	1	2.92	46.81	25.82	0.91	
2	477	8.47	34.609	26.92	4	0.55	563	1	3.24	59.24	30.20	0.78	
2	572	7.29	34.575	27.06	6	1.02	577	1	3.25	71.53	34.84	0.72	
2	669	6.33	34.552	27.18	4	1.74	593	1	3.35	78.44	40.76	0.00	7.69
2	767	5.71	34.552	27.26	1	2.12	605	0	3.45	87.22	41.01	0.00	
2	863	5.19	34.556	27.32	4	3.70	610	1	3.59	93.75	44.11	0.01	
2	960	4.77	34.556	27.37	11	8.50	610	2	3.65	100.27	45.05	0.00	7.71

T G THOMPSON CRUISE 026				STATION 015				OBSERVED VALUES				WAVE PERIOD 2			
DATE	22/01/68	BARO	1012.5	WEATHER	X0	WIND VELOC	03	WIND DIREC	03	WAVE PERIOD	2	SECCHI	3200		
HOUR	13.6	TEMP DRY	27.2	VISIBILITY	8	WAVE DIREC	33	WAVE DIREC	33	SOUNDING	3200				
LAT	14-03.0N	TEMP WET	24.3	CLOUD TYPE	0	WAVE HEIGHT	2								
LONG	102-12.0W	RFL HUMID	79	CLOUD AMT	0										
CAST	DEPTH	TEMP	SAL	SIGMAT	O2	UGAT/L	O2	UGAT/L	AOU	O/O O2	P04	SI04	NO3	NO2	PH
		DEG.C	O/100						UGAT/L	SATN	UGAT/L	UGAT/L	UGAT/L	UGAT/L	
1	0	28.11	33.895	21.55	418				-21	106	0.50	1.51	0.04	0.02	8.27
1	5	27.98	33.896	21.59	414				-17	105	0.25	1.63	0.11	0.00	8.35
1	10	27.98	33.894	21.59	418				-20	105	0.21	0.75	0.13	0.01	
1	25	27.98	33.892	21.59							0.22	1.76	0.06	0.01	8.32
1	50	27.95	33.889	21.60	408				-11	103	0.31	1.76	0.92	0.05	8.33
1	60		33.825		354						0.46	1.38		1.83	
1	86	22.91	34.083	23.29	288	112.79*			141	67	1.31	8.16	3.52	0.09	8.12
1	111	20.38	34.270	24.12	218	127.67*			229	49	1.63	12.30	15.47	0.04	8.04
1	151	14.74	34.776	25.87	7	1.06			488	1	2.53	23.72	53.82*	0.09	7.83
1	176		34.827		5						2.54	27.48	31.15	0.37	
1	201	12.63	34.838	26.36	15	0.98			502	3	2.47	28.11	32.54	0.03	7.77
2	206	12.60	34.832	26.36	16				502	3	2.43	27.86	32.10	0.05	
2	228	12.23	34.816	26.42	14	0.17			507	3	2.63	30.37	31.80	0.26	7.78
2	251	12.00	34.803	26.45	12				512	2	2.54	30.50	31.91	0.03	7.77
2	274	11.73	34.794	26.50	10	0.17			517	2	2.58	31.37	31.99	0.07	7.73
2	297	11.53	34.776	26.52	9				520	2	2.57	32.88	30.58	0.35	
2	321	11.25	34.762	26.56	11	0.21			522	2	2.72	34.14	29.68	0.79	7.76
2	345	10.76	34.737	26.63	11				528	2	2.73	37.02	25.88	1.74	
2	367	10.35	34.712	26.69	14	1.02			529	3	2.79	40.79	23.91	1.32	7.72
2	414	9.46	34.662	26.80	21				533	4	2.92	48.19	28.49	1.06	
2	461	8.66	34.623	26.90	13	0.98			552	2	3.12	54.34	28.74	0.89	7.70
3	582	7.16	34.567	27.08	12	0.42			574	2	3.26	69.65	34.70	0.48	7.68
3	675	6.32	34.553	27.18	16	0.85			582	3	3.36	77.68	39.03	0.01	
3	771	5.68	34.547	27.26	16	1.57			592	3	3.51	83.46	41.50	0.02	7.64
3	865	5.21	34.545	27.31	16				598	3	3.43	92.74	43.64	0.02	
3	960	4.67	34.553	27.38	35	12.96			587	6	3.49	98.77	44.77	0.02	7.66
3	1150	3.99	34.569	27.47	52	31.19			581	8	3.45	110.94	44.83	0.01	
3	1441	3.17	34.551	27.57	97	68.51			550	15	3.28	137.80	43.27	0.01	7.72
3	1927	2.30	34.636	27.68	176				485	27	3.01	143.70	40.09	0.00	
2	2936	1.87	34.666	27.74	228				441	34	2.81	150.85	39.07	0.01	7.85
3	3136	1.85	34.665	27.74	226				443	34	2.78	148.34	38.44	0.01	7.88

T G THOMPSON CRUISE 026 STATION 015 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	1.24	2.39	2.18
1	5	0.79		
1	10	0.72		
1	25	0.66	2.38	2.18
1	50	0.85	2.38	2.18
1	60	0.00		
1	86	0.47	2.36	2.35
1	111	0.38	2.44	2.40
1	151	0.52	2.44	2.56
1	176	0.16		
1	201	0.35	2.43	2.62
2	206	0.32		
2	228	0.28		
2	251	0.34		
2	274	0.94	2.43	2.59
2	297	0.44		
2	321	0.00		
2	345	0.00		
2	367	0.00	2.44	2.65
2	414	0.00		
2	461	0.07	2.46	2.70
3	582	0.43		
3	675	0.39		
3	771	0.63	2.48	2.72
3	865	0.66		
3	960	0.36	2.49	2.76
3	1150	0.90		
3	1441	0.65	2.51	2.80
3	1927	0.81		
3	2936	0.51	2.56	2.73
3	3136	0.20		

T G THOMPSON CRUISE 026				STATION 016				OBSERVED VALUES				WAVE PERIOD 2			
DATE	24/01/68	PARO	1011.9	WEATHER	X1	WIND VELOC	16	WIND DIREC	12	WAVE DIREC	09	SECCHI	04	WAVE PERIOD	2
HOUR	14.55	TEMP DRY	26.7	VISIBILITY	9	WAVE DIREC	12	WAVE DIREC	09	WAVE PERIOD	3200	WAVE PERIOD	04	WAVE PERIOD	2
LAT	11-25.0N	TEMP WET	26.3	CLOUD TYPE	1	WAVE PERIOD	3200	WAVE PERIOD	04	WAVE PERIOD	3200	WAVE PERIOD	04	WAVE PERIOD	2
LONG	099-52.0W	REL HUMID	26.97	CLOUD AMT	2	WAVE PERIOD	3200	WAVE PERIOD	04	WAVE PERIOD	3200	WAVE PERIOD	04	WAVE PERIOD	2
CST	DEPTH	TEMP	SAL	SIGMAT	O2	UGAT/L	O2	UGAT/L	0/0	O2	UGAT/L	PO4	UGAT/L	NO3	UGAT/L
1	0	25.53	33.974	22.43	465	-52	113	0.28	0.09	0.09	0.09	0.09	0.09	0.09	0.09
1	10	25.50	33.973	22.44	468	-55	114	0.45	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1	20	24.01	34.115	22.99	408	13	97	0.75	0.54	0.54	0.54	0.54	0.54	0.54	0.54
1	30	23.17	34.139	23.25	368	59	86	0.91	0.39	0.39	0.39	0.39	0.39	0.39	0.39
1	40	22.92	34.177	23.35	313	115	73	0.98	0.30	0.30	0.30	0.30	0.30	0.30	0.30
1	50		34.202		326			1.06	0.26	0.26	0.26	0.26	0.26	0.26	0.26
1	76	14.46	34.813	25.96	10	488	2	2.40	0.14	0.14	0.14	0.14	0.14	0.14	0.14
1	101	13.11	34.847	26.27	26	486	5	2.31	0.07	0.07	0.07	0.07	0.07	0.07	0.07
1	126	12.78	34.853	26.34	29	486	6	2.35	0.12	0.12	0.12	0.12	0.12	0.12	0.12
1	151	12.42	34.847	26.41	28	491	5	2.36	0.06	0.06	0.06	0.06	0.06	0.06	0.06
2	193	11.93	34.809	26.47	25	500	5	2.42	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	240	11.12	34.766	26.59	58	476	11	2.46	0.02	0.02	0.02	0.02	0.02	0.02	0.02
2	286	10.72	34.747	26.65	41	498	8	2.61	0.08	0.08	0.08	0.08	0.08	0.08	0.08
2	332	10.28	34.727	26.71	28	516	5	2.63	0.06	0.06	0.06	0.06	0.06	0.06	0.06
2	379	9.78	34.696	26.77	25	526	5	2.77	0.04	0.04	0.04	0.04	0.04	0.04	0.04
2	474	8.37	34.619	26.94	19	550	3	3.03	0.17	0.17	0.17	0.17	0.17	0.17	0.17
2	571	7.31	34.595	27.08	14	570	2	3.20	0.27	0.27	0.27	0.27	0.27	0.27	0.27
2	667	6.49	34.578	27.18	14	581	2	3.27	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2	764	5.71	34.562	27.26	20	587	3	3.39	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	861	5.05	34.560	27.34	28	588	5	3.39	0.03	0.03	0.03	0.03	0.03	0.03	0.03
2	989	4.70	34.578	27.40	38	584	6	3.40	0.11	0.11	0.11	0.11	0.11	0.11	0.11

T R THOMPSON CRUISE 026 STATION 016 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	2.15	2.40	2.10
1	10	1.28	2.37	2.13
1	20	1.21		
1	30	1.55	2.38	2.15
1	40	1.72		
1	50	2.15		
1	76	0.02	2.41	2.46
1	101	0.45		
1	126	0.70	2.42	2.47
1	151	0.74		
2	193	0.72	2.42	2.52
2	240	0.82		
2	286	0.81		
2	332	0.27		
2	379	0.64		
2	474	0.67	2.43	2.52
2	571	0.45		
2	667	0.40		
2	764	0.42		
2	861	0.56	2.47	2.62
2	989	0.50		

T G THOMPSON CRUISE 026										OBSERVED VALUES									
DATE	25/01/68	BARO	1011.4	WEATHER	X1	WIND	VELOC	09	WAVE PERIOD	2	NO3	NO2	PH	WAVE SECCHI	NO3	NO2	PH	WAVE SOUN	3054
HOUR	20.8	TEMP	DRY	VISIBILITY	8	WIND	DIREC	06			UGAT/L	UGAT/L			UGAT/L	UGAT/L			
LAT	12-28.0N	TEMP	WET	CLOUD TYPE	9	WAVE	DIREC	03											
LONG	099-17.0W	REL HUMID	78	CLOUD AMT	9	WAVE HEIGHT													
CST	DEPTH	TEMP	SAL	SIGMAT	O2	AOU	O/O	O2	PO4	SIO4	NO3	NO2	PH	WAVE	NO3	NO2	PH	WAVE	WAVE
		DEG.C	O/00		UGAT/L	UGAT/L	SATN		UGAT/L	UGAT/L	UGAT/L	UGAT/L		UGAT/L	UGAT/L	UGAT/L		UGAT/L	UGAT/L
1	0	27.02	34.178	22.11	423	-21	105		0.41	1.13	0.39	0.08	8.31		0.39	0.08			
1	10	26.92	34.167	22.14	422	-19	105		0.62	0.63	0.53	0.05	8.31		0.53	0.05			
1	20	26.64	34.138	22.21	425	-20	105		0.38	0.38	0.11	0.06			0.11	0.06			
1	30	26.38	34.146	22.29	425	-19	105		0.35	1.63	1.11	0.19	8.30		1.11	0.19			
1	40	26.09	34.127	22.37	416	-8	102		0.43	1.38	2.17	0.27			2.17	0.27			
1	50		34.120		418				0.51	1.38	2.33	0.41			2.33	0.41			
1	75	23.05	34.112	23.27	309	119	72		1.67	7.40	12.71	0.49	8.13		12.71	0.49			
1	100	14.28	34.802	25.99	24	476	5		2.40	23.34	31.10	0.08			31.10	0.08			
1	125	13.40	34.859	26.22	26	482	5		2.34	23.84	31.16	0.02	7.85		31.16	0.02			
1	150	12.87	34.850	26.32	20	494	4		2.35	25.60	31.46	0.01			31.46	0.01			
2	196	12.42	34.829	26.39	14	505	3		2.39	28.11	31.51	0.01	7.84		31.51	0.01			
2	246	11.81	34.799	26.49	42	484	8		2.45	30.75	31.42	0.01			31.42	0.01			
2	295	11.22	34.766	26.57	28	505	5		2.63	31.88	32.81	0.01	7.79		32.81	0.01			
2	344	10.58	34.731	26.66	29	512	5		2.83	32.50	32.89	0.01			32.89	0.01			
2	393	10.10	34.705	26.72	16	531	3		2.84	39.28	32.02	0.00			32.02	0.00			
2	492	8.52	34.618	26.92	15	552	3		3.18	50.45	32.32	0.29	7.72		32.32	0.29			
2	591	7.42	34.589	27.06	13	569	2		3.40	66.01	34.21	0.76			34.21	0.76			
2	691	6.60	34.564	27.15	15	579	3		3.41	73.42	37.00	0.02			37.00	0.02			
2	791	5.91	34.556	27.23	13	590	2		3.46	83.71	42.57	0.00			42.57	0.00			
2	991	4.56	34.558	27.40	18	607	3		3.51	105.42	45.63	0.00	7.79		45.63	0.00			

T G THOMPSON CRUISE 026				STATION 018				OBSERVED VALUES				WAVE PERIOD 29			
DATE	25/01/68	BARO	1010.1	WEATHER	x1	WIND VELOC	09	WIND DIREC	12	WAVE PERIOD	29	SECCHI	3292		
LAT	14.4	TEMP DRY	28.6	VISIBILITY	8	WAVE DIREC	08	WAVE DIREC	08						
LONG	098-32.0W	TEMP WET	26.4	CLOUD TYPE	1	WAVE HEIGHT	3								
		REL HUMID	84	CLOUD AMT	2										
CST	DEPTH	TEMP	SAL	SIGMAT	O2	UGAT/L	O2	UGAT/L	AQU	0/0	O2	UGAT/L	P04	S104	PH
		DEG.C	0/00							SATN					
1	0	28.41	34.077	21.59	412				-18	105			0.49	1.88	8.32
1	10	28.18	34.076	21.66	408				-12	103			0.20	0.88	
1	20	28.16	34.092	21.68	415				-20	105			0.16	1.25	
1	30	27.79	34.216	21.89	412				-14	104			0.33	2.01	8.32
1	40	25.65	34.046	22.45	368				42	90			0.64	2.64	
1	50		34.129		251								1.19	7.53	
1	75	16.55	34.665	25.38	36		23.88		442	8			2.37	20.08	7.82
1	101	13.75	34.840	26.13	14		1.78		491	3			2.54	25.48	
1	126	13.38	34.856	26.22	11		2.00		498	2			2.52	26.48	7.79
1	151	13.14	34.862	26.28	14		1.70		497	3			2.42	27.11	
2	214	11.97	34.800	26.46	9		3.06*		515	2			2.54	30.75	7.76
2	263	11.45	34.779	26.54	21		1.23		509	4			2.63	33.01	
2	312	10.65	34.732	26.65	14		1.66		525	3			2.80	39.16	7.70
2	362	9.91	34.688	26.74	15		1.87		534	3			2.90	44.30	
2	411	9.07	34.647	26.85	14		1.74		545	3			3.00	51.33	
2	510	7.68	34.593	27.02	14		1.19		565	2			3.24	64.26	7.68
2	610	6.71	34.570	27.14	11		2.59*		581	2			3.29	71.28	
2	710	6.00	34.561	27.23	18		1.40		584	3			3.42	80.07	
2	810	5.43	34.556	27.29	17		2.51		594	3			3.44	88.23	
2	1011	4.45	34.567	27.42	32		21.33		593	5			3.46	102.16	7.71

T G THOMPSON CRUISE 026 STATION 018 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	1.62	2.43	2.06
1	10	0.77	2.42	
1	20	1.16		
1	30	0.55		2.17
1	40	1.58		
1	50	0.91		2.35
1	75	2.09	2.28	2.55
1	101	0.74		
1	126	0.75	2.39	2.54
1	151	0.39		
2	214	0.31	2.38	2.47
2	263	0.24		
2	312	0.00	2.38	2.54
2	362	0.46		
2	411	0.32		
2	510	0.28	2.39	2.59
2	610	0.14		
2	710	0.45		
2	810	0.14		
2	1011	0.01	2.43	2.50

T G THOMPSON CRUISE 026				STATION 019				OBSERVED VALUES								
DATE 26/01/69 3:2 13-52.0N 97-45.0W	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	WEATHER		X2		WIND VELOC		03 WIND DIREC	10 WAVE DIREC	03 WAVE HEIGHT	3 WAVE PERIOD	3345 SECCHI SOUNDING	PH
					02 UGAT/L	02 UGAT/L	02 UGAT/L	02 UGAT/L	02 UGAT/L	02 UGAT/L						
1	0	26.17	34.131	22.35	412		-4	101		0.40	2.64	1.52	0.42	8.23		
1	10	25.86	34.131	22.44	415		-5	102		0.48	2.51	2.68	0.41	8.41		
1	19	25.35	34.138	22.61	415		-2	101		0.64	3.39	2.63	0.40			
1	29	24.96	34.141	22.73	414		1	100		0.63	4.14	3.86	0.37	8.20		
1	39	24.47	34.161	22.89	412		6	98		0.67	4.27	4.67	0.38			
1	48		34.180		356					1.10	6.15	10.75	1.41			
1	72	21.37	34.282	23.87	310		129	71		1.42	10.29	15.05	0.71	8.04		
1	96	19.56	34.429	24.46	237		217	52		1.74	14.06	20.32	0.23			
1	120	16.28	34.665	25.45	235		246	49		2.06	20.08	25.96	0.26	7.89		
1	144	13.30	34.869	26.25			501	2		2.39	24.85	32.23	0.04			
2	191	12.70	34.844	26.35	15	8.71	501	3		2.45	27.48	33.13	0.02	7.76		
2	236	12.07	34.808	26.45	14	4.93	509	3		2.55	29.74	33.44	0.01			
2	279	11.39	34.768	26.54	13	3.82	518	2		2.62	33.63	32.34	0.02	7.70		
2	322	10.78	34.739	26.63	14	2.12	524	3		2.79	37.78	28.15	0.98			
2	368	10.23	34.714	26.71	13	1.91	532	2		2.88	40.16	30.65	0.11			
2	459	8.63	34.620	26.91	12	1.23	553	2		3.21	54.84	29.11	1.07	7.67		
2	552	7.48	34.578	27.04	9	1.74	572	2		3.28	64.76	34.13	0.41			
2	645	6.72	34.566	27.14	8	1.36	584	1		3.39	73.29	38.35	0.18			
2	744	6.01	34.554	27.22	15	2.59	587	3		3.43	79.57	41.68	0.00			
2	938	4.98	34.557	27.35	18	7.35	600	3		3.53	93.25	44.63	0.00	7.60		

Y G THOMPSON CRUISE 026 STATION 020 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	3.07	2.44	2.12
1	10	1.10		
1	20	1.91		
1	29	1.46	2.38	2.19
1	39	0.97		
1	49	1.97	2.41	2.21
1	74	0.87	2.38	2.24
1	98	0.57		
1	123	1.26	2.40	2.34
1	147	0.37		
2	180	0.13	2.41	2.46
2	222	0.06		
2	262	0.13	2.41	2.51
2	306	0.08		
2	351	0.20		
2	437	0.55	2.43	2.57
2	529	0.00		
2	623	0.00		
2	720	0.00		
2	921	0.27	2.46	2.64

T G THOMPSON CRUISE 026				STATION 021			OBSERVED VALUES						
DATE 26/01/68				BARO 1008.8		WEATHER X1		WIND VELOC 05		WAVE PERIOD 3			
TIME 23.5				TEMP DRY 26.1		VISIBILITY 8		WIND DIREC 10		SECCHI 07			
LAT 15-16.0N				TEMP WET 23.3		CLOUD TYPE 8		WAVE DIREC 10		SOUNDING 4850			
LONG 095-55.0W				REL HUMID 79		CLOUD AMT 1		WAVE HEIGHT 2					
CAST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
1	0	24.36	34.224	22.97	419		0	100	0.65	5.27	5.15	0.36	8.07
1	10	23.84	34.228	23.13	408		14	97	0.86	5.27	6.37	0.38	8.06
1	19	23.33	34.174	23.23	395		31	93	0.88	6.15	7.28	0.41	
1	29	23.01	34.233	23.37	386		42	90	0.97	7.15	8.82	0.41	8.03
1	39	22.69	34.243	23.47	380		50	88	0.98	7.66	9.90	0.40	
1	49		34.247		373				0.99	8.16	10.56	0.37	
1	73	19.56	34.431	24.46	319		134	70	1.45	15.31	16.99	0.16	7.93
1	97	18.15	34.538	24.90	128		336	28	2.05	16.94	24.35	0.49	
1	122	13.79	34.966	26.15	18		487	3	2.40	23.97	32.59	0.10	7.66
1	146	12.97	34.850	26.30	25	12.49	488	5	2.39	25.73	32.71	0.02	
2	201	11.46	34.823	26.57	8	4.63	522	2	2.51	29.24	32.65	0.04	7.63
2	252	11.76	34.737*	26.45*	6	2.89	521	1	2.61	31.25	32.18	0.01	
2	298	11.23	34.762	26.57	4	2.29	529	1	2.72	34.64	30.60	0.03	7.60
2	346	10.45	34.723	26.68	4	0.98	539	1	2.82	40.03	28.24	0.72	
2	397	8.99	34.670	26.88	4	1.36	556	1	3.00	48.44	27.74	1.14	
2	496	9.25	34.612	26.95	2	1.19	568	0	3.24	59.36	29.56	1.00	7.54
2	596	6.89	34.573	27.12	4	1.36	586	1	3.42	72.79	35.50	0.52	
2	696	5.12	34.499*	27.16*	6	1.70	595	1	3.43	79.19	39.88	0.00	
2	796	5.47	34.562	27.29	6	2.46	604	1	3.46	87.60	44.21	0.00	
2	996	4.50	34.568	27.41	22	15.38	603	4	3.48	102.16	43.99	0.00	7.51

T G THOMPSON CRUISE 026				STATION 022				OBSERVED VALUES				WAVE PERIOD X SECCHI SOUNDING 1188			
DATE	TIME	BARO	TEMP	REL	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
24/01/68	5.7	1012.7	25.0	24.9	1012.7	25.0	24.9	1012.7	25.0	24.9	1012.7	25.0	24.9	1012.7	25.0
LAT	15-36.5N	TEMP DRY	TEMP WET	REL HUMID	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR
LONG	94-40.4W	TEMP WET	REL HUMID	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR	WIND DIR
CST	DEPTH	TEMP	SAL	SIGMAT	O2	UGAT/L	O2	UGAT/L	AQU	O2	UGAT/L	PO4	UGAT/L	NO3	UGAT/L
1	0	25.53	34.124	22.54	429		429		-17	104		0.55	2.13	2.92	0.26
1	10	25.43	34.125	22.57	427		427		-14	104		0.59	1.25	2.75	0.24
1	19	23.81	34.141	23.07	385		385		37	91		0.92	4.02	7.22	0.58
1	29	23.52	34.230	23.22	376		376		48	89		0.96	6.27	8.33	0.63
1	39	22.17	34.291	23.65	344		344		90	79		1.20	8.28	11.37	0.59
1	48		34.331		324		324					1.31	10.79	13.90	0.48
1	72	17.58	34.650	25.13	112		112		357	24		2.04	18.20	24.73	0.44
1	96	13.98	34.842	26.09	21		21		482	4		2.62	23.59	30.56	0.20
1	120	13.21	34.790*	26.21*	17	12.37	17	12.37	494	3		2.62	25.85	31.33	0.10
1	144	12.70	34.838	26.35	12	6.54	12	6.54	504	2		2.47	28.24	28.30	0.02
2	201	12.19	34.814	26.43	15	6.25	15	6.25	507	3		2.55	27.86	32.71	0.02
2	252	11.84	34.805	26.49	16	7.01	16	7.01	510	3		2.59	32.13	32.29	0.02
2	302	11.34	34.741	26.53	9	5.69	9	5.69	523	2		2.71	33.76	31.94	0.38
2	350	10.73	34.690*	26.60*	12	1.36	12	1.36	527	2		2.93	37.65	28.08	1.09
2	401	9.85	34.704	26.77	8	1.23	8	1.23	542	1		3.06	44.80	27.78	0.97
2	499	7.95	34.598	26.99	6	1.44	6	1.44	569	1		3.29	61.87	31.40	0.71
2	600	6.98	34.571	27.11	4	1.44	4	1.44	584	1		3.40	69.90	31.34	0.69
2	700	6.04	34.569	27.23	4	2.38	4	2.38	597	1		3.55	78.81	37.13	0.02
2	800	5.39	34.561	27.30	7	3.61	7	3.61	605	1		3.50	88.60	40.84	0.00
2	897	5.14	34.559	27.33	9	5.78	9	5.78	607	1		3.50	90.61	44.20	0.01

T G THOMPSON		CRUISE 026		STATION 022		OBSERVED VALUES	
CAST	DEPTH	¹⁴³ UGAT/L	ALK MEG/L	CO2 MMOL/L			
1	0		2.34	2.16			
1	10		2.81	2.19			
1	19						
1	29		2.31	2.20			
1	39						
1	48		2.33	2.28			
1	72		2.34	2.37			
1	96						
1	120		2.36	2.43			
1	144						
2	201		2.37	2.46			
2	252						
2	302		2.36	2.48			
2	350						
2	401						
2	499		2.39	2.55			
2	600						
2	700						
2	800						
2	897						

T G THOMPSON CRUISE 026				STATION 023				OBSERVED VALUES				WAVE PERIOD 2 SECCHI SOUNGING 302			
DATE	TIME	BARO	TEMP	REL	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
27/01/68	12.5	1012.5	24.4	23.3	1012.5	24.4	23.3	1012.5	24.4	23.3	1012.5	24.4	23.3	1012.5	24.4
15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M	15-47.0M
LONG	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M	095-26.0M
CAST	DEPTH	TEMP	SAL	SIGMAT	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
1	0	25.05	34.122	22.68	407	407	407	407	407	407	407	407	407	407	407
1	10	24.32	34.130	22.91	390	390	390	390	390	390	390	390	390	390	390
1	19	22.87	34.255	23.43	348	348	348	348	348	348	348	348	348	348	348
1	29	22.52	34.262	23.53	347	347	347	347	347	347	347	347	347	347	347
1	38	21.29	34.367	23.95	272	272	272	272	272	272	272	272	272	272	272
1	47	20.00	34.694	24.55	194	194	194	194	194	194	194	194	194	194	194
1	70	15.55	34.871	25.77	23	23	23	23	23	23	23	23	23	23	23
1	93	14.20	34.874	26.07	13	13	13	13	13	13	13	13	13	13	13
1	115	13.66	34.881	26.18	15	15	15	15	15	15	15	15	15	15	15
1	136	13.63	34.866	26.18	12	12	12	12	12	12	12	12	12	12	12
1	269	11.77	34.794	26.49	22	22	22	22	22	22	22	22	22	22	22

T G THOMPSON CRUISE 026 STATION 023 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.32	2.14
1	10		2.29	2.21
1	19			
1	29		2.30	2.26
1	38			
1	47		2.31	2.33
1	70		2.32	2.46
1	93			
1	115		2.32	2.47
1	136			
1	269		2.34	2.48

DATE 27/01/68
 TIME 17:25
 LAT 16-00.0N
 LONG 95-12.0W

T G THOMPSON CRUISE 026 STATION 024 OBSERVED VALUES
 BARO 1013.2 WIND VELOC 16
 TEMP DRY 28.8 WIND DIREC 05
 TEMP WET 28.8 WAVE DIREC 05
 REL HUMID 98 WAVE HEIGHT 2

WEATHER X1
 VISIBILITY 8
 CLOUD TYPE 2
 CLOUD AMT 2

WAVE PERIOD 2
 SECCHI 07
 SOUNDING 45

CAST	DEPTH	TEMP DEGC	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	PO4 UGAT/L	SI04 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
1	0	24.89	34.056	22.68	417		-1	100	0.60	2.76	7.20	0.45	8.33
1	10	24.75	34.057	22.73	407		9	98	0.58	3.14	4.09	0.45	8.30
1	20	24.42	34.076	22.84	371		48	89	0.91	4.27	6.10	0.63	8.28
1	30	24.07	34.110	22.97	351		70	83	0.91	4.39	7.40	0.72	8.26
1	36	23.42	34.157	23.20	345		80	81	1.03	5.90	7.79	0.62	8.25

T G THOMPSON CRUISE 026 STATION 025 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	4.00	2.29	2.03
1	10	0.96	2.29	2.07
1	20	0.09		
1	30	0.82	2.33	2.33
1	39	0.32		
1	49	0.09	2.32	2.48
1	74	0.76	2.34	2.54
1	98	0.15		
1	123	0.24	2.33	2.53
1	148	0.51		
2	201	0.19	2.32	2.54
2	251	0.48		
2	302	0.25	2.34	2.59
2	352	0.22		
2	402	0.00		
2	503	0.10	2.41	2.61
2	603	0.05		
2	704	0.38		
2	804	0.10		
2	1012	0.28	2.40	2.64
3	1692		2.44	2.70
3	2490		2.47	2.68
3	3190			
3	3689		2.48	2.68
3	4090			
3	4489			
3	4890		2.47	2.66
3	5294			
3	5697			
3	6100		2.47	2.60

T G THOMPSON CRUISE 026				STATION 026				OBSERVED VALUES				WAVE PERIOD 2 SECCHI 15 SOUNDING 38			
DATE	29/01/69	BARO	1009.0	WEATHER	41	WIND	12	WIND	12	WIND	12	WIND	12	WIND	12
HOUR	23.2	TEMP DRY	31.1	VISIBILITY	8	WIND	12	WIND	12	WIND	12	WIND	12	WIND	12
LAT	13-43.0N	TEMP WET	29.4	CLOUD TYPE	0	WIND	12	WIND	12	WIND	12	WIND	12	WIND	12
LONG	091-08.0W	REL HUMID	89	CLOUD AMT	1	WAVE	12	WAVE	12	WAVE	12	WAVE	12	WAVE	12
CAST	DEPTH	TEMP	SAL	SIGMAT	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
		DEG.C	O/00		UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L
1	0	27.05	33.567	21.65	439	-36	109	0.26	3.39	1.93	0.09	8.41			
1	10	26.65	33.557	21.76	443	-37	109	0.29	3.01	1.26	0.09				
1	20	25.95	33.597	22.01	459	-48	112	0.37	2.38	2.76	0.14	8.40			
1	30	25.33	33.919	22.45	392	21	95	0.66	0.25	4.25	1.06				

T G THOMPSON CRUISE 026				STATION 027				OBSERVED VALUES				WAVE PERIOD 2			
DATE	30/01/68	BARO	1011.3	WEATHER	06	WIND VELOC	06	WIND DIREC	35	WAVE DIREC	35	WAVE PERIOD	2	WAVE PERIOD	2
HOUR	13-22.00	TEMP DRY	28.5	VISIBILITY	8	WIND DIREC	35	WAVE DIREC	35	WAVE DIREC	35	WAVE PERIOD	2	WAVE PERIOD	2
LAT	13-22.00	TEMP WET	27.2	CLOUD TYPE	9	WAVE DIREC	35	WAVE DIREC	35	WAVE DIREC	35	WAVE PERIOD	2	WAVE PERIOD	2
LONG	91-22.00	REL HUMID	90	CLOUD AMT	9	WAVE HEIGHT	35	WAVE HEIGHT	35	WAVE HEIGHT	35	WAVE PERIOD	2	WAVE PERIOD	2
CST	DEPTH	TEMP	SAL	SIGMAT	O2	UGAT/L	O2	UGAT/L	O2	UGAT/L	O2	UGAT/L	O2	UGAT/L	O2
1	0	26.76	33.556	21.73	448	448	448	448	448	448	448	448	448	448	448
1	10	26.63	33.555	21.77	450	450	450	450	450	450	450	450	450	450	450
1	20	26.40	33.555	21.84	456	456	456	456	456	456	456	456	456	456	456
1	30	25.22	33.669	22.29	420	420	420	420	420	420	420	420	420	420	420
1	40	23.22	34.046	23.17	347	347	347	347	347	347	347	347	347	347	347
1	50	20.62	34.436	24.19	202	202	202	202	202	202	202	202	202	202	202
1	76	14.75	34.837	25.92	9	9	9	9	9	9	9	9	9	9	9
1	101	13.76	34.866	26.15	9	9	9	9	9	9	9	9	9	9	9
1	126	13.41	34.874	26.23	15	15	15	15	15	15	15	15	15	15	15
1	151	13.11	34.863	26.28	13	13	13	13	13	13	13	13	13	13	13
2	201	12.59	34.850	26.38	9	9	9	9	9	9	9	9	9	9	9
2	252	11.81	34.813	26.50	7	7	7	7	7	7	7	7	7	7	7
2	302	11.12	34.758	26.58	7	7	7	7	7	7	7	7	7	7	7
2	352	10.50	34.733	26.68	6	6	6	6	6	6	6	6	6	6	6
2	403	9.62	34.677	26.78	7	7	7	7	7	7	7	7	7	7	7
2	503	7.76	34.567	26.99	5	5	5	5	5	5	5	5	5	5	5
2	604	6.94	34.757*	27.26*	4	4	4	4	4	4	4	4	4	4	4
2	705	6.35	34.573	27.19	4	4	4	4	4	4	4	4	4	4	4
2	811	5.71	34.559	27.26	7	7	7	7	7	7	7	7	7	7	7
2	1012	4.57	34.567	27.40	24	24	24	24	24	24	24	24	24	24	24

T G THOMPSON CRUISE 026 STATION 028 OBSERVED VALUES

CAST	DEPTH	NH3 USAT/L	ALK MEG/L	CO2 MMOL/L
2	0	1.08	2.38	2.21
2	10	1.27	2.38	2.17
2	20	1.67		
2	30	1.57	2.40	2.17
2	40	2.14		
2	50	1.20	2.42	2.48
2	76	1.42	2.41	2.52
2	101	1.24		
2	126	0.91	2.43	2.54
2	151	0.64		
3	199	0.48	2.42	2.55
3	249	0.39		
3	299	0.13	2.43	2.59
3	349	0.00		
3	399	0.27		
3	499	0.16	2.46	2.62
3	598	0.14		
3	698	0.31		
3	798	0.34		
3	997	0.49	2.47	2.65
1	3010		2.53	2.65
1	3514		2.54	2.73
1	4422			
1	5127			
1	5534		2.54	2.68
1	5546			

T G THOMPSON CRUISE 026				STATION 029				OBSERVED VALUES				WAVE PERIOD X			
DATE	TIME	BAPO	1011.7	WEATHER	02	02	02	WIND VELOC	02	WIND DIREC	18	SECCHI	02	WAVE HEIGHT	02
LAT	LONG	TEMP	DRY	VISIBILITY	02	02	02	WAVE DIREC	18	WAVE HEIGHT	02	02	02	02	02
092-35.0N	12-49.0W	REL HUMID	26.4	CLOUD AMT	02	02	02	02	02	02	02	02	02	02	02
CAST	DEPTH	TEMP	SAL	SIGMAT	UGAT/L	UGAT/L	UGAT/L	AOU	G/O	02	02	02	02	02	02
1	0	27.22	34.009	21.92	458	458	458	-57	114	114	114	0.24	1.63	0.00	0.27
1	9	27.18	34.006	21.93	453	453	453	-56	114	114	114	0.18	1.25	0.11	0.23
1	19	26.55	34.232	22.30	501	501	501	-96	124	124	124	0.30	1.13	1.09	0.26
1	28	25.74	34.412	22.69	440	440	440	-30	108	108	108	0.66	1.13	0.00	0.20
1	37	24.85	34.418	22.97	417	417	417	-1	101	101	101	0.92	1.13	9.02	0.23
1	46		34.450		363	363	363					1.12	2.13	11.04	0.44
1	71	16.74	34.684	25.35	73	73	73	404	15	15	15	2.03	19.08	24.66	0.52
1	96	13.99	34.885	26.12	8	8	8	494	2	2	2	2.39	24.22	30.51	0.08
1	120	13.58	34.865	26.19	12	12	12	495	2	2	2	2.31	24.60	31.23	0.03
1	144	13.15	34.870	26.28	15	15	15	497	3	3	3	2.29	25.48	32.08	0.02
2	186	12.68	34.860	26.37	7	7	7	509	1	1	1	2.42	27.74	32.88	0.02
2	231	12.24	34.851	26.45	13	13	13	514	2	2	2	2.48	28.49	32.88	0.02
2	275	11.63	34.777	26.50	11	11	11	517	2	2	2	2.48	31.00	31.34	0.01
2	319	11.09	34.766	26.50	7	7	7	528	1	1	1	2.56	33.63	32.51	0.01
2	364	10.64	34.741	26.66	7	7	7	533	1	1	1	2.64	36.14	31.75	0.02
2	452	9.25	34.667	26.84	4	4	4	551	1	1	1	2.95	49.07	25.87	1.84
2	542	7.94	34.610	27.00	4	4	4	570	1	1	1	3.12	60.37	29.31	1.21
2	631	7.00	34.598	27.12	4	4	4	583	1	1	1	3.22	70.15	36.35	0.34
2	722	6.33	34.559	27.19	7	7	7	591	1	1	1	3.25	75.43	41.56	0.00
2	915	5.14	34.561	27.33	10	10	10	605	2	2	2	3.39	91.74	43.86	0.01
															7.73

T G THOMPSON CRUISE 026 STATION 029 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.35	2.12
1	9			
1	19			
1	28		2.37	2.19
1	37			
1	46		2.37	2.24
1	71			
1	96			
1	120			
1	144			
2	186		2.42	2.44
2	231			
2	275			
2	318			
2	364			
2	452		2.43	2.54
2	542			
2	631			
2	722			
2	915		2.45	2.59

[illegible]

T G THOMPSON CRUISE 026 STATION 030 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.38	2.10
1	10		2.37	2.13
1	20			
1	30		2.40	2.10
1	39			
1	49		2.37	2.16
1	75		2.41	2.43
1	99			
1	124		2.43	2.47
1	149			
2	196		2.44	2.53
2	246			
2	293		2.45	2.58
2	340			
2	387			
2	483		2.45	2.65
2	581			
2	678			
2	776			
2	972		2.50	2.66

T G THOMPSON				CRUISE 026		STATION 031		OBSERVED VALUES							
DATE		01/02/68		BARO DRY		1010.3		WEATHER		X1		WIND VELOC		14	
TIME		10-13:00N		TEMP WET		27.8		VISIBILITY		8		WIND DIREC		09	
LAT		094-35.0W		REL HUMID		26.7		CLOUD TYPE		8		WAVE DIREC		26	
LONG						92		CLOUD AMT		2		WAVE HEIGHT		5	
CAST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH		
1	0	25.74	34.268	22.59	438		-27	107	0.69	0.75	6.21	0.43	8.56		
1	10	25.90	34.311	22.57	438		-28	107	0.73	0.38	6.61	0.41	8.57		
1	19	25.93	34.391	22.62	432		-24	106	0.83	0.13	7.53	0.33			
1	29	25.78	34.456	22.71	427		-17	104	0.88	0.88	8.50	0.29	8.54		
1	39	25.37	34.345	22.75	419		-6	102	0.90	1.38	8.67	0.50			
1	49	19.93	34.524	24.44	93		357	21	1.97	12.80	19.41	0.68	8.12		
1	73	14.33	34.857	26.03	86		413	17	1.99	20.96	24.38	0.54	7.97		
1	97	13.46	34.873	26.22	112		396	22	1.98	21.46	26.47	0.21			
1	122	13.21	34.905	26.30	86		424	17	2.09	21.71	29.26	0.07	8.00		
1	146	13.03	34.898	26.33	63	41.31	450	12	2.15	21.84	31.19	0.03			
2	195	12.35	34.870	26.44	56	38.33	464	11	2.23	24.60	32.01	0.14	7.87		
2	244	12.06	34.832	26.47	61	43.22	462	12	2.32	26.73	32.25	0.02			
2	292	11.41	34.776	26.54	63	42.37	468	12	2.39	29.87	32.28	0.03	7.79		
2	340	10.78	34.698	26.60	46	31.54	492	9	2.51	32.25	32.39	0.01			
2	388	10.34	34.728	26.70	26	15.81*	518	5	2.70	35.89	32.38	0.02			
2	482	8.86	34.655	26.89	3	0.81	559	1	3.06	49.20	32.27	0.00	7.71		
2	578	7.51	34.605	27.06	4	0.21	576	1	3.32	62.00	31.95	0.54			
2	675	6.62	34.575	27.16	7	1.49	587	1	3.36	69.90	34.94	0.02			
2	774	5.90	34.562	27.24	16	3.02	588	3	3.39	77.94	38.91	0.00			
2	973	4.76	34.564	27.38	22	15.17	599	4	3.48	95.13	44.53	0.01	7.61		

T G THOMPSON CRUISE 026				STATION 032				OBSERVED VALUES				WAVE PERIOD 2 SECCHI 23 SOUNDING 3640				
DATE	01/02/68	BARO	1013.6	WEATHER	X1	WIND VELOC	13	WIND DIREC	09	WAVE HEIGHT	03	PO4	SI04	NO3	NO2	PH
TIME	17.9	TEMP	29.0	VISIBILITY	8	WAVE HEIGHT	03	WAVE DIREC	08	WAVE HEIGHT	03	UGAT/L	UGAT/L	UGAT/L	UGAT/L	
LAT	09-32.0N	TEMP	24.7	CLOUD TYPE	8	WAVE HEIGHT	03	WAVE DIREC	08	WAVE HEIGHT	03	UGAT/L	UGAT/L	UGAT/L	UGAT/L	
LONG	093-22.0W	REL HUMID	70	CLOUD AMT	2	WAVE HEIGHT	03	WAVE DIREC	08	WAVE HEIGHT	03	UGAT/L	UGAT/L	UGAT/L	UGAT/L	
CST	DEPTH	TEMP	SAL	SIGMAT	O2	O2	O2	AOU	O/O	O2	NO3	NO2	NO3	NO2	NO3	NO2
		DEG.C	O/00		UGAT/L	UGAT/L	UGAT/L	UGAT/L	SATN		UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L
1	0	27.20	33.855	21.81	429	429	429	-27	107		0.29	1.51	0.28	0.11	8.69	
1	10	27.06	33.855	21.86	427	427	427	-24	106		0.31	0.88	0.26	0.09	8.69	
1	20	27.03	33.869	21.88	429	429	429	-26	107		0.32	1.38	0.25	0.12		
1	30	26.56	33.907	22.06	429	429	429	-23	106		0.56	1.63	0.00	0.33	8.65	
1	40	26.17	33.924	22.19	419	419	419	-10	103		0.59	1.38	3.29	0.37		
1	50		34.021		342	342	342				0.94	4.14	7.05	3.66		
1	74	15.31	34.760	25.74	32	32	32	458	7		2.31	21.08	27.29	1.89	7.93	
1	99	13.30	34.768	26.17	73	73	73	437	14		2.18	24.10	29.06	0.10		
1	124	12.86	34.791	26.28	64	64	64	450	12		2.23	24.72	29.92	0.04	7.93	
1	149	12.84	34.873	26.34	20	20	20	494	4		2.35	24.97	31.56	0.08		
2	201	12.37	34.833	26.41	47	47	47	473	9		2.30	26.48	31.29	0.10	7.87	
2	251	11.74	34.800	26.50	50	50	50	477	9		2.36	29.37	32.00	0.06		
2	298	11.20	34.758	26.57	52	52	52	481	10		2.37	31.00	32.09	0.06	7.86	
2	347	10.76	34.751	26.64	36	36	36	503	7		2.52	33.38	32.95	0.04		
2	396	10.13	34.713	26.73	6	6	6	540	1		2.81	40.79	32.24	0.03		
2	495	8.57	34.658	26.94	2	2	2	564	0		3.09	54.72	28.79	1.01	7.64	
2	595	7.17	34.597	27.10	6	6	6	580	1		3.26	66.51	36.85	0.04		
2	699	6.41	34.587	27.19	8	8	8	588	1		3.32	73.54	41.09	0.01		
2	800	5.75	34.588	27.28	18	18	18	588	3		3.33	80.57	42.35	0.01		
2	1001	4.64	34.564	27.39	38	38	38	585	6		3.38	97.89	41.31	0.00	7.60	

T G THOMPSON CRUISE 026				STATION 032		OBSERVED VALUES	
CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L			
1	0	1.26		2.15			
1	10	1.17		2.15			
1	20	1.19					
1	30	3.07		2.20			
1	40	1.32					
1	50	1.06		2.29			
1	74	0.96		2.55			
1	99	1.00					
1	124	0.93		2.56			
1	149	0.76					
2	201	0.35		2.59			
2	251	1.21					
2	298	0.67		2.58			
2	347	0.26					
2	396	0.32					
2	495	0.01		2.68			
2	595	0.22					
2	699	0.38					
2	800	0.24					
2	1001	0.42		2.70			

T G THOMPSON CRUISE 026									
STATION 033									
OBSERVED VALUES									
DATE	02/02/68	BARO	1012.2	WIND VELOC	12	WAVE PERIOD	2	NO2	PH
LAT	09-27.0N	TEMP	26.2	WIND DIREC	09	SECCHI		UGAT/L	
LONG	092-37.0W	TEMP	26.2	WAVE DIREC	08	SOUNDING	3576		
		REL HUMID	75	WAVE HEIGHT	2				
CST	DEPTH	TEMP	SAL	SIGMAT	O2	O2	PO4	NO3	
		DEG.C	O/100		UGAT/L	SATN	UGAT/L	UGAT/L	
1	0	27.03	33.959	21.95	430	107	0.32	0.18	8.73
1	10	26.95	33.982	21.99	435	108	0.43	0.94	
1	20	26.89	34.014	22.03	437	109	0.35	1.05	
1	30	26.77	34.011	22.07	436	108	0.35	0.98	8.42
1	40	25.61	34.217	22.58	415	101	0.75	6.62	
1	49		34.321		187		1.57	19.75	
1	74	14.64	34.813	25.93	12	2	2.34	29.81	7.96
1	99	13.22	34.798	26.21	41	8	2.30	30.31	
1	124	12.98	34.859	26.31	28	5	2.30	31.58	7.94
1	148	12.59	34.837	26.37	39	8	2.37	31.12	
2	200	11.93	34.793	26.46	58	11	2.36	30.67	7.96
2	250	11.45	34.775	26.54	58	11	2.38	31.40	
2	300	10.94	34.747	26.61	31	6	2.52	33.11	7.87
2	347	10.40	34.727	26.69	7	1	2.79	32.19	
2	397	9.75	34.678	26.76	4	1	2.93	28.47	
2	495	7.93	34.629	27.01	5	1	3.23	30.73	7.71
2	595	6.95	34.578	27.11	4	1	3.30	38.51	
2	695	6.24	34.585	27.21	15	3	3.20	38.77	
2	801	5.58	34.564	27.28	25	4	3.35	43.70	
2	1002	4.52	34.571	27.41	39	6	3.44	44.21	7.65

5

T G THOMPSON			CRUISE 026			STATION 034			OBSERVED VALUES			WAVE PERIOD 3		
DATE	02/02/68		BARO	1014.5		WEATHER	X1		WIND VELOC	14		SECCHI	12	
MOON	14.4		TEMP DRY	26.9		VISIBILITY	8		WIND DIREC	07		SOUNDING	3576	
LAT	09-56.0N		TEMP WET	23.6		CLOUD TYPE	6		WAVE DIREC	07				
LONG	091-15.0W		REL HUMID	76		CLOUD AMT	6		WAVE HEIGHT	2				
CAST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	O2 UGAT/L	O/Q O2 SATN	AQU UGAT/L			P04 UGAT/L	S104 UGAT/L	
1	0	25.15	34.446	22.90	446			108	-32			0.78	0.63	9.25
1	10	24.93	34.456	22.97	446			108	-31			0.83	0.38	7.17
1	20	24.83	34.542	23.07	444			107	-29			0.96	0.50	10.68
1	30	22.39	34.624	23.84	373			86	58			1.47	8.03	17.68
1	40	19.61	34.693	24.65	206			46	246			1.84	14.18	20.86
1	50	15.93	34.827	25.65	13			3	471			2.33	20.71	28.63
1	75	13.67	34.857	26.16	9			2	496			2.35	24.10	30.74
1	100	13.22	34.866	26.26	19	11.35		4	492			2.35	25.23	31.35
1	125	13.01	34.876	26.31	14	8.97		3	499			2.35	25.60	32.47
1	150	12.80	34.866	26.35	12	7.56		2	503			2.38	26.61	32.20
2	201	12.00	34.831	26.48	12	6.63		2	512			2.48	29.87	33.00
2	252	11.46	34.780	26.54	5	1.44		1	525			2.54	32.50	32.99
2	302	10.75	34.750	26.64	3	1.23		1	536			2.72	36.27	31.79
2	352	10.15	34.714	26.72	3	0.42		1	543			2.83	42.17	29.42
2	403	9.22	34.661	26.84	1	0.30		0	556			2.98	49.32	29.42
2	503	7.67	34.605	27.03	2	0.72		0	576			3.26	63.88	32.84
2	604	6.64	34.586	27.16	7	3.70		1	586			3.28	70.03	40.54
2	705	5.95	34.569	27.24	13	5.95		2	590			3.33	78.81	42.78
2	806	5.35	34.573	27.32	20	10.62		3	592			3.36	87.72	42.70
2	1007	4.58	34.569	27.40	50	34.34		8	574			3.40	99.65	43.82
														0.01
														0.03
														0.00
														0.05
														0.61
														1.01
														0.46
														0.02
														0.04
														0.07
														0.05
														0.10
														0.58
														0.79
														8.09
														8.26
														8.26
														7.87
														7.84
														7.77
														7.72
														7.75

T G THOMPSON CRUISE 026 STATION 034 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	2.41	2.40	2.21
1	10		2.38	2.24
1	20			
1	30		2.38	2.31
1	40	1.65		
1	50	0.32	2.39	2.43
1	75	0.69	2.39	2.46
1	100	0.51		
1	125	0.40	2.40	2.52
1	150	0.48		
2	201	0.45	2.40	2.50
2	252	0.35		
2	302	0.30	2.40	2.46
2	352	0.38		
2	403	0.50		
2	503	0.13	2.41	2.54
2	604	0.19		
2	705	0.69		
2	806	0.22		
2	1007	0.33	2.44	2.57

T G THOMPSON		CRUISE 026		STATION 035		OBSERVED VALUES	
CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L			
1	0		2.40	2.20			
1	10		2.38	2.25			
1	20						
1	30		2.40	2.44			
1	40						
1	50		2.39	2.50			
1	75		2.39	2.49			
1	100						
1	126		2.38	2.51			
1	151						
2	201		2.39	2.53			
2	252						
2	302		2.39	2.51			
2	352						
2	403						
2	503		2.40	2.57			
2	604						
2	705						
2	806						
2	1007		2.43	2.62			

T G THOMPSON CRUISE 326 STATION 336 OBSERVED VALUES

DATE 03/02/68
 HOUR 06.5
 LAT 10-06.0N
 LONG 089-26.0W

BARO 1013.0
 TEMP DRY 26.0
 TEMP WET 23.3
 REL HUMID 80

WEATHER VISIBILITY 11
 CLOUD TYPE 2
 CLOUD AMT 2

WIND VELOC 03
 WIND DIREC 08
 WAVE HEIGHT 2

WAVE PERIOD 3
 SECCHI 20
 SOUNDING 3365

CST	DEPTH	TEMP DEG.C	SAL O/100	SIGMAT	O2 UGAT/L	O2 UGAT/L	ACU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
1	0	21.81	34.575	23.97	417		19	96	1.32	12.80	15.72	0.21	8.12
1	10	21.44	34.585	24.08	415		23	95	1.33	12.30	15.55	0.17	8.12
1	20	21.16	34.599	24.17	412		29	93	1.31	12.30	16.43	0.17	
1	30	20.64	34.617	24.32	382		63	86	1.33	13.05	16.32	0.15	8.15
1	40	15.37	34.904	25.83	93		395	19	1.96	20.46	25.35	0.03	
1	50	14.56	34.917	26.02	50		447	10	2.10	20.96	27.76	0.48	7.92
1	75	14.05	34.916	26.13	39		462	8	2.21	21.84	29.75	0.09	7.88
1	100	13.68	34.899	26.20	39	25.84	466	8	2.26	21.84	29.89	0.03	
1	125	13.47	34.917	26.25	37		471	7	2.25	22.59	29.23	0.02	7.87
1	150	13.28	34.911	26.29	50	26.52	459	10	2.25	23.84	26.45	0.02	
2	198	12.75	34.865	26.36	43	23.29	473	8	2.29	24.72	31.20	0.02	7.85
2	248	12.11	34.271*	26.02*	9		515	2	2.45	29.24	31.51	0.01	
2	297	11.37	34.781	26.56	9	3.82	522	2	2.57	31.50	29.12	0.00	7.79
2	346	10.70	34.745	26.65	7	3.95	532	1	2.65	34.89	32.86	0.00	
2	396	10.07	34.701	26.73	10	5.61	537	2	2.81	39.66	32.85	0.01	
2	495	8.66	34.639	26.91	3	0.17	562	1	3.08	52.46	30.45	0.27	7.71
2	595	7.48	34.599	27.06	3	0.77	578	1	3.29	62.12	34.19	0.01	
2	694	6.52	34.590	27.18	19	6.97	576	3	3.27	68.52	35.80	0.00	
2	794	5.98	34.580	27.25	17	14.02	595	3	3.30	75.80	41.60*	0.00	
2	997	4.94	34.572	27.36	34	22.99	585	5	3.43	91.36	36.56	0.00	7.72

T. C. THOMPSON CRUISE 026 STATION 036 OBSERVED VALUES

CAST	DEPTH	SiO ₂ UGAT/L	ALK MEG/L	CO ₂ MMOL/L
1	0		2.43	2.33
1	10		2.40	2.31
1	20			
1	30		2.40	2.31
1	40			
1	50		2.41	2.45
1	75		2.40	2.44
1	100			
1	125		2.41	2.46
1	150			
2	198		2.41	2.46
2	249			
2	297		2.42	2.51
2	346			
2	395			
2	495		2.43	2.56
2	595			
2	694			
2	794			
2	997		2.47	2.63

T G THOMPSON CRUISE 026				STATION 037				OBSERVED VALUES				WAVE PERIOD 2			
DATE	TIME	LONG	LAT	WAVE DIR	WAVE HGT	WAVE PERIOD	WAVE DIR	WAVE HGT	WAVE PERIOD	WAVE DIR	WAVE HGT	WAVE PERIOD	WAVE DIR	WAVE HGT	WAVE PERIOD
04/02/68	204	100-00.0N	204	1011.0	23.5	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0	23.0
08-08.00N															
CST	DEPTH	TEMP	SAL	SIGVAT	WAVE DIR	WAVE HGT	WAVE PERIOD	WAVE DIR	WAVE HGT	WAVE PERIOD	WAVE DIR	WAVE HGT	WAVE PERIOD	WAVE DIR	WAVE HGT
1	0	22.46	34.299	23.53	423	19	2	95	1.05	9.79	11.93	0.17	9.30	0.17	9.30
1	10	22.17	34.365	23.72	415	35	2	96	1.11	10.79	8.32	0.17	8.23	0.17	8.23
1	20	21.43	34.507	24.02	401	72	2	91	1.24	11.80	14.51	0.15		0.15	
1	30	20.72	34.557	24.24	371	357	2	84	1.32	10.42	12.29	0.15	9.18	0.15	9.18
1	40	16.77	34.703	25.43	119	454	2	25	1.94	16.94	23.56	0.57		0.57	
1	49	14.74	34.891	25.96	41	465	2	8	2.18	20.46	24.96	0.42	7.97	0.42	7.97
1	74	14.08	34.808	26.11	36	460	2	7	2.23	21.53	29.45	0.13	7.93	0.13	7.93
1	90	13.77	34.905	26.18	45	457	2	9	2.22	22.59	29.25	0.04		0.04	
1	124	13.53	34.939	26.26	50	457	2	10	2.22	23.22	29.71	0.04	7.94	0.04	7.94
1	148	13.36	34.934	26.29	40	469	2	8	2.32	24.35	28.29	0.03		0.03	
2	198	12.95	34.884	26.33	23	491	2	4	2.36	25.46	28.37	0.04	7.86	0.04	7.86
2	248	12.40	34.823	26.40	11	509	2	2	2.45	27.86	32.80	0.02		0.02	
2	298	11.84	34.803	26.42	12	514	2	2	2.52	30.62	32.81	0.01	7.80	0.01	7.80
2	347	11.05	34.764	26.67	19	516	2	4	2.60	32.76	32.18	0.01		0.01	
2	397	10.55	34.745	26.67	24	517	2	4	2.70	35.64	33.44	0.01		0.01	
2	446	9.07	34.635	26.70	4	561	2	1	3.13	53.84	32.71	1.25	7.75	1.25	7.75
2	496	7.44	34.525	27.05	3	570	2	7	3.41	62.75	35.51	0.04		0.04	
2	546	6.57	34.553	27.15	7	587	2	1	3.41	68.77	38.49	0.00		0.00	
2	596	5.91	34.547	27.24	11	592	2	2	3.44	77.94	43.36*	0.00		0.00	
2	646	4.97	34.525	27.39	26	595	2	4	3.51	81.75	46.80	0.00	7.75	0.00	7.75

T. S. THOMPSON CRUISE 026 STATION 037 OBSERVED VALUES

CAST	DEPTH	AM3 MICAT/L	ALV MEG/L	CO2 MMOL/L
1	0		2.31	2.25
1	10		2.31	2.20
1	20			
1	30		2.31	2.31
1	40			
1	49		2.33	2.47
1	74		2.32	2.49
1	90			
1	124		2.32	2.48
1	148			
2	198		2.33	2.49
2	248			
2	298		2.31	2.45
2	347			
2	397			
2	496		2.35	2.53
2	596			
2	696			
2	796			
2	995		2.39	2.63

T G THOMPSON CRUISE 026				STATION 038				OBSERVED VALUES				WAVE PERIOD 3 SECCHI 07 SOUNDING 3191			
DATE HOUR LAT LONG	04/02/68 16:2 10-04.0N 088-15.0W	BAKO TEMP WET REL HUMID	1012.3 26.9 22.7 70	SIGMAT	02 UGAT/L	02 UGAT/L	02 UGAT/L	WIND VELOC WIND DIREC WAVE DIREC WAVE HEIGHT	0/0 02 SATN	AOU UGAT/L	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
CAST	DEPTH	TEMP DEG.C	SAL 0/00												
1	0	24.90	33.588	22.33	464			-46	111	-46	0.23	0.38	0.26	0.08	8.34
1	10	24.89	33.609	22.35	460			-42	110	-42	0.23	0.38	0.22	0.07	8.36
1	20	24.85	33.623	22.37	444			-27	107	-27	0.34	0.50	8.04	0.11	
1	30	21.01	33.931	23.70	332			112	75	112	0.90	4.89	9.66	0.43	8.25
1	40	19.59	34.540	24.54	160			293	35	293	1.67	12.55	17.14	0.51	
1	50	16.24	34.872	25.61	127	105.06		353	26	353	1.87	17.57	22.54	0.19	8.01
1	75	14.40	34.870	26.02	12	7.35		487	2	487	2.31	22.59	30.16	0.10	7.84
1	100	13.68	34.885	26.18	15	11.90		490	3	490	2.37	23.22	30.24	0.06	
1	125	13.33	34.837	26.26	11			498	2	498	2.42	24.60	31.74	0.03	7.85
1	150	13.09	34.883	26.30	12	7.10		500	2	500	2.39	25.23	32.34	0.02	
2	198	12.64	34.878	26.39	14	11.52		503	3	503	2.41	26.10	32.30	0.06	7.82
2	249	12.10	34.831	26.46	15			508	3	508	2.44	28.11	32.38	0.02	
2	296	11.51	34.777	26.53	6	3.44		524	1	524	2.58	31.37	32.59	0.02	7.69
2	345	10.91	34.757	26.62	4	3.14		532	1	532	2.64	34.26	30.12	0.05	
2	394	10.16	34.714	26.72	4	1.32		541	1	541	2.81	40.66	29.05	0.28	
2	490	8.53	34.645	26.94	4	0.93		562	1	562	3.11	54.84	26.56	1.18	7.66
2	592	7.29	34.603	27.09	3	1.53		581	0	581	3.29	63.88	35.52	0.03	
2	691	6.60	34.590	27.17	4	2.80		589	1	589	3.32	70.66	38.48	0.01	
2	792	5.86	34.585	27.27	12	7.79		593	2	593	3.40	78.06	42.43	0.01	
2	991	4.87	34.584	27.39	44	35.06		576	7	576	3.40	91.74	41.43	0.00	7.70

T C THOMPSON CRUISE 024 STATION 038 OBSERVED VALUES

CAS	DEPTH	WATER	ALV	CO2
		TEMP/L	MEG/L	MMOL/L
1	0		2.42	2.13
1	10		2.38	2.13
1	20			
1	30		2.40	2.27
1	40			
1	50		2.45	2.45
1	75		2.45	2.52
1	100			
1	125		2.45	2.52
1	150			
2	198		2.44	2.57
2	248			
2	296		2.44	2.55
2	345			
2	394			
2	490		2.46	2.59
2	592			
2	691			
2	792			
2	991		2.50	2.64

DATE TIME LAT LONG	DEPTH	T G THOMPSON CRUISE 026				STATION 039				OBSERVED VALUES				WAVE PERIOD 2 SECCHI SOUNDING 3145			
		BARO TEMP TEMP REF	DRY WET HUMID	011.2 25.5 23.7 86	SIGMAT	WEATHER VISIBILITY 8 CLOUD TYPE X CLOUD AMT 9	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	PC4 UGAT/L	SIO4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH		
05/02/68 205 19-04.0N 087-40.0W	1	0	23.84	34.113	23.04		412		10	98	0.74	8.41	8.15	0.13	8.22		
	1	10	22.44	34.277	23.57		392		40	91	0.96	10.42	11.47	0.13	8.22		
	1	20	19.40	34.574	24.61		217		237	48	1.50	11.42	18.26	0.36			
	1	30	16.63	34.791	25.45		133		344	28	1.86	18.82	29.53	0.22	8.03		
	1	40	14.11	34.886	26.09		26		475	5	2.28	23.34	29.19	0.27			
	1	50	13.78	34.893	26.17		12		492	2	2.38	24.10	31.47	0.22	7.85		
	1	75	13.48	34.890	26.23		15	13.51	492	3	2.35	24.60	31.63	0.05	7.85		
	1	100	13.18	34.893	26.28		9	7.61	501	2	2.42	25.35	32.25	0.02			
	1	125	12.86	34.871	26.34		12	6.67	503	2	2.42	26.23	33.71	0.03	7.86		
	1	150	12.63	34.864	26.38		11	8.46	506	2	2.42	27.48	32.42	0.02			
	2	195	12.20	34.822	26.43		14	10.45	508	3	2.44	28.74	34.47	0.03	7.83		
	2	242	11.89	34.815	26.48		12	7.52	513	2	2.50	29.99	34.07	0.01			
	2	290	11.27	34.743	26.55		4	1.91	529	1	2.63	34.89	33.84	0.07	7.79		
	2	338	10.39	34.723	26.69		4	0.93	539	1	2.91	39.66	30.70	0.48			
	2	387	9.72	34.708	26.79		4	0.55	547	1	2.96	45.68	27.59	1.15			
	2	435	9.20	34.628	26.97		2	1.10	569	0	3.21	58.51	31.37	1.04	7.69		
	2	579	7.23	34.584	27.08		4	1.32	580	1	3.30	65.39	37.52	0.03			
	2	677	6.47	34.572	27.17		6	4.08	590	1	3.33	71.91	37.55	0.06			
	2	775	5.92	34.552	27.24		12	7.52	591	2	3.43	78.06	33.91	0.00			
	2	972	4.86	34.563	27.37		35	30.39	584	6	3.41	93.87	37.36	0.00	7.75		

T G THOMPSON CHUISE 026 STATION 039 OBSERVED VALUES

CAST	DEPTH	TEMP C/AT/L	ALK MEG/L	CO2 MM/L/L
1	0		2.41	2.22
1	10		2.41	2.28
1	20			
1	30		2.45	2.41
1	40			
1	50		2.44	2.52
1	75		2.45	2.59
1	100			
1	125		2.44	2.51
1	150			
2	195		2.45	2.58
2	242			
2	290		2.45	2.55
2	338			
2	387			
2	482		2.47	2.56
2	579			
2	677			
2	775			
2	972		2.47	2.61

DATE 05/02/69 TIME 16.1 LAT 09-54.0N LONG 086-27.0W			T G THOMPSON CRUISE 026				STATION 040			OBSERVED VALUES				WAVE PERIOD 2 SECCHI SOUNDING 4518			
CAST	DEPTH	TEMP DEG.C	BARO TEMP DRY TEMP WET REL HUMID	1010.7 27.1 23.6 74	SIGMAT	WEATHER		O2 UGAT/L	G2 UGAT/L	ACU UGAT/L	O/O O2 SATN	WIND VELOC WIND DIREC WAVE DIREC WAVE HEIGHT	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
						01 VISIBILITY	04 CLOUD AMT										
2	0	27.27	33.900	21.83		407				-6	102		0.36	3.14	2.91	0.07	8.36
2	10	23.81	34.190	23.11		343				79	81		0.73	6.90	8.13	0.11	8.29
2	20	17.07	34.711	25.29		166				307	35		1.77	16.94	22.43	0.18	
2	30	14.51	34.889	26.01		51				446	10		2.20	21.94	28.53	0.13	7.95
2	40	14.23	34.910	26.09		80				420	16		2.14	20.08	27.81	0.94	
2	50	14.04	34.914	26.13		62				440	12		2.14	21.21	28.40	0.60	
2	75	13.63	34.921	26.22		48				458	9		2.39	22.34	31.13	0.05	7.94
2	100	13.32	34.908	26.27		52				457	10		2.21	22.59	30.52	0.03	7.92
2	125	13.17	34.902	26.30		64				447	12		2.27	23.97	28.38	0.03	
2	150	13.00	34.889	26.33		54		43.73		459	10		2.25	24.10	30.07	0.02	7.90
3	178	12.49	34.862	26.40		26		22.18		492	5		2.36	26.35	31.96	0.02	7.89
3	247	11.93	34.823	26.48		22				503	4		2.42	28.49	32.98	0.05	
3	297	11.32	34.787	26.57		13		11.30		519	2		2.54	32.00	26.62	0.02	7.83
3	346	10.67	34.742	26.65		4				535	1		2.67	35.89	32.25	0.02	
3	395	9.90	34.701	26.76		2		0.72		547	0		2.86	42.29	27.32	0.88	
3	434	8.09	34.629	26.99		4		0.76		569	1		3.13	57.86	28.79	0.88	7.73
3	593	7.07	34.599	27.11		2		1.66		585	0		3.23	65.01	26.19	0.03	
3	602	6.25	34.584	27.21		13		10.03		585	2		3.32	73.17	38.89	0.02	
3	791	5.57	34.572	27.29		17		13.64		592	3		3.40	82.45	42.04	0.11	
3	993	4.61	34.571	27.47		57		50.62		566	9		3.40	96.89	40.88	0.13	7.77
1	2279	1.99	34.661	27.72		215				452	52		2.72	145.83	35.94	0.07	
1	3064	1.82	34.676	27.75		237				437	35		2.75	149.09	37.43	0.01	
1	3688	1.91	34.674	27.74		237				431	36		2.73	149.09	36.78	0.03	
1	4003	1.96	34.672	27.73		238				429	36		2.74	148.72	37.36	0.00	
1	4404	2.00	34.676	27.73		239				427	36		2.74	148.22	36.72	0.01	

T. G. THOMPSON, CRUISE 326 STATION 240 OBSERVED VALUES

CST	DEPT	ALK MFC/L	CO2 MMOL/L
2	0	2.34	2.23
2	10	2.36	2.30
2	20		
2	30	2.41	2.54
2	40		
2	50		2.58
2	75	2.40	2.58
2	100	2.40	
2	175		2.59
2	150	2.62	
3	199	2.42	2.62
3	247		
3	297	2.41	2.66
3	346		
3	395		
3	494	2.43	2.71
3	593		
3	692		
3	791		
3	993	2.47	2.73
1	2279		
1	3084		
1	3688		
1	4093		
1	4496		

T G THOMPSON CRUISE 026				STATION 041			OBSERVED VALUES					
DATE 11/02/68		BAKO 1010.4		WEATHER X0		WIND VELOC 06		WAVE PERIOD 3				
HOUR 14.6		TEMP DRY 23.3		VISIBILITY 8		WIND DIREC 03		SECCHI 13				
LAT 08-54.0N		TEMP WET 21.8		CLOUD TYPE		WAVE DIREC 05		SOUNDING 3181				
LONG 097-50.0W		REL HUMID		CLOUD AMT 0		WAVE HEIGHT 2						
CAST	DEPTH	TEMP DEG.C	SAL 0/00	SIGMAT	02 UGAT/L	02 UGAT/L	0/0.02 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
1	0	21.81	34.442	23.87	386	50	89	0.98	9.91	11.21	0.14	8.15
1	10	19.02	34.691	24.80	269	187	59	1.47	14.43	18.99	0.17	8.03
1	20	14.42	34.916	26.05	52	446	10	2.13	20.21	28.86	0.05	
1	30	14.26	34.913	26.08	58	441	12	2.16	20.58	29.50	0.17	7.83
1	40	14.02	34.900	26.12	38	464	8	2.28	20.96	30.50	0.09	
1	50	13.81	34.894	26.16	36	468	7	2.29	22.34	30.55	0.04	7.83
1	75	13.35	34.898	26.26	35	474	7	2.29	23.59	31.20	0.02	7.82
1	100	13.09	34.899	26.31	36	475	7	2.31	23.84	31.57	0.03	
1	125	12.97	34.890	26.32	40	473	8	2.33	24.85	31.62	0.02	7.82
1	150	12.84	34.886	26.36	36	479	7	2.36	25.35	28.54*	0.03	
2	200	12.42	34.857	26.42	15	505	3	2.36	27.36	31.20	0.02	7.75
2	251	11.91	34.821	26.49	22	503	4	2.44	29.62	31.84	0.01	
2	300	11.33	34.781	26.56	15	517	3	2.59	32.25	32.36	0.00	7.71
2	350	10.52	34.742	26.68	7	534	1	2.71	36.39	32.26	0.01	
2	400	9.59	34.684	26.79	7	546	1	3.13	45.93	29.36	0.61	
2	501	8.19	34.633	26.98	4	567	1	3.14	55.85	33.47	0.02	7.66
2	599	7.03	34.602	27.12	13	574	2	3.23	63.88	38.76	0.02	
2	700	6.35	34.592	27.20	25	572	4	3.27	71.16	40.16	0.01	
2	800	5.71	34.566	27.27	23	584	4	3.37	80.45	41.97	0.01	
2	1002	4.63	34.569	27.40	60	563	10	3.43	96.51	42.35	0.01	7.65

DATE TIME LAT LONG	11/02/68 22.6 CP-59.0N ORA-27.0W	T G THOMPSON CRUISE 026				STATION 042				OBSERVED VALUES							
		WIND DRY TEMP	WIND WET TEMP	REL HUMID	SIGMAT	O2 UGAT/L	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	O2 UGAT/L	X1 UGAT/L	WIND VELOC WIND DIREC WAVE DIREC WAVE HEIGHT	ACU UGAT/L	O/C O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
CST	DEPTH	TEMP DEG.C	SAL P/00														
1	0	21.44	34.589	24.08		398				40	91	1.22	12.42	14.88	0.29	8.66	
1	10	20.65	34.584	24.29		401				43	90	1.23	12.05	15.20	0.17	8.67	
1	20	19.85	34.600	24.24		232				227	51	1.73	15.44	18.74	0.29		
1	30	18.73	34.605	25.98		53				442	11	2.13	20.46	20.87	0.46	7.83	
1	40	14.24	34.927	26.10		38				461	8	2.21	20.33	26.28	0.11		
1	50	13.98	34.925	26.15		38				464	4	2.22	21.21	34.03	0.05	7.61	
1	75	13.76	34.919	26.19		49				456	10	2.21	21.84	31.08	0.03	7.63	
1	101	13.49	34.928	26.26		37				470	7	2.21	22.46	31.07	0.03		
1	126	13.23	34.903	26.29		52				458	10	2.35	23.59	26.87	0.02	7.80	
1	151	13.04	34.890	26.32		37				475	7	2.28	23.97	34.25	0.02		
2	177	12.58	34.865	26.39		38				480	7	2.36	25.23	30.54	0.02	7.75	
2	247	12.06	34.830	26.46		30				494	6	2.40	27.61	31.87	0.01		
2	295	11.47	34.789	26.54		14				516	3	2.54	30.50	29.25	0.00	7.73	
2	345	10.74	34.753	26.61		15				522	3	3.32*	33.13*	37.18	0.00		
2	394	10.16	34.713	26.72		15				531	3	2.76	39.03	32.85	0.02		
2	473	9.56	34.637	26.72		13				553	2	3.09	54.22	32.35	1.15	7.64	
2	502	7.33	34.605	27.08		7				576	1	3.27	62.50	37.42	0.02		
2	572	6.40	34.569	27.18		22				574	4	3.32	71.16	42.72	0.00		
2	793	5.72	34.566	27.27		30				577	5	3.45	79.94	45.61	0.00		
2	995	4.70	34.571	27.39		52				570	9	3.43	95.76	43.30	0.00	7.63	

T. G. THOMPSON: CRUISE 026 STATION 042 OBSERVED VALUES

CST	DEPTH	PH3 UGAT/L	ALK MEQ/L	CO2 UMOL/L
1	0		2.39	
1	10		2.42	
1	20			
1	30		2.43	
1	40			
1	50		2.44	
1	75			
1	101			
1	126		2.44	
1	151			
2	197		2.43	
2	247			
2	295		2.44	
2	345			
2	394			
2	493		2.48	
2	592			
2	692			
2	793			
2	995		2.50	

[illegible]

T G THOMPSON CRUISE 026 STATION 043 OBSERVED VALUES

CAST	DEPTH	PH CAT/L	ALK MFG/L	CO2 MMOL/L
1	0			
1	10			
1	20			
1	30			
1	40			
1	50			
1	76			
1	101			
1	126			
1	151			
2	197		2.41	2.29
2	247			
2	297		2.37	2.32
2	346			
2	397			2.32
2	445			
2	495		2.39	2.37
2	544			
2	593			
2	693			
2	791			
2	990			

T G THOMPSON CRUISE 026				STATION 044				OBSERVED VALUES				WAVE PERIOD 3			
DATE	TIME	BARO	1008.8	WEATHER	02	02	02	WIND VELOC	04	05	05	WAVE PERIOD	3	3338	3338
HOUR	00	TEMP	DRY	22.9	VISIBILITY	8	8	WIND DIREC	05	05	05	WAVE PERIOD	3	3338	3338
LAT	08-55.0N	TEMP	WET	22.0	CLOUD TYPE	9	9	WAVE DIREC	05	05	05	WAVE PERIOD	3	3338	3338
LONG	089-34.0W	REL HUMID	92	92	CLOUD AMT	9	9	WAVE HEIGHT	1	1	1	WAVE PERIOD	3	3338	3338
CAST	DEPTH	TEMP	SAL	SIGMAT	02	02	02	AQU	0/0	02	02	P04	S104	NO3	NO2
		DEG.C	0/00		UGAT/L	UGAT/L	UGAT/L	UGAT/L	SATN			UGAT/L	UGAT/L	UGAT/L	UGAT/L
1	0	22.27	34.499	23.78	423	423	9	98	98	1.19	1.19	1.19	1.19	13.32	0.21
1	10	22.28	34.498	23.78	422	422	10	98	98	1.17	1.17	1.17	1.17	14.89	0.19
1	10	21.99	34.509	23.87	426	426	9	98	98	1.19	1.19	1.19	1.19	15.52	0.20
1	29	21.76	34.523	23.94	414	414	22	95	95	1.21	1.21	1.21	1.21	13.60	0.19
1	39	16.00	34.881	25.68	147	147	336	30	30	1.77	1.77	1.77	1.77	22.82	0.10
1	48	14.74	34.908	25.98	104	104	390	21	21	1.96	1.96	1.96	1.96	25.91	0.30
1	73	13.24	34.922	26.18	58	58	445	11	11	2.19	2.19	2.19	2.19	29.12	0.08
1	98	13.56	34.918	26.23	38	38	468	8	8	2.22	2.22	2.22	2.22	28.24	0.05
1	122	13.33	34.913	26.24	59	59	450	12	12	2.12	2.12	2.12	2.12	27.90	0.03
1	146	13.11	34.904	26.32	63	63	449	12	12	2.21	2.21	2.21	2.21	29.95	0.02
2	194	12.70	34.872	26.37	44	44	472	9	9	2.33	2.33	2.33	2.33	30.25	0.05
2	244	12.25	34.847	26.44	28	28	493	5	5	2.40	2.40	2.40	2.40	30.79	0.03
2	293	11.58	34.804	26.54	26	26	503	5	5	2.50	2.50	2.50	2.50	32.57	0.02
2	343	10.79	34.756	26.64	18	18	520	3	3	2.65	2.65	2.65	2.65	32.69	0.03
2	393	10.16	34.724	26.73	21	21	524	4	4	2.72	2.72	2.72	2.72	32.96	0.03
2	442									1.74	1.74			35.18	0.10
2	493	8.73	34.647	26.90	19	19	546	3	3	3.09	3.09	3.09	3.09	27.48	1.22
2	543									0.72	0.72			37.36	0.07
2	592	7.11	34.598	27.11	13	13	573	2	2	3.26	3.26	3.26	3.26	38.31	0.04
2	693	6.32	34.578	27.20	15	15	583	2	2	3.30	3.30	3.30	3.30	44.76	0.02
2	793	5.71	34.565	27.27	30	30	576	5	5	3.38	3.38	3.38	3.38	42.59	0.02
2	894	4.70	34.570	27.39	67	67	555	11	11	3.38	3.38	3.38	3.38	39.44	0.02
															7.74

T G THOMPSON CRUISE 020 STATION 044 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MFG/L	CO2 MMOL/L
1	0			
1	10			
1	19			
1	29			
1	39			
1	48			
1	73			
1	99			
1	122			
1	146			
2	194		2.36	
2	244			
2	293		2.36	
2	343			
2	393			
2	442			
2	493		2.39	
2	543			
2	592			
2	693			
2	793			
2	994			

[illegible]

DATE HOUR LAT LONG		T G THOMPSON				CRUISE 026		STATION 046			OBSERVED VALUES							
		BARO TEMP TEMP WET REL HUMID	1012.9 24.5 23.3 90	SIGMAT	O2 UGAT/L	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	X1 8 1 1	WIND VELOC 03 28	WIND DIREC 35	WAVE DIREC 35	WAVE HEIGHT 1	ACU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
CAST	DEPTH	TEMP DEG.C	SAL P/PT															
1	0	23.90	34.343	23.19	387						35	92	0.85	7.43	9.42	0.20	8.20	
1	10	16.91	34.853	25.44	133						342	28	1.78	15.59	21.57	0.16	8.00	
1	20	14.99	34.011	25.92	67						430	13	2.19	19.00	26.56	0.02	7.91	
1	30	14.49	34.916	26.04	45						452	9	2.19	20.10	29.30	0.03		
1	40	14.26	34.924	26.09	42						457	8	2.22	20.22	30.11	0.15		
1	50	14.02	34.318	26.14	36						466	7	2.22	22.29	27.88	0.11	7.88	
1	76	13.70	34.921	26.21	45	30.60					460	9	2.79*	22.29	28.45	0.06	7.91	
1	101	13.42	34.908	26.25	36	29.28					472	7	2.27	23.02	30.27	0.07		
1	126	13.18	34.903	26.30	30	18.57					481	6	2.31	24.12	31.29	0.06	7.87	
1	151	12.94	34.895	26.34	36	22.86					477	7	2.30	24.36	29.32	0.09		
2	199	12.41	34.855	26.42		31.83					487	6	2.30	25.58	31.22	0.03	7.85	
2	250	11.89	34.813	26.48		43.05					482	8	2.30	27.16	29.14	0.02		
2	300	11.12	34.775	26.60		11.56					523	2	2.59	33.74	32.10	0.00	7.82	
2	350	10.36	34.732	26.70		7.99					535	1	2.69	36.05	32.36	0.00		
2	400	9.68	34.698	26.79		4.93					547	1	2.85	41.05	33.49	0.00		
2	450					1.44									31.01	0.00		
2	500	8.22	34.629	26.97		0.04					571	0	3.24	55.54	28.86	0.77	7.72	
2	550					1.27									36.35	0.00		
2	598	7.08	34.602	27.12		1.40					585	0	3.24	63.46	35.28	0.00		
2	699	6.27	34.591	27.21		9.43					589	2	3.34	71.50	40.47	0.00		
2	799	5.46	34.571	27.30		28	20.40				582	5	3.47	79.64	43.89	0.11		
2	998	4.51	34.575	27.42		59	51.34				567	9	3.48	81.61	38.43	0.10	7.76	

T G THOMPSON CRUISE C26				STATION C47				OBSERVED VALUES				WAVE PERIOD 3			
DATE	13/02/68	BARO	1009.8	WEATHER	X0	WIND VELOC	06	WIND DIREC	04	WAVE PERIOD	3	SECCHI	3200	WAVE PERIOD	3
HOUR	22.00	TEMP DRY	24.4	VISIBILITY	8	WIND DIREC	04	WAVE PERIOD	3	SECCHI	3200	WAVE PERIOD	3	SECCHI	3200
LAT	08-54.0N	TEMP WET	22.9	CLOUD TYPE	0	WAVE PERIOD	3	SECCHI	3200	WAVE PERIOD	3	SECCHI	3200	WAVE PERIOD	3
LONG	087-50.0W	REL HUMID	22.88	CLOUD AMT	0	WAVE PERIOD	3	SECCHI	3200	WAVE PERIOD	3	SECCHI	3200	WAVE PERIOD	3
CST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	ACU UGAT/L	O/O O2 SAT%	P04 UGAT/L	SIO4 UGAT/L	H03 UGAT/L	H02 UGAT/L	PH		
1	0	22.35	34.612	23.95	413		19	96	1.19	13.15	15.25	0.22	8.14		
1	10	20.40	34.610	24.38	387		59	87	1.23	12.79	14.16	0.12			
1	20	15.24	34.863	25.83	73		417	15	2.15	20.71	24.69	0.16			
1	30	14.29	34.914	26.09	45		454	9	2.18	21.07	30.94	0.12			
1	40	14.03	34.919	26.14	44		457	9	2.17	20.83	30.09	0.12			
1	50	13.79	34.922	26.19	36		468	7	2.20	21.68	29.06	0.03			
1	76	13.53	34.913	26.24	39		468	8	2.44	22.78	29.63	0.03	7.89		
1	101	13.29	34.900	26.28	36	28.09	473	7	2.26	23.99	31.12	0.01	7.88		
1	126	13.02	34.892	26.32	37	15.68	475	7	2.34	24.73	31.72	0.01			
1	151	12.49	34.893	26.35	42	29.66	472	8	2.28	24.36	29.03	0.01			
2	200	12.44	34.852	26.41		12.32	507	2	2.47	27.04	23.97*	0.02	7.84		
2	250	11.86	34.813	26.49		20.31	505	4	2.44	28.38	31.66	0.00			
2	302	11.12	34.764	26.59		7.14	527	1	2.67	32.03	33.49	0.00	7.80		
2	352	10.39	34.726	26.69		3.65	497	1	2.75	36.78	29.97	0.00			
2	402	9.57	34.690	26.80		0.47	553	0	2.96	43.85	28.68	0.23	7.73		
2	451					2.17					38.22*	0.00			
2	502	8.07	34.626	26.99		0.30	573	0	3.18	56.88	34.36	0.01	7.73		
2	552					4.59					29.83*	0.06			
2	603	7.00	34.597	27.12		9.05	579	2	3.21	63.46	38.00	0.00	7.72		
2	703	6.23	34.579	27.21		21.63	577	4	3.30	70.52	40.48	0.00			
2	803	5.61	34.564	27.28	30	18.27	578	5	3.36	78.44	42.65	0.00			
2	1005	4.57	34.573	27.41	53	47.13	572	8	3.42	93.54	40.66	0.00	7.79		

T G THOMPSON CRUISE 026 STATION 047 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.39	2.23
1	10			
1	20			
1	30			
1	40			
1	50		2.44	2.38
1	76		2.40	2.41
1	101			
1	126			2.41
1	151			
2	200		2.42	2.40
2	250			
2	302		2.41	2.45
2	352			
2	402		2.42	2.46
2	451			
2	502		2.43	2.49
2	552			
2	603		2.43	2.50
2	703			
2	803			
2	1005		2.47	2.57

DATE			T G THOMPSON			CRUISE 026			STATION 048			OBSERVED VALUES				WAVE PERIOD 4			
14/07/68			BARO DRY 1011.7			WEATHER 5			WIND VELOC 03			WAVE CHHI				SOUNDING 3365			
HOUR 4.5			TEMP WET 22.5			VISIBILITY 5			WIND DIREC 05			P04				NO2			
LAT 08-58.0 N			REL HUMID 96			CLOUD TYPE 9			WAVE DIREC 36			UGAT/L				UGAT/L			
LONG 088-26.0 W						CLOUD AMT 9			WAVE HEIGHT 1										
CST	DEPTH	TEMP DEGC	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AGU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	NC3 UGAT/L	NO2 UGAT/L	PH						
1	0	21.34	34.581	24.10	411		28	94	1.47	11.33	16.51	0.26	8.13						
1	10	20.75	34.588	24.27	403		40	91	1.41	11.94	15.85	0.20							
1	20	15.04	34.864	25.88	29		463	6	2.38	20.34	28.81	0.28							
1	30	14.43	34.918	26.05	60		438	12	2.20	20.58	29.21	0.59							
1	40	14.16	34.922	26.11	51		449	10	2.16	21.07	30.45	0.23							
1	50	14.03	34.923	26.14	38		464	8	2.20	21.31	30.32	0.23					7.89		
1	75	13.72	34.921	26.20	39		466	8	2.25	22.05	30.81	0.05					7.87		
1	100	13.42	34.909	26.26	45	37.06	464	9	2.25	22.53	31.89	0.08							
1	125	13.18	34.900	26.30	47	31.32	464	9	2.25	23.51	30.87	0.06					7.89		
1	150	12.99	34.890	26.33	40	30.81	473	8	2.25	23.99	31.52	0.05							
2	201	12.49	34.859	26.40		20.91	497	4	2.41	26.67	31.06	0.11					7.84		
2	252	11.94	34.819	26.48		22.40	502	4	2.42	28.14	32.62	0.01							
2	302	11.43	34.786	26.55		14.32	516	3	2.50	31.06	33.31	0.01					7.81		
2	353	10.67	34.743	26.65		10.07	530	2	4.06*	32.16	32.86*	0.00							
2	403	9.98	34.704	26.74		1.27	547	0	2.90	40.19	31.53	0.00					7.76		
2	453					0.55					32.97	0.11							
2	504	8.02	34.619	26.99		2.29	571	0	3.18	57.73	34.56	0.57					7.73		
2	554					2.80					36.54	0.04							
2	603	6.91	34.585	27.12		2.51	587	0	3.31	64.68	38.39	0.01					7.69		
2	705	6.13	34.567	27.22		9.18	591	2	3.33	72.84	41.81	0.00							
2	805	5.51	34.565	27.29	26	16.15	584	4	3.46	81.24	43.24	0.00							
2	1007	4.45	34.566	27.41	46	40.88	580	7	3.61	96.71	45.88	0.01					7.71		

OBSERVED VALUES

STATION: 042

T G THOMPSON CRUISE 026

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.41	2.26
1	10			
1	20			
1	30			
1	40			
1	50		2.41	2.38
1	75		2.41	2.39
1	100			
1	125		2.41	2.43
1	150			
2	201		2.39	2.41
2	252			
2	302		2.41	2.42
2	353			
2	403		2.40	2.46
2	453			
2	504		2.45	2.52
2	554			
2	603		2.43	2.53
2	705			
2	805			
2	1007		2.48	2.54

T G THOMPSON CRUISE 326				STATION 049				OBSERVED VALUES							
DATE		14/02/68		BARO		1011.8		WEATHER		X1		WIND VELOC		03	
HOUR		12.7		TEMP DRY		24.5		VISIBILITY		8		WIND DIREC		07	
LAT		08-56.0N		TEMP WET		23.2		CLOUD TYPE		6		WAVE DIREC		03	
LONG		089-08.0W		REL HUMID		90		CLOUD AFT		5		WAVE HEIGHT		2	
CST	DEPTH	TEMP DEG.C	SAL P/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH		
1	0	22.53	34.579	23.77	416		14	97	1.28		15.28	0.23	8.13		
1	10	21.54	34.563	24.03	410		28	94	1.26		15.49	0.16			
1	20	21.23	34.565	24.12	394		46	90	1.37		16.20	0.16			
1	30	20.34	34.602	24.39	376		70	84	1.43		17.18	0.16			
1	40	14.84	34.912	25.96	119		375	24	1.92		25.64	0.03			
1	50	14.25	34.939	26.10	73		427	15	2.12		29.81	0.30	7.90		
1	75	13.83	34.924	26.18	55		449	11	2.22		30.80	0.06	7.88		
1	100	13.63	34.923	26.22	44	30.56	462	9	2.23		31.57	0.04			
1	125	13.36	34.917	26.27	51	39.61	458	10	2.24		30.77	0.03	7.87		
1	150	13.15	34.906	26.31	50	38.55	461	10	2.26		31.42	0.02			
2	199	12.68	34.875	26.38		17.21	499	3	2.39		33.07	0.01	7.83		
2	249	11.99	34.829	26.48		17.93	506	3	2.48		34.12	0.02			
2	298	11.23	34.784	26.58		16.45	516	3	2.63		33.14	0.01	7.80		
2	348	10.68	34.748	26.66		11.77	523	2	3.57*		34.26	0.15			
2	400	10.14	34.727	26.73		7.82	538	1	2.77		33.54	0.03	7.75		
2	449					2.97					31.91	0.60			
2	499	8.29	34.638	26.97		0.93	569	0	3.25		32.71	0.53	7.71		
2	549					3.36					37.09	0.11			
2	599	7.08	34.594	27.11		1.70	585	0	3.32		38.88	0.19	7.72		
2	700	6.31	34.579	27.20		5.82	592	1	3.38		43.13	0.15			
2	801	5.62	34.569	27.28	25	12.41	583	4	3.62		43.41	0.12			
2	1002	4.56	34.568	27.40	60	47.05	564	10	3.48		44.52	0.18	7.72		

T G THOMPSON CRUISE 026 STATION 049 OBSERVED VALUES

CYST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.38	2.21
1	10			
1	20			
1	30			
1	40			
1	50		2.38	2.35
1	75		2.38	2.37
1	100			
1	125		2.38	2.38
1	150			
2	199		2.38	2.46
2	249			
2	298		2.39	2.43
2	348			
2	400		2.42	2.46
2	449			
2	499		2.41	2.53
2	549			
2	599		2.44	2.55
2	700			
2	801			
2	1002		2.47	2.57

DATE TIME LONG	14/02/68 17.6 08-55.4 N 089-34.4 W	T G THOMPSON	CRUISE 026	STATION 050				OBSERVED VALUES				WAVE PERIOD 2 SECCHI SOUNDING 3310			
				BARO TEMP REL HUMID	DRY WET HUMID	1012.6 28.5 24.5	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	X0 8 0	WIND WAVE WAVE	VELOC DIREC DIREC HEIGHT	11 70 04	NO3 UGAT/L	NO2 UGAT/L	PM	
CST	DEPTH	TEMP DEG.C	SAL G/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	G2 UGAT/L	AQU UGAT/L	O/O O2 SATM	P04 UGAT/L	S104 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PM	
1	0	23.20	34.425	23.46	463			-36	109	1.50	4.14	12.78	0.21	8.18	
1	10	22.86	34.451	23.52	452			-29	107	1.07	6.33	11.21	0.18		
1	20	22.21	34.511	23.78	444			-11	103	1.23	8.28	13.42	0.20		
1	30	16.68	34.850	25.49	193			283	41	1.73	15.59	23.82	0.09		
1	40	14.80	34.896	25.95	130			364	26	1.91	18.76	24.97	0.20		
1	50	14.30	34.911	26.07	112			387	22	2.01	19.61	25.37	0.48	7.95	
1	75	13.25	34.928	26.18	42		19.97	461	8	2.29	21.44	25.89	0.08	7.89	
2	101	13.65	34.931	26.22	38		28.90*	463	7	2.21	22.41	29.78	0.05		
2	126	13.36	34.913	26.27	39			469	8	2.32	22.90	31.56	0.04	7.87	
2	151	13.16	34.903	26.31	45			466	9	2.36	23.39	30.52	0.03		
3	202	12.57	34.874	26.38				500	3	2.40	25.94	31.11	0.03	7.83	
3	253	12.02	34.830	26.47				513	2	2.54	28.50	31.18	0.00		
3	303	11.35	34.794	26.57				527	1	2.50	28.62	31.01	0.00	7.77	
3	353	10.54	34.739	26.67				535	1	2.87	34.47	33.62	0.00		
3	405	9.96	34.713	26.75				543	1	2.80	38.98	33.41	0.00	7.75	
3	456						4.55					27.49	1.01		
3	506	8.35	34.636	26.96			0.34	569	0	3.20	52.86	29.07	1.11	7.71	
3	557						1.87					35.17	0.04		
3	607	7.03	34.594	27.12			1.44	586	0	3.33	61.39	39.28	0.01	7.71	
3	710	6.19	34.574	27.21			7.56	592	1	3.38	69.55	39.50	0.00		
3	811	5.50	34.564	27.29	23		18.66	587	4	3.47	75.88	32.68*	0.01		
3	1012	4.64	34.571	27.40	26		41.52	597	4	3.46	88.06	42.17	0.02	7.76	

STATION 050 OBSERVED VALUES

T G THOMPSON CRUISE 026

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.37	2.24
1	10			
1	20			
1	30			
1	40			
1	50		2.40	2.36
1	75		2.39	2.46
2	101		2.39	2.46
2	126			
2	151			
3	202		2.39	2.47
3	253			
3	303		2.40	2.47
3	353			
3	405		2.40	2.50
3	456			
3	506		2.45	2.56
3	557			
3	607		2.42	2.56
3	710			
3	811			
3	1012		2.45	2.60

T G THOMPSON CRUISE 026				STATION 051			OBSERVED VALUES																																																																																																																																																																																																																																																																																																																																																									
DATE 14/C2/68 23.4 08-51.0N LONG 090-15.0W	CAST	DEPTH	TEMP DEG.C	SAL 0/00	SIGMA-T	WEATHER		X1		WIND VELOC		12		WAVE PERIOD SECCHI SOUNDING 3272	PH																																																																																																																																																																																																																																																																																																																																																	
						HARO TEMP DRY TEMP WET REL HUMID	VISIBILITY CLOUD TYPE CLOUD AMT	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L			Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	Q2 UGAT/L	

F/6 8/10

PHYSICAL, CHEMICAL, AND PRODUCTIVITY DATA FROM AN INVESTIGATION--ETC(U)
FEB 71 F A RICHARDS, R C DUGDALE, M L HEALY NONR-477(37)

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2 of 2

2003.3.1

END
DATE
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T G THOMPSON CRUISE 026 STATION 051 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.39	2.24
1	10			
1	20			
1	30			
1	40			
1	50		2.39	2.49
1	75		2.41	2.49
1	100			
1	125		2.44	2.52
1	150			
2	197		2.41	2.48
2	247			
2	296		2.42	2.54
2	345			
2	396		2.42	2.58
2	446			
2	496		2.45	2.55
2	546			
2	595		2.45	2.59
2	697			
2	797			
2	1000		2.48	2.64

T G THOMPSON CRUISE 026				STATION 052				OBSERVED VALUES					
DATE HOUR LAT LONG	16/02/69 000 08-42.0 N 087-10.0 W	BARO 1008.5		WEATHER		WIND VELOC 07		WAVE PERIOD 3					
		TEMP DRY 26.6	TEMP WET 24.4	VISIBILITY 8	CLOUD TYPE 1	WIND DIREC 05	SECCHI	WAVE SOUNDING 3064					
		REL HUMID 83		CLOUD AMT 9		WAVE DIREC 36							
						WAVE HEIGHT 1							
CST	DEPTH	TEMP DEG.C	SAL O/100	SIGMAT	O2 UGAT/L	O2 UGAT/L	ACU UGAT/L	O/O O2 SAT%	P04 UGAT/L	SIG4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
1	0	24.85	34.364	22.93	399		16	36	0.86	7.43	9.69	0.19	8.22
1	10	18.64	34.733	24.93	258		202	56	1.41	12.91	18.06	0.14	8.11
1	20	15.04	34.915	25.92	167		325	34	1.73	15.71	23.05	0.06	
1	30	14.46	34.912	26.04	111		396	22	1.93	17.90	26.06	0.20	7.98
1	40	14.12	34.923	26.12	55		446	11	2.16	19.37	29.13	0.12	
1	50	13.97	34.932	26.16	54		448	11	2.14	21.19	29.26	0.07	7.93
1	75	13.61	34.927	26.23	61		445	12	2.13	20.83	28.76	0.02	7.93
1	100	13.37	34.909	26.27	43	33.70	465	9	2.19	22.65	28.88	0.03	7.91
1	125	13.17	34.907	26.31	41	33.06	470	8	2.21	23.02	30.60	0.03	7.93
1	150	12.89	34.884	26.34	21	12.79	493	4	2.30	23.75	31.85	0.04	
2	199	12.41	34.855	26.42		31.45	488	6	2.39	24.36	30.98	0.03	
2	249	11.94	34.822	26.50		35.40	490	7	2.34	26.67	31.20	0.02	
2	299	11.24	34.782	26.58		17.72	515	3	2.50	29.96	33.02	0.01	
2	348	10.45	34.734	26.69		6.97	535	1	2.65	34.35	32.72	0.01	7.81
2	399	9.66	34.695	26.79		5.69	546	1	2.81	40.07	33.41	0.00	
2	449					0.85					31.14	0.08	7.77
2	499	8.18	34.628	26.97		1.32	570	0	3.11	54.20	32.09	0.78	
2	549					1.70					36.07	0.03	
2	599	6.97	34.595	27.13		3.57	585	1	3.21	62.73	29.33	0.00	
2	701	6.17	34.579	27.22		10.41	589	2	3.45	71.01	41.64	0.00	
2	801	5.57	34.573	27.29	28	17.21	531	5	3.35	79.20	43.51	0.02	
2	1002	4.46	34.569	27.42	60	47.39	566	10	3.33	96.22	42.67	0.02	7.78

T G THOMPSON CRUISE 026 STATION 052 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.40	2.24
1	10		2.41	2.35
1	20			
1	30		2.42	2.42
1	40			
1	50		2.41	2.45
1	75		2.42	2.43
1	100		2.42	2.45
1	125		2.45	2.45
1	150			
2	199			
2	249			
2	299			
2	348		2.43	2.52
2	399			
2	449			
2	499		2.45	2.57
2	549			
2	599			
2	701			
2	801			
2	1002		2.49	2.59

DATE TIME LAT LONG	16/02/69 09:40 08-54.0 N 087-50.0 W	T G THOMPSON				CRUISE 026		STATION 053			OBSERVED VALUES				WAVE PERIOD 3 SECCHI SOUNDING 3200			
		TEMP DEG.C	SAL O/100	SIGMAT	O2 UGAT/L	WEATHER VISIBILITY 6 CLOUD TYPE X CLOUD AMT 9	O2 UGAT/L	ACU UGAT/L	O/G O2 SATN	P04 UGAT/L	SIG04 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH				
1	0	21.52	34.654	24.11	416		21	95	1.14	12.30	16.03	0.15	8.15					
1	10	17.68	34.738	25.17	273		195	58	1.40	13.40	18.88	0.03						
1	20	14.74	34.868	25.95	6		489	1	2.30	22.17	30.28	0.19						
1	30	13.98	34.890	26.12	14		488	3	2.24	22.29	31.45	0.62	7.87					
1	40	13.88	34.894	26.15	33		470	7	2.19	20.83	29.74	0.05						
1	50	13.70	34.916	26.20	46		459	9	2.08	20.46	29.78	0.01	7.90					
1	75	13.42	34.918	26.26	40		463	9	2.04	21.44	30.65	0.02	7.91					
1	100	13.25	34.907	26.29	30	25.97	480	6	2.15	22.29	30.80	0.00	7.88					
1	125	13.04	34.998	26.32	30	25.75	482	6	2.19	23.63	30.83	0.01	7.89					
3	149	12.97	34.888	26.33	62	18.61	451	12	2.27	23.75	30.84	0.00						
3	198	12.39	34.958	26.42		8.63	511	2	2.29	25.31	32.47	0.01	7.84					
3	250	11.74	34.816	26.51		13.09	514	2	2.32	28.26	32.60	0.01						
3	300	11.21	34.781	26.59		14.24	519	3	2.45	33.13	33.03	0.00	7.80					
4	354	9.93	34.714	26.76		0.26	548	0	2.76	39.95	32.36	0.12						
4	405	9.07	34.665	26.86		0.34	559	0	2.86	45.65	31.09	0.26						
4	456					0.26					33.93	0.11						
4	507	7.64	34.618	27.05		1.27	578	0	3.09	57.85	34.18	0.02	7.74					
4	557					4.63					37.84	0.02						
4	608	6.81	34.599	27.15		10.84	580	2	3.16	64.07	41.16	0.15						
4	708	6.20	34.587	27.22		22.99	576	4	3.16	70.52	38.27	0.21						
4	809	5.62	34.573	27.28	30	17.93	578	5	3.26	79.66	40.37	0.01						
4	1012	4.60	34.572	27.40	55	42.46	569	9	3.31	94.76	42.73	0.05	7.75					

T G THOMPSON CRUISE 026 STATION 053 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.43	2.26
1	10			
1	20			
1	30		2.43	2.41
1	40			
1	50		2.42	2.40
1	75		2.44	2.40
1	100		2.46	2.45
1	125		2.44	2.49
3	149			
3	198		2.44	2.46
3	250			
3	300		2.44	2.49
4	354			
4	405			
4	456			
4	507		2.46	2.53
4	557			
4	608			
4	708			
4	809			
4	1012		2.50	2.62

T G THOMPSON CRUISE 026				STATION 054				OBSERVED VALUES				WAVE PERIOD 3 SECCAL 14 SOUNDING 3200			
DATE	TIME	BARO	TEMP	REL	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
16/02/68	19:08	1010.7	23.5	23.0	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY	DRY
09-30.0N	09-30.0N	23.0	23.0	23.0	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET	WET
LONG 088-25.5W	088-25.5W	23.0	23.0	23.0	REL	REL	REL	REL	REL	REL	REL	REL	REL	REL	REL
CAST	DEPTH	TEMP	SAL	SIGMA	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
1	0	22.82	34.444	23.59	419	419	419	419	419	419	419	419	419	419	419
1	10	22.60	34.441	23.64	419	419	419	419	419	419	419	419	419	419	419
1	20	20.49	34.475	24.25	338	338	338	338	338	338	338	338	338	338	338
1	30	19.04	34.657	24.77	325	325	325	325	325	325	325	325	325	325	325
1	40	15.97	34.963	25.67	123	123	123	123	123	123	123	123	123	123	123
1	50	14.79	34.864	25.93	20	20	20	20	20	20	20	20	20	20	20
1	75	13.53	34.984	26.21	19	19	19	19	19	19	19	19	19	19	19
1	100	13.28	34.890	26.27	24	24	24	24	24	24	24	24	24	24	24
1	126	12.95	34.872	26.32	30	30	30	30	30	30	30	30	30	30	30
1	151	12.80	34.874	26.35	33	33	33	33	33	33	33	33	33	33	33
2	202	12.26	34.840	26.43	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.56	7.56
2	252	11.67	34.798	26.51	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49	1.49
2	303	11.12	34.773	26.60	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70	1.70
2	353	10.09	34.712	26.73	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2	405	9.44	34.681	26.92	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
2	455				0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93	0.93
2	505	7.84	34.622	27.02	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68	0.68
2	557				1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83	1.83
2	607	6.87	34.588	27.13	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00	2.00
2	708	6.06	34.574	27.23	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50	6.50
2	810	5.39	34.573	27.31	22	22	22	22	22	22	22	22	22	22	22
2	1007	4.40	34.572	27.43	61	61	61	61	61	61	61	61	61	61	61

T G THOMPSON CRUISE 026 STATION 054 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.38	2.23
1	10			
1	20			
1	30		2.40	2.31
1	40			
1	50		2.41	2.44
1	75		2.40	2.46
1	100		2.41	2.46
1	126		2.41	2.45
1	151			
2	202		2.41	2.48
2	252			
2	303		2.42	2.48
2	353			
2	405			
2	455			
2	505		2.44	2.56
2	557			
2	607			
2	708			
2	810			
2	1007		2.48	2.60

T G THOMPSON			CRUISE 026		STATION 055			OBSERVED VALUES						
17/02/68 09-00.0N 088-29.0W			1009.2 24.5 22.8 86		WEATHER VISIBILITY 8 CLOUD TYPE 0 CLOUD AMT 2		X1		WIND VELOC 08 WIND DIREC 08 WAVE DIREC 02 WAVE HEIGHT 1		WAVE PERIOD 3 SECCHI SOUNDING 3338			
CAST	DEPTH	TEMP DEG.C	SAL P/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	O2 UGAT/L	ACU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
1	0	22.48	34.545	23.76	510			-78	118	0.98	0.97	9.57	0.27	8.24
1	10	21.62	34.511	23.97	503			-64	115	0.84	0.00	8.81	0.27	8.27
1	20	17.55	34.750	25.21	50			419	11	2.18	17.42	26.28	0.58	
1	30	15.75	34.831	25.69	7			478	1	2.46	21.68	27.31	0.98	7.85
1	40	14.99	34.864	25.89	10			482	2	2.39	22.05	29.83	0.09	
1	50	14.30	34.876	26.05	9			491	2	2.34	22.17	29.59	1.01	7.85
1	75	13.71	34.913	26.20	38			468	7	2.24	22.53	30.56	0.03	7.89
1	100	13.37	34.913	26.27	39		30.90	470	8	2.25	23.26	31.02	0.03	7.88
1	125	13.13	34.906	26.31	32		25.24	479	6	2.33	23.51	31.45	0.02	7.86
1	150	12.94	34.893	26.34	32		23.25	481	6	2.32	24.24	31.25	0.01	
2	197	12.45	34.859	26.41			17.85	501	3	2.39	26.55	32.18	0.01	7.89
2	248	11.77	34.814	26.51			5.74	521	1	2.51	29.60	33.05	0.02	
2	297	11.13	34.778	26.60			3.27	531	1	2.61	33.13	33.14	0.01	7.81
2	345	10.52	34.742	26.68			0.81	541	0	2.77	37.39	31.84	0.01	
2	396	9.68	34.696	26.79			0.85	551	0	2.94	42.75	29.89	0.45	
2	445						0.47			3.05		28.18	1.29	
2	496	8.23	34.634	26.97			1.61	569	0	3.12	53.71	34.13	0.12	7.76
2	545						0.81			3.22		34.41	0.00	
2	594	7.03	34.601	27.12			3.61	584	1	3.23	63.09	39.20	0.00	
2	693	6.25	34.579	27.21			7.52	591	1	3.35	69.91	41.14	0.00	
2	794	5.51	34.572	27.30			14.66	583	4	3.37	79.90	43.49	0.00	
2	993	4.56	34.573	27.41			36.85	577	8	3.43	95.86	43.83	0.00	7.77

T G THOMPSON CRUISE 026 STATION 055 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.42	2.17
1	10		2.42	2.21
1	20			
1	30		2.42	2.41
1	40			
1	50		2.42	2.42
1	75		2.42	2.44
1	100		2.43	2.43
1	125		2.42	2.42
1	150			
2	197		2.43	2.45
2	248			
2	297		2.44	2.48
2	345			
2	396			
2	445			
2	496		2.43	2.55
2	545			
2	594			
2	693			
2	794			
2	993		2.50	2.55

[illegible]

T. S. THOMPSON CRUISE 026 STATION 056 OBSERVED VALUES

CAST	DEPTH	PH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.38	2.15
1	10			
1	20			
1	30		2.43	2.36
1	40			
1	50		2.43	2.46
1	75		2.43	2.46
1	100		2.43	2.45
1	125		2.43	2.45
1	150			
2	201		2.44	2.49
2	252			
2	301			2.47
2	350			
2	401			
2	451			
2	502		2.46	2.54
2	551			
2	602			
2	703			
2	804			
2	1004		2.50	2.61

T G THOMPSON CRUISE 026				STATION 057				OBSERVED VALUES				WAVE PERIOD 3			
DATE	17/02/68	PARO DRY	1009.7	WEATHER	x1	WIND VELOC	07	WIND DIREC	08	WAVE DIREC	02	WAVE PERIOD	3	SECCHI	
LAT	08-53.0N	TEMP	22.5	VISIBILITY	8	WIND DIREC	08	WAVE DIREC	02	WAVE DIREC	02	SOUNDING	3292		
LONG	088-50.0W	REL HUMID	22.3	CLOUD TYPE	0	WAVE HEIGHT	2	WAVE HEIGHT	2						
CST	DEPTH	TEMP	SAL	SIGMAT	02	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	02	UGAT/L	PH
1	0	22.59	34.547	23.73	461										8.11
1	10	22.57	34.549	23.73	462										0.26
1	20	21.30	34.551	24.09	416										0.26
1	30	15.68	34.853	25.73	27										0.26
1	40	14.38	34.894	26.04	73										0.22
1	50	14.07	34.918	26.13	51										0.64
1	75	13.69	34.925	26.21	34										0.41
1	100	13.43	34.917	26.26	23										0.06
1	125	13.22	34.900	26.29	29										0.06
1	150	12.97	34.892	26.33	32										0.05
2	200	12.47	34.853	26.40											0.05
2	250	11.28	34.815	26.49											0.06
2	299	11.30	34.791	26.57											0.06
2	348	10.48	34.730	26.68											0.05
2	399	9.59	34.690	26.80											0.05
2	449														0.09
2	499	8.11	34.625	26.98											0.89
2	548														0.04
2	598	6.96	34.589	27.12											0.05
2	698	6.21	34.575	27.21											0.05
2	793	5.52	34.564	27.29											0.05
2	992	4.50	34.563	27.41											0.05

T G THOMPSON CRUISE 026 STATION 057 OBSERVED VALUES

CAST	DEPTH	NH3 USAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.39	2.27
1	10			
1	20			
1	30		2.42	2.45
1	40			
1	50		2.42	2.46
1	75		2.42	2.51
1	100		2.43	2.48
1	125		2.42	2.48
1	150			
2	200			2.48
2	250			
2	299		2.43	2.52
2	348			
2	399			
2	449			
2	499		2.43	2.52
2	548			
2	598			2.58
2	698			
2	798			
2	999		2.48	

[illegible]

T G THOMPSON		CRUISE 026		STATION 058		OBSERVED VALUES	
CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L			
1	0		2.39	2.18			
1	10						
1	20						
1	30		2.42	2.37			
1	40						
1	50		2.43	2.45			
1	75		2.44	2.42			
1	100		2.42	2.44			
1	125		2.42	2.46			
1	150						
2	200		2.41	2.45			
2	252						
2	302		2.42	2.50			
2	352						
2	403						
2	452						
2	504		2.46	2.58			
2	554						
2	604						
2	706						
2	806						
2	1011		2.47	2.60			

T G THOMPSON CRUISE 026				STATION 059				OBSERVED VALUES				WAVE PERIOD 3			
DATE	TIME	LONG	LAT	HAIR DRY	TEMP	WET	REL	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
19/07/68	145	08-54.0N	125.0W	24.8	22.6	22.6	22.6	24.8	22.6	22.6	22.6	24.8	22.6	22.6	22.6
CST	DEPTH	TEMP	SAL	SIGMA-T	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2	Q2
1	0	24.24	34.440	23.17	471	471	471	471	471	471	471	471	471	471	471
1	10	24.22	34.445	23.18	472	472	472	472	472	472	472	472	472	472	472
1	20	22.51	34.440	23.67	457	457	457	457	457	457	457	457	457	457	457
1	30	21.38	34.540	24.06	386	386	386	386	386	386	386	386	386	386	386
1	40	18.08	34.791	25.11	225	225	225	225	225	225	225	225	225	225	225
1	50	15.31	34.888	25.83	71	71	71	71	71	71	71	71	71	71	71
1	75	14.13	34.904	26.10	33	33	33	33	33	33	33	33	33	33	33
1	101	13.74	34.905	26.19	34	34	34	34	34	34	34	34	34	34	34
1	126	13.42	34.897	26.25	31	31	31	31	31	31	31	31	31	31	31
1	151	13.08	34.883	26.30	31	31	31	31	31	31	31	31	31	31	31
2	202	12.51	34.850	26.39											
2	253	11.77	34.814	26.51											
2	304	11.13	34.770	26.59											
2	354	10.41	34.726	26.69											
2	405	9.78	34.698	26.77											
2	456														
2	505	8.12	34.619	26.98											
2	556														
2	605	6.99	34.583	27.11											
2	707	6.22	34.566	27.20											
2	807	5.56	34.570	27.29	31	31	31	31	31	31	31	31	31	31	31
2	1009	4.69	34.566	27.39	64	64	64	64	64	64	64	64	64	64	64

T G THOMPSON CRUISE 026 STATION: 059 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.40	2.21
1	10			
1	20			
1	30		2.39	2.30
1	40			
1	50		2.42	2.47
1	75		2.42	2.45
1	101		2.40	2.46
1	126			
1	151			
2	202		2.39	2.51
2	253			
2	304		2.42	2.53
2	354			
2	405			
2	456			
2	505		2.42	2.60
2	556			
2	605			
2	707			
2	807			
2	1009		2.47	2.57

T G THOMPSON CRUISE 026				STATION 060				OBSERVED VALUES				WAVE PERIOD 2			
DATE	19/02/68	BARO	1009.2	WEATHER	02	02	02	WIND	04	WIND	04	SECCHI	3062	WAVE	02
HOUR	107	TEMP DRY	25.6	VISIBILITY	8	UGAT/L	UGAT/L	VELOC	32	DIREC	32	SOUNDING	3062	PERIOD	2
LAT	08-52.0N	TEMP WET	24.9	CLOUD TYPE	X	UGAT/L	UGAT/L	WAVE	02	DIREC	02				
LONG	087-03.0W	REL HUMID	94	CLOUD AMT	9	UGAT/L	UGAT/L	HEIGHT	02						
CST	DEPTH	TEMP	SAL	SIGMAT	02	02	02	02	02	02	02	02	02	02	02
		DEG.C	O/100		UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L
1	0	25.04	34.391	22.89	401	13	97	0.93	7.31	8.78	0.17	8.23			
1	10	19.88	34.612	24.52	299	151	66	1.23	11.21	14.55	0.12				
1	20	15.30	34.906	25.85	201	288	41	1.66	19.37	22.25	0.06				
1	30	14.55	34.922	26.03	72	424	15	2.03		27.58	0.07	7.99			
1	40	14.18	34.933	26.12	58	443	12	2.15	20.10	28.82	0.13				
1	50	13.98	34.929	26.15	53	449	11	2.10	21.56	29.27	0.10	7.97			
1	75	13.67	34.924	26.22	64	442	13	2.14	21.68	29.30	0.03	7.98			
1	100	13.42	34.915	26.26	45	463	9	2.20	22.41	30.65	0.02	7.94			
1	125	13.15	34.903	26.31	40	471	8	2.26	23.02	30.95	0.02	7.92			
1	150	12.89	34.890	26.35	15	499	3	2.39	26.07	32.10	0.00				
2	202	12.43	34.853	26.41		489	6	2.36	27.04	31.36	0.03	7.91			
2	252	11.76	34.807	26.50		487	8	2.36	28.87	31.86	0.03				
2	303	11.08	34.771	26.60		521	3	2.56	31.79	33.51	0.02	7.84			
2	353	10.49	34.761	26.70		533	2	2.59	33.13	32.00	0.02				
2	404	9.59	34.689	26.80		550	0	2.95	43.00	31.25	0.01				
2	454					1.91				30.59	0.17				
2	504	8.06	34.622	26.99		572	0	3.25	56.88	32.28	0.76	7.76			
2	554					1.44				35.13	0.04				
2	604	6.89	34.592	27.13		586	1	3.27	64.55	34.49	0.01				
2	704	6.12	34.576	27.22		592	1	3.35	72.71	41.34	0.01				
2	803	5.42	34.573	27.31	30	596	5	3.40	81.97	42.78	0.00				
2	1004	4.45	34.574	27.42	65	546	11	3.42	95.98	42.60	0.01	7.78			
2	1203	3.77	34.588	27.50	86	551	13	3.32	108.16	42.65	0.00				

T. G. THOMPSON CRUISE 326 STATION 060 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		7.41	2.23
1	10			
1	20			
1	30		2.44	2.47
1	40			
1	50		2.42	2.48
1	75		2.44	2.49
1	100		2.43	2.50
1	125		2.41	2.51
1	150			
2	202		2.44	2.51
2	252			
2	303		2.44	2.54
2	353			
2	404			
2	454			
2	504		2.46	2.59
2	554			
2	604			
2	704			
2	803			
2	1004		2.51	2.66
2	1203			

T G THOMPSON CRUISE 026				STATION 061				OBSERVED VALUES				WAVE PERIOD 3			
DATE	TIME	BARO	TEMP	DRY	1009.1	SIGMAT	02	02	UGAT/L	02	02	02	02	02	02
LAT	LON	TEMP	TEMP	WET	24.2	24.0	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND	WIND
08-44.0M	08-44.0M	REL	HUMID	23.0	23.0	90	WAVE	WAVE	WAVE	WAVE	WAVE	WAVE	WAVE	WAVE	WAVE
087-52.0W	087-52.0W						HEIGHT	HEIGHT	HEIGHT	HEIGHT	HEIGHT	HEIGHT	HEIGHT	HEIGHT	HEIGHT
CST	DEPTH	TEMP	SAL	0/00	02	02	UGAT/L	02	UGAT/L	02	02	02	02	02	02
1	0	21.19	34.648	24.19	443	28.90	-2	101	1.12	13.52	13.38	0.11	0.11	8.16	
1	10	16.43	34.832	25.54	104		375	22	1.96	17.42	23.41	0.38	0.38		
1	20	14.68	34.872	25.96	25		470	5	2.41	21.92	29.07	0.14	0.14	7.89	
1	30	14.19	34.918	26.10	71		429	14	2.22	20.95	29.75	0.08	0.08		
1	40	13.95	34.932	26.16	44		459	9	2.22	20.71	29.82	0.06	0.06	7.90	
1	50	13.76	34.922	26.20	52		453	10	2.17	21.19	29.19	0.06	0.06	7.87	
1	75	13.46	34.915	26.25	34		474	7	2.26	22.65	30.10	0.03	0.03	7.88	
1	100	13.29	34.912	26.28	43		467	8	2.26	22.78	30.22	0.03	0.03	7.87	
1	125	13.08	34.899	26.32	38	27.62	473	7	2.29	23.87	29.69	0.06	0.06		
1	150	12.88	34.888	26.35	40	28.86	474	8	2.33	23.63	30.22	0.03	0.03		
2	201	12.44	34.859	26.41		15.34	504	3	2.45	26.43	31.23	0.03	0.03	7.84	
2	251	11.80	34.917	26.50		19.21	507	4	2.43	28.38	31.62	0.02	0.02		
2	301	11.20	34.778	26.59		13.73	519	3	2.54	32.03	32.46	0.02	0.02	7.81	
2	352	10.40	34.736	26.70		9.18	534	2	2.71	35.32	30.25	0.00	0.00		
2	402	9.65	34.698	26.79		1.06	551	0	2.90	41.78	28.56	0.01	0.01		
2	452					0.25					31.32	0.15	0.15	7.73	
2	502	7.89	34.633	27.02		4.84	570	1	3.17	56.39	36.34	0.01	0.01		
2	553					1.15					35.90	0.03	0.03		
2	603	6.88	34.608	27.15		9.82	580	2	3.24	64.43	39.20	0.00	0.00		
2	704	6.22	34.585	27.22		22.35	577	4	3.24	71.01	40.76	0.00	0.00		
2	804	5.59	34.573	27.29	33	21.63	576	5	3.34	80.14	42.65	0.00	0.00		
2	1003	4.49	34.579	27.42	58	44.54	568	9	3.42	100.61	42.85	0.01	0.01	7.72	
2	1204	3.80	34.593	27.51	91		545	14	3.32	110.59	42.27	0.00	0.00		

T G THOMPSON CRUISE 026 STATION 061 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	1.66	2.44	2.14
1	10	0.48		
1	20	0.37		
1	30	0.85	2.44	2.27
1	40	0.58		
1	50		2.43	2.29
1	75	0.13	2.44	2.29
1	100	0.02	2.43	2.29
1	125	0.18	2.44	2.30
1	150	0.02		
2	201	0.79	2.44	2.29
2	251	0.41		
2	301	0.20	2.44	2.31
2	352	0.43		
2	402	0.45		
2	452	0.09		
2	502	0.90	2.46	2.37
2	553	0.35		
2	603	0.41		
2	704			
2	804			
2	1003		2.48	2.40
2	1204	0.45		

T G THOMPSON CRUISE 026 STATION 062 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.42	2.11
1	10			
1	20			
1	30		2.44	2.27
1	40			
1	50		2.43	2.29
1	76		2.43	2.27
1	101		2.43	2.30
1	126		2.44	2.31
1	151			
2	200		2.43	2.31
2	251			
2	300		2.43	2.33
2	351			
2	401			
2	451			
2	501		2.45	2.37
2	550			
2	599			
2	705			
2	805			
2	1005		2.49	2.42
2	1204			

T G THOMPSON			CRUISE 026		STATION 063			OBSERVED VALUES					WAVE PERIOD 2 SECCHI 15 SOUNDING 3338			
DATE 19/02/68 TIME 09-00-00 LAT 08-24-2N	BARO TEMP TEMP REL HUMID	1009.2 25.8 23.9 85	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	X2 8 6 8	WIND VELOC WIND DIREC WAVE DIREC WAVE HEIGHT	04 02 01 1	ACU UGAT/L	O/O 02 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH			
CAST	DEPTH	TEMP DEG.C	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L										
1	0	23.41	34.626	23.55	493		-68	116	1.17	11.33	13.36	0.21	8.14			
1	10	22.19	34.612	23.89	440		-6	102	1.21	9.99	13.78	0.13				
1	20	19.27	34.594	24.66	324		131	71	1.94	13.89	20.43	0.84				
1	30	15.76	34.847	25.70	100		385	21	2.29	19.73	29.08	0.21	7.86			
1	40	14.60	34.875	25.98	46		450	9	2.38	21.80	28.40	1.36				
1	50	14.05	34.878	26.10	25		477	5	2.38	22.41	30.29	0.26	7.85			
1	76	13.57	34.908	26.22	27		480	5	2.20	21.31	28.70	0.04	7.91			
1	101	13.37	34.911	26.27	53	29.07	455	10	2.29	22.17	30.18	0.03	7.88			
1	126	13.08	34.898	26.32	39	28.47	472	8	2.31	23.63	31.50	0.02	7.88			
1	150	12.90	34.889	26.35	45	22.95	468	9	2.47	23.63	31.29	0.02				
2	200	12.57	34.864	26.39		16.83	501	3	2.39	25.46	31.49	0.03	7.84			
2	250	12.11	34.833	26.46		9.26	513	2	2.48	27.77	32.67	0.02				
2	300	12.54	34.797	26.35		8.16	510	2	2.55	30.21	32.55	0.02	7.80			
2	351	10.79	34.760	26.65		6.25	532	1	2.68	33.25	33.19	0.01				
2	401	10.00	34.714	26.75		2.59	545	0	2.85	39.34	30.65	0.02				
2	451					2.25					28.71	1.01				
2	500	8.14	34.628	26.98		0.89	571	0	3.19	55.18	32.16	0.62	7.72			
2	550					2.74					35.69	0.03				
2	600	7.12	34.593	27.12		2.72	585	0	3.25	62.24	42.09	0.01				
2	700	6.12	34.572	27.22		9.22	591	2	3.35	71.13	41.71	0.02				
2	800	5.54	34.569	27.29		14.66	581	5	3.39	78.80	43.31	0.01				
2	900	4.60	34.567	27.41	28	39.10	550	12	3.44	93.54	43.06	0.01	7.74			
2	1200	2.75	34.590	27.51	84		553	13	3.20	106.94	42.73	0.00				

DATE MO DAY LONG	TIME 19/02/68 08-34.0N 088-26.0W	T G THOMPSON	CRUISE 026	STATION 062				OBSERVED VALUES				WAVE PERIOD SECH SOUNDING 3200	PH
				BARO TEMP TEMP REL HUMID	1011.6 23.9 23.9 85	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	02 UGAT/L	02 UGAT/L	WIND VELOC WIND DIREC WAVE DIREC WAVE HEIGHT	01 03 02 02			
CST	DEPTH	TEMP DEG.C	SAL 0/00	SIGMAT	02 UGAT/L	02 UGAT/L	AOU UGAT/L	0/0 02 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	
1	0	23.30	34.560	23.53	472		-46	111	0.96	2.68	10.34	0.25	8.20
1	10	21.45	34.510	24.02	462		-23	105	1.10	3.04	11.43	0.25	
1	20	20.33	34.589	24.38	183		264	41	1.56	9.50	17.06	0.34	
1	30	14.84	34.922	25.97	21		473	4	1.98	19.49	25.84	0.26	7.96
1	40	14.21	34.930	26.11	10		491	2	2.19	20.95	30.15	0.32	
1	50	13.86	34.942	26.19	14		490	3	2.21	21.07	30.92	0.05	7.88
1	76	13.57	34.922	26.24	66		441	13	2.24	22.17	30.57	0.02	7.89
1	101	13.39	34.928	26.28	36		472	7	2.20	22.29	30.28	0.02	7.92
1	126	13.17	34.907	26.30	34		477	7	2.28	23.02	30.87	0.01	7.88
1	151	12.98	34.889	26.33	31		482	6	2.23	22.78	30.97	0.04	
2	200	12.58	34.881	26.40			488	6	2.32	24.60	31.68	0.05	7.88
2	251	11.97	34.828	26.48			502	4	2.38	26.92	32.67	0.02	
2	300	11.27	34.783	26.58			523	2	2.55	30.33	33.52	0.01	7.79
2	351	10.64	34.747	26.66			527	2	2.60	32.76	33.94	0.01	
2	401	9.94	34.712	26.76			547	0	2.84	38.85	32.26	0.01	
2	451						570	0	3.11	53.23	32.26	0.14	
2	501	8.21	34.650	26.99			585	0			35.08	0.01	7.74
2	550						590				37.50	0.02	
2	599	7.06	34.598	27.11			594	0	3.23	60.90	39.20	0.00	
2	705	6.18	34.579	27.22			576	2	3.30	69.06	41.93	0.01	
2	805	5.48	34.571	27.30		16	594	3	3.32	77.71	42.77	0.01	
2	1005	4.46	34.581	27.43		50	576	8	3.37	92.20	43.40	0.01	7.74
2	1204	3.76	34.594	27.51		92	545	14	3.26	104.14	42.98	0.01	

T G THOMPSON, CRUISE 026 STATION: 063 OBSERVED VALUES

CASE	DEPTH	CH3 URAT/L	ALP MFG/L	CO2 MMOL/L
1	0	0.96	2.41	2.10
1	10	1.59		
1	20	1.79		
1	30	0.94	2.41	2.27
1	40	0.54		
1	50	0.27	2.41	2.30
1	76	0.38	2.42	2.30
1	101	0.41	2.41	2.30
1	126	0.04	2.40	2.28
1	150	0.60		
2	200	0.78	2.42	2.27
2	250	0.81		
2	300	0.62	2.42	2.31
2	351	0.37		
2	401	1.87		
2	451	0.01		
2	500	0.05	2.44	2.37
2	550	0.08		
2	600	0.73		
2	700			
2	800			
2	900		2.47	2.42
2	1200			

T G THOMPSON CRUISE 026				STATION 064				OBSERVED VALUES					
20/02/68		1012.2		WEATHER		WIND VELOC 03		WAVE PERIOD 2					
3.8		26.2		VISIBILITY 8		WIND DIREC 31		SECCHI					
09-30.0 N		24.4		CLOUD TYPE X		WAVE DIREC 02		SOUNDING 3200					
098-25.0 W		86		CLOUD AMT 9		WAVE HEIGHT 1							
CAST	DEPTH	TEMP DEG.C	SAL O/100	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	P04 UGAT/L	SI04 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
1	0	24.99	33.853	22.50	568		-152	137	0.20	0.37	0.11	0.10	8.38
1	10	24.57	33.885	22.65	497		-78	119	0.32	0.00	0.00	0.19	
1	20	24.35	34.024	22.82	400		19	95	0.74	2.19	0.00	0.68	
1	29	22.04	34.480	23.83	310		124	71	1.47	9.53	3.69	1.75	8.08
1	39	19.52	34.631	24.88	194		267	42	1.82	13.15	13.66	1.23	
1	49	17.03	34.859	25.42	117		356	25	1.97	17.05	19.40	0.90	7.94
1	74	13.77	34.892	26.17	15		490	3	2.38	23.02	22.54	0.07	7.86
1	99	13.39	34.884	26.24	13	4.67	495	3	2.38	24.12	27.83	0.03	7.89
1	123	13.09	34.880	26.30	16	5.10	496	3	2.38	24.12	30.31	0.03	7.91
1	149	12.85	34.871	26.34	36	26.99	478	7	2.28	23.63	28.79	0.04	
2	198	12.39	34.846	26.41		4.93	515	1	2.42	26.92	32.46	0.02	7.84
2	549	11.73	34.804	26.51		5.57	521	1	2.50	29.84	32.80	0.02	
2	298	10.99	34.760	26.61		1.87	534	0	2.62	33.13	32.42	0.02	7.77
2	347	10.18	34.712	26.72		1.06	545	0	2.82	39.46	28.76	0.79	
2	397	9.30	34.667	26.83		1.27	555	0	2.95*	46.04	27.43	1.45	
2	448					0.30					29.64	0.83	
2	498	7.85	34.616	27.02		0.89	575	0	3.74*	58.34	37.16	0.58	7.71
2	548					0.24					41.23	0.03	
2	598	6.99	34.593	27.12		1.27	587	0	3.27	64.55	42.72	0.01	
2	699	6.23	34.575	27.21		6.03	593	1	3.33	71.86	45.58	0.01	
2	799	5.50	34.567	27.29	28	10.24	581	5	3.39	81.61	46.97	0.01	
2	995	4.46	34.576	27.42	57	50.36	569	9	3.35	99.02	46.93	0.01	7.73
2	1198	3.74	34.594	27.51	89		548	14	3.30	111.33	45.84	0.00	

T G THOMPSON CRUISE 026 STATION 064 OBSERVED VALUES

CST	DEPTH	NH3 MICAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.39	1.99
1	10			
1	20			
1	29		2.41	2.17
1	39			
1	49		2.43	2.23
1	74		2.44	2.30
1	99		2.44	2.31
1	123		2.44	2.34
1	146			
2	198		2.44	2.35
2	549			
2	298		2.44	2.34
2	347			
2	397			
2	448			
2	498		2.45	2.44
2	542			
2	598			
2	699			
2	799			
2	996		2.51	2.41
2	1198			

DATE 20/62/68 HOUR 10.5 LAT 08-54.0N LONG 088-56.0W	CAST	DEPTH	T G THOMPSON				CRUISE 026				STATION 065				OBSERVED VALUES				WAVE PERIOD 2 SECCHI SOUNDING 3338				PM
			TEMP DEG.C	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	WEATHER VISIBILITY CLOUD TYPE CLOUD AMT	WIND VELOC 03 33	WIND DIRECTION 03 33	WAVE DIRECTION 03 33	WAVE HEIGHT 03 33	ACU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L					
	1	0	23.56	34.544	23.45	511			-87	121	0.76	0.37	8.19	0.30	8.19				8.19				
	1	10	22.95	34.554	23.63	508			-79	119	0.91	0.61	10.78	0.23	0.91								
	1	20	19.71	34.619	24.57	273			179	60	1.55	12.42	17.74	0.54	1.55								
	1	30	15.60	34.901	25.78	90			396	19	1.94	18.27	25.27	0.28	1.94								
	1	40	14.60	34.918	26.01	99			398	20	1.92	19.12	26.21	0.39	1.92								
	1	50	14.17	34.918	26.11	57			443	11	2.08	20.58	28.51	0.19	2.08								
	1	75	13.70	34.922	26.21	55			450	11	2.15		29.66	0.09	2.15								
	1	101	13.40	34.916	26.27	54	43.14		455	11	2.14	22.29	29.90	0.06	2.14								
	1	126	13.15	34.902	26.30	51	38.38		460	10	2.21	25.58	30.53	0.06	2.21								
	1	151	12.99	34.894	26.33	38	25.92		475	7	2.25	24.24	30.76	0.08	2.25								
	2	199	12.59	34.869	26.39		22.44		495	4	2.31	25.58	30.48	0.07	2.31								
	2	249	11.93	34.826	26.49		21.25		503	4	2.40	28.50	31.68	0.05	2.40								
	2	299	11.25	34.783	26.58		14.24		518	3	2.45	31.06	33.30	0.02	2.45								
	2	347	10.40	34.734	26.70		4.25		539	1	2.71	37.03	32.88	0.02	2.71								
	2	399	9.72	34.696	26.77		1.23		550	0	3.06	42.39	30.10	0.03	3.06								
	2	449					0.89																
	2	498	8.06	34.628	26.99		1.83		571	0	3.27	56.64	34.03	0.05	3.27								
	2	547					2.12																
	2	597	6.99	34.590	27.12		2.85		585	0	3.22	65.41	37.79	0.03	3.22								
	2	697	6.17	34.572	27.21		8.24		592	1	3.31	72.59	41.73	0.00	3.31								
	2	797	5.48	34.565	27.29	16	9.82		594	3	3.36	82.70	43.40	0.01	3.36								
	2	997	4.46	34.569	27.42	57	45.56		563	9	3.35	98.17	43.31	0.01	3.35								
	2	1200	3.75	34.590	27.51	94			543	15	3.26	111.57	42.23	0.04	3.26								

7.67

7.75

7.83

7.87

7.88

7.90

8.19

7.72

Y G THOMPSON CRUISE 726 STATION 065 OBSERVED VALUES

CST	DEPTH	HM3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0	0.83	2.44	2.08
1	10	1.49		
1	20	1.60		
1	30	1.22	2.44	2.25
1	40	1.06		
1	50	0.57	2.45	2.26
1	75	0.26	2.45	2.29
1	101	0.28	2.45	2.31
1	125	0.13	2.45	2.32
1	151	0.60		
2	199	0.51	2.45	2.32
2	249	0.21		
2	299	0.21	2.45	2.33
2	347	0.51		
2	399	0.10		
2	448	0.06		
2	493	0.30	2.48	2.39
2	547	0.02		
2	597	0.45		
2	697			
2	797			
2	997		2.51	2.43
2	1200			

T G THOMPSON CRUISE 026				STATION 066				OBSERVED VALUES					
DATE	20/02/69	BARO	1012.4	WEATHER	X1	WIND VELOC	03	WAVE PERIOD	2				
HOUR	18.0	TEMP DRY	28.6	VISIBILITY	8	WIND DIREC	31	SECCHI	13				
LAT	08-53.0 N	TEMP WET	25.2	CLOUD TYPE	0	WAVE DIREC	01	SOUNDING	3338				
LONG	089-27.0 W	REL HUMID	76	CLOUD AMT	2	WAVE HEIGHT	01						
CST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATM	PO4 UGAT/L	SI04 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
1	0	24.29	34.328	23.07	542		-122	129	0.39	0.61	0.62	0.18	8.31
1	10	23.55	34.323	23.28	540		-115	127	0.49	1.22	0.99	0.15	
1	20	17.70	34.733	25.16	69		399	15	2.03	16.56	24.29	0.72	
1	30	15.02	34.904	25.91	148		344	30	1.92	18.27	25.28	0.23	7.89
1	40	14.54	34.912	26.02	83		414	17	1.97	19.00	26.39	0.64	
1	50	14.06	34.909	26.12	63		438	13	2.11	20.71	29.07	0.14	7.89
1	76	13.69	34.921	26.21	41		465	8	2.18	21.31	29.92	0.04	7.86
1	101	13.40	34.913	26.26	34	18.87	474	7	2.26	22.41	30.69	0.03	
1	126	13.15	34.902	26.31	56	43.52	455	11	2.18	22.53	30.11	0.02	7.67
1	150	12.93	34.889	26.34	53	41.86	461	10	2.21	23.02	30.32	0.02	
2	197	12.48	34.861	26.41		15.85	503	3	2.33	26.19	31.80	0.05	7.82
2	548	11.77	34.810	26.51		19.89	507	4	2.38	28.01	32.43	0.05	
2	297	11.09	34.772	26.60		9.90	525	2	2.50	31.55	33.28	0.04	7.79
2	346	10.59	34.744	26.67		5.31	535	1	2.64	34.96	33.38	0.03	
2	395	9.78	34.698	26.77		1.15	549	0	2.82	41.17	31.25	0.06	
2	445					1.27					29.74	1.15	
2	494	8.20	34.627	26.97		0.38	571	0	3.14	62.61	31.31	0.93	7.71
2	544					1.70					35.28	0.14	
2	593	7.01	34.594	27.12		1.15	586	0	3.18	61.87	39.33	0.04	
2	692	6.22	34.571	27.21		6.54	593	1	3.28	69.91	41.28	0.03	
2	792	5.59	34.565	27.28	22	15.51	586	4	3.36	77.83	43.38	0.03	
2	994	4.53	34.569	27.41	53	42.54	572	8	3.34	93.54	43.59	0.03	7.71
2	1194	3.91	34.584	27.49	94		541	15	3.33	104.63	42.59	0.02	

T G THOMPSON CRUISE 026 STATION: 066 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.43	2.00
1	10			
1	20			
1	30		2.45	2.26
1	40			
1	50		2.44	2.28
1	76		2.44	2.26
1	101		2.44	2.20
1	126		2.45	2.29
1	150			
2	197		2.45	2.30
2	548			
2	297		2.46	2.33
2	346			
2	395			
2	445			
2	494		2.47	2.38
2	544			
2	593			
2	692			
2	792			
2	994		2.51	2.43
2	1194			

DATE TIME LAT LONG			T G THOMPSON CRUISE 026				STATION 067				OBSERVED VALUES				WAVE PERIOD X SOUNDING 3347			
21/02/68 07 08-52.0N 090-13.0W			BARO DRY 1010.0 TEMP WET 26.0 REL HUMID 24.1 85		WEATHER VISIBILITY 8 CLOUD TYPE 9 CLOUD AMT 9		WIND VELOC 03 WIND DIREC 32 WAVE DIREC 00 WAVE HEIGHT 00											
CAST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	02 UGAT/L	02 UGAT/L	AOU UGAT/L	0/0 02 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH					
1	0	25.10	34.358	22.85	596		-182	144	0.20	0.97	0.84	0.09	8.32					
1	10	23.42	34.321	23.32	534		-108	126	0.54	1.22	3.26	0.10						
1	20	21.73	34.415	23.87	383		54	88	1.26	10.96	12.58	0.15						
1	30	19.60	34.593	24.58	219		233	48	1.78	12.55	19.78	0.65	7.97					
1	40	15.61	34.895	25.77	116		371	24	2.00	17.42	25.01	0.12						
1	50	14.59	34.911	26.01	42		455	8	2.18	22.53	29.04	0.84	7.83					
1	74	13.92	34.913	26.15	40		463	8	2.23	22.17	30.54	0.05	7.80					
1	99	13.60	34.914	26.22	36	26.99	471	7	2.27	22.29	30.83	0.01	7.88					
1	124	13.28	34.893	26.27	38	21.55	472	7	2.32	23.26	31.72	0.01	7.76					
1	149	12.95	34.885	26.33	32	20.70	482	6	2.36	24.12	32.17	0.02						
2	198	12.47	34.841	26.39		15.26	503	3	2.38	25.58	31.66	0.07	7.85					
2	247	11.82	34.814	26.50		5.99	520	1	2.59	29.11	33.34	0.02						
2	299	11.06	34.765	26.60		5.23	530	1	2.60	32.52	33.65	0.01	7.78					
2	345	10.36	34.730	26.70		4.63	539	1	2.71	35.93	33.52	0.01						
2	396	9.84	34.705	26.77		2.68	547	0	2.87	39.95	33.44	0.01						
2	445					0.47												
2	495	8.20	34.626	26.97		0.98	570	0	3.19	53.71	29.52	1.21	7.72					
2	545					0.68					35.35	0.29						
2	595	7.03	34.590	27.11		1.10	586	0	3.33	61.75	40.32	0.02						
2	695	6.38	34.573	27.19		5.82	591	1	3.33	67.84	42.27	0.00						
2	795	5.69	34.573	27.28	35	10.92	572	6	3.39	76.00	44.84	0.00						
2	997	4.67	34.570	27.39	60	40.80	562	10	3.48	89.52	44.16	0.00	7.74					
2	1199	3.96	34.583	27.48	96		538	15	3.44	102.92	44.42	0.00						

T G THOMPSON CRUISE 026 STATION 067 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.44	1.98
1	10			
1	20			
1	30		2.43	2.21
1	40			
1	50		2.44	2.28
1	74		2.44	2.31
1	99		2.45	2.29
1	124			2.31
1	149			
2	198		2.45	2.32
2	247			
2	299		2.46	2.34
2	345			
2	396			
2	445			
2	495		2.48	2.39
2	545			
2	595			
2	695			
2	795			
2	997		2.50	2.43
2	1199			

T G THOMPSON CRUISE 026				STATION 069				OBSERVED VALUES					
DATE 22/02/69		BARO 1008.8		WEATHER		WIND VELOC 13		WAVE PERIOD 2					
HOUR 09-50.0N		TEMP DRY 26.4		VISIBILITY 8		WIND DIREC 34		SECCHI					
LAT 088-27.0W		TEMP WET 23.5		CLOUD TYPE 9		WAVE DIREC 34		SOUNDING 3292					
LONG		REL HUMID 78		CLOUD AMT 9		WAVE HEIGHT 1							
CAST	DEPTH	TEMP DEG.C	SAL O/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	P04 UGAT/L	SIO4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH
1	0	25.93	33.876	22.23	465		-55	114	0.27	1.34	0.20	0.05	8.33
1	10	25.80	33.868	22.26	468		-57	114	0.27	1.58	0.19	0.02	
1	20	25.30	33.846	22.40	437		-22	106	0.40	1.71	0.46	0.21	
1	30	24.23	34.286	23.06	363		56	87	1.05	4.38	9.43	1.38	6.17
1	40	18.11	34.704	25.04	103		361	22	2.06	16.08	22.97	0.78	
1	50	16.72	34.700	25.37	113		364	24	2.07	17.17	22.02	0.76	7.95
1	75	13.53	34.880	26.21	13		494	3	2.38	23.26	30.87	0.06	7.87
1	100	13.21	34.980	26.28	11	5.31	499	2	2.39	24.73	30.95	0.02	7.82
1	125	12.96	34.874	26.32	19	6.84	495	4	2.39	24.97	31.88	0.01	7.86
1	150	12.69	34.865	26.37	25	10.96	492	5	2.40	25.70	31.86	0.03	
2	197	12.21	34.826	26.43		17.17	504	3	2.40	27.53	31.57	0.07	7.86
2	248	11.69	34.795	26.51		3.44	524	1	2.54	30.33	31.58	0.02	
2	298	11.05	34.760	26.60		1.23	534	0	2.65	33.37	31.57	0.03	
2	347	10.37	34.725	26.69		0.76	542	0	2.79	38.85	29.56	0.15	
2	398	9.49	34.677	26.81		1.19	553	0	3.08	45.92	27.19	1.06	
2	447					1.83					26.80	1.49	
2	497	7.99	34.611	26.99		1.27	573	0	3.20	58.95	29.91	1.24	7.74
2	547					0.34					33.75	0.29	
2	596	6.91	34.590	27.13		1.78	587	0	3.30	66.50	37.14	0.01	
2	696	6.16	34.573	27.22		8.07	592	1	3.34	73.69	40.19	0.02	
2	797	5.57	34.567	27.29	25	13.73	584	4	3.45	80.63	41.24	0.02	
2	996	4.66	34.564	27.39	48	24.86	574	8	3.48	95.86	43.07	0.00	7.74
2	1197	3.83	34.589	27.50	70		565	11	3.39	111.57	42.99	0.00	

T G THOMPSON CRUISE 026 STATION 069 OBSERVED VALUES

CST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
1	0		2.39	1.98
1	10			
1	20			
1	30		2.43	2.07
1	40			
1	50		2.45	2.23
1	75		2.44	2.27
1	100		2.46	2.28
1	125		2.44	2.27
1	150			
2	197		2.46	2.30
2	248			
2	298			2.31
2	347			
2	398			
2	447			
2	497		2.48	2.36
2	547			
2	596			
2	696			
2	797			
2	996		2.52	2.40
2	1197			

T G THOMPSON CRUISE 026				STATION 070				OBSERVED VALUES				WAVE PERIOD 3 SECCHI 09 SOUNDING 4590			
DATE	22/02/68	BARO	1011.4	WEATHER	X1	WIND VELOC	03	WIND DIREC	03	WAVE DIREC	03	WAVE HEIGHT	1		
HOUR	16.8	TEMP DRY	27.3	VISIBILITY	8	WIND DIREC	03	WAVE DIREC	03	WAVE HEIGHT	1				
LAT	10-59.0N	TEMP WET	24.0	CLOUD TYPE	2										
LONG	087-24.0W	REL HUMID	76	CLOUD AMT	2										
CAST	DEPTH	TEMP DEG.C	SAL	SIGMAT	O2 UGAT/L	O2 UGAT/L	O2 UGAT/L	AQU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH	
1	0	26.08	33.829	22.15	537	50	131	-127	10	0.09	0.49	2.95	0.03		
1	50	14.79	34.899	25.96	25	16	43	444	5	2.13	20.34	27.26	0.05		
1	100	13.49	34.904	26.24	25	16	43	483	3	2.25	22.90	30.53	0.02		
1	200	12.51	34.857	26.40	16	43	0.81	502	8	2.41	26.31	30.87	0.01		
1	372	9.61	34.694	26.80	43	0.85	1.61	509	0	2.93	43.97	26.81	0.81		
1	424	8.80	34.652	26.90		1.57	1.61	562	0	3.04	50.18	27.69	1.32		
1	472	8.01	34.630	27.00		1.57	1.61	572	0	3.18	55.54	31.03	0.87		
1	523	7.43	34.609	27.07		2.55	5.40	580	0	3.19	60.53	34.51	0.03		
1	574	6.94	34.590	27.13				586	0	3.30	65.16	35.97	0.00		
1	623	6.57	34.586	27.17				589	1	3.33	67.84	40.16	0.01		
1	1025	4.34	34.578	27.44						3.44	97.93	44.37	0.00		

T G THOMPSON CRUISE 026 STATION 071 OBSERVED VALUES									
DATE	22/02/68	BARO	1007.8	WEATHER	X0	#IND VELOC	03	WAVE PERIOD	3
MOON	22.1	TEMP DRY	26.8	VISIBILITY	8	#IND DIREC	32	SECCHI	06
LAT	14-15.00N	TEMP WET	23.1	CLOUD TYPE	0	WAVE DIREC	32	SOUNDING	1033
LONG	087-08.00W	REL HUMID		CLOUD AMT	0	WAVE HEIGHT	1		
CST	DEPTH	TEMP	SAL	SIGMAT	O2	UGAT/L	O2	UGAT/L	PH
		DEG.C	O/100		UGAT/L	UGAT/L	SATN	UGAT/L	
1	0	26.84	34.034	22.06	545	-141	135	0.13	0.01
1	25	20.90	34.509	24.17	199	244	45	1.66	1.86
1	49	15.18	34.974	25.85	43	448	5	2.22	0.11
1	99	13.35	34.888	26.25	24	485	5	2.31	0.01
1	198	12.26	34.841	26.43	18	503	3	2.39	0.02
1	299	11.21	34.772	26.58		531	0	2.60	0.00
1	348	10.42	34.731	26.69		542	0	2.74	0.05
1	398	9.56	34.687	26.80		553	0	2.89	0.80
1	449	8.78	34.647	26.90		563	0	3.02	1.28
1	497	8.15	34.638	26.99		565	1	3.06	0.05
1	551	7.51	34.605	27.06		578	1	3.17	0.00

DATE 23/02/68		T G THOMPSON		CRUISE 026		STATION 072		OBSERVED VALUES		WAVE PERIOD 3		SECCHI SOUNGING 305	
HOUR 062		BARO 1008.5		WEATHER x1		WIND VELOC 12		WIND DIREC 30		WAVE PERIOD 3		SECCHI SOUNGING 305	
LAT 11-20.0N		TEMP DRY 26.8		VISIBILITY 8		WAVE DIREC 30		WAVE HEIGHT 2		WAVE PERIOD 3		SECCHI SOUNGING 305	
LONG 087-05.0W		REL HUMID 72		CLOUD AMT 1		WAVE HEIGHT 2		WAVE PERIOD 3		SECCHI SOUNGING 305		SECCHI SOUNGING 305	
CST	DEPTH	TEMP DEG.C	SAL O/100	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	PO4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L	PH	
1	0	26.77	33.982	22.05	518		-114	128	0.14	0.80	0.00		
1	25	21.71	34.313	23.80	254		183	58	1.35	10.94	0.60		
1	50	14.67	34.863	25.96	8		488	2	2.39	28.95	0.04		
1	74	13.80	34.881	26.16	4		500	1	2.47	26.92	0.23		
1	99	13.20	34.876	26.28	10		501	2	2.50	26.08	0.52		
1	150	12.74	34.862	26.36		4.08	512	1	2.46	30.35	0.03		
1	200	12.39	34.842	26.41		2.42	517	0	2.52	30.46	0.00		
1	224	12.12	34.827	26.45		4.50	518	1	2.51	31.64	0.00		
1	250	11.97	34.815	26.47		2.93	521	1	2.58	31.48	0.04		
1	274	11.66	34.800	26.52		2.42	525	0	2.58	31.69	0.04		
1	305	11.20	34.776	26.58		2.51	531	0	2.63	30.76	0.08		

T G THOMPSON CRUISE 026				STATION 073				OBSERVED VALUES				AVE PERIOD 2 13 585			
DATE	23/02/68	BARO	1013.2	WEATHER	X1	WIND VELOC	15	WIND DIREC	35	WAVE DIREC	35	WAVE HEIGHT	3	PO4	NO2
HOUR	16.3	TEMP DRY	28.0	VISIBILITY	8	WAVE HEIGHT	3	WAVE HEIGHT	3	WAVE HEIGHT	3	WAVE HEIGHT	3	UGAT/L	UGAT/L
LAT	12-23.0N	TEMP WET	22.5	CLOUD TYPE	1	WAVE HEIGHT	3	WAVE HEIGHT	3	WAVE HEIGHT	3	WAVE HEIGHT	3	UGAT/L	UGAT/L
LONG	088-48.0W	REL HUMID	62	CLOUD AMT	1	WAVE HEIGHT	3	WAVE HEIGHT	3	WAVE HEIGHT	3	WAVE HEIGHT	3	UGAT/L	UGAT/L
CAST	DEPTH	TEMP	SAL	SIGMAT	O2	O2	O2	AQU	O/C O2	PO4	NO2	NO3	NO4	NO2	NO3
		DEG.C	O/00		UGAT/L	UGAT/L	SATN	UGAT/L	SATN	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L	UGAT/L
1	0	25.98	34.257	22.50	475		117	-66	117	0.28	0.06	2.42		0.06	
1	25	22.04	34.319	23.71	243		56	192	56	1.24	0.78	13.93		0.78	
1	49	19.76	34.683	24.86	170		37	289	37	1.88	0.58	21.99		0.58	
1	93	13.22	34.862	26.26	19		4	492	4	2.41	0.01	32.81		0.01	
1	149	12.50	34.852	26.40	17	7.61	3	501	3	2.41	0.00	31.64		0.00	
1	199	11.77	34.804	26.50	15	2.00	3	511	3	2.54	0.17	32.06		0.17	
1	249	11.71	34.796	26.50		3.06	1	524	1	2.56	0.10	32.30		0.10	
1	299	11.67	34.791	26.51		2.63	0	525	0	2.57	0.07	32.41		0.07	
1	349	10.27	34.728	26.71		0.47	0	544	0	2.81	0.20	30.10		0.20	
1	399	9.21	34.664	26.84		1.40	0	556	0	2.96	1.22	27.41		1.22	
1	449	8.78	34.650	26.90		1.87	0	562	0	3.06	1.24	28.31		1.24	
1	500	8.15	34.623	26.98		2.46	0	569	0	3.13	0.94	30.50		0.94	

T G THOMPSON CRUISE 026				STATION 074				OBSERVED VALUES				
DATE	24/02/68	BARO	1012.9	WEATHER	X0	WIND VELOC	04	WAVE PERIOD	2	PH		
HOUR	13.7	TEMP DRY	26.3	VISIBILITY	8	WIND DIREC	28	SECCHI	25			
LAT	13-01.0N	TEMP WET	19.8	CLOUD TYPE	X	WAVE DIREC	28	SOUNDING	5522			
LONG	091-47.0W	REL HUMID	54	CLOUD AMT	C	WAVE HEIGHT	1					
CAST	DEPTH	TEMP DEG.C	SAL 0/00	SIGMAT	O2 UGAT/L	O2 UGAT/L	AOU UGAT/L	O/O O2 SATN	P04 UGAT/L	SIO4 UGAT/L	NO3 UGAT/L	NO2 UGAT/L
1	0	26.56	34.344	22.38	451		-47	112	0.51		3.56	0.10
1	25	24.61	34.468	23.08	499		-82	120	0.80		8.26	0.15
1	50	15.92	34.789	25.62	19		465	4	2.38		29.45	0.30
1	100	13.53	34.884	26.21	14	2.21	493	3	2.41		31.24	0.02
1	201	12.38	34.853	26.42		13.60	506	3	2.43		31.98	0.00
1	302	11.20	34.767	26.58		5.95	527	1	2.59		32.48	0.00
1	353	10.35	34.720	26.69		0.55	543	0	2.81		28.49	0.47
1	403	9.50	34.671	26.80		0.59	554	0	2.97		27.05	1.28
1	453	8.61	34.636	26.91		0.59	565	0	3.10		27.16	1.30
1	505	7.99	34.605	26.99		1.15	573	0	3.17		29.32	1.16
1	555	7.35	34.587	27.07		0.72	582	0	3.26		32.06	1.06
1	605	6.88	34.580	27.13		1.57	588	0	3.34		35.76	0.30

T G THOMPSON CRUISE 026				STATION 076				OBSERVED VALUES				WAVE PERIOD 7			
DATE	02/03/68	BARO	1014.0	WEATHER	X1	WIND VELOC	04	WIND DIREC	33	WAVE DIREC	27	SECCHI	2425	NO2	PH
HOUR	14.00	TEMP DRY	25.3	VISIBILITY	9	WAVE HEIGHT	2	WAVE HEIGHT	2	WAVE HEIGHT	2	NO3	UGAT/L	UGAT/L	UGAT/L
LAT	17-24.0N	TEMP WET	21.6	CLOUD TYPE	3	WAVE HEIGHT	2	WAVE HEIGHT	2	WAVE HEIGHT	2	NO3	UGAT/L	UGAT/L	UGAT/L
LONG	102-22.0W	REL HUMID	72	CLOUD AMT	3	WAVE HEIGHT	2	WAVE HEIGHT	2	WAVE HEIGHT	2	NO3	UGAT/L	UGAT/L	UGAT/L
CASE	DEPTH	TEMP	SAL	SIGMAT	O2	O2	O2	AGU	O/O	O2	O2	PO4	UGAT/L	UGAT/L	UGAT/L
1	249	11.53	34.785	26.53	20	1.83	4	510	4	4	4	2.58	26.49	1.64	1.64
1	298	10.89	34.746	26.62	18	1.19	3	519	3	3	3	2.76	25.50	1.62	1.62
1	349	10.28	34.709	26.70		1.74	0	543	0	0	0	2.90	25.50	1.15	1.15
1	399	9.26	34.648	26.82		1.66	0	556	0	0	0	3.03	27.03	0.75	0.75
1	442	8.58	34.619	26.91		1.61	0	565	0	0	0	3.17	28.94	0.73	0.73
1	499	7.88	34.603	27.00		1.78	0	574	0	0	0	3.24	31.47	0.60	0.60
1	549	7.30	34.570	27.06		3.19	1	580	1	1	1	3.29	33.69	0.39	0.39
1	599	6.77	34.551	27.12		1.70	0	590	0	0	0	3.33	36.39	0.00	0.00

DATE	TIME	T G	THOMPSON	CRUISE	026	STATION	077	OBSERVED VALUES						PH
03/03/68	08					WEATHER	X1	WIND	VELOC	15	WAVE	PERIOD	3	
17-17.0 N						VISIBILITY	8	WIND	DIREC	05	SECCI			
104-00.0 W						CLOUD TYPE	3	WAVE	DIREC	05	SOUNDING	3749		
						CLOUD AMT	6	WAVE	HEIGHT	02				
CST	DEPTH	TEMP	DEG.C	SAL	SIGMAT	02	C2	ACU	C/O	02	PC4	S104	NO3	NO2
				0/00		UGAT/L	UGAT/L	UGAT/L	SATN		UGAT/L	UGAT/L	UGAT/L	UGAT/L
1	303	10.12	9.37	34.702	26.72		0.64				2.89		25.77	1.18
1	354			34.655	26.81		1.02				3.02		26.38	0.86
1	404			34.616	26.92		1.36				3.14		28.88	0.67
1	455			34.593	26.98		1.32				3.23		31.60	0.59
1	506			34.572	27.05		0.93				3.29		32.95	0.46
1	556			34.559	27.12		1.49				3.39		35.81	0.16

DATE 03/03/68
 HOUR 13.2
 LAT 18-46.0 N
 LONG 105-10.0 W

T G THOMPSON CRUISE 026

BARO 1012.7
 TEMP DRY 24.0
 TEMP WET 21.5
 REL HUMID 80

STATION 078

WEATHER
 VISIBILITY 8
 CLOUD TYPE X
 CLOUD AMT 9

OBSERVED VALUES

WIND VELOC 17
 WIND DIREC 14
 WAVE DIREC 14
 WAVE HEIGHT 3

WAVE PERIOD 3
 SECCHI 4755
 SOUNDING

CAST	DEPTH	TEMP DEG.C	SAL O/100	SIGMAT	O2 UGAT/L	O2 UGAT/L	AGU UGAT/L	O/O O2 SATN	P04 UGAT/L	S104 UGAT/L	N03 UGAT/L	N02 UGAT/L	PH
2	0	24.18	34.483	23.22	457		-37	109	0.35		1.47	0.09	8.35
2	49	16.06	34.569	25.42	73		410	15	2.22		23.99	0.15	7.77
2	98	13.09	34.768	26.21	5		507	1	2.65		26.77	0.68	7.81
2	298	10.64	34.696	26.62		1.10	539	0	2.88		26.54	1.04	7.76
2	348	9.52	34.649	26.78		1.15	553	0	3.02		26.70	0.58	
2	398	8.77	34.610	26.87		1.57	562	0	3.14		28.73	0.52	7.70
2	447	8.14	34.578	26.94		1.91	570	0	3.14		31.12	0.23	
2	503	7.43	34.543	27.02		1.53	580	0	3.21		34.04	0.00	7.67
2	550	7.13	34.540	27.06		2.38	584	0	3.13		34.96	0.00	7.65
1	989	4.52	34.548	27.39	21		604	3	3.39		42.42	0.02	7.57
1	1982	2.10	34.646	27.70	188		477	28	2.96		38.98	0.01	7.70
1	2984	1.91	34.665	27.73	232		436	35	2.81		37.62	0.03	7.70
1	3990	1.92	34.668	27.73	238		430	36	2.81		38.31	0.01	7.69
1	4700	1.99	34.675	27.73	247		419	37	2.84		37.65	0.00	7.68

T G THOMPSON CRUISE 026 STATION 078 OBSERVED VALUES

CAST	DEPTH	NH3 UGAT/L	ALK MEG/L	CO2 MMOL/L
2	0		2.45	2.06
2	49		2.44	2.26
2	98		2.44	2.30
2	298		2.46	2.34
2	348			
2	398		2.48	2.34
2	447			
2	503		2.48	2.39
2	550		2.48	
1	989		2.52	2.48
1	1982		2.57	2.43
1	2984		2.57	2.43
1	3990		2.56	2.46
1	4700		2.57	2.43

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PRODUCTIVITY DATA

REPRODUCED FROM BLANK

NOTE FOR PRODUCTIVITY DATA REPORT

(THOMPSON CRUISE 26)

Final Edit - January 1971

Nitrogen

The nitrogen uptake experiments were incubated 24 hours under natural light at simulated *in situ* intensities. The uptake rates given here represent *in situ* rates, which in most cases have been calculated from artificially stimulated uptake rates (MacIsaac and Dugdale, 1969; Dugdale and MacIsaac, 1971). The rates given here for all but the 1% light-penetration depth have been so calculated at all stations except Sta.36, and for nitrate uptake only at Stas. 24, 28, 32, and 34.

Carbon

The ^{14}C productivity measurements given are light bottle values minus a constant dark bottle value. Samples were incubated for 24 hrs under natural light at simulated *in situ* intensities. In situations where no 1% measurement was made, zeros designated by asterisks have been entered in the report for integration purposes.

Chlorophyll-a

Chlorophyll values here are calculated according to Lorenzen (1967).

Incident Radiation

Incident radiation was measured with an Eppley pyranometer. A value marked with an asterisk is a daily value based on data from only half a day.

Chemistry

Fresh samples were used for all determinations. Nitrate analyses were made in duplicate, using the method of Wood *et al.* (1967); and ammonium analyses were done in triplicate according to the procedure of Procházková (1964).

Comments

The right-hand half of the first line of each station report is reserved for descriptive comments about the station or work there. Frequently the space is blank, but occasionally the entry NO₃ UPTAKE SUPPRESSION occurs. Such stations showed a suppression of nitrate uptake below expected rates, possibly due to the presence of high ammonium concentrations.

References

- Dugdale, R. C., and J. J. MacIsaac. 1971. Some interactions of light and inorganic nitrogen in controlling nitrogen productivity in the sea. To be submitted for publication.
- Lorenzen, C. J. 1967. *Limnology and Oceanography*, 12:343-346.
- MacIsaac, J. J., and R. C. Dugdale. 1969. *Deep-Sea Research*, 16:45-57.
- Procházková, L. 1964. *Anal. Chem.*, 36:865-871.
- Wood, E. D., F. A. J. Armstrong, and F. A. Richards. 1967. *J. Mar. Biol. Assn. U.K.*, 47:23-31.

Units

Nutrient and particulate concentrations	$\mu\text{g-At/liter}$
Chlorophyll and pheophytin	$\mu\text{g/liter}$
Carbon-14 uptake	$\mu\text{gC/liter/day}$
Uptake velocities (V)	day^{-1}
Transport rate (RH)	$\mu\text{g-At/liter-day}$
Incident radiation	$\text{gm-cal/cm}^2/\text{day}$
Integrated nutrient and particulate concentrations.	mg-At/m^2
Integrated chlorophyll and pheophytin	mg/m^2
Integrated carbon-14 uptake	$\text{mgC/m}^2/\text{day}$
Integrated transport rates (RH)	$\text{mg-At/m}^2/\text{day}$

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 005
 LATITUDE 29-32.0N LONGITUDE 117-16.0W LOCAL DATE 68/01/10 HOUR 9.0
 ONE PERCENT LIGHT DEPTH 80 METERS TOTAL RADIATION

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0		0.00			100
11		0.01			50
23		0.00			25
39		0.02			10

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP	PART. C	C14-UP.	PERCENT IO
0	0.05				100
11	0.04				50
23	0.04				25
39	0.05				10

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0		0.0000	0.56		0.000	100
11		0.0003	0.43		0.000	50
23		0.0000	0.35		0.000	25
39		0.0004	0.63		0.000	10

INTEGRATION: LIMITS NH4 TOTAL
 0.0 TO 39.0 0.00 0.28 0.00 0.00 0.00 17.96 0.000
 0.0 TO 39.0 0.00 0.01 0.00 0.00 0.00 0.46 0.000

NITROGEN PRODUCTIVITY CRUISE YTO26 STATION 007
 LATITUDE 17-08.0N LONGITUDE 105-39.0W LOCAL DATE 68/01/15 HOUR 8.5
 ONE PERCENT LIGHT DEPTH 86 METERS TOTAL RADIATION 410.

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
1		0.05			100
12		0.06			50
25		0.02			25
42		0.04			10
86		18.48			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP-P	PART. C	C14-UP.	PERCENT IO
1	0.06				100
12	0.05				50
25	0.05				25
42	0.05				10
86	0.15				1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RMNO3	PERCENT IO
1		0.0104	0.87		0.009	100
12		0.0156	0.74		0.012	50
25		0.0034	0.87		0.003	25
42		0.0061	0.90		0.005	10
86		0.0449	0.75		0.034	1

INTEGRATION LIMITS NH4

NO3	PO4	SIO4	CHLORO-A	PHAEOP-P	PART. C	C14-UP.	PN	RHNH4	RMNO3
0.0 TO 42.0	0.00	0.00	2.16	0.00	0.00	0.00	35.23	0.000	0.288
0.0 TO 42.0	0.00	0.00	0.05	0.00	0.00	0.00	0.84	0.000	0.007
42.0 TO 86.0	0.00	0.00	4.40	0.00	0.00	0.00	36.30	0.000	0.862
42.0 TO 86.0	0.00	0.00	0.10	0.00	0.00	0.00	0.82	0.000	0.020
0.0 TO 86.0	0.00	0.00	6.56	0.00	0.00	0.00	71.53	0.000	1.150
0.0 TO 86.0	0.00	0.00	0.08	0.00	0.00	0.00	0.83	0.000	0.013

NITROGEN PRODUCTIVITY CRUISE TTC26 STATION 008
 LATITUDE 16-05.0N LONGITUDE 103-22.0W LOCAL DATE 68/01/16 HOUR 9.0
 ONE PERCENT LIGHT DEPTH 86 METERS TOTAL RADIATION 490.

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
1		0.05			100
12		0.00			50
25		0.07			25
42		0.42			10
86		16.21			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP	PART. C	C14-UP.	PERCENT IO
1	0.06				100
12	0.06				50
25	0.05				25
42	0.10				10
86	0.17				1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
1		0.0062	0.57		0.004	100
12		0.0000	0.46		0.000	50
25		0.0083	0.37		0.003	25
42		0.0550	0.45		0.025	10
86		0.0194	0.28		0.005	1

INTEGRATION LIMITS NH4

	NO3	PO4	SIO4	CHLORO-A	PHAEOP	PART.C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO 42.0	4.94	0.00	0.00	2.71	0.00	0.00	0.00	18.60	0.000	0.279
0.0 TO 42.0	0.12	0.00	0.00	0.06	0.00	0.00	0.00	0.44	0.000	0.007
42.0 TO 86.0	365.86	0.00	0.00	5.94	0.00	0.00	0.00	16.06	0.000	0.664
42.0 TO 86.0	8.21	0.00	0.00	0.14	0.00	0.00	0.00	0.36	0.000	0.015
0.0 TO 86.0	370.80	0.00	0.00	8.65	0.00	0.00	0.00	14.66	0.000	0.943
0.0 TO 86.0	4.21	0.00	0.00	0.10	0.00	0.00	0.00	0.40	0.000	0.011

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 015
 LATITUDE 14-03.0N LONGITUDE 102-12.0W LOCAL DATE 68/01/22 HOUR 13.0
 ONE PERCENT LIGHT DEPTH 45 METERS TOTAL RADIATION 518.

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.22	0.05			100
10		0.05			50
20	0.20	0.05			25
35	0.21	0.05			10
65	0.24	3.39			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP-P	PART. C	C14-UP.	PERCENT IO
0	0.10			7.8	100
10	0.11			4.2	50
20	0.13			10.0	25
35	0.18			21.6	10
65	0.44			0.0	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0	0.0393	0.0204	0.67	0.026	0.014	100
10		0.0154	0.73		0.011	50
20	0.0143	0.0286	0.56	0.008	0.016	25
35	0.0165	0.0326	0.59	0.010	0.019	10
65	0.0022	0.0606	0.52	0.001	0.032	1

INTEGRATION LIMITS NH4

0.0 TO	35.0	65.0	TO	NO3	PO4	SIO4	CHLORO-A	PHAEOP-P	PART. C	C14-UP.	PN	RHNH4	RHNO3
TOTAL	7.27			1.75	0.00	0.00	4.57	0.00	0.00	368.04	22.07	0.476	0.525
MEAN	0.21			0.05	0.00	0.00	0.13	0.00	0.00	10.56	0.63	0.014	0.015
TOTAL	6.75			51.60	0.00	0.00	9.30	0.00	0.00	324.04	16.65	0.163	0.761
MEAN	0.22			1.72	0.00	0.00	0.31	0.00	0.00	10.84	0.55	0.005	0.025
TOTAL	14.02			69.95	0.00	0.00	13.07	0.00	0.00	692.04	38.72	0.640	1.286
MEAN	0.22			0.92	0.00	0.00	0.21	0.00	0.00	10.69	0.60	0.010	0.320

NITROGEN PRODUCTIVITY CRUISE 11024 STATION 014
 LATITUDE 11-25.0N LONGITUDE 099-52.0E LOCAL DATE 6R/01/24 HOUR 11.0
 ONE PERCENT LIGHT DEPTH 22 METERS TOTAL RADIATION 468.

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.31	0.02			100
3	0.28	0.02			50
6	0.32	0.02			25
11	0.22	0.04			10
22	0.77	4.94			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP	PART. C	C14-UP.	PERCENT IO
0	2.94			278.1	100
3	2.65			290.7	50
6	3.09			307.0	25
11	2.85			326.3	10
22	1.26			2.0	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0	0.0615	0.0002	5.19	0.319	0.001	100
3	0.0567	0.0002	5.70	0.323	0.001	50
6	0.0646	0.0002	4.73	0.306	0.001	25
11	0.0447	0.0002	5.13	0.229	0.001	10
22	0.0358	0.0145	2.30	0.092	0.033	1

INTEGRATION LIMITS

	NH4	NO3	PO4	SIO4	CHLORO-A	PHAEOP	PART. C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO 11.0	TOTAL 3.13	0.27	0.00	0.00	31.84	0.00	0.00	3333.04	56.63	3.244	0.011
0.0 TO 11.0	MEAN 0.28	0.02	0.00	0.00	2.89	0.00	0.00	303.04	5.15	0.295	0.001
11.0 TO 22.0	TOTAL 5.44	27.19	0.00	0.00	22.60	0.00	0.00	1805.69	40.86	1.714	0.189
11.0 TO 22.0	MEAN 0.49	2.49	0.00	0.00	2.05	0.00	0.00	164.20	3.71	0.155	0.017
0.0 TO 22.0	TOTAL 8.58	27.66	0.00	0.00	54.45	0.00	0.00	5138.70	97.49	4.958	0.200
0.0 TO 22.0	MEAN 0.39	1.26	0.00	0.00	2.47	0.00	0.00	233.62	4.43	0.225	0.009

DEPTH	WAVE	WAVE	PERCENT	PERCENT
0	0.08	0.04	100	
12	0.08	0.04	50	
24	0.14	0.04	25	
39	0.25	3.45	10	
78		32.17	1	

DEPTH	CHLORO-A	PHAEO-B	PART. C	CL-UP.	PERCENT IC
0	C.08				100
12	C.10				50
24	C.11				25
39	C.44				10
78	C.04				

DEPTH	VMH4	VNC3	PA	RMH4	RMH3	PERCENT IC
0	0.0342	0.0009	0.29	0.010	0.000	100
12	0.0504	0.0020	0.39	0.020	0.001	50
24	0.0420	0.0049	0.80	0.034	0.004	25
39	0.0212	0.0344	0.94	0.020	0.033	10
78		0.0292	0.37		0.011	1

INTEGRATION LIMITS	MM4	NO3	PD4	SIC4	CHLDOO-A	PHACD-P	PAOT-C	CI4-UP	P1	RM4M4	RM4O3
0.0 TO 39.0	TOTAL	27.13	0.00	0.00	6.46	0.00	0.00	0.00	24.42	0.902	0.312
0.0 TO 39.0	MEAN	0.70	0.00	0.00	0.17	0.00	0.00	0.00	0.63	0.023	0.008
39.0 TO 78.0	TOTAL	604.89	0.00	0.00	9.36	0.00	0.00	0.00	25.93	0.397	0.855
39.0 TO 78.0	MEAN	17.01	0.00	0.00	0.24	0.00	0.00	0.00	0.66	0.010	0.022
0.0 TO 78.0	TOTAL	721.72	0.00	0.00	15.82	0.00	0.00	0.00	50.35	1.299	1.166
0.0 TO 78.0	MEAN	17.95	0.00	0.00	0.20	0.00	0.00	0.00	0.65	0.017	0.015

NITROGEN PRODUCTIVITY CRUISE 11024 STATION 020 LOCAL DATE 68/01/26 HOUR 9.0
 LATITUDE 14-41.0N LONGITUDE 086-51.0W
 ONE PERCENT LIGHT DEPTH 52 METERS TOTAL RADIATION 533.

*** CARBON DATA ***
 CHLORO-A PHAEO-P PART. C C14-UP. PERCENT IC
 0.54 40.4 100
 0.54 75.6 50
 0.42 57.8 25
 0.36 60.5 10
 0.21 0.0 1

INTEGRATION LIMITS NH4		103	P04	S104	CHLORO-A PHAEO-P	PART. C C14-UP.	PN	RHNM4	RHNM3
0.0 TO	26.0	0.00	0.00	0.00	12.06	0.00	0.00	0.000	0.000
	MEAN	0.00	0.00	0.00	0.46	0.00	0.00	0.000	0.000
0.0 TO	26.0	0.00	0.00	0.00	7.41	0.00	0.00	0.000	0.000
	MEAN	0.00	0.00	0.00	0.28	0.00	0.00	0.000	0.000
0.0 TO	52.0	0.00	0.00	0.00	19.47	0.00	0.00	0.000	0.000
	MEAN	0.00	0.00	0.00	0.37	0.00	0.00	0.000	0.000
0.0 TO	52.0	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000
	MEAN	0.00	0.00	0.00	0.00	0.00	0.00	0.000	0.000

NITROGEN PRODUCTIVITY CRUISE TT026 STATION 024
 LATITUDE 16-00.0N LONGITUDE 095-12.0W LOCAL DATE 6A/01/27 HOUR 9.8
 ONE PERCENT LIGHT DEPTH 23 METERS TOTAL RADIATION

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.24	2.70			100
3	0.34	2.83			50
6	0.15	3.04			25
10	0.29	3.29			10
23		7.09			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP	PART. C	CL14-UP.	PERCENT IC
0	5.49			439.8	100
3	4.12			439.8	50
6	3.83			439.8	25
10	3.24			424.3	10
23	2.70			6.9	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PH	RMNH4	RMNO3	PERCENT IO
0	0.0390	0.2426	3.83	0.149	0.929	100
3	0.0356	0.2369	4.20	0.150	0.995	50
6	0.0234	0.2724	4.35	0.102	1.185	25
10	0.0545	0.2213	2.57	0.195	0.790	10
23		0.0163	2.46		0.040	1

INTEGRATION LIMITS	NH4	NO3	PO4	SIO4	CHLORO-A	PHAEOP	PART. C	CL14-UP.	PH	RMNH4	RMNO3
0.0 TO 10.0	2.48	29.76	0.00	0.00	40.48	0.00	0.00	4367.04	40.71	1.418	10.106
0.0 TO 10.0	0.25	2.98	0.00	0.00	4.05	0.00	0.00	436.74	4.07	0.142	1.011
10.0 TO 23.0	3.77	67.47	0.00	0.00	38.61	0.00	0.00	2802.84	39.19	1.265	5.396
10.0 TO 23.0	0.29	5.19	0.00	0.00	2.97	0.00	0.00	215.64	3.01	0.097	0.415
0.0 TO 23.0	6.25	97.23	0.00	0.00	79.09	0.00	0.00	7169.84	79.90	2.693	15.502
0.0 TO 23.0	0.27	4.23	0.00	0.00	3.44	0.00	0.00	311.79	3.67	0.117	0.674

NITROGEN PRODUCTIVITY CRUISE TT026 STATION 025
 LATITUDE 13-58.0N LONGITUDE 093-30.0W LOCAL DATE 08/21/20 HOUR 13.8
 ONE PERCENT LIGHT DEPTH 37 METERS TOTAL RADIATION 511.

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.33	0.92			100
5	0.22	1.12			50
9	0.19	0.75			25
15	0.32	11.94			10
37	0.38	34.50			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PERCENT IO
0	0.92			214.8	100
5	0.62			256.6	50
9	1.19			293.9	25
15	0.96			73.9	10
37	0.12			0.8	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RH4M4	RHNO3	PERCENT IO
0	0.0409	0.1062	3.49	0.213	0.371	100
5	0.0430	0.1322	3.72	0.160	0.492	50
9	0.0397	0.1002	3.83	0.152	0.384	25
15	0.0592	0.1097	1.87	0.126	0.200	10
37	0.0308	0.0475	1.10	0.034	0.052	1

INTERPOLATION LIMITS NH4		NO3	PO4	SIO4	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PN	RH4M4	RHNO3
0.0 TO	15.0	46.91	0.00	0.00	13.97	0.00	0.00	3382.94	50.07	2.389	5.657
0.0 TO	15.0	3.13	0.00	0.00	0.93	0.00	0.00	225.57	3.36	0.159	0.377
15.0 TO	37.0	510.84	0.00	0.00	11.88	0.00	0.00	821.74	32.12	1.758	2.771
15.0 TO	37.0	27.22	0.00	0.00	0.54	0.00	0.00	37.29	1.46	0.087	0.126
0.0 TO	37.0	567.75	0.00	0.00	25.80	0.00	0.00	4204.64	82.19	4.167	8.428
0.0 TO	37.0	15.27	0.00	0.00	0.71	0.00	0.00	113.68	2.22	0.112	0.225

NITROGEN PRODUCTIVITY CRUISE 11026 STATION 028 NO3 UPTAKE SUPPRESSION
 LATITUDE 13-02.0N LONGITUDE 091-49.0W LOCAL DATE 6/1/30 HOUR 9.2
 ONE PRCENT LIGHT DEPTH 60 METERS TOTAL RADIATION 612.9

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	1.01	1.09			100
9	0.93	1.00			50
18	1.27	1.87			25
30	1.43	1.00			10
60	0.50	31.63			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP	PART. C	C14-UP.	PERCENT IO
0	0.21			23.8	100
9	0.24			26.6	50
18	0.26			33.0	25
30	0.19			26.8	10
60	0.18			0.0	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0	0.1370	0.0155	1.27	0.174	0.020	100
9	0.1132	0.0109	1.86	0.211	0.020	50
18	0.1430	0.0148	1.06	0.152	0.016	25
30	0.1302	0.0067	1.31	0.171	0.009	10
60	0.0379	0.0397	0.46	0.017	0.018	1

INTEGRATION LIMITS	NH4	NO3	PO4	SIO4	CHLORO-A	PHAEOP	PART. C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO 30.0	34.83	39.54	0.00	0.00	6.97	0.00	0.00	853.84	41.44	5.293	0.488
MEAN											
0.0 TO 30.0	1.16	1.32	0.00	0.00	0.23	0.00	0.00	28.50	1.38	0.176	0.016
TOTAL											
10.0 TO 60.0	28.95	48.45	0.00	0.00	5.55	0.00	0.00	402.04	26.55	2.820	0.406
MEAN											
10.0 TO 60.0	0.94	16.31	0.00	0.00	0.18	0.00	0.00	13.44	0.88	0.094	0.014
TOTAL											
0.0 TO 60.0	63.78	528.99	0.00	0.00	12.52	0.00	0.00	1255.84	67.99	8.113	0.894
MEAN											
0.0 TO 60.0	1.06	8.82	0.00	0.00	0.21	0.00	0.00	20.97	1.13	0.135	0.015

NITROGEN PRODUCTIVITY CRUISE TT026 STATION 030 LOCAL DATE 68/01/31 HOUR 1.2
 LATITUDE 10-53.0N LONGITUDE 093-24.0W
 ONE PERCENT LIGHT DEPTH 46 METERS TOTAL RADIATION 482.0

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.33	0.04			100
4	0.27	0.04			50
8	0.15	0.06			25
19	0.20	0.09			10
46		0.08			1

*** CARBON DATA ***

DEPTH	CHLORO-A	CHLORO-P	PART. C	CL4-UP.	PERCENT IO
0	0.31				100
4	0.46				50
8	0.31				25
19	0.34				10
46	0.52				1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0	0.1196	0.0132	1.10	0.132	0.015	100
4	0.1232	0.0128	1.16	0.143	0.015	50
8	0.0632	0.0204	1.65	0.104	0.034	25
19	0.0969	0.0288	0.95	0.092	0.027	10
46		0.0088	1.33		0.012	1

INTEGRATION LIMITS NH4

0.0 TO	19.0	TOTAL	NO3	PO4	SIO4	CHLORO-A	PHAEO-P	PART. C	CL4-UP.	PN	RHNH4	RHNO3
0.0 TO	19.0	3.96	1.18	0.00	0.00	6.65	0.00	0.00	0.00	24.44	2.123	0.491
0.0 TO	19.0	MFAN 0.21	0.06	0.00	0.00	0.35	0.00	0.00	0.00	1.29	0.112	0.026
19.0 TO	46.0	TOTAL 5.60	2.29	0.00	0.00	11.61	0.00	0.00	0.00	30.78	1.243	0.527
19.0 TO	46.0	MFAN 0.20	0.08	0.00	0.00	0.43	0.00	0.00	0.00	1.14	0.046	0.020
0.0 TO	46.0	TOTAL 9.36	3.48	0.00	0.00	18.26	0.00	0.00	0.00	55.22	3.366	1.019
0.0 TO	46.0	MFAN 0.20	0.08	0.00	0.00	0.40	0.00	0.00	0.00	1.20	0.073	0.022

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 032 NO3 UPTAKE SUPPRESSION
 LATITUDE 09-58.0N LONGITUDE 093-22.0W LOCAL DATE 68/02/01 HOUR 10.0C
 ONE PERCENT LIGHT DEPTH 58 METERS TOTAL RADIATION 546.

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.46	0.33			100
9	0.39	0.28			50
17	0.58	0.31			25
29	0.94	2.44			10
58	0.06	21.99			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP	PART. C	C14-UP.	PERCENT IO
0	0.14			25.5	100
9	0.32			54.4	50
17	0.34			60.1	25
29	0.70				10
58	0.14			0.0*	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0	0.0846	0.0318	1.09	0.092	0.035	100
9	0.0763	0.0235	1.56	0.119	0.037	50
17	0.0966	0.0183	1.27	0.123	0.023	25
29	0.0881	0.0302	0.97	0.085	0.029	10
58	0.0255	0.0472	0.56	0.014	0.026	1

INTEGRATION LIMITS	NH4	NO3	PO4	SIO4	CHLORO-A	PHAEOP	PART.C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO 29.0	16.82	21.60	0.00	0.00	10.95	0.00	0.00	1433.25	36.68	3.166	0.876
MEAN											
0.0 TO 29.0	0.58	0.74	0.00	0.00	0.38	0.00	0.00	49.47	1.26	0.109	0.330
TOTAL											
29.0 TO 58.0	14.50	354.73	0.00	0.00	12.18	0.00	0.00	616.44	22.18	1.446	0.808
MEAN											
29.0 TO 58.0	0.50	12.21	0.00	0.00	0.42	0.00	0.00	21.30	0.76	0.050	0.028
TOTAL											
0.0 TO 58.0	31.32	175.84	0.00	0.00	23.13	0.00	0.00	2047.64	58.87	4.612	1.634
MEAN											
0.0 TO 58.0	0.54	6.48	0.00	0.00	0.40	0.00	0.00	35.38	1.01	0.080	0.029

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 034
 LATITUDE 09-56.0N LONGITUDE 091-15.0W LOCAL DATE 68/02/02 HOUR 9.0
 ONE PERCENT LIGHT DEPTH 39 METERS TOTAL RADIATION

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.63	9.17			100
5	0.54	9.21			50
10	0.66	9.30			25
16	0.72	9.96			10
39		18.16			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEOP	PART. C	C14-UP.	PERCENT IO
0	0.80			57.3	100
5	0.77			112.4	50
10	0.80			95.9	25
16	0.74			82.9	10
39	0.56			3.7	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0	0.1040	0.1144	3.97	0.413	0.454	100
5	0.0970	0.1500	2.44	0.237	0.366	50
10	0.0966	0.1317	2.85	0.275	0.375	25
16	0.0850	0.0527	2.52	0.214	0.148	10
39		0.0358	1.62		0.065	1

INTEGRATION LIMITS

	NH4	NO3	PO4	SIO4	CHLORO-A	PHAEOP	PART. C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO 16.0	TOTAL 10.06	150.00	0.00	0.00	12.47	0.00	0.00	1481.44	45.36	4.372	5.474
0.0 TO 16.0	MEAN 0.63	9.38	0.00	0.00	0.78	0.00	0.00	92.63	2.83	0.273	0.362
16.0 TO 39.0	TOTAL 16.56	173.18	0.00	0.00	14.95	0.00	0.00	995.94	49.91	2.463	2.450
16.0 TO 39.0	MEAN 0.72	14.06	0.00	0.00	0.65	0.00	0.00	43.34	2.17	0.107	0.107
0.0 TO 39.0	TOTAL 26.62	473.18	0.00	0.00	27.42	0.00	0.00	2477.34	95.27	6.836	7.924
0.0 TO 39.0	MEAN 0.68	12.14	0.00	0.00	0.70	0.00	0.00	53.57	2.44	0.175	0.203

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 036 NO3 UPTAKE SUPPRESSION
 LATITUDE 10-06.0N LONGITUDE 089-26.0W LOCAL DATE 08/02/03 HOUR 11.8
 ONE PERCENT LIGHT DEPTH 54 METERS TOTAL RADIATION 626.0

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0	0.48	16.15			100
8	0.46	16.06			50
16	0.45	16.09			25
27	0.45	15.61			10
54	0.46	29.18			1

*** CARBON DATA ***

DEPTH	CHLORO-A PHAEO-P	PART. C	C14-UP.	PERCENT IO
0	0.20			100
8	0.19			50
16	0.28			25
27	0.30			10
54	0.31			1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNM4	RHNO3	PERCENT IO
0	0.0724	0.0419	1.99	0.144	0.083	100
8	0.0692	0.0361	1.85	0.128	0.067	50
16	0.0643	0.0222	1.81	0.116	0.040	25
27	0.0834	0.0311	2.53	0.211	0.079	10
54	0.0440	0.0360	1.83	0.081	0.066	1

INTEGRATION LIMITS		NH4	NO3	PO4	SIO4	CHLORO-A PHAEO-P	PART. C	C14-UP.	PN	RHNM4	RHNO3
0.0 TO	27.0	12.35	431.79	0.00	0.00	6.63	0.00	0.00	53.87	3.867	1.682
MEAN		0.46	15.99	0.00	0.00	0.25	0.00	0.00	2.00	0.143	0.062
27.0 TO	54.0	12.28	604.66	0.00	0.00	8.23	0.00	0.00	58.86	3.936	1.952
MEAN		0.45	72.39	0.00	0.00	0.30	0.00	0.00	2.18	0.146	0.072
0.0 TO	54.0	24.63	1036.45	0.00	0.00	14.86	0.00	0.00	112.73	7.802	3.634
MEAN		0.46	19.19	0.00	0.00	0.28	0.00	0.00	2.09	0.144	0.057

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 03P
 LATITUDE 10-04.0N LONGITUDE 088-15.0W LOCAL DATE 6/8/02/04 HOUR 10.0
 ONE PERCENT LIGHT DEPTH 20 METERS TOTAL RADIATION 511.8

*** NUTRIENT DATA ***

DEPTH	NH4	NO3	PO4	SIO4	PERCENT IO
0		0.12			100
3		0.11			50
5		0.10			25
9		0.09			10
20		0.39			1

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PERCENT IO
0	4.12			213.5	100
3	4.22			400.0	50
5	6.27			257.8	25
9	4.41			197.2	10
20	5.73			10.8	1

*** NITROGEN DATA ***

DEPTH	VNH4	VNO3	PN	RHNH4	RHNO3	PERCENT IO
0		0.0399	4.32		0.172	100
3		0.0355	4.66		0.165	50
5		0.0327	4.15		0.136	25
9		0.0289	4.40		0.127	10
20		0.0237	4.42		0.105	1

INTEGRATION LIMITS		NH4	NO3	PO4	SIO4	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO	9.0	0.00	0.93	0.00	0.00	44.36	0.00	0.00	2488.09	39.38	0.000	1.334
MEAN		0.00	0.10	0.00	0.00	4.93	0.00	0.00	276.49	4.38	0.000	0.148
9.0 TO	20.0	0.00	2.64	0.00	0.00	55.77	0.00	0.00	1144.04	48.51	0.000	1.276
MEAN		0.00	0.24	0.00	0.00	5.07	0.00	0.00	104.04	4.41	0.000	0.116
20.0 TO	20.0	0.00	3.57	0.00	0.00	100.13	0.00	0.00	1632.09	87.89	0.000	2.609
MEAN		0.00	0.18	0.00	0.00	5.01	0.00	0.00	181.65	4.39	0.000	0.130

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 041
 LATITUDE 08-54.0N LONGITUDE 087-50.0W LOCAL DATE 68/02/11 HOUR 14.6
 ONE PERCENT LIGHT DEPTH 47 METERS TOTAL RADIATION

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PERCENT 10
0	0.18			39.8	100
9	0.32			65.5	50
16	0.57			19.2	25
24	0.51				10
47	0.06			0.7	1

INTEGRATION LIMITS NH4

	NO3	PO4	SI04	CHLORO-A	PHAEO-P	PART.C	C14-UP.	PN	RHNO3	RHNO4
0.0 TO 24.0 TOTAL	0.00	0.00	0.00	9.68	0.00	0.00	904.85	0.00	0.000	0.000
0.0 TO 24.0 MEAN	0.00	0.00	0.00	0.40	0.00	0.00	37.75	0.00	0.000	0.000
24.0 TO 47.0 TOTAL	0.00	0.00	0.00	6.55	0.00	0.00	173.99	0.00	0.000	0.000
24.0 TO 47.0 MEAN	0.00	0.00	0.00	0.29	0.00	0.00	7.61	0.00	0.000	0.000
0.0 TO 47.0 TOTAL	0.00	0.00	0.00	16.24	0.00	0.00	1078.79	0.00	0.000	0.000
0.0 TO 47.0 MEAN	0.00	0.00	0.00	0.35	0.00	0.00	23.00	0.00	0.000	0.000

NITROGEN PRODUCTIVITY CRUISE Y026 STATION 050

LATITUDE 08-55.0N LONGITUDE 089-34.0W LOCAL DATE 68/02/14 HOUR 17.6
 ONE PERCENT LIGHT DEPTH 62 METERS TOTAL RADIATION

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PERCENT IO
0	0.33			142.9	100
11	0.39			122.8	50
20	0.47			76.2	25
32	0.47				10
62	0.23			2.2	1

INTEGRATION LIMITS NH4		NO3	PO4	SIO4	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO	32.0	0.00	0.00	0.00	13.47	0.00	0.00	3144.44	0.00	0.000	0.000
	MEAN										
0.0 TO	32.0	0.00	0.00	0.00	0.42	0.00	0.00	98.31	0.00	0.000	0.000
	MEAN										
32.0 TO	62.0	0.00	0.00	0.00	10.50	0.00	0.00	852.90	0.00	0.000	0.000
	MEAN										
32.0 TO	62.0	0.00	0.00	0.00	0.35	0.00	0.00	28.67	0.00	0.000	0.000
	MEAN										
0.0 TO	62.0	0.00	0.00	0.00	23.97	0.00	0.00	4003.29	0.00	0.000	0.000
	MEAN										
0.0 TO	62.0	0.00	0.00	0.00	0.39	0.00	0.00	64.61	0.00	0.000	0.000
	MEAN										

NITROGEN PRODUCTIVITY CRUISE TT026 STATION 057

LATITUDE 08-53.0N LONGITUDE 088-50.0W

LOCAL DATE 68/02/17 HOUR 11.8

ONF PERCENT LIGHT DEPTH 32 METERS

TOTAL RADIATION

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PERCENT 10
0	0.73			181.8	100
4	0.89			211.4	50
8	0.76			78.9	25
14	0.78			67.0	10
32	0.60			0.8	1

INTEGRATION LIMITS NH4

	NO3	PO4	SIC4	CHLORO-A	PHAEO-P	PART.C	C14-UP.	PN	RHNH4	RHNO3
0.0 TO 14.0	0.00	0.00	0.00	11.16	0.00	0.00	1804.74	0.00	0.000	0.000
MEAN	0.00	0.00	0.00	0.80	0.00	0.00	128.95	0.00	0.000	0.000
0.0 TO 14.0	0.00	0.00	0.00	12.42	0.00	0.00	610.24	0.00	0.000	0.000
TOTAL	0.00	0.00	0.00	0.69	0.00	0.00	33.94	0.00	0.000	0.000
MEAN	0.00	0.00	0.00	23.58	0.00	0.00	2414.94	0.00	0.000	0.000
0.0 TO 32.0	0.00	0.00	0.00	0.74	0.00	0.00	75.51	0.00	0.000	0.000
TOTAL	0.00	0.00	0.00							
MEAN	0.00	0.00	0.00							

NITROGEN PRODUCTIVITY CRUISE T1026 STATION 062

LATITUDE 08-34.0N LONGITUDE 089-26.0W LOCAL DATE 68/02/19 HOUR 16.6
ONE PERCENT LIGHT DEPTH 37 METERS TOTAL RADIATION

*** CARBON DATA ***

DEPTH	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PERCENT 10
0	0.34			41.5	100
7	0.53			61.7	50
12	0.63			61.5	25
19	0.68			39.5	10
37	1.02			19.9	1

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INTEGRATION LIMITS	NH4	NO3	PO4	SIO4	CHLORO-A	PHAEO-P	PART.C	C14-UP.	PN	RHNM4	RHNO3
0.0 TO 19.0	TOTAL	0.00	0.00	0.00	10.53	0.00	0.00	1022.74	0.00	0.000	0.000
0.0 TO 19.0	MEAN	0.00	0.00	0.00	0.55	0.00	0.00	53.87	0.00	0.000	0.000
19.0 TO 37.0	TOTAL	0.00	0.00	0.00	15.30	0.00	0.00	534.64	0.00	0.000	0.000
19.0 TO 37.0	MEAN	0.00	0.00	0.00	0.85	0.00	0.00	29.74	0.00	0.000	0.000
0.0 TO 37.0	TOTAL	0.00	0.00	0.00	25.83	0.00	0.00	1557.34	0.00	0.000	0.000
0.0 TO 37.0	MEAN	0.00	0.00	0.00	0.70	0.00	0.00	42.13	0.00	0.000	0.000

NITROGEN PRODUCTIVITY CRUISE TT026 STATION 068

LATITUDE 08-53.0N LONGITUDE 088-24.0W LOCAL DATE 68/02/22 HOUR 10.0

ONE PERCENT LIGHT DEPTH 50 METERS TOTAL RADIATION

*** CARRON DATA ***

DEPTH	CHLORO-A	PHAEO-P	PART. C	C14-UP.	PERCENT IO
0	0.19			33.6	100
8	0.20			66.5	50
16	0.35			50.3	25
26	0.15			5.8	10
50	0.16			0.0	1

INTEGRATION LIMITS	NH4	NO3	PO4	SIO4	CHLORO-A	PHAEO-P	PART.C	C14-UP.	PN	RMNH4	RMNO3
0.0 TO 26.0	TOTAL	0.00	0.00	0.00	6.26	0.00	0.00	1148.14	0.00	0.000	0.000
0.0 TO 26.0	MEAN	0.00	0.00	0.00	0.24	0.00	0.00	44.20	0.00	0.000	0.000
26.0 TO 50.0	TOTAL	0.00	0.00	0.00	3.72	0.00	0.00	69.64	0.00	0.000	0.000
26.0 TO 50.0	MEAN	0.00	0.00	0.00	0.15	0.00	0.00	2.94	0.00	0.000	0.000
0.0 TO 50.0	TOTAL	0.00	0.00	0.00	9.98	0.00	0.00	1217.74	0.00	0.000	0.000
0.0 TO 50.0	MEAN	0.00	0.00	0.00	0.20	0.00	0.00	24.40	0.00	0.000	0.000

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